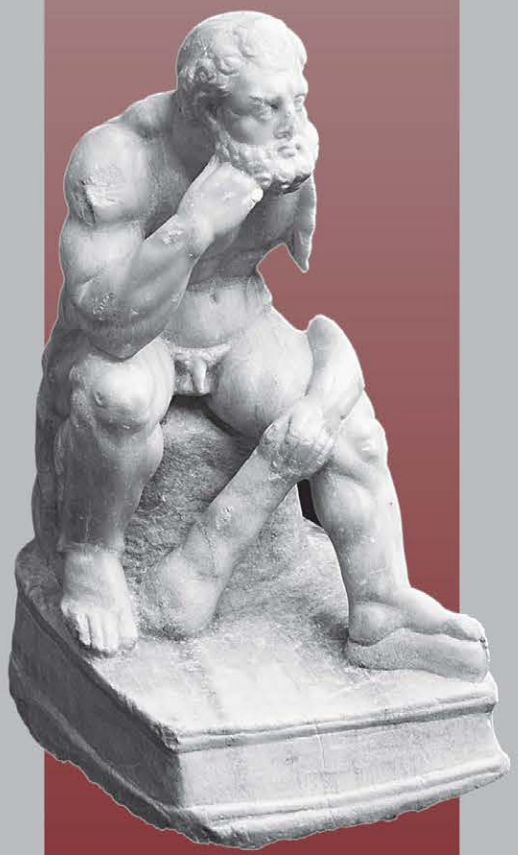
LIMES XXII

Proceedings of the 22nd International Congress of Roman Frontier Studies Ruse, Bulgaria, September 2012



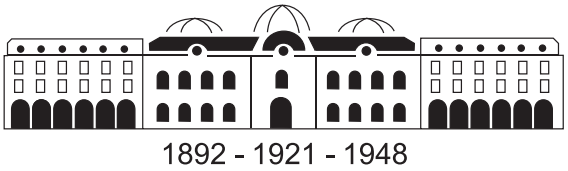
1892 - 1921 - 1948

Sofia 2015

LIMES XXII

Proceedings of the 22nd International Congress of Roman Frontier Studies Ruse, Bulgaria, September 2012

National Archaeological Institute
with Museum
Bulgarian Academy of Sciences



Bulletin of the
National Archaeological Institute
XLII, 2015

On the covers: marble statue of Hercules, 2nd c. AD, photo by courtesy of the Regional History Museum of the Danube city of Vidin (Roman *Bononia*), north-western Bulgaria; bronze insignia of *beneficiarius consularis*, 1st half of 3rd c. AD, drawing by courtesy of the Regional Museum of the city of Razgrad (Roman *Abritus*), north-eastern Bulgaria.

© National Archaeological Institute with Museum, publisher
© Lyudmil Vagalinski, editor
© Nicolay Sharankov, editor
© Rositsa Kaneva, design

Printed by ACTIVE COMMERCE EOOD

ISSN 0323-9535

LIMES XXII

Proceedings of the 22nd International Congress of Roman Frontier Studies Ruse, Bulgaria, September 2012

Edited by
Lyudmil Vagalinski
Nicolay Sharankov

Sofia 2015

Contents

Preface 13

Fortifications and Soldiers

The Role of Water in Defining the Limits of the Roman Empire
David J BREEZE 17

Change Behind the Frontier: Roman Military Deployment North of the River Humber, England, in the Third and Fourth Centuries AD
Pete WILSON 19

The First 'British Way in Warfare': Threat and Response in the Late Roman North
Alistair McCLUSKEY 27

The Fortress of *Legio II Adiutrix* (AD 70-71) on the Ruins of *Oppidum Batavorum* (Nijmegen, NL)
Harry van ENCKEVORT, Elly N. A. HEIRBAUT 31

A Late Roman Watchtower in Wijchen near Nijmegen
Elly N. A. HEIRBAUT, Harry Van ENCKEVORT 37

Timber Forts along the Rhine in the West Netherlands: New Thoughts Derived from Old Field Drawings, Vechten – Utrecht – Valkenburg
Julia CHORUS 45

Out of Africa? – A New Line of the Eastern Raetian Limes in the Middle of the 3rd Century and *Legio III Augusta* (*…e Raetia …regressi…*)
C. Sebastian SOMMER 53

The Fort, Fortlet and Civil Settlement in Mainhardt
Lynn STOFFEL 65

Ad confluentes Nicri et Rheni. Excavations and Aerial Photographs Shed New Light on the Early Roman Military Site Ludwigshafen-Rheingönheim
Thomas MAURER 73

Der Kaiserkultbezirk von *Mogontiacum* (Mainz)
Christine ERTEL 83

Legionslager *Vindonissa* – Stand der Forschung
Jürgen TRUMM 93

The Secret of Squares – Interpreting Large-Scale Square Structures at Roman Legionary Forts
Christian GUGL, Jürgen TRUMM 103

Von Spitzgräben und Gürtelblechen… Neue Grabungsergebnisse zur frühkaiserzeitlichen Militärpräsenz in *Brigantium* (Bregenz, Österreich)
Julia KOPF 111

Inner Fortifications and the Late Roman Defence System in Pannonia (4th–5th c. AD) – Some Notes
Orsolya HEINRICH-TAMÁSKA 119

Das Legionslager *Tilurium*. 15 Jahre archäologischer Ausgrabungen, 1997-2011
Mirjana SANADER 127

Dispositions and Strategy in the Moesias from Trajan to Commodus
Conor WHATELY 137

Emperor Trajan Decius and His Sons on the Lower-Danubian *Limes* (AD 249-251)
Lily GROZDANOVA 145

The Transformations of a Roman Military Site: The Case with Mezdra (North-Western Bulgaria)
Sergey TORBATOV 151

A Comparison between *Novae* and *Durostorum* in Lower Moesia: Topography, Defensive System and Legal Status
Peti DONEVSKI 163

"The Most Splendid Town of the Novesians…"
Piotr DYCZEK 169

An Outstanding Building in the North-Western Part of the Episcopal Complex in *Novae*
Rafał CZERNER 179

Free-Standing Towers West from *Novae*
Pavlina VLADKOVA 187

The Late Roman *Principia* at the Roman Fort *Dimum* (Now Belene, Bulgaria)
Gergana KABAKCHIEVA, Sonia LAZAROVA 195

Zur Geschichte der Grabung *Iatrus* – Krivina
Gerda v. BÜLOW, Klaus WACHTEL 203

Le *refugium* de l'Antiquité tardive du IV–V s. près du village de Ruyno, région de *Durostorum* (Silistra – Bulgarie)
Georgi ATANASOV 217

Die frühbyzantinische Verteidigungslinie im Östlichen *Haemus*. Ergebnisse von den Untersuchungen in Eminska Planina
Hristo PRESHLENOV 227

The Roman Camp of *Apulum*. Archaeological Research in the *Principia*
Nicolae GUDEA, Constantin INEL, Ovidiu OARGĂ 233

The Legionary Roman Fortress *Apulum*. *Porta principalis dextra*. A Proposal for Reconstitutions
Nicolae GUDEA, Constantin INEL, Ovidiu OARGĂ, Călin ADAM 243

Troesmis: From the Legionary Fortress to the Byzantine Fortification
Cristina-Georgeta ALEXANDRESCU, Christian GUGL 251

Illuminating the Soldiers' Homes. The Evidence of Lighting Devices from the Barracks of Forts and Fortresses in Roman Dacia
Monica GUI, Dávid PETRUȚ 259

Closing a Gap. A Roman Fort Rediscovered
Ovidiu ȚENTEA 269

The Archaeological Monuments at the North-Balkan Periphery of the Roman Empire in Old Cartography
Dragoș MĂNDESCU, Ion DUMITRESCU 277

The Remains of the Roman Fort at Kadykovka (Balaklava) in the Crimean Peninsula
Radosław KARASIEWICZ-SZCZYPIORSKI, Oleg Ja. SAVELJA, Radosław A. GAWROŃSKI 285

Sebastopolis – a Fortification of the "Pontic *Limes*"
Alik GABELIA 291

The Udhruh Archaeological Project – the 2011-2012 Field Survey
Mark DRIESSEN, Fawzi ABUDANAH 297

Ancient Campaign Camps at *Dura-Europos*, Syria: A Preliminary Note
Simon JAMES 307

The Roman Army at *Petra*
S. Thomas PARKER 313

The Origin of the Ring Buckle Belt and the Persian Wars of the 3rd Century
Stefanie HOSS 319

Innovation at Persia's Frontiers: Sasanian Campaign Bases and Defensive Barriers
Eberhard W. SAUER, Hamid Omrani REKAVANDI, Tony WILKINSON, Jebrael NOKANDEH 327

Zawiyet el-Agdab – an Unknown Roman Fort in North-Western Egypt in the Context of the Roman Saharan Border
Anna-Katharina RIEGER 333

Results of Fieldwork at *Berenike* (Red Sea Coast), Egypt 2008-2012
Steven E. SIDEBOTHAM 341

Interior Buildings of the Severan Oasis Fort of Gheriat el-Garbia in the Late Roman Period
Michael MACKENSEN, Florian SCHIMMER 351

Reflection on Some Architectural Peculiarities of the Late Roman *Principia* in Egypt by the Example of Luxor
Dmitry KARELIN 359

The Tetrarchic Fort at Nag'al-Hagar (Upper Egypt) – Excavations in 2005 to 2012
Regina FRANKE 369

La Carisa and the Conquest of *Asturia Transmontana* (Hispania) per Publius Carisius
Jorge CAMINO MAYOR, Esperanza MARTÍN HERNÁNDEZ 377

Limitless Empire: The Public Commemoration of Soldiers' Origins
Brian TURNER 387

Dalmatians in the Roman Imperial Fleet
Dino DEMICHELI 391

Roman Military Inscriptions from *Siscia*: An Overview
Ivan RADMAN-LIVAJA, Vlatka VUKELIĆ 399

The Auxiliary Units in Moesia Superior and Dacia. A Review and an Update
Florian MATEI-POPESCU 407

The Origin of *cohors IX Maurorum* and the Severan Frontier of Mesopotamia
Kai JUNTUNEN 419

Eusebius's *Onomasticon* and the Transfer of the *X Fretensis* from Jerusalem to *Aila*
Walter WARD 425

The Roman Army on the Eastern Frontiers in Greco-Roman, Jewish, and Christian Sources: A Comparative Study
Alexander KYRYCHENKO 431

Veterans on the Frontiers

In Search of Veterans of the Roman Army on the Frontier: Material Culture Evidence
Tatiana IVLEVA 437

Are Roman Seal-Boxes Evidence for Letter Writing by Auxiliaries, Veterans (or Anyone Else)?
Colin ANDREWS 445

Identifying Discharged Soldiers in the Batavian Countryside (The Netherlands)
Wouter K. VOS 451

Germanic Veterans of the Roman Army in Southern Scandinavia – Can We Identify Them?
Thomas GRANE 459

Les militaires originaires d'Italie à *Troesmis*. Notes prosopographiques
Lucreţiu MIHAILESCU-BIRLIBA, Iulia DUMITRACHE 465

After the Auxiliaries: Identifying Veterans in 4th Century *Britannia*
Rob COLLINS 471

Charon Custom and Other Novelties Introduced in the Southern Scandinavian Region – the Result of Returning Veterans?
Mads Drevs DYHRFJELD-JOHNSEN 477

Families and Dependents of Soldiers

"Family" Meals? Who Ate with Whom and Where in Roman Military Bases?
Penelope M. ALLISON, Martin STERRY 487

Roman Military Pay and Soldiers' Families: The Household Contribution to Subsistence
Elizabeth M. GREENE 495

Commemorating Military and Civilian Families on the Danube *Limes*
Maureen CARROLL 501

Elite Societies on Display within Military Zones: The Meagre Beginnings of a Leading Municipal Class in *Brigetio*
Niels BARGFELDT 511

Civil Settlements, Roads, and Trade

Military *Vici* in Roman Spain
Angel MORILLO, Javier SALIDO DOMINGUEZ 519

The Beginnings: New Data on the Earliest Settlement Phases at the *Aquincum* Civil Town
Orsolya LÁNG 531

Recent Excavations on the Amphitheatre of *Viminacium* (Upper Moesia)
Snežana NIKOLIĆ, Ivan BOGDANOVIĆ 547

Route of the Eastern Road of *Viminacium*
Ilija DANKOVIĆ 557

Architectural Decoration in the Colony of *Ulpia Ratiaria*
Zdravko DIMITROV 563

The *Municipia* of the Province of *Moesia Inferior*
Ventzislav DINTCHEV 581

Roman Roads in *Moesia Inferior*. Archaeological and Epigraphic Evidence
Adriana PANAITE 593

The Archaeology of the Roman Town of *Abritus*: The *Status Quaestionis* in 2012
Jean-Philippe CARRIÉ, Dominic MOREAU 601

The Kiln Works of the *Legio Decima Fretensis*: Pottery Production and Distribution
Renate ROSENTHAL-HEGINBOTTOM 611

The Story of Dacian Pots and Dacian Cups. Development through Prehistory and History
Milica TAPAVIČKI-ILIĆ 619

Religion and Burial Rites

The Maryport Altars: New Research and New Conclusions
Ian HAYNES, Tony WILMOTT 629

Syrian Deities, the Army and the Danube *Limes*. The Case Study of the Sanctuary of Iuppiter Heliopolitanus at *Carnuntum*
Eva STEIGBERGER 637

Roman Religion and Cults on the Dalmatian Limes
Silvia BEKAVAC 645

The Role of *Legatus Augusti Pro Praetore* in the Religious Life of *Exercitus Moesiae Inferioris*
Oleg ALEXANDROV 651

L'*aedes* du *praesidium* de Xèron Pelagos (Égypte)
Michel REDDÉ 655

Cult Constructions of the "Pontic Limes" in Abkhazia
Suram SAKANIA 661

Pagans, Christians and Barbarians at the Late Roman Cemeteries of Štrbinci and Zmajevac (NE Croatia)
Branka MIGOTTI 671

Eastern Necropolis of *Viminacium* – Latest Excavations
Snežana GOLUBOVIĆ, Miomir KORAĆ 681

Dog Burials from the Cemeteries of the Roman City of *Viminacium* (Moesia Superior, Kostolac, Serbia)
Sonja VUKOVIĆ, Mladen JOVIČIĆ 687

Rome and Barbaricum

Native Settlements on the North Side of Hadrian's Wall: New Evidence for Their History
Nick HODGSON 705

Barbaricum in Britannia? The Fosse Way as a Frontier to Coin Use
Philippa WALTON 711

Interpreting Celtic Art on the Roman Frontier – the Development of a Frontier Culture in Britain?
Fraser HUNTER 721

Late Roman Influences in Germanic Artwork
Jonas H. SIGURDSSON 729

New Roman Finds from the East Bank of the Lower Rhine in Germany – or Where Did They Put the Border?
Clive BRIDGER 735

Germanic Settlement Structure in the Middle Danube Region as a Complex System of Agent-Based Modeling
Marek VLACH 741

Basis of the International Research Project of the Roman Military Camps in the Barbarian Territory to the North of *Carnuntum*
Stefan GROH, Balazs KOMOROCZY, Marek VLACH, Helga SEDLMAYER 749

Celtic or Roman? Late La Tène-Style Scabbards with Copper-Alloy or Silver Openwork Plates
Janka ISTENIČ 755

German Elements on the Northern Lower Danube Border during the Late Roman Period
Dorel BONDOC 763

The Presence of Rome in *Barbaricum*: Archaeological Evidence of the Interaction between Romans and Barbarians in the Targşoru Vechi Area
Bogdan CIUPERCĂ, Andrei MĂGUREANU, Alin ANTON 771

The Northern Barbarians in Strabo's "Geography": Tradition and Reality
Liubov GRATSIANSKAYA 781

The Roman Army and the Kingdom of Meroe
Lindsay ALLASON-JONES 785

Interdisciplinary Researches

Was am Ende übrig bleibt… – Römische Bronzestatuen am Limes und im Hinterland in den Provinzen *Germania inferior*, *Germania superior*, *Belgica* und *Raetia*
Claudia SARGE 793

It Looks like Waste ... but are Valuable Archaeological Artefacts
Annette FRÖLICH 801

Roman Gems from the *Limes* in the Collection of the Archaeological Museum in Zagreb (Croatia)
Iva KAIĆ 805

Images of Venus on Gems from *Novae*
Grażyna BĄKOWSKA-CZERNER 809

Roman Military Brick Stamps on the Danubian *Limes* in Croatia
Vinka BUBIĆ 815

Roman Hoard of Iron Objects – *Notae* from the Upper Moesian *Limes*
Jelena Lj. CVIJETIĆ 821

Novae (Moesia II) under the Tetrarchy to the Sole Reign of Constantine I (AD 294-330). Coin Finds and History
Kamen DIMITROV 825

Interdisziplinäre Forschungen im Auxiliarkastell von Breţcu im südöstlichen Siebenbürgen
Alexandru POPA 829

Supplying the *Limes* Garrison in the Dobrogea
Stephen MATTHEWS 839

Towards a Military Geography of *Moesia Inferior*
Martin LEMKE 845

Metal Detecting for Surveying Marching Camps?
Jaume NOGUERA GUILLÉN, Eduard BLE GIMENO, Pau VALDÉS MATÍAS 853

Remote Sensing on Roman Frontiers

Luftbildprospektionen zu den Militärlagern *Vetera castra* I auf dem Fürstenberg bei Xanten: Zur *praetentura* und dem Befestigungssystem des neronischen Zweilegionenlagers
Norbert HANEL, Baoquan SONG 863

Archaeogeophysical Prospection upon the Danube Limes Fort *Ad Militare* in Batina (2010)
Igor VUKMANIĆ, Branko MUŠIČ 871

Non-Destructive Survey in *Novae* (Lower Moesia)
Agnieszka TOMAS 881

Defining the Roman *Limes* in Romania: The Contribution of Aerial and Satellite Remote Sensing
Ioana A. OLTEAN, William S. HANSON 889

Porolissum. A Roman Fort and Town on the Northern Frontier of the Roman Empire
Coriolan Horaţiu OPREANU, Vlad-Andrei LĂZĂRESCU 901

The Roman Fort from Călugăreni (Mureş County, Romania)
Szilamér-Péter PÁNCZÉL 909

Running and Expanding the World Heritage Site

WHS FRE (Frontiers of the Roman Empire) – Running and Expanding the World Heritage Site
C. Sebastian SOMMER 919

Corpus Limitis Imperii Romani (CLIR)
Zsolt VISY 923

Classifying the Past: Using Thesauri to Interpret Roman Frontiers
Rebecca JONES 929

Factors Influencing the Future Development of the Frontiers of the Roman Empire World Heritage Site
David BROUGH 933

The Frontiers of the Roman Empire WHS – Public Presentation and Interpretation Planning
Nigel MILLS 941

The Management and Administration of the Transnational Serial World Heritage Property "Frontiers of the Roman Empire"
Christopher YOUNG, Reinhard DIETRICH, Peter HENRICH 949

Recent Advances on the Lower German Limes (German Section). Re-searching the Data as a Basis for Proposing a World Heritage Site
Clive BRIDGER 955

Importance of the EU Large-Scale Demonstrator LIMES for the Development of the European *Limes* Regions
Angela IVANOVA, Franz SCHAFRANSKI 963

Preface

Dear Reader,

This volume brings to an end the 22nd International Limes Congress. The articles are grouped according to the Congress sessions. We would like to express our gratitude to all participants who submitted their papers and posters for publication. The Proceedings were printed off on time by common efforts. We wish all the success to the upcoming Limes Congress in Ingolstadt, Bavaria.

Sofia, July 6th, 2015

Lyudmil Vagalinski
Nicolay Sharankov

Fortifications and Soldiers

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Role of Water in Defining the Limits of the Roman Empire

David J BREEZE

Students of Roman frontiers have long acknowledged the role of topography in defining the limits of the Roman Empire. This is but one of the many reasons which have been offered for the halt in the expansion of the Roman Empire (For a recent discussion see Hanson 2002). These include: the fear of emperors in placing too much power in the hands of individual governors in the form of large armies; a failure in martial spirit; diminishing manpower resources; the problems of assimilating new people without the necessary socio-economic infrastructure into the empire; a belief that a natural size had been reached. What I do not think has been considered is the role of water, not as a single, overriding factor, for rarely does one element determine a course of action, but rather as one consideration among several.

It is obviously well appreciated that through most of the southern half of the empire the lack of water dictated the location of the frontier. The Sahara Desert in the south and the Jordanian and Syrian Deserts in the east prevented the expansion of the empire. The army in the first century, for example, had forays into the Sahara Desert and quickly realized there was nothing there for them (Pliny, Natural History, V, 14-5). Along the northern frontier, most of the edge of the empire lay on rivers, the Rhine, Danube and Euphrates. The Romans certainly saw these rivers as boundaries (e.g., Tacitus, Annals I, 9; IV, 5; Josephus, The Jewish War 11, 4; Appian, History of Rome, Preface 6; Pan. Lat. X (2) 7; Ammianus Marcellinus, History of Rome 17, 5, 5). While there were many references throughout the empire to their territory being bounded by rivers, there were, with but rare exceptions, no permanent bridges across these rivers and often when rivers on frontiers had to be crossed by Roman armies bridges had to be specially constructed. Two anecdotes illustrate the attitude of the Romans to bridges across the rivers on the frontiers. When Germanicus was campaigning in Germany in 15, the faintheart-ed wanted to demolish the bridge across the Rhine but were prevented by his wife Agrippina (Tacitus, Annals I, 69). Trajan had a bridge constructed across the Danube in order to reinforce the army in Dacia in the event of attack. His successor Hadrian had the superstructure removed because of his fear that it would be used by the enemy to cross into the empire (Cassius Dio, History of Rome 68, 13, 5-6).

When there was consideration of a move forward, under Augustus, it was to the next river, the Elbe. Yet while rivers offered clear topographical markers for a legally minded people who were used to marking their boundaries, they were not necessarily good dividing lines (Rankov 2005). The people of river valleys often formed cultural identities. Rivers also provided good communication routes. And here is the rub. The Romans used the Rhine and the Danube to transport supplies along their frontiers, feeding and maintaining their troops based on these lines. I would suggest that these rivers became too convenient to abandon especially for a people so wedded to bureaucracy and so organized when it came to supplying their troops as the Romans were (Roth 1999). To emphasize the point, it is worth recalling that the Romans could issue receipts in quadruplicate, retained personal files on every soldier and each horse, maintained duty rosters, presented annual returns to Rome, retained copies of letters and maintained a filing system which grew so large in the case of the Twentieth Cohort of Palmyrenes based at Dura-Europos on the Euphrates that it was used to heighten the city wall when under siege in 256 (Davies 1989; Watson 1969).

I strongly suspect, therefore, that once the advantage of using the rivers for supply was appreciated, this bureaucratically minded people simply slipped into this convenient framework. And we may note that when the land beyond the headwaters of the Rhine and the Danube was relinquished in the 260s, the new frontier followed rivers. The abandonment of Dacia about the same time brought all the frontiers of the empire on the European mainland to rivers. There were times when the frontier did move beyond the Rhine and the Danube, but there appear to have been specific reasons for this. The move to incorporate the land between the headwaters of the Rhine and Danube may have primarily related to a wish to shorten communications. The move eastwards from the Rhine into the Wetterau may have related to bringing into the empire rich farmland. The conquest of Dacia did not have to lead to its absorption into the empire, but at least it was one way to deal with a kingdom which had been troublesome to the Romans for the last 150 years while it also brought under Roman control the gold mines of the area.

I would therefore argue that it was lack of water which prevented the empire expanding on its southern borders and the very presence of water, combined with the bureaucratic mind-set of the Romans, which led to its halt on the northern boundaries. In a very real sense therefore, the empire stopped expanding because of one crucial landscape element, water.

Bibliography

Davies, R. W. 1989. Service in the Roman Army. Edinburgh / Durham.

Hanson, W. S. 2002. Why did the Roman empires cease to expand? In: Freeman, P. / Bennett, J. / Fiema, Z. T. / Hoffmann, B. (eds.). Limes XVIII, Proceedings of the XVIIIth International Congress of Roman Frontier Studies. BAR IS 1084. Oxford. 25-32.

Rankov, B. 2005. Do rivers make good frontiers? In: Visy, Zs. (ed.). Limes XIX, Proceedings of the XIXth International Congress of Roman Frontier Studies. Pécs. 175-181.

Roth, J. P. 1999. The Logistics of the Roman Army at War (264 B.C.-A.D. 235). Leiden.

Watson, G. R. 1969. The Roman Soldier. London.

Prof. David J. Breeze
36 Granby Road
UK-Edinburgh EH16 5NL
davidbreeze@hotmail.co.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Change Behind the Frontier: Roman Military Deployment North of the River Humber, England, in the Third and Fourth Centuries AD

Pete WILSON

This paper, which is very much a presentation of developing thinking, represents the beginning of a further stage of an ongoing exploration of the Roman military archaeology of the Yorkshire region. Previous work has included looking at aspects of the early military dispositions (Wilson 2009a; 2009b; forthcoming a) and the late fourth century so-called 'signal stations' of the Yorkshire coast (Wilson 1991). This further paper is prompted by two stimuli:

- The publication of Peter Scott's excavations of the fort at Piercebridge (Cool / Mason 2008).
- Ongoing work to publish excavations undertaken by Herman Ramm of the then Royal Commission on Historical Monuments, England at Newton Kyme west of York (Wilson forthcoming b) (**fig. 1**).

At Piercebridge (**fig. 2**) Scott's work was in part driven by a desire to find an early, in this context Flavian, fort that he, and many others, believed must exist there controlling an important crossing point where Dere Street, the main Roman road north to Hadrian's Wall crossed the River Tees, paralleling the situations at Catterick (River Swale), Binchester (River Wear) and Ebchester (River Derwent) (Cool / Mason 2008, 297-98). Despite extensive excavations no evidence for an early fort has been found to date, notwithstanding that Bidwell and Hodgson (2009, 147) go so far as to say that it is 'inconceivable that there was no Flavian fort at the river crossing'. First and early second-century civilian occupation is known focussed on the river and it remains possible that a first-century fort may exist either under unexplored areas of the known fort or at some other point away from the river crossing. Cool and Mason (2008, 300) note that such an early fort, if located west of the known military enclosure, could easily have been lost as a result of gravel quarrying.

The date of the known fort at Piercebridge has been much debated. The presence of legionaries from *VI Victrix*, *II Augusta* and *XXII Primigenia* in the early third century is attested by inscriptions and other evidence and has led to suggestions that there might have been an intention to create a legionary presence similar to those known at Carlisle and Corbridge (Cool / Mason 2008, 302). A more prosaic explanation of their presence would be an involvement in the construction of the second Roman-period bridge across the River Tees, possibly following the destruction of its predecessor by floods (Fitzpatrick / Scott 1999, 117-18). However Cool and Mason (2008, 302) point out that *vicus* development south of the river on the realigned course of Dere Street leading to the second Roman-period bridge may start c. AD 180 which would suggest that the replacement bridge was built before the arrival of the legionary detachments.

There are difficulties with the dating evidence from the fort, not least the possibility that later third-century material deriving from the putative outer defensive ditch may have to be discounted, as the 'outer ditch' may in fact be a quarry pit (Cool / Mason 2008, 303). Bidwell and Hodgson (2009, 148) come down strongly in favour of the fort originating as a base for the early third century legionaries and Cool and Mason (2008, 304) concede the possibility of 'some form of installation occupied by legionary personnel occupied part, and possibly all, of the site of the later fort in the second decade of the 3rd century'.

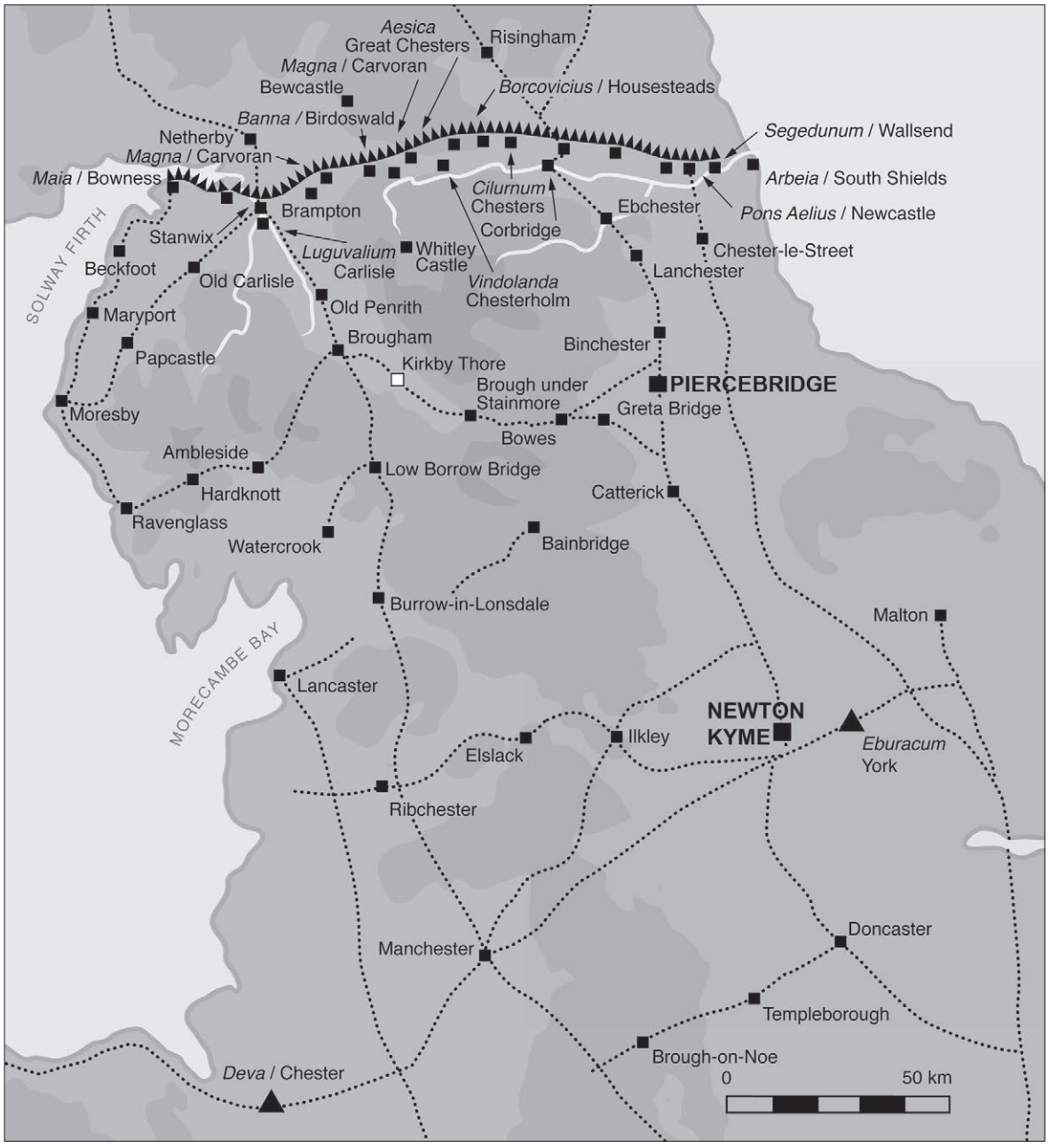


Fig. 1. Map of Northern England showing the location of Piercebridge and Newton Kyme (after Breeze 2011, fig. 1)

However, constructional evidence points to the fort defences as known being of a later date. Evidence supportive of this suggestion includes: the size of the fort, which is in excess of 4 ha in area, the 3 m+ thickness of the walls, and the lack of both corner and interval towers are all seen by Cool and Mason (2008, 303) as being indicative of a later third-century date and they favour construction around AD 260-80. That having been said they recognise that some of the earlier Saxon Shore forts (Brancaster, Caister-on-Sea and Reculver) also had walls approaching 3 m in thickness and were larger than earlier forts, although with sizes ranging from 2.6 ha to 3 ha none were as large as Piercebridge.

At over 4 ha in internal area the size of Piercebridge is surprising and has led to it being compared with Newton Kyme which is c. 4.7 ha in size. The military sequence at Newton Kyme is complex with at least two temporary camps and probably three phases of fort. Most of these elements are visible on **figure 3**. Figure 3 clearly shows a smaller fort underlying the northern part of the larger later Roman fort. A second possible early fort has re-

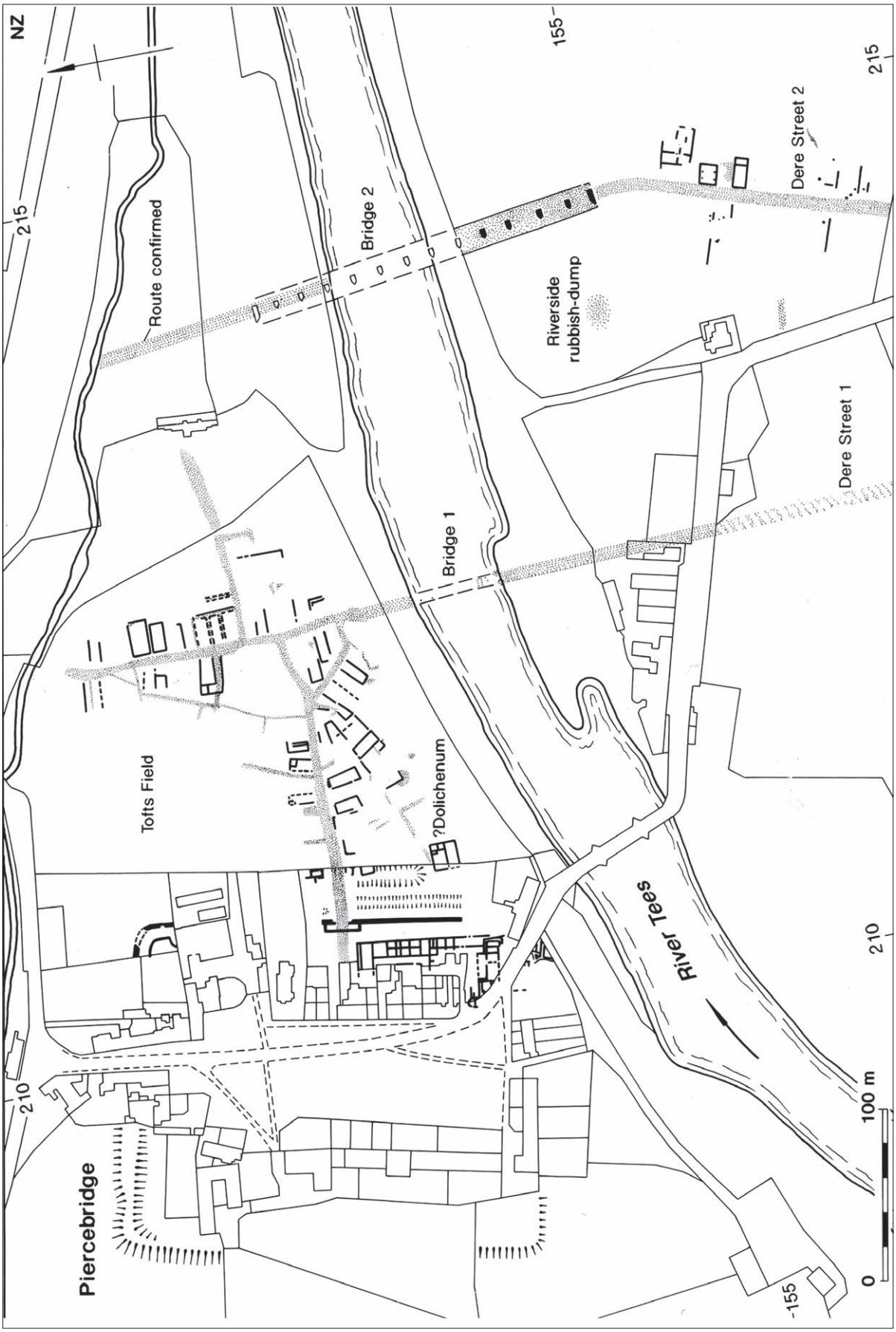


Fig. 2. Piercebridge – Plan of the fort and *vicus* (Fitzpatrick / Scott 1999, fig. 2)



Fig. 3. Newton Kyme – Plan of the forts and *vicus* (Boutwood 1996, fig 7). © Crown Copyright and database right 2013. All rights reserved. Ordnance Survey Licence number 100019088

cently been recorded in aerial photography that extends out eastwards from under the north-eastern corner of the large fort. The large fort also overlies what appears to be clear evidence of a civilian settlement, the latter possibly associated with one or both of the earlier forts. With the exception of a watching brief on a gas pipeline through one of the temporary camps (Monaghan 1991) excavation has largely been restricted to the south-western corner of the latest element of the military complex, although in 1908-9 F.G. Simpson excavated two trenches near the north-western corner (Simpson

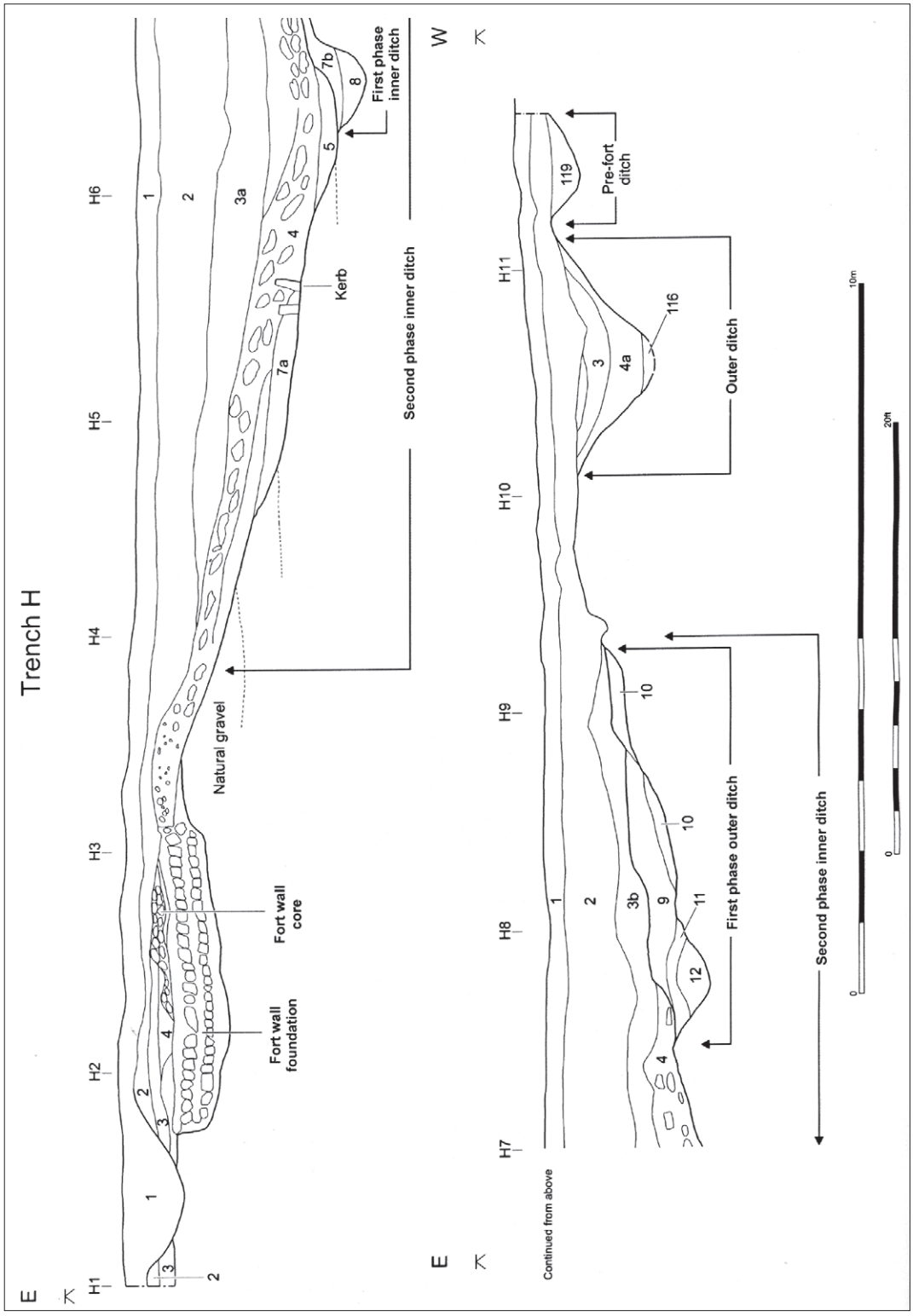


Fig. 4. Newton Kyme – Section across the western defences (Trench H)

1981). The main campaign of excavation was undertaken by H.G. Ramm in 1956-58 (Wilson forthcoming b).

Unfortunately the areas investigated by Ramm had been substantially damaged by agricultural activity – all the internal features had been truncated and few of those that survived can be assigned to the Roman period. The most significant evidence derives from a transect across the western defences (Trench H) which reveals two phases of defensive ditches. The most probable sequence sees the two ditches of the primary phase of the large fort re-

placed by a single large ditch, with an outer ditch that could belong to either phase (**fig. 4**). A further trench (Trench L) produced evidence for what Ramm suggested to be the remains of a clay rampart-back mound which did not survive in the other areas investigated.

That part of the interior of the fort investigated by Ramm was substantially disturbed by later activity with large numbers of cut features producing residual Roman pottery in association with considerable quantities of early post-Roman pottery (Evans et al. forthcoming), but as noted above with few features that can confidently be assigned to the Roman period.

For the purposes of this paper, as is the case at Piercebridge, it is the decision to build what is in essence a completely new military establishment, possibly in this case sweeping away existing civilian structures in the process that is significant. The size of the forts, along with the recovery of cavalry equipment from the river at Piercebridge which appears to have been deposited in a votive context that is seen as primarily third century along with the recovery, again from the River Tees, of three lead sealing which have been read as referring to the *Ala Vocontiorum* in retrograde, has lead to the suggestion that the fort housed cavalry (Cool / Mason 2008, 306; Walton 2008, 291-2). However, recent work has identified further sealings and cast doubt on the reading of the unit name (Philippa Walton pers comm).

John Casey (1994, 143) has argued that, contrary to the previously received wisdom that assigned their construction to the reign of Constantius (AD 305-6), Piercebridge and Newton Kyme, along with the smaller, 2.54 ha, cavalry fort at Elslack, belonged to the period of the Gallic Empire (AD 260-73). Publication of the report on Piercebridge, a project with which Casey was closely associated, and the ongoing work on the publication of Newton Kyme bears out his views. However, what we lack is a clear strategic context for the changes, although Bidwell and Hodgson (2009, 27) do point to 'a far reaching programme of construction and renovation at existing forts throughout northern England in the late 3rd or early 4th century' and suggest that 'much effort in the 4th century was devoted to protecting major routes and keeping them open (Bidwell / Hodgson 2009, 28). In considering Newton Kyme they ask if it was in fact a town rather than a fort (Bidwell / Hodgson 2009, 138). The internal arrangements of the enclosure are primarily known through aerial photography (Boutwood 1996) and in truth, given our lack of excavated evidence from within the defences, it is not possible to respond to Bidwell and Hodgson with absolute certainty, but to this author at least the plan of the defences and the evidence from the sections across them appears to be comfortably military.

Whilst it is possible to accept that much of the construction and restoration at existing forts could reflect an ongoing cycle of repair and enhancement at sites that, in many cases, had been occupied from the late second century; it is perhaps worth considering if the construction of major new cavalry forts on key routes represents a change in defensive posture. Newton Kyme controls the western approaches to York with the east protected by Malton (Corder 1930; Wenham / Heywood 1997; Wilson 2006), and the south by the wetlands in the lower Ouse Valley – see Wilson (2009a; 2009b) for a discussion of the latter in an earlier context. Piercebridge in its turn controls the main route south from Hadrian's Wall, albeit north of the junction with the road from Dere Street across Stainmore towards Carlisle.

Building on the suggestion by Bidwell and Hodgson regarding an emphasis on 'protecting major routes' during the fourth century (see above) it is possible to see the developments at Piercebridge and Newton Kyme as part of an increasingly defensive strategy that originated in the third century and in East Anglia and on the south coast involved the development of the Saxon Shore system. If so, what was the perceived threat that led to the construction of Piercebridge and Newton Kyme and how imminent was it thought to be? The answers to those questions must remain unclear, particularly if Piercebridge and Newton Kyme do belong to the period of the Gallic Empire as seems likely, as the major threats to the breakaway state presumably lay in mainland Europe, not Northern England.

Acknowledgements

I am grateful to Professor David Breeze for permission to amend his map to produce Figure 1 and to Wessex Archaeology and Dr Andrew Fitzpatrick for permission to reproduce Figure 2. Yvonne Boutwood of English Heritage prepared Figure 3. Figure 4 was prepared by John Vallender of English Heritage and Jill Wilson.

Bibliography

Bidwell, P. / Hodgson, N. 2009. The Roman Army in Northern England. Kendal.

Boutwood, Y. 1996. Roman Fort and Vicus, Newton Kyme, North Yorkshire. – Britannia 27, 340-344.

Breeze, D. J. 2011. The Roman Military Occupation of Northern England. – Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society 3rd series 11, 113-136.

Casey, J. 1994. Carausius and Allectus the British Usurpers. London.

Cool, H. E. M. / Mason, D. J. P. (eds.). 2008 Roman Piercebridge. Excavations by D. W. Harding and Peter Scott 1969-81, Durham: Architectural and Archaeological Society of Durham and Northumberland. Research Report 7.

Corder, P. 1930. The defences of the Roman Fort at Malton. Leeds: Roman Malton and District Report 2.

Evans, J. / Briscoe, D. / Dickenson, B. / Hartley, K. forthcoming. The Newton Kyme Roman and Anglo-Saxon Pottery. In: Wilson, P. (ed.). Adel and Newton Kyme: Two Yorkshire Roman Sites Reviewed.

Fitzpatrick, A. P. / Scott, P. R. 1999. The Roman Bridge at Piercebridge, North Yorkshire – County Durham. – Britannia 30, 111-132.

Monaghan, J. M. 1991. A Roman Marching Camp and Native Settlement at Newton Kyme, Tadcaster. – Yorkshire Archaeological Journal 63, 51-58.

Simpson, G. 1981. Trial Excavations at Newton Kyme Roman Fort in 1908 and 1909 by F. Gerald Simpson. – Yorkshire Archaeological Journal 53, 121.

Walton, P. 2008. The Finds from the River. In: Cool, H.E.M. / Mason, D. J. P. (eds.). 2008 Roman Piercebridge. Excavations by D.W. Harding and Peter Scott 1969-81. Durham: Architectural and Archaeological Society of Durham and Northumberland. Research Report 7. 286-293.

Wenham, L. P. / Heywood, B. 1997. The 1968 to 1970 Excavations in the Vicus at Malton, North Yorkshire. Leeds: Yorkshire Archaeological Report 3.

Wilson, P. forthcoming a. A new Roman fort at Staxton in the Vale of Pickering, Yorkshire, England. In: Limes XXI. Proceedings of the XXIst International Congress of Frontier Studies.

Wilson, P. forthcoming b. Excavations at Newton Kyme 1956-58 by the late H G Ramm. In: Wilson, P. (ed.). Adel and Newton Kyme: Two Yorkshire Roman Sites Reviewed.

Wilson, P. 2009a. The Roman expansion in Yorkshire reconsidered. In: Morillo, A. / Hanel, N. / Martín, E. (eds.). Limes XX Estudios Sobre la Frontera Romana, vol 1. Madrid. 103-111.

Wilson, P. 2009b. Holding the line? The Humber frontier and the expansion into Yorkshire reconsidered. In: Breeze, D. J. / Thoms, L. M. / Hall, D. W. (eds.). First Contact. Rome and Northern Britain. Perth: Tayside & Fife Archaeological Committee Monograph 7. 8-14.

Wilson, P. 2006. A Yorkshire 'Small Town': Roman Malton and Norton Reviewed. – Yorkshire Archaeological Journal 78, 35-60.

Wilson, P. R. 1991. Aspects of the Yorkshire Signal Stations. In: Maxfield, V. A. / Dobson, M. J. (eds.). Roman Frontier Studies 1989. Exeter. 142-147.

Pete Wilson, PhD
English Heritage,
1 Waterhouse Square
UK-138140 Holborn,
London EC1N 2ST
Pete.Wilson@english-heritage.org.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The First 'British Way in Warfare': Threat and Response in the Late Roman North

Alistair McCLUSKEY

In 1932 the renowned military commentator, Basil Liddell-Hart, published a collection of essays in which he proposed the existence of a specific strategic culture belonging to the British Isles. Writing in the shadow of the Great War, he argued that the large scale deployment of British troops to Continental Europe during the First World War was a historical aberration, and a misuse of British strategic assets. In his eyes Britain's strength lay in sea power, enabling the provision of financial and military support to allies, and the conduct of amphibious raids against points on the enemy coastline (Liddell Hart 1932, 37). Although Strachan has convincingly dismissed Liddell-Hart's work as poor history (Strachan 1983, 447-461), the concept remains a valid device through which we can consider the delivery of strategic effect. This paper will reconsider recent analysis of the archaeological and historical evidence relating to the fourth and early fifth centuries in late Roman North East Britain to suggest that a strategic culture similar to Liddell-Hart's 'British Way', may have been operated by the Romans and their Pictish adversaries.

The importance of culture to strategy is difficult to overstate as it provides the overarching context that shapes the decisions made by military and political leaders. Indeed, as Gray acutely observes, for leaders to act outside their cultural experience is impossible as it would require them to have had all their previous learning somehow removed (Gray 1999, 142-144). In short, it guides their actions. As a concept, strategic culture consists of several factors; the physical, including geography, climate, technology and generational change; the political, including historical experience, political systems, elite beliefs and military organizations; and the social, including defining texts and myths and symbols (Lantis / Howlett 2010, 91). It was using these tools in the 1970s, that American scholars first highlighted the fact that the Soviet Union's strategic perspective was different from that of the USA, and that this had to be understood if policies intended to deter did not inadvertently provoke instead. In simple terms, it was suggested that by using culture to understand how a polity relates itself to the surrounding world it was possible to understand how it may use force to further its aims. This is important to us as it provides a framework against which we can analyse archaeological and historical information that is otherwise disparate in nature and difficult to frame into a coherent picture.

Perhaps the most important factor in shaping strategic culture is historical experience; other factors highlight opportunities and threats, but it is historical experience that underpins their rational – and sometimes irrational – resolution. From aRoman perspective, the historical experience of operating in Caledonia was mixed. The proposed conquests and annexations of Agricola and Antoninus Pius could not be sustained in the long term and were subsequently abandoned, whilst the contemporary memories of Severus' campaigns are redolent with references to high losses suffered against an implacable enemy for little gain. Nevertheless, the need to secure the British Diocese remained, and historical references record repeated military activity in the fourth century. Constantius in 305, Constans in 343, Lupicinus in 360, Theodosius in 367, Magnus Maximus in 382/3, Stilicho in 398 are all reputed to have campaigned in Britain. There is, however, no direct evidence that any of these expeditions crossed the frontier, although the Picts are included in the list of barbarian enemies that also included the Scots, Attacotti and Saxons. If they

did cross their frontier, these campaigns appear to have been markedly different in character than their earlier counterparts, being shorter in duration and probably using smaller forces than those deployed by Agricola, Antoninus Pius and Severus.

Although the tempo of Roman activity in the North may have increased, the archaeological record is relatively barren. Whereas the earlier campaigns left distinct remains in the shape of marching camps and the Antonine Wall, any fourth century campaign infrastructure remains elusive. Several marching camp sites such as Ardoch, Newstead and Pennymuir show multiple periods of occupancy either through recut ditches or camps being completely reconstructed on different alignments (Jones 2012, 72, 110, 119). Large scale excavations on these sites have been limited in number hitherto and dating evidence is therefore sparse. Camps have been tentatively attributed to the campaigns of the late first to early third century on the basis of geographic location such as those north of the Forth-Clyde isthmus; by association with more securely dated sites nearby such as those near the Antonine Wall; by stratigraphical sequence such as those at Pennymuir: and by C14 with other artefact evidence such as that recovered from Kintore (Jones 2012, 109-110). The site at Kintore is important for this paper as it sits in the heart of Pictish territory. Two distinct periods of occupation are indicated through a small amount of pottery and radio carbon dating. While a late third or early fourth century event cannot be ruled out, it is suggested that that occupations in the late first and early third centuries are more probable (Cook / Dunbar 2008, 352). That said, as mentioned earlier, this large scale excavation of a marching camp is rare, and given the thin nature of the evidence as a whole as it currently stands, it is perhaps more appropriate to say that any fourth century campaign structures remain invisible to us at present, rather than a more definitive statement of absence.

This potential paradox does not in itself prove any change in strategic approach from the Romans. However, other evidence from either side of the frontier does suggest the increased importance of the maritime flank.

From an archaeological perspective the most obvious indication of the increasing importance of the sea was the construction of new, and reuse of ancient, coastal fortified sites in the fourth century. In *Britannia Secunda*, the extant frontier defences were augmented with a series of fortlets built on the coast between the River Tees and Filey. These represent the latest defences built in Roman Britain currently proven by excavation. Although their function is still debated, it seems clear that they were a defensive response to a barbarian threat from the sea. Intriguingly, this Roman 'shift' to the coast seems to have been mirrored north of the frontier, where emergent Pictish kingdoms began to establish themselves in a series of spectacular coastal prom-ontory forts such as Cullykhan, Portknockie and Burghead. This process developed predominantly from the sixth century onward, but C14 evidence gleaned from excavation suggests that at Burghead and Cullykhan at least, it began in the late third or early fourth centuries (Edwards / Ralston 1978, 201-210). On both these sites, earlier Iron Age defended promontories were refurbished and reoccupied. Notably, amongst Pictish fortified sites as a whole, Burghead appears to have been a preeminent place, being the largest hillfort in Scotland. It seems clear therefore that the sea is being used militarily in a manner that was not present in the first, second or third centuries.

These developments in military architecture also seem to be mirrored in developments in the organization of the Roman Army on the frontier where evidence suggests the development of a maritime capability.

Although there is no explicit archaeological evidence in terms of excavated ships, such as those discovered on the Rhine at Mainz, the *Notitia Dignitatum* records a unit with a maritime cognomen, the *Numerus Barcariorum* at South Shields, the pivotal site on the North Sea flank of Hadrian's Wall. Whilst the traditional view has seen this unit as being involved with supply duties along the Tyne to the Wall, as Breeze and Dobson have pointed out this need not necessarily be the case (Breeze / Dobson 2000, 230). Indeed, why a slave based economy would invest expensive military resources in this role remains open to question.

If we lack hard archaeological evidence for the function of the Numerus Barcariorum, it may be that historical sources can fill the gap as several examples suggest evidence of how maritime and riverine craft were used by the Roman military. For example, Frontinus provides us with a rare glimpse into the subtleties of Roman strategy when recalling that Scipio, '…sent an army to Africa, and so forced the Carthaginians to recall Hannibal. In this way he transferred the war from his own country to that of the enemy' (Frontinus I, 3,8). This concept could just as easily have been effective in defending *Britannia Secunda* from the predations of

the Picts as it had been in protecting Roman Italy from Carthage. Likewise, Ammianus Marcellinus describes the capture of Sirmium by Julian following the rapid deployment of forces by boat along the Danube to take Lucillianus by surprise (Ammianus Marcellinus XXI, 9, 1-8). It seems clear therefore that the Romans were very familiar and adept at using ships to develop military advantage. Consequently it could be argued that the *Numerus Barcariorum* at South Shields may represent the development of a North British variation on this theme. Rather than the conquest or annexation envisaged earlier campaigns, they could have been used for amphibious operations against Pictish territory in either a traditional punitive manner, or in a more novel approach, forcing the Picts to retain the warbands at home to protect their own territory rather than raid the rich Roman provinces to the south.

If a case can be made for the development of a maritime aspect to military strategy in the late Roman north, is this reflected elsewhere to the strategic milieu? Archaeological evidence suggests that it was, particularly with respect to potential diplomatic activity.

Firstly, there appears to have been distinct changes in patterns of contact between Roman and Caledonian between the first and fourth centuries as suggested by Fraser Hunter (Hunter 2007, 19-36). Whereas contact seems more widely dispersed throughout the Roman Scotland in the first-third centuries, in the fourht century it seems to become less so. In the south, it appears to be concentrated onto high status sites such as Traprain Law in the lands of the Votadini. In contrast, contact is almost absent between the Tay and the Moray Firth before reappearing again in Caithness and the far north (Hunter 2007, 19-36). Differences are also seen in the material nature of contact. At Traprain Law, the finds include hacksilber, high status glassware and Roman military fittings (Hunter 2010, 97-98; Coulston 2010, 50-63). The apparent absence of destruction deposits at this site suggests that rather than an enemy entity, this was the powerbase of a cultivated regional ally, subsidised by Roman diplomatic gifts and possibly supported by elements of the Roman Army from the south. Likewise north of the Moray Firth, the evidence of feasting material, such as the Helmsdale Bowls (Spearman 1990, 63-77), suggests a diplomatic approach to garner support from a local elite, although as yet no evidence for Roman troops has yet been found to completely replicate the pattern seen at Traprain Law. By contrast, the material culture of contact between the Tay and the Moray Firth is markedly different. Finds such as the Birnie coin hoard suggest a tolerated contact during the late second and early third centuries, even if only to accept a payoff to maintain a regional peace (Hunter 2007, 27-31). In the fourth century, however, far fewer finds are currently recorded, and those that are, such as the 'trophy' human remains at Sculptor's Cave near Burghead (Benton 1931, 177-216), suggests the development of an implacable tribal grouping that threatened neighbours as well as Roman Britain.

Before concluding this paper two points must be acknowledged. First, it must be remembered that the archaeologically proven dataset is incredibly sparse considering the large geographical area and broad span of time in question. Second, we must beware the dangers of transposing capabilities and concepts to contexts where there is no direct link. That said, whilst these vagaries will always trap the unwary, strategic analysis across history frequently demonstrates significant aspects of continuity. Therefore, using strategic culture as an analytical framework is not only valid, it arguably produces an element of coherence otherwise denied to disparate archaeological and historical evidence. In this case it is suggested that a maritime element was added to the defence of the northern provinces of Roman Britain in the fourth century. The development of fortified sites on the coast both north and south of the frontier suggests a definite shift towards the use of the sea by both Romans and Barbarians to complement land based power. Whilst historical experience may have deterred large scale expeditions by land into Caledonia, it also provided examples for alternative strategic and operational options, including new maritime doctrines and capabilities. Finally, the exploitation of diplomacy may have cultivated friendly relationships with developing political entities well beyond the frontier to provide regional counterweights to emergent enemies. Few of these strategic elements were new in the fourth century or unique to north Britain except for the pivotal role of maritime power. Liddell-Hart would have recognised this as the 'First British Way in Warfare'.

Bibliography

Benton, S. 1931. The Excavation of the Sculptor's Cave, Covesea, Morayshire. – Proceedings of the Society of Antiquaries of Scotland 65, 177-216.

Breeze, D. J. / Dobson, B. 2000. Hadrian's Wall. Fourth ed. Harmondsworth.

Cook, M. / Dunbar, L. 2008. Rituals, Roundhouses and Romans: Excavations at Kintore, Aberdeenshire 2000-2006. Vol. 1. Forest Road. Edinburgh.

Coulston, J. C. N. 2010. Military equipment of the 'long' 4th century on Hadrian's Wall. In: Collins, R. / Allason-Jones, L. (eds.). Finds from the Frontier: Material Culture in the 4th-5th centuries. Oakville. 50-63.

Edwards, K. J. / Ralston, I. 1978. New dating and environmental evidence from Burghead Fort, Moray. – Proceedings of the Society of Antiquaries of Scotland 109, 202-210.

Gray, C. S. 1999. Modern Strategy. Oxford.

Hunter, F. 2007. Beyond the edge of the empire – Caledonians, Picts and Romans. Rosemarkie.

Hunter, F. 2010. Beyond the frontier: interpreting late Roman Iron Age indigenous and imported material culture. In: Collins, R. / Allason-Jones L. (eds.). Finds from the Frontier: Material Culture in the 4th-5th centuries. Oakville. 96-109.

Jones, R. H. 2012. Roman Camps in Britain. Stroud.

Lantis, J. F. / Howlett, D. 2010. Strategic Culture. In: Baylis, J. / Wirtz, J. J. / Gray, C. S. (eds.). Strategy in the Contemporary World, Third ed. Oxford. 84-103.

Liddell-Hart, B. 1932. The British Way in Warfare. London.

Spearman, R. M. 1990. The Helmsdale Bowls, a reassessment. – Proceedings of the Society of Antiquaries of Scotland 120, 63-77.

Strachan, H. 1983. The British Way in Warfare Revisited. – Historical Journal 26, 447-461.

Ancient Authors

Ammianus Marcellinus. History. Translated by Rolfe, J. C. Cambridge, 2000.

Frontinus. Stratagems. Translated by Bennett, C. E. Cambridge, 1997.

Mr Alistair McCluskey MA
24 The Breach
Devizes
UK-SN10 5BJ Wiltshire
almccluskey@hotmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Fortress of *Legio II Adiutrix* (AD 70-71) on the Ruins of *Oppidum Batavorum* (Nijmegen, NL)[1]

Harry van ENCKEVORT / Elly N.A. HEIRBAUT

To the student of the history of Roman Nijmegen, two types of sources are available (Willems / Van Enckevort 2009). Written sources – both classical literature and the inscriptions that have survived on stone and other materials – and archaeological data. Both sources complement each other but they also each pose their own problems, which is shown, for example, by the history of the troops stationed at Nijmegen. Many inscriptions and stamps on roof tiles and pottery have been discovered that can be attributed to the Tenth Legion, which occupied the Nijmegen fortress in the eastern part of the modern town in the last decades of the 1st c. (**fig. 1/1**). Nothing about this legion's stay at Nijmegen can be found in classical literature, however. By contrast, the presence of the *Legio II Adiutrix*, which was stationed in the Nijmegen area at the end of the Batavian Revolt in AD 70, was until recently known only because the Roman author Tacitus mentioned it (Tac. *Hist.* 5.20). At Nijmegen, the legion was supposed to have been involved in the construction of a bridge over the river Waal (Haalebos 2000, 468). Shortly afterwards, Quintus Petillius Cerialis reached an agreement with the rebels, and peace returned to the Lower Rhine area and elsewhere. In AD 71, Cerialis left for the province of *Britannia* to take office as its governor. He took the Second Legion with him and stationed it at Chester (*Deva*) where it built a new fortress (Mason 2001, 42). After the departure of the Second Legion, the Tenth took over its duties at Nijmegen.

During several excavations by *Bureau Archeologie en Monumenten* of the municipality of Nijmegen (BAMN) in the area of the first Batavian capital, *Oppidum Batavorum* (ca. 15 BC – AD 69/70), building traces dispersed over an area of about 8 000 m^2 were investigated. The results of these excavations have been extensively documented in an excavation report by Van Enckevort and Heirbaut (2010). This settlement went up in flames during the Batavian Revolt. Probably in that last year, some new buildings were erected on the burned remains (Van Enckevort / Heirbaut 2010, 241-252). Of these buildings, only robber trenches remain (**fig. 2**), which had mostly been filled in with small, partly burned pieces of stone and fragments of roof tiles. Presumably, these were re-used construction materials from buildings dating from the reign of the Emperor Nero that had been destroyed during the revolt. The irregular character of the stone can be clearly seen in **figure 3.** Limestone building fragments show that some of the buildings must have had a monumental character.

The finds from the robber trenches do not allow an exact dating of these features. On stratigraphical grounds, however, they must clearly post-date the rebellion. Larger amounts of datable material, such as *terra sigillata* and coins, from either the years directly following the revolt or from the 2nd and 3rd centuries, however, are conspicuously lacking. The lack of finds unequivocally datable to the period in or just after AD 70 suggests that the buildings may have stood for a limited time only. It is surmised that they were part of the fortress of the Second Legion. As yet, no traces have been found of the defensive works surrounding the fortress.

The best-preserved remains are those of a courtyard building (**fig. 4**), which could largely be reconstructed on the basis of its measurements. The remaining traces of the building were heavily damaged during the construction of two ditches in the 4th century, the building of a school in 1880, in

[1] We would like to thank Martijn Nicasie (BAMN) for this English translation.



Fig. 1. Overview of Nijmegen AD 70 – 270. The ditches and the roads are indicated by solid and dotted lines. **1** fortress of the Tenth Legion on the Hunerberg, **2** *canabae legionis*, **3** Waalkade settlement, **4** Vlaamse Gas settlement, **5** *Ulpia Noviomagus*, **6-7** cemeteries, **A** *forum*, **B** *principia*, **C** amphitheater, **D** *mansio*, **E** temples for Mercury and Fortune on the Maasplein, **F** bath, **G** temple, **H** bridge across the Waal, **I** '*praetorium*' of the Second Legion (drawing Rob Mols, BAMN)

1944 during the Second World War, and when the school and several houses were demolished in 1981. In spite of the many missing elements, it is possible to complement the outline of the building's ground plan. To accomplish this, we have made use of the knowledge that, in Roman times, many buildings had a symmetrical ground plan. Also, the measurements used have proved useful in reconstructing the ground plan. In *pes monetalis*, the building is exactly 180 Roman feet long (or 1 *actus*). Half of this is taken up by the southern part, which consists of a large courtyard. On four sides, this open space was surrounded by a covered arcade with a depth of 11.5 ft. The northern arcade has partly been traced during the excavation; the western, southern and eastern sides have been reconstructed. This has been possible because two large foundations were found in the centre of the northern arcade (**fig. 4**). In view of the particular size of these foundations, and their position, they may have been the foundations of a gateway. Since, as has been mentioned, many Roman buildings had symmetrical ground plans, it seems admissible to assume an axis of reflection through the centre point between these foundations, with the help of which the eastern side of the building, and thus its width, may be reconstructed. This establishes a width of 113 ft, with length and width of the building relating to each other as 8:5. Using the same method, the width of the large courtyard can be reconstructed. This was 90 ft wide and 67 ft deep; these measurements relate to one another as 3:4. Analogous to many courtyard buildings already known, the building may be assumed to have had an entrance gate in the southern wall.

To the north of the large courtyard, the central part, lies an area reminiscent of a large, open cross hall measuring 37 x 113 ft. This might have been a kind of *basilica*, but this possibility is contradicted by traces of robber trenches. These suggest that this part of the building had been divided into compartments; however, later disturbances have made it impossible to make a more definite statement about the internal layout. The concentration of stone in the north-western corner (**fig. 3b**) seems to consist of material that was moved during a more recent period.

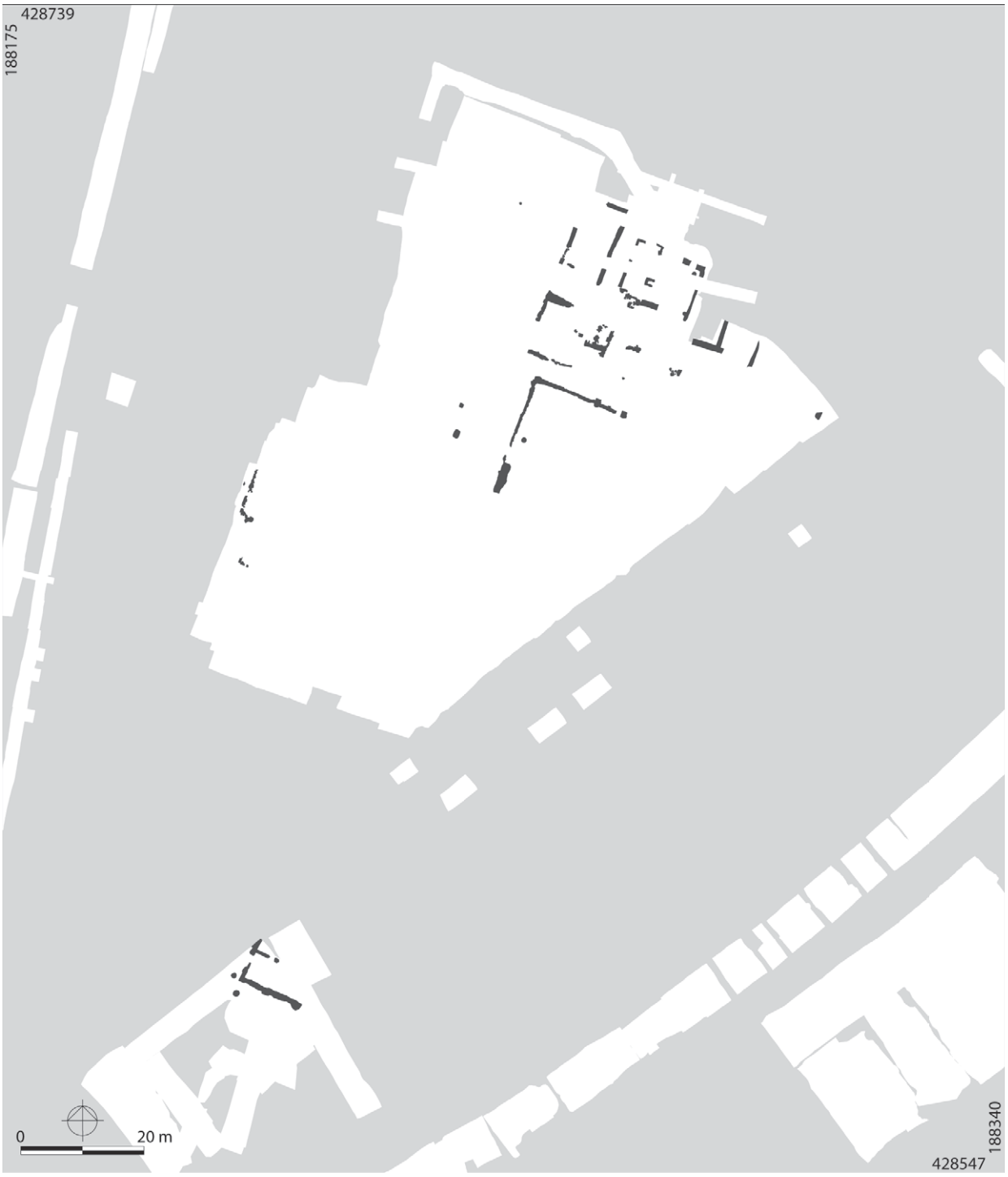


Fig. 2. Overview of building features (drawing Tim van der Weyden, BAMN)

In the centre of the northern part of the building is a second, smaller courtyard, also surrounded by an arcade 11.5 ft deep. With a depth of 30 ft and a width of 40 ft, the relation between the sides of this smaller courtyard is 3:4, similar to that of the larger courtyard. In the smaller courtyard part of a square stone foundation (**fig. 4/P** and **5**) was uncovered, which may have functioned as a pedestal for a statue. The smaller courtyard is flanked by two wings, each 25 ft wide. The eastern wing is divided into two aisles; no traces of such a division have been found in the western wing, but in view of the symmetrical layout of the building the western wing was presumably subdivided in the same way. In the western wing a small part of a robber trench was found, which suggests that the aisles themselves were also divided

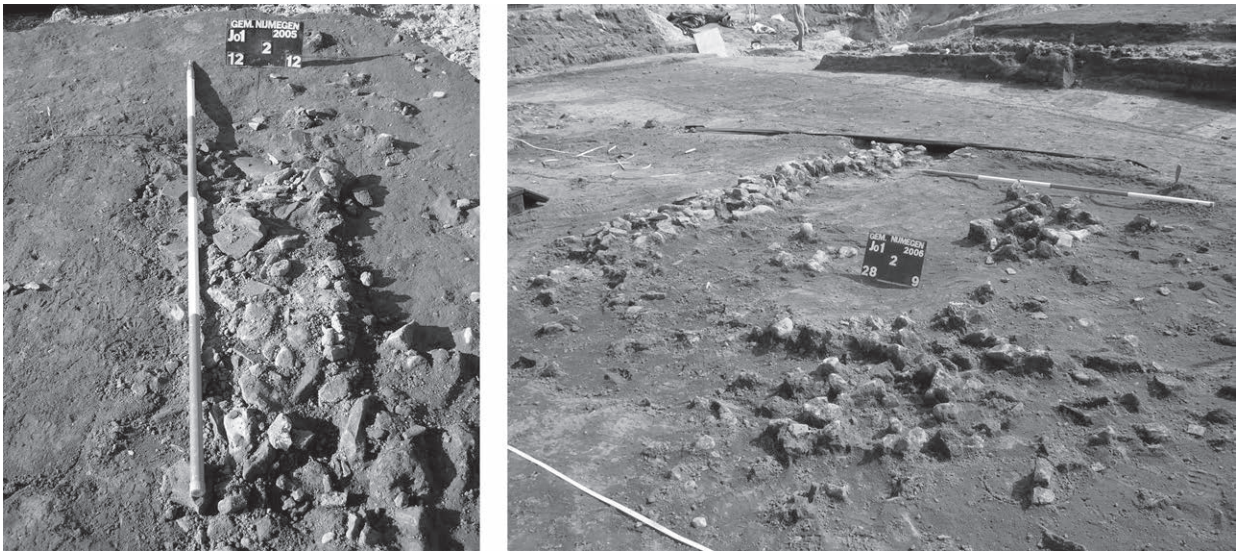


Fig. 3. Robber trenches (photo BAMN)

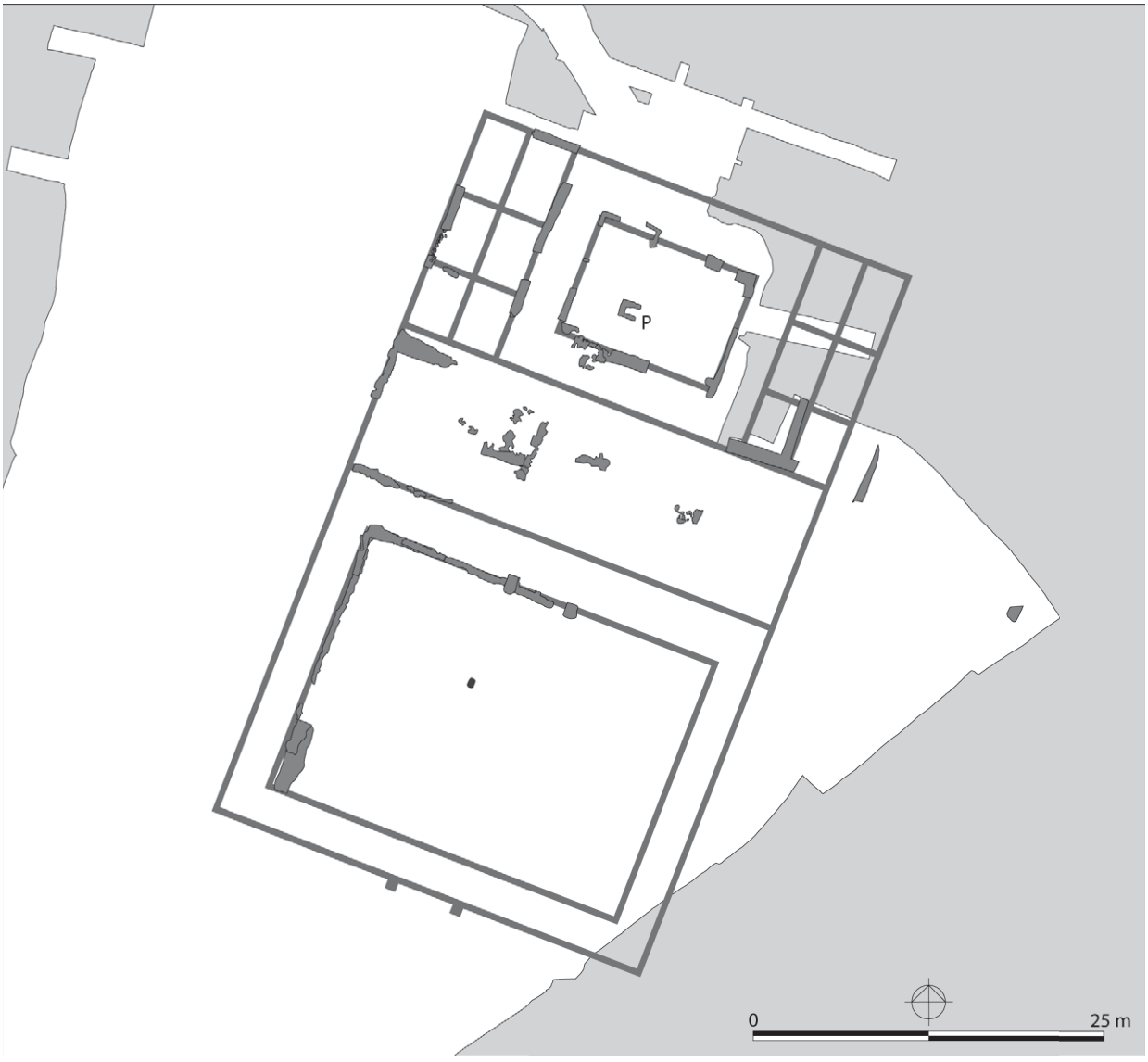


Fig. 4. Reconstruction of the large building. **P** pedestal (drawing Tim van der Weyden, BAMN)



Fig. 5. Pedestal (photo BAMN)

into a number of separate rooms. The distance between this robber trench and the dividing wall is 15 ft. This might lead to the tentative conclusion that the rooms had been 15 ft deep, which would mean that each aisle had been divided into three rooms. Thus, each wing contained six separate rooms, each with a depth of 15 ft and a width of 12.5 ft.

The plan of the building, reconstructed in fig. 4, suggests that it may have been the residence of the commanding officer of the fortress (*praetorium*). The *praetorium* of the Caernarfon 2 fortress in Wales, for instance, also had a courtyard (Johnson 1987, 159, fig. 104). Elsewhere in Nijmegen itself, in the 42 ha Augustan fortress at the Hunerberg, there was also a large courtyard on the southern side of the *praetorium*, measuring 24 x 36.5 m (Willems / Van Enckevort 2009, 33-34). The dimensions of the present courtyard building (53.3 x 33.5 m) are relatively close to those of the Hunerberg *praetorium* (59.5 x 36.5 m). At the time of the construction of the building discussed here, however, the *praetoria* in Flavian fortresses were generally somewhat larger. Therefore, the possibility that this courtyard building was in fact the residence of a senior officer, a *tribunus*, cannot be excluded. A similar house in the Flavian fortress of Inchtuthil (Scotland) measures 40 x 29 m (Johnson 1987, 159, fig. 104).

Thus, the reconstructed plan of the building suggests the quarters of the commanding officer (*praetorium*), but the possibility that it was the residence of a *tribunus* cannot be ruled out. That is why we suggest that the building traces investigated belong to the long lost camp of the Second Legion. The presumed dating of the buildings supports this hypothesis. Assuming that the camp was built during the Second Legion's stay in Nijmegen, the choice of the location cannot have been coincidental. The construction of a new fort on the remains of the deserted Batavian capital, *Oppidum Batavorum*, must have been a significant symbolical gesture towards the defeated Batavians. Whether the construction was part of the agreement between the Romans and the Batavians, which allegedly preserved the bonds of friendship between them, remains unknown, since Tacitus' text concerning the rebellion (Tac. *Hist*. 5.26) breaks off exactly when negotiations are in progress.

Bibliography

Haalebos, J. K. 2000. Römische Truppen in Nijmegen. In: Le Bohec, Y. / Wolff, C. (eds.). Les légions de Rome sous le Haut-Empire. Actes du Congrès de Lyon (17-19 septembre 1998) (= Collection du Centre d'Etudes Romaines et Gallo-Romaines. Nouvelle Serie 20). Paris. 465-489.

Johnson, A. 1987. Römische Kastelle des 1. und 2. Jahrhunderts n. Chr. in Britannien und in den germanischen Provinzen des Römerreiches [bearbeitet von D. Baatz] (= Kulturgeschichte der antiken Welt 37). Mainz am Rhein.

Mason, D. J. P. 2001. Roman Chester. City of the Eagles. Stroud.

Van Enckevort, H. / Heirbaut, E. N. A. (eds.) 2010. Opkomst en ondergang van Oppidium Batavorum, hoofdplaats van de Bataven. Opgravingen op de St. Josephhof in Nijmegen 1 (= Archeologische Berichten Nijmegen – Rapport 16). Nijmegen.

Willems, W. J. H. / Van Enckevort, H. 2009. Vlpia Noviomagvs. Roman Nijmegen. The Batavian capital at the imperial frontier (= Journal of Roman Archaeology Supplementary Series 73). Portsmouth, Rhode Island.

Dr. Harry van Enckevort
Gemeente Nijmegen
Bureau Archeologie en Monumenten
Postbox 9105
NL-6500 HG Nijmegen
h.van.enckevort@nijmegen.nl

Dr. Elly N.A. Heirbaut
LAReS (Lowlands Archaeological Research Service)
Rozenlaan 15
BE-2980 Halle-Zoersel
elly.heirbaut@laresarchaeology.nl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

A Late Roman Watchtower in Wijchen near Nijmegen

Elly N.A. HEIRBAUT / Harry Van ENCKEVORT

During the 3rd century, persisting security problems caused a sharp decrease of the population in the Lower Rhine area. Internal disorder and incursions by Germanic tribes living on the right bank of the Rhine finally precipitated the breakdown of Roman authority in this region around 270 AD. However, the crisis was Empire-wide and there were problems on all frontiers. The situation only improved gradually after the accession of Diocletian in 284 AD. Thus, in 293 AD, Constantius Chlorus succeeded in reconquering the territory that had been lost on the Lower Rhine and restored Roman rule. At the same time, the old province of *Germania inferior* was transformed into the new *Germania secunda*, which encompassed more or less the same area. In the first quarter of the 4th century, Constantius Chlorus' son, Constantine I, building on the work of Diocletian, further strengthened the frontier defences and re-established central authority in the Empire (Willems 1984, 248-250, 272-276).

The linear defence system along the Rhine, which had functioned from 40 AD until well into the 3rd century, was now replaced by a system of defence in depth (Willems 1984, 274-275; Nicasie 1997, 172-184). In that system, cavalry units stationed in or near *castella* played an important role. If or when an incursion seemed imminent, they were able to reach the frontier zone quickly by using the good communication road network. A second interesting element in this strategy was the use of troops from allied German tribes, from the later 3rd century onwards increasingly called 'Franks'. As *foederati*, they were used to support the frontier defence. Elements of belt fittings found in graves show that Franks settled in the vicinity of the Nijmegen *castellum*, probably to apply their soldier-like qualities there. Undoubtedly, others will have been employed to garrison smaller outposts.

During the first decades of the 4th century, along the most important roads and waterways in the Meuse-Rhine basin *burgi* were erected. In the countryside of northern Gaul, too, guard posts were built to protect important agricultural features. In all cases, the *burgi* consist of a central tower, a surrounding wall and one or more ditches. In essence, the towers have a square or rectangular ground plan, the largest measuring more than 20 x 20 m (Brulet 2006a, 159-167, 173).

For some time, the location of three of these watchtowers in the Nijmegen area has been known. In the Heumensoord woods near Malden, along the Cuijk - Nijmegen road and at the highest point in the landscape, are the remains of a *burgus*. The results of three excavation campaigns have been succinctly published by Haalebos (Haalebos 2006). On the Eversberg in Millingen aan de Rijn, East of Nijmegen, in 1886 the remains of a 12 x 15 m building were found. It was surrounded by a ditch, which might indicate a *burgus* (Byvanck 1931-1947, part 3, 98). Function and dating are as yet, however, uncertain. A third *burgus* is in the vicinity of Asperden in Germany, on the Cuijk – Xanten road (Fischer 2006a; Brüggler 2008). Now, a fourth *burgus* can be added to this series.

In 1999 an excavation was conducted by Bureau Archeologie en Monumenten of the municipality of Nijmegen (BAMN) on a parcel called De Tienakker, in the town of Wijchen on the right bank of an old branch of the Meuse. There, traces have been found of a *villa*, erected shortly after the year 100 by a member of the urban elite from *Ulpia Noviomagus*, capital of the *civitas Batavorum*. The remains of the main building have almost completely disappeared when a sand quarry was constructed on the site in 1971. Only some building fragments remained. West of the main building was an early 2nd century

tumulus with a diameter of more than 47 m, which may have been the last resting place of the founder of the *villa*. To the north of the main building, the remains of a wooden construction have been investigated, which probably was a 3rd century open-air sanctuary. Finally, to the east of the building the foundations of a small building were found, that had been in use for about 250 years. The results of these excavations have been extensively documented in an excavation report (Heirbaut / Van Enckevort 2011). Much of the contents of the present article have been derived from this publication.

The building, measuring 30 x 40 ft (*pes monetalis*), was constructed between 100 and 120 from stone (grauwacke, tuff, limestone). The tuff well (# 1) found inside the building suggests that its function was connected to the *villa*'s water supply system. In the immediate vicinity two bronze water taps have been found, that suggest the presence of a system of water pipes. The necessary water pressure was probably obtained by the construction of a water reservoir on the first floor of the building. A foundation next to the well seems to suggest the presence of a pump. *Antoniniani* from 270-275 AD (Tetricus I, Claudius Gothicus) indicate that the *villa* was abandoned either during those years, or shortly afterwards (Reijnen 2011, 99, table 10/3, coin 41-44).

Shortly after, a ditch was dug around the abandoned well house, which suggests that the two-storey building was now used as a watchtower (**fig. 1**). Some smaller reconstructions seem to have taken place, including perhaps the construction of a new doorway. Whether any other *villa* buildings were also re-occupied at this time remains unknown, since the remains of these buildings have been destroyed during the digging of a sand quarry.

In the deepest layers of the ditch, sherds of colour-coated beakers Pirling type 58-61 from Trier have been found. These came into use at around 300 AD and disappeared from view at around the middle of the 4th century. This means that the construction of the ditch can be broadly dated to the beginning of the 4th century. Some early 4th-century coins from the vicinity of the *burgus* allow a further narrowing down of the possible date range. These are a *follis* of 307-310 AD and another of 313-314 AD (Reijnen 2011, 100, table 10/3, coin 53-54). This last is still covered by a thin layer of silver, which usually wears off after even a short period of circulation. That means that this coin has only been in circulation for a very short period, which suggests it may have been lost in around 315 AD.

During the years between 312 and 325 AD the new system of defence in depth acquired its definitive shape in the area. *Castella* (Nijmegen, Cuijk), guard posts and a system of good communication roads were constructed. Pottery and coins indicate that the *burgus* at De Tienakker will have been constructed at around this time. This means that the construction was not an isolated incident, but fits in the general picture of a larger system constructed by the Roman army to defend the border region and its hinterland against the Frankish tribes on the far bank of the river.

1	2	3	4	5	6
category	**ditch**	**deepest layer ditch**	**deepest layer well 1**	**deepest layer well 2**	**Meuse near Cuijk**
terra sigillata	2.5	1.1	–	12.5	28.2
terra nigra beakers	3.7	3.4	–	–	2.8
colour-coated beakers	1.9	6.9	–	–	11.3
red-coated ware	–	–	–	2.5	–
jugs	10.0	10.4	4.1	–	5.6
amphoras	1.9	–	3.2	2.5	1.4
amphoras Pirling 71-74	0.4	1.1	–	–	8.5
dolia	1.7	2.3	–	–	–
mortaria	0.4	–	–	–	–
Low Lands ware 1	0.8	–	24.4	–	–
coarse ware	14.9	34.5	64.2	7.5	40.8
hand-made pottery	59.7	40.3	4.1	22.5	1.4
hand-made pottery (shell tempered)	2.1	–	–	52.5	–
Σ %	100.0	100.0	100.0	100.0	100.0
n	482	87	123	40	71

Table 1. Overview of the pottery from the ditch (n: maximum number of individuals)

The re-use by the army in the 4th century of parts of a *villa* abandoned during the late 3rd century is not unusual. Thus, in the *villa* at Voerendaal, some 120 km south of Nijmegen, the foundations of an internal tower have been discovered, supposed to have been used "as a lookout post for the defence and/or as a fortified granary" in the later 3rd or 4th century (Willems 1986, 144, fig. 2/4, and 148). In the same period, the *burgi* of Froitzheim en Flerzheim were built in the neighbourhood of deserted *villae* in the German Rhineland (Fischer 2006b; Brulet 2006b).

The ditch at De Tienakker enclosed an area of nearly 25 x 25 m. The angle in the south-western corner is remarkable. Possibly, this is the location of the entrance, but no direct traces of a bridge or dam have been found. Nor is there any indication of a rampart on the inside of the ditch, but it is very likely that there once was one. This may have been a box rampart filled with earth from the ditch such as the one of which traces have been found on the site of the *burgus* in Malden-Heumensoord. The area inside the ditch during the youngest phase of this *burgus* was about 24 x 24 m, nearly the same size as that at De Tienakker. At Heumensoord, during the oldest phase the enclosed area had been 38 x 38 m (Haalebos 2006).

The ditch at De Tienakker is more or less V-shaped. Its inner slope has an angle of about 30°, the outer slope of 40-50°. If the surface level at the time of the excavation approximated that of Roman times, the ditch must have been about 1.5 m deep and 3.1 to 3.4 m wide. At the bottom of the ditch thin layers of yellow sand were found, which have been left there by the wind. This, however, could only have happened if, in the first half of the 4th century, parts of the surrounding landscape were bare during at least part of the year, allowing wind erosion. In the southern slope of the ditch a dog had been buried during the period the *burgus* was in use; possibly, the garrison's loyal companion. The dog had been placed in a small hole, on its right side, its head towards the east.

In the ditch, in well # 1 and in well # 2 (50 m to the west of the *burgus*) 4th-century pottery was found. Sherds that could definitely be attributed to the first three centuries A.D. have been left out of the overview presented in **table 1**. However, since sherds from jugs and coarse ware are less easily attributable, a part of these will distort the pottery overview to some extent, as residual material from previous centuries. In the ditch, sherds of 482 pots have been found (**table 1/col. 2, fig. 2**). Since the ditch was filled in after the abandonment of the *burgus*, pottery from the deepest layers has been listed separately in **table 1/col. 3**. However, the range of pottery does not differ considerably from the pot-

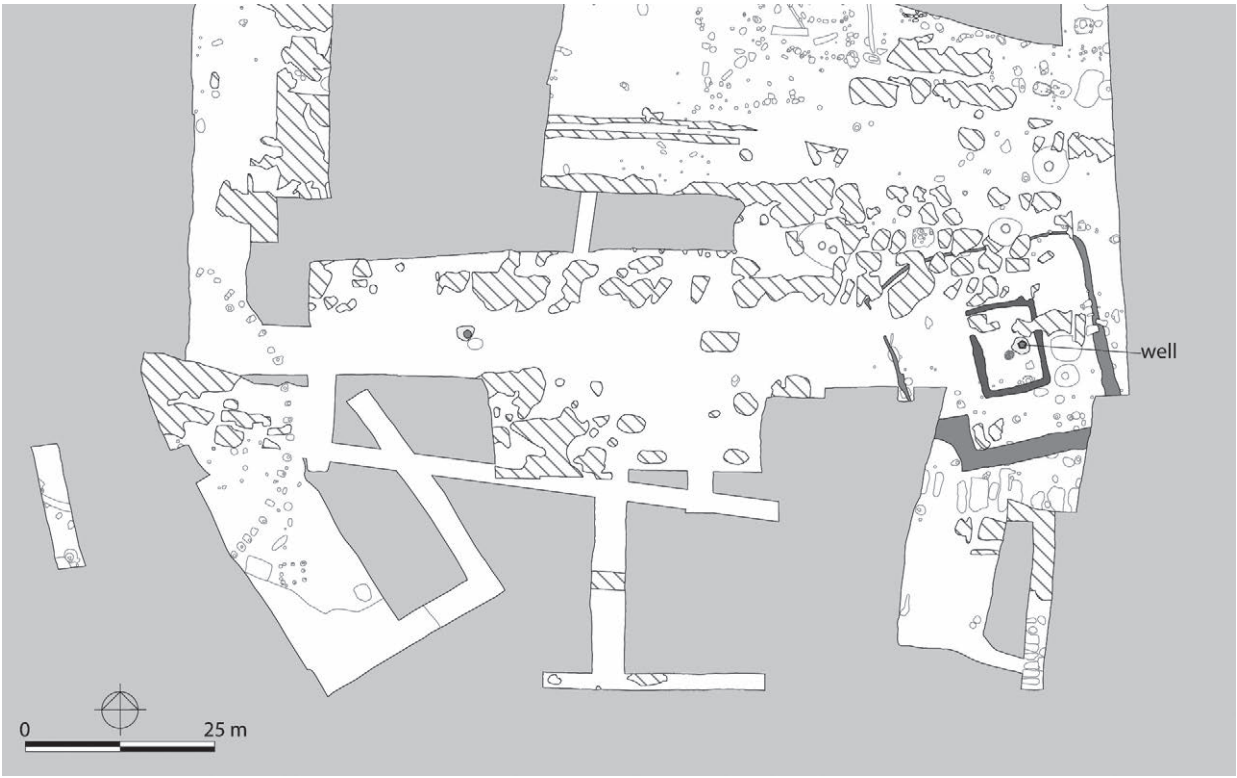


Fig. 1. *Burgus* Wijchen-De Tienakker (drawing Tim van der Weyden, BAMN)

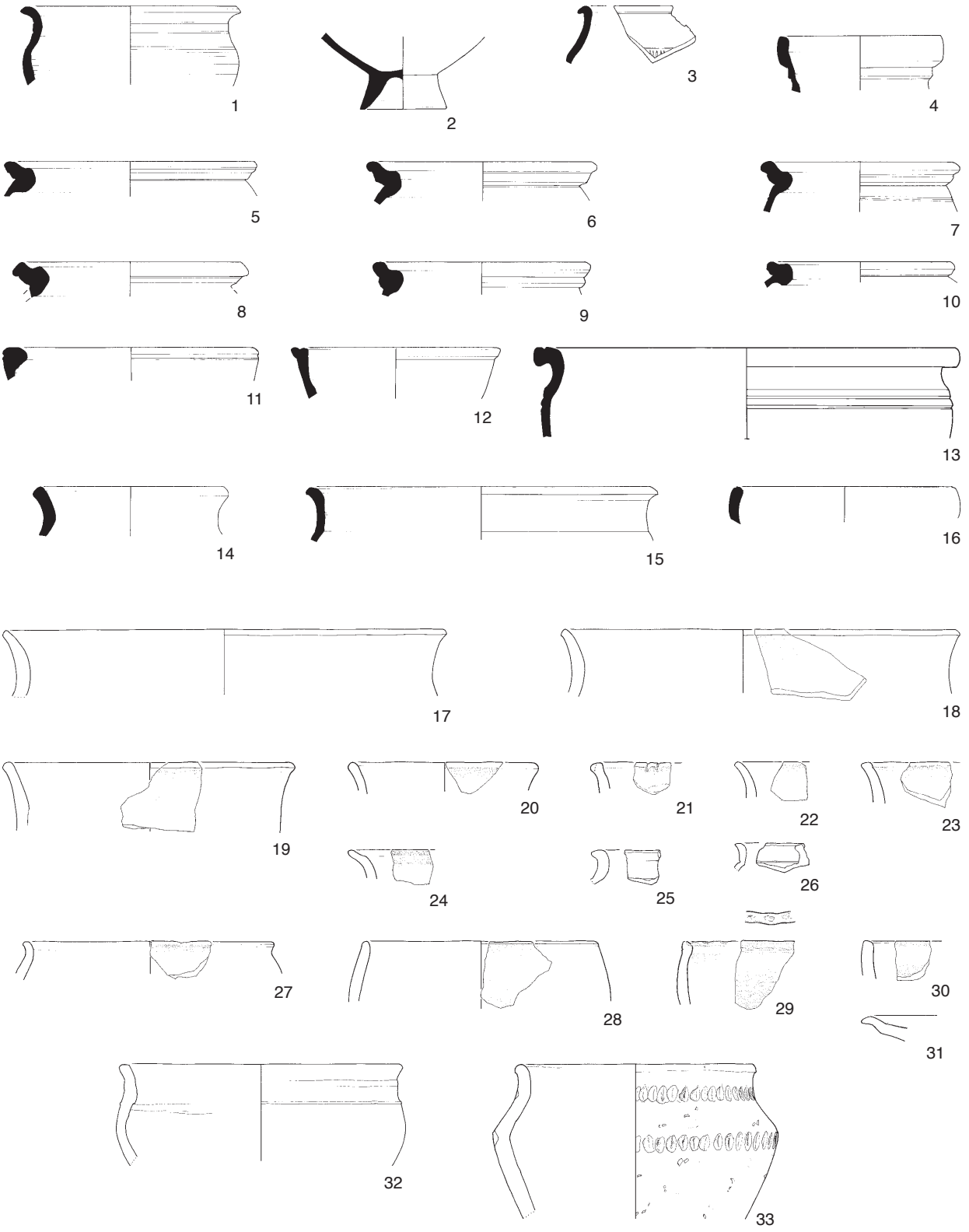


Fig. 2. Pottery. **1-2** *terra nigra*, **3** colour-coated beaker, **4** amphora, **5-16** coarse ware, **17-31** hand-made pottery, **32-33** hand-made pottery tempered with shell fragments (1:4) (drawings André Simons and Manon Verhoeven, BAMN)

tery range from the ditch as a whole (**table 1/col. 2**). More than three quarters of the pottery used by the soldiers from the *burgus* consists of transport and storage pottery (amphoras, *dolia*, Low Lands ware 1, coarse ware, hand-made pottery), whereas tableware (*terra sigillata*, *terra nigra*, colour-coated ware) accounts for only 8-11 % of the total amount of pottery.

It is interesting to draw the comparison with the pottery (**table 1/col. 6**) from a contemporary layer with rubbish from the Meuse, near to the late Roman *castellum* of Cuijk and published in 2001 (Van Enckevort / Thijssen 2000/2001). An analysis of the pottery from the same layer found in later years shows that the oldest pottery dates from the late 3rd century. The pottery range broadly corresponds to the picture presented in **table 1/col. 6** (Thijssen 2011). The pottery range from Cuijk, however, does not at all resemble that from the ditch at Wijchen. Both in Cuijk and in Wijchen *mortaria*, whilst very common during the 3rd century, are almost completely lacking. However, the relatively large amount of tableware (*terra sigillata*, colour-coated beakers), colour-coated amphoras Pirling 71-74, and the small amount of hand-made pottery in the Cuijk material are remarkable. This might indicate that the *castellum* at Cuijk was garrisoned by regular troops, while the Wijchen watchtower was occupied by *foederati*, who were well-acquainted with the hand-made pottery produced in their homeland. In this period, Frankish soldiers were regularly employed by the Romans in the Lower Rhine area to guard the frontier and the hinterland (Willems 1984, 274-275). Some of the belt fittings collected during the excavation were probably from belts worn by these troops (**fig. 3**).

The end of the *burgus* is more difficult to determine than the beginning. The bottom layer of well # 1 contained much pottery, largely burned (**table 1/col. 4**), and charred pinewood. The burned material shows that the *burgus* was destroyed by fire. The composition of the pottery spectrum from this layer differs from that from the bottom layer of the ditch (**table 1/col. 2-3**). Whether the lack of tableware and hand-made pottery in the well # 1 can be connected to the presence of a different unit at the time of the fire than during the period before, to a change in the pottery spectrum during the first half of the 4th century, or whether it is coincidental, remains unknown at present. Among the burned pottery from the well # 1 are sherds from southern Spanish olive amphoras Dressel 20; coarse ware (3x Oelmann 89), Low Lands ware 1 and hand-made pottery. The discovery of burned Low Lands ware 1 rim sherds suggests that pots of the type Holwerda 140-2 must have been produced in the south-western part of the Netherlands for much longer than previously assumed (De Clercq / Degryse 2008, 456). Typical Mayen ware (pot type Alzey 27, plate type Alzey 34) is lacking from both well # 1 and the ditch. This might indicate that the *burgus* was abandoned not long after the middle of the 4th century.

The same layer in the well # 1 also contained animal bones and nine iron bolt heads (**fig. 4**). Three more bolt heads were found in the vicinity of the *burgus*. The tip of the bolt heads is of more or less pyramidal shape. They were attached to a wooden shaft by a solid pin, which in some instances has disappeared almost completely because of corrosion. Eleven bolt heads have been weighed; they weigh 23, 25 (2x), 39, 44, 48, 53, 56, 59, 60 and 64 g. Because of the corrosion, the bolt heads must originally have been heavier, which means that the Wijchen pieces cannot have been arrow- or spearheads. The bolt heads must have been used as ammunition for a *ballista*. Eleven comparable bolt heads have been found in the cremation grave of a gentleman farmer or an artillery officer from the early 4th century, near the *villa* with the fortified tower at Voerendaal mentioned above. Among the Voerendaal pieces, there are three with the pins bent at the lower end. Willems suspects a connection

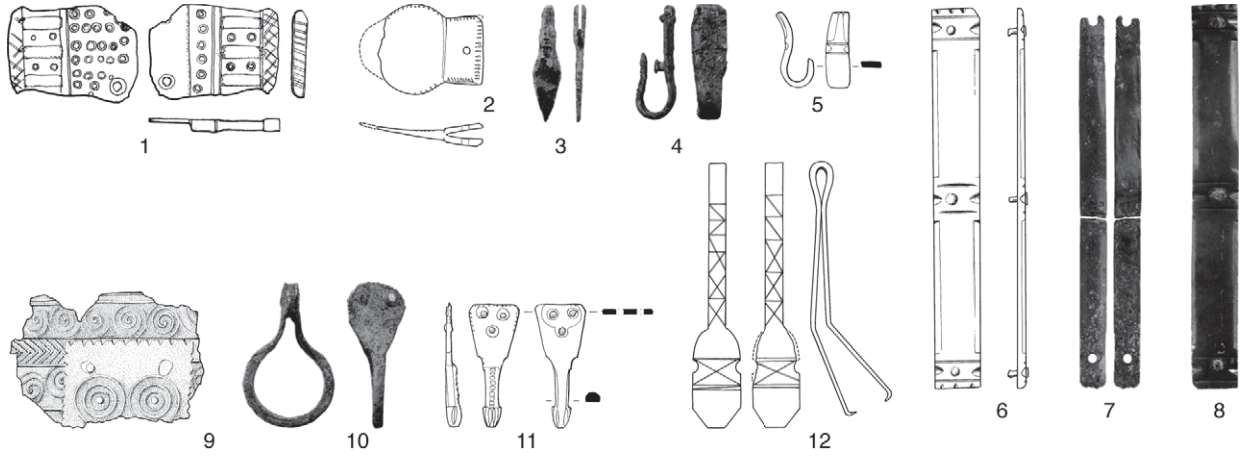


Fig. 3. *Militaria* (1:1) (drawings André Simons, Photos Rob Mols BAMN)

with a funerary ritual (Willems 1989), but since one of the pieces from Wijchen, too, has a pin bent at the lower end, a ritual connotation may not be self-evident. A year later the bolt heads from Voerendaal were interpreted as rake-prongs (Willems 1990), but we doubt this interpretation.

The burned layer in well # 1 was covered by a thick layer of stone from the demolished watch-tower. On top of the stone two coins were found in a layer of sand, a *follis* from 307-310 AD and a *follis* dating from 347-348 AD (Reijnen 2011, 100, table 10.3, coin 53 and 77). Because of the stratigraphic location of the coins in the well they can only have ended up there when the well was filled up. Thus, the more recent of the two coins shows that the well # 1 must have been filled up after the year 348 AD.

To the west of the *burgus* well # 2 has been investigated. Dendrochronological dating has shown that the tree from which this trunk well was made was felled in 348 ± 5 AD. The relatively large amount of *terra sigillata* (5 bowls from East Gaul type Chenet 324) and handmade pottery tempered with shells (**table 1/col. 5**) in de bottom layers of this well is remarkable. The typical Late Roman Mayen ware is lacking here, too. Above this was a solid layer with fragments of a wattle-and-daub wall of a burned down house. The pottery range is very different from that in well # 1, but it is impossible to provide

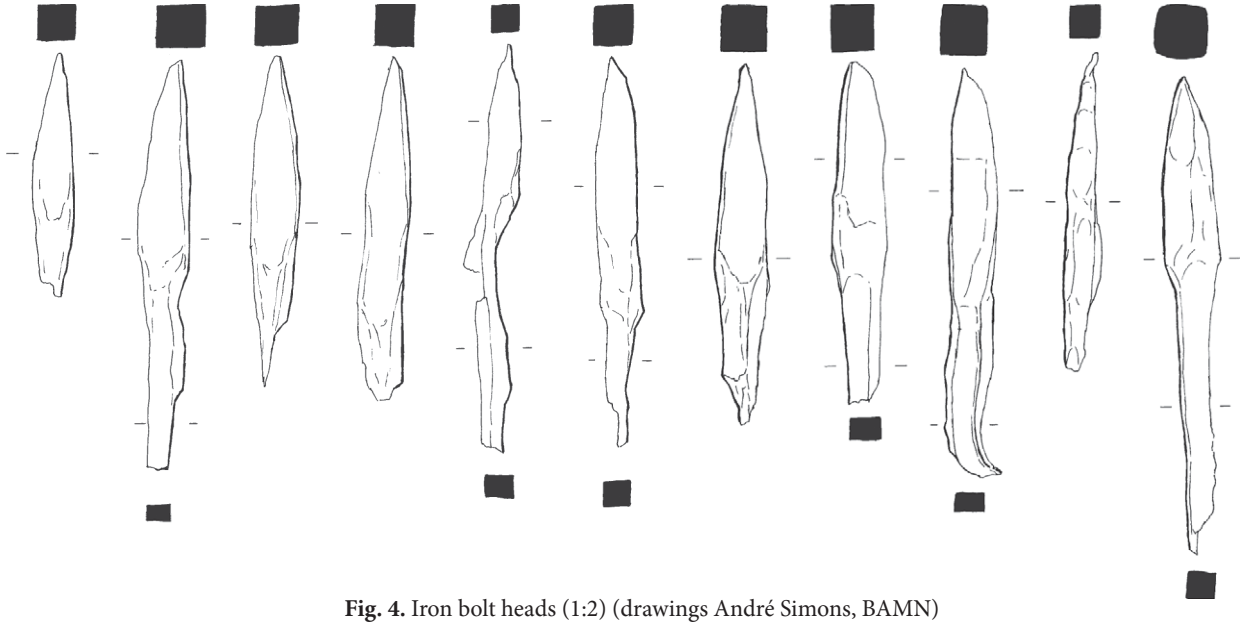


Fig. 4. Iron bolt heads (1:2) (drawings André Simons, BAMN)

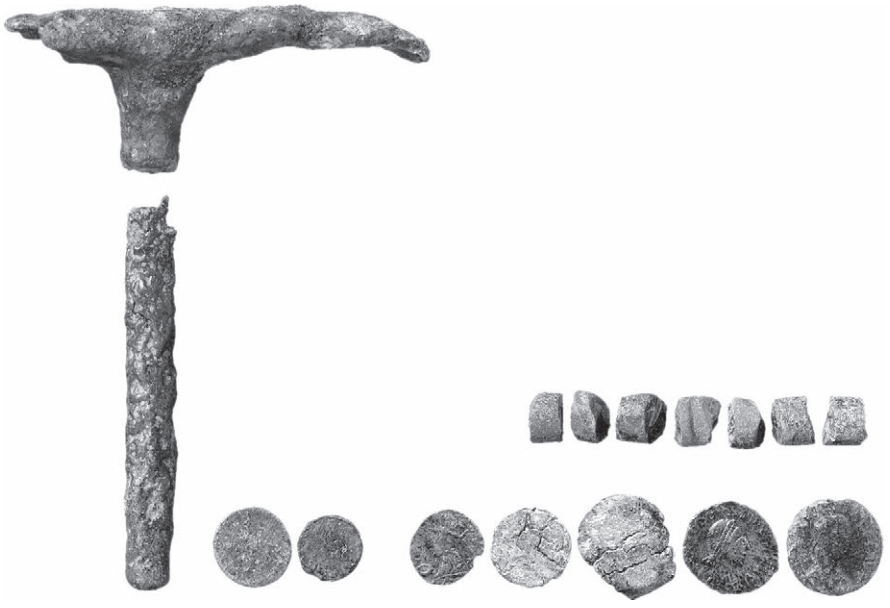


Fig. 5. Two bronze bars, seven cut pieces, two flans and five locally produced coins (1:1) (photos Rob Mols, BAMN)

an explanation, the more so since no traces of buildings have been found near well # 2.

It is tempting to connect the layer with burned material in well # 2 with the burned layer in well # 1. The presence of shell tempered hand-made pottery in well # 2 and in the upper layers of the ditch suggests a link between the filling up of well # 2 and the end of the *burgus*. The date of the coin in well # 1 and the dendrochronological dating of well # 2 suggest that the violent end of the *burgus* came shortly after the usurpation of Magnentius in 352 AD, when all of the frontier defence troops in the Lower Rhine area were withdrawn. As a result of this, Frankish tribes had free access across the border and raided deep into Gaul. In 355 AD, they even took the provincial capital of Cologne (Willems 1984, 276-277).

After the fire, the tower was torn down and both wells and the ditch were filled up. Shortly before or after 400 AD De Tienakker was again employed as a settlement area, as is evidenced by the traces of two houses north of the ruined *burgus*. The ground plans of these houses are comparable to those in a settlement excavated in 1988-1990 in De Maaskemp near Gennep, about 20 km south of Nijmegen (Heidinga / Offenberg 1992, 71-85). From this period, too, date metal parts of belt fittings (**fig. 3**).

Near one of the farms a large number flans have been found (**fig. 5**). Together with several bronze bars (cut into pieces) and some low quality coins from the late 4th century, these attest to the production of coins after late 4th century examples, in the *burgus* ruin at De Tienakker, at the start of the 5th century (Reijnen 2011, 95-97). Probably, metal (lead and bronze) collected from the ruins of the *villa* and from elsewhere was used in this process.

In the course of the 5th century the history of De Tienakker becomes obscure. Because of the lack of clear traces of habitation, as a result of the construction of the sand quarry, it is impossible to make any definite statements about the settlement that undoubtedly existed on the site from the 6th century onwards. Wells, but also sherds, show that the eastern part of the excavation area was used relatively extensively during that period, but building traces are almost entirely absent. The inhabitants of the time will after their deaths undoubtedly have been buried in the nearby Merovingian cemetery in the centre of Wijchen. The history of this cemetery has been published in the catalogue by Heeren and Hazenberg (Heeren / Hazenberg 2010).

We would like to thank Martijn Nicasie (BAMN) for this English translation.

Bibliography

Brüggler, M. 2008. Burgus und Glashütte bei Goch-Asperden. In: Archäologie im Rheinland 2007. Stuttgart. 109-111.

Brulet, R. 2006a. L'architecture militaire romaine en Gaule pendant l'Antiquité tardive. In: Reddé, M. / Brulet, R. / Fellmann, R. / Haalebos, J. K. / Von Schnurbein, S. (eds.). Les fortifications militaires. L'architectura de la Gaule romaine (= Documents d'Archéologie Française 100). Bordeaux. 155-179.

Brulet, R. 2006b. Rheinbach / Flerzheim. Rhénanie du Nord-Westphalie, Allemagne. In: Reddé, M. / Brulet, R. / Fellmann, R. / Haalebos, J. K. / Von Schnurbein, S. (eds.). Les fortifications militaires. L'architectura de la Gaule romaine (= Documents d'Archéologie Française 100). Bordeaux. 371.

Byvanck, A. W. 1931-1947. Excerpta Romana. De bronnen der Romeinsche geschiedenis van Nederland (= Rijks Geschiedkundige Publicatie 73, 81 and 89). Den Haag.

De Clercq, W. / Degryse, P. 2008. The mineralogy and petrography of Low Lands Ware 1 (Roman lower Rhine-Meuse-Scheldt basin; the Netherlands, Belgium, Germany). – Journal of Archaeological Science 35, 448-458.

Fischer, Th. 2006a. Asperden. Rhénanie du Nord-Westphalie, Allemagne. In: Reddé, M. / Brulet, R. / Fellmann, R. / Haalebos, J. K. / Von Schnurbein, S. (eds.). Les fortifications militaires. L'architectura de la Gaule romaine (= Documents d'Archéologie Française 100). Bordeaux. 203-205.

Fischer, Th. 2006b. Düren / Froitzheim. Rhénanie du Nord-Westphalie, Allemagne. In: Reddé, M. / Brulet, R. / Fellmann, R. / Haalebos, J. K. / Von Schnurbein, S. (eds.). Les fortifications militaires. L'architectura de la Gaule romaine (= Documents d'Archéologie Française 100). Bordeaux. 268-269.

Haalebos, J. K. 2006. Heumensoord / Rauwschans. Gueldre, Pays Bas. In: Reddé, M. / Brulet, R. / Fellmann, R. / Haalebos, J. K. / Von Schnurbein, S. (eds.). Les fortifications militaires. L'architectura de la Gaule romaine (= Documents d'Archéologie Française 100). Bordeaux. 254.

Heeren, S. / Hazenberg, T. (eds.) 2010. Voorname dames, stoere soldaten en eenvoudige lieden. Begravingen en nederzettingssporen uit het neolithicum, de laat-Romeinse tijd en middeleeuwen te Wijchen-Centrum (= Hazenberg Archeologische Serie 1). Leiden.

Heidinga, H. A. / Offenberg, G. A. M. 1992. Op zoek naar de vijfde eeuw. De Franken tussen Rijn en Maas. Amsterdam.

Heirbaut, E. N. A. / Van Enckevort, H. (eds.) 2011. De verdwenen villa van De Tienakker. Archeologisch onderzoek naar het verleden van Wijchen (= Archeologische Berichten Wijchen. Rapport 4). Nijmegen.

Nicasie, M. J. 1997. Twilight of empire. The Roman army from the reign of Diocletian until the battle of Adrianople. Rijswijk.

Reddé, M. / Brulet, R. / Fellmann, R. / Haalebos, J. K. / Von Schnurbein, S. (eds.) 2006. Les fortifications militaires. L'architectura de la Gaule romaine (= Documents d'Archéologie Française 100). Bordeaux.

Reijnen, R. 2011. Munten en lokale muntproductie. In: Heirbaut, E. N. A. / Van Enckevort, H. (eds.). De verdwenen

villa van De Tienakker. Archeologisch onderzoek naar het verleden van Wijchen (= Archeologische Berichten Wijchen – Rapport 4). Nijmegen. 89-107.

Thijssen, J. 2011. Laat-Romeins aardewerk uit de Maas bij Cuijk. – Westerheem 60/4, 166-176.

Van Enckevort, H. / Thijssen, J. 2000/2001. The pottery. In: Goudswaard, B. / Kroes, R. A. C. / van der Beek, H. S. M. (eds.). The Late Roman bridge at Cuijk (= Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek 44). 476-480.

Willems, W. J. H. 1990. Down to earth. A note on bolt-heads and rake-prongs. – Arma. Newsletter of the Roman Military Equipment Conference 2, 22-23.

Willems, W. J. H. 1989. An officer or a gentleman? A Late Roman weapon-grave from a villa at Voerendaal (NL). In: Van Driel-Murray, C. (ed.). Roman military equipment. The sources of evidence. Proceeding of the 5th Roman Military Equipment Conference (= British Archaeological Reports. International Series 476). Oxford. 143-156.

Willems, W. J. H. 1986. De Romeinse villa te Voerendaal. Opgraving 1985. – Archeologie in Limburg 28, 143-150.

Willems, W. J. H. 1984. Romans and Batavians. A regional study in the Dutch Eastern River Area 2. – Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek 34, 39-331.

Dr. Elly N.A. Heirbaut
LAReS (Lowlands Archaeological Research Service)
Rozenlaan 15
BE-2980 Halle-Zoersel
elly.heirbaut@laresarchaeology.nl

Dr. Harry van Enckevort
Gemeente Nijmegen
Bureau Archeologie en Monumenten
Postbox 9105
NL-6500 HG Nijmegen
h.van.enckevort@nijmegen.nl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Timber Forts along the Rhine in the West Netherlands: New Thoughts Derived from Old Field Drawings. Vechten – Utrecht – Valkenburg

Julia CHORUS

In 1949, at the very first Limes conference in Newcastle, the eminent Dutch archaeologist Professor Albert Egges van Giffen gave a lecture on his excavations at Vechten, Utrecht and Valkenburg in The Netherlands (Van Giffen 1952). At Vechten, Utrecht and Valkenburg Van Giffen had excavated parts of the Roman forts in the decades before his lecture (**fig. 1**; Van Giffen 1934; 1948; 1949; 1950; Van Giffen / Glasbergen 1947).

Because of his good methods of excavating he revealed a lot of detailed information. Unfortunately, some of these old excavations have never been published or only very superficially. In this paper I will use his lecture as a guideline to discuss some of my recent work.

Since Van Giffen's lecture in 1949, hardly any new excavation has been carried out (and published) in the three forts he discussed, except for Valkenburg (Van Giffen 1955; Glasbergen 1972; Groenman-Van Waateringe / Van Beek 1988). Now, more than sixty years later, some of these 'forgotten' projects are pulled out of the archives and are finally being published. Both researches are carried out within the scope of a Dutch research project of old excavations (Odyssee programme) and within my PhD research on timber forts in the West Netherlands (Chorus in prep. a).

The aim of the latter research is to analyse ten forts with up to 27 building phases in the first and early second centuries and to compare their ground plans and building techniques (**fig. 1**). For this, I have been studying publications and field drawings of both old and recent excavations in the West Netherlands. At almost every site of the West Netherlands forts I have been able to recognize new parts of buildings and to make alterations in the phasing of the forts, thus clearing the way to new interpretations.

From the research of old excavations it is clear that one can very well make up for lost ground with field drawings, photographs, finds and – if available – excavation reports. New discoveries and ideas come to light with the help of modern techniques like the digitizing of field drawings and the use of databases. We can compare the data with our knowledge from more recent excavations of other forts. And with our current knowledge we can also assess the information from the old reports that *did* appear.

New ideas and also new questions and problems arise. Below, some examples will emerge while revisiting the forts at Vechten, Utrecht and Valkenburg that Van Giffen discussed in 1949.

Vechten

The first case study is Vechten (**fig. 1**). Before Van Giffen excavated at that site in 1946-47, some research was already carried out (Holwerda 1915; 1921; Remouchamps 1924; 1928; Braat 1939). In general three phases were recognized: phase 1 and 2 in timber, of which phase 1 was divided in several sub phases later on. In the third phase the fort was built in stone (Polak 2006).

Van Giffen never got to analyse the field data that he collected during his excavation campaign. Since then a lot of research on these old excavations has been done (cf. Polak / Wynia 1991). I've been working on a new phasing of the timber forts and integrated and interpreted old data in order to get a more complete picture, resulting in new ground plans within the mentioned research project on timber forts in the West Netherlands. The most recent work has been carried out by Zandstra and Polak (Zandstra / Polak 2012). These authors published Van Giffen's excavation and related the vari-

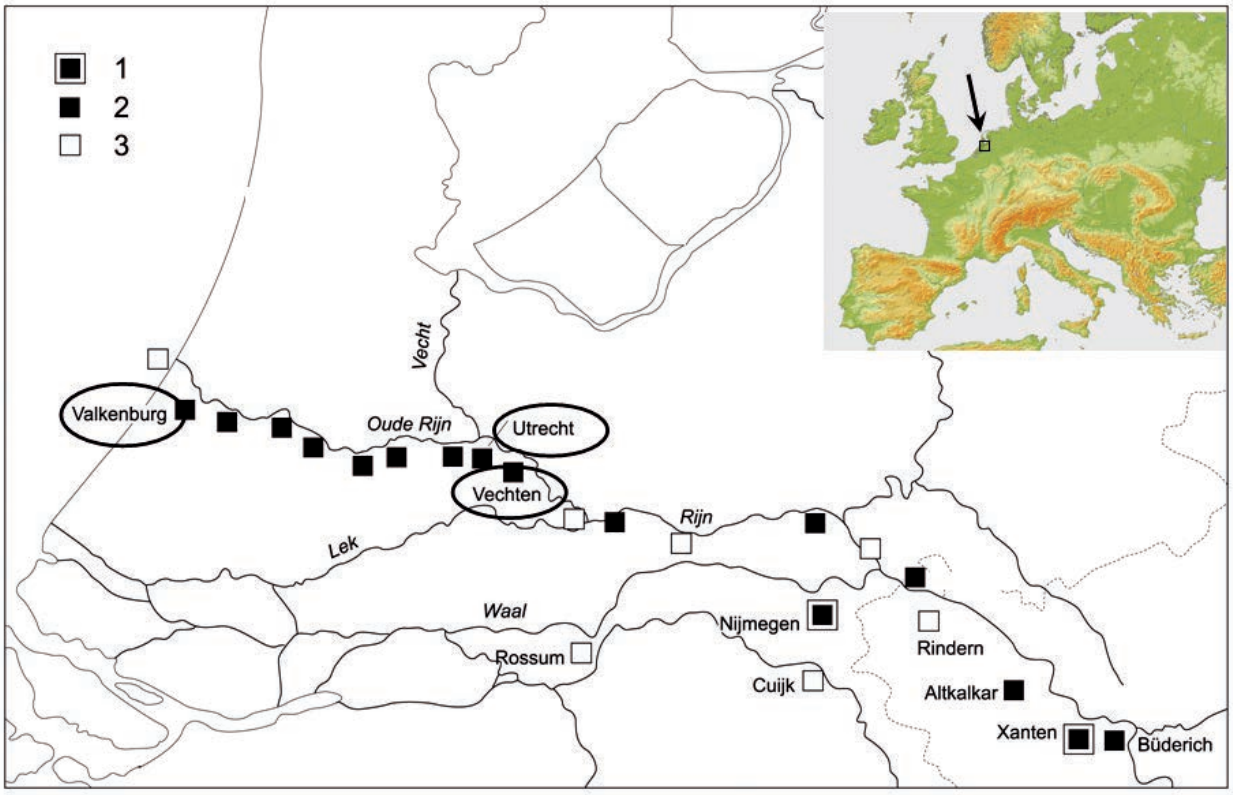


Fig. 1. Research area: fortifications in the Lower Rhine area in the Early and Middle Roman period. 1: fortress; 2: fort; 3: probable fort (after Polak 2009, fig. 1)

ous phases of defence works to a complex tangle of traces of internal buildings in phase 1. A new phasing is proposed (Zandstra / Polak 2012, 45-54).

Utrecht, Dom Square

Some five kilometres downstream, we find the centre of Utrecht (**fig. 1**). Already in 1929 Van Giffen's first acquaintance with Roman Utrecht took place. Since then he, and others, excavated at the so-called Dom Square. Only a part of the research has been published by Van Giffen and his colleagues (Van Giffen 1934; Vollgraff / Van Hoorn 1934; 1936; 1938) and later by others (Ozinga et al. 1989).

My recent research includes two old and not published excavations[1]: one is Van Giffen's work in the middle of the Dom Square (**fig. 2a/b**, north of the *principia*). At that spot the nave of the Dom, the cathedral of Utrecht, once stood. Van Giffen excavated substantial remains of the *via praetoria*, the *via principalis* and several buildings beside the road (Chorus in prep. b)[2].

In the earliest phase the road surface consists of timber frameworks with sods supported by posts (**fig. 3a, right**). The later timber phases also showed traces of frameworks. In the fifth phase the road surface contained fragments of tile and tuff. Drainage ditches were dug for carrying off the rain water.

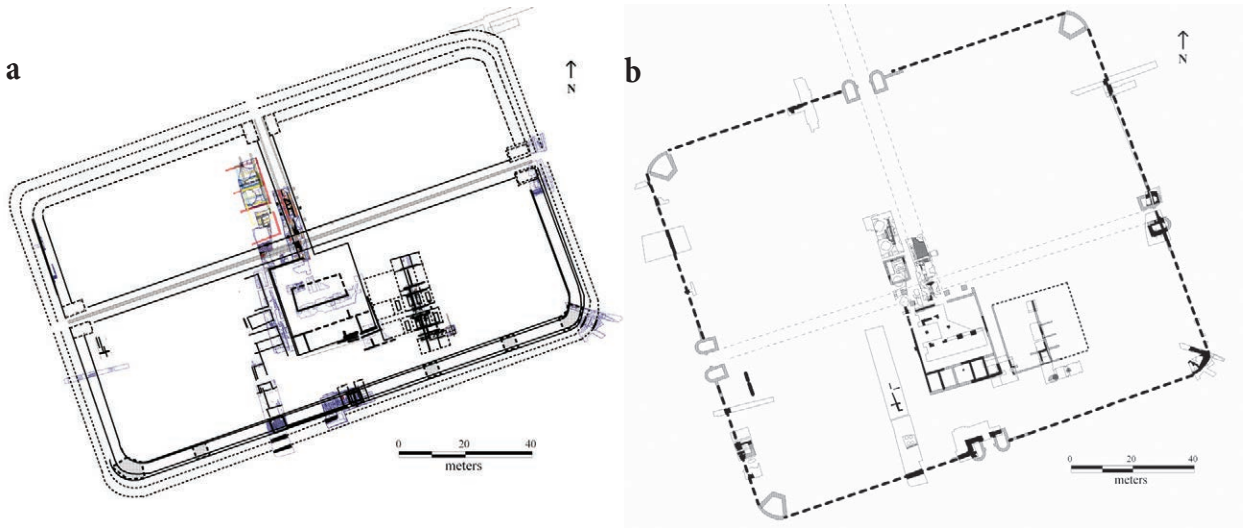
I dated the many foundation trenches, west of the *via praetoria* (cf. **fig. 3a, left**), and interpreted them for now as barracks, in some phases (**fig. 3b, left**) possibly for cavalry because of their layout. Usage for storage is also a possibility.

Utrecht, Pandhof: Courtyard of the Dom

The second research of the Utrecht case study deals with an excavation in 1956 beneath the courtyard of the Cathedral, by the town architect W. Stooker (**fig. 2a/b**, east of the *principia*). Some years later C. Isings of the University of Utrecht did an archaeological observation, a few meters to the north. Nothing has ever been published. Within the already mentioned Odyssee programme I have studied the field drawings. Four timber building phases are recognized that resemble those on other spots of the fort. The youngest phase was represented by a stone building (Chorus 2014).

[1] The pottery has been studied by L. van Diepen (Dom Square) and R. Niemeijer (Pandhof). These studies will be published in Chorus in prep. b and Chorus 2014.

[2] Ozinga et al. 1989, 105-118, shortly pay attention to this research.



2a-b. Forts at Utrecht. Left: timber building phases 1-4; right: stone phase 5 (author's drawing)

One of the most striking features is the remains of timber walls, a floor and rectangular pits in phase 2 (**fig. 4a**). Examples of probably the same kind of pits at Hadrian's Wall, at Walls End and South Shield, (given by Hodgson / Bidwell 2004, 124, 131) and also at Dormagen (Davison 1989, 154-158; Müller 1979, 28-29) suggest the function of urine pits for horses, stable pits. These buildings might have been stables. Possibly there was a cavalry unit at that stage. The building and its internal arrangements next to the *via praetoria*, as showed above, may fit in this thought. Another possible interpretation for this building zone is a *fabrica*, a workshop with trays or troughs for cleaning cloth or other activities (Reddé et al. 2006, 116-118; Johnson 1987, 204-211).

In the Flavian period and in the 2nd century this area shows more, but still scarce evidence for the function of a workshop. Fireplaces and a probable water pit may point to that.

The stone building east of the *principia* left several traces of foundation of pebbles and fragments of tuff (**fig. 4b**). This building can be interpreted as *praetorium*. The location is next to the headquarters (**fig. 2b**). Besides that the foundation methods, exactly like those of the *principia*, suggest an important building, such as a *praetorium*. Meanwhile, other buildings, such as barracks, were still built in timber.

After studying these old excavations in the centre of Utrecht, I have been able to refine the phasing of the timber forts. Not every building activity, like repairs or just the partly rebuilding of structures, stands for a whole new building phase, sub phases can also stand for building snapshots. Roughly there were four timber building phases and a fifth fort in stone. As shown in **fig. 2a** and **b**, the stone fort was expanded to the north. The difference was about 35 m.

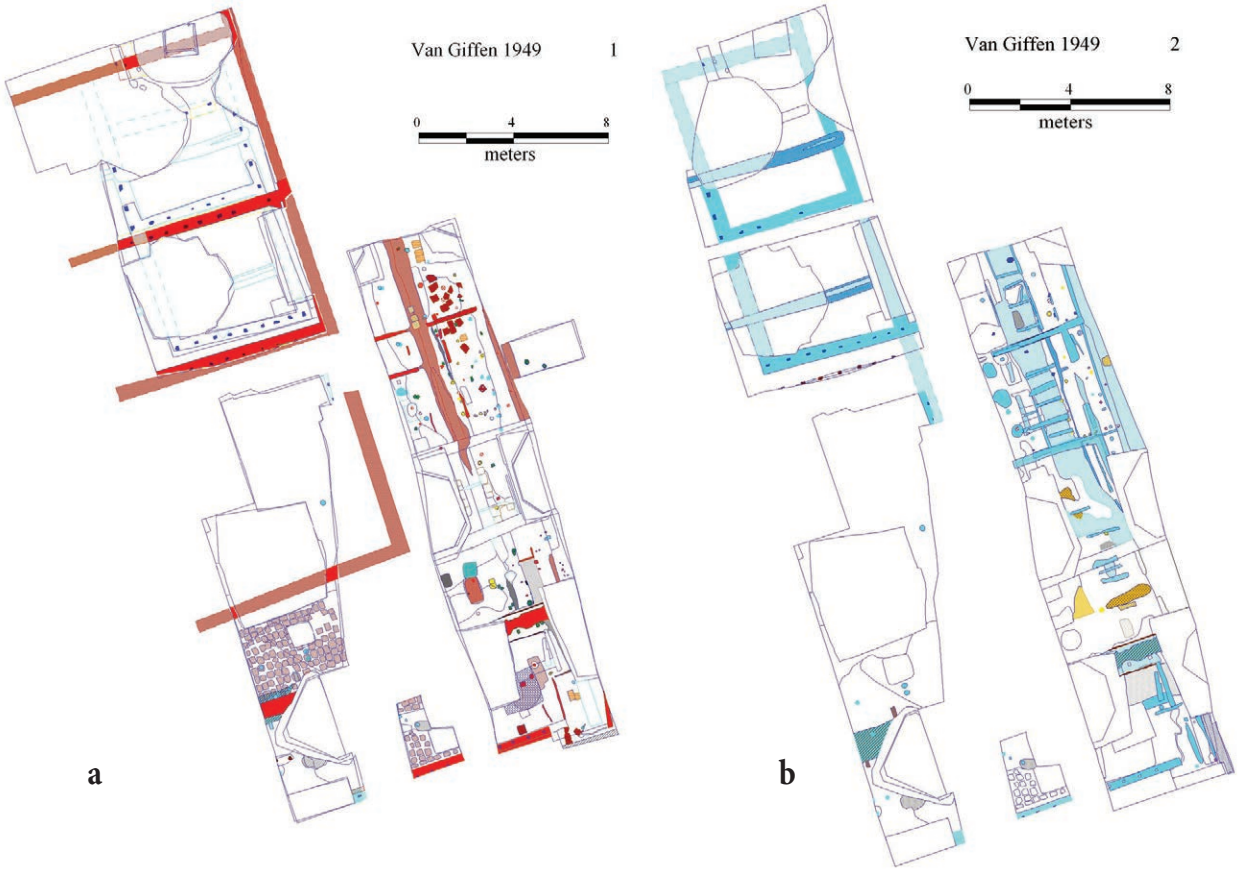
Valkenburg

The third and last fort that Van Giffen mentioned in his 1949 lecture is Valkenburg. In several volumes he published his research of 1941-1950 (Van Giffen 1948; 1950; 1955)[3]. To inform you about the seven building phases of Valkenburg would take up a conference in itself. In short, my study of the old field drawings resulted in new ground plans. It led to the reinterpretation of several earlier conclusions.

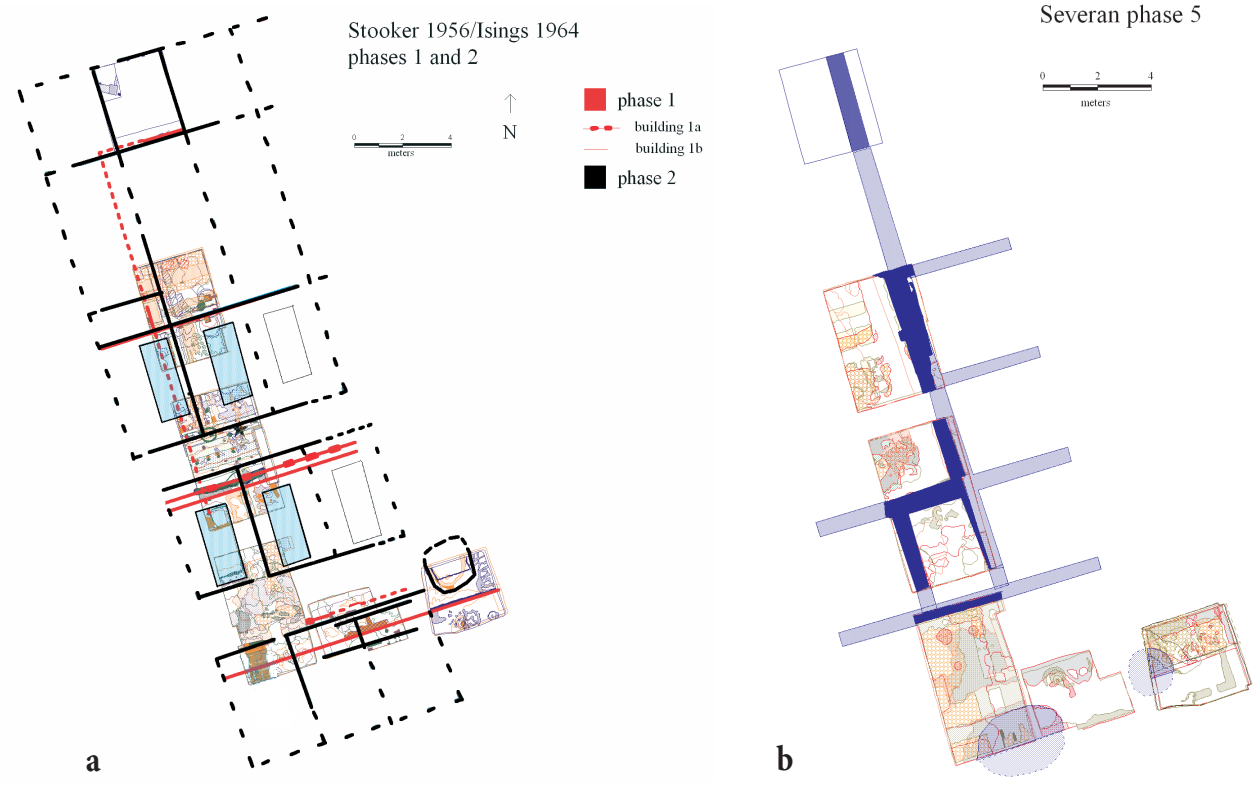
In this paper I will show one striking aspect. Phase 1 shows a regular ground plan (**fig. 5a**). Only a few years later a provisional internal rebuilding takes place, the so-called phase 1a. Glasbergen and Groenman-Van Waateringe linked this to a change in occupation (Glasbergen / Groenman-Van Waateringe 1974). A *vexillatio* of the third *cohors Gallorum equitata* was replaced by half an *ala* in phase 1a. One of the big changes must have been the larger amount of horses in the camp: some 200. The rebuilding becomes permanent in phase 2. At the same time, at the back of the fort it was enlarged to the west by 9 m. A whole new and totally different type of rampart was built.

While looking into the old field drawings, I noticed that at the western side of the fort the first

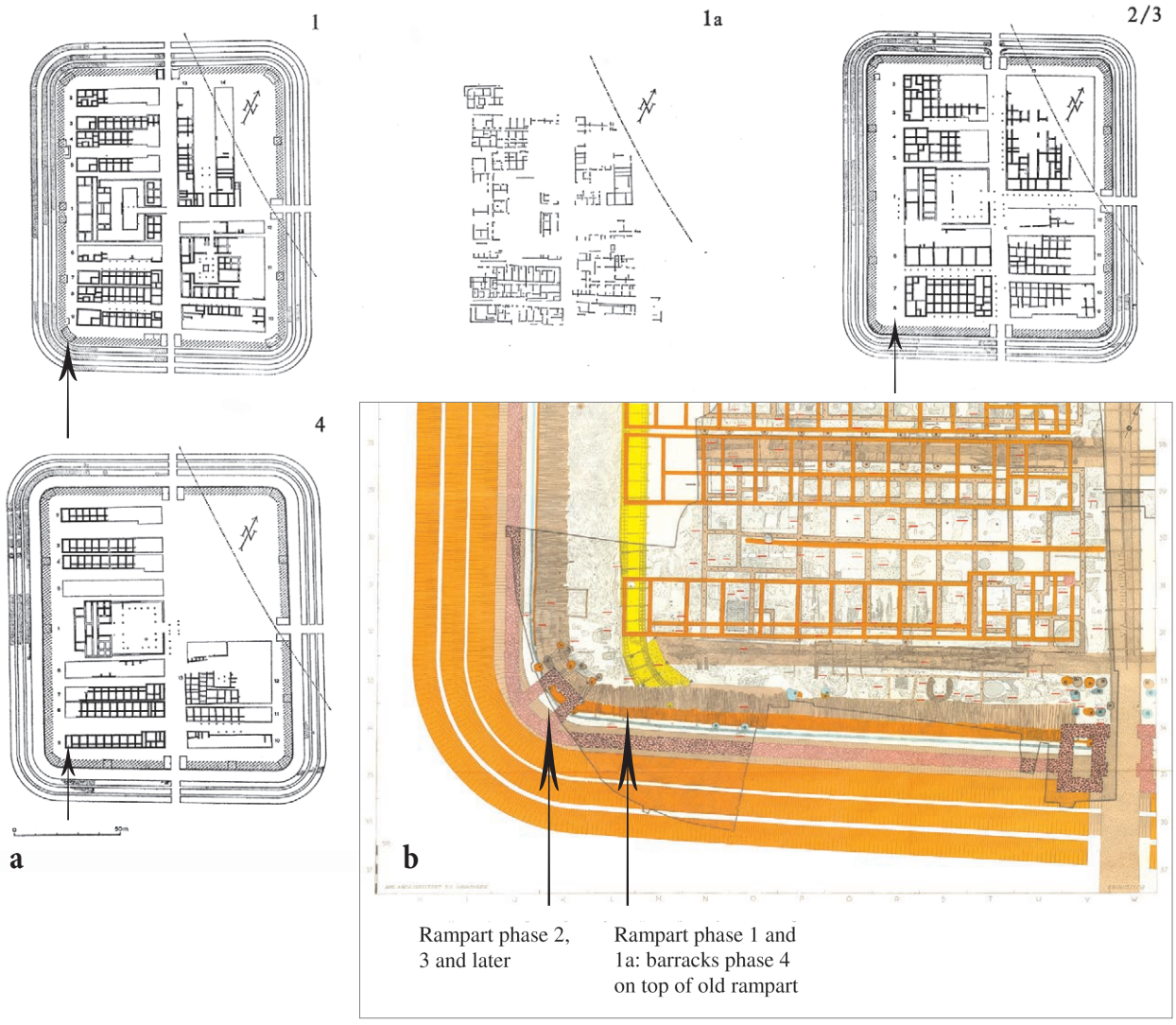
[3] Since Van Giffen's research that ended in 1950, excavations have been carried out by W. Glasbergen in 1962 (Glasbergen 1972) and by W. Groenman-Van Waateringe and B. L. Van Beek in 1980 (Groenman-Van Waateringe / Van Beek 1988).



3a-b. Utrecht Dom Square. Left: building phase 1, right: building phase 2; internal buildings (l) and *via praetoria* (r) (author's drawing)



4a-b. Utrecht, Pandhof. Left: timber building phases 1 and 2; right: stone building phase 5 (author's drawing)



5a-b. Valkenburg: old ground plans of phase 1-4 with arrows where the first rampart is situated. Fig. 5b shows the barracks of phase 4 on top of the first rampart (After Glasbergen / Groenman-Van Waateringe 1974, fig. 9; Van Giffen 1955, pl. 15a)

rampart and the south-western angle tower remained in use in phase 2 and 3. This means coexistence of two ramparts until the Batavian revolt (end of phase 3). Only after AD 70, after the revolt, in phase 4, new barracks were built exactly on top of the old rampart (**fig. 5b**).

Glasbergen and Groenman-Van Waateringe did not notice this coexistence. Earlier on, Van Giffen mentioned the existence of the angle tower and rampart of the first phase in phases 2 and 3 (Van Giffen 1955, 85), but did not elaborate on the consequences. The consequence of the coexistence of the two ramparts is that the *intervallum* in phase 2 and 3 was divided in two. Each strip was approximately 5 m wide.

What could have happened here? It is not some usual annex that would have been built in order to create more space. In that case one would expect to find traces of buildings. But the field drawings do not show any. Besides that, a normal annex would have a gate to get into the annex and into the main fort, like those to be found in the Flavian fort at Frankfurt Heddernheim (Reddé et al. 2006, 279-281). At Valkenburg these gateways are lacking.

The question is whether there is any relation between the increase in horses in phase 1a, and the enlargement of the fort in phase 2, while at the same time maintaining the old rampart.

If there is a connection with the horses, the remaining space between the two ramparts of approximately 100 x 5 m may have been used for training. The field drawing shows indeed a large concentration of dung in that part of the fort.

But a problem arises: how did the horses get there? There is an interval tower in the middle of the western side of the fort that has no passage un-

derneath. This also applies to the southwest angle tower. The only possibility may have been the old northwest angle tower but due to disturbances we do not know if this one still existed in phase 2. To my knowledge this odd situation is unique and leads to many questions.

Need for Reassessing Old Research

To conclude, even after 60 to 70 years still a lot of new information can be derived from old drawings combined with other documentation. After all these years the excavations that Van Giffen and others undertook at important military sites like Vechten, Utrecht and Valkenburg and many other sites, are in need of a fresh twenty-first-century-look. This can very well lead to new phasing, reinterpretation and discovery of new features as well as new and intriguing questions. It is time to reopen the archives and reassess the old data.

Acknowledgements

The PhD research is part of the research project 'A sustainable frontier? The establishment of the Roman frontier in the Rhine delta', funded by the Netherlands Organization for Scientific Research, (NWO), Biax Consult, Radboud University Nijmegen, the City of Utrecht and the Foundation for Provincial Roman Archaeology. The research of old excavations at Utrecht was financed by a cooperation of the Ministry of Education, Culture and Science (OCW), its Cultural Heritage Agency (RCE) and NWO, the archaeology department of the City of Utrecht and Utrecht University. I thank these institutions for their support.

Bibliography

Braat, W. C. 1939. Opgravingen te Vechten 1931-32 en 1936-37. – Oudheidkundige Mededeelingen uit het Rijksmuseum van Oudheden te Leiden. Nieuwe Reeks 20, 47-65.

Chorus, J. P. in prep. a. Timber forts along the Lower Rhine in the West Netherlands in the first and early second centuries AD. PhD thesis Radboud University Nijmegen.

Chorus, J. P. in prep. b. Domplein 1949. Opgravingen van A.E. Van Giffen in het Romeinse castellum in Utrecht (working title), Basisrapportage Archeologie. Utrecht.

Chorus, J. P. 2014. Binnenbebouwing van het Romeinse castellum in Utrecht. Uitwerking van de opgravingen in de Pandhof van de Dom (1956 en 1964), Basisrapportage Archeologie 93. Utrecht.

Davison, D. P. 1989. The barracks of the Roman army from the 1st to 3rd centuries AD (= British Archaeological Reports International Series 472). Oxford.

Glasbergen, W. 1972. De Romeinse castella te Valkenburg Z. H. De opgravingen in de dorpsheuvel in 1962 (= Cingula 1). Groningen.

Glasbergen, W. / Groenman-Van Waateringe, W. 1974. The pre-Flavian garrisons of Valkenburg Z. H. Fabriculae and bipartite barracks (= Cingula 2). Amsterdam / London.

Groenman-Van Waateringe, W. / Van Beek, B. L. 1988. De Romeinse castella te Valkenburg Z. H. Zeventiende opgravingscampagne 1980, werkput VI 1. In: Bloemers, J. H. F. (ed.). Archeologie en oecologie van Holland tussen Rijn en Vlie. Studies in Prae- en Protohistorie 2. Assen / Maastricht. 1-120.

Hodgson, N. / Bidwell, P. T. 2004. Auxiliary barracks in a new light: recent discoveries on Hadrian's Wall. – Britannia 35, 121-157.

Holwerda, J. H. 1921. Vechten. – Germania 5, 22-25.

Holwerda, J. H. 1915. Vechten. Frührömisches Kastell und Flottenstation. – Römisch-Germanisches Korrespondenzblatt 8, 57-60.

Johnson, A. 1987. Römische Kastelle des 1. und 2. Jahrhunderts n. Chr. in Britannien und in den germanischen Provinzen des Römerreiches. (= Kulturgeschichte der antiken Welt 37). Mainz.

Müller, G. 1979. Ausgrabungen in Dormagen 1963-1977 (= Rheinische Ausgrabungen 20). Köln / Bonn.

Ozinga, L. R. P. / Hoekstra, T. J. / De Weerd, M. D. / Wynia, S. L. 1989. Het Romeinse castellum te Utrecht. De opgravingen in 1936, 1938, 1943/44 en 1949 uitgevoerd onder leiding van A.E. van Giffen met medewerking van H. Brunsting, aangevuld met latere waarnemingen. Utrecht.

Polak, M. 2009. The Roman military presence in the Rhine delta in the period c. AD 40-140. In: Morillo, A. / Hanel, N. / Martín, E. (eds.). Limes 20. 20 Congreso Internacional de Estudios sobre la Frontera Romana, 20th International Congress of Roman Frontier Studies, Léon (España). Septiembre 2006. Anejos de Gladius 13.2. Madrid. 945-953.

Polak, M. 2006. Bunnik / Vechten – Fectio. In: Reddé, M. / Brulet, R. / Fellmann, R. / Haalebos, J. K. (†) / Schnurbein, S. v. (eds.). L'architecture de la Gaule romaine. Les fortifications militaires (= Documents d'archéologie Française 100). Paris / Bordeaux. 244-248.

Polak, M. / Wynia, S. L. 1991. The Roman forts at Vechten. A survey of the excavations 1829-1989. – Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden 71, 125-156.

Reddé, M. / Brulet, R. / Fellmann, R. / Haalebos, J. K. (†) / Schnurbein, S. v. 2006. (eds.). L'architecture de la Gaule romaine. Les fortifications militaires (= Documents d'archéologie Française 100). Paris / Bordeaux.

Remouchamps, A. E. 1928. Opgravingen te Vechten (1922-1926). Utrecht.

Remouchamps, A. E. 1924. Fectio. Een Romeinsche legerplaats en haven. – Jaarboekje van het Oudheidkundig Genootschap Niftarlake (1924), 3-15.

Van Giffen, A. E. 1955. De Romeinse castella in de dorpsheu-

vel te Valkenburg aan de Rijn (Z. H.) 2. – Jaarverslag van de Vereeniging voor Terpenonderzoek 33-37, 1-209.

Van Giffen, A. E. 1952. Three Roman frontier forts in Holland at Utrecht, Valkenburg and Vechten. In: Birley, E. (ed.). The Congress of Roman Frontier Studies 1949. Durham. 31-40.

Van Giffen, A. E. 1950. Inheemse en Romeinse terpen. Opgravingen in de dorpswierde te Ezinge en de Romeinse terpen van Utrecht, Valkenburg Z. H. en Vechten. – Jaarverslag van de Vereeniging voor Terpenonderzoek 29-32, 1-66.

Van Giffen, A. E. 1949. Inheemse en Romeinse terpen. Opgravingen in de dorpswierde te Ezinge en de Romeinse terpen van Utrecht, Valkenburg Z. H. en Vechten. In: Akademie-Dagen 2. 91-119.

Van Giffen, A. E. 1948. De Romeinsche castella in den dorpsheuvel te Valkenburg aan den Rijn (Z. H.) (Praetorium Agrippinae) 1. De opgravingen in 1941. – Jaarverslag van de Vereeniging voor Terpenonderzoek 25-28, 1-316.

Van Giffen, A. E. 1934. Voorlopig bericht over de opgraving op het Domplein te Utrecht in December van 1929. In: Opgravingen op het Domplein te Utrecht (= Wetenschappelijke verslagen 1). Haarlem.

Van Giffen, A. E. / Glasbergen, W. 1947. De opgravingen te Vechten-Fectio. – Bulletin Nederlandse Oudheidkundige Bond 5.1, 99-101.

Vollgraff, C. W. / Van Hoorn, G. 1938. De opgravingen in Juni en Juli 1935. In: Opgravingen op het Domplein te Utrecht (= Wetenschappelijke verslagen 4). Haarlem.

Vollgraff, C. W. / Van Hoorn, G. 1936. De opgravingen in Juni en Juli 1934. In: Opgravingen op het Domplein te Utrecht (= Wetenschappelijke verslagen 3). Haarlem.

Vollgraff, C. W. / Van Hoorn, G. 1934. De opgravingen in Juni en Juli 1933. In: Opgravingen op het Domplein te Utrecht (= Wetenschappelijke verslagen 2). Haarlem.

Zandstra, M. J. M. / Polak, M. (eds.). 2012. De Romeinse versterkingen in Vechten-Fectio. Het archeologisch onderzoek in 1946-1947 (= Auxiliaria 11). Nijmegen.

Julia Chorus M.A.
Johan Winnubstlaan 29
NL-3533 EA Utrecht
juliachorus@zonnet.nl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Out of Africa? – A New Line of the Eastern Raetian Limes in the Middle of the 3rd Century and *Legio III Augusta* (…*e Raetia* …*regressi*…)

C. Sebastian SOMMER

Abstract

For a long time the "burgus" of Burgsalach in the middle of the Raetian Limes has been puzzling researchers with its unique ground plan and position behind the line of the Limes on the plateau of the Frankonian Alb. The layouts of the gate as well as the central courtyard have triggered assumptions that it was erected by soldiers of *legio III Augusta* which was disbanded in Africa in AD 238 under Gordian III.

In this paper it is argued that the fortlet is part of a system of surveillance erected on the by-passing road coming from the fort of Theilenhofen and leading partially in a perfectly straight line to the fort of Pfünz and beyond to Kösching, consisting of watch towers, the fortlet and forts. Arguments are presented that the towers cannot be the remains of an early Limes in Raetia – as has been assumed – but that, together with Burgsalach, they constitute a late correction of the eastern Raetian Limes.

In a recent article I summarized the history of the Raetian Limes (Sommer 2012a; abbreviated Sommer 2012b), including all the new evidence that was gathered in the past years during the preparation of the Upper German-Raetian Limes (ORL) for the nomination as a World Heritage Site and the years since its inclusion into the list in 2005 (Breeze / Jilek 2008; Sommer 2008). I concluded that the development in Raetia up until the first construction of the linear features – which cannot be dated earlier than around AD 160 – was different to the one in Upper Germany (Sommer 2012a, fig. 9).

The earlier phases of the occupation did not include a series of watchtowers found already under the Reichs-Limeskommission more than a century ago (ORL A VII [Strecke 14] 120-123, Nr. 21-22) along a road between Weißenburg and Kösching, as it was seen by all previous researchers (at last Czysz / Herzig 2008a, 192-193; Hüssen 2009, 71), but had to be 'later' (Sommer 2012a, 155; 170-173).

The road itself, however, most likely was installed first when the fort at Pfünz was erected probably early under Hadrian (Sommer 2012a, 155) in order to connect it with the even earlier forts of Weißenburg to the northwest and Kösching to the southeast (**fig. 1**). Over large parts of its course it is still clearly visible on the ground. In some parts large stone slabs seem to have been used for its surface. Striking feature of the road is its straight course for almost 20 km after it climbed up onto the higher plain of the Frankonian Alb between Burgsalach, where two consecutive (earlier?) camps have been found (**fig. 2**; Faßbinder / Gorka 2009[1]), and the valley of the Altmühl north of Pfünz.

General Popp, acting on behalf of the Reichs-Limeskommission, discovered along its course 10 watchtowers and assumed another four, as distances of more than 2 km appeared too large to him, three were recorded with sketches by W. Kohl (Westdeutsche Zeitschrift 21, 1902, 277-278; ORL A VII [Strecke 14] 120-123, Nr. 21-22; BLfD[2]). Some of the remains are still visible on the ground and in particular in airborne laser scans (**fig. 3a** and **b**). Additional four positions were detected between Pfünz and Kösching and the possibility of another five to six towers for the part of the road leading from Burgsalach to Weißenburg were discussed (ORL A VII [Strecke 14] 122; none of these are detectable in the laser scans)[3].

[1] For methodological reasons I disagree with their suggested sequence.

[2] See catalogue at the end of the article.

[3] Unfortunately, no more documentation than measured sketches of 3 towers by W. Kohl can be found nowadays (BLfD) and only small notes are published. Therefore our knowledge about the towers is quite limited.

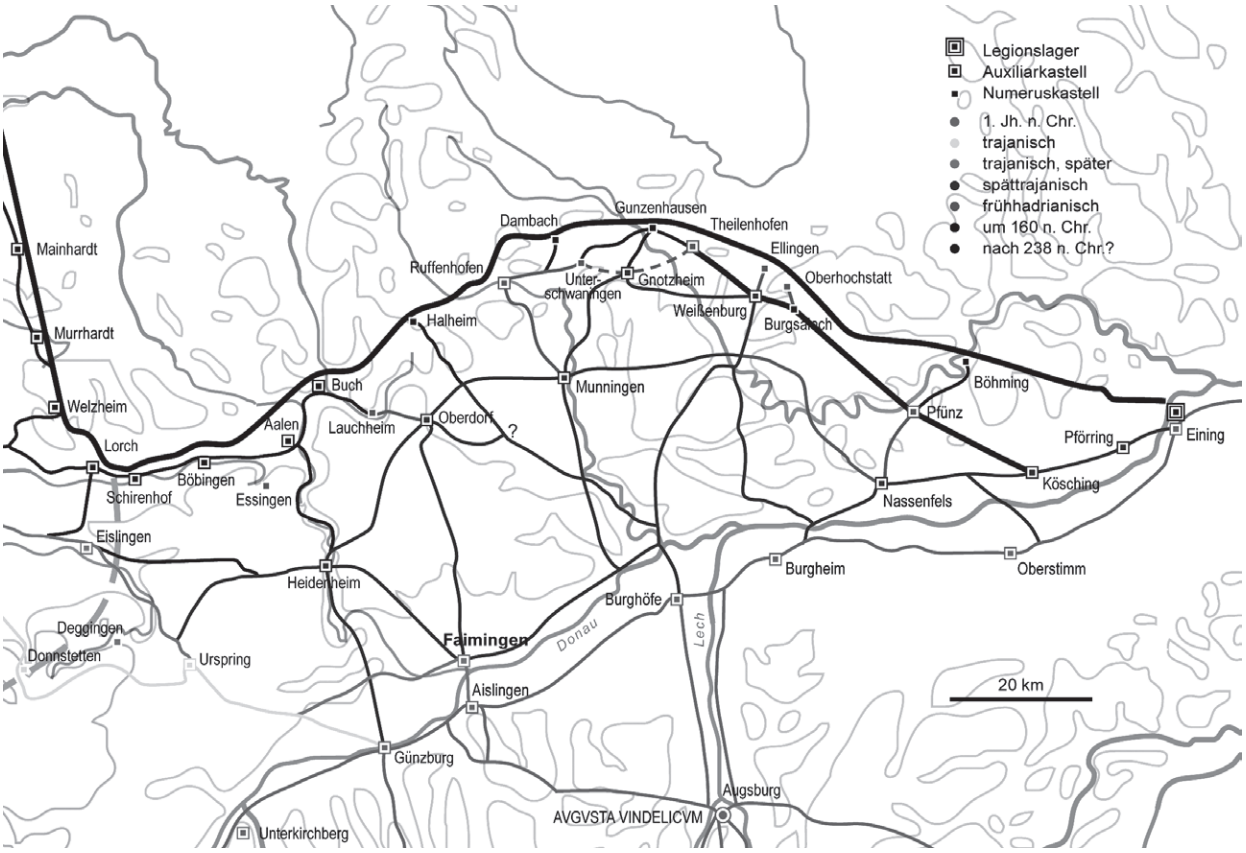


Fig. 1. Development of the Roman occupation in Raetia north of the Danube (after Sommer 2012a, fig. 22)

None of the towers was surrounded by a ditch. All of them were built in stone. Most of the towers had sizes of 5.5-6.5 x 5.5-7.2 m, slightly bigger than the average Limes tower (compare Becker 2004, fig. 3). However, there were also some smaller towers with sizes of 4.0 x 4.0-4.6 m. As far as recorded, the walls were between 0.7 and 1.0 m wide. In two instances an entrance was detected on ground level towards the road. The distance between proven towers varied between 1.1 and 1.6 km, with the assumed tower positions the average distance was about 1.35 km. In any event, the towers along the discussed road show a much wider spacing than at any position on the Upper German-Raetian Limes.

With the few finds discovered (ORL A VII [Strecke 14] 122), not yet thoroughly published, there is no independent date for the towers. In my opinion, in particular the construction in stone and the missing ditches exclude the possibility of an 'early' date. Much more likely is their erection sometimes 'late' in the development of the occupation of Raetia north of the Danube, i.e. presumably sometimes in the third century AD.

Starting point of the detectable line of towers in the north was the fortlet of Burgsalach ('In der Harlach'; **fig. 2** and **4**). The installation, situated 1300 m behind the line of the Limes north of the Roman road, is unique for the whole of the Upper German-Raetian Limes. When it was excavated completely in 1916/17, F. Winkelmann measured an almost square structure 31.9-32.6 x 32.4-32.6 m in a mound of rubble 4 m high and around 45 m in length and width. The walls of the monument were still standing up to a height of 2.5 m (Winkelmann 1917, Winkelmann 1918; ORL A VII [Strecke 14] 120-121, Nr. 20; Schiwall 2008; Schaflitzl 2011). No ditch was discovered.

Not only is its plan striking, but also a semi-circular inverted entrance a little more than 11 m wide in the south towards the road, followed by a gate with two thresholds. These led into a small open courtyard with water basins, most likely surrounded by a *porticus* (Schaflitzl 2011, 8-9). It opened into rooms on all four sides, divided by wattle and daub construction leaning at the perimeter walls of the site. The corners next to the entrance were used by a large room on one side and a subdivided compartment on the other, including a cellar. Opposite the entrance lay a half elliptical apse. Most of the rooms (5-7, 9, 10, 14, 15, 17-19) may have been used by



Fig. 2. Burgsalach with camps and the 'burgus' east of the Roman road (under the small modern road) (BLfD; Nr. 6932/014b, 3166-3, K. Leidorf)

soldiers as accommodation, measuring c. 208 m². On the basis of 3 m² per soldier (Mackensen 2010a, 460) approximately 70 men could be housed in them. The complex layout to the right of the entrance, spreading over c. 80 m², may have been the commanding officer's quarters; the large room on the other side may have been used for storage. Debated is the question of a second level for the whole complex (last Schaflitzl 2011, 18-19).

Apparently, Burgsalach had two building phases. Originally, the entrance was laid out in a much larger, 17.5 m wide arch. To date it is still unclear whether the slightly rounded foundations, originally interpreted as water drains, were given up while still under construction or whether they actually carried walls.

The gate is the only part of Burgsalach which has similarities in Raetia. The southern gate of the fort of Theilenhofen, most likely part of a later alteration there, had an equally unusual plan, although it was a little smaller and accompanied by two gate towers (ORL B 71a, 4-5; Pl. II and III).

Unfortunately, there were no (or not enough?) finds to suggest an autonomous date for Burgsalach (Winkelmann 1917, 51-52; Reuter 2007, 99; Schaflitzl 2011, 13). On the basis of the mentioned similarities to the gate of the fort at Theilenhofen the excavator transferred the date of that fort in those days – Hadrianic – to Burgsalach. Winkelmann claimed that there were no signs for deliberate destruction, and that the building was almost stripped of usable material. Hence, he believed that it had been evacuated by its occupants and later searched for iron fixtures etc. by Germans (Winkelmann 1917, 52). Today, the general believe is that Burgsalach was not erected before some time in the third century AD (Reuter 2007, 99; Schaflitzl 2011, 13).

Recently doubts about the function of the structure have been expressed[4]. However, taking the given position of Burgsalach I cannot see another function for it than military, as was suggested early by F. Winkelmann. The location and layout, the thick outer walls, and also the two consecutive gates are the strong arguments for this – although a surrounding ditch seems to be missing. Its distance of about 1.6 km to tower No 1 along the road, approximately corresponding to the distances between the following towers, and also the presumed 'late' dates of both components point to a function of Burgsalach within the system of surveillance along the road. Further elements must have been the fort of Pfünz in between the sections of the road with proven towers, and probably the forts of Kösching (if still existing) as well as Weißenburg.

Already F. Winkelmann had pointed at analogies between Burgsalach and North African structures. Due to the false attribution of an inscription from a free standing tower at Gheriat el-Garbia to the fort there he was the first to call Burgsalach a *burgus* (Winkelmann 1917, 53; Mattingly 1985, 67-70). He speculated that "ein procurator Raetiae oder ein anderer höherer Beamter die neuesten Bauten in Afrika kennengelernt hatte und einiges davon hierher [d. h. nach Raetien] übertrug." (Winkelmann 1917, 53).

Later W. Schleiermacher recalled the formal connections between Burgsalach and aspects of North African military constructions (Schleiermacher 1962). He compared it with *centenaria* in respect to their layout of rooms attached directly to the perimeter walls surrounding a little

[4] Schaflitzl 2011, 13-19 debated the possibility of an official guesthouse (*mansio*), following a lengthy discussion by Peuser 2011. It is interesting to note that this discussion is almost as old as the first report on the site in 1835.



Fig. 3a. Tower # 4 (BLfD; C. S. Sommer)

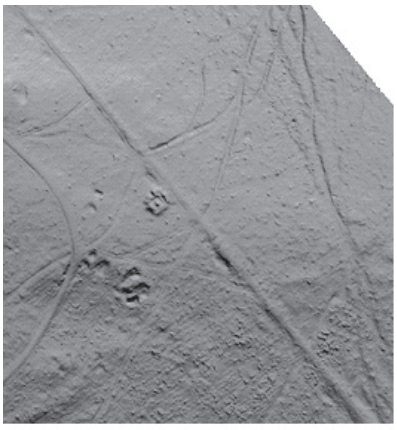


Fig. 3b. Tower # 2 west of Roman road in airborne laserscan. Visible are also old excavation trenches and some possible quarry pits to the southeast (BLfD; ArcTron3D GmbH; processing J. Obmann)

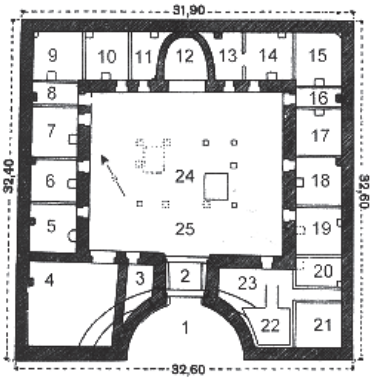


Fig. 4. Plan of Burgsalach (BLfD; Schaflitzl 2011, fig. 6)

courtyard. According to the building inscription of Gasr Duib these can be dated already around the middle of the 3rd century AD (Schleiermacher 1962, 204; Mackensen 2009)[5]. Considering the circumstances of the Raetian Limes Schleiermacher therefore suggested a date of 210-240 AD for Burgsalach. Even closer are the similarities to the slightly smaller fortlet *Kisavar*/Ksar Rhilane, built around AD 200 (Mackensen 2010a, in particular fig. 4). Here, too, along all four outside walls of the 27 x 36 m measuring rectangular structure (with rounded corners) rooms were arranged. To both sides of the narrow rectangular entrance with two gates rooms were arranged not dissimilar to Burgsalach, each complex c. 40 – 50 m² large. One is considered to have been used by the commanding (sub)officer (Mackensen 2010a, 455). However, instead of a central courtyard, Ksar Rhilane shows a central building, which Mackensen interpreted as *principia* (2010a, 464). At a later stage a room was added towards the entrance, serving as temple to IOM. Most likely men of the *legio III Augusta* – between 30 and 60 – under a *principalis* were stationed at this outpost fort (rather than under a *centurio*; Mackensen 2010a, 462; 466).

Schleiermacher also drew a line to the inverted half rounded gate at Theilenhofen and saw a connection to the inverted gates accompanied by towers with five corners in North Africa, e. g. Gheriat el-Garbia and Bu Njem, dating to Septimius Severus (Schleiermacher 1962, 197-198; Mackensen 2011, 272-288; 293-296; 355–356). To these we would add nowadays also the fortress of *Lambaesis*. Interesting is that at the forts in Northern Africa, erected by vexillations of *legio III Augusta,* as well as at Theilenhofen, only one gate was laid out in this special way. Not dissimilarly, at *Lambaesis*, the home base of the *legio III Augusta*, at least one gate showed a more 'regular' plan. T. Bechert assumed the development of this peculiar form of gates in North Africa (Bechert 1971, 281). He pointed out that the western gate of the legionary fortress at *Carnuntum* shows a similar layout; as at Theilenhofen and Burgsalach in a half rounded form (Bechert 1971, 284). However, he hesitated to draw for *Carnuntum* a connection to a large vexillation of *legio III Augusta*, attested through various inscriptions in the Danube provinces, sometimes in the late second or early third centuries (Bechert 1971, 286 with footnote 277).

What we do not need to consider anymore is Schleiermacher's idea, following vague suggestions by F. Winkelmann (1918, 57-59), that several of the square or rectangular fortlets at the Raetian Limes have to be seen in the same circumstances – because of their corners in right angles and missing ditches. They have to be dated much earlier, i.e. at least in one instance earlier than the erection of the Raetian Wall itself. The most likely date for that is 207 AD (Czysz / Herzig 2008b; Sommer 2012a, 168-170). In particular, the fortlet of Raitenbuch was given up already before that date. It was completely dismantled and used as a quarry for the wall, its site being bisected through a row of additional quarry pits (Sommer 2010).

[5] However, Peuser 2011 pointed out that many of the "Gasr" should be seen in civilian contexts; see also Schaflitzl 2011, 13.

Taking all the evidence into account we see interrelated 'late' elements of towers, a fortlet and possibly forts between Kösching in the southeast, Pfünz and Weißenburg in the middle, extending up to Theilenhofen in the northwest (**fig. 1**). With the fairly regularly spaced watchtowers this has to be interpreted as a line of surveillance along an older road, running more or less parallel to the eastern Raetian Limes. As it is most unlikely that two analogue systems were held within 1.5 and 15 km distance I assume that the line Theilenhofen – Kösching replaced the original Limes between Theilenhofen, Ellingen and the Danube north of Eining.

With the seemingly African 'connection' we have to speculate about the possibility that the whole system was related to the presence of soldiers of *legio III Augusta* in Raetia. Following its role in the suppression of the revolt of Gordian I and II against Maximinus Thrax early in 238 AD (Gehrke 1997, 202-205) it was dissolved when their descendant Gordian III came to sole power in the summer of the same year. Afterwards, some of its soldiers – many or all of them who have been stationed in outpost forts and therefore not involved in the death of Gordian's father and grandfather – stayed at their stations though degraded and under different names (Le Bohec 1989, 452–456; Mackensen 2008, 303; Mackensen 2010b, 448–449). Of the others a considerable number of soldiers seem to have been transferred to Raetia – at least to judge from CIL VIII 2482 = 17976 from *Gemellae*, Algeria, which reports of …*mil(ites) l(egionis) [III Augustae r]estitutae e Raet(ia) Gemell(as) regressi*… for 22nd October 253 AD. Although the original reading …*[vexi]llat(io) mill[iaria leg(ionis) III Aug(ustae)*… was corrected soon and we therefore no longer have an indication of the number of soldiers extracted from the legion (incorrectly Reuter 2007, 99; Mackensen 2010b, 446) to be acting far away and sent later back to Africa we can assume a considerable number of men. We may also assume that these were primarily soldiers originally stationed in *Lambaesis*, as Gordian III must have seen them as the prime target of the dissolution of the legion. Whereas the dismantling of *legio III Augusta* is repeatedly attested e.g. with various erasures of its name in inscriptions (e. g. Mackensen 2010b, 444) and its later reconstitution proven by several inscriptions (Le Bohec 1989, 463; e. g. CIL VIII 2634) the presence of some of its soldiers in Raetia is given exclusively by the inscription from *Gemellae*.

Some years ago M. Reuter wrote for Burgsalach: "Wenn die … Anlage … tatsächlich auf architektonische Vorbilder in Nordafrika zurückgehen sollte, dann könnten die Bauarbeiten auch von jenen im Jahr 238 n. Chr. strafversetzten Soldaten der ehemaligen *legio III Augusta* aus *Lambaesis* ausgeführt worden sein, die erst im Herbst 253 n. Chr. wieder aus Raetien in ihre nordafrikanischen Standorte, u. a. nach *Gemellae*, zurückgekehrt sind." (Reuter 2007, 99). At present I see nothing which opposes the assumption that the men …*e Raetia … regressi*… were in Raetia responsible for the erection of the towers along our new Limes line including Burgsalach and the alteration of the southern gate at Theilenhofen. Further, it should be explored whether there are any traces of them at the other places between Theilenhofen and Kösching, and also, whether soldiers taken from the disbanded *legio III Augusta* manned all those places, between approximately 238 and 253 AD.

In analogy to the African limites (*limes Tripolitanus*, later also a *limes Tentheianus* after the military place *Tentheios*/Edref close to Zintan as part of the first, covering the *via militaris* through the upper Wadi Sofeggin, and a postulated *limes Golensis* (*Itinerarium Antonini*; Mackensen 2009; Mackensen 2010a, 451; Mackensen 2010b, 448; Mackensen 2011, 267-268) one could speculate about a *limes Biricianis* or *limes Vetuniatensis* for the new Limes in Raetia (Weißenburg, Pfünz). In North Africa the soldiers of the *legio III Augusta* had installed a system of control along roads consisting of forts, fortlets and towers. All these elements we see in Raetia between Theilenhofen and Kösching, and we may deduce additional towers planned or erected between Burgsalach and Weißenburg and further on towards Theilenhofen.

Another place has to be taken into consideration in Raetia. At Faimingen, somehow centrally situated in northern Raetia (**fig. 1**), a 5.2 ha stone fort has long been known, somehow inscribed into the Roman earth and timber and later stone town defences (**fig. 5**; Rüsch 1972 and 1973). Excavations in 1889 and 1970-73 showed that it was erected without a timber predecessor from the beginning. Apparently, it did not have a ditch. As its eastern defences clearly were oriented along the eastern ditch of the earth and timber town defences, this may have protected the fort, too. Overlaying the remains of the gate of the earth and timber defences, these must have been given up prior to the erection of the fort. The relation to the later stone wall surrounding 42 ha of the town is unknown. During re-

cent excavations, however, it became clear that this defence was never finished (Czysz 1997, 119-122). The construction of the fort with spolia supports the view of A. Rüsch, that the fort was the latest installation at Faimingen. An unworn Antoninianus of Gordian III (243/44 AD) in the spoil heap of the foundation of the fort wall may be considered as a *terminus post quem* for the construction of the fort (Rüsch 1973, 38). Except for the *principia* and a large stone building in the south, no constructions are known in the interior.

M. Scholz pointed out the missing towers at the corners and along the walls of the fort of Faimingen and saw similarities with *Talalati*/Ras el-Ain (Tunesia), a new construction under Gallien. Therefore, he speculated about a date under this Emperor for the construction of the fort (Scholz 2009, 471-472), not least as the latest inscription north of the Danube, not far from Faimingen, from Hausen ob Lontal, was set not before 254 AD[6] (CIL XIII 5933). However, the beginning of the construction of the fort at Faimingen a little earlier seems much more likely to me in the circumstances discussed here. Due to its position north of one of the main crossings over the Danube and in the course of the main route connecting the Rhine and the Danube provinces, Faimingen was in earlier days perhaps a centre of the civilian occupation of the region between Danube and the Raetian Limes. Because of its strategic position there may have been the need to fortify this place when restructuring the Raetian defences. It may have been intended even as headquarters for the new border system.

What would have been the background for this suggested development? To understand it we have to turn again to 'world history'[7]. Later under his rule Severus Alexander withdrew troops from the German provinces to go with him to the Orient to fight against the Parthians. The reduction or even lack of garrisons at (parts of) the Limes seems to have triggered Germanic aggression, leading to the destruction of many places in Upper Germany and possibly western Raetia in or around AD 233[8] (Dietz 1997, 199-201; Reuter 2009, 220-221; for the archaeology see e. g. Czysz 2003, 183-193; 203-204). To prepare campaigns against the Germans Severus Alexander returned in autumn AD 234 or very early in 235 to Mainz together with his mother Mamaea (Callies 2011, 30). He concentrated troops here – most likely not least from the remaining garrisons along the Rhine and the Limes, but also from North Africa and the Orient. Additionally, new recruitment must have played a major role in the preparations. How else could have the equestrian Maximinus Thrax gained such importance as a leader of them, that he was declared Emperor after Severus Alexander and his mother were murdered by his soldiers early in March 235 (Dietz 1997, 201; Callies 2011, 30)? Obviously, the new emperor used the existing military concentration not only for threat but for actual campaigns. At present there is a probability that the newly discovered "battlefields" at the Harzhorn far in the *Germania Magna* may be connected with these otherwise only historically attested actions (Callies 2011; 30-32; for Harzhorn Geschwinde / Lönne 2011 and *Meyer in this volume*). Soon after the successful campaigns in *Germania* we see Maximinus Thrax fighting the Sarmatians and later the Dacians at the middle and lower Danube, most likely with parts of the troops which he had under his command at the Rhine. In connection with two attempts of usurpers (Magnus and Quartinus) under Maximinus Thrax' rule further troops may have been withdrawn from the borders (Gehrke 1997, 203-204).

In order to finance his campaigns, to restore damaged installations, and to pay his soldiers Maximinus Thrax raised taxes and diverted money reserved e. g. for the *annona* (Gehrke 1997, 204). This led to the above mentioned rising under the Gordianes in North Africa (in which the *legio III Augusta* under its commander Capellian stayed loyal and received early in May 238 the honorific title *Maximiniana*), the nomination of two Emperors by the Senate in Rome (Pupienus and Balbinus), the additional appointment of Gordian III as Caesar, also by the Senate, and to military conflicts in Rome and outside. Of particular relevance is that Pupienus recruited troops in Italy and withdrew detachments from the German provinces (where he had good connections and loyalties as former governor) to fortify *Aquileia* against Maximinus Thrax (Gehrke 1997, 205-206). I suppose troops from Raetia joined the vexillations from Germania on their way as these had to move through that province in order to cross the Alps.

[6] Now thought to date to the sole reign of Gallienus post AD 262; Eck 2012, 82-83, indicated already in 1984 by W. Kuhoff.

[7] Due to the reduced space here I shall quote mostly secondary summarizing sources in the following.

[8] Sceptical about the dependency Reuter 2012, 308. – There is neither place, nor need to discuss here the extent of these intrusions attributed regularly to the Alamanni.

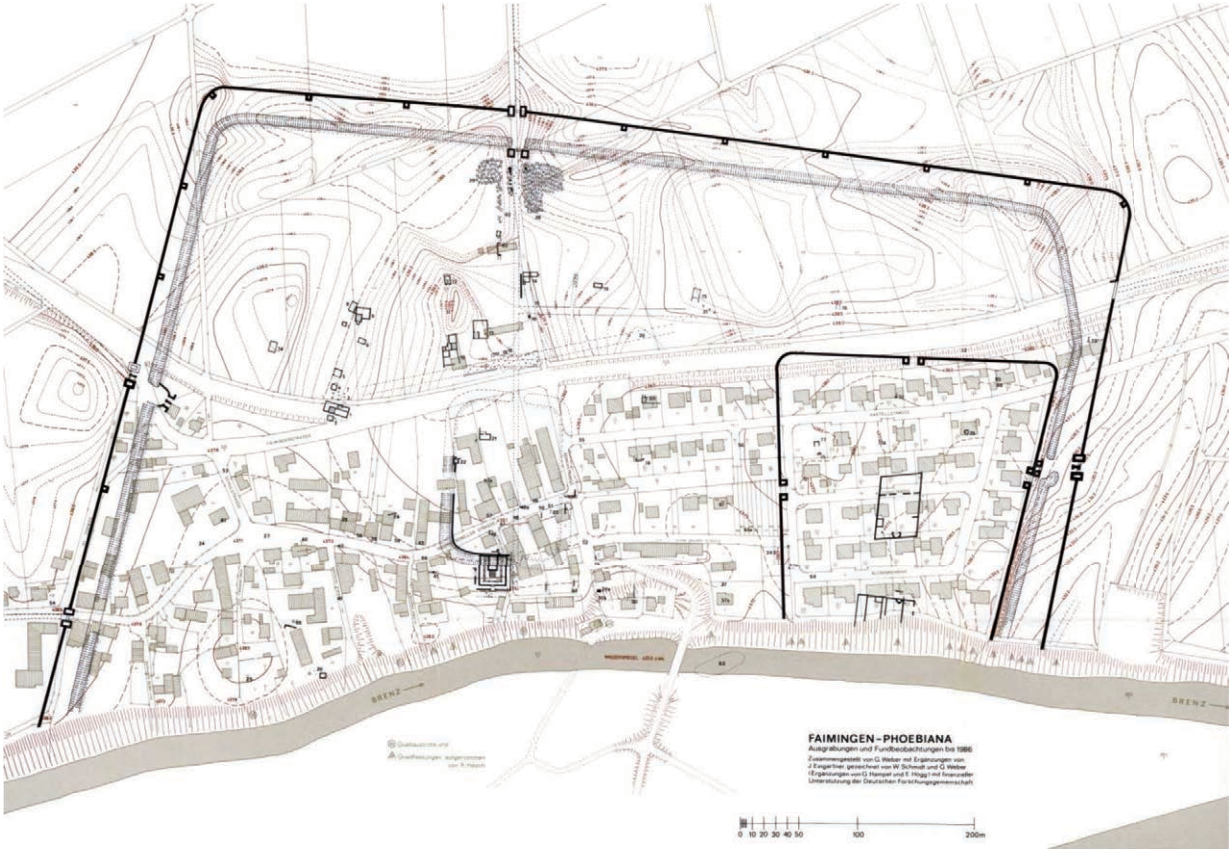


Fig. 5. Plan of the eastern part of Faimingen with late fort within the town defences (Eingartner / Eschbaumer / Weber 1993, App. 14)

After Maximinus Thrax was killed by his own men during the unsuccessful siege of *Aquileia*, Pupienus went with the Rhine army and the Praetorians to Rome (Gehrke 1997, 206). Perhaps worried about the possibility of being replaced by the northern soldiers, the Praetorians killed both senatorial emperors just before the victory celebrations and Gordian III was declared emperor probably on 7th June 238 AD (Gehrke 1997, 206). Following as part of his attempts to establish his own rule he must have dissolved *legio III Augusta* (Gehrke 1997, 207; Le Bohec 1989, 451-453).

The subsequent wars in the Balkans and against Ardaschi and his son Sapor I in the East in AD 242 and following years may have caused further reduction of troops north of the Alps (Kloft 1997, 211). Whether Philippus Arabus' wars at the lower Danube or the suppression of claims for the throne by Pacatianus in Moesia, Iotapianus in the East, and Silbannacus and Sponsianus somewhere at the Rhine and the Danube were supported also by troops from the Rhine and the upper Danube (Kloft 1997, 215), however, is a pure matter of speculation. But it is almost certain that later either Philippus Arabus or Decius did employ troops from beyond the Alps in the quest of the latter for the throne in AD 249 as the two met with their armies close to *Verona* .(Kloft 1997, 215-216). The defeat of Decius and his son Herennius Etruscus against the Goths a little later in AD 251 obviously was connected with a large loss of men. In consequence, Trebonianus Gallus, governor of Moesia superior, became emperor (Eder 1997, 221-222). The remaining troops at the Danube must have hoped that he could solve the Empire's crisis.

As Gallus needed to be in Rome, he installed Aemilianus at the Danube to deal with the Goths. However, following earlier examples he in turn was declared emperor by the troops there. In support against Aemilianus, Gallus ordered soldiers from Germania to Italy and named the senator Valerian as their leader. As the gathering of troops took too long, Gallus and his co-emperor Volusianus were caught unprepared by Aemilianus and his supporters, and were murdered before the battle by their own soldiers (Kuhoff 1997, 223-224). The concentration of troops from the Rhine and the upper Danube under Valerian, apparently in Raetia, in turn led these soldiers to declare Valerian as emperor, perhaps in the capital Augsburg or at Regensburg, the fortress of

the *legio III Italica*[9] (Kuhoff 1997, 224; Kuhoff 2011, 14-15; Scholz 2009, 469). Valerian took his men to Italy where again already before the decisive battle one of the emperors – Gallus – was killed by his own soldiers (Strobel 1999, 21-22).

After the senate had accepted Valerian, he immediately assigned his son Gallienus as Caesar and soon afterwards as co-emperor. Something new was the division of power: while Gallienus was responsible for the West, Valerian took troops to the East to deal with trouble in the Balkans and the Orient. Before that, he reinstalled *legio III Augusta* and must have sent the soldiers of it accompanying him from Raetia back to *Lambaesis* and *Gemellae* (Kuhoff 1997, 225). He thereby strengthened the military presence in North Africa. However, this can also be understood as a reward for the displaced soldiers who must have supported him in his quest for the throne from the beginning in Raetia onwards (Le Bohec 1989, 463-464; Dietz 2012, 45). This may be deduced from the new honorific title of the legion *iterum pia iterum vindex*. Questionable seems only whether the date 22nd October 253 AD in the inscription of *Gemellae* gives the date of the reconstitution or the date of the return of the soldiers to North Africa (Le Bohec 1989, 463).

The period around the middle of the third century AD, with its fast series of competing soldier emperors obviously led to a sequence of withdrawals of troops from the German provinces and Raetia beginning with the eastern campaign of Severus Alexander in AD 231. Although this first reduction may have been compensated in the gathering of troops in Mainz before he was murdered, (most of) these troops went with his successor Maximinus Thrax on campaign, first into *Germania Magna* then to the Lower Danube. For their quest for the throne Pupienus, Silbannacus or Sponsianus, Philippus Arabus or Decius withdrew even more soldiers from north of the Alps in the following years. Most of whatever may have been left most likely went with Valerian in AD 253. Even if the withdrawn soldiers were allowed to return after each campaign, it is likely that their number dwindled rapidly as many must have died in the various battles or stayed behind, seeking a new future elsewhere.

The consequences are more and more visible archaeologically. Some years ago H. U. Nuber pointed out the reduction of several baths at forts at the Limes and explained it with a lack of resources but also with a reduced number of users (Nuber 1990, 62-63). For that period we know of forts that have been reduced in size (Reuter 2009, 221); and several watchtowers and fortlets seem to have been empty from about AD 230 onwards (Reuter 2012, 311–313). Nuber considered also the reduction in the circulation of coins in the frontier provinces (Nuber 1990, 62-63; Kortüm 1998, 58-60, graphs fig. 102 onwards) as a sign for a reduced population and realized that this would mean a loss of recruiting grounds (the heavy reliance on recruits through Maximinus Thrax may have sped up the development). The surprising discovery of settlements behind the Limes ending around AD 230 fits into this picture (Kortüm / Lauber 2004, 467; Meyer 2010, 354).

The only replacements detectable are the gathering of troops at the end of the rule of Severus Alexander and probably the soldiers of the disbanded *legio III Augusta* under Gordian III[10]. As for the soldiers of Severus Alexander, subsequently used by Maximinus Thrax, we read about "Maurs" (Herodian 6, 7, 6-10; *Hist. Aug. Alex. Sev.* 59, 1; and Herodian 7, 2, 1-2; *Hist. Aug. Maximini Duo* 61, 8 respectively; after Callies 2011, 30). Therefore, we cannot exclude that the presumed African builders and occupants of the latest line of the eastern Raetian Limes came already by order of Severus Alexander (and had to stay after the legion was dissolved). If these soldiers formed indeed the garrison of Burgsalach (and other places) it would explain the fact that the fortlet was apparently not destroyed and found "empty", almost as if all usable material was taken (Winkelmann 1917, 52; Reuter 2007, 99).

The indication of military installations stripped largely of their garrisons leads to a different perspective on the end of the Raetian Limes. A few years ago, M. Reuter showed as *t. p.* for the Raetian Limes installations spring AD 254 and convincingly argued for Germanic attacks and destructions immediately afterwards (Reuter 2007, 133-137). Most likely, the large scale withdrawal of troops under Valerian in AD 253 either caused the Germanic raid in AD 254 or at least was responsible that the Romans had nothing to repel it. It appears that the Raetian Limes and perhaps the southern part of the Upper German Limes never were occupied again afterwards.

[9] The *legio III* mentioned in the *Historia Augusta* (Kuhoff 2011, 14) not necessarily has to refer to the legion stationed in Regensburg; it may refer as well to the *legio III Augusta*.

[10] For a possible leader, see Le Bohec 1989, 143.

Nothing points towards particular destructions or threats from Germans in southern Germany in AD 259/60. I fully agree with K. Strobel, who wrote "Wir müssen von der Vorstellung eines Falles des obergermanischen Limes 259/60 n. Chr. [he includes here the Raetian Limes] durch einen Germanensturm ebenso Abschied nehmen wie von der Annahme, mit dem mehr oder minder punktuell gesehenen Ende der militärischen Besetzung der Limeslinie sei Südwestdeutschland an die Barbaren verloren gegangen respektive von ihnen bis an den Rhein erobert worden", following strong arguments of P. Kos against AD 260 (Strobel 1999, 25; Kos 1995). In contrary, we have to ask ourselves again about the relevance of the passage "sub principe Gallieno … amissa Raetia" in the Panegyricus of AD 297 (Paneg. Lat. 8 [5], 10, 2). For a long time, it has been considered to refer to the loss of Raetia to the Germans and is the reason for many textbook quotations. However, as the loss of AD 254 concerns only small parts of the province (the area between the former Limes and the Danube and perhaps some part west of theriver Iller) that meaning is more than questionable. As in the victory inscription of AD 260 from Augsburg Postumus is mentioned as Emperor, it is much more likely that the quote refers to the (temporary) loss of Raetia to the usurper from the Rhine instead (Strobel 1998, particularly 86-88; Dietz 2012, particularly 57-58).

Finally, the question remains of how to prove the basic proposition of this paper. Primarily, it would be important to collect, present, date, and interpret all the late finds from the places under discussion, namely the watchtowers along the road, the fortlet at Burgsalach, but also the forts at Kösching, Pfünz, Weißenburg, Theilenhofen, and also at Faimingen. Perhaps some 'úntypical' finds can be found there, particularly some which can be attributed to Africa. I am not thinking only about equipment and pottery which was produced there (e. g. Mackensen 2007, particularly 350-351). More important are forms produced in local wares which have to be attributed to African style meal production and cooking utensils. V. Swan pointed repeatedly at such specialized pots and braziers in British contexts (Swan 1992; 1997; 1999a; 1999b). Of course, the evidence of Faimingen has to be presented completely, too. Till then, the suggestion of soldiers of the *legio III Augusta* designing (?), constructing and manning the new line of the eastern Raetian Limes and starting a new military centre at Faimingen after AD 238 remains just a hypothesis.

A Catalogue of Watchtowers along the Road Weissenburg/Burgsalach – Pfünz – Kösching (ORL A VII [Strecke 14] 121-123)

Burgsalach – Pfünz

1. "Auf dem Steinbuck", 15.8 m west of road, 6.3 x 6.6 m, walls 0.8 – 1.0 m wide, entrance towards road; according to sketch-book W. Kohl (BLfD) 13 m west of road, 6.45 x 7.0 m

2. "Auf dem Hohlspiegel" (today "Hohlbügel"), 6.5 m west of road, "otherwise as No 1"; according to sketch-book W. Kohl (BLfD) 6.5 x 7.1-7.2 m, entrance towards road (**fig. 3b**)

3. "Im Kaldorfer Gemeindewald", 14.4 m west of road, "otherwise as No 1 and 2"

4. "Kaldorfer Wald" (today "Bucher Heuschlag"), west of road; according to sketch-book W. Kohl (BLfD) "Diebslache", approximately 5.5 x 5.5 m (**fig. 3a**)

5. "Ziegelbuck", west of road (own observation), 'large' (own observation)

6. "Seuversholz", west of road, no specifications

7. "W of Weigersdorf", west of road, no specifications

8. "S of Weigersdorf", east of road, 6 x 7.1 m, walls 0.7 – 0.85 m wide (Sommer 2012a, fig. 20)

9. "E of Preith", west of road, no specifications

10. "Im Buchschlag", 4 m east of road, 4 x 4.6 m, walls 0.7 m wide, some finds.

Due to the distance between the recognised towers additional towers were assumed between Nos 1 and 2, 4 and 5, 8 and 9, 9 and 10.

Pfünz – Kösching

1. "Märtlerlein", north of road, 4 x 4 m

2. "Height 482.5", north of road, no specifications

3. "S Hofstetten", south of road, no specifications

4. "S Böhmfeld", no specifications.

Due to the distances between Nos 2 and 3 as well as 3 and 4 additional towers would have been needed.

Bibliography

Bechert, T. 1971. Römische Lagertore und ihre Bauinschriften. – Bonner Jahrbücher 171, 201-287.

Becker, Th. 2004. Überlegungen zur taktischen Gliederung des raetischen Limes. – Jahrbuch des Heimat- und Altertumsverein Heidenheim an der Brenz e. V. 2003/2004, 52-68.

Breeze, D. J. / Jilek, S. 2008. The Frontiers of the Roman Empire World Heritage Site. In: Breeze, D. J. / Jilek, S. (eds.). Frontiers of the Roman Empire – the European dimension of a World Heritage Site. Edinburgh. 25-28.

Callies, H. 2011. Historische Überlegungen zum römisch-germanischen Schlachtfeld am Harzhorn. – Berichte zur Denkmalpflege in Niedersachsen 1, 28-32.

Czysz, W. 2003. Heldenbergen in der Wetterau. Feldlager, Kastell, Vicus (=Limesforschungen 27). Mainz.

Czysz, W. / Herzig, F. 2008a. Neue Dendrodaten von der Limespalisade in Raetien. In: Thiel, A. (ed.). Neue Forschungen am Limes. (=Beiträge zum Welterbe Limes 3). Stuttgart. 183-195.

Czysz, W. / Herzig, F. 2008b. Der Pfahlrost im Kreutweiher beim Limeskastell Dambach. Erste dendrochronologische Ergebnisse. – Bericht der bayerischen Bodendenkmalpflege 49, 221-226.

Dietz, Kh. 2012. Zum Kampf zwischen Gallienus und Postumus. In: Fischer, Th. (ed.). Die Krise des 3. Jahrhunderts n. Chr. und das Gallische Sonderreich. Akten des Interdisziplinären Kolloquiums Xanten 26. bis 28. Februar 2009 (=Schriften des Lehr- und Forschungszentrums für die antiken Kulturen des Mittelmeerraumes Centre for Mediterranean Cultures ZAKMIRA 8). Wiesbaden. 29-62.

Dietz, Kh. 1997. Severus Alexander 222-235. In: Clauss, M. (ed.). Die römischen Kaiser. München. 195-202.

Eck, W. 2012. Das Gallische Sonderreich. In: Fischer, Th. (ed.). Die Krise des 3. Jahrhunderts n. Chr. und das Gallische Sonderreich. Akten des Interdisziplinären Kolloquiums Xanten 26. bis 28. Februar 2009 (=Schriften des Lehr- und Forschungszentrums für die antiken Kulturen des Mittelmeerraumes Centre for Mediterranean Cultures ZAKMIRA 8. Wiesbaden. 63-83.

Eder, W. 1997. Decius 249-251. In: Clauss, M. (ed.). Die römischen Kaiser. München. 216-222.

Eingartner, J. / Eschbaumer, P. / Weber, G. 1993. Faimingen-Phoebiana I. Der römische Tempelbezirk in Faimingen-Phoebiana (=Limesforschungen 24). Mainz.

Faßbinder, J. / Gorka, T. 2009. Vermessen? Das Römerkastell Burgsalach. Das archäologische Jahr 2008. Stuttgart. 76-78.

Fischer, Th. 2012a. Bemerkungen zur Bauweise und Rekonstruktion von steinernen Wachttürmen am Obergermanisch-Raetischen Limes. In: Henrich, P. (ed.). Der Limes vom Niederrhein bis an die Donau (=Beiträge zum Welterbe Limes 6). Stuttgart. 148-154.

Fischer, Th. (ed.) 2012b. Die Krise des 3. Jahrhunderts n. Chr. und das Gallische Sonderreich. Akten des Interdisziplinären Kolloquiums Xanten 26. bis 28. Februar 2009 (=Schriften des Lehr- und Forschungszentrums für die antiken Kulturen des Mittelmeerraumes Centre for Mediterranean Cultures ZAKMIRA 8). Wiesbaden.

Gehrke, H.-J. 1997. Gordian III. 238-244. In: Clauss, M. (ed.). Die römischen Kaiser. München. 202-209.

Geschwinde, M. / Lönne, P. 2011. Das Schlachtfeld am Harzhorn: Neue archäologische Untersuchungen 2009 und 2010. – Berichte zur Denkmalpflege in Niedersachsen 1, 25-27.

Hüssen, C.-M. 2009. Die Nordgrenze der Provinz Raetien und das Limeskastell Ruffenhofen. In: Pausch, M. (ed.). Römisches Ruffenhofen. Entwicklungen am Welterbe Limes. Augsburg. 68-74.

Kloft, H. 1997. Philippus Arabs 244-249. In: Clauss, M. (ed.). Die römischen Kaiser. München. 210-216.

Kos, P. 1995. Sub principe Gallieno … amissa Raetia? Numismatische Quellen zum Datum 259/60 n. Chr. in Raetien. – Germania 73, 131-144.

Kortüm, K. 1998. Zur Datierung der römischen Militäranlagen im obergermanisch-rätischen Limesgebiet. – Saalburg-Jahrbuch 49, 5-65.

Kortüm, K. / Lauber, J. 2004. Walheim I. Das Kastell II und die nachfolgende Besiedlung (=Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg 95). Stuttgart.

Kuhoff, W. 2011. Römische Kaiser in Augsburg. – Zeitschrift des Historischen Vereins für Schwaben 103, 7-24.

Kuhoff, W. 1997. Valerian 253-260. In: Clauss, M. (ed.). Die römischen Kaiser. München. 223-229.

Le Bohec, Y. 1989. La troisième legion Auguste. Études d'Antiquités Africaines. Paris.

Mackensen, M. 2010a. Das commoduszeitliche Kleinkastell Tisivar/Ksar Rhilane am südtunesischen limes Tripolitanus. – Kölner Jahrbuch 43, 451-468.

Mackensen, M. 2010b. Das severische Vexillationskastell Myd(---)/Kastell Gheriat el-Garbia am limes Tripolitanus (Libyen) – Bericht über die Kampagne 2009. – Römische Mitteilungen 116, 363-458.

Mackensen, M. 2009. Gasr Wames, eine burgusartige Kleinfestung des mittleren 3. Jahrhunderts am tripolitanischen limes Tentheianus (Libyen). – Germania 87, 75-104.

Mackensen, M. 2007. Nordafrikanische Sigilllata der mittleren Kaiserzeit aus Augsburg. – Bayerische Vorgeschichtsblätter 72, 341-353.

Mattingly, D. J. 1985. *IRT* 895 and 896: Two insciptions from Gheriat el-Garbia. – Libyan Studies 16, 67-75.

Meyer, M. G. M. 2010. Die ländliche Besiedlung von Oberschwaben in der Römerzeit. (=Materialhefte zur Archäologie in Baden-Württemberg 85). Stuttgart.

Nuber, H. U. 1990. Das Ende des Obergermanisch-Raetischen Limes – eine Forschungsaufgabe. In: Nuber, H.U. (ed.). Archäologie und Geschichte des 1. Jahrtausends in Süddeutschland. Sigmaringen. 51-68.

Peuser, J. 2011. Das römische Gebäude in der Harlach bei Burgsalach, Landkreis Weißenburg-Gunzenhausen. Unpublished manuskript commissioned by the BLfD.

Reuter, M. 2012. Das Ende des obergermanischen Limes. Forschungsperspektiven und offene Fragen. In: Fischer, Th. (ed.). Die Krise des 3. Jahrhunderts n. Chr. und das Gallische Sonderreich. Akten des Interdisziplinären Kolloquiums Xanten 26. bis 28. Februar 2009 (=Schriften des Lehr- und Forschungszentrums für die antiken Kulturen des Mittelmeerraumes Centre for Mediterranean Cultures (ZAKMIRA 8). Wiesbaden. 307-323.

Reuter, M. 2009. Rückzug hinter Rhein und Donau. Die Fallbeispiele Raetien und Obergermanien. In: VARUSSCHLACHT im Osnabrücker Land GmbH – Museum

und Park Kalkriese (ed.). 2000 Jahre Varusschlacht. Konflikt. Stuttgart. 220-227.

Reuter, M. 2007. Das Ende des raetischen Limes im Jahr 254 n. Chr. – Bayerische Vorgeschichtsblätter 72, 77-149.

Rüsch, A. 1973. Der Vicus und das Kastell in Faimingen an der Donau. Unpublished report in the files of BLfD Thierhaupten (without year).

Rüsch, A. 1972. Neue Ausgrabungen im Kastell und Vicus Faimingen. – Archäologisches Korrespondenzblatt 2, 319-322.

Schiwall, R. 2008. „Von allem Gestrüpp und Gesträuch gesäubert" – Die Erforschungs- und Restaurierungsgeschichte des Burgus bei Burgsalach. – Bericht der bayerischen Bodendenkmalpflege 49, 199-219.

Schaflitzl, A. A. 2011. Burgus oder Mansio? – Wachstube oder Gaststube? Neue Erkenntnisse und Überlegungen zum Gebäude in der Harlach. – Villa nostra Weißenburger Blätter 3, 5-19.

Schleiermacher, W. 1962. Centenaria am rätischen Limes. In: Werner, J. (ed.). Aus Bayerns Frühzeit. Friedrich Wagner zum 75. Geburtstag. München. 195-204.

Scholz, M. 2009. Die spätantike Besiedlung der östlichen Schwäbischen Alb. In: Biel, J. / Heiligmann, J. / Krausse, D. (eds.). Landesarchäologie. Festschrift für Dieter Planck zum 65. Geburtstag. (=Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg 100). Stuttgart. 469-501.

Sommer, C. S. 2012a. Trajan, Hadrian, Antoninus Pius, Marc Aurel …? – Zur Datierung der Anlagen des Raetischen Limes. With an English summary. – Bericht der bayerischen Bodendenkmalpflege 52, 137-180.

Sommer, C. S. 2012b. Zur Datierung des Raetischen Limes. In: Henrich, P. (ed.). Der Limes vom Niederrhein bis an die Donau. (=Beiträge zum Welterbe Limes 6). Stuttgart. 136-147.

Sommer, C. S. 2010. Römerzeitliche Ruinen am Raetischen Limes? Zur Geschichte des Kleinkastells Raitenbuch. – Bericht der bayerischen Bodendenkmalpflege 51, 287-292.

Sommer, C. S. 2008. Documenting the Frontiers of the Roman Empire – Work on the Limes in Bavaria. In: Breeze, D. J. / Jilek, S. (eds.). Frontiers of the Roman Empire – the European dimension of a World Heritage Site. Edinburgh. 70-73.

Strobel, K. 1999. Pseudophänomene der römischen Militär- und Provinzgeschichte am Beispiel des „Falles" des obergermanisch-raetischen Limes. Neue Ansätze zu einer Geschichte der Jahrzehnte nach 253 n. Chr. an Rhein und oberer Donau. In: Gudea, N. (ed.). Roman Frontier Studies. Proceedings of the 17th International Congress of Roman Frontier Studies. Zalău. 9-33.

Strobel, K. 1998. Raetia amissa? Raetien unter Gallienus: Provinz und Herr im Licht der neuen Augsburger Siegesinschrift. In: Bridger, C. / Gilles, H.-J. (eds.). Spätrömische Befestigungen in den Rhein- und Donauprovinzen. Beiträge der Arbeitsgemeinschaft, Römische Archäologie' bei der Tagung des West- und Süddeutschen Verbandes für Altertumsforschung in Kempten 08.06.-09.06.1995 (British Archaeological Reports International Series 704). Oxford. 83-93.

Swan, V. G. 1999a. The Twentieth Legion and the history of the Antonine Wall reconsidered. – Proceedings of the Society of Antiquaries of Scotland 129, 399-480.

Swan, V. G. 1999b. Ethnicity, Conquest and Recruitment. Two Case Studies from the Northern Military Provinces (Journal of Roman Archaeology Supplement Series 72). Portsmouth, Rhode Island.

Swan, V. G. 1997. Vexillations and the Garrisons of Britannia in the second and early third Centuries: A Ceramic Viewpoint. In: Groenman van Waaterninge, W. et. al. (eds.). Roman Frontier Studies 1995. Proceedings of the 16th International Congress of Roman Frontier Studies (Oxbow Monograph 91). Oxford. 289-294.

Swan, V. G. 1992. Legion VI and its Men: African Legionaries in Britain. – Journal of Roman Pottery Studies 5, 1-33.

Winkelmann, F. 1918. Die römischen burgi in der Harlach bei Weißenburg i. B., bei Heglohe und Steinsdorf. – Germania 2, 54-59.

Winkelmann, F. 1917. Der römische Burgus in der Harlach bei Weißenburg i. B. – Germania 1, 45-54.

Prof. Dr. C. Sebastian Sommer
Landeskonservator
Bayerisches Landesamt für Denkmalpflege
Abteilung B
Hofgraben 4
DE-80539 München
Tel.: 089/2114-294
Fax: 089/2114-407
Sebastian.Sommer@blfd.bayern.de
http://www.blfd.bayern.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Fort, Fortlet and Civil Settlement in Mainhardt

Lynn STOFFEL

Introduction

The modern village of Mainhardt lies in Baden-Württemberg in the Mainhardter Wald. In Roman times the site was located directly on the *Limes*, 14 km south of the fort of Öhringen and 12 km north of Murrhardt. It is part of the UNESCO-World-Heritage-Site Upper German-Rhaetian *Limes* (**fig. 1**).

The Civil Settlement

Apart from rescue excavation, there has been no scientific research on the civil settlement until now (Paret 1928/30, 77-78; Clauss 1975, 178-183; 1983, 301-303; 1994, 117; Stork 1988, 134-135; Pasler 1967, 104). According to the documented finds, it lies to the south, north and west of the fort. Owing to many small-scale rescue excavations revealing and documenting mainly wells, pits and cellars, it is hard to get a clear plan (**fig. 2**).

The Fort

The first documented excavation was carried out in 1877 under the direction of the chief archaeologist Paulus der Jüngere on behalf of the "Kommission zur Vermessung des römischen Grenzwalls in Württemberg"**.** Two years later the sides and rear of the *porta principalis dextra* and the *porta decumana*, as well as some parts of the *principia* and the *sacellum* were excavated. In 1893 excavations were undertaken mainly in the eastern parts of the fort by Prof. E. Herzog on behalf of the Reichslimeskommission and were completed and published by Dr. A. Mettler and F. Hettner. In 1908, additional excavations in the sacellum were carried out by Dr. F. Drexel and finally published in one of the volumes of the series "Der obergermanisch-raetische Limes des Roemerreiches" (ORL B 4, # 43; **fig. 3**).

The fort of the *cohors I Asturum equitata*, mentioned in a votive-inscription found in 1944 (AE 1956, 71; Paret 1938/51, 67-72), is situated in the modern village at a distance of 350 m from and parallel to the *Limes*. The fort is 2.48 ha in size running 176 m east-west and 141 m north-south. Gate towers and four corner towers, as well as 6 of 8 presumed intermediate towers, were documented. Apart from the results of the 18th (Hansselmann 1768) and the early 20th century investigations, there are no publications of the excavations in the fort itself other than some short preliminary reports (Paret 1926/28, 73; Knöller 1935-1938, 92; Clauss 1984, 685).

Large-scale excavations took place in 1978 in the south-western part of the fort (Planck 1979, 46-49). An earlier period with wooden construction was identified in 2000, when an intermediate tower, a section of the ditch and a row of postholes were found (Stork 2001, 84-87). The principia were investigated before the building of two modern houses in 2001 (Lahr 2002, 93-95). Many ovens were found along the *via sagularis* in 1990 (Planck 1991, 101-104). The finds and structures throw a new light on the *cohors* fort and necessitate a revision of former interpretations.

In contrast to the fort, only one rescue excavation has been carried out on the fortlet.

The Fortlet

The fortlet was found accidentally in 1975 during work for a conversion of parts of the grassland areas into residential development. Immediately after the excavation a preliminary report with a plan of the fortlet was published by Dieter Planck (Planck 1976, 35-38; Planck 1983, 299-300). The walls have rounded corners and cover an area of 24 x 24 m. A 2 m wide ditch exists around the fortlet which has only one 2.86 m wide gate on the eastern side. Thus,



Fig. 1. Mainhardt on the forward *Limes* (after Deutsche Limeskommission 2010, 9)

the fortlet belongs to the so-called "Rötelsee type" (Thiel 2003/2004, 71; Fleer 2004, 78).

During the re-examination of the archaeological structures, being an important part of my PhD thesis, the published plan was extended and points out for the first time at least one earth-and-timber wall and one phase of stone construction (**fig. 4**).

This can be clearly seen by the post settings and interpreted as support posts for a parapet walkway (Planck 1976, 35). The immediate proximity of the support posts and the wooden construction of the barracks places doubt on this interpretation, whereas the support posts in the middle of the gateway would prevent a passage (**fig. 4, blue points**).

In the case of the fortlet of Rötelsee, often compared with Mainhardt, the postholes lie exactly parallel to the course of the wall. This is not the case in Mainhardt, where the postholes are documented in a more or less irregular line.

Therefore, the front side of the earth-and-timber wall in Mainhardt must be under the later stone wall and only the postholes on the rear side were conserved. This means that the fortlet had in the earth-and-timber-wall-period, an internal size of 20 m x 20 m (400 m²)[1].

In addition, the idea of interpreting the postholes as the wooden front-bracing can be rejected, because that would mean a reduction of the inner surface to 10 m x 11 m (110 m²). Another idea is to reconstruct this as a simple timber palisade of type Haselburg Phase I (Fleer 2011, 20-25).

In the stone wall phase, the fortlet was fortified with a 0.90 m wide wall in local sandstone (Stubensandstein) without a parapet walkway[2].

Internal Construction (fig. 5)

The southern building was constructed with timber sill-beams, as proven by the filled ditches located at

[1] Comparable internal sizes are known from the fortlets of Zwing (Schallmayer 1984, 98), Seitzenbuche (Schallmayer 1984, 103) and Robern (Schallmayer 1984, 113).

[2] See also the fortlets of Holzheim-Unterwald (Seitz 1999) and Hönehaus (Schallmayer 1995, 75).

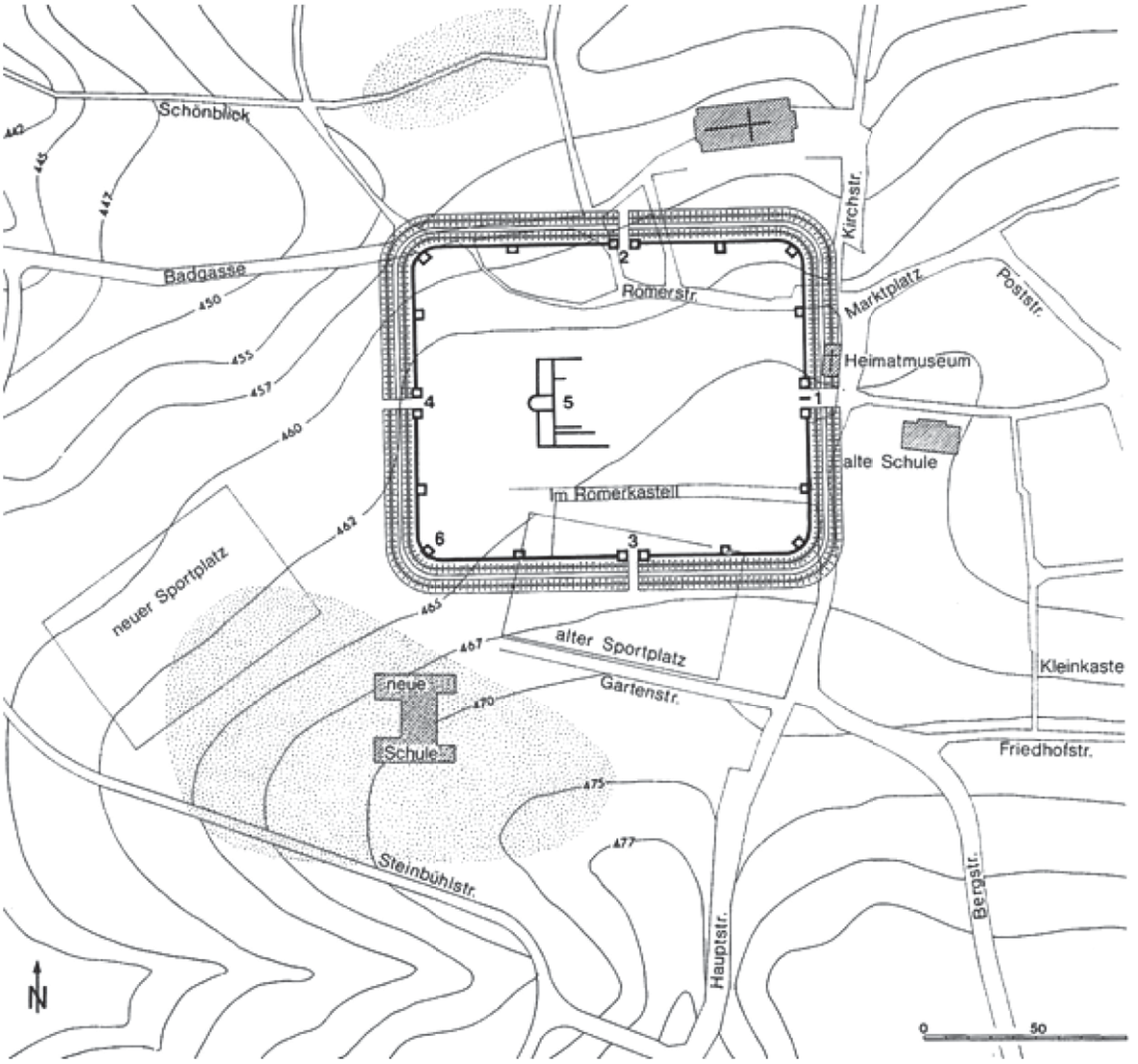


Fig. 2. Fort and *vicus* of Mainhardt (after Filzinger et al. 1976, 413)

a distance of 1.30 m east of the western enclosing wall. The building was about 16 m long and runs parallel with an interspace of 1.6 m to the southern wall. However, erosion made it impossible to detect the exact width of the building.

The intersection of the timber sill-beams of the southern building and the support posts of the fortification shows that these could have been constructed at the same time. This means that the wooden fortification belongs to an earlier phase of construction than this building.

In the northern part of the fortlet a divided room of 5.20 m x 3 m can be reconstructed according to the postholes. The spatial depth corresponds to examples in Martinhoe in Southwest England (Mackensen 1988, 16, fig. 2), Holzheimer Unterwald (Seitz 1999), Pohl (Fleer 2004, 80, fig. 3/2) and Nersingen (Mackensen 1988, 16).

Overview of the Construction Phases

Prior to the start of construction work the subsoil was terraced with an embankment.

1. Construction of the earth-and-timber wall / palisade of stakes.

2. The stone wall was superimposed on the earth-and-timber wall / palisade, the rearward wooden posts were drawn out and the earth was spread as an embankment inside the fortlet.

3. The southern internal building was constructed over the postholes of the earth-and-timber wall / palisade.

4. Destruction or demolition of the southern internal building.

5. Inside the fortlet, pits intersected the timber sill-beams of the southern internal building.

It is not possible to define a chronological sequence among the structures in northern part of

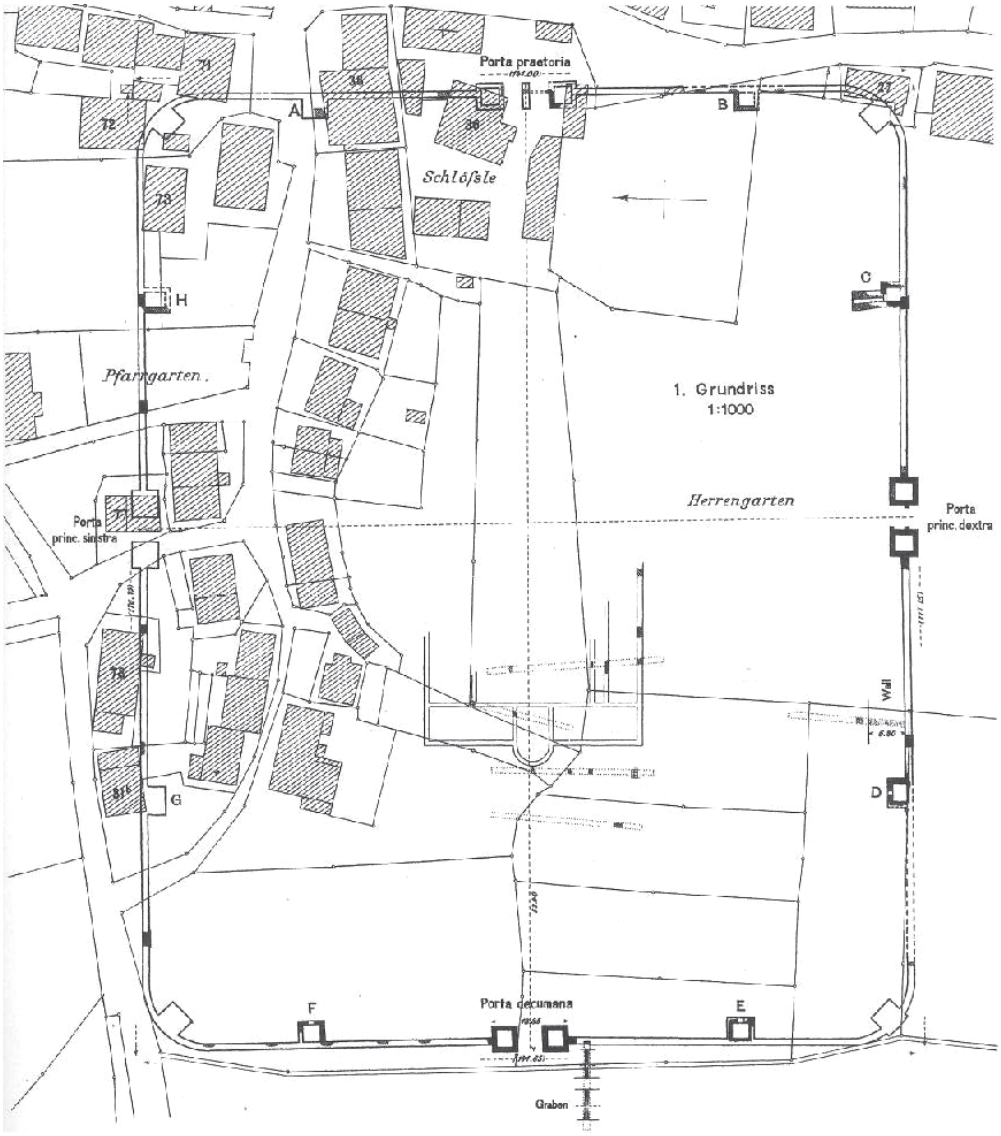


Fig. 3. Plan of the fort published by the Reichs-Limeskommission in 1909 (ORL B, 4, # 43, fig. 2)

the fortlet and to put them into the chronological sequence of the whole fortlet.

Absolute Dating

The earliest ceramics can be dated in the late 2nd century AD. This corresponds with the relocation of the Limes. Pottery of the second third of the 3rd century AD onwards is missing. This absence cannot be explained exclusively by the erosion, but by the abandonment of the fortlet in the 230s. The function debate in the literature (Thiel 2003/2004, 72-76; Fleer 2004, 87-88; Baatz 2007, 9-26; Fleer 2011, 163 ff.):

Hypothesis 1: Surveillance of the points where the frontier could be crossed.

The nearby *cohors* fort is an argument for a crossing-point that hitherto has not been found. The fortlet had the function of a border station to control trade and people.

Hypothesis 2: An intensive surveillance of more endangered sections of the Limes.

This is in the case of Mainhardt not very convincing, because the *cohors* fort was only 350 m away.

Hypothesis 3: Additional accommodation for the soldiers of the watchtowers or accommodation for short-term detailed soldiers.

It would have been easier to quarter these soldiers in the fort than to construct an additional fortlet for this purpose.

Hypothesis 4: Special surveillance and patrol tasks in front of the Limes and long distance exploration and early warning.

This would imply that the soldiers stationed in

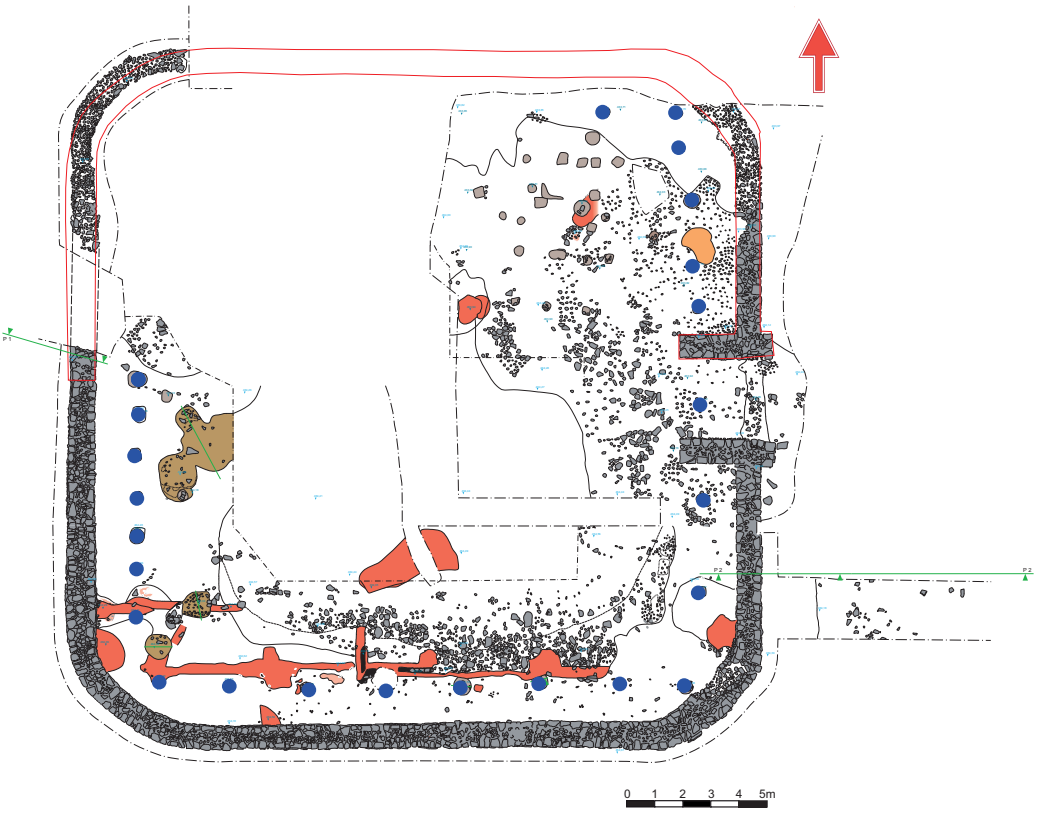


Fig. 4. Fortlet with posts of the parapet walkway (blue points). Designed by Marion Vöhringer, Regierungspräsidium Stuttgart Landesamt für Denkmalpflege, Referat 84

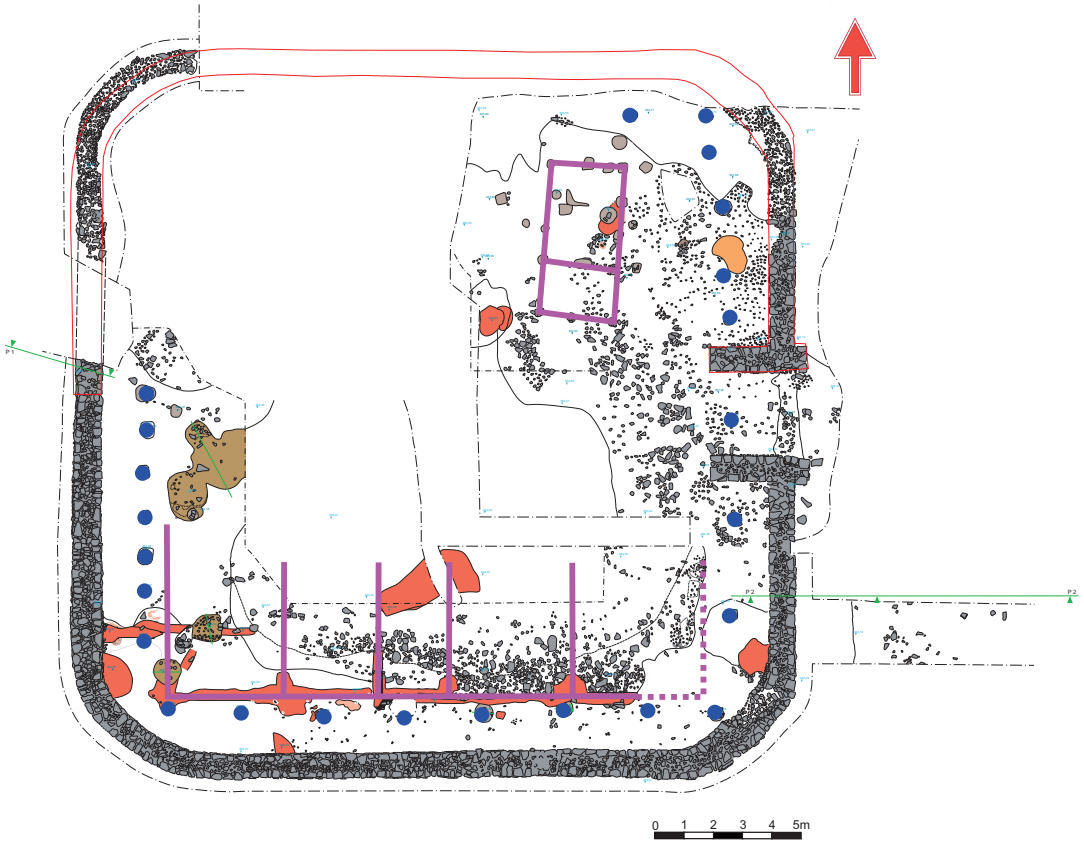


Fig. 5. Fortlet with internal construction (red lines). Designed by Marion Vöhringer, Regierungspräsidium Stuttgart Landesamt für Denkmalpflege, Referat 84

the fortlet would not belong to the same unit as the soldiers in the *cohors* fort.

Hypothesis 5: Fortlets should replace the watchtowers.

The abandonment of the fortlet of Mainhardt in the first third of the 3rd century AD was earlier than other fortlets. In conjunction with the troop-reduction it was decided to keep the watchtowers to the detriment of the fortlet directly next door to the *cohors* fort. Therefore, the fortlet of Mainhardt can be seen as an example of the troop reduction on the Upper German *Limes*[3].

Summary

The results of the detailed research of the fortlet show the high scientific potential of the fort location at Mainhardt. At least one formerly unknown wooden and one stone phase of construction and the chronology of this fortlet could be compiled. This affects all other fortlets regarding, for example, the question of a parapet walkway for this kind of fortification along the *Limes*.

Bibliography

Baatz, D. 2007. Zur Funktion der Kleinkastelle am Obergermanisch-Raetischen Limes. In: Thiel, A. (ed.). Forschungen zur Funktion des Limes. Beiträge zum Welterbe Limes. Band 2. 3. Fachkolloquium der Deutschen Limeskommission 17. /18. Februar 2005 in Weißenburg. i. Bayern. Stuttgart. 8-25.

Clauss, H. 1994. Fundschau: Mainhardt. – Fundberichte aus Baden-Württemberg 19/2, 117.

Clauss, H. 1984. Fundschau: Mainhardt. – Fundberichte aus Baden-Württemberg 9, 685-686.

Clauss, H. 1983. Fundschau: Mainhardt. – Fundberichte aus Baden-Württemberg 8, 301-303.

Clauss, H. 1975. Fundschau: Mainhardt. – Fundberichte aus Baden-Württemberg 2, 178-183.

Deutsche Limeskommission (eds.) 2010. Management-Plan 2010-2015. Beiträge zum Welterbe Limes. Sonderband 1. Bad Homburg.

Filzinger, P. / Planck, D. / Cämmerer, B. (eds.) 1976. Die Römer in Baden-Württemberg. Stuttgart.

Fleer, C. 2011. Das Kastell Haselburg. Gemeinde Reinhardsachsen, Neckar-Odenwald-Kreis (= Materialhefte zur Archäologie in Baden-Württemberg 92). Stuttgart.

Fleer, C. 2004. Typisierung und Funktion der Kleinbauten am Limes. In: Schallmayer, E. (ed.). Limes imperii Romani. Beiträge zum Fachkolloquium "Weltkulturerbe Limes" November 2001 in Lich-Arnsburg. Saalburgschriften 6. Bad Homburg v. d. H. 73-92.

Hansselmann, C. E. 1768, Beweiß, wie weit der Römer Macht, in den mit verschiedenen teutschen Völkern geführten Kriegen, auch in die nunmehrige Ost-Fränkische, sonderlich Hohenlohische, Lande eingedrungen. Schwäbisch Hall.

Knöller, J. 1935-1938. Fundschau: Mainhardt. – Fundberichte aus Schwaben NF 9, 92.

Lahr, P. 2002. Grabungen im Stabsgebäude des römischen Kastells Mainhardt, Kreis Schwäbisch Hall. – Archäologische Ausgrabungen in Baden-Württemberg (2001), 93-95.

Mackensen, M. 1988. Frühkaiserzeitliche Kleinkastelle an der oberen Donau. In: Weimert, H. (ed.). Zivile und militärische Strukturen im Nordwesten der römischen Provinz Raetien. 3. Heidenheimer Archäologie-Colloquium am 9. und 10. Oktober 1987. Heidenheim. 13-32.

ORL B = Sarwey, O. v. / Farbricius, E. / Hettner, F. (eds.) 1909. Der obergermanisch-raetische Limes des Roemerreiches. Abteilung B. Band 4.

Paret, O. 1938/51. Fundschau: Mainhardt. – Fundberichte aus Schwaben NF 12/2, 67-72.

Paret, O. 1928/30. Fundschau: Mainhardt. – Fundberichte aus Schwaben NF 5, 77-78.

Paret, O. 1926/28. Fundschau: Mainhardt. – Fundberichte aus Schwaben NF 4, 73.

Pasler, H. 1967. Fundschau: Mainhardt. – Fundberichte aus Schwaben NF 18/2, 104.

Planck, D. 1991. Archäologische Untersuchungen im Limeskastell Mainhardt, Kreis Schwäbisch Hall. – Archäologische Ausgrabungen in Baden-Württemberg (1990), 101-104.

Planck, D. 1983. Fundschau: Mainhardt. – Fundberichte aus Baden-Württemberg 8, 299-301.

Planck, D. 1979. Die Südwestecke des Kohortenkastells in Mainhardt, Kreis Schwäbisch Hall. – Archäologische Ausgrabungen in Baden-Württemberg (1978), 46-49.

Planck, D. 1976. Die Entdeckung eines Kleinkastells am Limes in Mainhardt, Kreis Schwäbisch Hall. – Archäologische Ausgrabungen in Baden-Württemberg (1975), 35-38.

Schallmayer, E. 1995. Der römische Kastellort von Walldürn. In: Assion, P. (ed.). 1200 Jahre Walldürn. Heimat und Museumsverein. Walldürn. 17-84.

Schallmayer, E. 1984. Der Odenwaldlimes. Vom Main bis an den Neckar. Stuttgart.

Schönberger, H. 1985. Die römischen Truppenlager der frühen und mittleren Kaiserzeit zwischen Nordsee und Inn. – Berichte der Römisch-Germanischen Kommission 66, 321-495.

[3] The phenomenon of the abandonment and reduction of other fortlets in the first third of the 3th c. is known at Butzbach-Degerfeld, Holzheim-Unterwald and Echzell-Haselheck (Scholz 2003/2004, 88). By contrast, Schönberger assumed that the fortlets of the forward *Limes* were in use until the fall of the *Limes* (Schönberger 1985, 492 ff.).

Scholz, M. 2003/2004. Letzte Baumaßnahmen: zur Spätzeit obergermanischer Limeskastelle. – Jahrbuch des Heimat- und Altertumsvereins Heidenheim 10, 78-95.

Seitz, G. 1999. Das Kastell Holzheimer Unterwald. Ein Kleinkastell am nördlichen Wetteraulimes bei Pohlheim-Holzheim, Kr. Gießen (= Archäologische Denkmäler Hessen 133). Wiesbaden.

Stork, I. 2001. Neues zum Kastell Mainhardt, Kreis Schwäbisch Hall. – Archäologische Ausgrabungen in Baden-Württemberg (2000), 84-87.

Stork, I. 1988. Eine Rettungsgrabung un der Zivilsiedlung des Kastells Mainhardt, Kreis Schwäbisch Hall. – Archäologische Ausgrabungen in Baden-Württemberg (1987), 134-135.

Thiel, A. 2003/2004. Zur Funktion der Kleinkastelle am Obergermanischen Limes. – Jahrbuch des Heimat- und Altertumsvereins Heidenheim 10, 69-77.

Lynn Stoffel MA
Albert-Ludwigs-Universität Freiburg
Abteilung für Provinzialrömische Archäologie
Glacisweg 7
DE-79085 Freiburg im Breisgau
lynnstoffel@hotmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Ad confluentes Nicri et Rheni. Excavations and Aerial Photographs Shed New Light on the Early Roman Military Site Ludwigshafen-Rheingönheim

Thomas MAURER

To the south of Ludwigshafen, where the Rehbach river flows into the Rhine, the Roman military site Rheingönheim is situated. The place is located – comparable to an island – on the eastern edge of a flood-free area of the Holocene Rhine valley. To the north, west and south it is surrounded by a palaeo-channel of the Rhine (see Sprater 1929, # 31-32 39 Fig. I; Bernhard 1985, 35, Fig. 1, # 44). The recent left bank of the Rhine is only about 300 meters to the northeast. In the Roman period a tributary or even the main channel of the Rhine flowed immediately east of the site. In the middle of the "island" the altitude above sea level is up to 97 m and overlooks the Rehbach and Rhine by 7 meters. The position of the fort is usually associated with the ancient river Neckar (*Nicer*), which is believed to have flown as a tributary into the Rhine in the immediate vicinity (Roller 1962, 1; Bernhard 1990, 455). This is comparable to the situation at the military sites Mainz, Koblenz, Moers-Asberg and Xanten, which also covered the mouth of a major Rhine tributary. Rheingönheim was identified as a Roman military base 100 years ago. In 1912, 1913 and 1914 excavations of the Historical Museum of the Palatinate (Speyer), under the supervision of Friedrich Sprater and Walther Barthel, were caused by the planned expansion of a huge gravel pit in the area that has existed since about 1900 (Sprater 1929, 25 ff. Ulbert 1969, 9 ff.). This had destroyed much of the west of the site before excavation. In the focus of the excavations were initially the defensive system and internal buildings of the newly discovered fort, finally – due to rapid advances in gravel mining – cemeteries and traces of a *vicus* in the west of the fort. The research was brought to a halt soon, due to financial constraints and the outbreak of the World War I. The analysis of the finds from these early excavations revealed striking parallels between Rheingönheim and the timber fort (*"Erdlager"*) Hofheim (Ritterling 1913). Thus, it is assumed that the fort was built under Claudius and abandoned during the reign of Vespasian (Ber. RGK 7, 1912 [1915], 185 f. Sprater 1929, 30; Ulbert 1969, 15 f. Schönberger 1985, 442 # B 31; see also Pferdehirt 1986, 263.279 f.). Several indicators suggest that the site suffered from war-related destruction. Several tumultuous burials (including a skeleton with a coin of Nero) and the finding of a coin hoard with the latest coin minted in AD 69 have to be regarded. Most authors consider the uprising of the *Vangiones*, mentioned by Tacitus (Tacitus, *Hist.* 4, 70), as a putative cause of destruction (Ulbert 1969, 16; Schönberger 1985, 358; see also Heinrichs / Weiler 2010). Excavations in the fort area were continued in 1961 and 1962 by Otto Roller (Roller 1962; 1964). They opened up another part of the internal buildings and provided new information for the construction of the defense. The planned renovation of the dyke east of the fort required large-scale excavations in 2008 and 2009, carried out by the Directorate of Archaeology Speyer and led by Andrea Zeeb-Lanz and Bernd Fischer (Zeeb-Lanz 2008-2009). During these excavations, startling structures and findings came to light and offered the opportunity for a reassessment of the military site Rheingönheim[1]. In addition to the results of current excavations,

[1] The author would like to thank Prof. Dr. Helmut Bernhard and Dr. Andrea Zeeb-Lanz for the permission to publish the results of the excavations, as well as Bernd Fischer and Andreas Steiner for their various help.

aerial photographs play an important role in this article. A systematic evaluation of the photos that show many details is still a desideratum. Fortunately, Helmut Bernhard has tried time and time again to take new aspects of aerial photographs and to present updated general plans of Rheingönheim to a wider audience (Bernhard 1985, 132 ff. esp. with Fig. 52; Bernhard 2002; Bernhard 1990). After this brief history of research, we should first discuss the geological and pedological background in the area of the Roman camp. The "island" of the site will affect the soil moisture, which is the lowest in the middle of the "island" and increases towards the edges. The zones of different soil moisture correspond to different soil types. On the island ridge there is strong loamy sand, the adjacent soil north and south can be described as sandy loam or loam. These geological and hydrological conditions at the terrain ridge seem to have had particularly positive effect on the formation and recognition of cropmarks. Here one can see a lot of positive (dark green) cropmarks in the already maturing, so yellowish or ocher grain. The adjacent areas north and south at the edges of the "island" show only uniform green. Almost all the traits in the present aerial photograph anomalies are therefore located in the middle zone on sandy loam (for an exception, see the remarks below for ditch system 3). The limit of this "favor zone for cropmarks" is sharply defined and can be seen clearly every year in the aerial photograph (**fig. 1x-4x;** see Ulbert 1969, pl. A; Bernhard 2002, 144, Fig. 3 below). On the southern edge of the middle zone it runs pretty straight forward at an acute angle to the county road and roughly equivalent to the 95-m contour. In the north, the boundary is not so clear, but again runs parallel to the contour lines (such as the following line 93.75 m) from NW to SE.

Below is given an overview of the various known ditch systems, the street network and the structures inside the camp. This is done using new findings from the excavations 2008/2009 and the analysis of old and current aerial photographs. Ditch system 1 is the defense of the well-known auxiliary fort, discovered in 1912/13. It was examined in 1961/62 once again. The defense consists of a 6 m wide ditch with timber wall (width about 3 meters). Of all the gates, only the east one is detected by excavation (Sprater 1929, 26, Fig. 15). The existence of a north gate – still doubted by G. Ulbert – in the alignment of the so-called "N-S-street" (Ulbert 1969, 13) may now be recognized to be proven (according to the aerial finding **fig. 3**), which also implies a south gate. In the northeast corner of the camp ditch, a tower with 4 post holes was located. The ditch system has the typical shape of Roman camps with rounded corners. Its north-south length is 187 meters and the east-west extension is unknown, because large parts of the western site have been dredged without exact measurements. It is assumed that the camp may have had a length of about 250 m, its minimum length was 160 m (Ulbert 1969, 12). In aerial photographs, the ditch stands out very clearly with its passages mostly on the east and north as a positive cropmark (**figs. 1-3**). Only the southern flank is disturbed by the county road.

Already during the 1912/13 excavations to the north of the ditch system 1, a further ditch was discovered that runs in 22 m distance roughly parallel to ditch system 1 (= ditch 2, see Bernhard 1990, 456, Fig 373, 1b). In 1961, this 4 m wide ditch was cut again and two periods were identified (Roller 1962, 2). In aerial photographs it can be followed up to the edge of the landfill in the west – as well as ditch 1 – and up to Rehbach dyke further east. Therefore, it is unlikely that it belonged to the ditch system 1 (Schönberger 1985, 442), assuming that such an accompanying ditch on all sides of the fort would have had the same distance to the inner ditch, as is the case with Hofheim timber fort (Ritterling 1913, pl. 1). It is interrupted at the point where it is traversed by N-S-street.

South of the county road runs another ditch that has been recognized for some time by aerial photographs (= ditch 2a, **fig. 1.2.4**; see Bernhard 1990, 456, Fig. 373, 1c). It moves diagonally through the farmland situated between a county road and Rehbach. Neither its northwest, nor the southeast corners are known. In aerial photographs it can be separated into two narrow acutely diverging ditches, which has prompted H. Bernhard to bring this ditch in conjunction with system 2 (Bernhard 1990, 457). In support of this view could speak the fact that 2a occupies the center in the line of ditches in the southern part of the camp area (see below, ditch system 3), as well as ditch 2 in the better explored northern half. If the ditches 2a and 2 belonged to the same camp, it would have a trapezoidal outline. The western end of this camp could perhaps be identified with a V-shaped ditch running in north-south direction, that, according to the excavators of 1912/13, was discovered further west between a *vicus* and burial grounds in the dredged area (Sprater 1914, 9; Bernhard 1990, 457). It is unclear where the eastern flank was too. Neither in the aerial photos, nor in the excavation trench of 2008/2009 have traces of a ditch running in north-south direction been found, filling

the space between ditch systems 1 and 3. Therefore, it is reasonable to assume that the eastern flank of 2/2a is situated only beyond the Rehbach dyke.

System 3 is a double ditch that has been known since the 1980s from aerial photography and is seen as a clear positive cropmark. It runs north of the auxiliary fort, roughly parallel to the ditch systems 1 and 2, and can be traced from the edge of the landfill to the vicinity of the Rehbach dyke (**figs. 1-3**). The double ditch system has been addressed as a road that will pass north of the fort (Bernhard 1990, 456 and 373, Fig 4a; Bernhard 2002, 145). The excavations of 2008 and 2009 have now led to a completely different view on this ditch system (Zeeb-Lanz 2008-2009, 8 ff.) On the west side of the Rehbach dyke a double ditch could be documented, which runs parallel to the eastern edge of the known ditch system 1 (i.e. approximately in N-S direction), and thus orthogonal to the section of system 3 mentioned above. Between the two V-shaped ditches was a narrow ditch (for a palisade?). In alignment with the E-W-street of the auxiliary fort ("*via praetoria*") the ditches are interrupted. Traces of a monumental gate were found there (see below). To the north, on the inside of the ditch four post holes can be observed, that were traces of a tower, integrated in the assumed timber wall (**fig. 1l**). Without a doubt, the two sections of this double ditch belong to an expanded military camp. The NE corner of the camp must have been beyond the dyke. Recent aerial photographs show that the double ditch was interrupted in the north – like the ditch systems 1 and 2 – in alignment of the auxiliary fort's N-S-street. West of this passage another tower is visible by its four post holes on the inner side of the double ditches (**figs. 3i, 5i**).

A renewed examination of older aerial photographs has now also provided information on the southern flank of this ditch complex. As mentioned above, in the southern area of the site cropmarks usually are to be identified only up to a very clearly discernable soil types border. South of this line, structures are normally not visible, except for traces of recent field order. A series of aerial photographs from 2002, however, shows quite clearly a double line running oblique to the county road and – at first glance – looks very similar to the double ditch system 3 (**fig. 4**)[2]. Coming from the west, this double line can be observed up to the point where it crosses the alignment of N-S-street of the auxiliary fort. East of this place after a few meters the vegetation changes, and there is no trace to pursue. Interestingly, the double line is represented in the still green grain as a light brown color, as a negative cropmark. A few meters further north in the same vegetation – but north of the soil types border – numerous positive cropmarks (dark green) are dis-

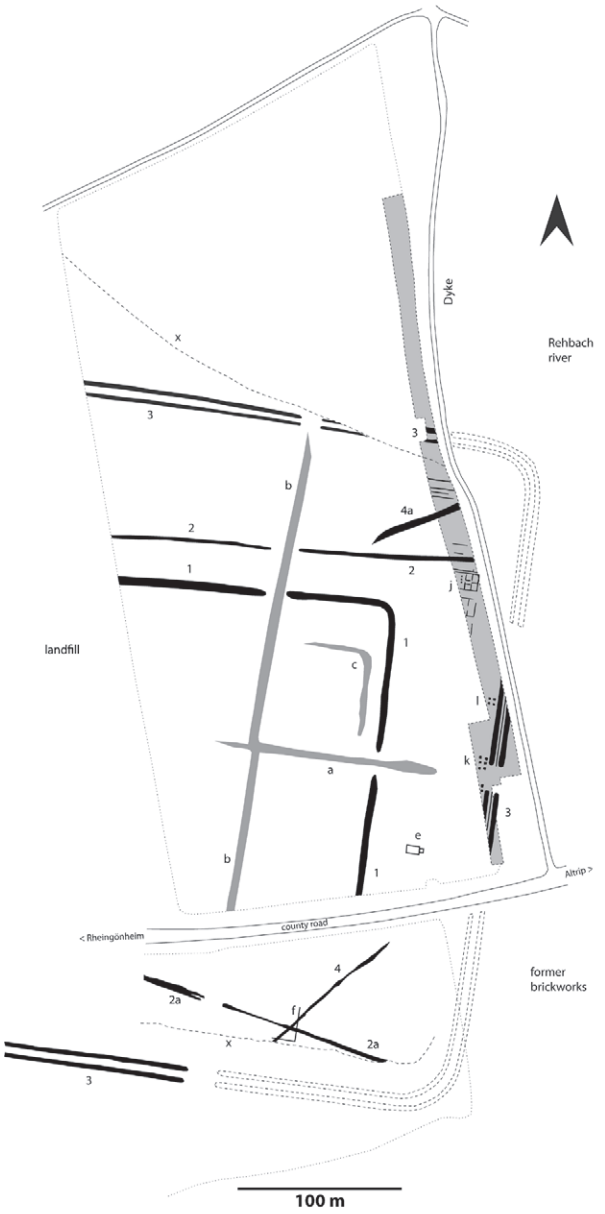


Fig. 1. Overview to the ditch systems, streets and other important structures in the area of the military site Rheingönheim. Black: ditches, construction trenches, postholes. Dark grey: streets. Light grey: excavation trenches 2008-2009. Point lines.: field borders. Broken lines: soil type borders. Rectification by B. Fischer, GDKE Speyer; based on aerial photography by U. Kiesow / M. Voselek (Archaeoflug), by order of GDKE Speyer; graphical processing by Th. Maurer, Goethe-Universität Frankfurt/M

[2] To the south of the clearly visible double line there seems to be a third one, running parallel, and very faint, perhaps another ditch, cf. **fig. 4/3a.**

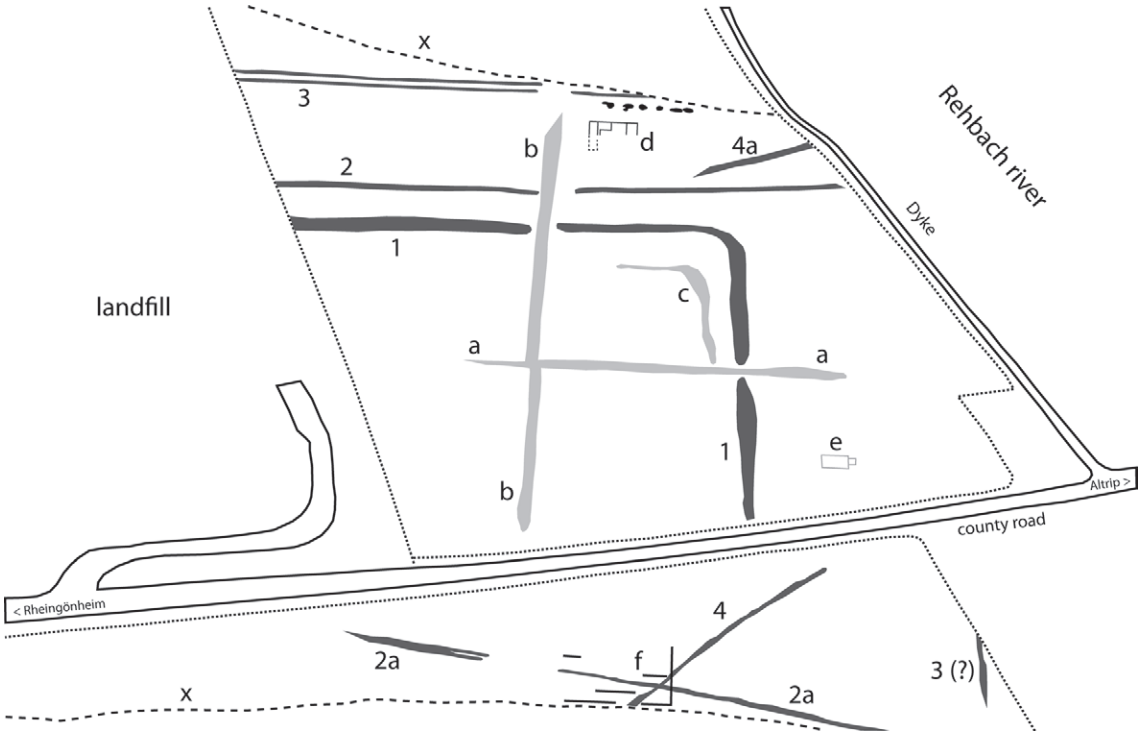


Fig. 2. Overview of the site from southern direction. Clearly to be seen are the borders of different soil types, that surround the "favor zone for cropmarks".
Aerial photography by R. Gensheimer; graphical processing by Th. Maurer

played, including the line of the ditch system 2. The key to assessing this image is provided by the latest aerial photos from the summer of 2012. Although on the relevant parcel of land – south to soil types border – there are no traces of the double line to be seen (rather numerous, parallel to the county road are running positive linear cropmarks, which are probably to be interpreted as lanes of agricultural machinery), but it shows at the very western edge of the image on a different ordered arable parcel again the double line, this time as a green discoloration before ocher background, so as a characteristic positive cropmark. There is nothing to speak against interpreting the double line as a double ditch and regarding it with a high probability as southern flank of the large ditch system /camp 3. This interpretation is supported by the fact that it is situated as far away from the "center line" of the camps – the fort's E-W-street – as the northern edge of the already well-known double ditch 3 – ca. 200 m. Therefore, the north-south extension of this camp is 400 m. The E-W-street divides it into two equal halves. Since the western end of the camp is unknown, its east-west extension can only be estimated. Its minimum length is 420 m. that is the distance between the westernmost visible point of the southern flank of the double ditch and the southeastern corner of the system (not visible in the aerial photo, but almost certainly localized at the meeting point of the alignments of the eastern and the southern flank). The camp must, therefore, cover an area of at least 16.8 ha, if we assume that it was shaped like a "playing card". Taking the usual aspect ratios based on Roman camps – after Hyginus Gromaticus, *De munitionibus castrorum*, the ideal ratio was 2:3 – it could have been even bigger, covering about 20-24 ha. Considering this, it could accommodate troops in strength of a legion (about 5600 men) and should therefore be named a "legionary fortress".

The gate of the legionary fortress was partially uncovered during the excavations 2008/2009. Here the double ditch system 3 is interrupted to approximately 15 meters in length. The gate can be reconstructed with some certainty based on the observed post holes (Zeeb-Lanz 2008-2009, 8 ff.). From its northern gatehouse 6 posts arranged in three pairs were detected (**fig. 1k**). These pairs have been standing upright in the alignment of the turf rampart. If we reconstruct the gate with recessed side towers, we have to assume other pairs of postholes in direction of the inner fort as well. Unfortunately, an extension of the excavation area was not possible at this place, so the actual existence of this type of gate could not be verified. From the pairs of poles of

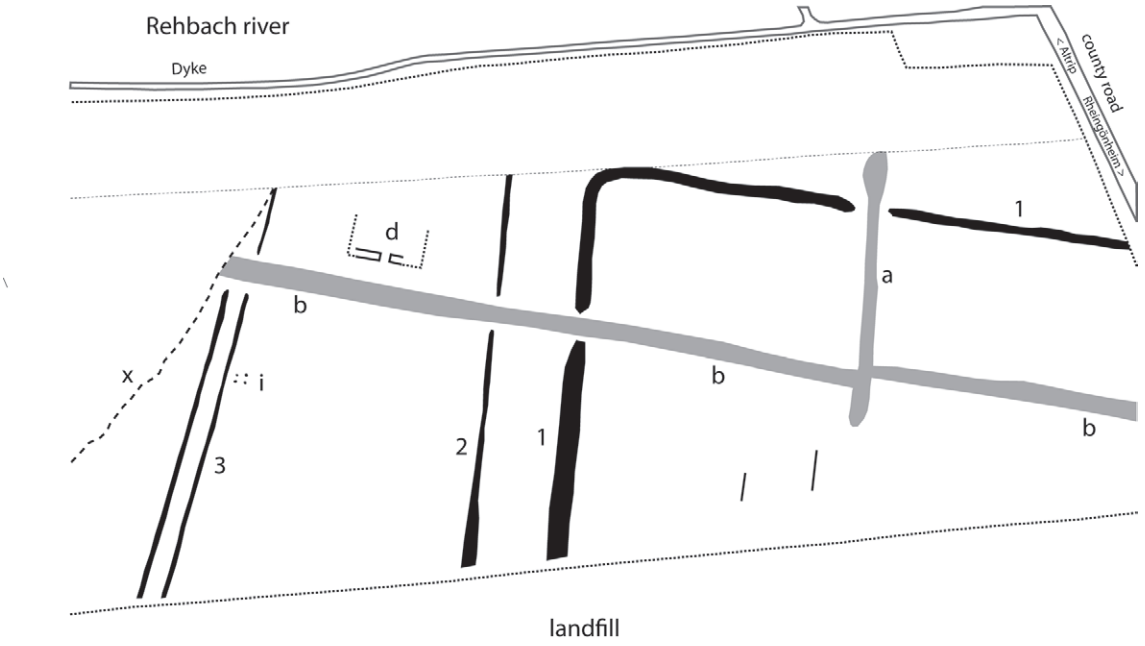


Fig. 3. The middle and northern part of the site seen from the west. Clearly visible are the parallel running ditch systems 1, 2 and 3 as well as the entrance situation of building complex d.
Aerial photography by U. Kiesow / M. Voselek (Archaeoflug) im Auftrag von GDKE Speyer; graphical processing by Th. Maurer

the southern gatehouse only the post holes near the ditch have been documented, while the rest of the gatehouse is located in the unexcavated area. The space between the gatehouses ("kennel") is about 10 m wide. Gates with recessed side towers were very popular at the time of Augustus, but can be proven to exist even later. Examples of similar plants are found in Haltern (Schnurbein 1974, 50, Fig. 6 and suppl. 6), Bad Nauheim-Rödgen (cf. Johnson 1987, 93 ff. and 97, Fig. 53) or Marktbreit (Pietsch et al. 1991, 284 ff. Fig. 6-7; see generally also Reddé et al. 2006, 84 ff. with Fig. 44-45).

South of the county road, another section of a ditch (= ditch 4), which runs roughly from southwest to northeast and crosses the ditch 2 (**fig. 1.2.4**) can be seen in the aerial photographs. In the SW it is lost to the soil types border, in the NE to the county road. Being irregular, sometimes even broken, the course does not specify whether it is a Roman military ditch or a man-made structure. A similar, apparently somewhat larger structure (= ditch 4a) can be observed in the northeastern region of the site between the ditch systems 2 and 3. It also runs in a SW-NE direction and disappears near the dyke. It remains only a speculation whether both "ditches" belonged together.

During the excavations in 1912/13 two streets have been documented in the interior of the auxiliary fort (ditch system 1). One runs in a roughly EW direction (E-W-street) and is aimed at the eastern gate of the fort, and the second is orthogonal to that street in N-S direction (N-S-street). Even then, it was found that the E-W-street is ending west of the intersection with the N-S-street – before reaching the edge of the gravel pit (Ulbert 1969, 13). These two streets can be clearly seen on almost all aerial images – (**figs. 1-5, a / b**) – even in poor growth or fallow fields. Both streets continue outside the ditch system 1. In the alignment of the N-S-street are situated the passages (North and South gates) of system 2/2a and 3; in the alignment of the E-W-street the recently recognized monumental eastern gate of the double ditch 3 (see above). The streets are accompanied by narrow ditches that are emerging as positive cropmarks sometimes very sharp, especially parallel to E-W-street between the intersection of the streets and the eastern gate (**fig. 5**). According to earlier observations, the SE sector of the auxiliary fort (right *praetentura*) has been divided by a street junction in four fairly small, square to rectangular *insulae* (Bernhard 1990, 457 and 456, Fig. 373). This finding can be recognized again in the present aerial photographs only very vague. Much more significant is a negative cropmark in the NE sector (left *praetentura*) of the auxiliary fort, visible on recent aerial photos, which runs on the inside of the ditch system 1 approximately parallel to this and his bend in the northeast corner (**fig. 1c.2c**). Perhaps this is a *via sagularis*, although the distance to the ditch seems still quite large, even if we

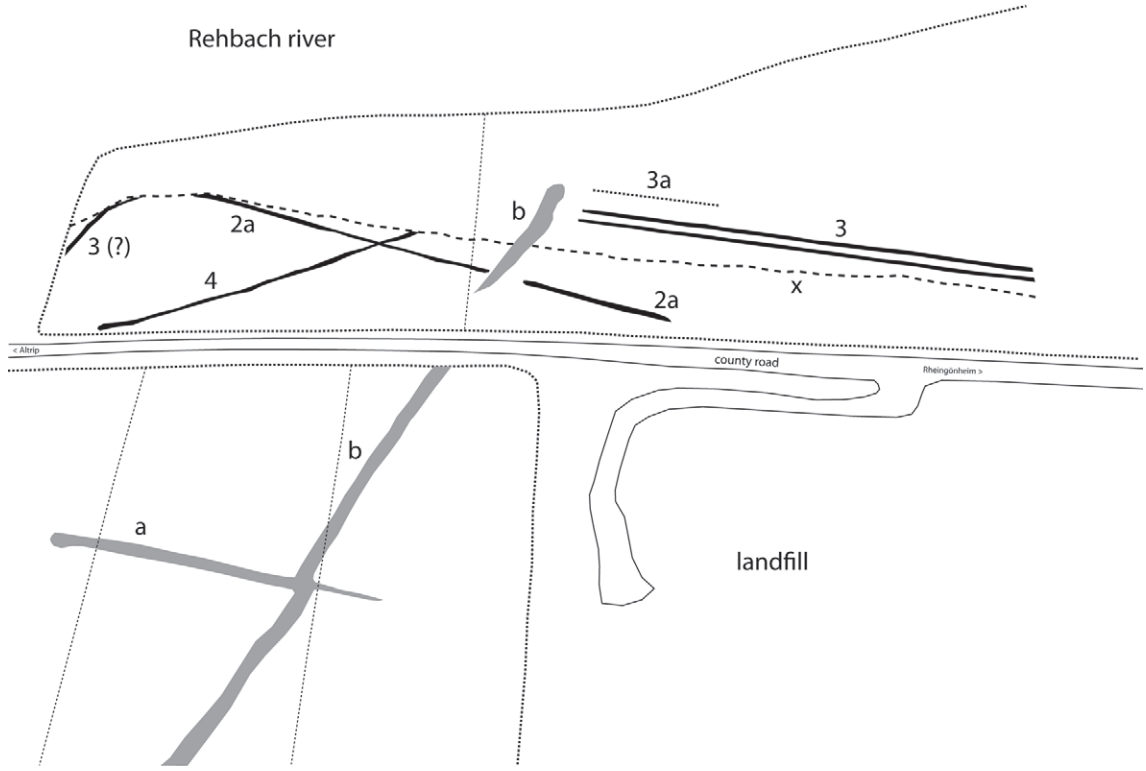


Fig. 4. View from the north to the middle and southern part of the site. Very clearly to be seen is the soil types border south to the country road. In the adjacent field area the double ditches of the legionary fortress (cropmarks in yellowish color) stand out against the dark green background.
Aerial photography by A. Steiner; graphical processing by Th. Maurer

take into account the timber wall (width 3 meters). Two special features in the analysis of aerial photographs have to be mentioned at this point. First, it should be noted that the alignments of the two sections of N-S-street have a low, but clearly detectable difference at their intersection with E-W-street (**fig. 1-3.5**). Secondly, notice that the northern section of the N-S-street is crossed by several "lines" that are to be regarded as positive cropmarks, maybe construction trenches, because the traces of timber buildings that are visible on both sides of the street are emerging in that way[3]. The southernmost of these lines, located directly at the street junction, is certainly a direct continuation of the narrow trench accompanying E-W-street in the north. Both phenomena just described can serve as further evidence that the military occupation of the site has several periods. The situation at the northern section of the N-S-street suggests that at some indeterminate time in the history of the military site buildings stood here and the street is either earlier or later. It would mean to overstretch the results of aerial archaeology, if one drew further conclusions from this. One possibility would be to locate the *principia* at this point. In this case, the southern section of N-S-street would be regarded as *via praetoria* and the associated camp would be oriented to the south. Because of the identification of a legionary fortress, which almost completely occupies the eastern part of the "island", methodological problems arise concerning the allocation of building structures in the area that might now belong to several generations of camps. The fact that obviously the well-known auxiliary fort (ditch system 1) and the newly discovered legionary fortress (ditch system 3) are similarly oriented makes an assessment difficult. However, due to the aerial results, it is not always certain to which camp a particular building belongs (see below).

About the internal buildings in the northern half of the site – north of the axis of E-W-street – so far

[3] Similar are some structures in the Augustan fortified town of Lahnau-Waldgirmes, where the main street is crossed by several short ditches ("*Gräbchen*") near the western gate. These ditches seem to be parts of a wooden framework, on which the roadway is based (cf. Becker 2010, esp. 75 ff. with Fig. 1).

relatively little was known. Only in 1961, O. Roller found construction trenches on the inside of the timber wall of the auxiliary fort (Roller 1962, 4 f.).

The most important new discoveries have been provided surprisingly by the excavation trench of 2008/2009, accompanying the Rehbach dyke in the west. In his northern part the floor plan of a building complex was documented, that is to be regarded as a centurion's quarter (**fig. 1j**). It consists of four rooms that were accessible via a corridor. The wing with the *contubernia* must be complemented to the west. Similar centurion houses could be detected in early imperial legionary fortresses, such as Oberaden (Kühlborn 2008, 44 suppl. right), Anreppen (Kühlborn 2009, 11, Fig. 9 and suppl.), or Marktbreit (Pietsch et al. 1991, 298, Fig. 15). South and north of the building traces of other barracks were discovered. Considering their position and orientation, they belong to the legionary fortress (ditch system 3). The positioning of the centurion's house at the *via sagularis* is common in numerous auxiliary and legionary camps, Haltern being a prime example (cf. Schnurbein 1974, suppl. 6).

Since the 1980s a building complex north of the auxiliary fort is known from aerial photographs that – in the assumption that it was a building in the area of civil settlement – was addressed as a *forum* or similar (Bernhard 2002, 145 and 143, Fig. 2, # 5). The aerial photographs show suites of rooms arranged around a courtyard, which has an entrance to the west, toward the N-S-street (**fig. 2d.3d**). Since the structure is still within the ditch system 3 and has the same orientation, it should belong to the legionary fortress. Probably it is the home of a senior officer, perhaps a legion tribune. Very similar structures are known from Augustan camps (Oberaden: Kühlborn 2008, 18, Fig. 16 top right; see also Reddé et al. 2006, 102 ff.).

Recent aerial photographs, especially those of the years 2006/2007, show traces of dense building development on both sides of the northern section of N-S-street (**fig. 5**). Particularly clear are complete building patterns in the sector east of the N-S-street and north of E-W-street (**fig. 5g**), most likely soldier barracks. Since here is the left *praetentura* of the auxiliary fort, the buildings structures may belong

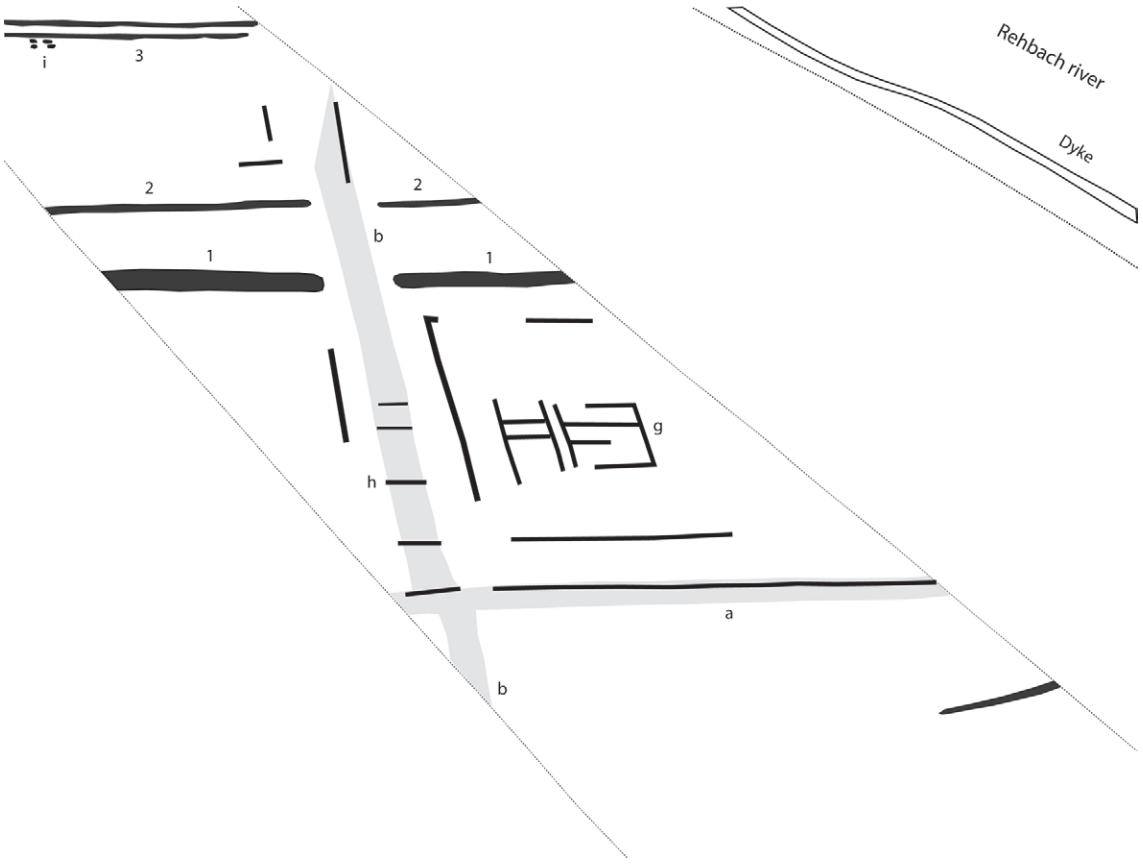


Fig. 5. View from the south to a strip in the middle and northern part of the site. The cropmarks are strengthened by the shadows caused by the setting sun and show very clearly many details of building structures of the camps (barracks, streets).
Aerial photography by U. Kiesow / M. Voselek (Archaeoflug), by order of GDKE Speyer; graphical processing by Th. Maurer

to both an auxiliary and a legionary camp. Probably the aerial photographs show even traces of all periods of occupation. Without excavations we will not be able to determine the different phases.

The camp structures south of the "central axis" (E-W-street) are even less well known than those in the northern area. While here the largest excavation site from 1912 and 1913 has been carried out (Ulbert 1969, suppl. 2), unfortunately there is no detailed plan of the uncovered construction trenches. Based on characteristic finds, a *fabrica* was localized here. The aerial photographs give in this area not that much information due to the disturbance of the county road that runs through the southern part of the site from west to east. Worth of special interest is the area in the right *praetentura* of the auxiliary fort. Here as early as 1912/13 a building was discovered, partially constructed in stone. It has been addressed as a bath since then (Ulbert 1969, 13). Reconstructed with certainty is just a rectangular building (9 x 7 m) that has an attachment (4 x 3 m) on the eastern narrow side (**fig. 1e.2e**). From this "bath" come some stamped bricks. The 1974 small-scale excavations have shown a well-related concrete floor south of the building. Aerial photographs in the area of the "military bath", especially to the north toward the E-W-street, show more wall alignments, usually visible as negative cropmarks (Bernhard 2002, 143, Fig. 2, # 6). Unfortunately, complete floor plans cannot be determined from it. The location of this building complex makes an affiliation with the auxiliary fort (previous prediction, part of a bath outside the fort), as well as with the legionary camp imaginable. Again and again, it is also drawn to the possibility of belonging to a suspected road station of the middle Roman Empire, as indicated by some recent finds[4]. Exclusively through aerial photographs extended building lines are known south of the county road (i.e. also south of the auxiliary fort), whose construction trenches stand out as positive cropmarks (Bernhard 2002, 143, Fig. 2, above # 2c, 144, Fig 3). They lie on both sides of the N-S-street and are crossed diagonally by ditches 2a and 4 (**fig. 1f.2f**). Similarly to the building complex in the north of the camp (see above), they should also belong to the interior structures of the legionary fortress, especially as they focus clearly on the axis of the N-S-street. Most likely, they are related to soldier barracks.

Summary

Together with the review and analysis of aerial photographs, the new excavations at the military site of Rheingönheim have brought to light the existence of a large camp, surrounded by a double ditch. It covers an area of minimum 16.8 ha, but probably was significantly larger. It could stock easily a legion or *vexillationes* in strength of a legion. Of the structures inside we know barracks, including centurion quarters, and a tribune's house. Together with the long-known auxiliary fort it has its main street cross; apparently the two camps based on the same measurement system (see for example the camps I and II in Rottweil: Franke 2003, 93 and suppl. 11). This "nesting" of the camps has implications for the allocation of the building structures known from aerial photographs. Can building tracks that lie between the ditch systems 1 and 3 be assigned with some certainty to the legionary fortress (though belonging to a *vicus* of the auxiliary fort cannot be excluded), for those located within the ditch system 1 both an assignment to the auxiliary and the legionary camp, is in question. This also applies to the building structures recognized by excavations in 1912/13 and 1961/62.

What can be said at this stage of research about the dating of the legionary fortress and the chronological relationship between the different generations of camps? Two observations have central importance in this regard. In the excavation trenches of 2008 and 2009, the double ditch (system 3) is superimposed at several locations by pits. In one of these pits – a cellar partly filled with burnt debris – were the remains of two skeletons, which clearly showed traces of violence. The pottery from this cellar can be dated to the third quarter of the 1st century AD. At the time of installation of the cellar, the ditch should have been levelled, and that seems really only possible if there was a longer period between the abandonment of the ditch and the construction of the cellar or if the ditch was leveled deliberately.

Secondly, it should be noted that from the site Rheingönheim there are still no (ceramic) finds known, which can be dated to the Augustan or early Tiberian period (cf. Bernhard 1985, 135). An initial review of the chronologically sensitive material from the excavations in 2008 and 2009 shows that these finds correspond completely to the material

[4] See Sprater 1929, 35 ff. – Some observations during the excavation campaign 2010 in the area "Gumpenloch", to the southeast of the military site, point out that this "station" must have been much more important: see Zeeb-Lanz 2009-2010; for the location cf. Bernhard 2002, 143, Fig. 2 # 2d.

from the known auxiliary fort and *vicus*, which predominantly belongs to the reigns of the emperors Claudius to Vespasian. It can therefore be ruled out that the large camp was a long-term military base of the Augustan age. It is only possible that the site was completed, but never came into use, due to schedule changes etc., similar to what is suspected for Marktbreit (Pietsch et al. 1991).

If one looks for later historical events, under which the planning of such a site over the Neckar River mouth appears possible or practical (for history of troops in post-Augustan times cf. Ritterling 1924/25, 1242 ff.; Schönberger 1985, 345 ff.), first must be mentioned the campaigns of Caligula (37-41 AD) against Germania east of the Rhine, under which was apparently pulled together a large body of troops in the area of Mainz (at that time also the legions *XV Primigenia* and *XXII Primigenia* have been recruited). Some temporary camps in the Hessian Rhine Valley – opposite Mainz – can be brought in a conjunction with this short-term deployment of troops (Maurer 2009). It is also conceivable that the fortress is related to events in the early reign of Emperor Vespasian. After the suppression of the Gallic-Germanic rebellion that had to do with the uprising of the *Vangiones,* at least a sideshow in the Upper Rhine Valley (Heinrichs / Weiler 2010, 15 ff.), and the occupation of areas right of the Rhine including the upper Neckar country under the governor Cn. Cornelius Pinarius Clemens soon after (Franke 2003, 149 ff.), one can easily imagine that an existing garrison at the site Rheingönheim was increased briefly significantly. One might think of a temporary stay of a unit, in strength of a legion (*vexillatio*?), e.g. the *Legio VII Gemina*, which stayed in the 70s of 1st century AD briefly at an unknown place near Upper Rhine (Ritterling 1924/25, 1631 f.)[5]. But the archaeological findings seem to speak against this proposal in the current state of research (see above).

In conclusion, it should be noted that the new excavations – complemented by the analysis of aerial photographs – have led to a marked improvement in our knowledge about the military site Rheingönheim. Among the new discoveries stands out the identification of a fortification with the size of a legionary camp. Hopefully, this "new momentum" for a hundred years Rheingönheim research will be continued in the future and will lead to the answer of any residual or new issues raised. Additional insights can be expected from scientific evaluating of the excavations in 2008 and 2009, currently in progress and led by the author, as well from consistent and systematic continuation of archaeological prospection (geophysics, aerial photography and field surveys). Goal-directed excavations that could together with the planned redesign of more agricultural land to an archaeological park would be also desirable.

Bibliography

Becker, A. 2010. Germanicus an der Lahn? – Die Ausgrabungen 2008/09 in Lahnau-Waldgirmes. In: Hessen-Archäologie 2009. Stuttgart. 75-78.

Bernhard, H. 2002. Römische Vicusbauten in der Pfalz. In: Gogräfe, R. / Kell, K. (eds.). Haus und Siedlung in den Nordwestprovinzen. Grabungsbefund, Architektur und Ausstattung. Internationales Symposium der Stadt Homburg vom 23. und 24. Nov. 2000. Homburg/Saar. 141-164.

Bernhard, H. 1990. Ludwigshafen-Rheingönheim. In. Cüppers, H. (ed.). Die Römer in Rheinland-Pfalz. Stuttgart. 455-457.

Bernhard, H. 1985. Studien zu den Anfängen römischer Besiedlung in der Region Ludwigshafen. – Mitteilungen des Historischen Vereins der Pfalz 83, 33-152.

Franke, R. 2003. Die Kastelle I und II von Arae Flaviae, Rottweil und die römische Okkupation des oberen Neckargebietes. Arae Flaviae V. Forschungen und Berichte zur Vor- und Frühgeschichte von Baden-Württemberg 93. Stuttgart.

Heinrichs, J. / Weiler, G. 2010. Die Rheinpfalz im Aufstand. Das Imperium Galliarum, die Nemeter und das Kastell Rheingönheim 70 n. Chr. – Mitteilungen des Historischen Vereins der Pfalz 108, 7-31.

Kühlborn, J.-S. 2009. Anreppen, Stadt Delbrück, Kreis Paderborn. Römerlager in Westfalen 4. Münster/Westf.

Kühlborn, J.-S. 2008. Oberaden, Stadt Bergkamen, Kreis Unna, und Beckinghausen, Stadt Lünen, Kreis Unna. Römerlager in Westfalen 3. Münster/Westf.

Johnson, A. 1987. Römische Kastelle des 1. und 2. Jahrhunderts n. Chr. in Britannien und in den germanischen Provinzen des Römerreiches. Kulturgeschichte der antiken Welt 37. Mainz.

Maurer, Th. 2009. Neue Erkenntnisse zur frührömischen Militärpräsenz in der hessischen Rheinebene. In: Morillo, A. / Hanel, N. / Martín, E. (eds.). Limes XX. XX Congreso Internacional de Estudios sobre la Frontera Romana. León (España), Septiembre, 2006. Anejos de Gladius 13, 3. Madrid. 1317-1328.

Pferdehirt, B. 1986. Die römische Okkupation Germaniens und Rätiens von der Zeit des Tiberius bis zum Tode Trajans. Untersuchungen zur Chronologie südgallischer

[5] Cf. Ritterling 1911.

Reliefsigillata. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 33, 221-320.

Pietsch, M. / Timpe, D. / Wamser, L. 1991. Das augusteische Truppenlager Marktbreit. Bisherige archäologische Befunde und historische Erwägungen. – Berichte der Römisch-Germanischen Kommission 72, 263-324.

Reddé, M. / Brulet, R. / Fellmann, R. / Haalebos, J.K.† / Schnurbein, S. v. (eds.) 2006. Les fortifications militaires. Documents d'archéologie française 100. Paris.

Ritterling, E. 1924/25. Legio. In: Paulys Realencyclopädie der classischen Altertumswissenschaft, Bd. XIII. Stuttgart. 1211-1829.

Ritterling, E. 1913. Das frührömische Lager bei Hofheim im Taunus. – Nassauische Annalen 40, 1-416.

Ritterling, E. 1911. Truppenziegeleien in Rheinzabern und leg. VII Gemina am Rhein. – Römisch-Germanisches Korrespondenzblatt 4, 37-42.

Roller, O. 1964. Das Auxiliarkastell Rheingönheim. Die Grabung 1962. – Pfälzer Heimat 15, 81-86.

Roller, O. 1962. Das Auxiliarkastell Rheingönheim. Die Grabung 1961. – Pfälzer Heimat 13, 1-6.

Schnurbein, S. v. 1974. Die römischen Militäranlagen bei Haltern. Bericht über die Forschungen seit 1899. Bodenaltertümer Westfalens 14. Münster.

Schönberger, H. 1985. Die römischen Truppenlager der frühen und mittleren Kaiserzeit zwischen Nordsee und Inn. – Berichte der Römisch-Germanischen Kommission 66, 321-497.

Sprater, F. 1929. Die Pfalz unter den Römern. I. Teil. Veröffentlichungen der Pfälzischen Gesellschaft zur Förderung der Wissenschaften 7. Speier am Rhein.

Sprater, F. 1914. Das frührömische Kastell Rheingönheim. – Berichte des Historischen Museums der Pfalz 2, 7-13.

Ulbert, G. 1969. Das frührömische Kastell Rheingönheim. Die Funde aus den Jahren 1912 und 1913. Limesforschungen 9. Berlin.

Zeeb-Lanz, A. 2009/2010. Archäologische Ausgrabung Neuhofen „Gumpenloch". Rheindeicherneuerung südlich des Rehbaches 2009-2010. Short excavation report (15 pages pdf). URL: www.archaeologie-speyer.de.

Zeeb-Lanz, A. 2008/2009. Archäologische Ausgrabung Rheingönheim, „Sommerfeld" (Giulini-Deich) 2008-2009. Short excavation report (14 pages pdf). URL: www.archaeologie-speyer.de.

Dr. Thomas Maurer
Goethe-Universität Frankfurt/M.
Institut für Archäologische Wissenschaften, Abt. II
Grüneburgplatz 1, Fach 136
DE-60629 Frankfurt am Main
T.Maurer@em.uni-frankfurt.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Der Kaiserkultbezirk von *Mogontiacum* (Mainz)[1]

Christine ERTEL

Einzelne Aspekte und Denkmäler eines Kaiserkultbezirks in *Mogontiacum* wurden nach der Edition der *Tabula Siarensis* von mehreren Autoren diskutiert (Decker / Selzer 1976, 475; Bellen 1984, 391; Bernhard 1990, 85; Frenz 1992, 53-55; expliziter Vorschlag eines abgegrenzten Bezirks mit Altar, einem der bezeugten Bögen als *Propylon* und dem Theater von Herz 2001, 108 ff.; Spickermann 2003, 85-91; Spickermann 2006, 169). Die benannten Objekte können nun durch neue Steindenkmäler und Grabungsbefunde in einen kartierbaren Zusammenhang gebracht werden[2]. Der charismatische Heerführer Drusus der Ältere, ein Stiefsohn des Augustus, verstarb 9 v. Chr. auf dem Rückmarsch von der Elbe nach einem Sturz vom Pferd. Seine Asche wurde von seinem Bruder Tiberius nach Rom zurückgebracht und im Augustusmausoleum bestattet (*Cass. Dio* 55.1-3). An seinem Hauptquartier *Mogontiacum* errichtete man ihm einen Kenotaph[3]. Die heimkehrenden Soldaten seiner Legion veranstalteten spontane Gedächtnisfeierlichkeiten für ihren Held. Sie richteten vermutlich eine parallele Bestattungsfeier mit apotheoseähnlichem Ritual aus.

Der sog. Eichelstein in Mainz wird ohne wesentlichen Widerspruch als Kenotaph des Drusus angesehen (Instinsky 1960; Frenz 1985; Kühlborn / Künzl 1988, 554 ff., Kat. # 380; Herz 2001, 103-105; Spickermann 2003, 85; Spickermann 2006, 168-170; Panter 2007). Das Bauwerk folgt in seinem Aufbau dem Entwurfsschema späthellenistischer Grabbauten. Im 1. Jh. v. Chr. bestanden diese aus einem Stufenkranz, einem quadratischen Quadersockel und einem zylindrischen Aufsatz (Hesberg 1992, 121-159). Das sog. Grabmal des Cicero an der *Via Appia* bei Formia (De Rossi 1983, 143 ff.; Hesberg 1992, 114, Abb. 64; Quilici 2004, 526-529, Abb. 106) ist gut mit dem Kenotaph zu vergleichen. Es erhebt sich in einem großen, von 4 m hohen Mauern umgebenen Bezirk. Der Kenotaph des Drusus in Mainz dürfte zwischen 9 v. und 14 n. Chr. entstanden sein, da Augustus selbst den Text der Grabinschrift verfasste (Suet., *Claud.* 1.5).

Der Kenotaph lag wie andere frühe Grabbauten an der Straße vom Legionslager *Mogontiacum* zum Auxiliarkastell Weisenau, die auf dem Hochufer des Rheins verlief (Witteyer / Fasold 1995; Boppert / Ertel (Manuskript); **Abb. 1**). Die Stadtnähe des Grabdenkmals beweist seine bevorzugte Bedeutung. Neben dem Grabbau für Drusus erhielt auch sein Sohn Germanicus Caesar ein Ehrenmal (*Tabula Siarensis* 28-31). Der Ausbau des Bezirks dürfte sich vom Tod des Drusus in die tiberische Zeit hineingezogen haben, da Germanicus im Vordergrund des Textes der *Tabula Siarensis* steht. In weiterer Folge entstand aus dem Memorialbezirk für Drusus und seine Verwandten ein Kaiserkultbezirk für alle weiteren Kaiser. Zu dem jährlichen Waffenlauf, einer Wiederholung der Totenehrung für Drusus, gesellten sich Ehrendarbietungen und Dankfeste (*supplicatio-*

[1] Ich danke Frau Dr. Marion Witteyer, Außenstellenleiterin der Landesarchäologie Mainz, Generaldirektion Kulturelles Erbe Rheinland-Pfalz, für den Auftrag zur Bearbeitung der Steinfragmente und für die Erlaubnis, die im Zusammenhang mit der zur Diskussion stehenden Anlage angesprochenen Grabungsbefunde zu erwähnen. Grabungsleitung G. Rupprecht, Grabungstechnik und Dokumentation T. Dederer. Althistorische Beratung W. Spickermann, Universität Erfurt, P. Herz (Universität Regensburg).

[2] Wegen der umfangreichen Zerstörungen archäologischer Befunde in Mainz durch die barocke Zitadelle wird ein absoluter archäologischer Beweis für die vorgebrachte Rekonstruktion kaum beizubringen sein.

[3] *Tabula Siarensis* (ed. J. González, Année épigraphique 1984, 508); Suet., *Claud.* 1.3; Cass. Dio 55.3; Zusammenfassung der Quellen und Textvarianten: Frenz 1985; Spickermann 2003, 86, Anm. 232; Panter 2007, 18-36, 199.

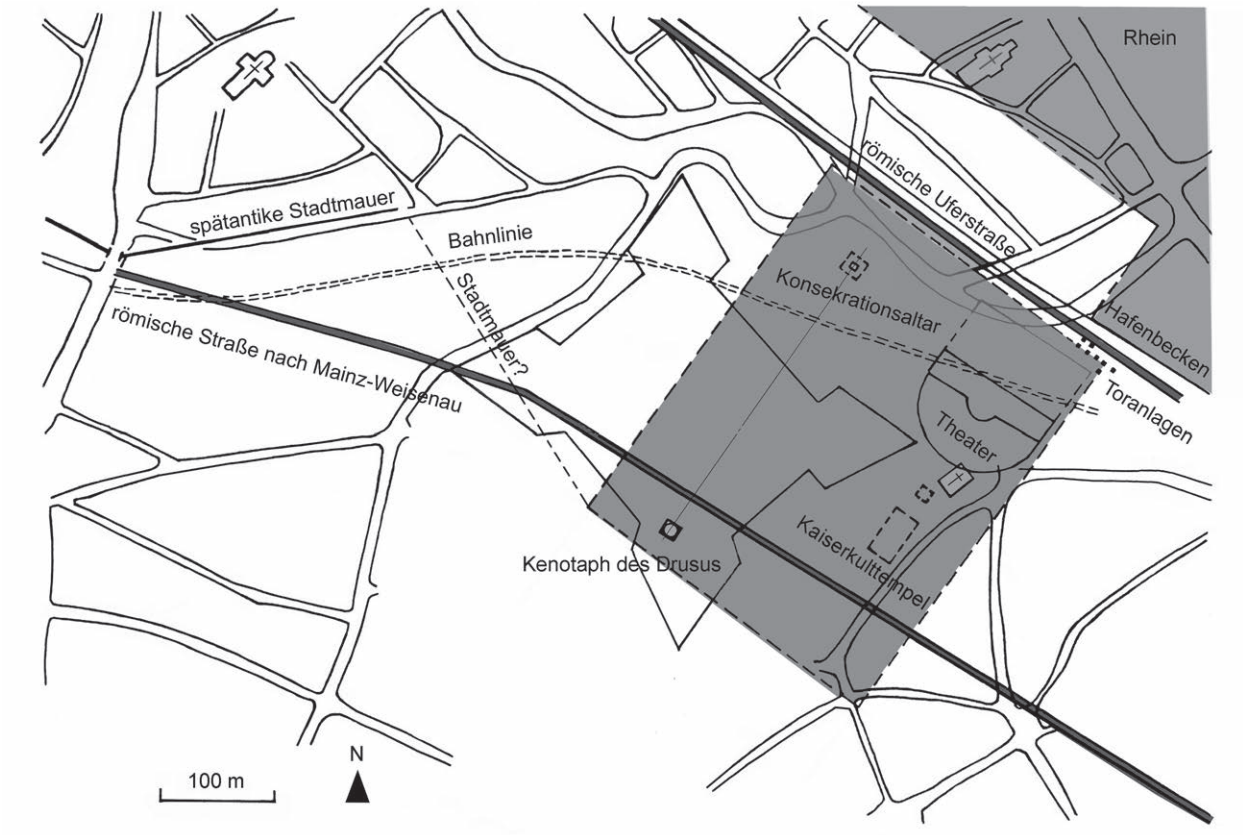


Abb. 1. Mainz, Plan des vermuteten Kaiserkultbezirks. Entwurf Ch. Ertel

nes) der 60 gallischen Stammesgemeinden (*Tabula Siarensis* 28-31; Suet., *Claud.* 1.3; Herz 2001, 103). An mindestens zwei Tagen im Jahr besuchten Vertreter des *Concilium* der *Tres Galliae Mogontiacum*, um die Inferiae des Drusus und Germanicus zu begehen. Weitere Festveranstaltungen zum Geburtstag des Germanicus sind in dem Festkalender mit Schwerpunkt auf dem Kaiserkult *Feriale Duranum* aufgeführt (Herz 2001, 92, 107; 2003, 50).

1. Kaiserkulttempel

Östlich des Kenotaphs für Drusus ragte vermutlich auf der Hochterrasse des Rheins ein großer Kaiserkulttempel auf, dessen Architektur aus Spolien in der spätantiken Stadtmauer rekonstruierbar ist. Es handelt sich um zwei Blöcke eines Architravs und drei Bruchstücke einer Sima. Die Architekturstücke wurden von H. Frenz in das frühe 1. Jh. n. Chr. datiert (Frenz 1992, Kat. # 28-32, 53-55, 72-74; Abb. 24, Taf. 26-27). Die Stücke stammen zusammen mit severischen Kaiserkultinschriften (Frenz 1986, 351 ff., Abb. 2, 5) aus einem südlichen Abschnitt der Stadtmauer in der Nachbarschaft des Kenotaphs. Nach dem Fundort und der Zeitstellung der Objekte dachte Frenz an einen Tempel für *Divus* Augustus mit den Dimensionen der Maison Carrée in Nîmes, d. h. mit einer Frontbreite von ca. 13.20 m. Vor diesem Hintergrund dürfte es sich bei den drei Simablöcken eher um Teile eines Türgewändes handeln, denn die Maison Carrée und alle Tempel ähnlicher Größe besitzen ein erheblich mächtigeres Konsolengesims (Amy / Gros 1979, 94, 156-168, Taf. 17-22. Höhe des Konsolengesimses 0.90 m).

Die frühe Entstehungszeit der genannten Architekturstücke schließen andere Verwendungen weitgehend aus. Vermutlich erhob sich der Kaiserkulttempel oberhalb des Theaters. Für die enge Verbindung von Tempel und Theater gibt es zahlreiche Vergleichsbeispiele. Der Kaiserkultbezirk von Mainz hat seine periphere Lage zum Stadtzentrum, die eine große Flächenausdehnung erlaubte, einen Schauplatz für Spiele und mindestens einen Tempel mit *Augusta Raurica* gemeinsam. Der Baukomplex des Schönbühl-Tempels und des achsial darauf ausgerichteten Theaters (Trunk 1991, 160-171; Berger 1998, 62-90; Hufschmid 1996, und jährliche Berichte in „Jahresberichte aus Augst und Kaiseraugst“; Spickermann 2003, 94-99, 155-158, Abb. 13, 16; Hufschmid 2008, 140-144) stellt ein für den römischen Kaiserkult typisches Ensemble dar. Der Forumstempel war nach den Inschriftresten vermutlich Augustus und Roma gewidmet (Trunk

1991, 34 ff. 154 ff.; Bossert-Radtke 1992, 48 ff.). Das Theater und das Cigognier-Heiligtum, der zentralen Kultstätte der Helvetier in Avenches sind etwas weiter voneinander entfernt, stehen aber ebenfalls in achsialem und kultischem Zusammenhang (Bridel 1982; Bossert 1998, 84-89, Taf. 47 / 1-2; Spickermann 2003, 161-166, Abb. 18, 19; Fishwick 2006, 34-38, Abb. 2, 4a, 4b; Bridel / Matter 2008; Meylan-Krause 2008, 71-78).

Vermutlich gehörte auch die in Resten erhaltene Bronzetür, die bei der Albansschanze, d. h. im Bereich des Theaters und unterhalb des Tempels gefunden wurde (Hassel 1977; Vlad Borrelli 1990, 9, Taf. 8, 16, 17; Gruben / Gruben 1997, 45, Anm. 119; Künzl / Künzl 2003, 260, Abb. 26-29), zum Kaiserkulttempel (**Abb. 2**). Ihr Überleben seit der Antike verdankt die Tür der Wiederverwendung in der karolingischen Kirche St. Alban. Die von Hassel vorgeschlagene Datierung aufgrund des Scherenkymations kann früher angesetzt werden, da Scherenkymata bereits in augusteischer Zeit vorkamen[4]. Die Tempeltür stammt demnach aus der frühen Kaiserzeit. Der erhaltene, 2.35 m hohe und 0.95 m breite Mainzer Türflügel wurde sicher von einem zweiten, gleichartigen Flügel und von einem Oberlicht ergänzt. Will man den von Frenz angestellten Vergleich mit der Maison Carrée weiterführen[5], so müsste die Mainzer Tempeltür insgesamt drei vertikale Einheiten und ein hohe feststehendes Oberlicht besessen haben. Es handelt sich um eine Tempeltür, durch die man die zu bestimmten Anlässen ausgestellten Götter- und Kaiserbilder sehen konnte (*porta clatrata*) (Vlad Borrelli 1990, 5; Gruben / Gruben 1997, 45, Anm. 119). Die Gittertüren wurden von geschlossenen Türflügeln ergänzt.



Abb. 2. Mainz, Bronzetür vom Albansberg. Detail. Kopie Landesarchäologie. Foto Ch. Ertel

2. Theater

Das erste Theater in *Mogontiacum* entstand bald nach dem Tod des Drusus, vielleicht aber auch schon vorher, weil es eine nützliche Anlage für alle Arten von Veranstaltungen der Legionen war. Hier war vermutlich der Ort, an dem nach dem Tod des Drusus und dem Rückkehr der Legion sein Scheinleib in Form einer Wachspuppe aufgebahrt wurde (Bellen 1984, 391; Frenz 1992, 53; Zanker 2000, 14). Das Theater wird bereits in der Tabula Siarensis von 19 n. Chr. erwähnt (*Tabula Siarensis* 33-34). Die parallele Orientierung des Theaters und des Kenotaphs (Frenz 1992, 53, Anm. 363) unterstützt die zeitliche Nähe der beiden Bauwerke. Die *Cavea* des Theaters nutzte die Hangböschung des Rheintals. Eine frühkaiserzeitliche Bauphase wird zweifelsfrei von den Architekturresten belegt. Die Anlage verfügte aber wahrscheinlich noch nicht über eine sich über das natürliche Hanggefälle erhebende *Cavea* aus Stein. Möglicherweise setzte man hölzerne Sitzstufen auf das natürliche Gelände. Einen Grund hierfür könnte der erwünschte Blickkontakt zum Kaiserkulttempel geliefert haben. Zwischen den beiden Bauwerken bewegten sich Prozessionen mit Götterbildern und wohl auch der Büste des Drusus, später auch des Germanicus (Herz 2001, 107).

In zweiter Verwendung blieb ein Konsolengesims des frühkaiserzeitlichen Proszeniums erhalten (**Abb. 3**). Der feine, spitzzahnige Akanthus und die reichen, noch nicht standardisierten Ornamente des Objekts deuten auf eine frühaugusteische Entstehungszeit hin. Die effektvollen Punktbohrungen finden sich auch an zeitgenössischen Bauwerken in Rom, z. B.

[4] Hassel war der Meinung, dass Scherenkymata erst nach 70 n. Chr. gebräuchlich wurden. Augusteische Beispiele in Rom: Ganzert 1988, 120 Kat. # 15-18, Abb. 41; in Mainz: Frenz 1992, Kat. # 28, 29, 30-32, 72-74, Abb. 24, Taf. 27.

[5] Die Türöffnung der Maison Carrée: Breite 3.27 m, Höhe 8.83 m: Amy / Gros 1979, 96, Taf. 25-28.

an der Marmorarchitektur der *Basilica Aemilia* (Ertel 2007 et al., 504, 506, 527, Abb. 14, 31, 33; Lipps 2011, 42, Abb. 13; 51, Abb. 26; 59, Abb. 33; 66 ff., Abb. 42; 79, Abb. 55). Die ungewöhnlichen Reliefs zwischen den Konsolen des Mainzer Stücks zeigen teilweise altertümliche Waffen und eine Opferszene. Gegen eine Verwendung des Stücks am Bühnengebäude sprechen die äußerst feinen, kleinmaßstäblichen Dekorelemente, die in größerer Höhe nicht mehr erkennbar gewesen wären. Außerdem wurden die frühkaiserzeitlichen Bühnenaufbauten vermutlich im 2. und 3. Jh. ersetzt. Ältere Bauteile blieben daher eher am bodennahen, weiter bestehenden Pulpitum erhalten.

Die Feinheit des abwechslungsreichen Dekors verbinden das Stück mit dem Pulpitum des augusteischen Theaters von *Vienna* (Vienne) (Formigé 1944; Ertel et al. 2008, 115, 119 Abb. 2c; Gros 2008, 70 ff., Abb. 57). Das Abschlussgesims verkröpfte sich dort über vorgezogenen Säulchen. Die Tierdarstellungen auf einem Fries über dem Pulpitumsgesims belegen im Gegensatz zu den Mainzer Waffendarstellungen den militärischen Kontext des Mainzer Theaters. Das Konsolengesims erfordert eine Ergänzung mit einem Architrav und einen Fries. Das gesamte Gebälk umfasste eine Höhe von ca. 0.80 m. Die Gesamthöhe des Proszeniums könnte nach dem jüngeren, aber vollständig erhaltenen Pulpitum des Theaters von *Hierapolis* ca. 3.25 m betragen haben (De Bernardi Ferrero 1966, 55-67, Taf. 21. Datierung: Erbauung des Theaters nach 60 n. Chr., Erneuerung des Pulpitums in severischer Zeit). Hohe Proszeniumsfronten sind ein Merkmal der hellenistischen Theater im Osten, die in der römischen Kaiserzeit von niedrigeren Bühnen abgelöst wurden (Ertel et al. 2008, 113, 115-117, Abb. 2-4). Pulpita westlicher Theater erreichten nur Höhen zwischen 1.00 und 1.50 m. Ein mit dem Mainzer Stück vergleichbares Konsolengesims aus dem Theater von *Teanum Sidicinum* (Teano) wird der Bühnen- oder Tribunalia-Architektur aus der 2. Hälfte des 1. Jhs. v. Chr. zugeschrieben (Sirano 2010, 103, Abb. 2a: Höhe 0.32 m, Tiefe 0.60 m). Späthellenistische Züge der Architektur in *Mogontiacum* sind auch an den frühen Grabbauten nachweisbar (Neeb 1917; Behrens 1953/1954, 78; Rupprecht 1990, 463 ff.; Rupprecht 2000).

Das augusteische Theater bestand mit jüngeren Umbauten des Bühnenhauses eine unbekannte Zeitspanne weiter. Die Erhaltung des Konsolengesimses deutet darauf hin, dass der Bühnensockel bis zur Errichtung des jüngeren Neubaus aufrecht stand. Wenige andere Architekturfragmente lassen auf Umbauten am Ende 1. Jhs. und am Ende des 2. oder Anfang des 3. Jhs. schließen. Nach ca. 260 n. Chr. mit dem Beginn des gallischen Sonderreichs mit den Schwerpunkten Köln und Trier scheint der Kaiserkult in Mainz vorübergehend an Bedeutung verloren zu haben. Das Theater wurde nicht mehr bespielt. Im Bereich der Cavea entstanden Keller und einfache Wohnhäuser. Auch an anderen Stellen innerhalb des Kaiserkultbezirks wurden Reste einer Wohnbebauung angetroffen, die auf eine zeitweise profane Nutzung oder sogar eine dauerhafte Verkleinerung der Fläche hindeuten könnten[6]. Die heute sichtbaren Reste des Theaters stammen von einem Neubau aus der 1. Hälfte des 4. Jhs. (Neeb 1917; Behrens 1953/1954, 78; Rupprecht 1990, 463 ff.; Rupprecht 2000). Die Cavea wurde jetzt hoch ausgebaut, der weiter existierende Kaiserkulttempel vielleicht in das Bauwerk integriert.

Der Block des augusteischen Proszeniums diente nun als Fundament eines Altars, der sich im Scheitel der Orchestra erhob. Rund um den Block waren rituell weitere kleine Bruchstücke verteilt. Der Fundort des Konsolengesimses stimmt mit der üblichen Position eines Altars in der Orchestra der römischen Kaiserzeit überein. Eine entsprechende Anordnung des Altars findet sich bereits in hellenistischen Theatern, etwa in dem von *Priene* (Gerkan 1921, 23, Abb. 2, Taf. 5 / 12-14; Bieber 1961, 108-111, Abb. 417-421). Diese ältere Tradition wurde in der frühen Kaiserzeit weitergeführt. Im Theater von Arles stand an dieser Stelle vielleicht der Schwanenaltar (Formigé 1944; Gros 1987, 352 ff., Abb. 12), in *Byblos* setzte man vielleicht einen Altar für Dionysos, der mit dem Dionysos-Mosaik der Orchestra (Ertel et al. 2008, 111 ff.) in Beziehung stand. Vermutlich konstituierte man den Kaiserkult um das Theater in Mainz in der Erholungsphase nach den Germaneneinfällen am Ende des 3. Jhs. neu. Die Anerkennung des Christentums änderte nichts an der politischen Bedeutung des Kaiserkults (Clauss 2001, 196-207; Barceló 2003). Konstantin leitete seinen Herrschaftsanspruch von seinen Vater Constantius Chlorus ab, den er konsekrieren ließ, er selbst wurde ebenfalls divinisiert.

[6] Grabung Dagobertstr. (Handwerkskammer): Die Keller und Wohnhäuser orientieren sich an der mutmaßlichen rheinseitigen Temenosmauer, die aber selbst nicht nachweisbar war; Grabung Holzhof / Windmühlstr.: Wohnbebauung, einzelne Gräber und Kellerverfüllung vom Ende 3. Jh. n. Chr., ebenfalls alte Orientierung beibehalten.



Abb. 3. Mainz, Konsolengesims aus dem Theater. Foto Ch. Ertel

3. Südöstliche Bezirksmauer mit Portalen (?), Hafenbecken (?)

Nordöstlich des Theaters wurde im Jahr 1997 eine Reihe von mächtigen Pfeilerfundamenten freigelegt (Seitenlänge ca. 2.60 m). Sie stellen vermutlich die zum Rhein hin geöffnete Bezirksfront dar und entstanden wahrscheinlich in einer Ausbauphase des Kaiserkultbezirks am Ende des 1. oder in der 2. Hälfte des 2. Jhs[7].Drei vor die Flucht der übrigen Fundamente vortretende Pfeiler bezeichnen wohl Toranlagen mit Säulenstellungen, der südlichste Pfeiler scheint eine Ecke der Umfassungsmauer und ein seitliches Tor anzudeuten. Die in der Nähe verlaufende frühkaiserzeitliche Uferlinie des Rheins war mit an zwei parallelen Doppelreihen von Pfählen und angeschwemmtem Material ablesbar[8]. Auf den rheinseitigen Pfählen erhob sich vermutlich eine Trockenmauer. Das Fundmaterial stammt aus tiberisch-claudischer Zeit. Da die entsprechende in tiberischer Zeit befestigte Uferlinie in einer weiter nördlichen liegenden Ausgrabung[9] weiter in den Fluss vorrückt, liegt die Annahme nahe, dass sich vor den ergrabenen Pfeilersockeln ein Hafenbecken befand.

Das Rheinufer gab eine Seite des Kultbezirks vor, deren Orientierung vom Sockel des Drusus-Kenotaphs aufgenommen wurde. Mehrere der älteren Stadtmauerrekonstruktionen, die davon ausgehen, dass das Theater von der Stadtmauer umfasst wurde, schließen nordöstlich davon einen rechten Winkel ungefähr an der vermuteten Ecke der Temenosmauer ein (Heising 2008, 173, Abb. 5; Frenz 1986, 332 ff.). Die von Frenz vorgeschlagenen Trassen sowohl der älteren als auch der jüngeren Stadtmauer nehmen an ihrer Südostecke einen Verlauf ein, der mit der Temenosmauer des postulierten Kaiserkultbezirks identisch ist. In der Tat war es ratsam, das monumentale Theater in die Stadtmauer einzubeziehen. Dieselbe Überlegung gilt auch für den Kenotaph des Drusus, der als einzigartiger Gedächtnisort und hoch aufragender Bau nicht den Feinden ausgeliefert werden sollte. Die jüngere Stadtmauer könnte in diesem Bereich an der Westecke des Kaiserkultbezirks angeschlossen haben und dann in einem stumpfen Winkel auf den Abschnitt Eisgrubweg gestoßen sein (**Abb. 1**).

Der Memorialbezirk für Drusus dehnte sich bis zum Flusshafen aus, weil er bestrebt war, die mit dem Auszug der Legion und der traurigen Rückkehr des toten Helden in Beziehung stehenden Örtlichkeiten zusammenzufassen. Da Teile des Heeres mit den Zeremonien befasst waren, die übrigen Soldaten zusahen und die Abordnungen der gallischen Stämme wahrscheinlich personenstark anreisten, benötigte man eine große Fläche. Generell bevorzugten Kaiserkultbezirke Lagen an Häfen, die für eine gute Erreichbarkeit und das Publikum für die urbanistischen Effekte der Anlage sorgten. Bekannte Beispiele hierfür sind die Augusteen von *Eresos* auf Lesbos, in *Caesarea*, *Alexandria* und *Ephesos* (Hänlein-Schäfer 1985, 32-34, Kat. # A 28, 173 ff., # A 48, 201-203, Taf. 51 c,

[7] Datierung nach TS und zahlreichen Münzen: Ende 1. bis 2. Jh.
[8] Grabung Neutorstraße: Martin-Kilcher / Witteyer 1998/1999, 85, 98, Abb. 24 (6) / 33; Heising 2008, 34-36, Abb. 11.
[9] Grabung Rheinstraße: Martin-Kilcher / Witteyer 1998/1999, 97 ff., Abb. 24 (5) / 32.

und # A 49, 203-205, Taf. 52) sowie in Bregenz am Bodensee (Ertel et al. 2011). In allen Fällen hatten die Ankommenden schon von Weitem freie Sicht auf die Schönheit der Landschaft, der Städte und die beherrschenden Tempel.

5. Konsekrationsaltar für Drusus und Germanicus (?), Provinzaltar

In dem Memorialbezirk von *Mogontiacum* wurde die Bestattungszeremonie für Drusus in Anlehnung an die seit spätrepublikanischer Zeit in Rom üblichen Bestattungsrituale für hochgestellte Persönlichkeiten vorgenommen und wiederholt. Um den Scheiterhaufen herum fand spätestens seit der Verbrennung Sullas in Rom die *Decursio* statt (App., *Bell. Civ.* 1.106; Zanker 2000, 50). Obwohl eine offizielle Divinisierung des Drusus nicht belegt ist (Clauss 2001, 371; Spickermann 2006, 171), darf man annehmen, dass er in Mainz eine apotheoseähnliche Ehrung erfuhr. Dies lässt sich aus der Überlieferung der Riten erschließen. Die *Decursiones* gehörten zu dem Begräbnisriten, die später bei Kaiserbegräbnissen als Apotheoseritual ausgeführt wurde. Umgekehrt scheinen sich *Decursiones* aber nicht auf die in Rom offiziell begangenen Leichenfeiern beschränkt zu haben, denn sie fanden nachweislich in *Mogontiacum* statt. In der frühen Kaiserzeit führte man die spätrepublikanische Form der Ehrenbestattung offensichtlich noch ohne die spätere Einengung auf Herrscherpersönlichkeiten und die offiziell abgesegnete Himmelfahrt durch.

In der Nähe des Rheinhafens, wo die Legion bei ihrer Rückkehr landete, vielleicht im Theater, bahrte man eine Wachspuppe des Verstorbenen auf. Die Trauerveranstaltungen begannen mit langen Lobreden, Offiziere und politische Würdenträger erwiesen dem toten Heerführer ihre Referenz und geleiteten ihn in einer feierlichen Prozession zu einem monumentalen Scheiterhaufen[10]. Zwei Gruppen von Rittern umkreisten den Scheiterhaufen in entgegengesetzter Richtung. Die höheren Offiziere der Mainzer Garnison, in Rom die Prätorianer, präsentierten sich in der Mitte mit ihren besonderen Feldzeichen, die mit Kaiserbildnissen geschmückt waren. Sie führten in voller Rüstung einen Waffentanz auf (Reliefdarstellung auf den beiden Nebenseiten der Ehrensäule des Antoninus Pius: Vogel 1973, 56-81, Abb. 9 / 17; Zanker 2000, 50-53 Abb. 23).

Wahrscheinlich fanden an der Stelle des späteren Kaiserkulttempels Opfer statt. Die Zeremonien dauerten den ganzen Tag, bis der Scheiterhaufen in der beginnenden Dunkelheit angezündet wurde. Durch die Verbrennung trat der Verstorbene in die göttliche Sphäre ein. Nach dem Glauben der Römer trug ein Adler oder Genius die Seele des Toten in den Himmel, wo sie neben den Göttern aufgenommen wurde. Während der Scheiterhaufenszene wurde ein echter Adler aus einem Käfig freigelassen (Hdn. 4.2.10.). An der Stelle des Scheiterhaufens wurde später ein Konsekrationsaltar errichtet. Dieser blieb auch in späterer Zeit Mittelpunkt der *Decursio*. Aus den überlieferten Spielen zu Ehren von Drusus und Germanicus und den supplicationes kann man ableiten, dass der Konsekrationsaltar die Rolle eines Provinzaltars spielte.

Ein Altar als Mittelpunkt der *Decursio* wurde bereits von P. Zanker und P. Herz angenommen (Hdn. 4.2.8-9; Zanker 2000, 48-51, Abb. 22: Ritt um den später durch einen Altar ersetzten Scheiterhaufen; Herz 2001, 106 ff.; Spickermann 2003, 86 ff.). Eine Reihe von Architekturfragmenten aus einem Kalkofen nördlich des Theaters gestattet die Rekonstruktion der Altaranlage[11]. Ein Relieffragment kann zu einer Apotheose des Drusus oder einer anderen Person ergänzt werden (**Abb. 4**). Als Vorbild diente die Apotheose des Antoninus Pius auf dem Sockel seiner Ehrensäule[12] (Nash 1961, 270-275, Abb. 320-323; Vogel 1973, 32-55, Abb. 3-6; Maffei 1993). Auf dem

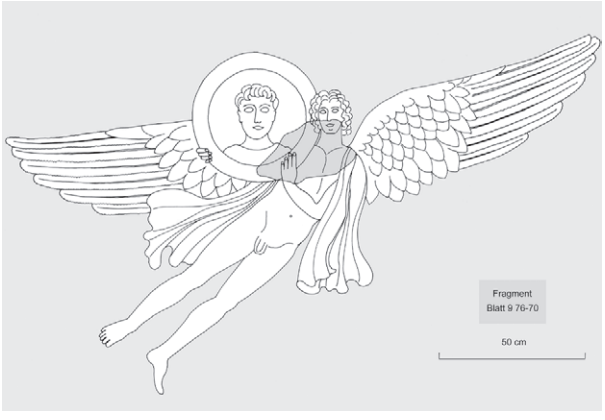


Abb. 4. Mainz, Relieffragment mit Apotheoseszene. Rekonstruktion Ch. Ertel

[10] Leichenfeier für Augustus: Cass. Dio 56.34-42; Suet., *Div. Aug.* 100; Apotheosefeier für Pertinax: Cass. Dio 75.4-5; für Septimius Severus: Hdn. 4.2.1-11. Zanker 2000, 12; Clauss 2001, 360-368.

[11] Grabung 2008 in der Holzhof-/Windmühlstr. Leitung G. Rupprecht, J. Dolata, K. Soukup (Grabungstechnik).

[12] Das Beispiel ist erheblich jünger, aber dieser Bildnistypus dürfte sich kaum geändert haben.

Relieffragment aus Mainz erfasst die Gestalt mit beiden Händen den Rahmen einer Imago clipeata, die Drusus oder Germanicus darstellte. Auf einer Seite des Konsekrationsaltars war vielleicht diese Szene mit Drusus, auf der anderen eine ähnliche mit Germanicus dargestellt. Als Vorbild für die Rekonstruktion des Altars und seine Umfriedung diente die Ara Pacis (Settis 1988, 405-416, Abb. 180-182; Rossini 2006). Vergleichbare Anlagen stellen auch die *Ustrina* der antoninischen Kaiser unter dem Parlamentsgebäude in Rom dar[13] (**Abb. 5**; La Rocca 1984, 101-114, Taf. 25-28; Kampmann 1985, *passim*, Abb. 9 / 14). Zwei Kannelurblöcke mit 0.29 m Breite belegen, dass die Umfassungsmauer des Konsekrationsaltars in *Mogontiacum* von Pilastern dieser Breite unterteilt war. Zwei Kapitellfragmente, ein Architravfragment und ein Konsolengesims sind aufgrund ihrer Dimensionen der Anlage zuweisbar. Möglicherweise lag der Konsekrationsaltar auf einer Achse mit dem Kenotaph des Drusus (**Abb. 1**). Die Nordwesthälfte des Kultbezirks fungierte damit als geräumiger Paradeplatz.

Der spontan entstandene Personenkult um Drusus den Älteren spiegelt den sich in Rom etablierenden Herrscherkult. Als erster römischer Alleinherrscher wurde der Diktator Caesar auf

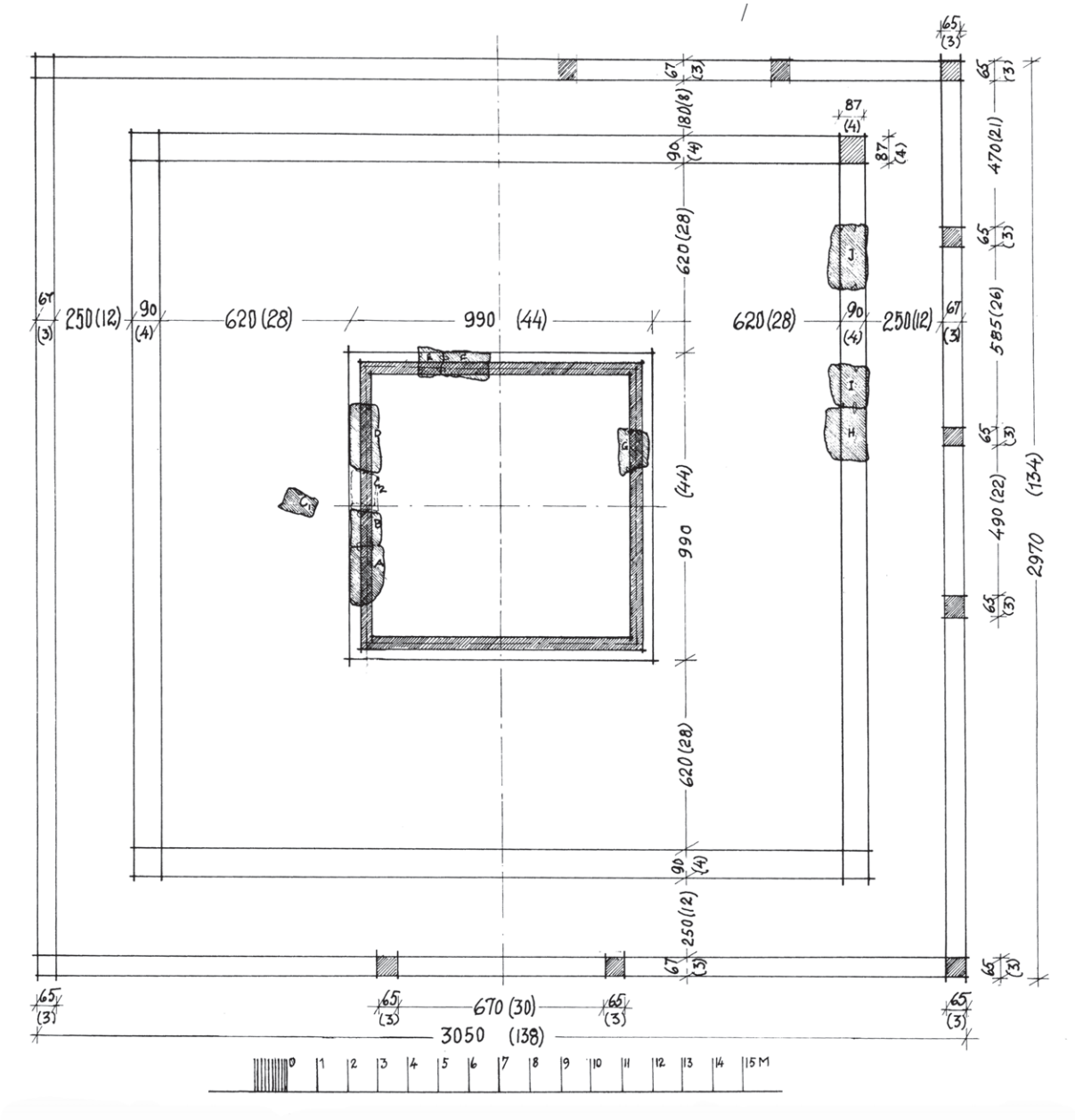


Abb. 5. Rom, *Ustrinum* der antoninischen Kaiser (Grundriss) nach Kampmann 1985, Abb. 9

[13] Grabung A. Cozza 1907-1910.

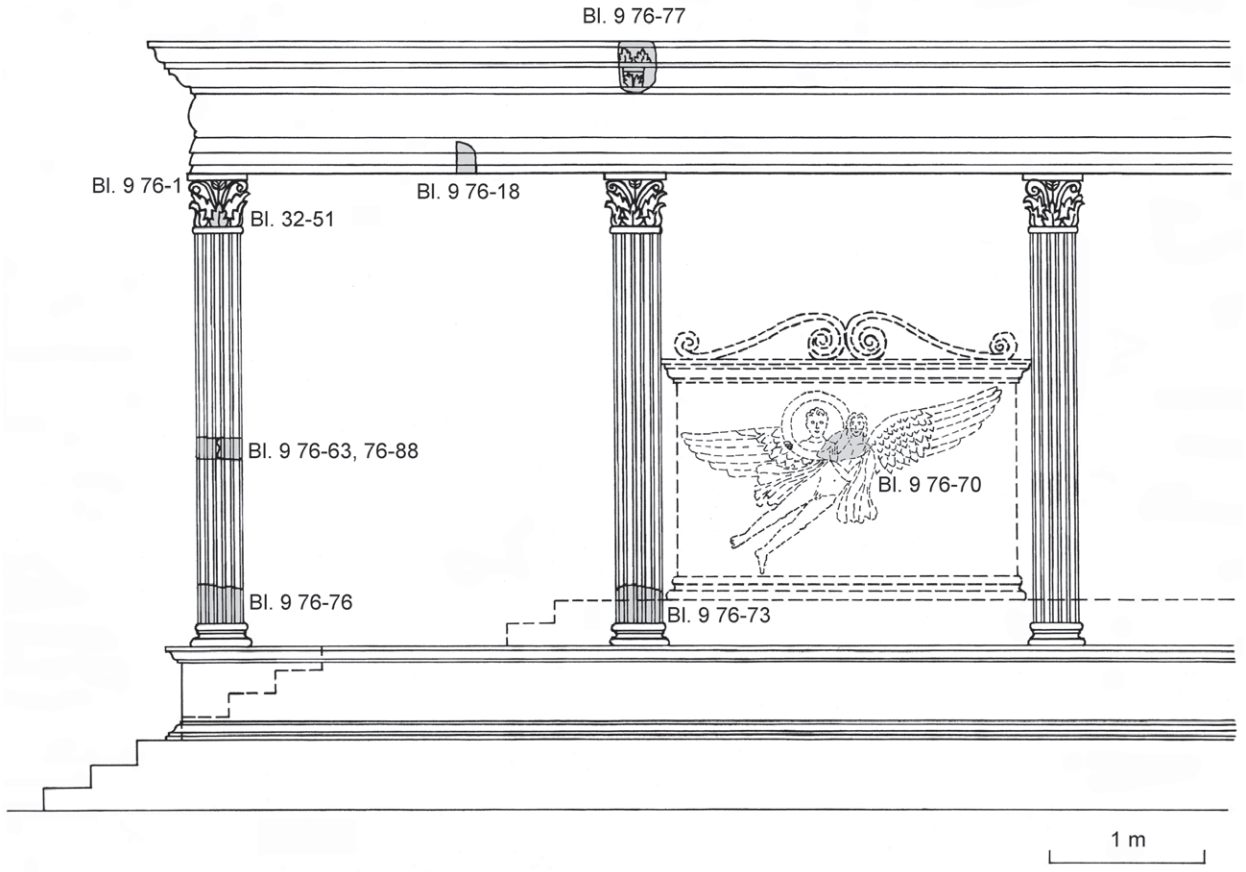


Abb. 6. Mainz, Provinzaltar (Ausschnitt). Rekonstruktion Ch. Ertel

Initiative seines Neffen Augustus zwei Jahre nach seinem Tod als *Divus* Julius divinisiert. Ihm wurde an der Ostseite des *Forum Romanum* ein eigener Tempel errichtet. Dass nun zunächst mit Drusus ein Prinz der julischen Familie eine apotheoseähnliche Ehrung erfuhr, zeigt, dass die spätrepublikanischen Begräbnisriten noch nicht so exklusiv instrumentalisiert wurden wie in der fortgeschrittenen Kaiserzeit. Erfolgreiche Heerführer wie auch schon Scipio Africanus, den seine Soldaten „*rex*" nennen wollten, waren schon früher Gegenstand großer persönlicher Verehrung geworden (Liv. 26.19.3-6). Der Kult um Drusus wurde offensichtlich von Augustus akzeptiert, da er selbst die Eloge für dessen Grabmal verfasste. Zu diesem Zeitpunkt mussten die Feierlichkeiten längst zum wiederholten Male stattgefunden haben. In *Mogontiacum* besaß die eindrucksvolle Bestattungs- und Auferstehungsfeier wie auch alle anderen Spiele einen großen militärischen Wert, denn sie führten Bürgern und Nachbarn die Macht Roms vor Augen. Das Gefälle des Geländes sorgte dafür, dass die Veranstaltungen im Kaiserkultbezirk vom östlichen Rheinufer und dem Fluss selbst mitverfolgt werden konnten.

Bibliographie

Amy, R. / Gros, P. 1979. La Maison Carrée de Nîmes (= Gallia Supplément 38). Paris.

Barceló, P. 2003. Beobachtungen zur Verehrung des christlichen Kaisers. In: Cancik, H. / Hitzl, K. (Hrsg.). Die Praxis der Herrscherverehrung in Rom und seinen Provinzen. Tübingen. 319-339.

Behrens, G. 1953/1954. Verschwundene Mainzer Römerbauten. – Mainzer Zeitschrift 48/49, 70-88.

Bellen, H. 1984. Das Drususdenkmal „apud Mogontiacum" und die Galliarum civitates. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 31, 385-396.

Berger, L. 1998. Führer durch Augusta Raurica. 6. Auflage. Basel.

Bernhard, H. 1990. Die römische Geschichte in Rheinland-Pfalz. In: Cüppers, H. (Hrsg.). Die Römer in Rheinland-Pfalz. Stuttgart. 39-168.

Bieber, M. 1961. The History of the Greek and Roman Theater. Princeton.

Bossert, M. 1998. Die figürlichen Baureliefs des Cigognier-Heiligtums in Avenches. (= Aventicum 8 = Cahiers d'archéologie romande 70 = Corpus Signorum Imperii Romani Schweiz 1.2). Lausanne.

Bossert-Radtke, C. 1992. Die figürlichen Reliefs und Rundskulpturen aus Augst und Kaiseraugst. (= Corpus

Signorum Imperii Romani Schweiz 3 = Forschungen in Augst 16). Augst.

Bridel, Ph. 1982. Le sanctuaire du Cigognier. (= Aventicum 3 = Cahiers d'archéologie romande 22). Lausanne 1982.

Bridel, Ph. / Matter, G. 2008. Sanctuaire du Cigognier, théâtre antique et temples du Lavoëx: un cas particulier? In: Castella, D. / Meylan-Krause, M.-F. (Hrsg.). Topographie sacrée et rituels. Le cas d'Aventicum, capitale des Helvètes. Actes du colloque international d'Avenches, 2-4 novembre 2006 (= Antiqua 43). Basel. 51-58.

Clauss, M. 2001. Kaiser und Gott. Herrscherkult im römischen Reich. München-Leipzig.

Cüppers, H. 1990 (Hrsg.). Die Römer in Rheinland-Pfalz. Stuttgart.

De Bernardi Ferrero, D. 1966. Teatri classici in Asia Minore, 1. Rom.

De Rossi, G. M. 1983. Lazio Meridionale. Rom.

Decker, K.-V. / Selzer, W. 1976. Mogontiacum: Mainz von der Zeit des Augustus bis zum Ende der römischen Herrschaft. – Aufstieg und Niedergang der römischen Welt II 5.1, 457-559.

Ertel, Ch. / Boppert, W. (Manuskript). Die Gräberstraße Weisenau. Steindenkmäler und Grabbauten. (Manuskript vorgelegt 2012).

Ertel, Ch. / Freyberger, K. S. / Hesberg, H. v. 2008. Das Theater und die Kultbezirke des römischen Byblos. – Zeitschrift für Orient-Archäologie 1, 90-152.

Ertel, Ch. / Freyberger, K. S. / Lipps, L. / Bitterer, T. 2007. Neue Forschungen zur Basilica Aemilia auf dem Forum Romanum. – Römische Mitteilungen 113, 493-552.

Ertel, Ch. / Hasenbach, V. / Deschler-Erb, S. 2011. Kaiserkultbezirk und Hafenkastell in Brigantium – Ein Gebäudekomplex der frühen und mittleren Kaiserzeit (= Forschungen zur Geschichte Vorarlbergs 10). Konstanz.

Fishwick, D. 2006. Imperial Processions at Augusta Emerita. In: Nogales, T. / González, J. (Hrsg.). Culto Imperial: política y poder. Akten des Internationalen Kongresses Merida 2006. Rom. 30-47.

Formigé, J. 1944. L'autel aux cygnes d'Arles et la thymélé dans les théatres greco-romains. – Revue archéologique 21, 21-34.

Frenz, H. G. 1992. Bauplastik und Porträts aus Mainz und Umgebung (= Corpus Signorum Imperii Romani Deutschland 2.7). Mainz.

Frenz, H. G. 1986. Die Spolien der Mainzer Stadtmauer. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 33, 331-368.

Frenz, H. G. 1985. Drusus Maior und sein Monument zu Mainz. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 32, 394-421.

Ganzert, J. 1988. Augusteische Kymaformen – eine Leitform der Bauornamentik. In: Hofter, M. (Hrsg.). Kaiser Augustus und die verlorene Republik. Ausstellungskatalog Berlin. 116-121.

Gerkan, A. v. 1921. Das Theater von Priene als Einzeldarstellung und in seiner Bedeutung für das antike Bühnenwesen. München.

Gros, P. 2008. Gallia Narbonnensis. Mainz.

Gros, P. 1987. Un programme augustéen: Le centre monumental de la colonie d'Arles. – Jahrbuch des deutschen archäologischen Instituts 102, 339-363.

Gruben, D. / Gruben, G. 1997. Die Türe des Pantheon. – Römische Mitteilungen 104, 3-74.

Hänlein-Schäfer, H. 1985. Veneratio Augusti. Eine Studie zu den Tempeln des ersten römischen Kaisers (= Archaeologica 39). Rom.

Hassel, F. J. 1977. Die Bronzetür von der Albansschanze in Mainz. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 22 (= Festschrift Hans-Jürgen Hundt zum 65. Geburtstag), 141-152.

Heising, A. 2008. Die römische Stadtmauer von Mogontiacum-Mainz. Archäologische, historische und numismatische Aspekte zum 3. und 4. Jahrhundert n. Chr. Bonn.

Herz, P. 2003. Neue Forschungen zum Festkalender der römischen Kaiserzeit. In: Cancik, H. / Hitzl, K. (Hrsg.). Die Praxis der Herrscherverehrung in Rom und seinen Provinzen. Tübingen. 47-67.

Herz, P. 2001. Das römische Heer und der Kaiserkult in Germanien. In: Cancik, H. / Rüpke, J. / Spickermann, W. (Hrsg.). Religion in den germanischen Provinzen Roms. Tübingen. 91-116.

Hesberg, H. v. 1992. Römische Grabbauten. Darmstadt.

Hufschmid, Th. 2008. Die Heiligtümer von Augusta Raurica. Überlegungen zur Topographie und Interpretation. In: Castella, D. / Meylan-Krause, M.-F. (Hrsg.). Topographie sacrée et rituels. Le cas d'Aventicum, capitale des Helvètes. Actes du colloque international d'Avenches, 2-4 novembre 2006 (= Antiqua 43). Basel. 137-153.

Hufschmid, Th. 1996. Das römische Theater von Augst. Sanierungs- und Forschungsarbeiten 1995. Neue Überlegungen zum ersten Augster Theater. – Jahresberichte aus Augst und Kaiseraugst 17, 197-215.

Instinsky, H. U. 1960. Historische Fragen des Mainzer Drususdenkmals. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 6, 180-196.

Kampmann, H. 1985. The Ustrinum in the Palazzo del Parlamento in Rome. – Opuscula Romana 15.5, 67-78.

Kühlborn, J.-S. / Künzl, E. 1988. Germanien und Rom. In: Hofter, M. (Hrsg.). Kaiser Augustus und die verlorene Republik. Ausstellungskatalog Berlin. 529-606.

Künzl, E. / Künzl, S. 2003. Das römische Prunkportal von Ladenburg (= Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg 94). Stuttgart.

La Rocca, E. 1984. La riva a mezzaluna. Culti, agoni, monumenti funerari presso il Tevere nel Campo Marzio occidentale. Rom.

Lipps, J. 2011. Die Basilica Aemilia am Forum Romanum. Der kaiserzeitliche Bau und seine Ornamentik (= Palilia 24). Wiesbaden.

Maffei, S. 1993. Columna Antonini Pii In: Lexicon Topographicum Urbis Romae 1. Rom. 298-300.

Martin-Kilcher, S. / Witteyer, M. 1998/1999. Fischsaucenhandel und Rheinufertopographie in Mogontiacum. – Mainzer Archäologische Zeitschrift 5/6, 45-122.

Meylan-Krause, M.-F. 2008. Des dieux et des hommes. Cultes

et rituels dans les sanctuaires d'Aventicum. In: Castella, D. / Meylan-Krause, M.-F. (Hrsg.). Topographie sacrée et rituels. Le cas d'Aventicum, capitale des Helvètes. Actes du colloque international d'Avenches, 2-4 novembre 2006 (= Antiqua 43). Basel. 59-78.

Nash, E. 1961/1962. Bildlexikon zur Topographie des antiken Rom, 1-2. Tübingen.

Neeb, E. 1917. Das römische Theater zu Mainz. – Germania 1, 54-58.

Panter, A. 2007. Der Drususstein in Mainz und dessen Einordnung in die römische Grabarchitektur seiner Erbauungszeit (= Mainzer Archäologische Schriften 6). Mainz.

Quilici, L. 2004. Santuari, ville e mausolei. Sul percorso della Via Appia al Valico degli Aurunci. In: Quilici, L. / Quilici, S. (Hrsg.).Viabilità e insediamenti nell'Italia antica (= Atlante tematico di topografia antica 13). Rom. 441-543.

Rossini, O. 2006. Ara Pacis. Rom.

Rupprecht, G. 2000. Wo einst Gedenkfeier und Schauspiel stattfanden. – Antike Welt 31, 157-161.

Rupprecht, G. 1990. Mainz. In: Cüppers, H. (Hrsg.). Die Römer in Rheinland-Pfalz. Stuttgart. 458-469.

Settis, S. 1988. Die Ara Pacis. In: Hofter, M. (Hrsg.). Kaiser Augustus und die verlorene Republik. Ausstellungskatalog Berlin. 400-426.

Sirano, F. 2010. La scaenae frons del teatro di Teanum Sidicinum. Decorazione e arredo scultoreo. In: Ramallo Asensio, S. F. / Röring, N. (Hrsg.). La Scaenae Frons en la arquitectura teatral romana. Akten Symposium Cartagena 2009. Murcia. 101-117.

Spickermann, W. 2006. Mogontiacum (Mainz) als politischer und religiöser Zentralort der Germania superior. In: Cancik, H. / Schäfer, A. / Spickermann, W. (Hrsg.). Zentralität und Religion. Studien und Texte zu Antike und Christentum 39. Tübingen.

Spickermann, W. 2003. Germania Superior (= Religionsgeschichte des römischen Germanien 1). Tübingen.

Trunk, M. 1991. Römische Tempel in den Rhein- und westlichen Donauprovinzen. Ein Beitrag zur architekturgeschichtlichen Einordnung römischer Sakralbauten in Augst (= Forschungen in Augst 14). Augst.

Vlad Borelli, L. 1990. La porta romana. In: Salomi, S. (Hrsg.). Le porte di bronzo dall'antichità al secolo XIII, 1. Rom. 1-9.

Vogel, L. 1973. The Column of Antoninus Pius. Cambridge.

Witteyer, M. / Fasold, P. 1995. Des Lichtes beraubt. Ausstellungskatalog Museum für Vor- und Frühgeschichte Frankfurt. Mainz.

Zanker, P. 2000. Die Apotheose der römischen Kaiser (= Carl Friedrich von Siemens Stiftung Themenband 80). München.

Christine Ertel
Universitäts- und Landesbibliothek
Franziska-Braun-Straße 10
DE-64287 Darmstadt
ertel@ulb.tu-darmstadt.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Legionslager *Vindonissa* – Stand der Forschung

Jürgen TRUMM

Der Ort (Abb. 1)

Das römische *Vindonissa* im Süden der Provinz *Germania Superior* ist das einzige kaiserzeitliche Legionslager auf dem Gebiet der heutigen Schweiz. Das archäologische Areal – Legionslager, umgebende Zivilsiedlung und Nekropolen – erstreckt sich heute auf einer Fläche von ca. 45 Hektar auf dem Gebiet der Gemeinden Windisch, Brugg, Hausen, Lupfig und Gebenstorf (Kanton Aargau, Schweiz). Wichtigster Faktor für die Gründung eines Militärlagers in augusteischer Zeit war die geostrategisch wichtige Lage am «Wassertor der Schweiz», nahe dem Zusammenfluss von Aare, Reuss und Limmat. Dieser Platz unmittelbar südlich der bedeutsamen Rheinzone erlaubte die Kontrolle aller Verkehrsbewegungen im helvetischen Gebiet. Zugleich bot er naturräumlich vorgezeichnete Wege für militärische Offensiven nach Norden.

Die Forschung

Systematische Sammlungen und Ausgrabungen begannen Ende des 19. Jh., getragen von der 1897 gegründeten *Antiquarischen Gesellschaft von Brugg und Umgebung*, die sich seit 1906 *Gesellschaft Pro Vindonissa* nennt. Mit mehr als 1000 dokumentierten archäologischen Interventionen gehört *Vindonissa* zu den besterforschten Legionslagern der römischen Welt. Dennoch geniesst die archäologische Stätte mit Ausnahme einiger bereits ausgegrabener Bauten bis heute keinen besonderen gesetzlichen Schutz. Verursacht durch Bauprojekte, sind Jahr für Jahr weiterhin Verluste an der archäologischen Substanz hinzunehmen. So mussten in den letzten 15 Jahren mehr als 43 000 m^2 ausgegraben werden, also fast genauso viel wie in knapp 50 Jahren zuvor. Immer noch diktieren aktuelle Bauprojekte den Einsatzort und die Einsatzart der Kantonsarchäologie Aargau, die *Vindonissa* auf Basis des Aargauer Kulturgesetzes betreut.

Es ist zu einer guten Tradition geworden, dass die *Vindonissa*-Forschung in regelmässigen Abständen den Stand ihrer Kenntnisse vorlegt (Heierli 1905; Heuberger 1909; Laur-Belart 1935; Wiedemer 1966-1967; Hartmann 1979-1980; Hartmann 1986; Maier 1998). Der vorliegende Artikel fasst die wichtigsten Forschungsergebnisse der Jahre 1997-2012 zusammen, wobei er sich aus Platzgründen auf das Legionslager des 1. Jh. beschränkt. Weiterführende Informationen zum Legionslager und den spätantiken Befestigungen, zu den Zivilsiedlungen, Strassen und Gräberfeldern geben zwei Forschungsberichte, die kürzlich publiziert wurden (Trumm 2010; 2011), ergänzt durch einen Gesamtplan und eine umfassende *Vindonissa*-Bibliographie (Berger 2010).

Die «Vorlagerzeit» von *Vindonissa* (Abb. 2)

Auf dem Hochplateau zwischen Aare und Reuss, am Ort eines befestigten spätkeltischen Siedlung (*oppidum*?), beginnt in augusteischer Zeit die Geschichte des römischen Militärplatzes *Vindonissa*. Nach mehr als 100 Jahren Ausgrabungs- und Forschungstätigkeit steht die Frage im Mittelpunkt, wann genau die römische Okkupation beginnt und in welcher Form sie sich archäologisch manifestiert. Grossgrabungen auf der «Breite» 1996-1998 und die nachfolgende Auswertung und Publikation der Holzbaubefunde haben die Diskussion auf eine neue Grundlage gestellt (Hagendorn et al. 2003). Im Zentrum des späteren steinernen Legionslagers kamen nämlich statt der erwarteten zwei Holzbauphasen nicht weniger als sieben Holzbauphasen zum Vorschein. Davon lassen sich die ersten vier Phasen anhand der Funde in mittel- und spätaugusteische Zeit datieren, also vor die Jahre 14/16 n. Chr., die bislang allgemein als «Gründungsdatum» des Legionslagers diskutiert wurden. Weitere wichtige Erkenntnisse zur frühen Geschichte

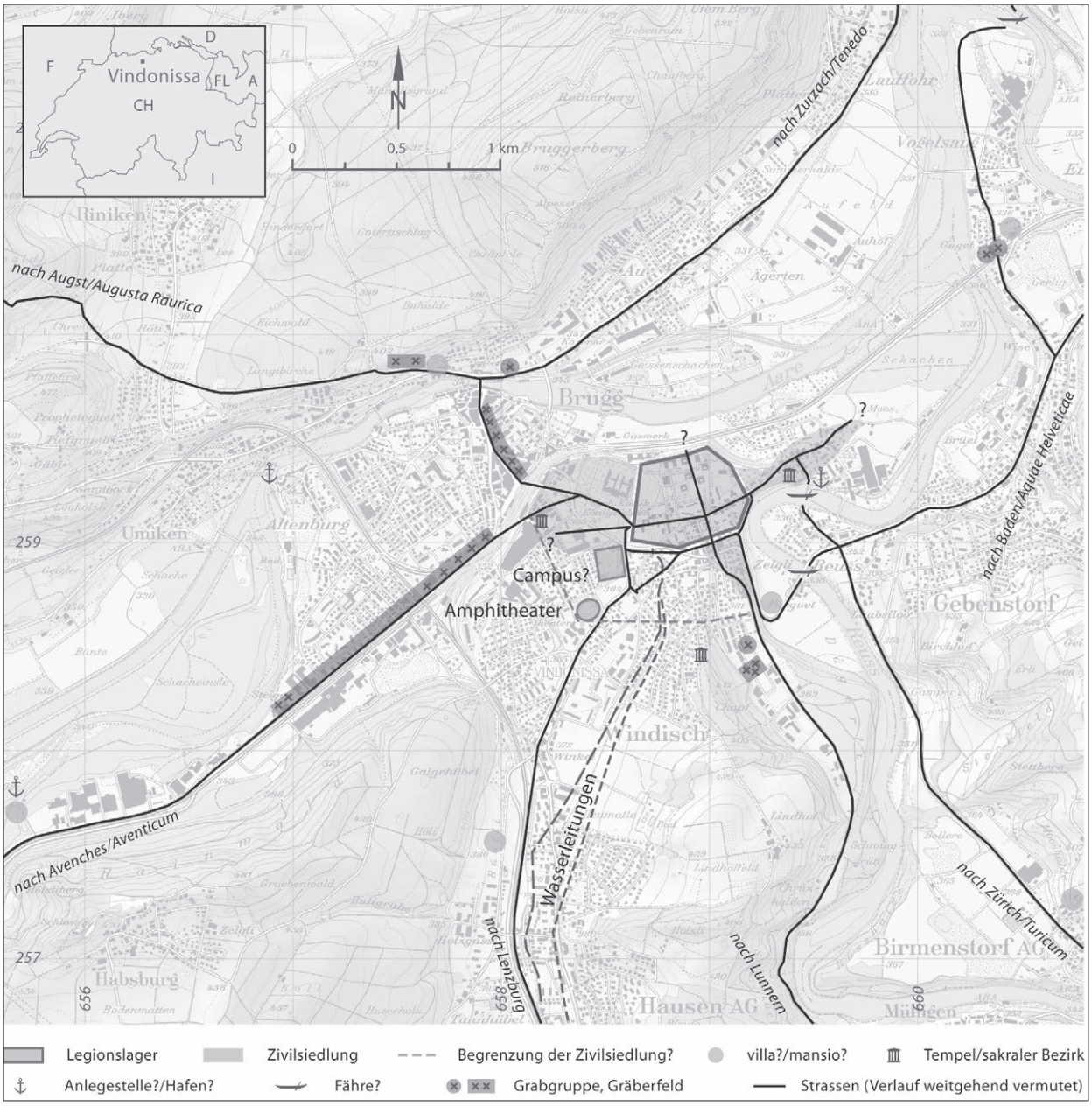


Abb. 1. *Vindonissa*. Legionslager, Zivilsiedlung, Gräberfelder und Strassen im späten 1. Jh. n. Chr. (Zeit der 11. Legion)

des römischen Windisch lieferten Grabungen beim «Römerblick», beim «Zentralgebäude» und auf der «Spillmannwiese» (Pauli-Gabi 2004; Benguerel et al. 2010; Trumm / Flück 2013) sowie die Auswertungen der Grabungen «Feuerwehrmagazin» 1976 und «Dorfschulhaus» 1986/87 (Meyer-Freuler 1998; Flück 2007).

Die genannten Grabungen und Auswertungen erhärten die These, wonach dem spätaugusteisch-frühtiberischen Legionslager ein augusteischer Militärposten (*castellum*?) vorausgegangen sei. Allerdings fehlen bis heute Befunde von der Umwehrung dieses Militärpostens, nach wie vor kennen wir weder Spitzgräben, Holz-Erde-Mauer, Tore oder Zwischentürme. So bleibt es weiterhin die wahrscheinlichste Option, das gesuchte augusteische Kastell östlich des mächtigen Grabens der keltischen Abschnittsbefestigung (sogenannter «Keltengraben») zu lokalisieren, der spätestens 20 n. Chr. verfüllt wurde. Westlich des «Keltengrabens» sind bislang lediglich mittel- und spätaugusteische Befunde und Fundkomplexe bekannt, die sich nicht eindeutig als Innenbauten eines frühen Kastells ansprechen lassen. Funde von Töpferöfen und Metallschlacken sprechen in diesem Areal vielmehr für eine zivile Besiedlung mit Gewerbe (*vicus*?).

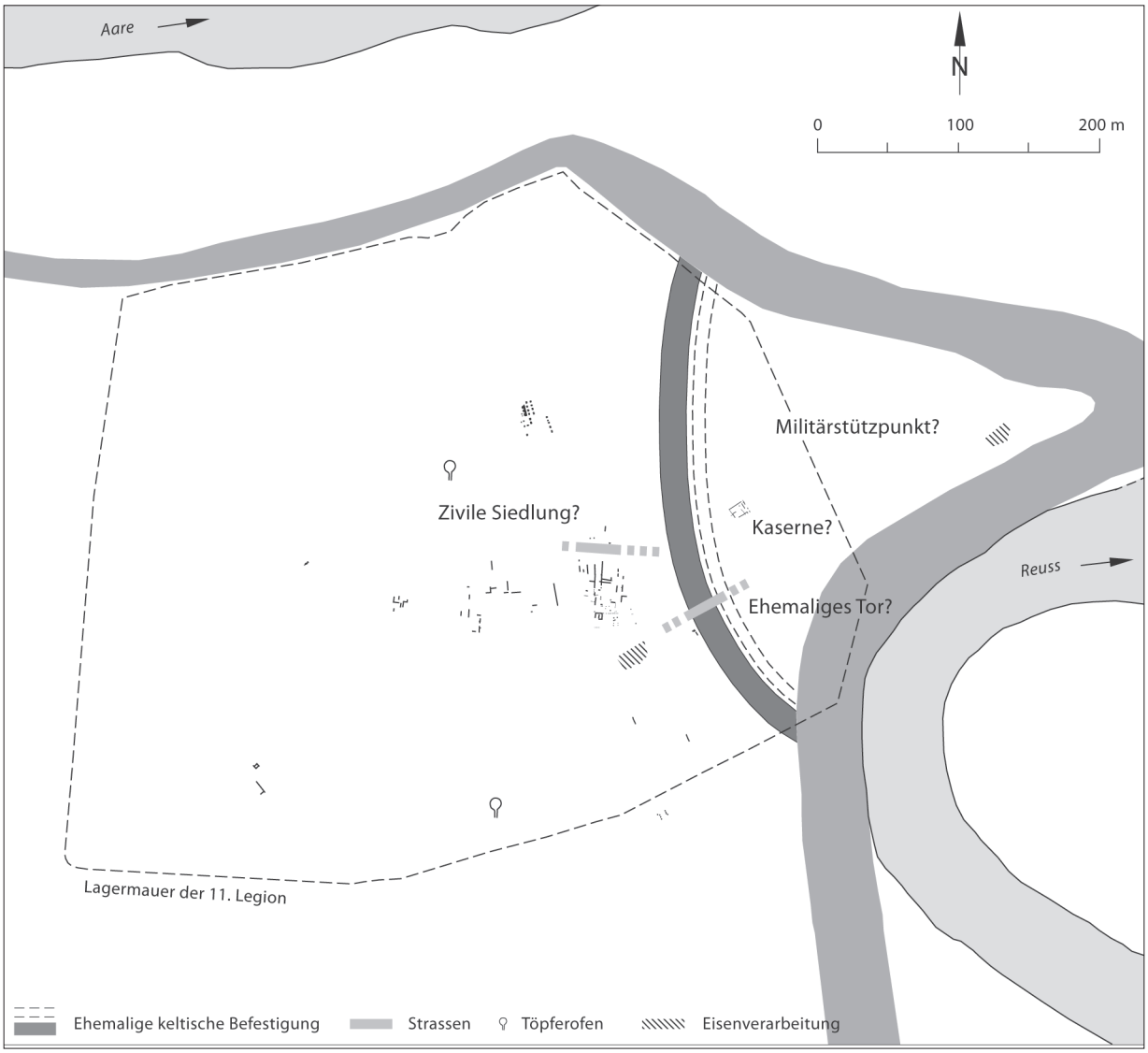


Abb. 2. *Vindonissa*. Situation der «Vorlagerzeit» mit römischen Befunden westlich und östlich der spätkeltischen Befestigung. Zur Orientierung mit eingetragen ist die Umwehrung des späteren Lagers der 11. Legion

Die «Frühzeit» von *Vindonissa* (Abb. 3 und 4)

Ähnlich wie die «Vorlagerzeit» ist auch die «Frühzeit» von *Vindonissa* in den letzten Jahren in den Fokus der Forschung gerückt. Hier geht es v.a. um die Frage, ab wann man von einem veritablen Legionslager sprechen kann, wann also die 13. Legion in *Vindonissa* ankam und dort ihre *castra legionis* errichtete, und wie der weitere Ausbau dieses Lagers vor sich ging. Auch hier lieferte v.a. die Grabung auf der «Breite» 1996–1998 neue Antworten (Hagendorn et al. 2003). Demnach ist die Disposition der frühen Innenbauten aus Holz, Fachwerk und Lehm komplizierter als das, was R. Fellmann erstmals 1953/54 mit den Begriffen «schräge» und «gerade» Holzbauphase bezeichnet hat (Fellmann 1953-1954).

Von einem ersten grossen Truppenlager kennen wir bislang nur die nordwestliche Umwehrung. Die Süd- und Ostfront sind derzeit ebenso wenig bekannt wie Tore oder Zwischentürme. Das Lager wurde offenbar schrittweise ausgebaut, zunächst vermutlich die Westfront, dann die Nordfront vorverlegt und in diesem Zusammenhang die ursprüngliche Südfront zurückgenommen. Auf diese Weise gelangte man zu dem bekannten polygonalen Grundriss mit etwa 20 Hektar Innenfläche und einer etwa 1,8 km langen Umwehrung. Dem Lagerausbau lagen vermutlich klare Vermessungsprinzipien zugrunde. Die Längsausdehnung des Legionslagers im endgültigen Ausbauzustand ist nämlich auf exakt 12 römische *actus* zu je 120 Fuss, gesamthaft also etwa 426 m eingemessen. Die Distanz zwischen älterer und jüngerer Nordfront ist wiederum auf ein wichtiges Längenmodul, nämlich 3 *actus* (gesamthaft also etwa 106 m) eingemessen. Daher

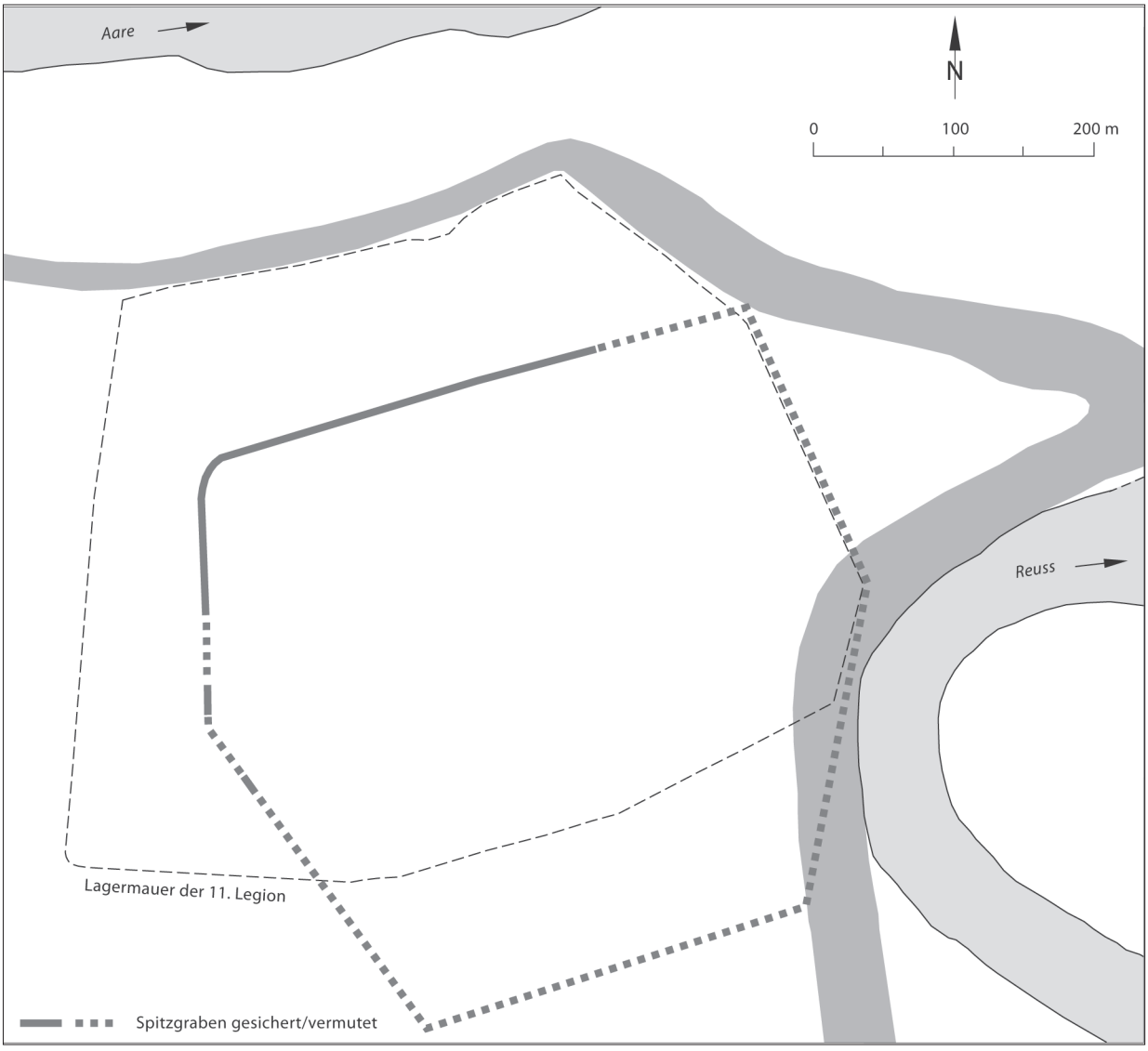


Abb. 3. *Vindonissa*. Gesicherter und vermuteter Verlauf der Spitzgräben des ältesten grossen Truppenlagers in tiberischer Zeit (13. Legion). Zur Orientierung mit eingetragen ist die Umwehrung des späteren Lagers der 11. Legion

ist zu vermuten, dass auch die bis heute nicht gefundene ältere Südfront exakt 3 römische *actus* südlich der bekannten jüngeren Südfront zu suchen ist.

Die Datierung der verschiedenen Lageretappen stützt sich hauptsächlich auf stratifizierte Münz- und Keramikfunde, neuerdings ergänzt durch Dendrodaten lagerzeitlicher Holzbauten über der Verfüllung des «Keltengrabens». Demnach ist mit dem «Beginn» des ersten grossen Lagers um 14 n. Chr. zu rechnen. Nach verschiedenen Um- und Ausbauetappen (sog. «schräge Holzbauphasen») kam es zwischen 22 und 30 n. Chr. zu einer Neuorientierung (sog. «gerade Holzbauphasen») und zu einer Umwehrung, deren Linienführung von den nachfolgenden Lagern beibehalten wurde. Neue Hinweise zur ersten Legionsbesatzung haben sich im Berichtszeitraum nicht ergeben. In Betracht kommt nach wie vor allein die *legio XIII Gemina*, wahrscheinlich verstärkt durch Hilfstruppenkontingente der 7. und 26. Kohorte (Speidel 1996, 44-46).

Die Überlegungen zu Lagergrösse und -besatzung in *Vindonissa* hängen nicht nur mit neuen Ausgrabungsergebnissen in Windisch zusammen, sie sind auch eng verknüpft mit neuen Erkenntnissen zur frühen Okkupationsgeschichte in Germanien und Rätien. So zeigen die Befunde der Auxiliarkastelle von Biesheim-Oedenburg am südlichen Oberrhein, wie sehr die Interpretation der frühen Lager von *Vindonissa* mit der militärischen Gesamtdisposition der Rheinzone zusammenhängt (Reddé 2009).

Die Lager der 13., 21. und 11. Legion (Abb. 5-7)

Der Ausbau des zunächst in Holz, Fachwerk und

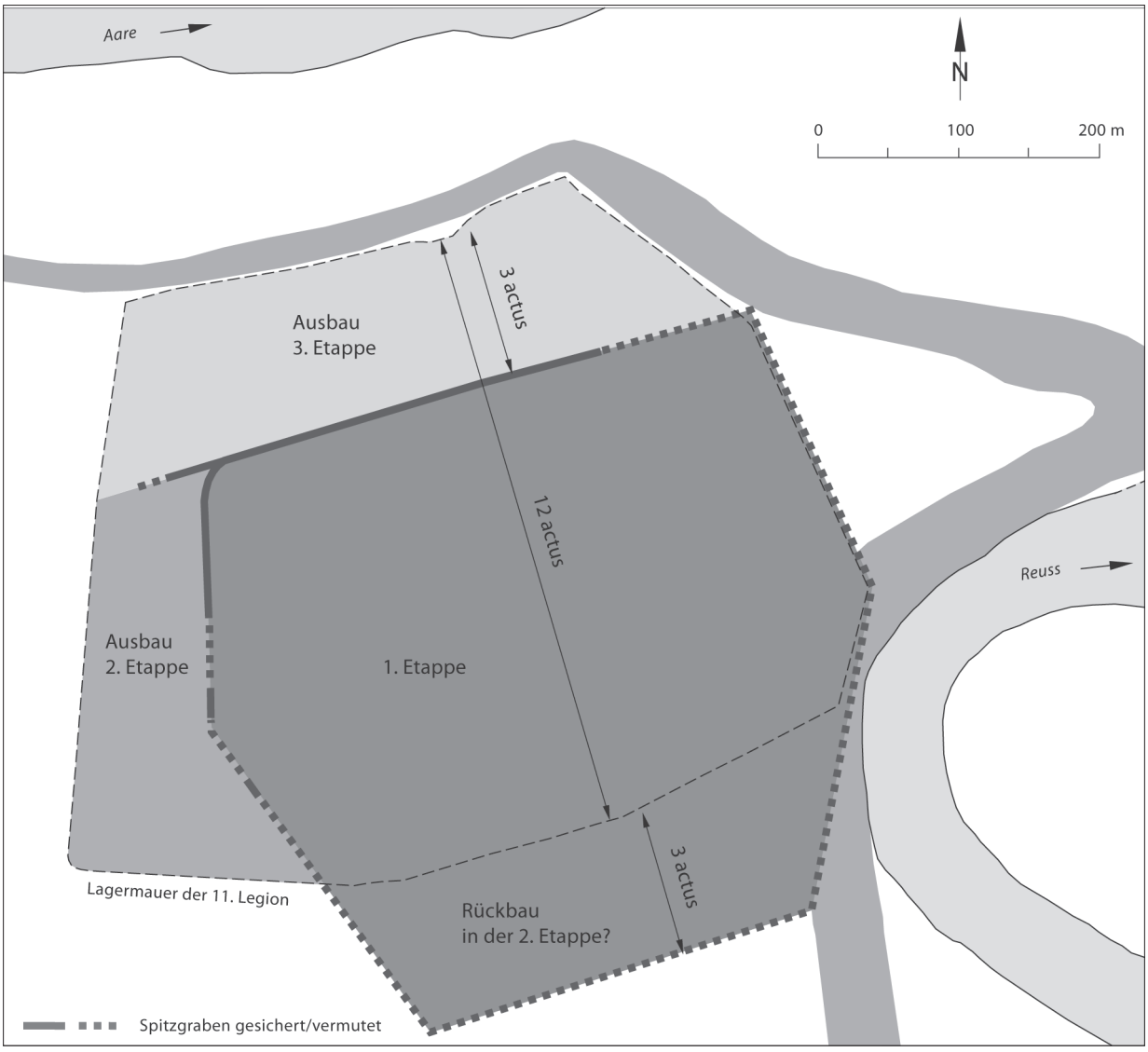


Abb. 4. *Vindonissa*. Die derzeit postulierten Etappen des Lagerausbaus und mutmasslich zugrunde liegende Vermessungsmodule. Zur Orientierung mit eingetragen ist die Umwehrung des späteren Lagers der 11. Legion

Lehm gebauten Lagers der *legio XIII Gemina* zu einem überwiegend aus Stein errichteten Lager der *legio XXI Rapax* und der *legio XI Claudia Pia Fidelis* lässt sich immer besser verstehen. Vom Legionslager ist mittlerweile knapp die Hälfte der Innenfläche modern überbaut bzw. durch Ausgrabungen erfasst (**Abb. 5-6**). Weitgehend ausgegraben sind das Zentralgebäude (*principia*), die Lagerthermen (*thermae legionis*), mehrere Speichergebäude (*horrea*) und Werkhallen (*fabricae*), ein heiliger Bezirk (*area sacra*) mit Podiumstempel, der Palast (*praetorium*) des Legionskommandanten, Wohnhäuser (*domus*) der Stabsoffiziere sowie eine Vielzahl von Mannschaftsunterkünften (*centuriae*) für die Legionäre.

Entsprechend dem Grabungsfortschritt ist es heute möglich, Funktion und Gliederung noch unerforschter Areale des Lagers der 11. Legion zu rekonstruieren (**Abb. 7**). Westlich der *via praetoria* ist nunmehr ein weiterer Kohortenblock mit sechs West-Ost orientierten Mannschaftsbaracken gesichert. Aufgrund weiterer Beobachtungen kann man das *scamnum tribunorum* mit den Häusern der sechs Legionstribunen und des *praefectus castrorum* daher sicher südlich der *via principalis* lokalisieren. Die Existenz eines sakralen Bezirks («Marsheiligtum») im Zentrum des steinernen Legionslagers, unmittelbar westlich den *principia*, stellt innerhalb der römischen Militärarchitektur einen Sonderfall dar (Lawrence 2009). Der sakrale Bezirk geht möglicherweise auf eine ältere Kulttradition an dieser Stelle zurück. Vermutlich ist hier der Standort des Lagerheiligtums des älteren, hölzernen Legionslagers zu suchen.

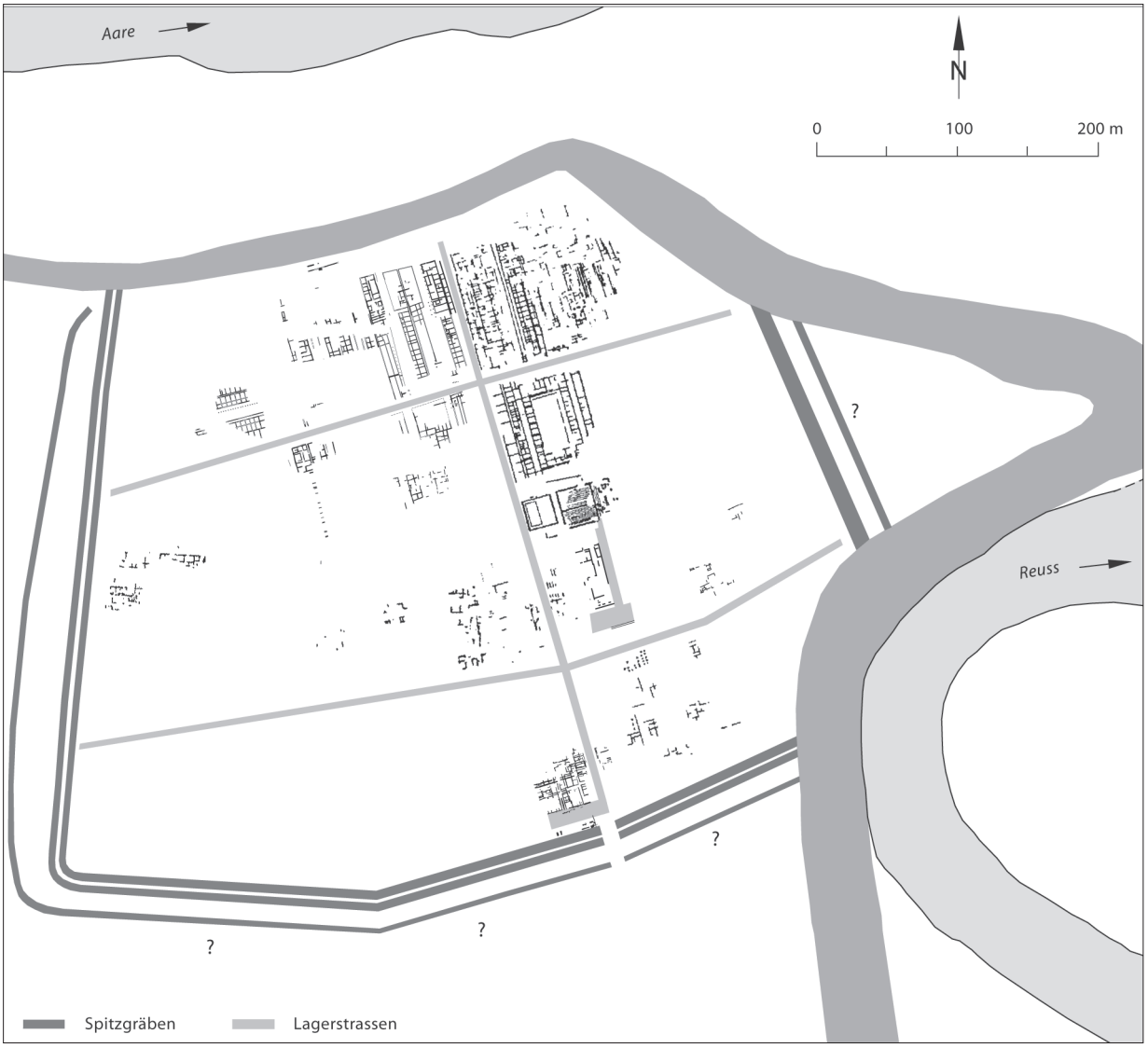


Abb. 5. *Vindonissa*. Derzeit bekannter Gesamtplan des Legionslagers in der jüngsten (sog. «geraden») Holzbauphase in frühclaudischer Zeit (13. bzw. 21. Legion). Spitzgräben und Lagerstrassen sind weitgehend ergänzt

Die Holz- und Fachwerkbauten der 13. Legion wurden nach deren Abzug zunächst von der einrückenden 21. Legion übernommen und schrittweise in Stein um- und ausgebaut. Mittlerweile ist klar, dass viele der «Steinbauten» des Legionslagers *Vindonissa* lediglich im Fundamentbereich massiv gebaut waren, während für die aufgehende Architektur vielfach luftgetrocknete Lehmziegel verwendet wurden. Münzdatierte Befunde zeigen, dass diese «Versteinerung» mit Ausnahme der bereits schon früh in Stein gebauten Lagerthermen frühestens ab 41 n. Chr., also unter Kaiser Claudius einsetzte. Der grosse Umbau im Lagerinnern dürfte, wie Bauinschriften aus dem Bereich der *principia* zeigen, im Jahr 47 n. Chr. weitgehend abgeschlossen gewesen sein. Demgegenüber bestand die 1,8 km lange Umwehrung des Legionslagers noch mindestens 25 Jahre lang weiterhin aus einer Holz-Erde-Konstruktion (*vallum*), die zumindest im Fundamentbereich aus Lehmziegeln gebaut war. (Trumm / Flück 2013). Dem Doppelspitzgraben (*fossae*) der 13. und 21. Legion ist an der Westfront, möglicherweise auch an der Südfront ein dritter Spitzgraben vorgelagert. Nach Einzug der 11. Legion, jedenfalls erst nach 72 n. Chr., wurde die Holz-Erde-Umwehrung durch eine 3,6 m breit fundamentierte Lagermauer mit massiven Toren und Zwischentürmen und das komplexe Grabensystem durch einen einfachen Spitzgraben ersetzt.

Dank Inschriften, Schreibtäfelchen, Ziegelstempeln und antiken Schriftquellen ist die Abfolge der in *Vindonissa* stationierten Legionen – auf die 13. folgt die 21., dann die 11. Legion – unbestritten, während die zeitgleiche Präsenz der über Inschriften

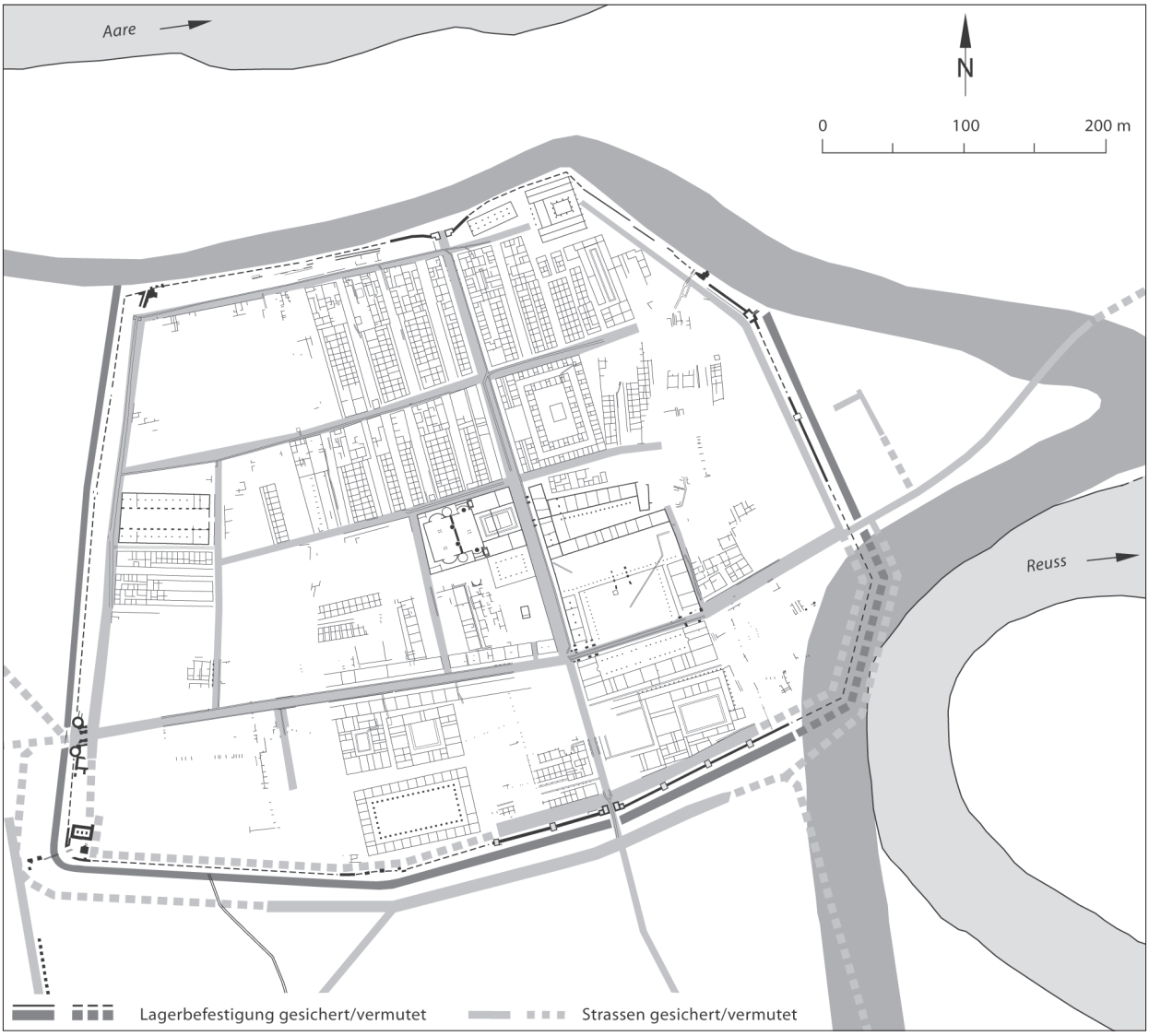


Abb. 6. *Vindonissa*. Derzeit bekannter Gesamtplan des Legionslagers in der jüngsten Steinbauphase in flavischer Zeit (11. Legion)

und Ziegelstempeln bezeugten Hilfstruppen – 3., 6., 7. und 26. Kohorte – im Legionslager selbst nach wie vor nicht sicher nachzuweisen ist. Gemäss der Neu-Interpretation eines Schreibtäfelchens ist im späten 1. Jh. nunmehr auch mit der Präsenz einer *Ala I Flavia* zu rechnen (Frei-Stolba / Krieger 2008, 11).

Schliesslich sei darauf hingewiesen, dass die 2003 geglückte Auffindung von Kindergräbern innerhalb des Legionslagers *Vindonissa* die derzeit intensiv geführte Diskussion um die Anwesenheit von Frauen und Kindern in römischen Militärlagern um einen neuen Aspekt bereichert hat (Trumm / Fellmann Brogli 2008).

Auch wenn wir heute auf guter Grundlage einen «Idealplan» des Lagers der 11. Legion zeichnen können, so bleiben doch Fragen und Unsicherheiten. Die Innengliederung des Legionslagers entspricht zwar im Grossen und Ganzen dem Bebauungsschema römischer Militäranlagen, weist jedoch aufgrund der Geländesituation und wegen seiner komplexen Entstehungsgeschichte spezifische Ausprägungen auf. Die Schwierigkeit, dem offenbar unregelmässigen Lagerschema in Windisch auf die Spur zu kommen, ist bereits von anderer Seite (Davison 1989, 49) zutreffend skizziert worden: «*Vindonissa is always exceptional*».

Zudem hat eine wichtige Neuentdeckung 100 km nördlich von Windisch n den letzten Jahren zu einer Neubeurteilung des Lagers der 11. Legion von *Vindonissa* geführt. Denn der Nachweis eines mind. 16 Hektar grossen Lagers bei Rottweil/ *Arae Flaviae*, das in flavischer Zeit nachweislich von Truppen der 11. Legion besetzt war (Franke

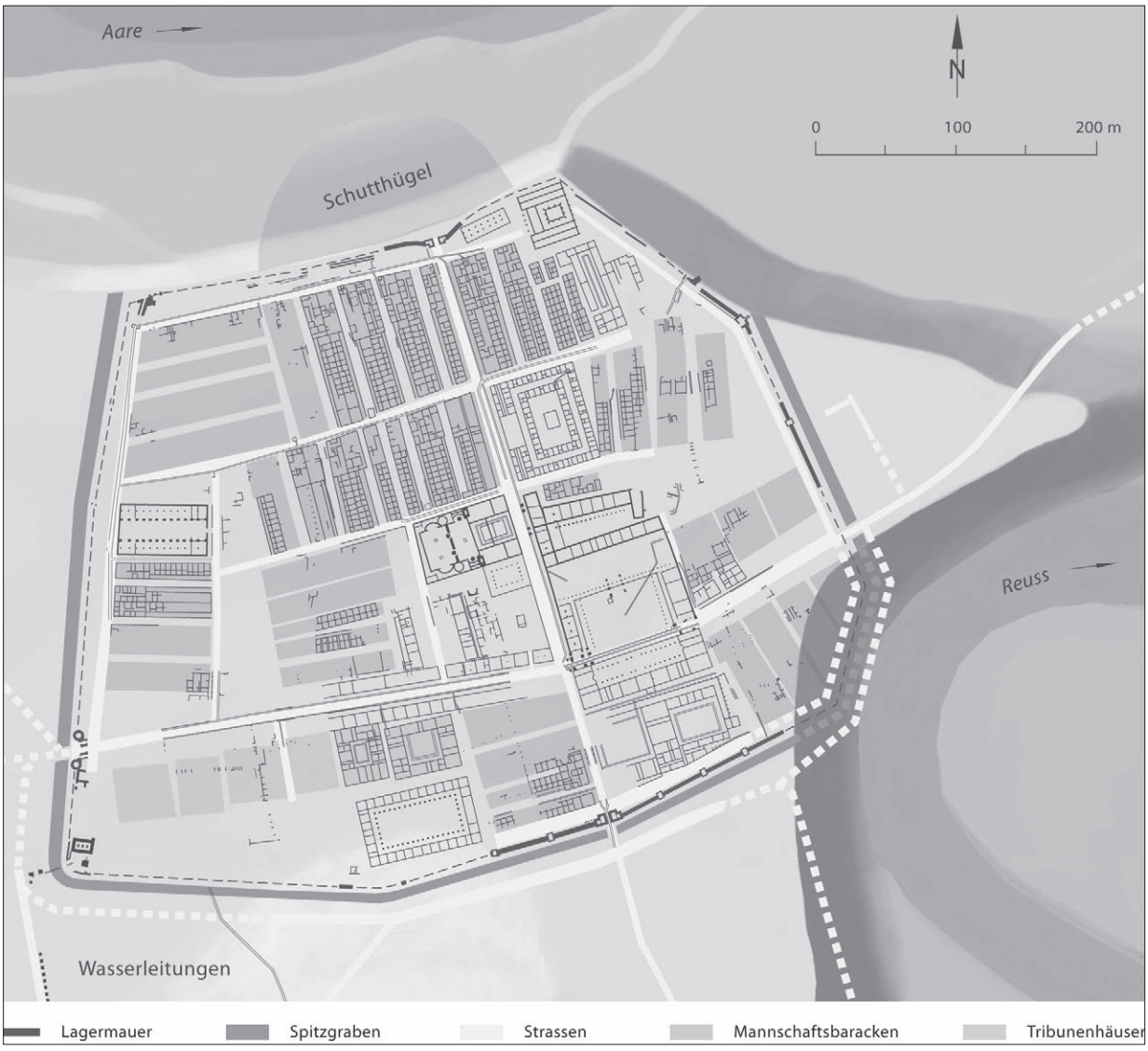


Abb. 7. *Vindonissa*. «Idealrekonstruktion» des Legionslagers zur Zeit der 11. Legion. Die Rekonstruktion der noch nicht ausgegrabenen Lagerareale beruht auf der Annahme einer Vollbesatzung mit 59 Zenturien, untergebracht in 10 Kohortenblöcken

2003; Kortüm / Lauber 2009), führt unweigerlich zu der Frage, ob *Vindonissa* denn in jenen Jahren überhaupt noch voll besetzt war. Gemäss einer Rechtsurkunde vom 25. Februar des Jahres 90 n. Chr. wird *Vindonissa* zwar als *hiberna legionis XI* bezeichnet (Speidel 1996, 98, Nr. 3), die archäologischen Befunde deuten jedoch an, dass sich zu dieser Zeit bereits ein Grossteil der Truppe und wohl auch der Legionslegat selbst in Rottweil aufhielten. Aus dem Windischer Heeresverband, der in claudisch-neronischer Zeit eine schlagkräftige Legion samt Hilfstruppen umfasste, wurde demnach ab etwa 75 n. Chr. der Rottweiler Heeresverband, der die taktischen Aufgaben an der nach Norden vorgeschobenen Reichsgrenze übernahm (Trumm / Flück 2013).

Das Ende des Legionslagers (Abb. 8)

Gegen Ende des 1. Jh. n. Chr. hatte sich die geostrategische Lage des Legionslagers *Vindonissa* grundlegend geändert. Die dort stationierten Truppen hatten nämlich ganz wesentlich dazu beigetragen, die Militärgrenze weiter nach Norden zu verschieben. Sie verlief jetzt entlang des Limes und somit mehr als 250 km von *Vindonissa* entfernt. Aus dem einstigen Frontlager war ein Etappenort im befriedeten Hinterland geworden. Daher befahl Kaiser Traian im Jahre 101 n. Chr. den Abzug der 11. Legion und ihre Versetzung an die Kriegsschauplätze an der mittleren und unteren Donau. Die Anwesenheit von Traian in *Vindonissa* und der Abzug der 11. Legion an die Donau unter Führung des Legaten *Caius Iulius Quadratus Bassus*

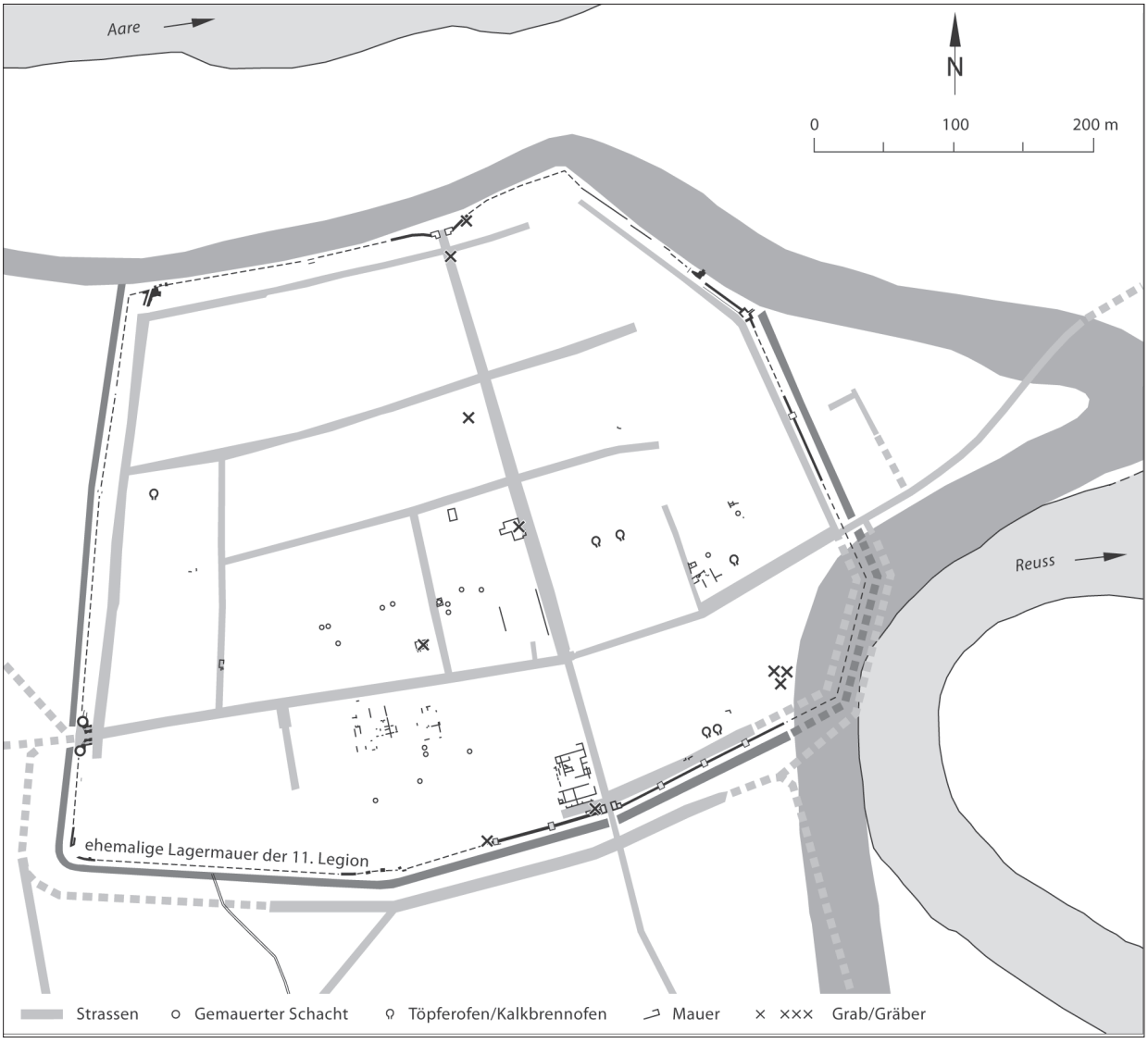


Abb. 8. *Vindonissa*. Derzeit bekannter Gesamtplan «nachlagerzeitlicher» Befunde des 2.-5. Jh. n. Chr. im Areal des ehemaligen Legionslagers

lassen sich heute mit grosser Wahrscheinlichkeit rekonstruieren (Frei-Stolba / Trumm 2007; Frei-Stolba 2008; Trumm 2008). Das ehemalige Legionslager wurde planmässig geräumt und verblieb wohl noch eine Zeitlang unter der Kontrolle der römischen Militärverwaltung. Münzdatierte Befunde lassen vermuten, dass die Bauten des verwaisten Legionslagers frühestens ab der Mitte des 2. Jh. n. Chr. zum Abbruch freigegeben wurden – also erst dann, als sich die militärische Lage durch die zeitgleich erfolgte Vorverlegung des Limes endgültig stabilisiert und *Vindonissa* zu einem militärisch bedeutungslosen Ort im Hinterland geworden war. Im aufgelassenen Legionslager konzentrieren sich die jüngsten Siedlungsbefunde des 2.-4. Jh. entlang der ehemaligen *via principalis*, die weiterhin Abschnitt einer wichtigen Überlandstrasse durch das Schweizer Mittelland war (Trumm / Flück 2013).

Historische Bilanz

Das Legionslager *Vindonissa* war im Gebiet der römischen Schweiz während knapp 100 Jahren ein «Motor» der Romanisierung, also der friedlichen Durchdringung der einheimischen, keltisch geprägten Kultur mit den Errungenschaften der römischen Zivilisation. Der Abzug der 11. Legion im Jahre 101 n. Chr. markierte einen abrupten Bruch dieses Prozesses. Während sich andere, kontinuierlich weiter belegte Legionsstandorte an Rhein und Donau zu stadtähnlichen Siedlungen (*colonia* oder *municipium*) entwickelten, aus denen oftmals

heutige Grossstädte erwuchsen, wurde die ehemalige Lagerstadt (*canabae legionis*) von *Vindonissa* ab dem 2. Jh. n. Chr. in den Stand eines einfachen Strassendorfes (*vicus*) zurückversetzt.

Heute erinnert lediglich noch der Ortsname Windisch an die einstmals verheissungsvoll angelegten antiken Wurzeln, während dem die historischen Standortvorteile – Zentrumsfunktion und Verkehrsknotenpunkt – an die heutigen Metropolen Basel und Zürich übergegangen sind.

Abbildungsnachweis
Alle Abbildungen Kantonsarchäologie Aargau (R. Bellettati / J. Trumm).

Bibliographie

Benguerel, S. / Engeler-Ohnemus, V. / Doppler, H. W. / Meyer-Freuler, Ch. / Stopp, B. 2010. Zum Lagerausbau im Nordwesten von Vindonissa (= Veröffentlichungen der Gesellschaft Pro Vindonissa 21). Brugg.

Berger, D. 2010. Vindonissa-Bibliographie 1975-2010. – Jahresbericht der Gesellschaft Pro Vindonissa, 55-78.

Davison, D. P. 1989. The barracks of the Roman army from the 1st to 3rd centuries A.D. (= British Archaeological Reports 472). Oxford.

Fellmann, R. 1953-1954. Die Grabungen im Legionslager Vindonissa im Jahre 1953. – Jahresbericht der Gesellschaft Pro Vindonissa, 5-60.

Flück, M. 2007. Östlich des Keltengrabens. Auswertung der Grabung Windisch-Dorfschulhaus 1986/87. – Jahresbericht der Gesellschaft Pro Vindonissa, 17-57.

Franke, R. 2003. ARAE FLAVIAE V. Die Kastelle I und II von Arae Flaviae/Rottweil und die römische Okkupation des oberen Neckargebietes (= Forschungen und Berichte zur Vor- und Frühgeschichte Baden-Württembergs 93). Stuttgart.

Frei-Stolba, R. 2008. Der letzte Legionskommandant von Vindonissa. – Jahresbericht der Gesellschaft Pro Vindonissa, 21-29.

Frei-Stolba, R. 2007. Der Besuch Trajans in Vindonissa im Jahr 98 n.Chr. (mit einem Beitrag von J. Trumm). – Jahresbericht der Gesellschaft Pro Vindonissa, 3-16.

Frei-Stolba, R. / Krieger, M. 2008. Einblicke ins römische Privatrecht: Zu wieder entdeckten Schreibtafeln aus Vindonissa mit Kantenaufschriften. – Jahresbericht der Gesellschaft Pro Vindonissa, 3-14.

Hagendorn, A. / Doppler, H. W. / Huber, A. / Hüster Plogmann, H. / Jacomet, S. / Meyer-Freuler, Ch. / Pfäffli, B. / Schibler, J. 2003. Zur Frühzeit von Vindonissa. Auswertung der Holzbauten der Grabung Windisch-Breite 1996-1998 (= Veröffentlichungen der Gesellschaft Pro Vindonissa 18). Brugg.

Hartmann, M. 1985. Vindonissa, Oppidum – Legionslager – Castrum. Windisch.

Hartmann, M. 1979-1980. Vindonissa, Stand der Erforschung. – Jahresbericht der Gesellschaft Pro Vindonissa, 5-22.

Heierli, J. 1905. Vindonissa. Quellen und Literatur. – Argovia 31, 1-112.

Heuberger, S. 1909. Aus der Baugeschichte Vindonissas und vom Verlauf ihrer Erforschung. Aarau.

Kortüm, K. / Lauber, J. 2009. Die Rottweiler Kastelle. In: Biel, J. / Heiligmann, J. / Krausse, D. (Hrsg.). Landesarchäologie. Festschrift Dieter Planck (= Forschungen und Berichte zur Vor- und Frühgeschichte Baden-Württembergs 100). Stuttgart. 259-289.

Laur-Belart, R. 1935. Vindonissa. Lager und Vicus (= Römisch-Germanische Forschungen 10). Berlin / Leipzig.

Lawrence, A. 2009. Neue Forschungen zum sog. Marsheiligtum im Zentrum des Legionslagers Vindonissa. – Jahresbericht der Gesellschaft Pro Vindonissa, 3-25.

Maier, F. B. 1998. Vindonissa: Arbeitsstand und Grabungen seit 1980. – Jahresbericht der Gesellschaft Pro Vindonissa, 3-12.

Meyer-Freuler, Ch. 1998. Vindonissa Feuerwehrmagazin. Die Untersuchungen im mittleren Bereich des Legionslagers (= Veröffentlichungen der Gesellschaft Pro Vindonissa 15). Brugg.

Pauli-Gabi, Th. 2004. Ausgrabungen im Gebiet der spätlatènezeitlichen Befestigung von Vindonissa. Ein Vorbericht zu den Ergebnissen der Grabung Römerblick 2002-2004 (V.002.11). – Jahresbericht der Gesellschaft Pro Vindonissa, 13-39.

Reddé, M. 2009. Oedenburg I. Les camps militaires julio-claudiens (= Monographien des Römisch-Germanischen Zentralmuseums Mainz 79,1). Mainz.

Speidel, M. A. 1996. Die römischen Schreibtafeln von Vindonissa. Lateinische Texte des militärischen Alltags und ihre geschichtliche Bedeutung (= Veröffentlichungen der Gesellschaft Pro Vindonissa 21). Brugg.

Trumm, J. 2011. Vindonissa. Stand der Erforschung II. Der zivile Komplex. – Jahresbericht der Gesellschaft Pro Vindonissa, 3-22.

Trumm, J. 2010. Vindonissa. Stand der Erforschung I. Vorgeschichte, keltische Zeit und der militärische Komplex. – Jahresbericht der Gesellschaft Pro Vindonissa, 37-54.

Trumm, J. 2008. Der Weg der 11. Legion von Vindonissa an die untere Donau. Eine archäologische Spurensuche. – Jahresbericht der Gesellschaft Pro Vindonissa, 15-20.

Trumm, J. / Fellmann Brogli, R. 2008. Mitten im Lager geboren – Kinder und Frauen im römischen Legionslager Vindonissa. In: Brandl, U. (Hrsg.). Frauen und römisches Militär (= British Archaeological Reports International Series 1759). Oxford. 102-119.

Trumm, J. / Flück, M. 2013. Am Südtor von Vindonissa. Die Steinbauten der Grabung Windisch-Spillmannwiese 2003-2006 im Süden des Legionslagers (= Veröffentlichungen der Gesellschaft Pro Vindonissa 22). Brugg.

Wiedemer, H. R. 1966-1967. Der Stand der Erforschung des römischen Legionslagers von Vindonissa. – Jahrbuch der Schweizerischen Gesellschaft für Ur- und Frühgeschichte 53, 62-77.

Jürgen Trumm, Dr. phil.
Kantonsarchäologie Aargau
Industriestrasse 3
CH-5200 Brugg
juergen.trumm@ag.ch

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Secret of Squares – Interpreting Large-Scale Square Structures at Roman Legionary Forts

Christian GUGL / Jürgen TRUMM

Vindonissa: A Case Study

Located in front of the southwest corner of the *Vindonissa* legionary fortress (located in Windisch, Aargau, Switzerland) are the remains of a vast complex of buildings, one of the largest stone complexes known in Roman Switzerland (**fig. 1**). First discovered in October 1900 during construction works, it was only recognized as a major structure in 1902 as a result of further test-trench probes. It was interpreted as gladiator barracks due to its close proximity to the amphitheatre. In 1921 Friedrich Drexel questioned this interpretation, as the Vindonissa complex was known to be seven times greater than the gladiatorial barracks at Pompeii and about twice as large as the *ludus magnus* located next to the Coliseum in Rome. Instead, Drexel called attention to a similar structure located in front of the legionary fort at *Carnuntum* (Austria) and interpreted both structures as *fora*. Drexel's interpretation has remained authoritative to this day (Drexel 1921; Laur-Belart 1935, 74-77 pl. 26; Hartmann 1986, 103-105).

Until recently, our knowledge of the large structure at *Vindonissa* was based on various test-trench probes and construction-site observations. Extensive test-trench probes were carried out in 2002 because a major development project with an underground parking lot was planned for the area. These probes prompted a large-scale excavation that was carried out by the Archaeological Service of the Canton of Aargau from 2009 to 2011. Since 2012 the construction site is monitored regularly (Trumm / Wigger 2010; Wigger 2011; 2012).[1] As a result, ca. 75% of the interior courtyard and wings (with the exception of the west wing) were extensively investigated thereby significantly supplementing the limited results of the 1902 investigations. A large rectangular structure measuring approximately 160 x 140 m comprises a courtyard of approximately 120 x 105 m, surrounded on all sides by stone-lined storm drains that were once covered with stone slabs. Nine round footings belonging to the stone structure were located along the north side of the gravelled courtyard; these were possibly used for statue bases. No other indication of substantial structures was found in the courtyard. The east wing (and presumably also the hitherto little explored west wing) consists of two elongated halls measuring 6 m and 7.2 m wide with no evidence of any internal arrangements. The north and south wings, however, show evidence of a centre section comprised of smaller rooms. All previously recorded results indicate evidence of wood-plank floors or of simple rammed-earth floors. The east and south perimeter walls show evidence of pilaster strips arranged along the facade at intervals of about 4.5 m. It is presumed that the less investigated west and north facades were constructed in a similar fashion. A stone-lined channel extending about 100 m from the northwest corner of the structure may indicate the structure's past use, provided the channel and building are contemporaneous. At present the overall picture of the north wing layout is still unclear; it seems to have sported risalit-style protrusions on each side, thereby extending its overall width to about 150 m. The entrance to this large structure has not yet been determined. It may have been located on the north side of the structure; this would explain the wider dimensions of the north wing and the nine footings, mentioned above.

[1] We thank the excavation managers, Beat Wigger, Hermann Huber und Philipp Tröster, for their commitment and input.

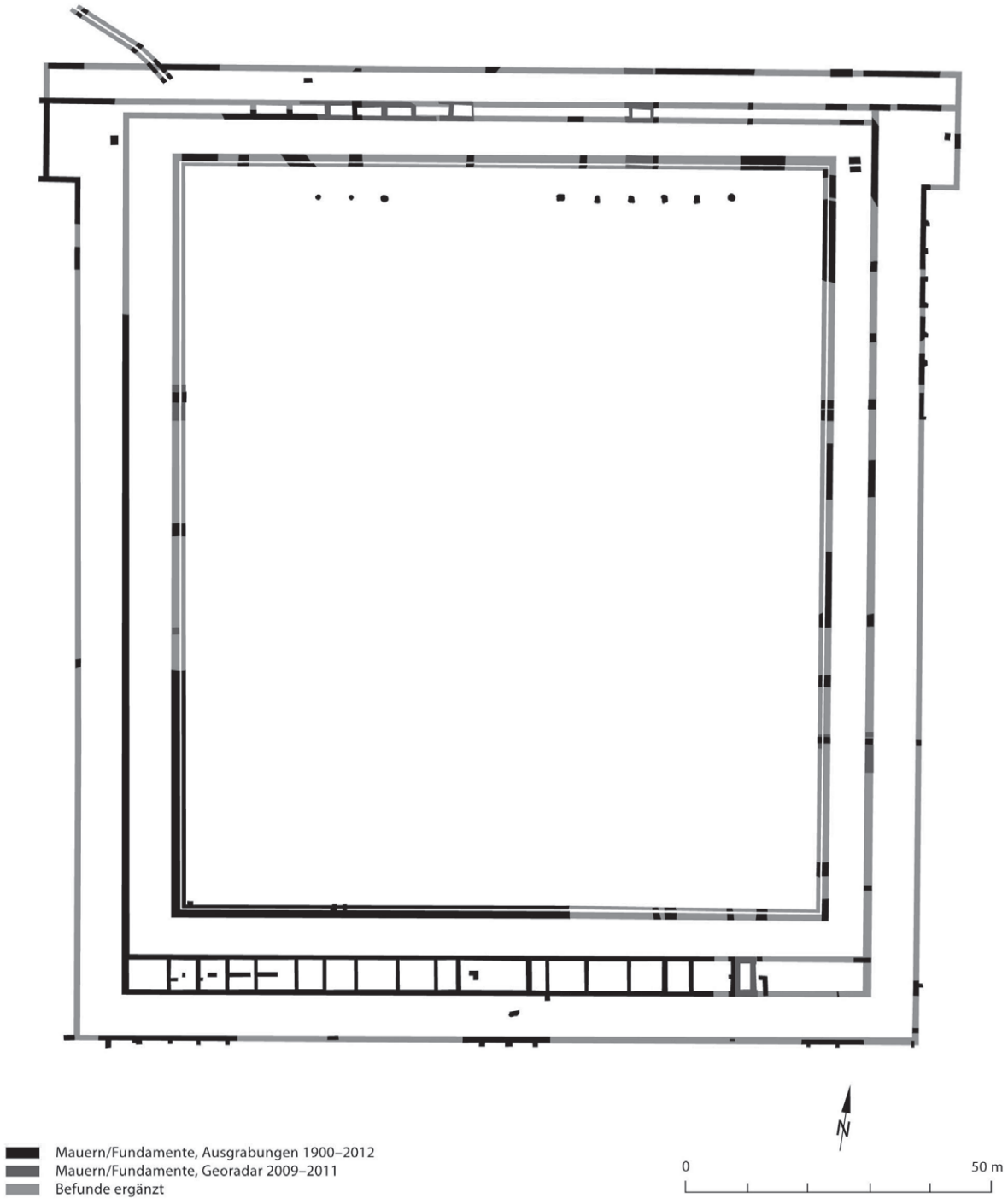


Fig. 1. *Vindonissa* (Windisch, Switzerland). Simplified plan of the large Roman structure located off the southwest corner of the legionary fortress camp. Scale: 1:1000. State of research as of 2012. Canton of Aargau Archaeology (R. Bellettati / R. Giger / B. Wigger)

Finds of an older wooden structure lie beneath the gravel-covered courtyard of the stone-phase structure. These attest to large structures, whose function likely had very little to do with the more recent stone buildings. Rather, the multi-phase evidence points toward a large, wooden *horrea*.

Excavations in the surrounding area indicate that this structure was set apart from other structures (**fig. 2**). No other major buildings that might be related to this structure have been found immediately to the north, west or south. The structure was flanked along its entire east side by a north-south oriented gravel road which, in turn, was flanked by an aqueduct. The amphitheatre of *Vindonissa* lay about 90 m from the southwest corner of the structure, whose location is indicative of the southwesternmost portion of the related (civilian) settlement (Trumm 2011, 8 f.).



Fig. 2. *Vindonissa* (Windisch, Switzerland). Legionary fortress and civilian settlement in the late 1st century CE. State of research as of 2012. Canton of Aargau Archaeology (R. Bellettati / J. Trumm)

The lack of finds, in comparison to other excavated areas in *Vindonissa*, is striking and can be largely explained by the complete absence of waste pits, occupation and demolition layers. Finds of plain white interior plaster in the southernmost interior area, as well as remnants of collapsed roof tiles and antefixes indicate that the structure had been completed. The lack of finds therefore cannot be explained by this structure being a 'Roman ruin', rather, it probably had a function in which finds were not likely to be found. The finds, which have not yet been thoroughly analysed, indicate that the square, monumental structure was built in the middle of the 1st century CE and therefore by the 21st Legion. The adjacent amphitheatre is considered to have been constructed at about the same time (Matter 2011, 42-44). Apparently, the structure was abandoned by the beginning of the 2nd century CE, after which time the area was scarcely used. It seems that the monumental structure at Vindonissa measured 3 to 4 *quadratus* (or 360 to 480 Roman feet).

The structure therefore exceeds the dimensions of the *fora* known in Roman Switzerland at Augst / *Colonia Augusta Raurica*, Nyon / *Colonia Iulia*

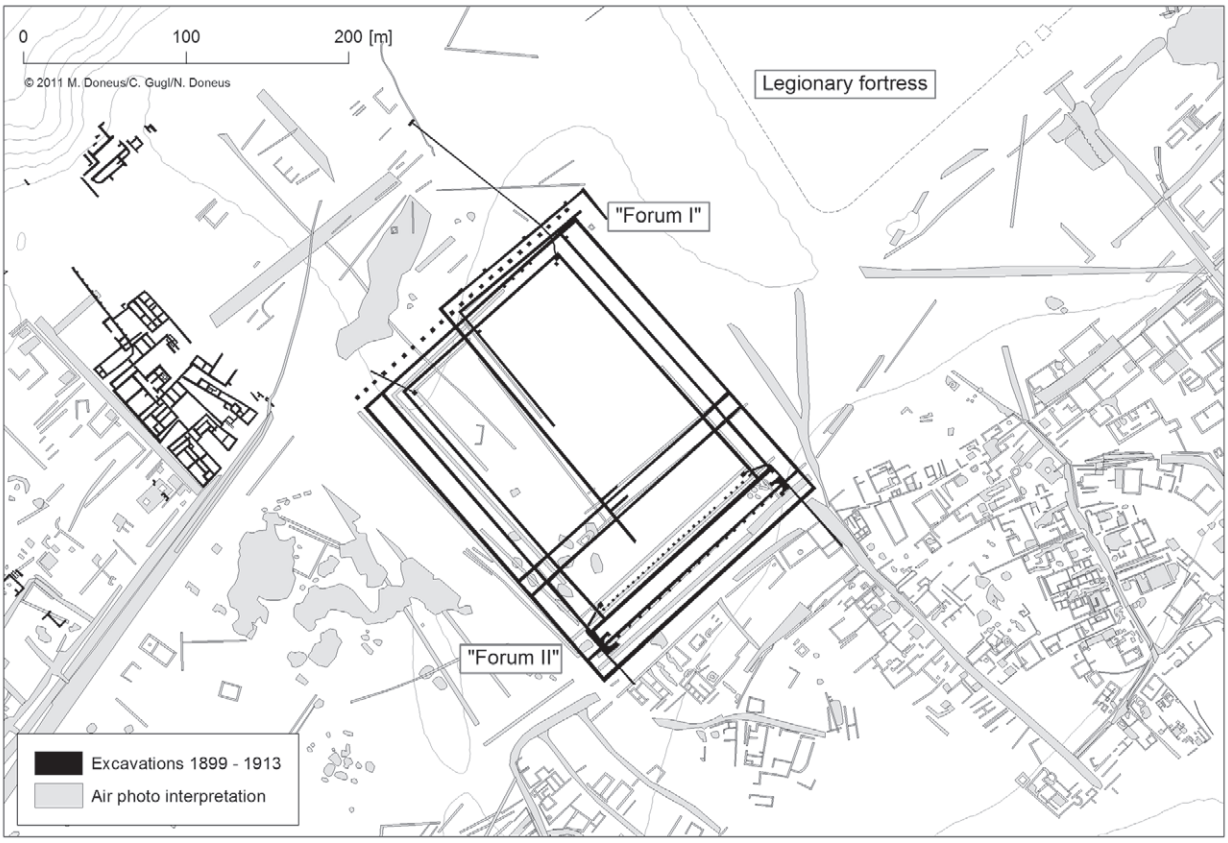


Fig. 3. Detail of the current master plan of the Carnuntum *canabae* (M. Doneus / C. Gugl / N. Doneus 2011)

Equestris and Martigny / *Forum Claudii Vallensium*; it is exceeded only by the *forum* of Avenches / *Colonia Aventicum Helvetiorum* (SPM 2002, 113 Fig. 100). With its roughly square shape, the structure at Vindonissa obviously differs in its basic concept when compared to other *fora* in the Roman north-western provinces; these favour a predominantly rectangular overall shape (**fig. 4**).

Furthermore, the interior arrangement of the *Vindonissa* complex is lacking certain architectural features that are considered characteristic of a *forum*. Neither a *basilica* (with side *tribunalia*), nor a *curia* was found. Evidence of a temple is missing, be it in the interior courtyard or along the side walls.

At Vindonissa, structural arrangements of the *area sacra* (including a temple) and *area publica* (with courtyard and *basilica*) are unidentifiable. Urban *fora* in the provinces regularly yield rich furnishings and fittings such as inscriptions, statues and architectural ornamentation. At *Vindonissa*, none such is evident, apart from the postulated statue bases. So, was the structure actually a *forum*, a multifunctional architectural ensemble, where market days were held, court dates convened and sacrifices to the gods made? If so, then it can only be as a very simplified version of such an urban structure.

Carnuntum: A Case Study

In the *Carnuntum canabae* (Lower Austria, A) a structure of enormous proportions lay near the southwest corner of the legionary fortress; it had been investigated from 1902 to 1904. The basic plans produced at the time are inconsistent and incorrect; the dimensions of the structure are therefore provided with reservation. Using aerial photographs an attempt was made to position the plans geographically, fitting the structure outlines to visible crop marks (**fig. 3**). The excavator, Maximilian von Groller, recognized several stone building periods. An older wooden structure was not detected (Groller 1906, 5, fig. 1, 83-96, fig. 47-48; Kandler 1977, 678-681, fig. 4). The older structure ("Forum I") was small and oriented differently in comparison to the more recent stone structures. It was not fully uncovered, so that only the width of about 117 m could be determined. The more recent, multi-phase "Forum II" measures approximately 177 x 233 m and counts as one of the largest Roman structures known in the north-western provinces (**fig. 4**).

Elongated, undivided halls were a feature in both building periods. These bordered a vast space, seemingly a key element of such grounds. Remnants of bases and a fragment of an almost

life-size sculpture, found along the north hall of the "Forum II", suggest statues decorated this space. Four wells, one in each corner of the court, supplied water. A fresh water line ran past the north end and also supplied the legionary fortress. A sewer ran from the northwest corner of the square to the north toward the Danube River. It lay under the west-east oriented fresh-water line. The south end of "Forum II" formed a (transversely positioned) basilica which, apparently, was built over an older west-east oriented pilaster-decorated wall. As a result of earlier excavations an apse, constructed of masonry and located east of the basilica, was uncovered. During the excavations in the southeast part of "Forum II" more recent kilns and workshop waste were discovered. These were set up when the structure was already a ruin. The basilica was preceded on the north side by an arrangement of pillars or columns.

In the past, researchers of *Carnuntum* have aligned themselves with the archaeologists' interpretation that this structure served as a marketplace, in particular for the trade of livestock as well as a depot for the storage of goods and as an auction hall. As a result, literature about *Carnuntum* has commonly used the term "*forum*" for this structure. In his comments, Maximilian von Groller emphasized the lack of epigraphic and other significant finds which would "recognize the purpose of this type of building" (Groller 1906, 91-94). Essential factors in discussing the function of the building, therefore, are its size, location and floor plan. Characteristics of the *Carnuntum* complex are its proximity to the legionary fortress and its clear separation from the residential areas of the *canabae* (**fig. 3**). Meanwhile, other legionary garrisons such as *Noviomagus* (Nijmegen, NL) (van Enckevort 2002, 387-393; Driessen 2007, 130-135 fig. 59-61) and Mirebeau (F) (Goguey / Reddé 1995, 27 pl. 14, 2. 15, 2 plan H.T. 1), have comparable building complexes dating to the Flavian-Trajanic period and can be consulted in the interpretation (**fig. 4**). Due to the advance in archaeological prospection, it seems likely that these will not be the only places in which large structures with similar floor plans will be found in close proximity to legionary fortress. Although results from Burnum (HR) (Campedelli 2011, 54 fig. 8, F) and Caerleon (GB) (Guest / Luke / Pudney 2012, 88-89 fig. 94) are not yet fully published or extensively interpreted, they confirm the impression that during the periods of Nero and Vespasian, at the very latest, such exceptional building complexes in the legionary *canabae* can be expected.

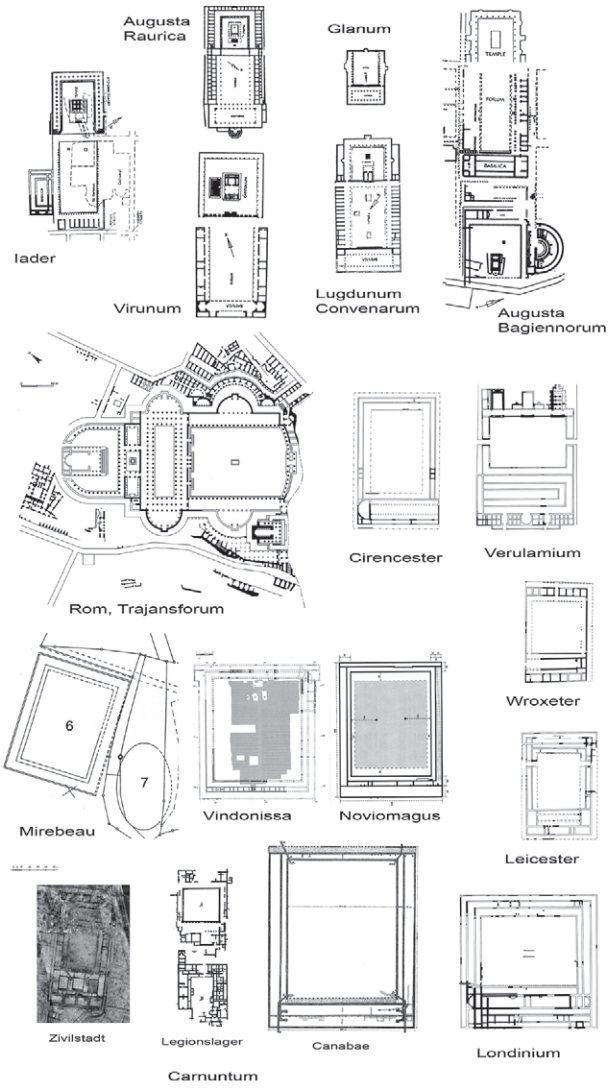


Fig. 4. True to scale compilation of forum ground plans from Roman civil settlements in Dalmatia, Upper Germania, Noricum, the Gallic provinces, Britain and Rome (Forum of Trajan).
Bottom left: *forum* in the civilian city of *Carnuntum* as well as the *principia* and *praetorium* at the *Carnuntum* legionary fortress
From: "Rome, Trajan's Forum", Höcker 1998, fig. p. 609-610; *Noviomagus*: van Enckevort 2002, fig. 5; Mirebeau: Goguey / Reddé 1995, plan H.T. 1; *Vindonissa*: R. Bellettati / R. Giger / B. Wigger; *Carnuntum*: Groller 1901, pl. 3; Groller 1906, fig. 47; Humer 2006, 283, fig. 3. All others: von Hesberg 2001, fig. p. 74, 76

The Campus of the Legion?

The interpretation as an economic hub first raises the question as to why such large structures occur close to a legionary fortress, when comparable structures were not established in the civil settlements, towns and villages (*vici*). It also seems unthinkable that seasonal specialty markets, such as cattle markets, developed in such magnitude at garrison locations. Large markets would seem more likely in the

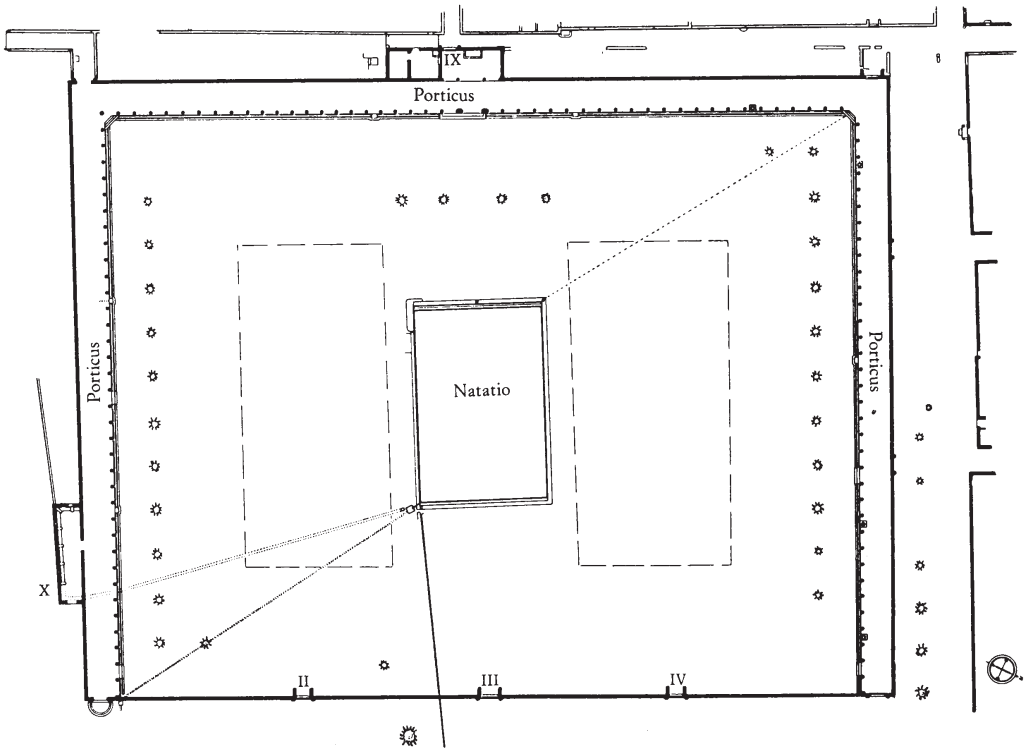


Fig. 5. The so-called "Great Palaestra" in Pompeii. The amphitheatre was situated immediately east of it (*i.e.*: at the bottom edge of the image (Zanker 1995, fig. 59)

context of civilian settlements. Roman markets and warehouses (*horrea*), however, are different (Gros 1996, 450-464, 465-474). While the floor-plan arrangement of such *canabae* complexes would satisfy the known organization of markets, the largely unstructured halls that enclose the space do not correspond with the view of how Roman sales and storage facilities should look. The requisite rows of numerous small taverns and chambers for selling and storing goods are missing in these *canabae* structures. Finally, it is the enormous size of these places that one does not encounter, in a comparable form, in Roman civil settlements.

Interpreting this space as a *forum*, the centre of administrative and religious functions of a city-like settlement, is problematic in several respects. Sacral areas cannot be identified in the present floor plans; as well, finds do not confirm such an interpretation. Administrative facilities of a Roman *forum* are sometimes difficult to identify as such, but the corresponding plans of *curiae* or architecturally prominent spaces that could have fulfilled such administrative functions (Balty 1991, 179-185; Schalles 1992, 183-211; Gros 1996, 261-269) can also not be confirmed.

From a legal point of view, there is some doubt as to the accuracy of the designation as "*forum*". It seems generally accepted that a Roman *forum* was a complex, multi-purpose structure for administrative, judiciary, religious and commercial purposes and that it always implies the status of a city (or *colonia municipium*, possibly also *civitas* suburb) for the settlement in which it was located (Dreier 2010, 44-45, 54-56, 148-150). Based on current knowledge, both ancient Vindonissa as well as the Carnuntum *canabae* never reached a status beyond that of *vicus* or *canabae legionis*. Difficulties arise in the discussion of this point and the methodological difficulty in the correct naming of such a structure. Finding the antique name for such structures would be ideal. The discovery of building inscriptions that precisely identify the technical term would be very helpful; however none have yet been found. Using Latin terms is problematic as many differing interpretations can exist; this is due to the lack of scientific/academic consensus regarding the precise application of such terms. If one relies on Vitruvius' definition of a "*forum*", as described in his architectural textbook (Vitruvius V, I) then it is more than likely that large, rectangular structures with a courtyard found in non-urban settlements of the Roman northwest provinces in antiquity were not designated as *fora,* but identified in some other fashion.

In searching for alternatives, one sees that the large complexes at *Vindonissa* and *Carnuntum* have striking similarities – in terms of layout, size and lo-

cation – with other large, rectangular building complexes found at other legionary sites. In *Burnum* and Mirebeau the existence of both large structures (amphitheatre and rectangular complex) is evident; moreover, these structures are located south, and more specifically, southwest of the legionary fortress, as at *Vindonissa*. Thus a working hypothesis was drawn up – that an overarching design concept within the *canabae legionis* allowed for a space that had specific, clearly defined functions and that lay in close proximity to the simultaneously occupied legionary fortress. The term *"campus"* was proposed as an alternative explanation for such large building complexes, particularly in the sense of a structurally configured monumental parade-ground located in close proximity of the legionary fortress.

The Roman military narrator Vegetius (*Epitoma rei militaris* II, 23, cf. Müller 1997, 101) wrote:"... To continue this drill without interruption during the winter, they erected for the cavalry porticos or riding halls covered with tiles or shingles, and if they were not to be procured, with reeds, rushes or thatch. Large open halls were likewise constructed in the same manner for the use of the infantry. By these means the troops were provided with places of drill sheltered from bad weather". The reference to a *basilica* is reminiscent of the hall in *Carnuntum*, which closed off the south side of "Forum II". The reconstruction measures approximately 146 x 24 m and is based on excavation results and the interpretation of aerial photographs. Surprisingly, the excavators found no subdivision of the interior space; they believe it was covered, because a screed floor is evident in several locations. It appears to have been a large, open hall, which was terminated along each of its narrow sides with a solid masonry apse (Groller 1906, 89-90, fig. 47). Whether this hall consisted of a single nave cannot be verified at this time.

Such hall structures have been indicated in inscriptions; it seems that they were vital for continuous military training. A *baselica equestris exercitatoria* is mentioned in an inscription from 222 CE found at the fort Netherby, located at Hadrian's Wall (CIL VII, 965). An inscription from 196 CE, found at Mainz, appears to indicate a *custos basilicae* of the *Legio XXII Primigenia Fidelis*; this might have been a hall warden of such an exercise *basilica* (CIL XIII 6672). The localization and/or structural context of these military *basilicas* is not confirmed by the inscriptions; however because of space constraints, it is doubtful whether such exercise halls were built inside the military camp (cf. Pitts / 1985, 124-128; Wilmott 1997). The spacious hall at *Carnuntum* was probably such a training hall. The smaller, narrow side halls would also have provided space for maintaining a minimum level of military training. Certain combat exercises and sporting activities, such as running, could be completed in those long, undivided halls. More complex activities, such as group and formation training or throwing and firing tests were probably performed outdoors or presumably on a reduced scale in the exceptionally large complex in *Carnuntum*.

These structures oriented themselves, in their basic arrangement on structures that were already in use in cities around the Mediterranean, namely, the sports and training complexes for the *iuventus* in the Roman cities of the West, as well as the environment of the Greek gymnasium-inspired sports fields in the Hellenistic influenced eastern part of the Empire. Inscriptions from Italy, Africa proconsularis, Sardinia, the Narbonese Gaul, Gallia Lugdunensis, the Gallia Belgica and from Dacia give the impression that a *campus* was an integral part of the Roman urban landscape (Devijver / van Wonterghem 1984; Devijver / van Wonterghem 1985). Secure archaeological evidence of such complexes and sport facilities is pending. Many cities likely used Rome as a model and installed the *campus* on the edge of or outside the city. In the civil towns of the west, the best example of such a "sports complex" is the "Great Palaestra" of Pompeii (**fig. 5**), which was a multifunctional complex located within the city, opposite the amphitheatre (Zanker 1995, 123-124, fig. 59, pl. 8,2). Sports activities were a more important factor of public life in the eastern, mostly Greek-speaking half of the Empire. Particularly in regions following the Hellenistic tradition, buildings similar to the "Great Palaestra" – and also to the *canabae* complexes can be found. For example, in Ephesus the "Verulanus Hall" was available for sports activities. To the west it lay adjacent to the harbour *gymnasion* and was designed specifically as a sports facility. The enormous scale of the "Verulanus Hall" (200 x 240 m), which consisted of a triple-aisled portico surrounding a park-like courtyard (Zschietzschmann 1961, 116 f., fig. 28; Steskal 2003, 231), led to this building being designated as the most impressive and spacious sports arena of the ancient world (Yegül 1995, 308). Comparable covered running-halls (*xystoi*) were part of the Greek *gymnasion* since the early Hellenistic period (Wacker 2007, 349-354). It is possible to identify these ancient sports and exercise facilities as the role model in the development of the Roman military *campus*.

Bibliography

Balty, C. 1991. Curia ordinis. Recherches d'architecture et d'urbanisme antiques sur les curies provinciales du monde romain. – Mémoires de la Classe des Beaux-Arts / Académie Royale de Belgique Collection in 4°, Sér. 2, 15,2. Bruxelles.

Campedelli, A. 2011. The castrum of Burnum: between old excavations and new researches. – Archaeologia Adriatica 5, 33-64.

Devijver, H. / van Wonterghem, F. 1985. Neue Belege zum "Campus" der römischen Städte in Italien und im Westen. – Zeitschrift für Papyrologie und Epigraphik 60, 147-158.

Devijver, H. / van Wonterghem, F. 1984. Der "Campus" der römischen Städte in Italien und im Westen. – Zeitschrift für Papyrologie und Epigraphik 54, 195-206.

Dreier, C. 2012. Forumsbasilika und Topographie der römischen Siedlung von Riegel am Kaiserstuhl. – Materialhefte zur Archäologie in Baden-Württemberg 91. Stuttgart.

Drexel, F. 1921. Die sog. Gladiatorenkaserne von Vindonissa. – Anzeiger für Schweizerische Altertumskunde N. S. 23, 31-35.

Driessen, M. 2007. Bouwen om te blijven. De topografie, bewoningscontinuïteit, en monumentaliteit van Romeins Nijmegen. Rapportage archeologische monumentenzorg 151. Amersfoort.

Goguey, R. / Reddé, M. 1995. Le camp légionnaire de Mirebeau. Monographien des Römisch-Germanischen Zentralmuseums 36. Mainz.

Groller, M. V. 1906. Grabungen in der Zivilstadt Carnuntum. In: Der römische Limes in Österreich 7. Wien. 83-130.

Groller, M. V. 1901. „Das Lager von Carnuntum". Der römische Limes in Österreich 2. Wien. 15-84.

Gros, P. 1996. L'architecture romaine du début du IIIe siècle av. J.C. à la fin du Haut-Empire. Vol. 1: Les monuments publics. Paris.

Guest, P. / Luke, M. / Pudney, C. 2012. Archaeological evaluation of the extramural monumental complex (the Southern Canabae) at Caerleon, 2011: Interim Report. Cardiff Studies in Archaeology Specialist Report 33. Cardiff.

Hartmann, M. 1986. Vindonissa. Oppdium-Legionslager-Castrum. Windisch.

Höcker, C. 1998. „Forum" in Der Neue Pauly 4 (Stuttgart 1998) 602–613.

Humer, F. (ed.) 2006. Legionsadler und Druidenstab. Vom Legionslager zur Donaumetropole. Textband. Katalog des Niederösterreichischen Landesmuseums N. F. 462. St. Pölten.

Kandler, M. 1977. Legionslager und canabae von Carnuntum. In: Aufstieg und Niedergang der Römischen Welt II 6. Berlin, New York. 626-700.

Laur-Belart, R. 1935. Vindonissa: Lager und Vicus. Römisch-Germanische Forschungen 10. Berlin, Leipzig.

Matter, G. 2011. Das Amphitheater von Vindonissa – Archäologische Ergebnisse der Gesamtsanierung 2006-2011. – Jahresbericht der Gesellschaft Pro Vindonissa, 23-45.

Müller, F.L. 1997. Publius Flavius Vegetius Renatus: Epitoma rei militarius – Abriß des Militärwesens: Lateinisch und deutsch. Stuttgart.

Pitts, L. F. / St. Joseph, J. K. 1985. Inchtuthil. The Roman legionary fortress excavations 1952-1965. Britannia monograph series 6. Gloucester.

Schalles, H. J. 1992. Forum und zentraler Tempel im 2. Jahrhundert n. Chr. In: Schalles, H. J. / Hesberg, H. von / Zanker, P. (eds.). Die römische Stadt im 2. Jahrhundert n.Chr. Der Funktionswandel des öffentlichen Raumes. Xantener Berichte: Grabung-Forschung-Präsentation 2. Köln, Bonn.

SPM 2002. Die Schweiz vom Paläolithikum bis zum frühen Mittelalter (SPM) V. Römische Zeit. Basel.

Steskal, M. 2003. Bemerkungen zur Funktion der Palästren in den ephesischen Bad-Gymnasium-Komplexen. – Jahreshefte des Österreichischen Archäologischen Institutes in Wien 72, 227-239.

Trumm, J. 2011. Vindonissa – Stand der Erforschung II. Der zivile Komplex. – Jahresbericht der Gesellschaft Pro Vindonissa, 3-22.

Trumm, J. / Wigger, B. 2010. Fundbericht Vindonissa. – Jahrbuch der Archäologie Schweiz 93, 261-263.

van Enckevort, H. 2002. The eastern canabae legionis of the legio X Gemina on the Kops Plateau in Nijmegen (NL). In: Freeman, P. / Bennett, J. / Fiema, Z.T. / Hoffmann, B. (eds.). Limes 18: Proceedings of the 18th International Congress in Roman Frontier Studies held in Amman, Jordan (September 2000). BAR international series 1084. Oxford. 387-393.

von Hesberg, H. 2001. „Forum". In: T. Fischer (ed.). Die römischen Provinzen. Eine Einführung in ihre Archäologie. London. 72-77.

Wacker, C. 2007: Die bauhistorische Entwicklung der Gymnasien. Von der Parkanlage zum „Idealgymnasium" des Vitruv. In: Kah, D. / Scholz, P. (eds.). Das hellenistische Gymnasion. Wissenskultur und gesellschaftlicher Wandel 8. 2. Auflage. Berlin. 349-362.

Wigger, B. 2012. Fundbericht Vindonissa. – Jahrbuch der Archäologie Schweiz 95, 198.

Wigger, B. 2011. Fundbericht Vindonissa. – Jahrbuch der Archäologie Schweiz 94, 261-262.

Wilmott, T. 1997. A new building type in an auxiliary fort: the Birdoswald basilica and its discovery. In: Groenman-van Waateringe, W. / van Beek, B. L. / Willems, W. J. H. (eds.). Roman frontier studies 1995. Proceedings of the 16th International Congress of Roman Frontier Studies. Oxbow monograph 91. Oxford. 581-586.

Yegül, F. K. 1995. Baths and bathing in classical antiquity. New York.

Zanker, P. 1995: Pompeji. Stadtbild und Wohngeschmack. Kulturgeschichte der antiken Welt 61. Mainz.

Zschietzschmann, W. 1961. Wettkampf- und Übungsstätten in Griechenland. Stadion – Palästra – Gymnasion. Eine Übersicht. II. Palästra – Gymnasion. Beiträge zur Lehre und Forschung der Leibeserziehungen. Schorndorf bei Stuttgart.

Christian Gugl PhD
Österreichische Akademie der Wissenschaften
Institut für Kulturgeschichte der Antike, Bäckerstr. 13
AT-1010 Wien
http://www.oeaw.ac.at/antike/
Christian.Gugl@oeaw.ac.at

Jürgen Trumm PhD
Leiter Ausgrabungen Vindonissa
Kantonsarchäologie Aargau
Industriestrasse 3
CH-5200 Brugg
juergen.trumm@ag.ch

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Von Spitzgräben und Gürtelblechen… Neue Grabungsergebnisse zur frühkaiserzeitlichen Militärpräsenz in *Brigantium* (Bregenz, Österreich)

Julia KOPF

In den Akten zum 19. Limeskongress 2003 in Pécs veröffentlichte F. Schimmer einen Artikel zur Frage nach dem Charakter des Siedlungsursprungs von *Brigantium* (Bregenz): „Zivilsiedlung oder Militärlager?" (Schimmer 2005b). Als Grundlage für seine Ausführungen dienten ausgewählte *Militaria* von Altgrabungen sowie in der 1. Hälfte des 20. Jh. entdeckte Baubefunde, welche der damalige Ausgräber A. Hild in einen militärischen Kontext stellte (Hild 1953). Die entsprechenden archäologischen Indizien wertete F. Schimmer als nicht ausreichend um ein frühkaiserzeitliches Militärlager zu belegen, wenngleich die Existenz eines solchen für ihn durchaus denkbar ist: „Zu Struktur und Charakter der ältesten römischen Siedlung in Bregenz … können beim momentanen Forschungsstand nur Mutmaßungen angestellt werden." (Schimmer 2005b, 612).

Dank größerer Grabungsaktivitäten in den Jahren 2009-2012 auf dem Ölrain-Plateau, auf welchem die früh- und mittelkaiserzeitliche Siedlung *Brigantium* lokalisiert war, lassen sich heute neue, durchaus schlagkräftige Indizien für die Annahme eines bzw. sogar mehrerer Militärlager der frühen Kaiserzeit anführen, die im Folgenden kurz vorgestellt werden sollen[1]. Es handelt sich um archäologische Überreste in Form von Umwehrungsbefunden und *Militaria*, die ganz im Westen der bekannten römerzeitlichen Siedlungsfläche ans Licht kamen (**Abb. 1**).

Militärische Befunde der 1. Hälfte des 1. Jh. n. Chr.

Konkret wurden 2010 zwei parallel zueinander liegende, Nordwest-Südost verlaufende Spitzgräben entdeckt, die aufgrund ihrer Entfernung von *ca*. 6 m zueinander wohl als zweiphasige Lagerumwehrung zu interpretieren sind. Die beiden Gräben gehören stratigrafisch in die gleiche Phase wie die Südwest-Nordost verlaufende Hauptdurchzugsstraße von *Brigantium*, in deren Bereich sie unterbrochen sind. Dabei ist auffällig, dass die zwei Gräben nicht exakt im rechten Winkel zur Hauptstraße verlaufen (**Abb. 1**). Diese Besonderheit resultiert wohl aus den topografischen Verhältnissen, da sich südöstlich der Grabungsfläche ein recht markanter linearer Geländeabfall in Flucht der beiden Spitzgräben befindet[2]. Mit diesen aufgrund ihrer Breite und Tiefe als Lagergräben anzusprechenden Strukturen (**Abb. 2**) lässt sich die westliche Begrenzung eines Militärlagers fassen, als dessen Südgrenze wohl die 1927 von A. Hild freigelegten Grabenstrukturen im Südbereich des Ölrain-Plateaus anzusehen sind (Hild 1948, 140-142, Abb. 34). Zu diesem Militärlager gehörende Gebäudereste aus dem Bereich der neuen Grabungsstelle können an dieser Stelle noch nicht angeführt werden, da die Aufarbeitung der entsprechenden Schichten und Strukturen noch im Gange ist[3].

[1] Die Grabungen der Jahre 2009/2010 wurden von der Tiroler Grabungsfirma Talpa GnbR durchgeführt. Zu den wichtigsten Grabungsergebnissen siehe Bader 2011. Die Aufarbeitung dieser Grabungen erfolgt im Rahmen des FWF-Projekts „Vom Militärlager zur Zivilsiedlung – Die Genese der westlichen Peripherie von Brigantium" (P 23777-G19) an der Universität Innsbruck unter der Leitung von Gerald Grabherr. Im Zuge dieses Projekts fand im Herbst 2012 eine Nachuntersuchung statt.

[2] Zur Topografie und Geologie des Ölrain-Plateaus siehe den Bericht von J. G. Friebe auf http://www.inatura.at/fileadmin/user_upload/Fotos_Inatura/inatura/pdf/Forum_Naturwissen/0_poster_brigantium.pdf (08.01.2013).

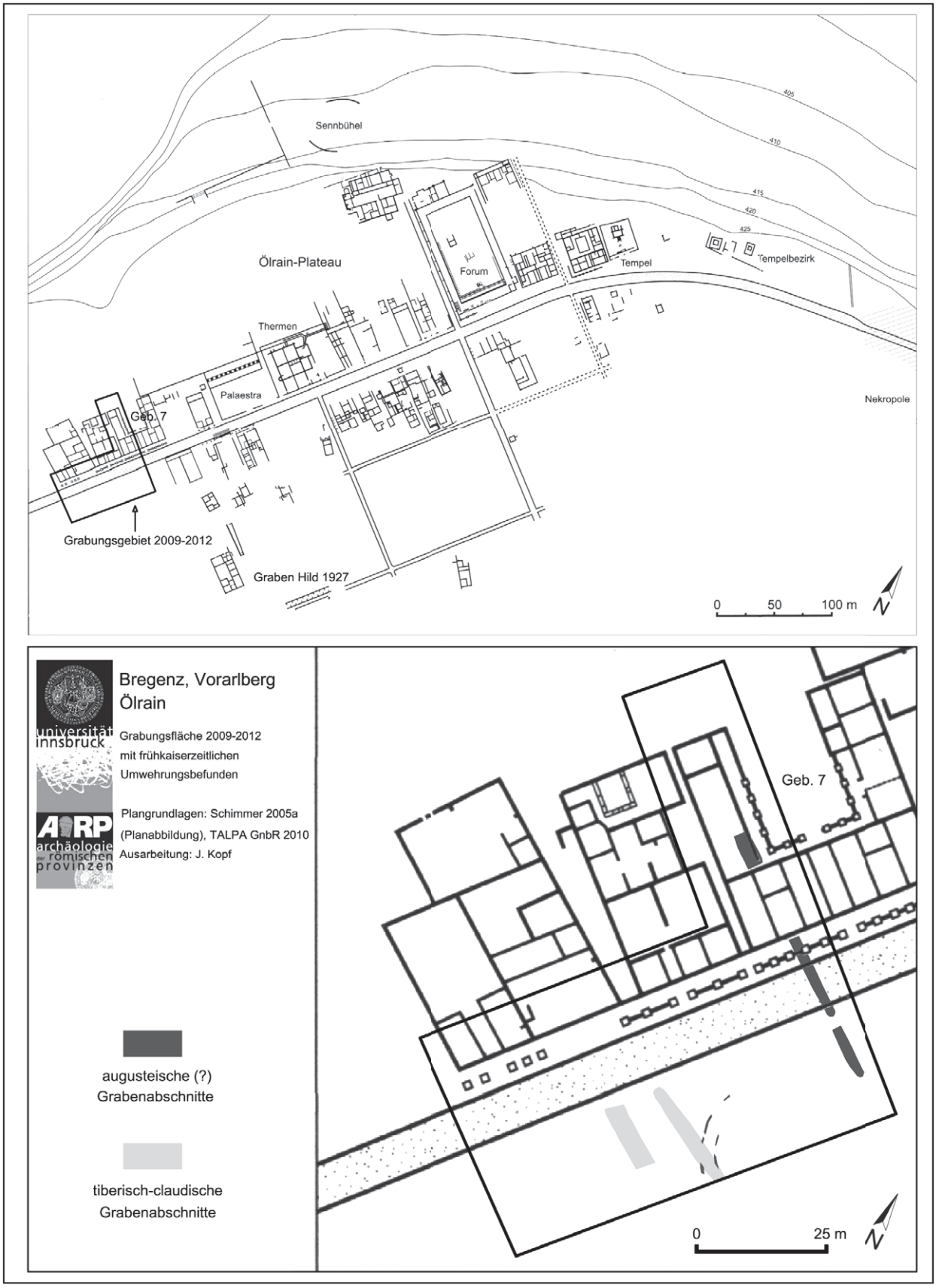


Abb. 1. Plan der römerzeitlichen Siedlung *Brigantium* (Plangrundlage: Schimmer 2005a, Planbeilage). Unten Grabungsareal 2009-2012 mit frühkaiserzeitlichen (Wehr-)Gräben

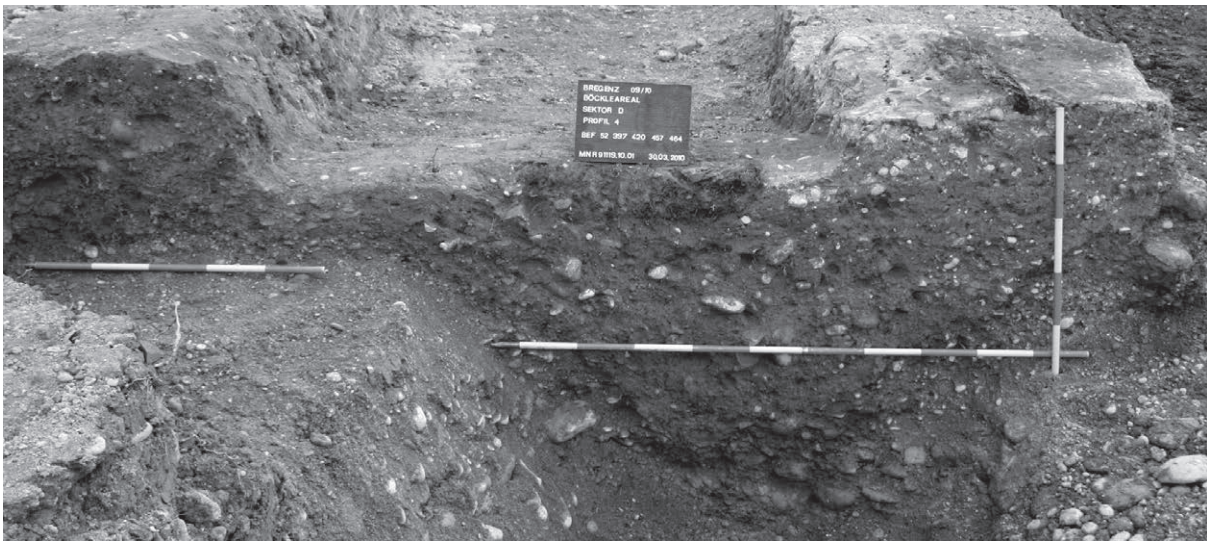


Abb. 2. Profil des westlichen Spitzgrabens des tiberisch-claudischen Militärlagers (Photo: Talpa GnbR)

Bezüglich Datierung dieses Lagers können beim momentanen Auswertungsstand lediglich zur Auflassungszeit konkretere Angaben gemacht werden, welche auf der Analyse der *Terra Sigillata* aus den beiden Spitzgräben beruhen. In beiden Gräben sind italische und südgallische Fabrikate enthalten, wobei die südgallischen jeweils überwiegen. Die *Terra Sigillata* aus dem östlichen Spitzgraben – Consp. 18.2, Consp. 31, Drag. 17, Drag. 15/17, Drag. 24/25, eine frühe Variante von Drag. 27 sowie ein Stempel des Catus (ca. 15-30 n. Chr.; Genin 2007, 190, 262; **Abb. 3**) – scheint ein leicht früheres Spektrum (spättiberisch?) zu repräsentieren als die *Terra Sigillata* aus dem westlichen Spitzgraben mit einem Drag. 22/23-Fragment als jüngste Form[4] (**Abb. 4**). Daher ist möglicherweise eine zweite Lagerphase mit einer leichten Verschiebung der Lagerfront nach Westen anzunehmen. Das keramische Formenspektrum der Spitzgräben, v.a. des westlichen, ähnelt grundsätzlich jenem der Spitzgrabenverfüllungen in Zurzach (Hänggi et al. 1994, 154-158) sowie jenem aus der Abbruch-Phase des Holzkastells in Kaiseraugst (Deschler-Erb et al. 1991, 92-96), sodass vorsichtig eine analoge Auflassung des Bregenzer Militärlagers um die Mitte des 1. Jh. n. Chr. angenommen werden kann. Damit erscheint beim momentanen Kenntnisstand die Zuordnung dieses Bregenzer Militärlagers zur spätaugusteisch-frühtiberischen Kastellkette am Hochrhein am wahrscheinlichsten[5].

Über die Größe dieses vermeintlich frühtiberisch-claudischen Militärlagers können weiterhin nur Spekulationen angestellt werden, da die Nord- und Ostgrenze des Lagerareals bisher unbekannt sind. Allerdings können inzwischen die zuletzt von W. Zanier und Ch. Ertel vorgelegten Vorschläge zum Lagergrundriss bzw. zur Lagergröße nach oben hin korrigiert werden, da die von beiden im Bereich des Gebäudes 7 angenommene nördliche Lagerumwehrung durch die Grabungen der Jahre 2009-2012 widerlegt werden konnte (Zanier 2006, 77, 83, Abb. 6 – ca. 1.9 ha; Ertel et al. 2011, 26 f., 187 – ca. 2.7 ha); weder im Inneren des Gebäudes noch im nördlich angrenzenden Gartenbereich kam ein Spitzgraben zum Vorschein[6], sodass ein Ausgreifen des Lagers weiter nach Norden zwingend anzunehmen ist. Aufgrund der Topografie des Geländes in Form einer Hangkante ca. 150 m

[3] Die Auswertung sämtlicher Befunde zu dem/den frühkaiserzeitlichen Militärlager(n) von *Brigantium* sowie die Vorlage sämtlicher bisher in Bregenz gefundenen *Militaria* erfolgt im Rahmen der Dissertation der Verfasserin. Diese Arbeit wurde 2011 durch ein Doktoratsstipendium der Leopold-Franzens-Universität Innsbruck, Vizerektorat für Forschung, gefördert.

[4] In *Vindonissa* treten Gefäße der Form Drag. 22/23 erstmals in frühclaudischer Zeit auf (Meyer-Freuler 1989, 34 f., Tab. 7) und in Zürich im Zeitraum „kurz vor der Jahrhundertmitte bis etwa um 70 n. Chr." (Balmer 2009, 135, Abb. 171). Eine Grube aus dem Kastellareal von Zurzach lieferte ebenfalls ein frühes Exemplar dieser Form (Hänggi et al. 1994, 131, Abb. 95, 105 A.7).

[5] A. Hagendorn nimmt für das erste Lager von *Vindonissa* („schräges Lager") eine Gründung noch in spätaugusteischer Zeit (um 14 n. Chr.) und eine zweite Bauetappe in frühtiberischer Zeit (16/17 n. Chr.) an. Diese Bauetappen können möglicherweise korreliert werden mit den Phasen 4 und 5 des Kastells in Zurzach (Hagendorn 2003, 464 f.).

[6] Den endgültigen negativen Beweis hierfür erbrachte eine archäologische Nachuntersuchung 2012, die das kumulative Längsprofil durch Gebäude 7 vervollständigte. Siehe dazu Kopf / Oberhofer 2013.

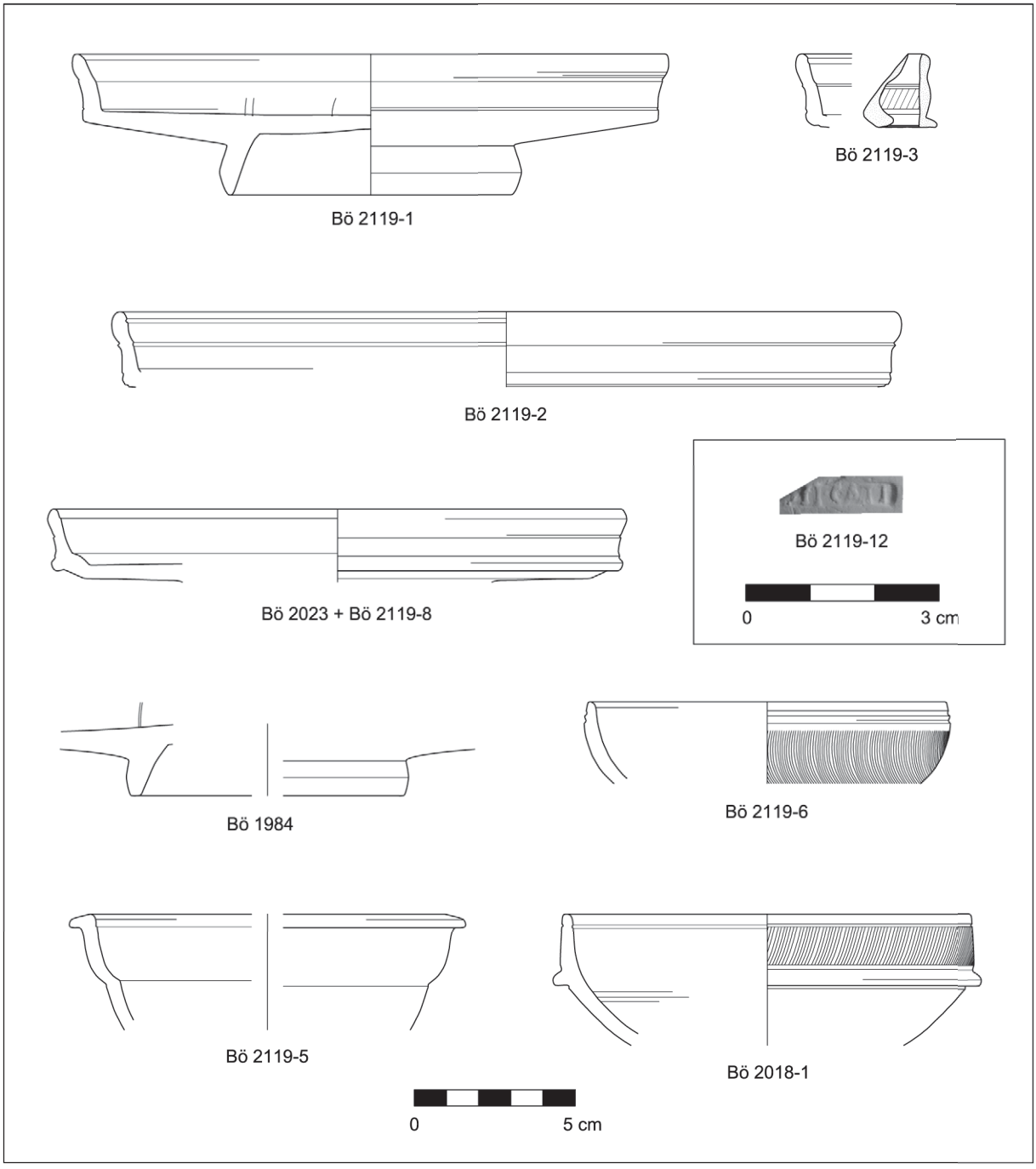


Abb. 3. *Terra Sigillata*-Funde aus dem östlichen Spitzgraben mit Inventar-Nummern, M. 1:2 (Stempel M. 1:1) (Zeichnungen: J. Kopf)

nordwestlich der Hauptstraße kann man wohl annehmen, dass das römische Militär diese strategisch günstige Aussichtslage über den Bodensee und das westlich angrenzende Gebiet für die Errichtung seines Stützpunkts ausgenützt hat; schließlich wurde der oben bereits erwähnte, in Bezug auf die westliche Lagerumwehrung fortifikatorisch zweckdienliche Geländeabfall nach Süden hin ebenfalls in die Lagerplanung miteinbezogen. Nimmt man nun die nördliche Lagergrenze knapp vor der Hangkante zum Bodenseeufer hin an und die östliche Lagerfront knapp östlich des von A. Hild freigelegten südlichen Grabenabschnitts, ergibt sich unter der Berücksichtigung der bekannten westlichen und südlichen Umwehrungsabschnitte sowie unter der Annahme eines halbwegs rechteckigen Lagergrundrisses eine Lagerfläche von *ca.* 300 x 180 m (ca. 5.4 ha). Ein Lager dieser Größe würde dem kanonischen Schema nach am ehesten einem Alenkastell entsprechen, allerdings wird in der Fachliteratur betont, dass in der Frühzeit der Militärarchitektur weder in Bezug

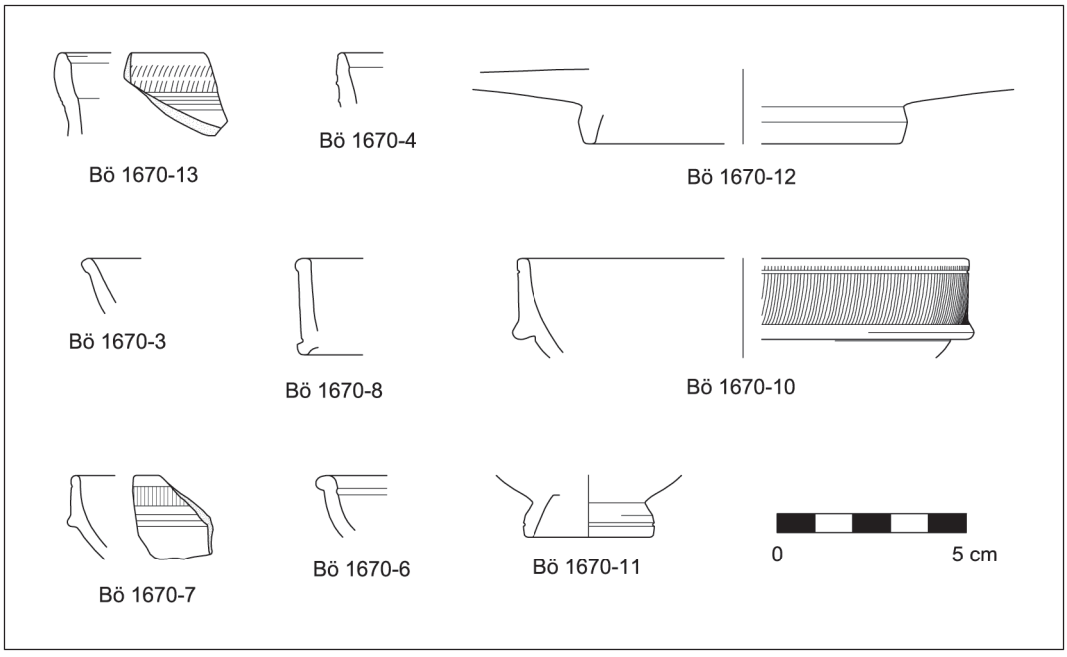


Abb. 4. *Terra Sigillata*-Funde aus dem westlichen Spitzgraben mit Inventar-Nummern, M. 1:2 (Zeichnungen: J. Kopf)

auf einen regelmäßigen Umriss noch auf die Größe so einheitliche Regeln herrschten wie ab der 2. Hälfte des 1. Jh. n. Chr.[7].

Militärische Befunde der augusteischen Zeit

Während die militärischen Befunde der tiberisch-claudischen Zeit als wichtige Ergänzung bereits bekannter Baureste angesehen werden können und ein bereits in der Vergangenheit vermutetes Lager bestätigen, stellen ältere Umwehrungsbefunde aus dem Bereich der Grabungen 2009-2012 für *Brigantium* ein Novum dar. Unter den ältesten Schichten der römerzeitlichen Hauptstraße kam ein Nordwest-Südost verlaufender mächtiger Graben zum Vorschein, der sich nach Norden hin unter dem späteren Gebäude 7 bzw. dessen Vorgängerbauphasen fortsetzte (**Abb. 1**). Aufgrund seiner Breite von bis zu 3 m und seiner Tiefe von ca. 0.8 m ist hierin wohl ein Umfassungsgraben eines sich nach Osten hin erstreckenden, nicht näher zu definierenden (temporären?) Truppenlagers zu sehen. Die leider spärlichen Funde aus der Verfüllung dieses Grabens weisen in die augusteische Zeit (Campana, italische *Sigillata*). Damit könnten erstmals konkrete archäologische Hinweise auf ein in der Literatur aufgrund der strategischen Schlüsselposition Brigantiums in der frühkaiserzeitlichen Grenzlinie bereits postuliertes augusteisches Militärlager vorliegen[8].

Weiters wurden im Bereich des östlichen Spitzgrabens der tiberisch-claudischen Zeit zwei bogenförmig verlaufende, parallel nebeneinander liegende schmale Grabenstrukturen entdeckt, die ebenfalls an eine Umwehrung eines Militärlagers erinnern (**Abb. 1**). Aus diesen Befunden liegt leider kein Fundmaterial vor, ihre frühe Zeitstellung ergibt sich jedoch dadurch, dass sie von den Grabenbefunden des tiberisch-claudischen Militärlagers geschnitten werden. Die geringe Breite dieser beiden Gräben[9] spricht gegen eine Deutung als längerfristig besetzter Posten, eine Interpretation als Umfriedung etwa eines Marschlagers (Nordwestecke?) ist aber durchaus denkbar[10].

[7] Erst ab flavischer Zeit können aus der Größe und Innengliederung eines Lagers Rückschlüsse gezogen werden auf die dort stationierten Einheiten (von Schnurbein 2011, 78).

[8] Konrad 1989, 24 f. Auf ein von Ch. Ertel in die augusteische Zeit datiertes vermeintliches Hafenkastell im Bereich des Leutbühels wird hier aufgrund der Unsicherheit der Befundlage sowie der spekulativen Datierung nicht näher eingegangen (Ertel et al. 2011, 184 f.).

[9] An der dokumentierten Oberfläche wurden nur 0.4 m gemessen, was jedoch aufgrund des Baggerabtrags der darüber liegenden Schicht (ca. 0.2 m) nicht unbedingt der ursprünglichen Breite entsprechen muss. Die geringe erhaltene Tiefe von ca. 0.25 m könnte ebenfalls darin begründet sein.

[10] Ähnlich schmale Grabenstrukturen sind etwa vom frühkaiserzeitlichen Lager II in Ingolstadt-Zuchering bekannt (Hüssen 1995, 104-106, Abb. 8).

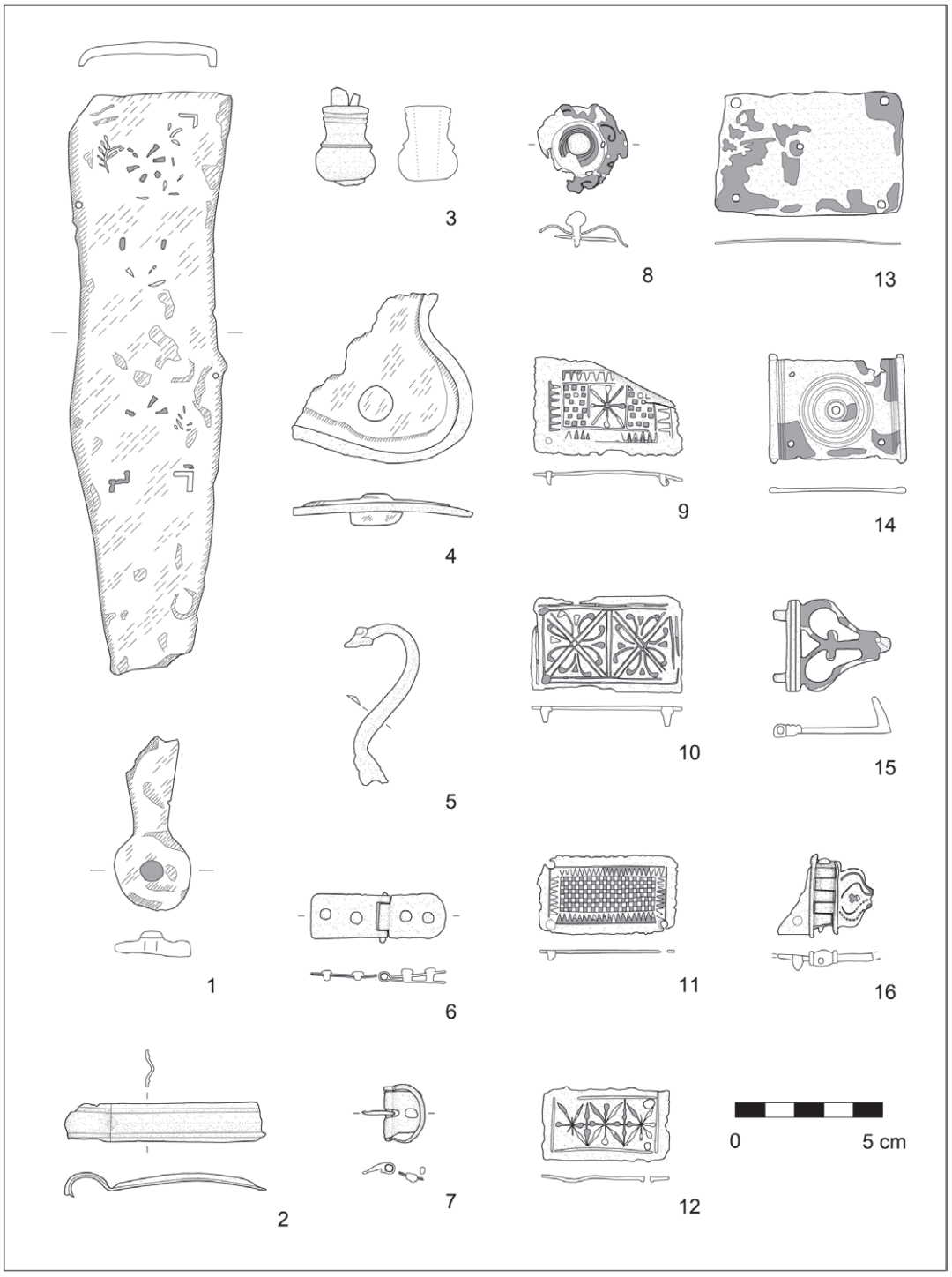


Abb. 5. Ausgewählte *Militaria* der Grabungskampagnen 2009/2010 (Zeichnungen: J. Kopf)

Militaria

Die aus der Zeit vor den Ausgrabungen 2009-2012 stammenden frühkaiserzeitlichen *Militaria* (inkl. Pferdegeschirr) aus dem Siedlungsbereich und dem Gräberfeld von *Brigantium* haben noch keine umfassende Bearbeitung und Publikation erfahren[11], einzelne Stücke wurden jedoch an verschiedenen Stellen vorgelegt[12]. Chronologisch repräsentieren

[11] Dies soll im Rahmen der Dissertation der Verfasserin erfolgen (siehe Fußnote 3).

[12] Im Rahmen von Grabungsberichten: Hild 1930, 139-142; 1948, 134 f., 137 f., 140, 143, 146 f.; von Schwerzenbach / Jacobs 1910/1911, 47, Abb. 10 (B.G. 669, 673), 69, Abb. 19 (B.G. 856). Im Rahmen von Aufsätzen / Monographien: Mackensen 1987, 159-161; Ubl 1999, 246-250, 254-261; Mackensen 2001, 333-335; Schimmer 2005b, 611 f., 620 f.

diese in erster Linie ein augusteisch-neronisches Spektrum (Schimmer 2005b, 612). F. Schimmer erstellte zudem eine Kartierung der von ihm vorgelegten *Militaria*, welche die bereits von A. Hild vermutete und durch die jüngsten Ausgrabungen bestätigte Lokalisierung des frühkaiserzeitlichen Militärlagers im westlichen Bereich des Ölrain-Plateaus widerspiegelte (Schimmer 2005b, 622, Abb. 13).

Die Ausgrabungen der Jahre 2009-2012 förderten eine beträchtliche Anzahl frühkaiserzeitlicher *Militaria* aller Kategorien zu Tage[13]. Dabei scheint der zeitliche Rahmen der Neufunde im Großen und Ganzen demjenigen der bisher veröffentlichten *Militaria* zu entsprechen; als militärische Leitfossilien der tiberisch-neronischen Zeit gelten etwa Dolchscheiden des Typus Mainz mit Rosettenverzierung (**Abb. 5 / 1**; Obmann 2000, 8 f.) und Gürtelbleche mit Niello-Einlagen (**Abb. 5 / 9-12**; Deschler-Erb et al. 1991, 27 f.)[14]. Als weitere Bestandteile der frühkaiserzeitlichen Militärtracht kommen Gürtelbleche mit Weißmetallüberzug (**Abb. 5 / 13**; augusteisch-frühflavisch), Gürtelbleche mit Pseudoscharnierachsen und konzentrischen Kreisrillen (**Abb. 5 / 14**; tiberisch-neronisch; Deschler-Erb 1999, 43, 45) sowie Knopfschließen zur Befestigung der Dolchscheide am *cingulum* (**Abb. 5 / 15-16**; Unz / Deschler-Erb 1997, Taf. 45 / 1232-1237, Taf. 46 / 1260-1264) vor. Die Kategorie der Angriffswaffen ist neben der Dolchscheide durch eine Schwertscheidenklammer (**Abb. 5 / 2**) sowie einen Ortbandknopf von einem *Gladius* Typ Mainz (**Abb. 5 / 3**; Unz / Deschler-Erb 1997, Taf. 8 / 135-140) vertreten. Von der Schutzbekleidung stammen das Fragment einer Wangenklappe eines Helms vom Typ Weisenau (**Abb. 5 / 4**), ein schlangenförmiger Kettenpanzerhaken mit Widderkopf (**Abb. 5 / 5**; augusteisch-(früh)flavisch; Deschler-Erb et al. 1991, 20, 58 f., Abb. 40 / 20; Deschler-Erb 1999, 38, Taf. 15 / 270), Scharniere und Schnallen vom Schienenpanzer (**Abb. 5 / 6-7**) sowie eine (wahrscheinliche) Panzer- oder Helmniete (**Abb. 5 / 8**; Lenz 2006, 18, Taf. 16 / 131).

Zusammenfassung

Dank neuer Grabungsergebnisse kristallisiert sich der militärische Ursprung der spätestens im 1. Jahrzehnt v. Chr. gegründeten römerzeitlichen Siedlung *Brigantium* immer mehr heraus (Konrad 1989; Schimmer 2005a, 51-60). Dabei können nicht nur dem bereits von A. Hild erkannten Militärlager der tiberisch-claudischen Zeit endlich stratigrafische Befunde mit zugehörigem Fundmaterial zur Seite gestellt werden, sondern es wird erstmals auch der militärpolitisch eigentlich zwingend anzunehmende augusteische Militärstützpunkt *Brigantium* archäologisch fassbar. Die Größe dieser frühkaiserzeitlichen Truppenlager ist beim momentanen Forschungsstand noch nicht hinreichend belegbar, die topografische Situation mit Berücksichtigung der bekannten Umwehrungsabschnitte spricht jedoch zumindest für die tiberisch-claudische Zeit für eine gegenüber den bisherigen Rekonstruktionsvorschlägen markant größere Lagerfläche.

Wenngleich die Grabungen der Jahre 2009-2012 nur einen kleinen Randbereich der Lagerareale abdeckten, sind die dokumentierten Umwehrungsbefunde und die militärischen Kleinfunde in ihrer Bedeutung doch sehr hoch einzuschätzen. Sie liefern entscheidende Anhaltspunkte für die Rekonstruktion der frühen Siedlungsentwicklung Brigantiums und gewichtige Argumente für die große Bedeutung der archäologischen Forschung in Bregenz, welche hoffentlich in Zukunft noch weitere Spuren dieses auf dem Boden des heutigen Österreich einzigartigen frühkaiserzeitlichen Militärstandorts ans Licht fördern wird.

Bibliographie

Bader, M. 2011. Militärische und zivile Siedlungsreste aus der Römerzeit am Böcklareal in Bregenz. Ein Vorbericht. – Jahrbuch des Vorarlberger Landesmuseumsvereins, 8-67.

Balmer, M. 2009. Zürich in der Spätlatène- und frühen Kaiserzeit. Vom keltischen Oppidum zum römischen Vicus Turicum (= Monographien der Kantonsarchäologie Zürich 39). Zürich.

Deschler-Erb, E. 1999. Ad arma! Römisches Militär des 1. Jahrhunderts n. Chr. in Augusta Raurica (= Forschungen in Augst 28). Augst.

[13] Die genaue Anzahl kann noch nicht genannt werden, da sich zahlreiche Eisenfunde der Grabungskampagnen 2009 und 2010 sowie sämtliche Metallfunde von 2012 noch in Restaurierung befinden, inklusive der Pferdegeschirrbestandteile sind es aber jedenfalls mehr als 50 Stück.

[14] Zu diesen Bregenzer Neufunden siehe auch Kopf 2011.

Deschler-Erb, E. / Peter, M. / Deschler-Erb, S. 1991. Das frühkaiserzeitliche Militärlager in der Kaiseraugster Unterstadt (= Forschungen in Augst 12). Augst.

Ertel, Ch. / Hasenbach, V. / Deschler-Erb, S. 2011. Kaiserkultbezirk und Hafenkastell in Brigantium. Ein Gebäudekomplex der frühen und mittleren Kaiserzeit (= Forschungen zur Geschichte Vorarlbergs N.F. 10). Konstanz.

Genin, M. 2007. La Graufesenque (Millau, Aveyron) II. Sigillées lisses et autres productions. Pessac.

Hagendorn, A. 2003. Zur Frühzeit von Vindonissa. Auswertung der Holzbauten der Grabung Windisch-Breite 1996-1998 (= Veröffentlichungen der Gesellschaft pro Vindonissa 18). Brugg.

Hänggi, R. / Doswald, C. / Roth-Rubi, K. 1994. Die frühen römischen Kastelle und der Kastell-Vicus von Tenedo-Zurzach (= Veröffentlichungen der Gesellschaft pro Vindonissa 11). Brugg.

Hild, A. 1953. Brigantiums Frühkastell. – Carinthia I 143, 711-714.

Hild, A. 1948. Archäologische Forschungen in Bregenz 1920-1944. – Jahreshefte des Österreichischen Archäologischen Institutes in Wien 37, Beiblatt, 123-160.

Hild, A. 1930. Archäologische Forschungen in Bregenz. – Jahreshefte des Österreichischen Archäologischen Institutes in Wien 26, Beiblatt, 115-176.

Hüssen, C.-M. 1995. Römische Lager an der Donau in Ingolstadt-Zuchering. In: Hüssen, C.-M. (Hrsg.). Provinzialrömische Forschungen. Festschrift für Günter Ulbert zum 65. Geburtstag. Espelkamp. 95-110.

Konrad, M. 1989. Neue archäologische Ergebnisse zum Beginn des römischen Bregenz. – Jahrbuch des Vorarlberger Landesmuseumsvereins 133, 19-25.

Kopf, J. 2011. Rückblick und Ausblick: Spuren frührömischen Militärs in Brigantium. – Jahrbuch des Vorarlberger Landesmuseumsvereins 155, 68-75.

Kopf, J. / Oberhofer, K. 2013. Brigantium/Bregenz, Kastellareal: Neues zur Lage und Größe des Militärpostens. – Jahrbuch des Vorarlberger Landesmuseumsvereins 157, 62-75.

Lenz, K. H. 2006. Römische Waffen, militärische Ausrüstung und militärische Befunde aus dem Stadtgebiet der Colonia Ulpia Traiana (Xanten). Bonn.

Mackensen, M. 2001. Militärische oder zivile Verwendung frühkaiserzeitlicher Pferdegeschirranhänger aus der Provinz Africa Proconsularis und den Nordwestprovinzen. – Germania 79, 325-346.

Mackensen, M. 1987. Frühkaiserzeitliche Kleinkastelle bei Nersingen und Burlafingen an der oberen Donau (= Münchner Beiträge zur Vor- und Frühgeschichte 41). München.

Meyer-Freuler, Ch. 1989. Das Praetorium und die Basilika von Vindonissa (= Veröffentlichungen der Gesellschaft pro Vindonissa 9). Baden.

Obmann, J. 2000. Studien zu römischen Dolchscheiden des 1. Jahrhunderts n.Chr. (= Kölner Studien zur Archäologie der römischen Provinzen 4). Rahden/Westfalen.

Schimmer, F. 2005a. Die italische Terra Sigillata aus Bregenz (Brigantium) (= Schriften des Vorarlberger Landesmuseums. Reihe A, Landschaftsgeschichte und Archäologie 8). Bregenz.

Schimmer, F. 2005b. Zum Beginn des frühkaiserzeitlichen Brigantium (Bregenz): Zivilsiedlung oder Militärlager? In: Visy, Z. (Hrsg.). Limes 19. Proceedings of the 19th International Congress of Roman Frontier Studies. Pécs, Hungary, September 2003. Pécs. 609-622.

Schnurbein, S. v. 2011. Römische und indigene Strategien der Herrschafts- und Friedenssicherung – Germanien. In: Moosbauer, G. / Wiegels, R. (Hrsg.). Fines imperii – imperium sine fines? Römische Okkupations- und Grenzpolitik im frühen Principat. Beiträge zum Kongress „Fines imperii – imperium sine fines?“ in Osnabrück vom 14. bis 18. September 2009. Rahden/Westfalen. 75-86.

Schwerzenbach, C. v. / Jacobs, J. 1910/1911. Die römische Begräbnisstätte von Brigantium. – Jahresbericht des Landesmuseums-Vereins für Vorarlberg 47, 3-73.

Ubl, H. 1999. Frühkaiserzeitliche römische Waffenfunde aus Österreich. In: Schlüter W. / Wiegels R. (Hrsg.). Rom, Germanien und die Ausgrabungen von Kalkriese (= Kulturregion Osnabrück 10). Osnabrück. 241-269.

Unz, Ch. / Deschler-Erb, E. 1997. Katalog der Militaria aus Vindonissa. Militärische Funde, Pferdegeschirr und Jochteile bis 1976 (= Veröffentlichungen der Gesellschaft pro Vindonissa 14). Brugg.

Zanier, W. 2006. Das Alpenrheintal in den Jahrzehnten um Christi Geburt. Forschungsstand zu den historischen und archäologischen Quellen der spätlatène- und frühen römischen Kaiserzeit zwischen Bodensee und Bündner Pässen (Vorarlberg, Liechtenstein, Sankt Gallen, Graubünden) (= Münchner Beiträge zur Vor- und Frühgeschichte 59). München.

Mag. Julia Kopf
Universität Innsbruck
Institut für Archäologien
Langer Weg 11
AT-6020 Innsbruck
Julia.Kopf@uibk.ac.at

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Inner Fortifications and the Late Roman Defence System in Pannonia (4th–5th c. AD) – Some Notes

Orsolya HEINRICH-TAMÁSKA

Concerning the Late Antique defence policy in Pannonia, Sándor Soproni's work, 'The last decades of the Pannonian Limes' (1985), still bears fundamental importance. To this day, his idea of a multiple defence system along the Pannonian Limes has remained a basic building block for the interpretation and dating of the sites that constituted the frontier.[1]

Thus the following study will rely on Soproni's works, as well as briefly introduce his phasing system, with a particular focus on the interior lines of defence where the so-called inner fortifications were significant. They will be discussed below.

The Pannonian Defence System in Late Antiquity

Soproni (1978, 113-155; 1985, esp. 94-106) constructs a tripartite defence system for Late Antique Pannonia: an outer defence, the Csörsz Ditch, that he called Sarmatian Limes, the *Ripa Pannonica*[2] itself, and some further interior lines of fortifications within the province (**fig. 1**). The dating and function as well as the meaning of the Sarmatian Limes differ in research. Details and new results cannot be discussed here, but to sum it all up, this earthwork-system consisted of 3-4 *valla* and *fossae* of different sections that were not built at the same time (see Isványovits / Kulcsár 2002; 2010 with bibliography)[3].

Nevertheless, on the basis of current results it cannot be excluded, that the whole system, from the Danube Bend in the north (*Constantia / Aquincum / contra Aquincum*) to the Lower Danube near *Viminacium* (*Constantia*) in the south, a total of about 550 kilometres (**fig. 1**), was completed as one coherent establishment during the Late Roman period (4th c.) and played a constructive role in the defence of the middle Danube Limes. However, the nature of connections between the Romans and Sarmatians in the implementation of this big construction in the Barbaricum cannot be retraced with certainty at the present state of research.

Nevertheless, this study does not aim to focus on this Sarmatian Wall, nor on the Pannonian Limes, but in fact on the internal defence system that included the inner fortifications, comprising the sites of Környe, Ságvár, Alsóheténypuszta / *Iovia* and Keszthely-Fenékpuszta[4] (**fig. 1**; Tóth 1985; 2009, 71-80; Heinrich-Tamáska 2007/08). Only the recent re-analysis by Endre Tóth (2008) has recognised Tác / *Gorsium* as to belong to this group.

Sándor Soproni (1978, 142-150) argued for two internal defence lines, an L-shaped one following the Limes from Kisárpás via Környe to *Sopianae*, allegedly built by Constantine I, and another running diagonally between *Scarbantia* and *Sopianae* and dating to the reign of Constantius II (**fig. 1**). In contrast, Károly Sági (1989, 268 f.) reconstructed

[1] He had already presented this idea in Soproni 1978.

[2] See also in summary, Visy 2003.

[3] Some scholars take the view that this earth rampart was built only during the Avar period, in the 7th c. (Fiedler 1986, 462). One important point in Fiedler's study is that he calls attention to other wall-systems on the northern part of the Lower Danube. Nevertheless, only its usage in the Early Middle Ages is possible, but not the construction of this system (according to Fiedler's opinion on the Slavs).

[4] Here the present local names of the sites are used, because the identification with Latin names based on the written sources is mostly doubtful (Tóth 2006, 137-166; 2009, 81-95).

three north-south lines. He dated the easternmost one, located between Környe and *Sopianae*, to the times of the Tetrarchy, and the middle one from Kisárpás and via Fenékpuszta to *Sopianae* to the reign of Constantine I. The westernmost line, from *Scarbantia* and via *Savaria* to *Sopianae*, has much earlier roots in its northern part at least, going back to the Amber Road (**fig. 1**).

Given the current state of research, both ideas are outdated in several aspects: there are no known archaeological traces of an inner fortification at Kisárpás, nor is the site of Környe multi-phased. After several years of excavation, Kisárpás turned out to be an unfortified *municipium*, *Mursella* (Szőnyi 2004; Tóth 2009, 17-19). This means that two segments of the east-west defence line did not exist in the early phase, and even for the later phase (with round towers) corresponding evidence only exists at Környe (Szabó / Heinrich-Tamáska 2011). In contrast, the north-south line is clearly visible. In the earlier phase, it is represented by Tác, Ságvár and Alsóheténypuszta, while in the later phase the last two sites continue in a modified form, while the original walls were still in use at Tác (Tóth 2008, fig. 2) and a new fort was built in Környe (**fig. 1**). However, Endre Tóth (2009, 78-81) doubted the very existence of such an interior line of fortifications by pointing out that the distance between the forts, roughly 50 to 60 km, is not appropriate.

In the case of the inner fortifications of Keszthely-Fenékpuszta and Ságvár, we must also point out the importance of the Lake Balaton as a communication route: the distance between the two forts is about 80 km and suggests that they functioned as nodes between waterways and terrestrial transport. The importance of the waterways is further underlined by the fact that the hydrological and geological conditions at the time made an overland route along the south shore of Lake Balaton impossible (Serlegi 2007; Heinrich-Tamáska 2008, 261 f.; Heinrich-Tamáska / Hipp 2009, 77-86). At the same time, Ságvár, as well as Keszthely-Fenékpuszta are located alongside further north-south axises: the road from *Aquincum* rather *Carnuntum* towards *Sopianae*. Thus, a west-east connection could run via Lake Balaton and then further north across the Little Hungarian Plain southern of the Danube (to the Pannonian road system see Bödőcs 2008).

The Role and Dating of the Inner Fortifications

Now some basic aspects on the general organisation of the inner fortifications will be clarified. Their grounds are between 7 and 21 hectares (**fig. 2a** and **3**) and were built regularly on plain terrains (Tóth 2009, 61-63; Heinrich-Tamáska 2007/08, 208-215; Heinrich-Tamáska et al. 2012, 5-12). The chronology is based on construction periods observed at Alsóheténypuszta (**fig. 2a-c**) and Ságvár, and consists of two phases, one with U-shaped, rectangular and fan-shaped towers, and a later one with round towers (**fig. 2b-c**). In addition, the various forts show a unified system of internal structures, with *horrea*, baths and palace buildings. At Keszthely-Fenékpuszta, recent geophysical work has shown a unified internal structure of the fort, oriented along north-south and west-east axes (**fig. 3**). In contrast to earlier suggestions, there were no deliberately empty areas inside (Heinrich-Tamáska 2011a, 662-667, Abb. 6-8, Pl. XIII, Appendix). In addition, we must bear in mind that the areas outside the stone walls also featured stone buildings of different functions (Heinrich-Tamáska 2011a, Pl. XVI)[5].

As we have seen, following the arguments summarised above, the inner fortifications were set in the context of the Late Antique defence system and their construction phases also served as chronological markers in order to date the construction of individual interior defence lines. Sándor Soproni's system stressed their military role (Soproni 1978, 138-155); just like Endre Tóth (most recently 2009, 71 f.). Both scholars assumed that military units were stationed at these forts: in Soproni's view, it is units of the *limitanei* that were present at fortified sites, including towns. Endre Tóth considers that these sites were logistical centres, alongside storing and organising the food supply. They housed normally units of *limitanei* and, during military actions, units of *comitatenses*. Previously, Jenő Fritz (1980) contradicted that the inner fortifications functioned as camps for units of *comitatenses.*

All these scholars ignored the fact that the forts did not contain any buildings for housing military personnel. For Endre Tóth (2009, 80), this was one of the possible reasons for new construction at the forts: the many large, round lateral towers during the second phase could have housed the troops.

[5] As shown by recent research at Gamzigrad (Bülow et al. 2009, 110-119, Abb. 5-8). A comparison between the Pannonien inner fortifications and Gamzigrad was discussed at first by András Mócsy (1974, 303-305), as he looked for ideas for the civilian function of these sites (*latifundia*).

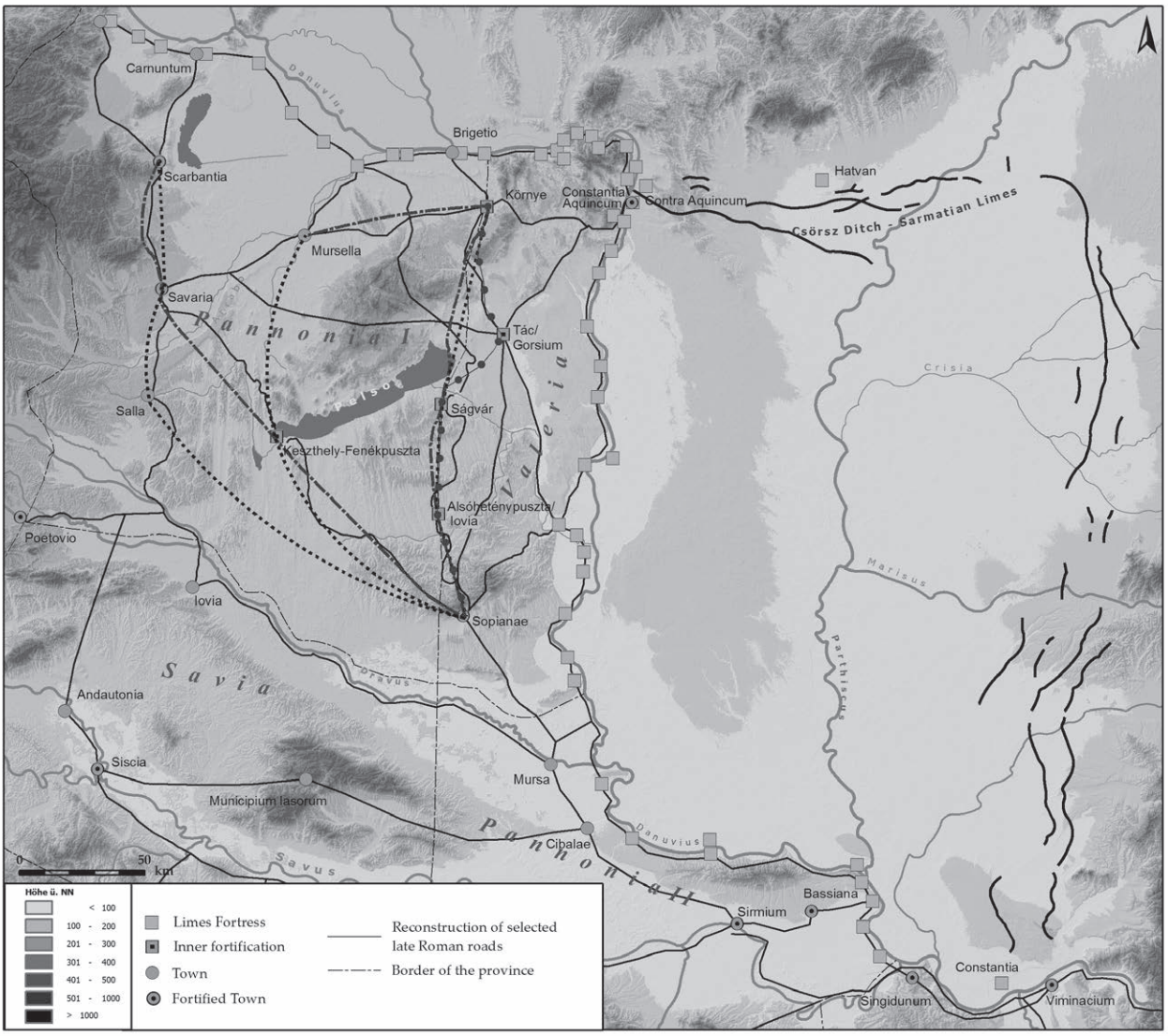


Fig. 1. The Late Roman Pannonia with the Limes-forts, inner fortifications and towns, and with the Csörsz Ditch. Defensive Lines after Soproni 1978 (dot-line), after Sági 1989 (dot-dash-line) and the existed north-southern Line from Környe to *Sopianae* (dotted line) in the Pannonian hinterland (Author)

This would also mean that a continuous military presence only existed from the second phase, but was absent in the first.

Alongside this military aspect, previous research has especially emphasized the role of these sites as *refugia* or *latifundia* (see: Simonyi 1962; Bíró 1974). For András Mócsy (1974, 303), the lack of barracks for housing soldiers was an argument against the military use for these sites. Instead, all these forts have a series of ostentatious structures, which show architectural parallels to the palace-like Late Antique *villae* (Heinrich-Tamáska 2011c).

A connection between these different views on military or civilian use is that both sides of the debate stress the role of the inner fortifications as economic centres and storage installations. This is supported by the large *horrea*, the many and varied agricultural tools, and large sets of bread ovens (Tóth 2009, 71-81; Borhy 1996; Heinrich-Tamáska 2011a, 655-658).

But when were these forts built? Dates suggested so far span the entire 4th century (see comparison in Heinrich-Tamáska 2007/08, Tab. 1). For Keszthely-Fenékpuszta, the date proposed by Endre Tóth (2009, 64-71) for the second phase of fortifications with the round towers – namely, the reign of Valentinian I – seems too late. On the basis of his study of the cemetery outside the south wall and of the coins found in the fort, Róbert Müller (2010, 238-242; 2012) also supported an earlier date of construction in the mid fourth century, under Constantius II. After analysing the settlement finds, it is certain that some of the buildings were indeed erected at that time, but it remains to be seen whether the construction of the fort was

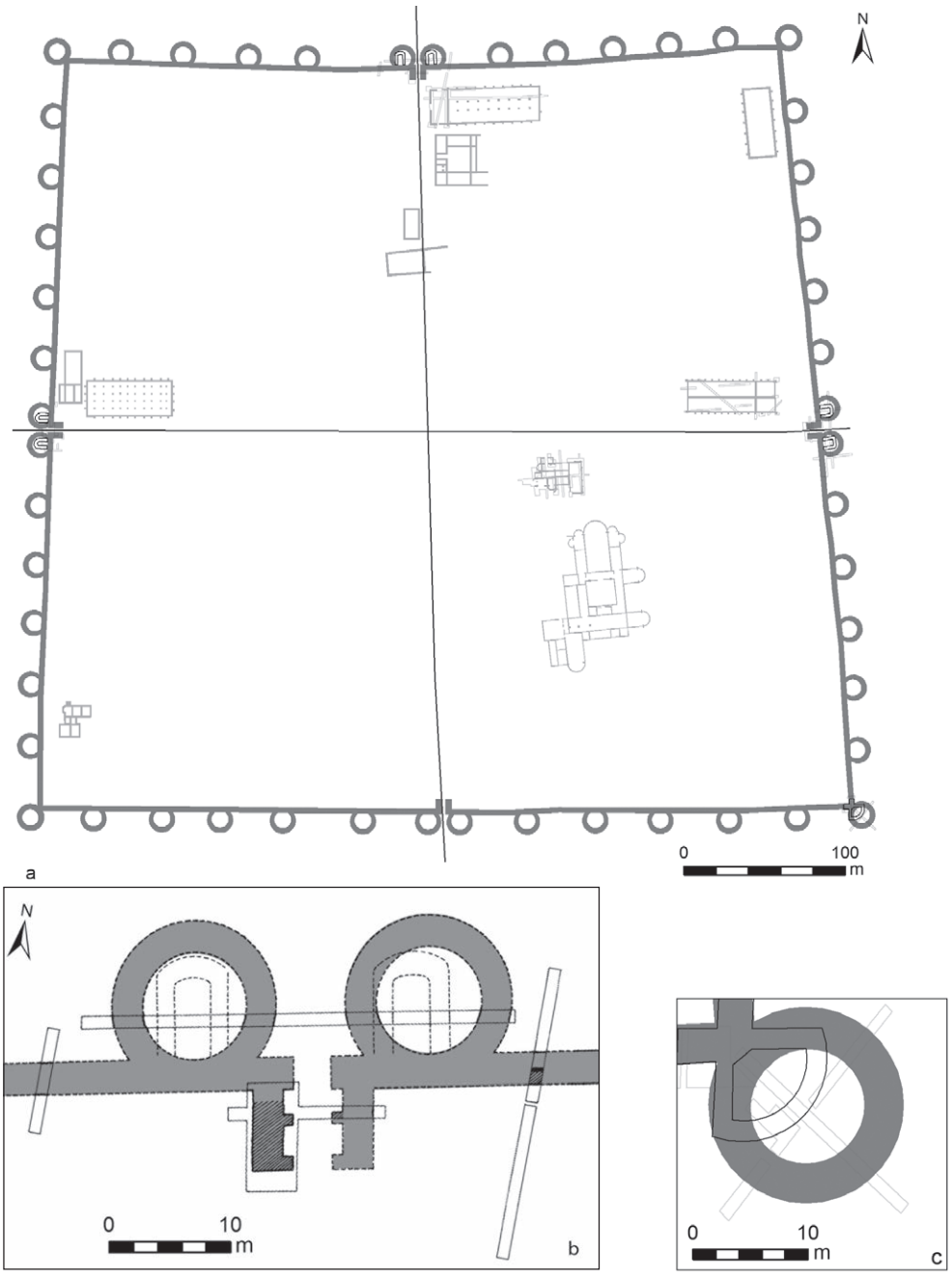


Fig. 2. The inner fortification of Alsóheténypuszta / *Iovia* (a) with the northern Gate (b) and the south-eastern corner-tower (c): U- and fan-shaped towers in the first period (black lines) and round towers (gray) in the second period. – Modified after Tóth 2009, figs. 12a and 14

also contemporaneous (Heinrich-Tamáska 2011a).

As far as the other fortifications are concerned, there can be no definite answer without the publication of corresponding excavation data[6]. Following Endre Tóth's latest synthesis (2009, 64-71), we would have to accept his suggestion that at Alsóhetény and Ságvár the second phase with round towers postdates the Sarmatian-Quadian incursion of AD 374, while the first phase dates after the beginning of the second third of the fourth century. Tóth (2009, 71) connects this with an inscription from Savaria (347-352 AD), according to which the *praefectus praetorio* Vulcatius Rufinus ordered the building of *horrea* in a protected location[7].

[6] A catalogue with all features from Keszthely-Fenékpuszta is now published (Heinrich-Tamáska / Henker 2013), but the other sites remain unpublished until now, we have only the assumed opinions of the excavators and pervious reports about the excavations (Tóth 2009; Szabó / Heinrich-Tamáska 2011).

[7] „…*in securitatem perpetuam rei annonariae dedicavit*" (CIL III 4180; RIU I 48).



Fig. 3. The inner fortification of Keszthely-Fenékpuszta with the excavated rather reconstructed building-structures, the main-road-axis and the results of the geophysical surveys (Author)

Future Research Aspects

Accepting the idea of internal lines of defence, it would be an important step to analyse the construction of the inner fortifications and the urban fortifications together, in order to further narrow down their date range. In the context of Late Antique infrastructure, the inner fortifications played the role of central places, whose military or civilian functions still need to be established. Their main role was to store foodstuffs in the hinterland of the Limes and to ensure the supply to the frontier posts (Poulter 2007). Their distribution supports Soproni's argument that we should see them as part of the Late Roman defence policy, and I believe that a comparison with fortified towns – also in other provinces, particularly along the Lower Danube – could be of great significance here.

The post-Roman development of the Pannonian

inner fortifications was diverse (Heinrich-Tamáska 2011b)[8]. The collapse of the Roman supply network led to individual and local solutions, which were no longer co-ordinated by a central power. The actual research in Keszthely-Fenékpuszta presents the importance of this place also during Early Medieval times (Müller 2010; Heinrich-Tamáska 2011a), as well as the areas of the other inner fortifications (Heinrich-Tamáska 2011b, 580-586): they were used in the post-Roman centuries particularly too.

Bibliography

Bíró, M. 1974. Roman Villas in Pannonia. – Acta Archaeologica Academiae Scientiarum Hungaricae 26, 23-57.

Bödőcs, A. 2008. A római kori úthálózat térinformatiakai vizsgálata a mai Magyarország területén. Doktori disszertáció tézisei. Eötvös Loránd tudományegyetem, Bölcsésztudományi Kar. Budapest.

Bratož, R. 2011. Die Auswanderung der Bevölkerung aus den pannonischen Provinzen während des 5. und 6. Jahrhunderts. In: Konrad, M. / Witschel, Ch. (eds.). Römische Legionslager in den Rhein- und Donauprovinzen – Nuclei spätantik-frühmittelalterlichen Lebens? München. 589-614.

Bülow von, G. / Wulf-Rheidt, U. / Schüler, T. / Oplet, M. / Breitner, G. 2009. Das deutsch-serbische Gemeinschaftsprojekt „Romuliana-Gamzigrad". – Germania 87, 105-171.

Fiedler, U. 1986. Zur Datierung der Langwälle an der mittleren und unteren Donau. –Archäologisches Korrespondenzblatt 16, 457-465.

Fitz, J. 1980. Die Innenbefestigungen der Provinz Valeria. – Alba Regia 18, 53-60.

Heinrich-Tamáska, O. 2011a. Die spätrömische Innenbefestigung von Keszthely-Fenékpuszta: Innere Chronologie und funktioneller Wandel. In: Heinrich-Tamáska, O. (ed.). Keszthely-Fenékpuszta im Kontext spätantiker Kontinuitätsforschung zwischen Noricum und Moesia. Castellum Pannonicum Pelsonense 2. Budapest / Leipzig / Keszthely / Rahden.
W. 653-702.

Heinrich-Tamáska, O. 2011b. Pannonische Innenbefestigungen und römische Kontinuität: Forschungsstand und -perspektiven. In: Konrad, M. / Witschel, Ch. (eds.). Römische Legionslager in den Rhein- und Donauprovinzen – Nuclei spätantik-frühmittelalterlichen Lebens? München. 571-588.

Heinrich-Tamáska, O. 2011c. Überlegungen zu den „Hauptgebäuden" der pannonischen Innenbefestigungen im Kontext spätrömischer Villenarchitektur. In: Bülow von, G. / Zabehlicky, H. (eds.). Bruckneudorf und Gamzigrad. Spätantike Paläste und Großwillen im Donau-Balkan-Raum. Akten des Internationalen Kolloquiums in Bruckneudorf vom 15. bis 18. Oktober 2008. Kolloquien zur Vor- und Frühgeschichte 15. Frankfurt/M. 233-245.

Heinrich-Tamáska, O. 2008. Das Umland spätrömischer Innenbefestigungen Pannoniens (4. Jh. n. Chr.). In: Renes, J. / Schenk, W. (eds.). Städtische Siedlungen und ihr Umland. – Siedlungsforschung. Archäologie – Geschichte – Geographie 26. 251-266.

Heinrich-Tamáska, O. 2007/08. Bemerkungen zur Transformation spätantiker Strukturen in Pannonien am Beispiel von Keszthely-Fenékpuszta. – Acta Archaeologica Carpathica 17-18, 199-229.

Heinrich-Tamáska, O. / Henker, J. 2013. Katalog der Befunde aus den Ausgrabungen bis 2002 in Keszthely-Fenékpuszta. In: Heinrich-Tamáska, O. (ed.). Keszthely-Fenékpuszta: Katalog der Befunde, ausgewählter Funde und neue Forschungsergebnisse. Castellum Pannonicum Pelsonense 3. Budapest / Leipzig / Keszthely / Rahden/W. 25-396.

Heinrich-Tamáska, O. / Hipp, S. 2009. Naturwissenschaftlich-archäologische Forschungen am Balaton (Plattensee, Pelso) – Stand und Perspektiven. In: Egli, H.-R. / Schenk, W. (eds.). Seen als Siedlungs-, Wirtschafts- und Verkehrsräume. – Siedlungsforschung. Archäologie – Geschichte – Geographie 27. 69-93.

Heinrich-Tamáska, O. / Müller, R. / Straub, P. 2012. A fenékpusztai római erőd évszázadai. Zalaegerszeg.

Istvánovits, E. / Kulcsár, V. 2010. Actual State of Research of the Csörsz- or Devil's Dyke. In: Pop, H. / Bejinariu, I. / Băcueţ-Crişan, S. / Băcueţ-Crişan, D. (eds.). Identităţi culturale locale şi regionale în context european. Studii de arheologie şi antropologie istorică. Local and Regional Cultural Identities in European Context. Archaeology and historical anthropology. Editura Mega / Editura Porolissum. Cluj Napoca. 311-321.

Istvánovits, E. / Kulcsár, V. 2002. The history and perspectives of the research of the Csörsz Ditch (´Limes Sarmatiae`). In: Freemann, Ph. / Bennett, J. / Fiema, Z. T. / Hoffmann, B. (eds.). Limes 18 – Proceedings if the 18th International Congress of Roman Frontier Studies held in Levant and the Department of Archaeology at the University Liverpool. BAR S 1084. Volume 2. Oxford. 625-628.

Mócsy. A. 1974. Pannonia and Upper Moesia. London / Boston.

Müller, R. 2012. Mikor épült fel a fenékpusztai római erőd? (Wann wurde die spätrömisce Festung von Keszthely-Fenékpuszta erbaut?). – A Móra Ferenc Múzeum Évkönyve 12, 2011, 145-153.

Müller, R. 2010. Die Gräberfelder vor der Südmauer der Befestigung von Keszthely-Fenékpuszta. Castellum Pannonicum Pelsonense 1. Budapest / Leipzig / Keszthely / Rahden/W.

Poulter, A. G. 2007. The Transition to Late Antiquity. In: Poulter, A. G. (ed.). The Transition to Late Antiquity on the Danube and Beyond. Proceedings of the British Academy 141. New York. 1-50.

Sági, K. 1989. Adatok a fenékpusztai erőd történetéhez. (Über die Geschichte der Festung in Fenékpuszta). – A Tapolcai Városi Múzeum Közleményei 1, 261-317.

[8] For the more general development of post-Roman Pannonia (in terms of the barbarian influence according to archaeological evidence) see Vida 2011, and for the fate of the Roman population based on literary sources until the end of 6th c. see Bratož 2011.

Serlegi, G. 2007. A Balatonkeresztúri „vízmérce". Környezetrégészeti információk a Balaton déli partjának római kori történetéhez. (Die Wasserwaage von Balatonkeresztúr. Archäologische Informationen zur römerzeitlichen Geschichte am Südufer des Plattensees). In: Bíró, Sz. (ed.). Firkák. Fiatal római koros kutatók I. konferenciakötete. Győr. 317-329.

Simonyi, D. 1962. Fenékvár ókori neve. – Antik Tanulmányok 9, 13-30.

Soproni, S. 1985. Die letzten Jahrzehnte des pannonischen Limes. Münchner Beiträge für Vor- und Frühgeschichte 38. München.

Soproni, S. 1978. Der spätrömische Limes zwischen Esztergom und Szentendre. Das Verteidigungssystem der Provinz Valeria im 4. Jahrhundert. Budapest.

Szabó, Á. / Heinrich-Tamáska, O. 2011. Eine spätrömische Innenbefestigung in Környe. In: Heinrich-Tamáska, O. (ed.). Keszthely-Fenékpuszta im Kontext spätantiker Kontinuitätsforschung zwischen Noricum und Moesia. Castellum Pannonicum Pelsonense 2. Budapest / Leipzig / Keszthely / Rahden/W. 47-59.

Szőnyi, E. 2004. Mursella. In: Šašel Kos, M. / Scherrer, P. (eds.). The Autonomous Towns of Noricum and Pannonia. Pannonia 2. Situla 42. Ljubljana. 85-98.

Tóth, E. 2009. Studia Valeria. Az alsóheténvi és ságvári késő római erődök kutatásának eredményei. Dombóvár.

Tóth, E. 2008. Gorsium? Herculia? In: Kovács, P. / Szabó, Á. (eds.). Észak-kelet Pannonia I. Előszó változatok, kommentárok, olvasatok a CIL III² 3 kötethez. Studia Epigraphica Pannonica I. Budapest. 61-101.

Tóth, E. 2006. Pannonica. Római útak a Dunántúlon. Magyar Nemzeti Múzeum. Budapest.

Tóth, E. 1985. Zur Chronologie der militärischen Bautätigkeiten des 4. Jahrhunderts in Pannonien. – Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften 14, 121-136.

Vida, T. 2011. Die Zeit zwischen dem 4. und dem 6. Jahrhundert im mittleren Donauraum aus archäologischer Sicht. In: Konrad, M. / Witschel, Ch. (eds.). Römische Legionslager in den Rhein- und Donauprovinzen – Nuclei spätantik-frühmittelalterlichen Lebens? München. 615-648.

Visy, Zs. 2003. The ripa Pannonica in Hungary. Budapest.

Dr. Orsolya Heinrich-Tamáska
GWZO = Centre for the History and Culture of East Central Europe at the University of Leipzig
Reichsstr. 2-4
DE-04109 Leipzig
heintama@uni-leipzig.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Das Legionslager *Tilurium* 15 Jahre archäologischer Ausgrabungen, 1997-2011

Mirjana SANADER

Das römische Militärlager *Tilurium* lag einst auf dem Gebiet des heutigen Dorfes Gardun unweit der Stadt Trilj, ca. 30 km von der Provinzhauptstadt Salona entfernt[1]. Nördlich von *Tilurium* liegt die Ebene von Sinj. Diese ist, dank des Flusses Cetina *(Hyppus flumen*), sehr fruchtbar, doch der 105 km lange Lauf ist gleichzeitig eine natürliche Barriere für alle Wege die Richtung Osten und Nordosten führen. Im oberen Lauf passiert der Fluss die Ebene von Sinj, um Flussabwärts von Trilj eine Schlucht durch das Gebirge zu schlagen (Štambuk-Giljanović 2002). Das Legionslager ist genau am Übergang der Ebene zur Schlucht gebaut. Die Strategische Bedeutung dieses Postens war selbstverständlich von jeher bekannt, und so auch den Römern, die diesen, für Waren und Personenverkehr, wichtige Verkehrsknoten an der Cetina im Auge behielten.

Der Fundort **(Abb. 1)** wird bei Plinius (NH 3, 142) als *castellum* (der Delmaten?) erwähnt und auf verschiedenen Itineraren (*Tab. Peut.* 6,3; *Itin. Anton.* 337,5; *Geogr. Rav*. IV,16) als Festung beziehungsweise als Flussübergang. Über das Lager und seine Besatzung erfahren wir allerdings am meisten dank epigraphischer Denkmäler. Hier sind vor allem Grabsteine zu nennen, die für Soldaten verschiedener Einheiten errichtet wurden, unter denen die *legio VII* am häufigsten auftritt (Sanader 2000, 225-236; Tončinić 2011). Dank der epigraphischen Denkmäler war *Tilurium* oft Gegenstand wissenschaftlicher Abhandlungen, doch dabei sind die archäologischen Funde anderen Themen, wie Gründungszeit und Dauer der Besetzung, gewichen (Alföldy, 1968, col. 1625; Wilkes 1969; Zaninović 1996, 280-291).

Das Legionslager *Tilurium* lag über dem rechten Ufer der Cetina, am Rand eines Plateaus auf 492 m über dem Meeresspiegel (bei der heutigen Petruskirche). Auf dem Lagerareal ist ein Geländefall vom Westen zum Osten und vom Norden zum Süden bemerkbar. Dieser Geländefall lässt sich heute anhand kaskadenförmiger Terrassen gut erkennen. Der Höhenunterschied zwischen dem absolutem Hoch im Nordwesten und dem absolutem Tief im Südosten beträgt ca. 20 m (Doneus 2003, 87-108). Die archäologischen Grabungsarbeiten haben gezeigt, dass die Römer diesen Höhenunterschied durch massive Aufschüttung der Bauflächen, bzw. durch Nivellierung des Geländes kompensiert haben, wobei amorphes Gestein, Erde und teilweise auch Mörtel benutzt wurden **(Abb. 2)**.

Der Lager Bau musste sich also dem Gelände anpassen. Deswegen hat das Lager auch nicht den von antiken Autoren empfohlenen rechteckigen Grundriss bekommen. Die dokumentierten Teile der nördlichen, westlichen und südlichen Wehrmauer haben gezeigt, dass das Lager einen trapezförmigen Grundriss besaß und eine Fläche von ca. 12 ha einnahm. Das Dorf Gardun bildet heute kleine Gruppen von Steinhäusern, die von ehemaligen landwirtschaftlichen Parzellen umgeben sind **(Abb. 3)**. Dieses Bild zeugt von einer vollkommen neuen Geländeordnung, die nicht mehr dem Grundriss des Legionslagers entspricht, und von Kolonisten im 17. Jh. nach deren Bedarf vollzogen wurde (Soldo 1989, 81-144).

Erreicht wurde sie durch Abtragen der römischen Gebäudereste, wobei das gesamte bearbeitete Gestein für den Bau eigener Gebäude und wohlmöglich als Handelsgut verwendet wurde. Mit dem

[1] Auf dem Fundort Vojnić-Samoleć sind kürzlich Reste einer römischen Straße entdeckt, die von der Provinzhauptstadt *Salona* zur Bergwerkregion um *Argentaria* geführt hat. Diese Strasse führte einst an *Tilurium* vorbei zum Flußübergang.

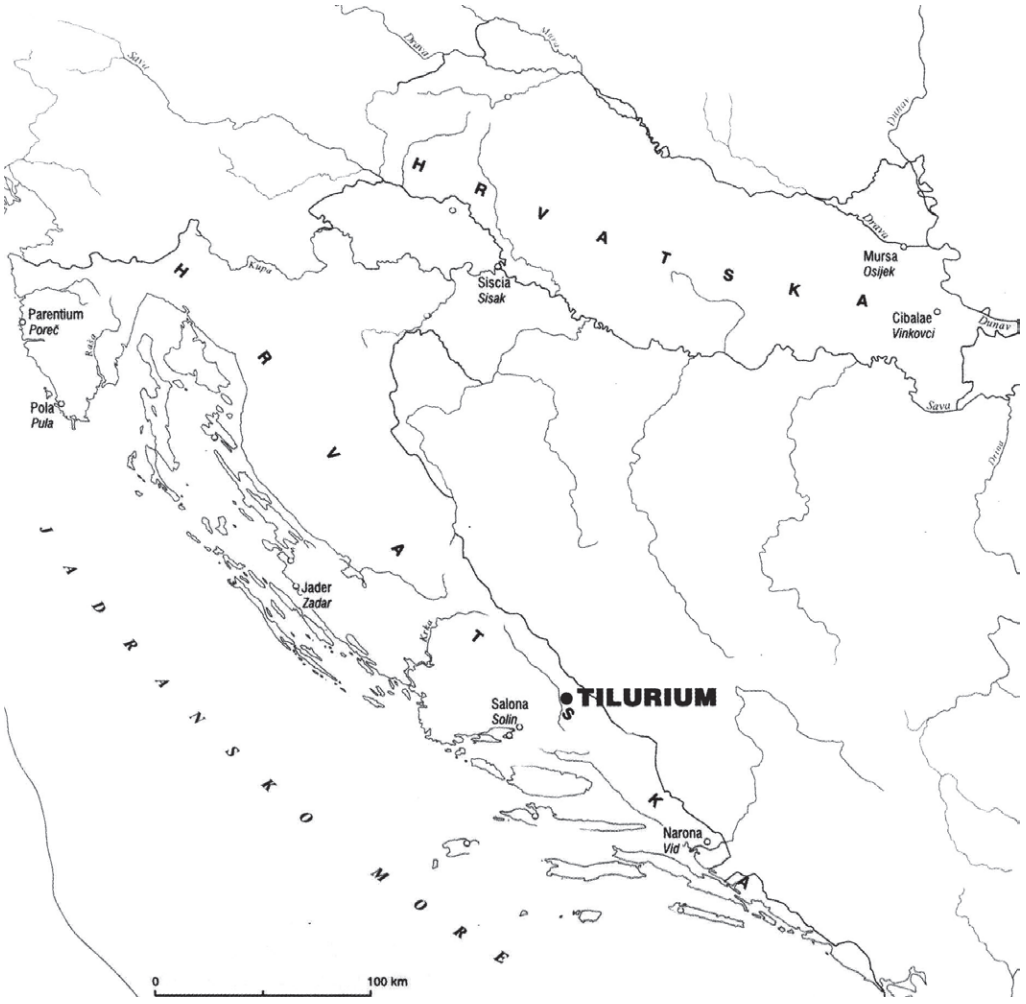


Abb. 1. Die Karte von Kroatien mit der Lage von *Tilurium*

nicht verwendbaren Gestein und Ziegelmaterial wurden die Parzellengrenzen errichtet. Erhalten geblieben sind die Grundmauern und Mauern einiger Gebäude weil sie ebenfalls als Parzellengrenzen genutzt wurden.

Die archäologischen Grabungsarbeiten, die 1997 eingeleitet wurden, haben mehrere Ziele verfolgt. Zum Ersten sollte der Umfang des Lagers ermittelt werden. Zum Zweiten sollten Bautechniken und architektonische Merkmale der einzelnen Gebäude im Lager dokumentiert werden, und zum Dritten sollten Gründungszeit, Dauer der Besetzung und mögliche Bauphasen genau ermittelt werden (Sanader 2003a, 10). In den folgenden 15 Jahren konnten Abschnitte der westlichen und südlichen Wehrmauer, Teile eines Gebäudes im nordwestlichen Teil des Lagers und Teile eines Gebäudes mit Mosaikboden im Zentrum des Lagers untersucht werden. Weiters wurde die westliche Wasserzisterne untersucht und die Ausgrabung eines Gebäudekomplexes im südwestlichen Teil des Lagers abgeschlossen.

Vom Anfangen an wurden diese archaologischen Ausgrabungen in *Tilurium* regelmasig durch Forschungsberichte uber Befunde wie auch Analyse der Funde prasentiert und veroffentlicht[2].

Wie andere Lager im Reich, so war auch *Tilurium* mit Wehrmauern umgeben, von denen ein Abschnitt der westlichen Wehrmauer (7,8 m) untersucht werden konnten. Trotzdem konnte seine Bautechnik

[2] Bekić 1998, 223-243; Ivčević 2005, 159-176; 2010, 127-144; 2011, 161-186; Nardelli 2011, 30-34; Radman-Livaja 1998, 219-231; Sanader 1998, 243-255; 1999, 75 -85; 1999-2000, 225-236; 2000, 51-62; 2001a, 235-241; 2001b, 183-194; 2002a, 87-97; 2002b, 713-717; 2003a; 2003b, 501-511; 2006, 59- 66; 2007, 67-75; 2009, 1509-1514; Sanader / Tončinić 2003, 87-99; 2005, 685-688; 2010, 33-53; Sanader / Šimić-Kanajet / Tončinić 2005, 295 -300; Sanader / Tončinić / Ožanić 2004a, 221-243; 2004b, 219-221; Sanader / Tončinić / Ožanić / Miloglav 2004, 348-351; 2006, 391-393; Šimić-Kanaet 2003, 109-188; Šimić-Kanaet / Tončinić / Radović 2005, 107-120; Šimić-Kanaet 2011a; 2011b, 187-218; Tončinić 2011; Tončinić / Tabak / Librenjak 2011, 361-379.

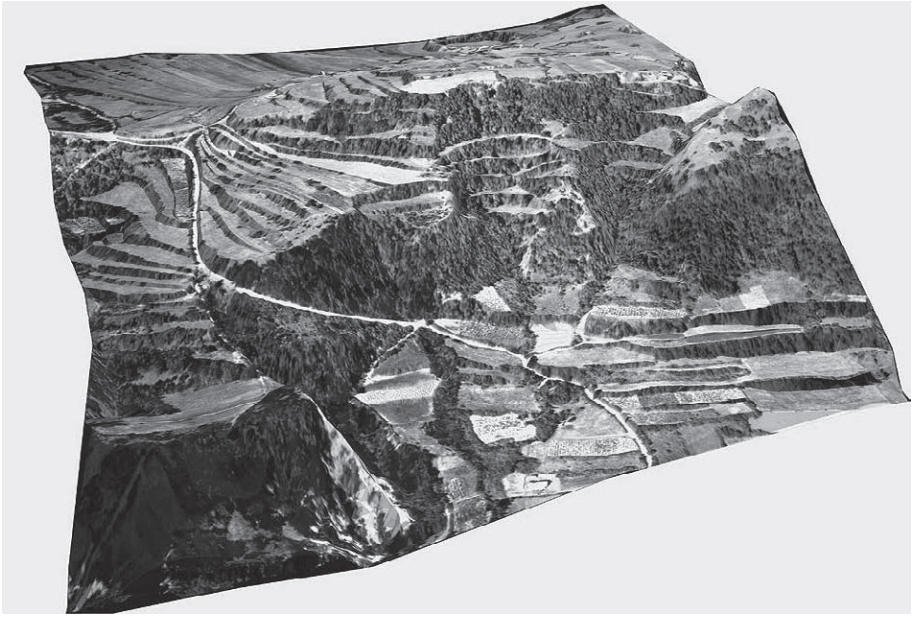


Abb. 2. 3D Visualisierung des digitalen Geländemodells mit daraufprojiziertem Orthophoto. Blick von Nordwesten (Doneus 2003, 108, sl. 14)

ermittelt werden. Die monumentale Konstruktion wurde im *opus caementicium* errichtet, allerdings unter massiver Verwendung von Holzbalken, die horizontal und vertikal in der Wehrmauer vermauert wurden. Diese Holzkonstruktion ist in den letzten zwei Jahrtausenden verwest und verblieben sind Öffnungen mit rechteckigem Querschnitt und Abdrücken des Holzes im Mörtel (Sanader 2003a, 21-31, Abb. 8-15).

Die dokumentierten Teile der südlichen Wehrmauer konnten am Anfang der Grabung als durch den Ackerbau abgetragene Steinschicht identifiziert werden. Darunter konnten Reste der Wehrmauer und ihrer Grundmauer dokumentiert werden. Die Wehrmauer war 3,30 m breit, und sie ist bis zur Höhe von 1,25 m erhalten. Die Grundmauer war 0,51 m tief, im Süden um 0,30 m und im Norden um 0,40 m breiter. Die Wehrmauer wurde aus großen Steinblöcken gemauert, während beim Bau der Grundmauer Steine verschiedener Größe ohne Bindemittel verwendet wurden (Sanader / Tončinić 2005, 685-688, Abb. 3).

Zurzeit scheint es, dass die Wasserversorgung der Truppe über Wasserzisternen erfolgte. Wahrscheinlich ist, dass das Wasser auch aus Brunnen bezogen wurde, da bis heute drei Brunnen im Dorf frisches Wasser bieten. Im nordwestlichen Teil des Lagers wurden Teile einer viereckigen Wasserzisterne dokumentiert (16,60 x 24,89 x 27,95 x 19,30 m). Sie war in den gewachsenen Boden eingegraben und der Zwischenraum war mit Schotter verfüllt. Wände und Boden waren mit mehreren Schichten von wasserdichtem Mörtel beworfen. Die Decke der Zisterne lag auf Pylonen. Erhalten sind Stufen die in die Zisterne führten und der Ansatz eines Kanals der das Wasser ins Lager leitete. Da neben den äußeren Maßen, auch Mauerbreite (1,10 bis 1,15 m) und Tiefe der Zisterne (2,20 m) ermittelt wurden, kann auch annähernd das Volumen von 1044 m^3 ermittelt werden. Das genaue Volumen ist noch nicht bekannt, da es von den Maßen der Pylonen und der Stufen beeinflusst wird (Sanader 2003a, 40-54, Abb. 28-41).

Im nordöstlichen Teil des Lagers konnten Reste einer weiteren Wasserzisterne beobachtet werden. Diese konnte bis jetzt nicht näher untersucht werden, so dass zurzeit nur Lage und annähernde Maße angegeben werden können.

In der Mitte des Lagers, wo sich im Prinzip immer die *Principia* befindet, wurden Reste eines zurzeit nicht näher bestimmbaren Gebäudes dokumentiert. In diesem Reste dreier verschiedener Mosaikböden, allerdings sind die zwei älteren nur in kleinen Fragmenten erhalten (Sanader 2003a, 31-39, Abb. 18-41).

Der jüngste Mosaikboden hat ursprünglich eine Fläche von 120 m^2 eingenommen, wobei insgesamt 5 Bruchstücke von ca. 12 m^2 erhalten sind. Er wurde in drei verschiedene Farben – weiss, rosa und grau schwarz – wahrscheinlich aus lokalem Kalkstein hergestellt. Obwohl nur knapp 12% der einstigen Fläche erhalten ist, sind die Bruchstücke so verteilt, dass das ursprüngliche geometrische Muster rekonstruiert werden konnte. Unbekannt bleibt ledig-



Abb. 3. Luftbild von *Tilurium* mit eingezeichnetem Lagerareal (GAR05-dig3143, Zlatko Sunko)

lich das zentrale figurative Motiv, von dem nur der Hinterleib eines Stieres erhalten ist.

Vom mittleren Mosaikboden ist nur eine kleine Fläche erhalten woraus wir nur schließen können, dass es sich um ein Muster von rechteckigen Feldern in weisser, grauer, hell Ocker, orange Ocker und gebrannter Ockerfarbe handelt.

Vom ältesten Mosaikboden ist nur ein Bruchstück erhalten, so dass nicht bestimmt werden kann ob es sich um eine Randstreifen oder den Rand einer größeren Komposition handelt.

In Anbetracht aller Tatsachen scheint es, dass man die Mosaikböden aus *Tilurium* annähernd vom Ende des 1. Jh. vor Chr. bis zum Ende des 1. Jh. nach Chr. datieren kann.

Obwohl nur bescheidene Reste der Mosaikböden erhalten sind, zeugen ihre stratigrafischen Verhältnisse von einem länger andauernden Mosaikbodenbau im Lager, bzw. von einer Chronologie der Herstellung (Erneuerung) des Mosaikbodens in ein und demselben Bau, allerdings mit immer neuen Bildinhalten.

Im nordwestlichen Teil des Lagers wurde ein Gebäudekomplex untersucht, dass 16 m von der westlichen Wehrmauer entfernt, und parallel zu dieser errichtet wurde. Die Arbeiten begannen mit dem Roden einer dicht bewachsenen ca. 40,90 m langen Mauer Z1. Sie ist auf der Westseite bis zur Höhe von 1,80-2,00 m erhalten. Auf der Ostseite befindet sich in dieser Höhe eine Parzelle. Die genannte Mauer trennt in Form einer Kaskade zwei benachbarte Parzelle indem sie als Stütze der östlichen Parzelle genutzt wird. An einem Abschnitt der Mauer konnten auf einer Höhe von 1,15 m mehrere Öffnungen dokumentiert werden, die durch Verwendung rechteckiger Ton Rohre oder Holzbalken entstanden sind. Die archäologischen Grabungsarbeiten wurden innerhalb dieses Gebäudekomplexes geführt, wobei sich die genannte Mauer Z1 als westliche Gebäudemauer identifiziert wurde (Sanader 2003a, 55-59, Abb. 42-48).

Dieses Gebäude, das zurzeit nicht näher bestimmt werden kann, bestand aus mehreren Räumen deren Zwischenwände an der Mauer Z1 ansetzen. Erhalten sind die Grundmauern, Grundmauerlinien und Bodenreste. Die Entfernung zwischen den einzelnen Wänden ist unterschiedlich (von 5,20 bis 15,30 m). Das andere Ende der Wände konnte nicht dokumentiert werden und eine zur Mauer Z1 parallel verlaufende Mauer, die die genannten Räume schließt, ebenfalls nicht. Dokumentiert werden konnten Reste des Bodens in einigen der Räume. Dieser bestand aus parallel verlaufenden Holzbalken, zwischen denen Holzstäbe mit rundem Querschnitt verlegt waren, die mit Mörtel beworfen wurden. Die Holzbalken waren in der Mauer Z1 verankert. Dokumentiert werden konnten auch ein Eingang, bzw. die Reste des Türstockes.

Der Befund konnte bis jetzt nichts über die Funktion des Gebäudes aussagen. Die Zahlreichen

Kleinfunde datieren das Gebäude in Zeit von der Mitte des 1. Jh. nach Chr. bis Mitte des 3. Jh. nach Chr.

In der südöstlichen Ecke des Lagers wurde seit 1998 ein Gebäudekomplex mit Strebepfeilern untersucht (Sanader 2003a, 63-80, Abb. 54-75). Die Grabungsfläche war zum Teil durch besitzrechtliche Bedingungen eingeschränkt. So konnten nur die Randteile eines Grundstückes zur Gänze untersucht werden, während auf dem Grundstück selbst nur kleine gezielte Probeschnitte möglich waren. Die Arbeiten begannen an jener Stelle wo Reste antiker Mauern in einer rezenten Trockenmauer sichtbar waren. Diese verlief in ostwestlicher Richtung und trennte Kaskadenförmig das genannte Grundstück von den 2-5 m tiefer liegenden Feldern. Die Grabung hat ein Gebäudekomplex freigelegt deren Sudmauer in ostwestlicher Richtung verlief und mit Strebepfeilern gestützt war. Untersucht wurden auch die westliche und die östlichen Mauern, wobei dokumentiert werden konnte, dass auch Teile der östlichen Mauern mit Strebepfeilern gestützt waren. Beim Bau wurde außerdem eine Holzbalkenkonstruktion verwendet, bestehend aus waagrecht entlang der Mauer und quer durch die Mauer liegenden Balken. Unter dem westlichen Ende des Gebäudekomplexes wurden Reste eines älteren Objektes bzw. Kanals dokumentiert. In Inneren des Gebäudekomplexes wurde eine Schüttung dokumentiert, bestehend aus Gestein auf dem eine spätantike Grabkammer errichtet wurde.

Insgesamt konnte eine Fläche von nahezu 1000 m^2 untersucht werden (**Abb. 4**). Festgestellt werden konnten insgesamt sechs in ostwestlicher Richtung orientierte Zenturien und eine weitere in nordsüdlicher Richtung orientierte Zenturie. Wie bekannt war *Tilurium* ein Legionslager in dem am längsten die *legio VII* stationieret war. Jede Legion, und so auch die *legio VII*, bestand aus zehn Kohorten zu je sechs Zenturien. Aufgrund der grossen Anzahl von Legionssoldaten sind Zenturien der häufigste Gebäudetyp in einem Legionslager. Zenturien treten in der Regel in Gruppen zu je sechs auf, also in Gruppen zu je sechs Zenturien einer Legionskohorte. In Legionslagern sind sie meistens nach zwei verschiedenen Mustern verteilt:

1. Parallel zueinander im ersten, dritten und fünften *Scamnum*, wobei die Quartiere der Zenturionen zur Wehrmauer bzw. zur *Via principalis* ausgerichtet sind.

2. In allen Richtungen um die Lagermitte herum.

Die sechs in *Tilurium* dokumentierten Zenturien bilden also die Unterkunft einer Legionskohorte und die Quartiere der Zenturionen sind zur östlichen Wehrmauer gerichtet. Die siebente Zenturie, die mit den vorigen einen Gebäudekomplex bildet, gehört zu den Unterkünften einer anderen Legionskohorte bei der die Quartiere der Zenturionen zur südlichen Wehrmauer gerichtet sind. Daraus können wir schließen, dass die Zenturien in *Tilurium* nach dem zweiten Muster in alle Richtungen um die Lagermitte herum orientiert waren.

In dauerhaften Legionslagern, die aus Holz oder Steinbauten bestanden haben sich die Zeltreihen der Marschlager zu einem standardisierten Gebäudetypus entwickelt der seit Augustus auftritt. Vergleichen wir die Zeltreihen bei Hyginus mit den Zenturien der Legionslager, werden zwei Unterschiede deutlich. Die Zenturien der Legionslager nehmen im Vergleich zu den Zeltreihen eine größere Fläche ein, und besitzen mehrere *contubernia*. Was den Grundriss betrifft, sind Zenturien lang ausgerichtete Gebäude, die an einer Seite einen rechteckigen und etwas breiteren Kopfbau besitzen. Hier befand sich das Quartier des Zenturio. Der lang ausgerichtete Teil des Gebäudes war auf 10-14 *contubernia* gegliedert. Jedes Contubernium bestand aus zwei Räumen. Der Vorderraum (*arma*) diente zum Ablegen der Waffen, und der Hinterraum (*papilio*) als Schlafraum eines Contuberniums, bzw. der Gemeinschaft von 6-8 Soldaten. Vor dem Eingang zum Contubernium befand sich ein überdachter Vorraum, der vom Hof betreten wurde.

Die in *Tilurium* dokumentierten Zenturien weichen nach Anordnung und Grundriss nicht von anderen bekannten Centurien in Legionslagern ab. Diese Zenturien könne dem Typus A, oder D bzw. G und dem Unter Typus 2 zugeschrieben werden (Davison 1989, 267, 271).

Doch die Bauweise dieser Zenturien weist eine Besonderheit auf. *Tilurium* ist von einem ausgeprägten Höhenunterschied innerhalb des Lagers geprägt. Das Gelände fällt vom Westen nach Osten und vom Norden nach Süden. Dies ist bis heute anhand der Kaskadenförmigen Terrassen gut zu erkennen. Der Höhenunterschied zwischen dem höchsten Punkt im Nordwesten und dem niedrigsten Punkt in Südosten beträgt ca. 20 m. Die beschriebenen Zenturien befinden sich an der niedrigsten Stelle des Lagers. Deswegen mussten beim Bau Abhänge zu stabilen waagrechten Flächen umgewandelt werden auf denen die Zenturien errichtet werden konnten. Dies wurde durch Errichtung von zugeschütteten Fundamenten erreicht. Die südlichsten

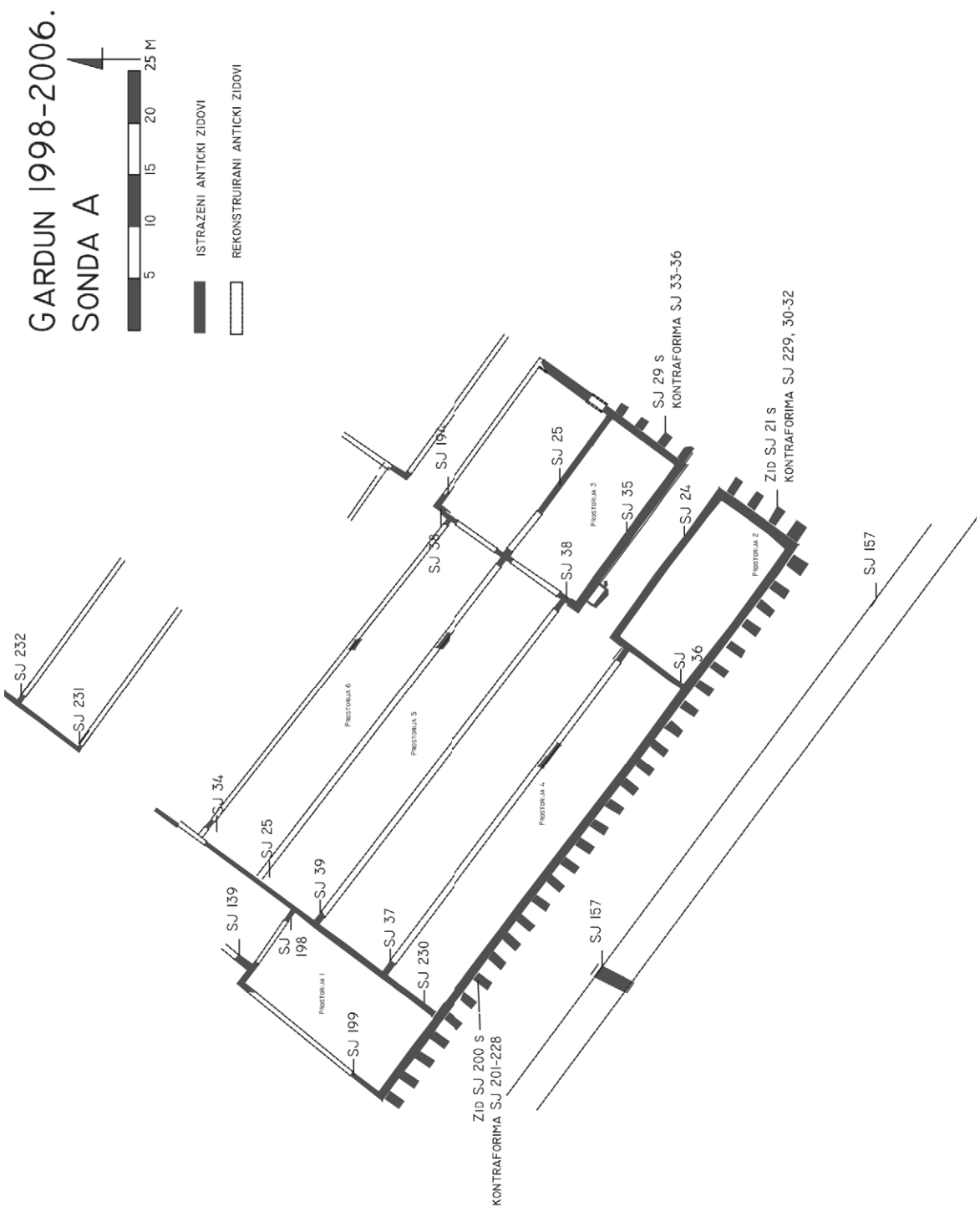


Abb. 4. Grundriß der Mannschaftsbaracken

Fundamente, die eine Zenturie zu tragen hatten, wurde zusätzlich mit Strebepfeilern befestigt, was garantieren sollte, dass die tragende Last verlässlich auf den Grundboden übertragen wird (**Abb. 5**).

Dokumentiert werden konnten zugeschüttete Fundamente für vier Zenturien (1-3 und 7). Ob solche Fundamente auch bei den restlichen Zenturien dieser Kohorte verwendet wurden konnte nicht überprüft werden. Der Befund zeigt, dass die Fundamente den Grundriss der Zenturien die sie tragen sollten übernommen haben. Spätere Eingriffe haben dazu geführt das die Innenräume der Zenturien, die Contubernia samt *arma* und *papilio* zerstört worden sind, erhalten geblieben sind nur die zugeschütteten Fundamente.

Dokumentiert werden konnte auch der Eingang zum Zwischenhof der Centurien 1 und 2 (**Abb. 6**).

Da die zugeschütteten Fundamente bis zu



Abb. 5. Strebepfeiler (GAR05-dig0812)

2 m höher sind als die antike Gehfläche, die an ihrer Süd- und Ostseite, sowie im Eingang zum Zwischenhof dokumentiert wurde, stellt sich die Frage wie dieser Höhenunterschied bewältigt wurde. Wie verlief der tägliche Verkehr zwischen der antiken Gehfläche am Fuße der Fundamente und der Zenturien die sie getragen haben? Eine in Frage kommende Möglichkeit währen Holzstufen die an die Nordfassade der Zenturie 1 und die Südfassade der Zenturie 2 gelehnt waren (**Abb. 7 A-B**).

Obwohl die Zenturien selbst nicht erhalten sind, können sie als Steinbau im Sinne der Fundamente rekonstruiert werden, oder aber die Fundamente aus Stein haben einen Holzbau getragen.

Die Inschriften aus *Tilurium* bestätigen, dass dieser Ort vom Beginn des 1. Jh. nach Chr. bis zur Mitte des 3. Jh. als militärisches Lager genutzt wurde (Zaninović 1996, 280-291). Die beschriebenen



Abb. 6. Der Eingangsbereich zwischen zwei Mannschaftsbaracken (GAR02-dig0177)

Zenturien zeugen von mindestens drei Bauphasen im südöstlichen Eck des Lagers. Der Befund zeigt, dass die Fundamente der Zenturien über einem Kanal errichtet wurden der zu einem noch unbekannten älterem Bau gehören der ersten Phase gehören muss. Der Kanal ist in eine Schicht eingegraben in der auch eine Abfallgrube eingegraben ist. Die Keramikfunde aus der Grube lassen sich bis zum 1. Drittel des 1. Jh. nach Chr. datieren. Diese Datierung wird durch Münzfunde aus der antiken Gehfläche bestätigt. Der *terminus ante quem non* für die Münzen ist das Jahr 37. nach. Chr. Das bedeutet, dass der Kanal auf jeden Fall vor 37. errichtet wurde.

Zur zweiten Phase gehören die Centurien. Neben der erwähnten Münzen kann zu ihrer Datierung noch der Ziegelstempel *leg(ionis) VII C(laudiae) p(iae) f(idelis)* herangezogen werden, der unmittelbar über der antiken Gehfläche dokumentiert wurde. Dieser Ziegelstempel muss in die Zeit nach 42. nach Chr. datiert werden, weil die *legio VII* damals den Ehrentitel *Claudia pia fidelis* bekommen hat.

Die dritte Phase tritt mit der Zuschüttung des Zwischenhofes mit amorphem Gestein ein. Nimmt man die historischen Ereignisse in Betracht, kann so eine Maßnahme entweder nach dem Abzug der *legio VII* aus *Tilurium* im letzten Drittel des 1. Jh. angenommen werden, oder nach dem Abzug der letzten Militäreinheiten in der Mitte des 3. Jh. Die wenigen Funde aus der Zuschüttung sind bei der Datierung leider nicht hilfreich.

Drei Gräber, eine Grabkammer und die Reste einer Mauer auf den mittlerweile umgestalteten Zenturien werden bis zum Ende des 4. Jh. datiert und gehören zu einer spätantiken, zur Zeit nicht näher bestimmten Phase in *Tilurium*.

Abschließend muss betont werden, dass sich die archäologischen Grabungsarbeiten im Legionslager *Tilurium* einigen der verfolgten Ziele entschieden genähert haben. Der Umfang des Lagers und die Anordnung der Zenturien im südöstlichen Teil des Lagers konnten ermittelt werden. Dokumentiert werden konnte auch welche Art und Weise die Abhänge zu stabilen waagrechten Flächen umgewandelt wurden, weiters die Tatsache, dass beim Mauern massiv Holzbalken verwendet wurden. Im südöstlichen Teil des Lagers konnten mindestens drei Bauphasen festgestellt werden, von denen die älteste vor 37 nach Chr. datiert werden kann. Dokumentiert werden konnten die stratigraphischen Verhältnisse der drei Mosaikböden im zurzeit nicht näher bestimmten Gebäude, die von einer länger andauernden

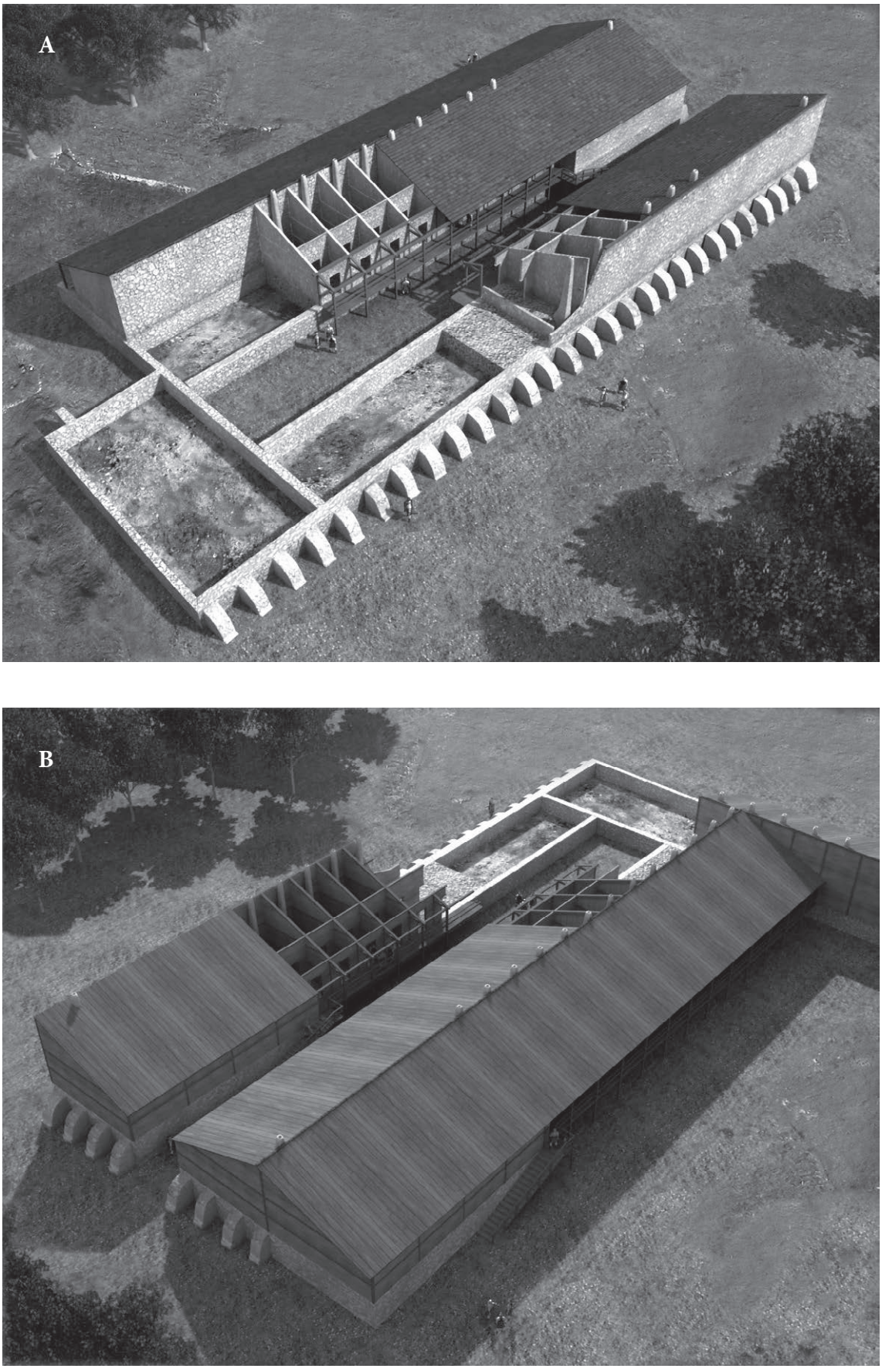


Abb. 7. A und B: 3D Rekonstruktion der Mannschaftsbaracken

Mosaikbodenherstellung zeugen. In Anbetracht der bisherigen Resultate, die hier zusammenfassend vorgestellt wurden, sind wir sicher, dass die weiter andauernden Grabungsarbeiten noch mehr zu unserer Vorstellung über römische Legionslager beitragen werden.

Bibliographie

Alföldy, G. 1968. Tilurium. In: Pauly-Wissowa Real-Encyclopädie, Suppl. Bd. 11, col. 1625.

Bekić, L. 1998. Tri manje privatne zbirke s Garduna kod Trilja. – Opuscula Archaeologica 22, 223-243.

Davison, D. P. 1989. The Barracks of the Roman Army from 1st to 3rd Centuries AD. BAR International Series 472(ii). Oxford.

Doneus, M. 2003. Arheološka interpretacija zračnih slika rimskog legijskog logora Tilurij. In: Sanader, M. (ed.). Tilurium I. Istraživanja 1997-2001. Zagreb. 87-108.

Ivčević, S. 2011. Antičke fibule iz vojnog logora Tilurij (Gardun). – Izdanja Hrvatskog arheološkog društva 27, 161-186.

Ivčević, S. 2010. Dijelovi vojničke opreme iz Garduna u Arheološkom muzeju Split. – Opuscula Archaeologica 34, 127-144.

Ivčević, S. 2005. Dijelovi opreme rimskog vojnika iz Garduna. – Opuscula Archaeologica 28 (2004), 159-176.

Nardelli, B. 2011. Late Roman Gems from Tilurium in Croatia, Gems of Haeven. In: Entwhistle, Ch. / Adams, N. (eds.). Recent Recearch on Engraved Gemstones in Late Antiquity c. 200-600. London. 30-34.

Radman-Livaja, I. 1998. Rimska streljačka oprema nađena na Gardunu kod Trilja. – Opuscula Archaeologica 22, 219-231.

Sanader, M. 2009. Manschaftsbaracken mit Strebepfeilern aus Tilurium. In: Limes 20. Estudios sobre la frontiera romana 1-3. Madrid. 1509-1514.

Sanader, M. 2007. O rimskoj vojsci, vojnicima i njihovim taborima, Zagora – nepoznata zemlja. In: Katalog izložbe Dalmatinska zagora. Zagreb. 67-75

Sanader, M. 2006. The Roman Legionary Fortress at Tilurium – State of Research. In: Davison, D. / Gaffney, V. / Marin, E. Dalmatia. Research in the Roman Province, 1970-2001. BAR series 1576. Oxford. 59-66.

Sanader, M. 2003a. Tilurium I. Istraživanja 1997-2001. Forschungen 1997-2001. Zagreb.

Sanader, M. 2003b. Grabsteine der legio VII aus Tilurium. Versuch einer Typologie, Romanisation uns Resistenz. In: Akten des 7. Internationalen Colloquiums über Probleme des provinzialrömischen Kunstschaffens. Mainz am Rhein. 501-511.

Sanader, M. 2002a. Tilurij – arheološka istraživanja u godini 2002. – Obavijesti Hrvatskog arheološkog društva 34, 3, 87-97.

Sanader, M. 2002b. Ilurium, Burnum, Bigeste. A New Contribution to the Dating of the Delmatean Limes. In: Limes 18. Proceedings of the 18th International Congress of Roman Frontier Studies held in Amman, Jordan, II. BAR International Series 1084 (ii). Oxford. 713-717.

Sanader, M. 2001a. Erste Archäologische Ausgrabungen im Legionarslager Tilurium. – Budapest Regisegei 34, 235-241.

Sanader, M. 2001b. Tilurij – rimski vojni logor. Prethodno izvješće o arheološkim istraživanjima u sezoni 2000. – Opuscula Archaeologica 25, 183-194.

Sanader, M. 2000. Tilurij – rimski vojni logor. – Obavijesti Hrvatskog arheološkog društva 32, 1, 51-62.

Sanader, M. 1999-2000. Kasnocarska grobnica iz Vojnića. – Opuscula Archaeologica 23-24, 225-236.

Sanader, M. 1999. Arheološka istraživanja u Gardunu. – Obavijesti Hrvatskog arheološkog društva 3, 75-85.

Sanader, M. 1998. Tilurij – rimski vojni logor – prethodno izvješće s arheoloških istraživanja u 1977. i 1998. – Opuscula Archaeologica 22, 243-255.

Sanader, M. / Tončinić, D. 2010. Gardun – antički Tilurium. In: Nalazi vojne opreme u Hrvatskoj. Zagreb. 33-53.

Sanader, M. / Tončinić, D. 2005. Das Projekt Tilurium. Die Wehrmauer. Poster at the 19th International Kongress of Roman Frontier Studies. Pecs, 1- 8. 09. 2003. In: Visy, Z. (ed.). Proceedings of the 19th International Congress of Roman Frontier Studies. Pecs. 685-688.

Sanader, M. / Tončinić, D. 2003. Tilurij – arheološka istraživanja u godini 2003. – Obavijesti Hrvatskog arheološkog društva 35, 3, 87-99.

Sanader, M. / Šimić-Kanajet, Z. / Tončinić, D. 2005. Das Projekt Tilurium. Ein Kurzer Einblick in die Keramikfunde. – Rei Cretarie Fautorum Acta 39, 295-300.

Sanader, M. / Tončinić, D. / Demicheli, D. / Miloglav, I. 2006. Gardun (Tilurium). – Hrvatski arheološki godišnjak 3, 391-393.

Sanader, M. / Tončinić, D. / Ožanić, I. 2004a. Tilurij – arheološka istraživanja u 2004. godini. – Opuscula Archaeologica 28, 221-243.

Sanader, M. / Tončinić, D. / Ožanić, I. 2004b. Gardun (Tilurium). – Hrvatski arheološki godišnjak 1, 219-221.

Sanader, M. / Tončinić, D. / Ožanić, I. / Miloglav, I. 2005. Gardun (Tilurium). – Hrvatski arheološki godišnjak 2, 348-351.

Soldo, J. 1989. Etničke promjene i migracije stanovništva u sinjskoj krajini krajem 17.st. i početkom 18.st., Sinj i Cetinska krajina za vrijeme Osmanlijske vlasti. – Zbornik cetinske krajine, 81-144.

Šimić-Kanaet, Z. 2011a. Tilurium II. Keramika. Istraživanja 1997 – 2006. Zagreb.

Šimić-Kanaet, Z. 2011b. Rimske svjetiljke iz Tilurija. – Izdanja Hrvatskog arheološkog društva 27, 187-218.

Šimić-Kanaet, Z. 2003. Keramika. – In: Sanader, M. (ed.). Tilurium I. Istraživanja 1997-2001. Zagreb. 109-188.

Šimić-Kanaet, Z. / Tončinić, D. / Radović, S. 2005. Jama SJ 55 iz Tilurija. – Vjesnik za arheologiju i povijest dalmatinsku 98, 107-120.

Štambuk-Giljanović, N. 2002. Vode Cetine i njezina porječja, Split.

Tončinić, D. 2011. Spomenici VII. Legije na području rimske provincije Dalmacije. Split.

Tončinić, D. / Tabak, A. / Librenjak, A. 2011. Rimski vojni pečati u Cetinskoj krajini. – Izdanja Hrvatskog arheološkog društva 27, 361-379.

Wilkes, J. 1969. Dalmatia. London.

Zaninović, M. 1996. Vojni značaj Tilurija u antici. In: Od Helena do Hrvata. Zagreb. 280-291.

Prof. Dr. Mirjana Sanader
Odsjek za arheologiju Filozofskog fakulteta u Zagrebu
Ivana Lucica 3
HR-10000 Zagreb
msanader@ffzg.hr

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Dispositions and Strategy in the Moesias from Trajan to Commodus[1]

Conor WHATELY

Much important work in the last decade or so has been conducted on a host of issues relating to the Roman military, and the lower Danube, including the deployment of auxiliaries across the empire during the second century AD (Holder 2003; 2006); the auxiliary units of the Moesias themselves (Matei-Popescu 2006/2007; 2010; 2012; Matei-Popescu / Tentea 2006); migrations (Batty 2007) and strategy in the Balkans (Wheeler 2010; 2011); and war in the region during the reigns of Domitian and Trajan (Stefan 2005). Little of this work, however, has focused on the period of consolidation and transformation from the conquest of Dacia to the reign of Commodus (cf. Cheesman 1914, 145). Subsequently, in this short paper I want to explore selected aspects of the disposition of legionaries and auxiliaries in Lower and Upper Moesia from Hadrian to Commodus and discuss what these changes might suggest about the strategic aims of the state and the duties of those soldiers.

Strategy in the Scholarly Literature

The Lower Danube was the site of significant expansion of the Roman *imperium* during the Principate[2]. When Trajan conquered Dacia early in the second century, the frontier Moesias became, at least in part, interior provinces of the Roman Empire. Ostensibly Dacia now filled that role, while the Pannonias maintained their frontier identity. Similar changes to those in the Moesias have occurred on other frontiers. In Britain, too (in part), the limits of Roman control were extended while the troops that had been at those limits now found themselves some distance from that frontier. Much of the scholarly discussion of expansion has been tied to the prevalence – or the existence – of long-term planning, however long-term it might have been. Scholars have put forth a number of views, a few of which I want to focus on here.

The most influential work to have appeared about Roman frontiers and strategy over the past four decades or so was Luttwak's *Grand Strategy of the Roman Empire*. He has, of course, been challenged by, among others, Mann (1979), Isaac (1990), and Whittaker (1994)[3]. Some (Whittaker 1994, for instance) have focused on the nature of the frontier itself, preferring to characterize it, for a variety of reasons, as a zone of interaction rather than a straight line comprised of military units. Others (Isaac 1990) have focused on the nature of the operations of the units based on those frontiers, regardless of the varied frontiers' character, and have preferred to see the soldiers engaged in the control of movement as well as pseudo-policing duties. On the other hand, not everyone is convinced by such exceptions, at least not entirely, with Wheeler one of the chief dissenters – and so supporters of Luttwak (Wheeler 1993a; 1993b; 2010, 201)[4]. For my purposes here, there is one particular statement of relevance in Luttwak's book; it has to do with his characterization of the strategic situation in the second century: "the maintenance of frontier security

[1] I want to thank Matt Gibbs and Matt Maher for reading a draft of this paper and the participants of the session at the Limes Congress – David Breeze in particular – for their questions and feedback.

[2] On the changing nature of the term imperium in Roman thinking from republic to empire see Richardson (2008).

[3] Although not concerned with the army and strategy, Millar's (1977) book on the emperor is of some relevance. Therein he advocates an ad hoc approach to imperial policy.

[4] Cf. Ferrill 1991.

against low-intensity threats, the major business of the Roman army during much of the second century, called for lighter forces trained and equipped for guard, patrol, and escort duties as well as highly mobile but small-scale warfare. It is not surprising, therefore, that the proportion of auxiliary troops in the army seems to have increased during the second century" (Luttwak 1976, 121-122).

There are two additional views about strategy relevant to this discussion. The second view comes from Wilkes' (Wilkes 2005) *Journal of Roman Studies*' paper concerned more broadly with the Roman Danube. He identified (Wilkes 2005, 148-168) three phases in Roman troop deployment in the region, with the second especially relevant; he characterized the period from Hadrian through the third century as static, with defence the emphasis. The third view comes from Kagan's (Kagan 2006, 348) broad discussion of Roman strategy in which she argued that we ought to understand grand strategy as "the setting of a state's objectives and of priorities among those objectives, allocating resources among them, and choosing the best policy instruments to pursue them". To that end she said:

"We can focus our research on resource allocation. The epigraphic, archaeological, and narrative records combined show, with a high degree of resolution, what military units the emperors had and where they were deployed. Narrative sources and inscriptions allow us to interpret how these forces were used. We can trace major troop movements over time. There is no doubt that we have enough information to speak authoritatively about the allocation of the military resources of the state, a vital component of grand strategy. A study of the allocation of military resources, furthermore, can help to illustrate the emperors' de facto priorities, if not their abstract goals. It can reveal their perceptions of changing threats. It can even clarify how, generally, they set out to ensure the security and, sometimes, expansion, of their state" (Kagan 2006, 346).

Kagan's suggestions here provide us with a means of addressing the issue of long-term planning – that is strategy – and the duties of the soldiers that are the focus of this paper. They also allow us to address and evaluate the aforementioned views of Luttwak and of Wilkes[5].

In that article Kagan focused on legionaries active at the time of the Trajanic wars as her resources, and I plan on doing the same with the notable addition of auxiliaries. I will also use a spattering of figures. Those that I provide are based on some earlier and provisional research, itself based primarily on epigraphic evidence (diplomas, funerary inscriptions, etc.), though also literary evidence[6]. Constraints of space have meant that I must leave out details of specific troop movements (which legion or auxiliary unit moved when), though I have provided tables that identify these units and outline the changes (see below). What is more, I also provide in my discussion below numbers and percentages based on those troop movements.

Troop Numbers: Legionaries Vs. Auxiliaries on the Lower Danube

Before we look at the dispositions from Hadrian to Marcus Aurelius it is worth noting what they were before this. In AD 100 there were 22 auxiliary units (7 cavalry and 15 infantry) in *Moesia Inferior*. Two legions in *Moesia Inferior* and another two in *Moesia Superior* complimented the auxiliaries. That same year there were 24 auxiliary units (3 cavalry and 21 infantry) in *Moesia Superior*. The identity of those units is listed in **table A** below[7].

By AD 138 those totals had changed significantly. There were now 17 auxiliary units (5 cavalry and 12 infantry) in *Moesia Inferior*, and 12 (2 cavalry and 10 infantry) in *Moesia Superior*. This went along with three legions in *Moesia Inferior* and two in Moesia Superior, four of which had been there forty years earlier; the other was a more recent import. The identity of those units is listed in Table B below.

Three decades later, in the midst of the Marcomannic wars of Marcus Aurelius (c. AD 170), they had changed yet again, though slightly, to 16 (5 cavalry and 11 infantry) units for *Moesia Inferior* and 14 units (2 cavalry and 12 infantry) for *Moesia Superior*. There was now one fewer legion in Moesia Inferior, and the legionary make-up of the province had changed (*legio V Macedonica* had moved to Dacia). The deployment in Moesia Superior stayed the same. The identity of those units is listed in **table C** below.

[5] Cf. Kagan's (2006, 355-360) discussion of the Moesian legionaries.

[6] Whately 2005. I am currently in the process of revising my MA thesis from McMaster University for publication as a monograph, a process that has taken longer than I would have liked.

[7] In tables A, B, and C I have highlighted those units that had moved into (bold) the area by the year in question to give a sense of the movement of particular units in and out of the region. For table A, I used the year 93 (largely due to the evidence) as the point of comparison.

MOESIA INFERIOR		MOESIA SUPERIOR	
Legions (2)	**Auxiliary Units (22)**	**Legions (2)**	**Auxiliary Units (24)**
I Italica, V Macedonica	ala Gallorum Atectorigiana, ala I Gallorum Flaviana, ala I Pannoniorum, **ala II Hispanorum et Aravacorum**, ala I Asturum, ala I Flavia Gaetulorum, ala I Vespasiana Dardanorum, cohors I Sugambrorum veterana, **cohors I Bracaraugustanorum, cohors I Hispanorum veterana, cohors II Mattiacorum**, II Gallorum, cohors Ubiorum, cohors I Lepidiana c R, cohors I Tyriorum, cohors I Lusitanorum Cyrenaica, **cohors II Flavia Brittonum**, cohors II Chalcidenorum, cohors II Gallorum, cohors VII Gallorum, cohors I Flavia Numidarum, cohors II Bracaraugustanorum, cohors I Cilicum sagittaria	IIII Flavia, VII Claudia	ala I praetoria, ala I Claudia nova, ala II Pannoniorum, **cohors I Flavia Bessorum, cohors I Thracum c R,** cohors I Flavia Hispanorum, cohors I Antiochensium, **cohors I Lusitanorum, cohors I Montanorum c R,** cohors I Cisipadensium, cohors I Cretum, **cohors I Vindelicorum milliaria c R, cohors I Thracum Syriaca,** cohors I Cilicum, cohors II Hispanorum, cohors II Gallorum Macedonica, **cohors II Brittonum milliaria c R p f, cohors II Flavia Commagenorum, cohors III Brittonum, cohors IIII Raetorum,** cohors V Gallorum, cohors V Hispanorum, **cohors VI Thracum, cohors VII Breucorum c R**

Table A. Dispositions of Legionaries and Auxiliaries in the Moesias in AD 100

MOESIA INFERIOR		MOESIA SUPERIOR	
Legions (3)	**Auxiliary Units (17)**	**Legions (2)**	**Auxiliary Units (12)**
I Italica, V Macedonica, **XI Claudia**	ala I Pannoniorum et Gallorum, ala Gallorum Atectorigiana, ala I Vespasiana Dardanorum, ala I Flavia Gaetulorum, ala II Hispanorum Aravacorum, cohors I Lusitanorum, cohors I Flavia Numidarum, **cohors I Germanorum,** cohors I Bracaraugustanorum, cohors I Lepidiana, cohors II Flavia Brittonum, cohors II Chalcidenorum, cohors II Mattiacorum, cohors II Bracaraugustanorum, cohors I Cilicum sagittaria, **cohors I Thracum Syriaca,** cohors I Claudia Sugambrorum veterana	IIII Flavia, VII Claudia	ala I Claudia nova miscellanea, **ala I Gallorum Flaviana,** cohors V Gallorum, cohors V Hispanorum, cohors I Montanorum, cohors I Antiochensium, cohors I Cretum, **cohors III campestris,** cohors II Gallorum, cohors III Brittonum, cohors I Lusitanorum, **cohors I Pannoniorum**

Table B. Disposition of Legionaries and Auxiliaries in the Moesias in AD 138[8]

[8] Note that some of the highlighted units in this table moved from *Moesia Superior* to *Inferior* and vice versa, undoubtedly a reflection of the changing strategic character of the respective provinces.

MOESIA INFERIOR		MOESIA SUPERIOR	
Legions (2)	**Auxiliary Units (16)**	**Legions (2)**	**Auxiliary Units (14)**
I Italica, XI Claudia	ala I Pannoniorum et Gallorum, ala Gallorum Atectorigiana, ala I Vespasiana Dardanorum, ala I Flavia Gaetulorum, ala II Hispanorum Aravacorum, cohors I Lusitanorum, cohors I Germanorum, cohors I Bracaraugustanorum, cohors I Lepidiana, cohors II Flavia Brittonum, cohors II Chalcidenorum, cohors II Mattiacorum, cohors II Bracaraugustanorum, cohors I Cilicum sagittaria, cohors I Thracum Syriaca, cohors I Claudia Sugambrorum veterana	IIII Flavia, VII Claudia	ala I Claudia nova miscellanea, ala I Gallorum Flaviana, cohors II Aurelia nova Sacorum, **cohors I Aurelia nova Pasinatum, cohors II Aurelia nova milliaria equitata, cohors I Aurelia Dardanorum, cohors II Aurelia Dardanorum,** cohors V Hispanorum, cohors I Montanorum, cohors I Antiochensium, cohors I Cretum, cohors II Gallorum, cohors III Brittonum, cohors I Pannoniorum

Table C. Disposition of Legionaries and Auxiliaries in the Moesias in AD 170

MOESIA INFERIOR			MOESIA SUPERIOR	
Year	**Legions**	**Auxiliary Units**	**Legions**	**Auxiliary Units**
100	c. 49%	c. 51%	c. 47%	c. 53%
138	c. 62%	c. 38%	c. 63%	c. 37%
170	c. 54%	c. 46%	c. 60%	c. 40%

Table D. Proportion of Legionaries vs. Auxiliaries

Year	MOESIA INFERIOR	MOESIA SUPERIOR
100 c. 48,100	c. 51% c. 24,500	c. 49% c. 23,600
138 c. 42,000	c. 60% c. 25,200	c. 40% c. 16,800
170 c. 37,300	c. 53% c. 19,700	c. 47% c. 17,500

Table E. Approximate Troops Per Province

In the second century the number of auxiliary units gradually changed, while the number of legions remained remarkably similar, although the specific details about individual units, as I alluded to, are somewhat different.

These changes can be viewed in terms of numerical changes (numbers of units); we can also view them in terms of percentages, as long as we understand that these percentages are illustrative and not necessarily definitive[9]. In that light I want to discuss the relative manpower of the two provinces based on the presumed paper strength of the various legionary and auxiliary units. I have used the sizes as set out by Roth. In regard to the legions, Roth (1994, 361) postulated that there were about 6600 persons in each, which included about 5280 (the number I used) soldiers. In regard to the auxiliary units, Roth postulated that there were 512 men in the quingenarian *ala* (Roth 1999, 336), 1024 in the milliarian *ala* (1999, 337), 480 men in the quingenarian *cohors*

[9] The sizes given in this chapter are paper strengths and in all likelihood do not represent the actual size of the army at any given time in the province. We cannot hope to calculate the fluctuations due to death, new recruitment and so forth.

(1999, 337), 960 in the milliarian *cohors* (1999, 337), 600 in the quingenarian mounted cohort (1999, 338), and 1040 in the milliarian mounted cohort (1999, 338)[10]. I will explore manpower from two perspectives: first (henceforth I), the proportion of legionaries to auxiliaries; second (henceforth II), the comparative number of troops in the two provinces, that is *Inferior vs. Superior.* Starting with I (table D), in AD 100 about 51% of the garrison of *Moesia Inferior* was auxiliary, whereas about 53% of the garrison of *Moesia Superior* was auxiliary. By AD 138, long after the Dacian wars were over and Dacia had been organised into a province, the proportion of auxiliaries had dropped considerably. About 38% of the garrison of *Moesia Inferior* was now auxiliary, compared with 37% for *Moesia Superior*[11]. Finally, from AD 170 onwards about 46% of the garrison *of Moesia Inferior* was auxiliary, whereas about 40% of the garrison of *Moesia Superior* was auxiliary.

Turning to II (**table E**), in the years following Domitian's Dacian campaigns, the number of soldiers present in the former province of Moesia was around 38080 soldiers. Of that total for AD 93, approximately 57% of those soldiers were based in *Moesia Inferior*. The total number of troops in the former province increased in the years leading up to Trajan's Dacian campaigns. So, in AD 100 there were around 48,100 soldiers in the former province of Moesia, an increase of about 21% from the years immediately preceding the wars. The army of *Moesia Inferior* now made up about 51% of the total of the former united province of Moesia. By the end of Hadrian's reign, in AD 138, the garrison of the region had shrunk by about 6%: approximately 60% of that total was based in *Moesia Inferior*. Halfway through the reign of Marcus Aurelius, AD 170, the total had dropped further by an additional 11%. Approximately 53% of that total number of troops was based in *Moesia Inferior*.

Operations and Strategy in Moesia: Interpretation

What these facts, figures, and percentages that I have presented suggest is that there were some significant shifts in manpower over the period in question, both in terms of location, broadly speaking, and in terms of troop type[12]. The Romans were demonstrably keen on shifting their strategy as the dynamics of these provinces changed – and when units are moved it tends to be long-term, and so serves as indirect evidence of long-term planning. In some cases it was during times of war that there were significant changes in the auxiliary composition of the two provinces. For example, although I did not mention them it is worth noting that there was a greater proportion and number of auxiliaries in *Moesia Inferior* than in *Moesia Superior* during Domitian's wars (cf. Whately 2005, 38-41, 43-50). Conversely, during the Dacian wars of Trajan, there were more auxiliary units, and they made up a greater proportion of the total in *Moesia Superior* than they did in *Moesia Inferior*. Overall, however, it seems that from around 117 to 170 the auxiliary units played a greater role in Lower Moesia than they did in Upper Moesia, at least based on the number of soldiers.

With the exception of major wars, and in particular those of Domitian and Trajan, legionaries made up the bulk of the Moesian forces; thus, there seems to have been a recognition that they ought to make-up a significant portion of the respective provinces' armies. The legionaries seemed to have been fairly evenly distributed between the two provinces, with some exceptions during the middle of the second century. Getting back to Luttwak, there does seem to have been an increase in the number of auxiliaries in the region in the second century, though this comes on the back of the significant changes that came in the context of the Trajanic wars. As regards Wilkes, then, the units and the system were not as static in the second century as he let on. In turn, these troop movements have highlighted for us changes in military resource allocation, at least as regards the Moesias. But, what does it all mean?

Attempting to determine the function of the army on any frontier is no mean feat, though the most obvious goal for the soldiery was to suppress unrest in a general sense, whether that came from within or without (Breeze 2010, 194-205). The jurist Ulpian (Ulp. *Dig.* 1.18.13.pr), for example, notes that it was the mandate of a governor of a province to purge said province of evil men, and to ensure that the province was pacified and quiet (cf. Fuhrmann 2012, 151, 182). Some of the sorts of men he had in mind include those who committed sacrilege, bandits, kidnappers, and thieves (*sacrilegos latrones plagiarios fures*) (Ulp. *Dig.* 1.18.13.pr). That governor had to keep order, and a good deal of his time

[10] Cf. Cupcea / Marcu (2006), who agree with Roth's calculations about the legions, but not about the auxiliary units.

[11] Significantly, however, *Moesia Inferior* had one 'extra' legion over this period to bring its total to three legions, which is the reason for the lower proportion of auxiliaries.

[12] Although we have a good idea of the locations of the bases for some units, for others we are less certain. cf. Karavas 2001.

was spent ensuring just this, with the exchanges between Pliny and Trajan a good indication of these goals, even if Bithynia is quite a different place from both Upper and Lower Moesia (Millar 1977, 114-115, 315-316, 325-328). This is somewhat in keeping with the views of Isaac (1990) alluded to above. The Moesias, however, were quite different from the near east: the population density and population total, not to mention the level of urbanization, were far lower in the Moesias. In *Moesia Superior*, for example, legions and auxiliary units were not usually based at sites of pre-conquest settlement; indeed, if anything settlement tended to follow the stationing of troops: civilians tended to abandon older settlements and move to military, or military-related, sites, such as *vici*, military roads, and former bases (*Ratiaria*) (Mladenović 2012). On the other hand, once these new settlements were established there is every reason to suppose that the soldiers could have played a role in the maintenance of order.

Maintaining order aside, soldiers could be dispatched to watch over the movement of people and goods in regions of value to the emperor (Fuhrmann 2012, 208). The mines at *Mons Claudianus* in Egypt, for example, were watched over by detachments of soldiers (Fuhrmann 2012, 208; cf. Bagnall 1977; Cuvigny 2005). Some of the soldiers in Upper Moesia undertook similar activities. The mines of the province were important sources of materials[13], and we find soldiers at sites throughout Upper Moesia, even after the creation of Dacia, in the interior of the province and in significant quantities (Dušanić 2000). Indeed, some have argued that the threats facing the Romans on the lower Danube were all low intensity: the soldiers and their fortifications were there to protect the Moesian provinces from small-scale raids rather than large-scale invasions (Karavas 2001, 255ff). Besides, the position of much of Lower Moesia, and to a lesser degree Upper Moesia, in relation to Dacia would seem to support this; the latter is likely to have been the front line in such cases from Hadrian to Commodus anyway.

As other scholars have noted, troops could be used for operations in other theatres. From Hadrian to Commodus, there is some movement of legions and auxiliary units during those middle decades of the second century, with the reigns of Hadrian and Marcus Aurelius the periods of greatest change. On the other hand, the reasons for these shifts are not immediately clear, at least on the basis of the surviving evidence. The *cohors I Flavia Numidarum* in Lower Moesia moved to Lycia and Pamphylia, for example, though we do not know why[14]. In some instances units were raised and deployed to suit pressing needs such as trouble in Dacia, trouble with the Sarmatians, or Marcus Aurelius' Marcomannic wars to name but a few. As noted just a bit earlier, that same emperor, Marcus Aurelius, saw the need for troops to monitor his mining operations in Dardania[15]; there were also a number of auxiliary units based in Moesia Superior that were created during his reign (Whately 2005, 92-98).

Conclusion

In closing, there are a number of ways that troop movements can be used to elucidate wider-reaching issues about strategy, imperial policy, and operations, and they have some bearing for those views I highlighted at the beginning of this paper. At the risk of beating a dead horse I will add that at least for the Moesias Luttwak's comments about an increase in auxiliary use over the second century need qualification. Also, although it is a question of scale, the disposition of soldiers in those provinces was not entirely static – as Wilkes suggested – during the second century; some changes took place, even if the amount of change decreased post Marcus Aurelius. Also, it should be stressed that defence was always only part of the policy equation, with the troops stationed in mining districts a good example of this.

Obviously, there is much more work to be done including the situating of the disposition of Moesian troops into other regional changes – here I am thinking about the Pannonias, Dacia, and Thrace, as well as the Chersonnesos – as well as the need to put changes in disposition into the context of the empire as a whole. It is also worth considering the use of different types of troops: in other words, to what degree, for example, were cavalry moved in or out of the region, or to specific locations, particularly in relation to infantry? As I alluded to above, the detailing of specific movements is important too. For example, the Fourth Flavian Legion, which was one of those legions of Upper Moesia that had been in the prov-

[13] Note the following: *Dig*. 48, 19, 16, 9-10.

[14] RMD 67, CIL XVI.128; Cf. Whately 2005, 89; Matei-Popescu 2010, 225. Spaul (2000, 156) suggests that the *cohors I Lepidiana* might have moved to Arabia, but this is conjecture.

[15] *HA Marc*. 21.7. See Strabo 7.5.7; Plin. *HN* 3.26.149; and Ptol. *Geogr*. 3.9.1-4. The units are listed in RMD 247, which dates to September 9, AD 132; CIL XVI.111, which dates to AD 159/160; and RMD 55, which dates to February 8, AD 161 – that is about a month before the accession of Marcus Aurelius; Cf. Cichorius 1900, 280; Beneš 1978, 30; Spaul 2000, 349; Hirt 2010, 166-201.

ince between 100 and 138, actually left for nearly a decade. These sorts of details can tell us a lot about imperial planning. In the end, in the absence of *commentarii* and the like, focusing on troops movements can tell us a great deal about planning and strategy during the early and high imperial periods.

Bibliography

Bagnall, R. 1977. Army and police in Upper Egypt. – Journal of the American Research Center in Egypt 14, 67-86.

Batty, R. 2007. Rome and the Nomads: the Pontic-Danubian Realm in Antiquity. Oxford.

Beneš, J. 1978. Auxilia Romana in Moesia atque in Dacia. Prague.

Breeze, D. 2010. The Frontiers of Imperial Rome. Barnsley, South Yorkshire.

Cheesman, G. L. 1914. The Auxilia of the Roman Imperial Army. Oxford.

Cichorius, C. 1900. Cohors. RE 4, 231-355.

Cupcea, G. / Marcu, F. 2006. The Size and Organization of the Roman Army and the Case of Dacia under Trajan. – Dacia 50, 175-194.

Cuvigny, H. 2005. Ostraca de Krokodilo: La correspondance militaire et sa circulation. Cairo.

Dušanić, S. 2000. Army and mining in Moesia Superior. In: Alföldy, G. / Dobson, B. / Eck, W. (eds.). Kaiser, Heer und Gesellschaft in der Römischen Kaiserzeit. Stuttgart. 343-363.

Ferrill, A. 1991. Roman imperial grand strategy. Lanham, Maryland.

Fuhrmann, C. 2012. Policing the Roman Empire: Soldiers, Administration, and Public Order. New York.

Hirt, A. 2010. Imperial Mines and Quarries in the Roman World: Organizational Aspects 27 BC-AD 235. Oxford.

Holder, P. 2003. Auxiliary deployment in the reign of Hadrian. In: Wilkes, J. J. (ed.). Documenting the Roman Army. Essays in Honour of Margaret Roxan. London. 101-145.

Holder, P. 2006. Auxiliary deployment in the reign of Trajan. – Dacia 50, 141-174.

Isaac, B. 1990. Limits of Empire. Oxford.

Kagan, K. 2006. Redifining Roman grand strategy. – Journal of Military History 70, 333-362.

Karavas, J. 2001. The Evolution of Roman Frontier Fortification Systems in the Lower Danube Provinces, 1st-2nd centuries A.D. Unpublished PhD dissertation, The University of Durham.

Luttwak, E. N. 1976. The Grand Strategy of the Roman Empire from the First Century A.D. to the Third. Baltimore.

Mann, J. C. 1979. Power, force and the frontiers of the empire. – Journal of Roman Studies 69, 175-183.

Matei-Popescu, F. 2006/2007. The auxiliary units from Moesia Superior in Domitian's time and the problem of CIL XVI 41. – Ephemeris Napocensis 16-17, 31-48.

Matei-Popescu, F. 2010. The Roman Army in Moesia Inferior. Bucharest.

Matei-Popescu, F. 2012. The Roman auxiliary units of Moesia. – Ill Mar Nero 8, 207-230.

Matei-Popescu, F. / Tentea, O. 2006. Participation of the auxiliary troops from Moesia Superior in Trajan's Dacian wars. – Dacia 50, 127-140.

Millar, F. 1977. The Emperor in the Roman World. London.

Mladenovic, D. 2012. Urbanism and Settlement in the Roman Province of Moesia Superior. Oxford.

Roth, J. P. 1994. The size and organization of the Roman imperial legion. – Historia 43, 346-362.

Roth, J. P. 1999. The Logisitics of the Roman Army at War (264 B.C. – A.D. 235). Leiden.

Spaul, J. 2000. Cohors 2. Oxford.

Stefan, A. S. 2005. Les Guerres Daciques de Domitien et de Trajan. Rome.

Whately, C. 2005. The Movement and Emplacement of the Legions and Auxiliary Units of the Roman Army in Moesia from 29 BC to AD 235. Unpublished MA thesis, McMaster University.

Wheeler, E. L. 1993a. Methodological limits and the mirage of Roman strategy [I]. – Journal of Military History 57, 7-41.

Wheeler, E. L. 1993b. Methodological limits and the mirage of Roman strategy [II]. – Journal of Military History 57, 215-240.

Wheeler, E. L. 2010. Rome's Dacian wars: Domitian, Trajan, and strategy on the Danube, Part I. – Journal of Military History 74, 1185-1227.

Wheeler, E. L. 2011. Rome's Dacian wars: Domitian, Trajan, and strategy on the Danube, Part II. – Journal of Military History 75, 191-219.

Whittaker, C. R. 1994. Frontiers of the Roman Empire: a Social and Economic Survey. Baltimore.

Wilkes, J. J. 2005. The Roman Danube: an Archaeological Survey. – Journal of Roman Studies 95, 124-225.

Conor Whately, BA (Hons), MA, PhD
Department of Classics
University of Winnipeg
CA-Winnipeg, MB
c.whately@uwinnipeg.ca

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Emperor Trajan Decius and His Sons on the Lower-Danubian *Limes* (AD 249-251)[1]

Lily GROZDANOVA

In the mid 3rd century AD the Lower-Danubian Limes is undoubtedly one of the most turbulent borders of the Empire. The rule of Emperor Decius (Huttner 2008, 201-211; Wittig 1931, 1244-1284; Salisbury / Mattingly 1924, 1-23) and his sons (Wittig 1931a, 1284-1285; 1931b, 1285-1286) is an example for a high point of this tendency. Due to the fact that Decius and Herennius were the first[2] emperors to lose their lives on the battle field, the events concerning their tragic end in the Lower Danubian province of Lower Moesia are widely studied. However, in general the object of the researches is limited to the examination of the conflict with the Goths of Kniva. Despite its indisputable importance, and because of it, a deeper look in the activity of the imperial family in the Lower Danubian territories is necessary. A detailed analysis of the numismatic and epigraphic evidence from the region viewed as a complex has the potential to reveal further aspects of that rule.

The provinces of Lower Moesia and Thrace draw the attention of the central government in the period AD 249-251, as they are the arena of the most intensive clashes with the Trans-Danubian peoples at the time. However, the actual evaluation and reconstruction of the events there would not be adequate if they are analyzed isolated from their neighboring Lower-Danubian provinces, because the reality in Dacia and Upper Moesia was inextricably bound to the two provinces mentioned above.

Numismatic and Epigraphic Information from Dacia

The minting in Dacia started under the rule of Philip the Arab (244-249) (Salisbury / Mattingly 1924, 21; 23; Pick 1898, 1-7), probably in AD 247. The mint itself is not attested on the coins but as central metropolis of the province this probably was *Colonia Ulpia Traiana Augusta Dacica Sarmizegetusa* (Pick 1898, 2). Noteworthy is the local era (Pick 1898, 2) having as a starting point most probably July AD 247 (Salisbury / Mattingly 1924, 21).

In Dacia coins were minted for the entire family of Decius. For the Emperor and his wife (Wittig 1931, 1249; Kroll 1912, 681) there are issues from year IIII and V3. However, the two sons are attested on Dacian coins only from year V and both of them appear only as Caesars[4].

The coin types include personification of the province of Dacia. The depicted female figure has different attributes – scepter, branch, sword, and palm leaf. She is often accompanied by a lion (symbol of the XIIIth Gemina legion) and an eagle (symbol of the Vth Macedonica legion) (Pick 1898, 5). The constant character of the coin reverses hardens the attempts to acquire relevant historical informa-

[1] I express my sincere gratitude to the American Research Center in Sofia for the financial support that made my participation in the XXII Limes Congress possible.

[2] The Decii are commonly considered to be the first to die in a battle (Sommer 2004, 45). That could depend on the interpretation of the facts surrounding the death of Gordianus III in AD 244. I am more inclined to believe that Philip the Arab was not responsible for his demise. That makes the other theories, amongst which that Gordianus died during a military clash, very probable. Thus he, not the Decii, should be considered the first Emperor to lose his life on the battle field. See Гроздanова 2009; 2010.

[3] The years on most of the Dacian coins are hardly readable. On some of Decius coins the reading of year III is regarded as acceptable. Still most of the researchers presume that the coins in question are from year IIII. Pick (1898, 14) stresses that if the earlier dating is correct then the issue has to have been struck before the death of Philip the Arab. Salisbury / Mattingly 1924, 21.

[4] Salisbury / Mattingly (1924, 21) discuss the year IV minting of Herennius Etruscus, however, they consider it highly improbable.

tion. Still, the appearance of Victoria on the coins of Decius from year IIII, i.e. issued in the period AD 249-250, is indicative. This image, bearing the notion of military victory, could be connected with the successful campaigns of Decius against the Trans-Danubian tribes (Boteva 2001).

The province of Dacia provides three honorary inscriptions of the time that are of particular interest (AE 1983, 847 – *Micia*; CIL III, 1176 – *Apulum*; AE 1944, 56 – *Porolissum*). They originate from settlements on the main imperial road through the province which started from *Colonia Ulpia Traiana Augusta Dacica Sarmizegetusa* and via *Apulum* reached the frontier auxiliary fort at *Porolissum* to the North (Beneš 1978, 74-76). Two of the inscriptions (AE 1983, 847 – *Micia*; AE 1944, 56 – *Porolissum*) are set up by military units. The fact that the three monuments are from sites on one and the same road could indicate a possible presence of the imperial couple in this region. It might have been linked somehow with the military conflict in Dacia. This conflict remained unattested by the ancient authors but its existence is doubtless thanks to the title restitutor Daciarum preserved on the monument from Apulum (CIL III, 1176 – *Apulum*), and Dacicus maximus preserved on a monument from Hispania (Wittig 1931, 1270). The inscriptions from Micia and Apulum (AE 1983, 847 – Micia; CIL III, 1176 – *Apulum*) are with better readable texts and allow dating these events in AD 250[5]. The title of proconsul (AE 1983, 847 – *Micia*) attested for the Emperor in the inscription from *Micia* could also indicate the imperial presence in the region[6].

Numismatic and Epigraphic Information from Upper Moesia

The minting in *Viminacium* (Pick 1898, 21-60) began under Gordianus III and continued within the period AD 239-255 (Pick 1898, 23). At that time the city was the residence of the provincial governor and received the rights of a colony. Similarly to the Dacian minting just discussed, all nominals bear on the reverse the issuing year according to the newly established local era. Its beginning is supposed to be in the autumn of the respective calendar year[7].

Viminacium struck coins for all members of the Decius dynasty: for Decius and for Herennia Etruscilla they are minted in years XI and XII. The older son of the imperial couple, Herennius Etruscus, is represented by coins from year XII, on which he is attested as Caesar. The coins of the younger son, Hostlianus, have more complicated chronology due to his joined rule at the beginning with his father and brother, and after their death with Trebonianus Gallus (Huttner 2008, 211-221; Drinkwater 2005, 28-42; Hanslik 1958; Gilliam 1956) and Volusianus (Huttner 2008, 211-221; Hanslik 1958a, 1996-1997). He has coins from year XII and XIII, and is attested both as Caesar and as Augustus[8]. Here of particular interest is a medallion (Pick 1898, 50, # 148) that could be an evidence for the presence of the young ruler in the town. The item attests him as Caesar, which dates it in the mid 250 – early 251, when according to the traditional views the young Hostilianus has been left by his father in Rome (Huttner 2008, 210; Soutbern 2001, 75). The medallion issued only for him in *Viminacium* questions such a historical reconstruction and allows an alternative one. As is well known, medallions were issued by the provincial mints only in occasion of imperial visits in the respective region. Because of this it is fair enough to suppose that some time within the period mid 250 – early 251 Hostilianus has left Rome in order to arrive in *Viminacium*. The reason for this visit is unclear, however, it could have been in a way connected with the Gothic invasion. If this supposition is correct it could explain Valens' riot (Aur. Vict. *Caes*. 29, 3; *Epit. de Caes*. 29, 5) in Rome in AD 251. It is possible that the usurper took advantage of the temporary absence from Rome of all the representatives of the Decius' dynasty. Possibly, when Hostilianus returned to the Capital Valens was swiftly eliminated (Sommer 2004, 43-44; Brauer 1975, 54).

The minting of Upper Moesia, similar to the Dacian one, has reverse types depicting personification of the province. The female figure appears with several traditional attributes and two accompanying animals – a lion and a bull, symbols respectively of the IVth Flavian legion and the VIIth Claudian le-

[5] That dating could support the incursions chronology of the Trans-Danubian tribes in the period 248 – 251 proposed by Boteva 2001.

[6] Wittig 1931, 1257. The title is used by an Emperor only outside of Rome.

[7] Salisbury / Mattingly (1924, 21) consider that the chronology according to the local era begins in the last days of August. Pick (1898, 25) suggests the beginning of October.

[8] According to Pick (1898, 25) the promotion of Hostilianus as Augustus in year XII testifies that Gallus made him a co-ruler immediately after the death of Decius. He considers that the appearance of coins attesting the young ruler as Caesar in year XIII is due to a mistaken die.

gion. During the rule of Decius a few new attributes appear, amongst which are the orb, scepter, cornucopia, wreath. Noteworthy is again the representation of Victoria, crowning the head of the personified Moesia (Pick 1898, 44, # 123), which appears on Decius' coins issued in both years of his minting in *Viminacium*. The figure of the Goddess on the coins of Decius could be connected to the turbulent situation provoked by the incursions first of the Carpes and the Goths, and after that of the Goths led by Kniva in the neighboring provinces of Dacia, Lower Moesia and Thrace. The victorious message in this case most probably echoes the success of Decius already achieved, though it is also possible to have implied a promise for future victories.

Reverse types representing the personified Moesia holding legionary standard in each hand exist for the Augusta Herennia Etruscilla (Жеков / Христова 2004, # 60) and the younger son Hostlianus (Pick 1898, 52, # 156). They attest the young ruler as Augustus being struck in year XII. It is possible that this issue dates from the middle of the year when the father and brother were already dead, and Hostilianus was ruling with Trebonianus and Volusianus. This seems to be the only logical explanation for the fact that this type is attested solely for Herennia Etruscilla and her younger son (Pick 1898, 25).

So far five mile stones connected with Decius' rule originate from Upper Moesia (IMS 6, 204 – Scupi; AE 1984, 754 – nearby *Scupi*; ILJug 1464 – nearby modern Blace, Serbia; AE 1976, 605 – probably nearby the modern town of Sopot, Serbia; IMS 4, 124 – by the present day Bračin, Serbia). All of them were found in places on the road *Scupi* – Naisus which is connected to the main road in the region via Diagonalis (Evans / Destani 2006, 255). While three of them bear the name solely of Decius, on the other two the names of Decius, Herennia Etruscilla and Herennius Caesar appear (AE 1976, 605 – probably nearby the modern town of Sopot, Serbia; IMS 4, 124 – by the present day Bračin, Serbia), indicating that the latter was probably included actively in the running of the Empire. The absence of the younger brother Hostilianus is noteworthy, especially if the theory that the two brothers are proclaimed Caesars simultaneously is correct (Peachin 1990, 33). This situation could possibly be explained with the personal presence of the three in Upper Moesia, where orders were issued for the reconstruction of the important road *Scupi – Naissus*.

Summing up, one has to acknowledge the importance of the two provinces during the period under scrutiny. The coinage with personifications of Upper Moesia and Dacia represented with symbols of prosperity and stability, strongly contrast with the martial types that were featuring more or less the contemporary central minting (Mattingly / Sydenham / Sutherland 1949, 107-117). The presence of Victoria in the local issues of Decius and his family gives additional data for the state of the Lower-Danubian provinces and the Roman victories there.

The inscriptions hint not only the care for the road infrastructure in the region. The presence of the imperial family can also be presumed. Decius is honored by the inscriptions and the milestones both alone and together with his wife Herennia Etruscilla and their elder son – Caesar Herennius Etruscus. Very instructive case is to be found in the neighboring province of Lower Pannonia, where an inscription from *Aquincum* (AE 2003, 1455) clearly attests Herennius Etruscus as an active factor in the running of the Empire since the very moment of his proclamation as Caesar. The monument was set up by *legio II Adiutrix Consta{a}ns Traiana{nana} Deciana* in honor solely of the young ruler. Such tendency is attested already during the rule of Septimius Severus and remains visible even under Philip the Arab (Гроздановa 2009; 2010; Körner 2002) provoked by the need of imperial presence on more than one military front and the strong internal unrest (Boteva 1998).

Decius and His Family in Lower Moesia and Thrace Prior to the Clash with Kniva

The territories of Lower Moesia and Thrace become the main scene during an essential part of the Decius' rule. His presence there is surely evidenced, however, no local minting is attested so far. Undoubtedly the lack of local issues in these two provinces reflects the tensed situation within the period. Probably the invasion of the Trans-Danubians during AD 248-251 made the minting there impossible.

The appearance of numerous coin hoards in the region, some of them of an astonishing number of pieces (Touratsoglou 2006, 191, 193; Мушмов 1930-1931, 263-265), could be explained both with the concentration of military units there and the lack of local issues. It is obvious that such enormous hoards could not have been private property.

Due to the tragic events on the territory of Lower Moesia most of the information in the sources concerns the Gothic invasion led by Kniva and the fatal battle by *Abritus* in AD 251. The activity in the region from the beginning of Decius' rule since

the late 249 to the early 251 remains rather dim. Because of this here the stress is going to be laid on this aspect, while the clash with the Goths of Kniva will be left aside.

So far four milestones from Lower Moesia are attested (ILBulg, 7 – *Oescus*; AE 2004, 1253 – *Novae*; AE 1973, 481 – *Sacidava*; ISM 1, 322 – *Istrus*), all of them without explicit chronological information. The fact, however, that only the name of Decius appears in the inscriptions points that they belong to the earliest period of his rule. This early dating is also supported by the Emperor's title on two of the stones (AE 2004, 1253 – *Novae*; ILBulg, 7 – *Oescus*) and the name of *P*[---] *Post*[*umino*?] whose presence as provincial governor is dated to late AD 249 – 250 (Gerhardt / Hartmann 2008, 1148; Thomasson 1984, col. 145). The fact that only Decius is attested on the monuments could also indicate his personal concern with the Lower-Moesian territories. Obviously, the reparation of the road system in the region belongs to the time before the Goths started invading the province under Decius.

Only two relevant inscriptions (IGBulg IV, 2009 – close to Serdica, in the present day village of Slatina; IGBulg IV, 1989 – *Soneium*, modern Traianovi Vrata) originate from the province of Thrace and both of them were found in the territory of ancient *Serdica*. One of them is a milestone set up by the provincial governor T. Iulius Priscus; on it the names of both Decius and Etruscilla appear. The other one honors Etruscilla solely and is carved on a marble basis. The Empress, following the tradition started in the second half of the 2nd century AD, bears the title of *mater castrorum.* This could indicate her importance and commitment to the military activity of her husband. Boris Gerov considers this monument as a proof for reconstruction works of the military installations (Gerov 1963, 137-138) in the region.

To sum up: the epigraphic and numismatic data from the provinces of Dacia, Upper Moesia, Lower Moesia and Thrace, and the inscription from Lower Pannonia, testify for aware and systematic activity of the central government in the region. The minting is withdrawn to the provinces of Dacia and Upper Moesia. Though affected by the Trans-Danubian incursions, especially Dacia, they were not in the epicenter of the most destructive actions of the Goths and their allies the Carpes.

The strong presence of the imperial family in the region is obvious. It was represented not just by Decius and the Augusta Herennia but also by the young Caesar Herennius Etruscus. Immediately after his nomination as Caesar he appears in Lower Pannonia. Later his activity was obviously connected with the turbulent events in the Lower-Moesian and Thracian territories along with the father Emperor. It seems reasonable to insist that the politics of Decius in the region was adequate to the situation he was in.

Bibliography

Narrative sources:

Aurelius Victor. http://www.hsaugsburg.de/~harsch/Chronologia/Lspost04/Aurelius/aur_intr.html 15/4/10

Epitome de Caesaribus.

http://webcache.googleusercontent.com/search?q=cache:Z1jUv9VzWscJ:www.thelatinlibrary.com/victor.caes2.html+INCERTI+AVCTORIS+EPITOME+DE+CAESARIBUS&cd=1&hl=en&ct=clnk&source=www.google.com 13/4/11

Гроздanова, Л. 2010. Политическите митове в Римската империя: случаят Филип Араб (244-249 г.). (Political and Historical Myths in the Roman Empire: The Case of Philip the Arab (AD 244-249). In: Акти на международна конференция „Политическа митология и история" 2-4 април 2009, София. 137-151.

Гроздanова, Л. 2009. Римският император Филип Араб (244-249 г.) и неговото управление. (The Roman Emperor Philip the Arab (AD 244-249) and his rule). – История 1-2, 9-22.

Жеков, Г. / Христова, Н. 2004. Монетосеченето на Горна Мизия. Виминациум. Благоевград.

Мушмов, Н. А. 1930-1931. Разкопки при с. Река Девня (Марцианопол). – Известия на Българския археологически институт 6, 263-265.

Beneš, J. 1978. Auxilia Romana in Moesia atque in Dacia. Zu den Fragen des römischen Verteidigungssystems im Unteren Donauraum und in den angrenzenden Gebieten. Academia Praha.

Boteva, D. 2001. On the Chronology of the Gothic Invasions under Philippus and Decius (AD 248-251). – Archaeologia Bulgarica 5, 2, 37-44.

Boteva, D. 1998. On the Way to the Tetrarchy: the Role of the Lower Danubian Limes for the Roman Defense System – AD 193-217/218. – Studia Danubiana 1, 77-80.

Brauer, G. C. 1975. The Age of the Soldier Emperors. Imperial Rome, AD 244-284. Noyes Press, Park Ridge. New Jersey.

Evans, A. / Destani, B. D. 2006. Ancient Illyria: an archaeological exploration. New York.

Drinkwater, J. 2005. Maximinus to Diocletian and the „crisis". – CAH XII, 28-67.

Gerhardt, Th. / Hartmann, U. 2008. Fasti. In: Die Zeit der Soldatenkaiser. Band II. Akademie Verlag. Berlin. 1056-1198.

Gerov, B. 1963. Die gotische Invasion in Mösien und Thrakien unter Decius im Lichte der Hortfunde. In: Acta Antiqua Philippopolitana, Studia Historica et Philologica. Sofia. 127-146.

Gerov, B. 1989. Inscriptiones latinae in Bulgaria repertae. „Kliment Ohridski". Sofia. = ILBulg.

Gilliam, J. F. 1956. Trebonianus Gallus and the Decii: III et I COS. Studi Calderini-Paribeni I. Milan. 305-311.

Hanslik, R. 1958. Imp. Caesar C. Vibius Trebonianus Gallus Augustus. – Realencyclopädie der Classischen Altertumswissenschaft II, 16, 1984-1994.

Hanslik, R. 1958a. Imperator Caesar C. Vibius Afinius Gallus Veldumnianus Volusianus Aug. – Realencyclopädie der Classischen Altertumswissenschaft II, 16, 1996-1997.

Huttner, U. 2008. Von Maximinus Thrax bis Aemilianus. In: Die Zeit der Soldatenkaiser. Band I. Akademie Verlag. Berlin. 161-221.

Körner, Ch. 2002. Philippus Arabs. Ein Soldatenkaiser in der Tradition des antoninisch-severischen Prinzipats. Wolter de Gruter. Berlin / New York.

Kroll, W. 1912. Annia Cupressenia Herennia Etruscila. – Realencyclopädie der Classischen Altertumswissenschaft II, 15, 681.

Mattingly, H. / Sydenham, E. / Sutherland, C. H. V. 1949. The Roman Imperial Coinage. Vol. IV, Part III. Gordian III – Uranius Antoninus. Sprink and Son Ltd. London. = RIC.

Mihailov, G. 1958-1997. Inscriptiones Graecae in Bulgaria repertae. I-V. Serdicae. = IGBulg.

Peachin, M. 1990. Roman Imperial Titulature and Chronology, AD 235-284. J. C. Gieben Publisher. Amsterdam.

Petrović, P. 1979. Inscriptions de la Mésie Supérieure.Vol. IV Naissus – Remesiana – Horreum Margi. Beograd. = IMS.

Pick, B. 1898. Die antiken Münzen Nordgriechenlands. Dacien und Moesien I, 1. Berlin.

Pippidi, D. M. / Russu, I. I. 1983, 1987, 1980. Inscriptiones Scythiae Minoris graecae et latinae. I, II, V. = ISM.

Salisbury, F. / Mattingly, H. 1924. The Reign of Trajan Decius. – The Journal of Roman Studies 14, 1-23.

Šašel, A. / Šašel, J. 1963-1986. Inscriptiones Latinae quae in Iugoslavia inter annos MCMXL et MCMLX repertae et editae sunt. Ljubljana. = ILJug.

Sommer, M. 2004. Die Soldatenkaiser. Darmstadt.

Soutbern, P. 2001. The Roman Empire from Severus to Constantine. Routledge. London / New York.

Thomasson, B. E. 1978-1984. Laterculi praesidum. I-II. Bokförlaget RADIUS Göteborg.

Touratsoglou, I. P. 1988. Die Münzprägung von Thessaloniki in der römischen Kaiserzeit (32/31 v. Chr. bis 268 n. Chr.). Walter de Gruyter. Berlin / New York.

Wittig, K. 1931. C. Messius Quintus Traianus Decius. – Realencyclopädie der Classischen Altertumswissenschaft II, 29, 1244-1284.

Wittig, K. 1931a. Q. Herennius Etruscus Messius Decius. – Realencyclopädie der Classischen Altertumswissenschaft II, 29, 1284-1285.

Wittig, K. 1931b. C. Valens Hostilianus Messius Quintus. – Realencyclopädie der Classischen Altertumswissenschaft II, 29, 1285-1286.

Lily Grozdanova, PhD
Department of History
Sofia University "St. Kliment Ohridski"
15 Tsar Osvoboditel Blvd.
BG-1504 Sofia
lily_grozdanova@yahoo.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Transformations of a Roman Military Site: The Case with Mezdra (North-Western Bulgaria)

Sergey TORBATOV

Mezdra is a small town and important railroad station in North-Western Bulgaria. There is a low rocky hill on the south-western outskirts of the town, which rises on the left bank of the Iskar River (**fig. 1**). The hill is called *Kaleto* (*The Fortress*), because of the impressive ruins of an old fortification (Kanitz 1882, 259-260; Велков 1927, 4; Делирадев 1932-33, 116), whose walls still rise to a height of some 7 m on the northern side (**fig. 2**). The walled area is about 2500 square metres.

The site had been intensively excavated from 1973 until 1990, when the field research work was declared entirely finished. The findings of those excavations were not published, except for a series of brief unillustrated annual reports[1] and a few sketchy references in articles of general nature (Димитрова 1985b, 31; Николов 1996, 207-208; Машов 1998, 17, 19; Иванов 1998, 27-29; Лука 2003, 24-42). According to the excavators, the occupation of the site began in the Chalcolithic and continued through the Bronze and Iron Ages into the Roman period, the Late Antiquity and the Bulgarian medieval period – from the 8th up to the end of the 14th century AD. The suggested chronology is difficult to check now, because the field documentation is only partly preserved and no plans or graphic drawings survived, except for a hand-made sketch from 1983 depicting the structures unearthed until then in the eastern part of the site. As far as the finds from the excavations are concerned, which are kept now at the Regional Museum of History in Vratsa, they do not prove habitation of the site in the Bronze and Later Iron Ages, as well as in the period after the mid-11th century AD. Moreover, a routine ground survey in 2002 brought to light the fact that, despite the declaration of the research team, the site is far from being totally excavated – at some 90 per cent of its territory the field work had been given up on reaching the levels from the 4th century AD. The still visible architectural structures were geodetically documented and in 2003 regular archaeological excavations resumed. Although at a rather limited scale, they are still going on now[2], being conducted by two particular teams – the first one explores the upper levels dating back to the Late Antiquity and the Roman period, while the other continues the work studying the lower ones, which belong to the Early Iron Age and the Late Chalcolithic[3].

In my position of director of the first team, I am going to present the major results of our field work in the period from 2005 to 2012, which was focused on the eastern half of the site.

[1] The length of those reports varies from several sentences to a page or so in B5 format: Дремсизова / Димитрова 1976, 78-79; Дремсизова / Димитрова 1977, 85-86; Димитрова 1979, 138-139; Дремсизова / Димитрова 1980, 161; Дремсизова / Димитрова 1981, 150-151; Дремсизова-Нелчинова / Димитрова 1982, 102-103; Димитрова 1983, 83; Димитрова 1984, 148; Димитрова 1985a, 258; Димитрова / Дремсизова 1986, 154; Димитрова / Дремсизова / Иванов 1989, 154; Димитрова / Иванов 1990, 104; Димитрова / Иванов 1991, 191.

[2] The annual reports on the campaigns after 2003 include: Машов / Ганецовски / Тодорова 2004, 41-43; Ганецовски 2005, 24-25; Торбатов / Ганецовски 2006, 265-267; Торбатов / Ганецовски 2007, 392-395; Ганецовски 2008, 77-80; Торбатов / Иванова 2008, 433-434; Ганецовски 2009a, 109-113; Торбатов / Иванова 2009, 506-508; Ганецовски 2010, 90-92; Торбатов / Иванова 2010, 332-334; Ганецовски 2012, 82-85; Ганецовски 2013, 82-84; Торбатов / Иванова 2012, 274-275; Торбатов / Иванова 2013, 258-260.

[3] Until present there are only two papers of synthesis on the findings of the new campaigns in Mezdra: Ганецовски 2009b, 12-27; Торбатов 2009, 33-51.

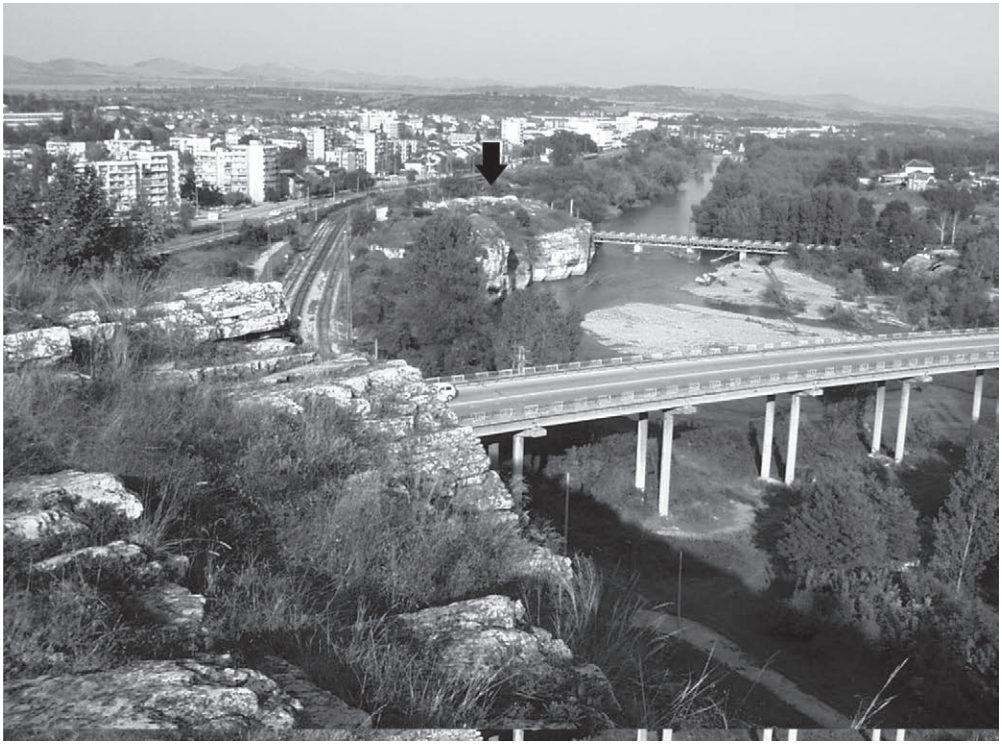


Fig. 1. The *Kaleto* hill in Mezdra (view from west)



Fig. 2. The ancient fortress in Mezdra (view from the north-northwest)

The new studies aim at clarifying the stratigraphic situation and specifying the chronology and nature of occupation of the site during the Roman period and the Late Antiquity. The working method is by trenches of different plan, size and orientation, situated so that not to harm already unearthed architectural structures. On finishing the research by both teams, the trenches are filled in up to the starting level. Although a level corresponding to the time after the beginning of the 5th century was registered in only one of the trenches, the superposition of architectural remains in the

studied area allows an adequate reconstruction of the building history at the site up to the end of the Late Antiquity.

The results of the new archaeological excavations at the Kaleto hill near Mezdra bring about significant *corrigenda* in the earlier suggested chronological and functional interpretation of the site. The field research work that has been carried out since 2005 proves the existence of six distinct building periods (two of them with two phases each), which date back to the time from the mid-2nd century up to the second half of the 6th century AD. The consecutive existence has been established at this place of a Roman fort from the second half of the 2nd century, a pagan religious centre from the 3rd and early-4th century, and a fortified settlement from the 4th – 6th centuries, with two distinct phases of development – a Late Roman and an Early Byzantine one.

A still anonymous, large semi-urban settlement, which administratively belonged to the city territory of *Serdica*, evolved in Roman times at the place of the modern town of Mezdra (Машов 1998, 16-26; Торбатов 2009, 37-40). It was established on the important transbalkan communication line leading from the legionary fortress *Oescus* on the Danube to *Serdica* (Торбатов 2004, 89). In the mid-2nd century a Roman fort was built *a fundamentis* on the south-western outskirts of the civil settlement, on a rocky hill on the Iskar River left bank, just next to a ford, by which the *Oescus* – *Serdica* road crossed the river. The very location of the fort clearly highlights its control and security functions with regard to the road network in the region (Торбатов 2009, 42-44).

Cleverly using the natural conditions, the Roman builders girdled landward the desolate in those times hill with a solid wall 2.45 m thick, built of broken stone soldered with hard white mortar. The original construction is now preserved in certain places up to a height of some 5 metres. In compliance with the landscape, the fort's plan is irregular and resembles an oval (**fig. 3**). In order to strengthen its defense, it was equipped with three partly projecting rectangular towers – on the west, north and east sides. The western and eastern towers rose above the flat upper surface of the hill, while the northern one had at least two stories dug deep in the rocky soil. The entrance gate was located approximately 10 metres east of the northern tower. It was constructed at about 3 m above the lowest

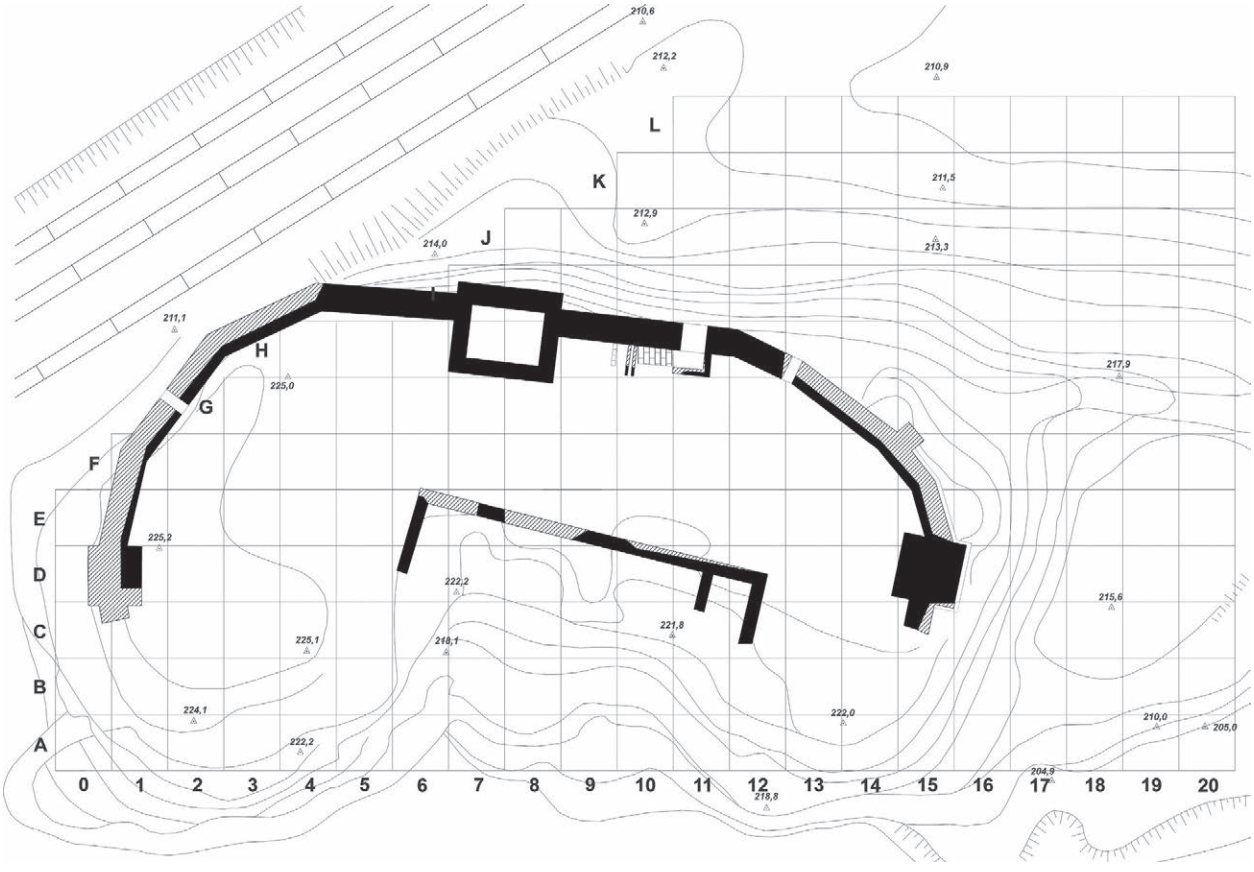


Fig. 3. Plan of the Roman fort (mid-2nd c. AD)

part of the superstructure of the circuit wall, which points out that at least in front of this section of the northern wall the surrounding terrain must have been widely leveled or there existed a ditch of unknown size and profile, completely destroyed in modern times. In both cases, the access to the interior of the fort was possible only by means of a drawbridge. There was a small rectangular gate tower on the inner side of the entrance. In addition to the main entrance gate, the fort had two small sally ports.

The excavations gave chance to precisely reveal the technology applied by the fort's builders. As a first step, the hill slopes were carefully cropped almost vertically to a depth of three and even more metres at all those places, where the terrain was not rocky. The escarpment was riveted with a band of mortared stone. The actual wall developed above the flat upper surface of the hill. From the inside, its foundations were laid in specially dug for the purpose broad trenches, in which a wooden formwork was constructed. After drying of the mortar and dismantling the formwork, the unused portions of the trenches (0.80 m wide on the average) were filled with clean river sand up to the walking level of that time. Just above it, some 0.30 m apart from each other, thick rectangular beams were built in the circuit wall across its width. Except for strengthening the structure, those probably served for fixing the scaffolding. The substructure of the western section of the northern wall was built in a similar way on the outside as well. The application of classical cribwork of longitudinal and transverse beams can still be observed in the high standing remains of the northern tower and the adjacent sectors of the circuit wall (**fig. 4**).

The building in of the Roman fort's walled area is not entirely revealed until present. Only one very large building, whose remains were unearthed by the former excavators in the southernmost part of the hill, can certainly be attributed to it. It has an elongated rectangular plan, with two rooms of different dimensions. The smaller eastern room has an entrance from the outside. The foundations of the building are laid directly on the continental rock, deeply cutting the cultural layer from the Late Chalcolithic. The walls, whose superstructure is 0.90 m thick, are built of mortared stone. The length of the building is about 30 metres, but its original width can not be determined because its southern part, which must have reached the steep bank above the river bed, is not preserved due to partial collapse of the rocky wreath. Given its exceptionally large dimensions, solid construction and specific planning scheme, the building might well be identified as barracks.

The time of construction of the Roman fort near Mezdra calls forth association with the well known official inscription of AD 152 from the village of Bulgarski izvor (Бешевлиев 1952, 33-36, # 55 = ILBulg 211). The latter tells about the large-scale fortification activities in the time of Emperor Antoninus Pius, when 4 *praesidia*, 12 *burgi* and 104 *phruri* were newly built "for the protection of the province of Thrace", "*per fines civitatis Serdicensium regione Dyptens*(*ium* vel *-i*). *Regio Dyptensium* (or *Dyptensis*) is generally localized in the north-eastern part of the urban territory of Serdica and the region of modern Mezdra surely belonged to it (Gerov 1979, 218, 220). On the other hand, the discussed fort well fits by size into the category of *praesidia* (Торбатов 2002, 77-79). Given all that, it is very tempting to identify it with one of those four anonymous *praesidia* mentioned in the inscription from Bulgarski izvor.

Only a few decades after its entry into service, already in the second half of the 2nd century, the Roman fort near Mezdra suffered a disaster and ceased to function (Торбатов 2009, 45). The traces of fire and the ash layer on the early walking level testify that the reason for that was most probably a sudden attack. The full chronological correspondence proves that the fort shared the fate of the nearby civil settlement, being plundered and burnt down by barbarian invaders in the time span of AD 170-190 (Varbanov 2007, 162-167).

Shortly after the disaster, by the end of the 2nd or early in the 3rd century, large-scale repair works started in the fort (Торбатов 2009, 45). The main entrance gate was blocked and the inner gate-tower was entirely filled in with mortared stone. The upper parts of the badly damaged northern tower and the adjacent sections of the northern wall were dismantled. Part of the waste stone was used to fill in the lower stories of the northern tower, and the rest of it was spread around in thick uneven layer. The remains of the barracks were also dismantled. The access to the interior of the walled area was already possible only through both sally ports (**fig. 5**). The repair works were however abruptly terminated, without being completed. The reasons for the refusal to re-enter the fort in operation are unclear.

Nevertheless, the encircled by the ruined walls terrain on top of the hill did not remain deserted for a long time. A small cult building – a simply planned temple – soon appeared in the central



Fig. 4. Remains of cribwork in the structure of the northern tower and the adjacent sectors of the circuit wall

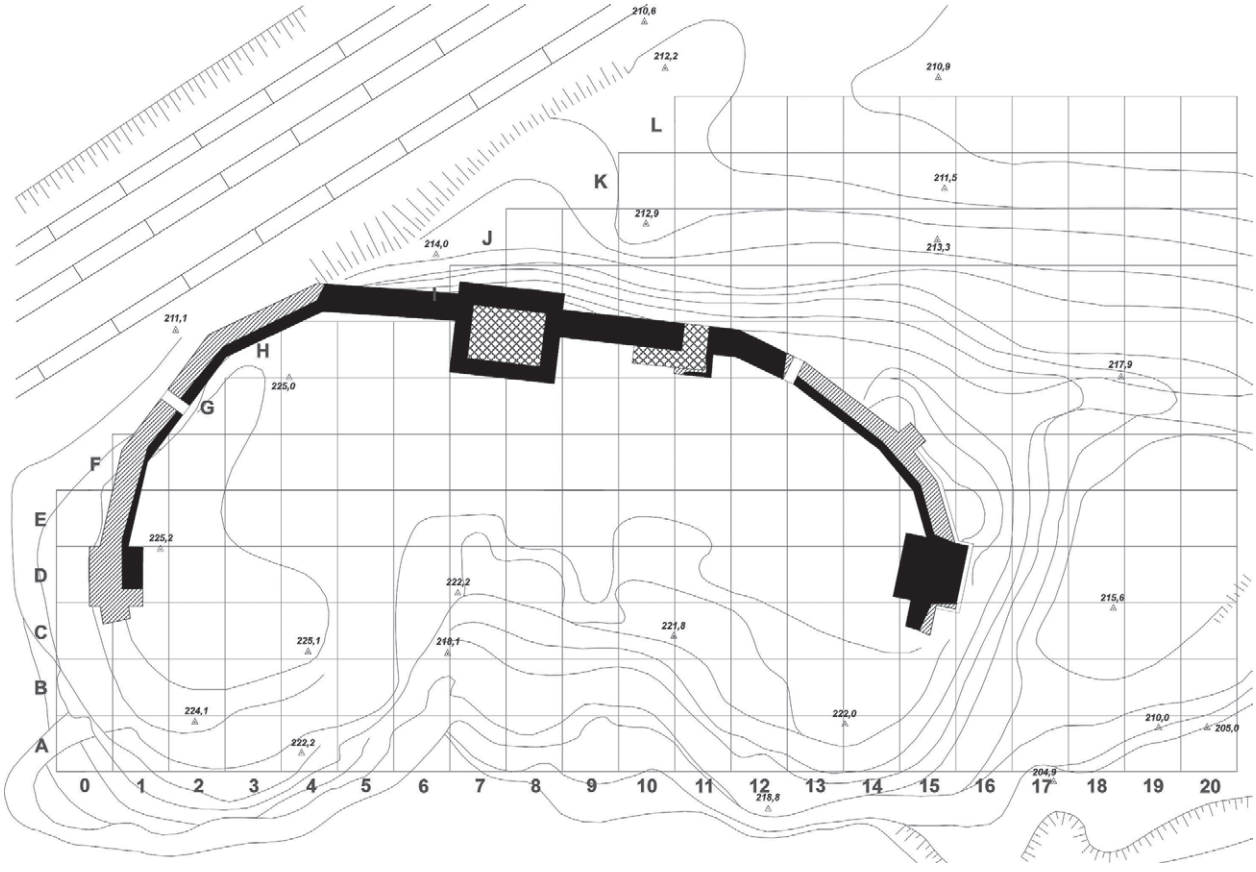


Fig. 5. Repairs of the late-2nd/early-3rd c. AD

part of the site. It was built directly over the layer of spread waste stone from the dismantled parts of the defences. The temple gave rise to a significant pagan religious centre, which gradually developed here (Торбатов 2009, 45-47) (**fig. 6**).

The Kaleto site near Mezdra has yielded until present 23 entirely or partially preserved votive monuments – mostly votive tablets and small votive columns. The greater part of them bear Greek dedicatory inscriptions (IGBulg II 487bis, 489-492; IGBulg V 5165-5166, 5168; Шкорпил / Шкорпил 1892, 78; Дякович 1904, 3; Kazarow 1938, Nr. 654-656; Дремсизова-Нелчинова 1996, 254-263; Oppermann 2006, 159). The dedications are addressed to a large variety of deities belonging to the official Greco-Roman, the eastern and the local Thracian pantheons – Zeus (including with the unknown from elsewhere epithet *Konos*), Hera, Artemis, Dionysus, Demeter, Asclepius, Telesphorus, Hecate, Mithra, the Thracian Horseman. Besides the already mentioned small temple, the only known so far architectural remains belonging to the earlier phase of sanctuary's functioning are a rectangular structure with a thin low walls and a small preserved part of another similar one, both of them being interpreted as enclosed sacrificial spaces – altars. With the first phase are also connected a number of ritual hearths and low platforms made of rammed clay (primitive *escharas*), all those of different shape and size and situated at different levels. The sacrifices made on them contain huge quantity of pottery sherds (rarely intact or almost intact vessels), various objects made of clay, processed bone, iron, copper, bronze, silver and gold, some animal bones, unbaked clay lumps, coals and many coins. The presence should also be noted of large amount of deposited amorphous lead lumps and lead weights for fishing-nets, many of the latter intentionally pre-deformed. The remains of the sacrifices were heaped with stones and pieces of building ceramics, and the terrain was leveled with clay soil, so that to be ready for new ritual activities. A cult hearth situated directly over the layer of spread waste stone from the dismantled fort's defences yielded three burnt coins, the latest of which belongs to a provincial issue of small denomination of Emperor Severus Alexander. If future studies do not register a similar structure of earlier date, the time of minting the above-mentioned coin should be considered a

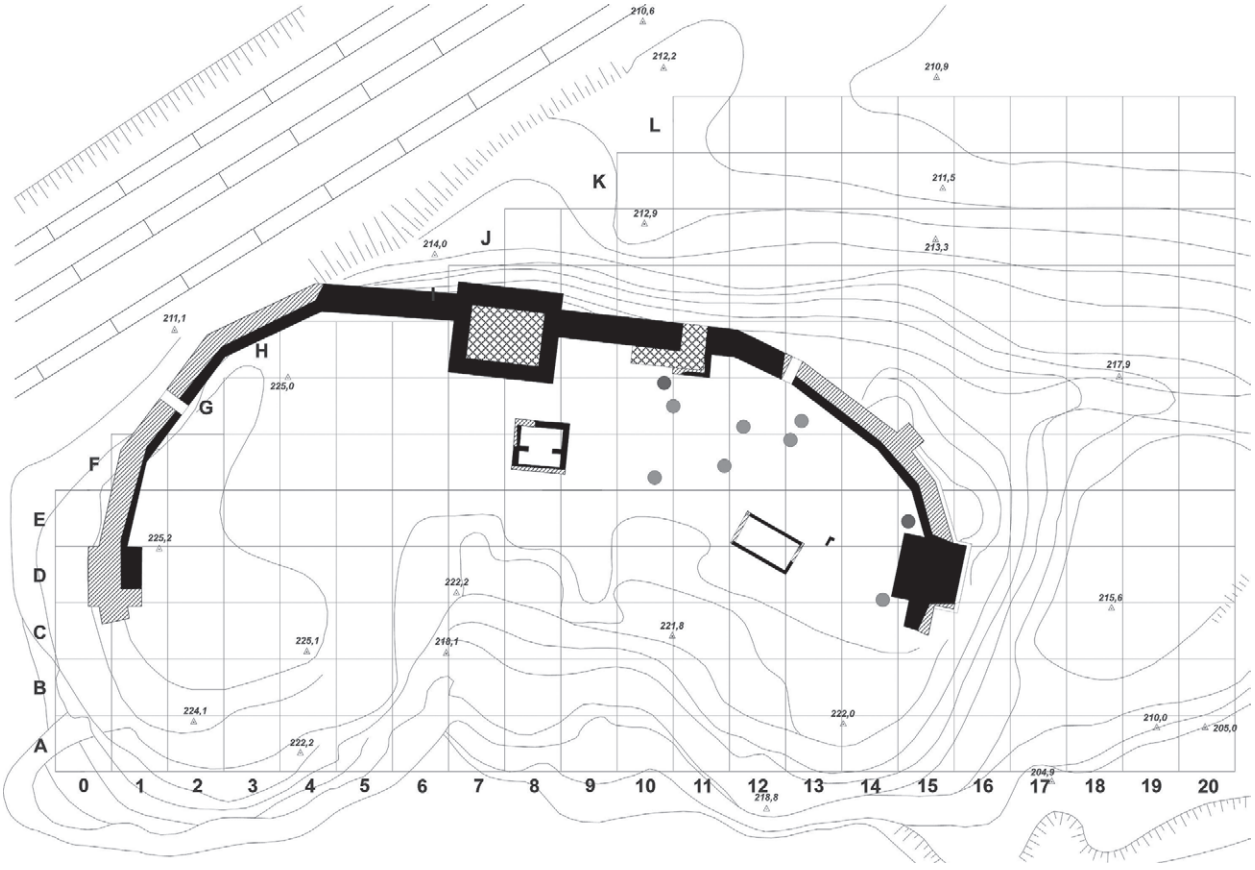


Fig. 6. Plan of the pagan sanctuary: Phase 1 (first half of the 3rd c. AD)

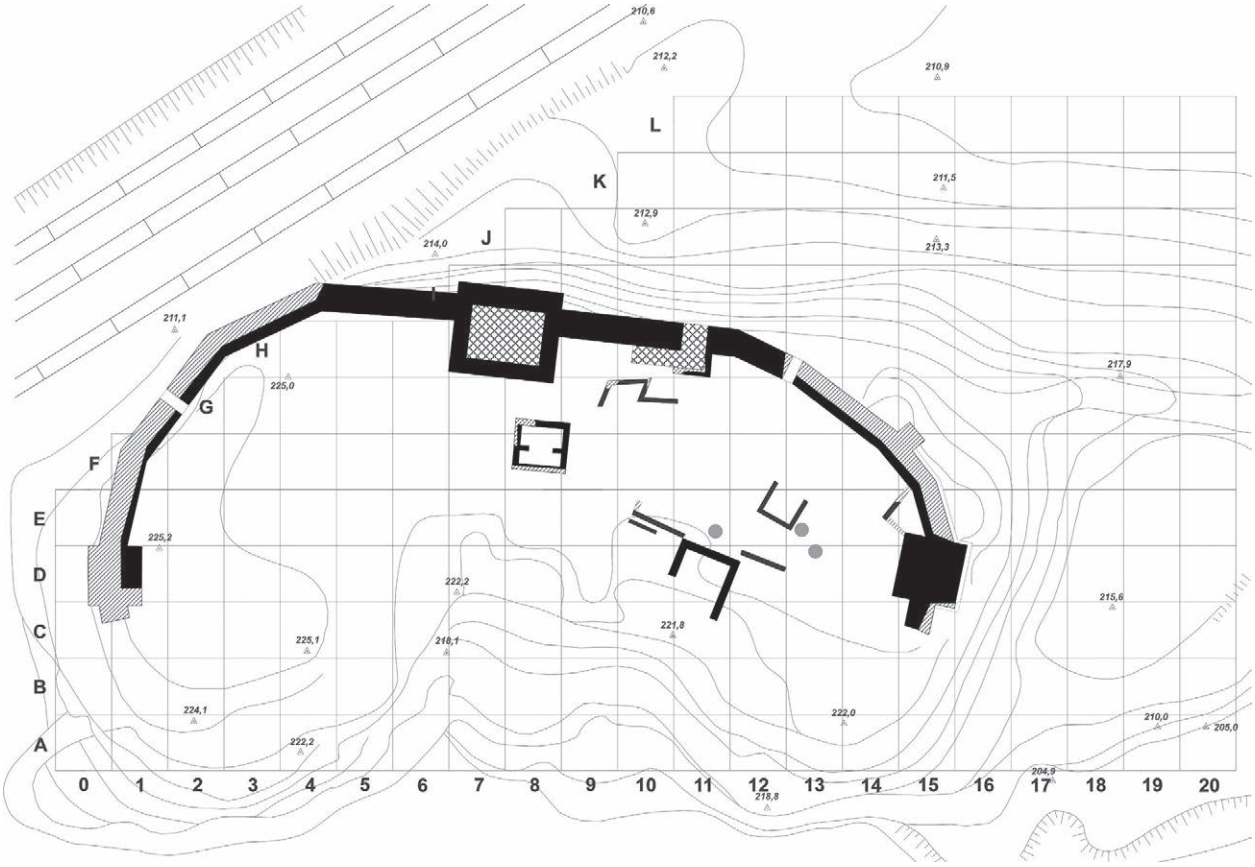


Fig. 7. Plan of the pagan sanctuary: Phase 2 (second half of the 3rd/early-4th c. AD)

reliable *terminus post quem* for entering in function of the cult complex. Charred grains of barley, oats, millet as well as plum stones and seeds of cultivated vine, which have been collected from some of the cult hearths, provide evidence for the use of various plants and fruits in the ritual practices.

The second phase in functioning of the sanctuary refers generally to the second half of the 3rd century (**fig. 7**). It is connected with the construction of a solid building with walls of mortared stone over the leveled ruins of the former barracks. The building is presumably interpreted as a second temple (Торбатов / Иванова 2013, 259). The construction of many new cell-shaped structures of different plan and size, surrounded by thin and low stone walls slightly dug into the ground, is registered in the area to the south-east of the earlier and north-east of the new cult building. They are identified as detached sacrificial spaces. The ritual practices performed in them are identical in nature to those carried out on the cult hearths and escharas during the first phase of the sanctuary. However, even during this period continued the construction of free-standing ritual platforms of rammed clay. The latest coins yielded so far by cult contexts date back to AD 290-292 (Торбатов / Иванова 2012, 275), but the complex seems to have continued functioning in the first decades of the 4th century as well.

The end of the pagan sanctuary on the Kaleto hill near Mezdra is clearly marked by a new building horizon. The coin series from that horizon is surprisingly compact from chronological and typological point of view. The latest issues are very well preserved and belong to the coinage of Constantine I. They were struck in AD 324, on occasion of the Emperor's *vicennalia* (Торбатов / Иванова 2012, 275). At the very end of the first or early in the second quarter of the 4th century the remains of the 2nd-century Roman fort underwent a campaign of major repairs. The walls were raised up again over the preserved ruins. The walled area was densely built in with multi-chambered chain buildings, with narrow streets between them. The small thickness and the weak construction of their foundations give reason to believe that the superstructure of the walls was built of mud bricks. As a result of all that, a new Late Roman fortified settlement appeared over the ruins of the former Roman fort and the 3rd-century pagan sanctuary (Торбатов 2009, 47-8) (**fig. 8**).

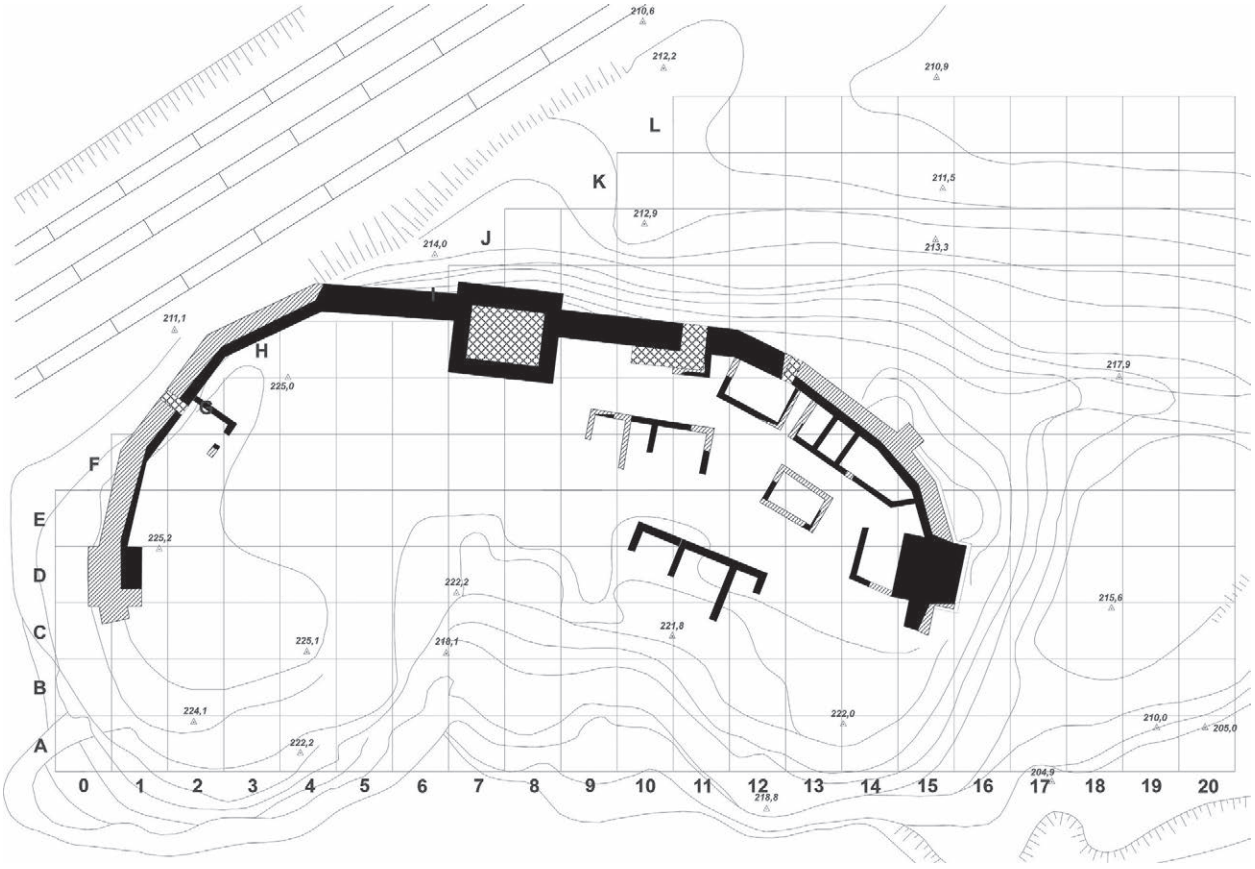


Fig. 8. Plan of the Late Roman fortified settlement (second quarter of 4th c. AD)

A partial reconstruction in the second half of the 4th century is registered in the northern sector of the walled area. The effects of an earthquake and soil subsidence seem to have been the reason for that.

In the first half of the 5th century, maybe already in its beginning, the fortified settlement experienced a severe distress, combining the effects of a powerful natural disaster (a new earthquake) and a devastating enemy attack, which should obviously be attributed to the Huns. The defences and the housing infrastructure went totally out of functional fitness, and the habitation of the site ceased for decades.

It was only by the end of the 5th or in the first decades of the 6th centuries, when large-scale restoration works were undertaken (**fig. 9**). Two particular construction phases might well be discerned in that campaign (Торбатов 2009, 49-51). The first one was concentrated on the fortifications. The badly damaged 4th-century northern wall was almost totally dismantled. The leveled and hardened remains of the earlier Roman circuit wall served as a basis for a newly erected one. The borderline between the original Roman and the Early Byzantine structures is clearly to be traced all along the inner and outer faces of the northern fortress wall. The new construction much differs from the older one by masonry. Many regularly spaced, laid across the wall's width round wooden beams were used in the thick leveling mortar layer between both structures. Similar beams are also to be seen here and there in the upper parts of the Early Byzantine wall. The outer face of the north-eastern and eastern sections of the circuit wall was thoroughly rebuilt from the very foundations. The remains of the older eastern tower were leveled at a particular height and a new gate tower was erected over them. The overall walled area was slightly increased by means of a *proteichisma*, which was built 5 to 7 metres in front of the eastern wall, in constructive junction with it (Лука 2003, 41-2).

The second phase of the Early Byzantine construction campaign resulted in thorough rebuilding of the walled territory according to a completely new urbanistic plan. Because of the partial dismantling of earlier buildings and leveling the terrain over their remains, the 6th-century walking level within the fortified settlement significantly rose. The walls of the buildings from

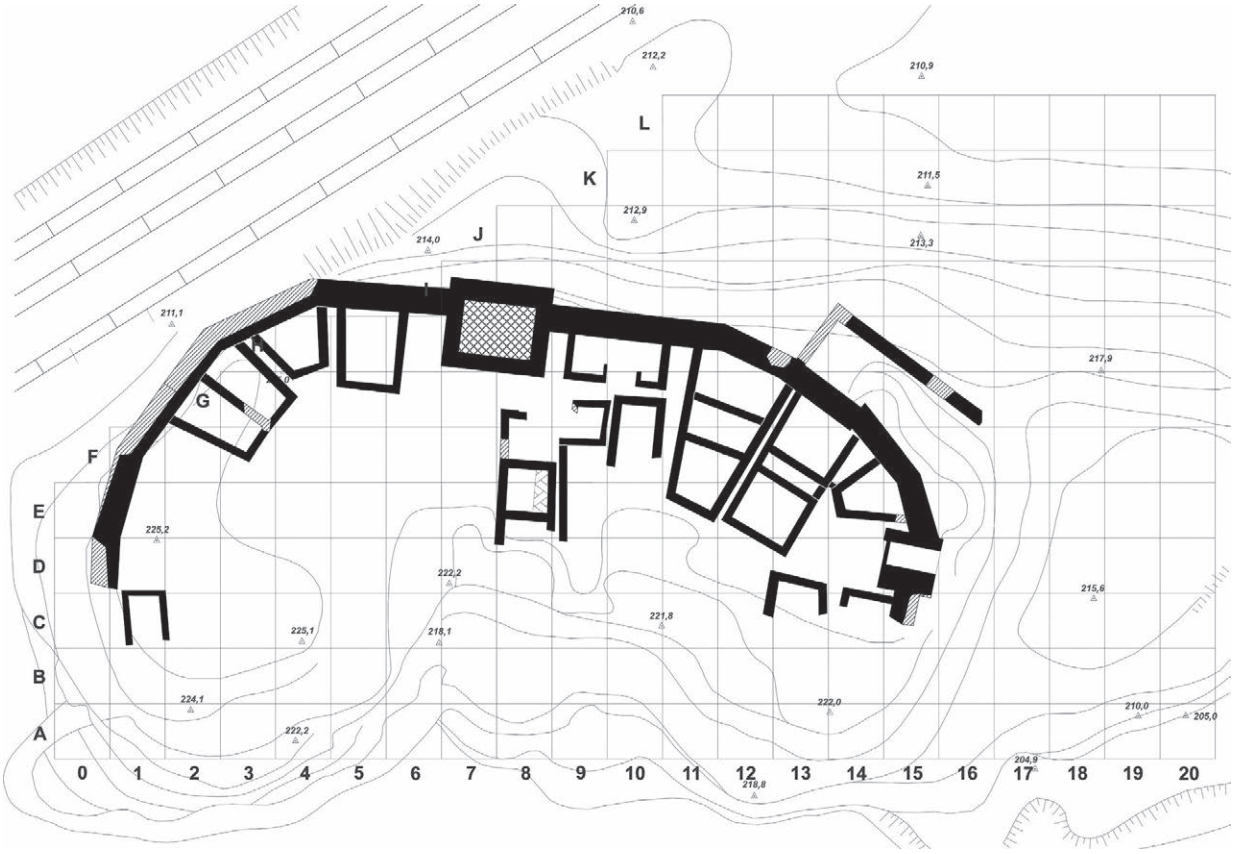


Fig. 9. Plan of the Early Byzantine fortified settlement (late-5th/early-6th c. AD)

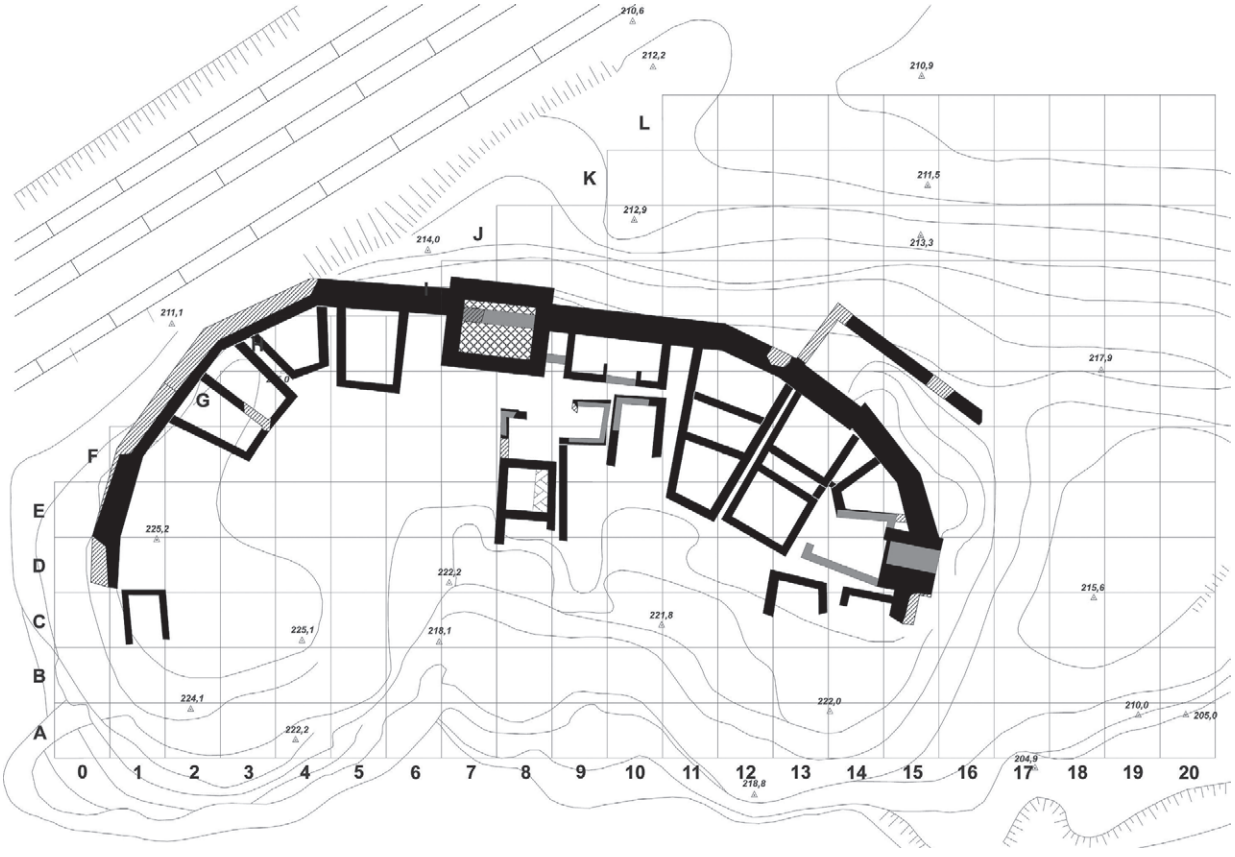


Fig. 10. Repairs of the second half of the 6th c. AD in the Early Byzantine fortified settlement

this period are made of mortared stone and are much thicker compared to those from the former one. Many of them must have been two-storied.

Unknown circumstances – most likely the consequences of a hostile assault, necessitated emergency repairs to the defence system and the building infrastructure in the second half of the 6th century. All those are of markedly poor quality (**fig. 10**).

The coin series and the other artifacts from the site prove that the life in the Early Byzantine fortified settlement near Mezdra ceased by the turn of the 6th century. Sharing the fate of many others, the settlement was destroyed during one of the numerous Avar-Slav invasions of that time. After a long *hiatus*, in the 9th-11th centuries, a Bulgarian medieval settlement with typical for the period material culture developed on its ruins.

Bibliography

Бешевлиев, В. 1952. Епиграфски приноси. София.

Велков, И. 1927. Стари селища и градища по долината на р. Вит (Материали за археологическа карта на България VI). София.

Ганецовски, Г. 2005. Спасителни археологически проучвания на праисторическото селище в м. Калето (Градището) край Мездра. In: Археологически открития и разкопки през 2004 г. София. 24-25.

Ганецовски, Г. 2008. Археологически разкопки на праисторическия пласт в укрепената територия на многослоен обект „Калето“ в гр. Мездра, Врачанска област. In: Археологически открития и разкопки през 2007 г. София. 77-80.

Ганецовски, Г. 2009a. Спасителни археологически разкопки на укрепено праисторическо селище Калето край град Мездра. In: Археологически открития и разкопки през 2008 г. София. 109-113.

Ганецовски, Г. 2009b. Селища и светилища от края на каменно-медната епоха край Мездра. In: Крумова, Л. (ed.). Мездра. Кратък исторически очерк. София. 11-27.

Ганецовски, Г. 2010. Спасителни археологически разкопки на праисторическия пласт на многослоен обект Калето в град Мездра, Област Враца. *Археологически открития и разкопки през 2009 г.*, София. 90-92.

Ганецовски, Г. 2012. Археологическо проучване на праисторически пласт на многослоен обект „Калето“ в град Мездра, Област Враца. In: Археологически открития и разкопки през 2011 г. София. 82-85.

Ганецовски, Г. 2013. Редовно археологическо проучване на праисторически пласт на многослоен обект Калето в гр. Мездра, Област Враца. In: Археологически открития и разкопки през 2012 г. София. 82-84.

Делирадев, П. 1932-33. Градищата край Искърския пролом. – Българска историческа библиотека 1, 112-116.

Димитрова, Д. 1979. Разкопки на античната и средновековната крепост „Калето“ в гр. Мездра. In: Археологически открития и разкопки през 1978 г. София. 138-139.

Димитрова, Д. 1983. Антична и средновековна крепост „Калето“, гр. Мездра. In: Археологически открития и разкопки през 1982 г. Плевен. 83.

Димитрова, Д. 1984. Проучване на средновековните пластове на крепостта „Калето“ в Мездра. In: Археологически открития и разкопки през 1983 г. Смолян. 148.

Димитрова, Д. 1985a. Проучване на античната и средновековната крепост „Калето“ в гр. Мездра. In: Археологически открития и разкопки през 1984 г. Сливен. 258.

Димитрова, Д. 1985b. Археологическите паметници във Врачански окръг. София.

Димитрова, Д. / Дремсизова, Ц. 1986. Проучване на античната и средновековната крепост „Калето“ до гр. Мездра. In: Археологически открития и разкопки през 1985 г. Велико Търново. 154.

Димитрова, Д. / Дремсизова, Ц. / Иванов, П. 1989. Археологическо проучване на ант. и средновековната крепост „Калето“ до гр. Мездра през 1988 г. In: Археологически открития и разкопки през 1988 г. Кърджали. 154.

Димитрова, Д. / Иванов, П. 1990. Античната, късноантичната и средновековната крепост „Калето“ до гр. Мездра. In: Археологически открития и разкопки през 1989 г. Кюстендил. 104.

Димитрова, Д. / Иванов, П. 1991. Резултати от археологическото проучване на античната и средновековната крепост „Калето“ до гр. Мездра. In: Археологически открития и разкопки през 1990 г. София. 191.

Дремсизова, Ц. / Димитрова, Д. 1976. Крепостта край град Мездра. In: Археологически открития и разкопки през 1975 г. Смолян. 78-79.

Дремсизова, Ц. / Димитрова, Д. 1977. Разкопки на крепостта край град Мездра. In: Археологически открития и разкопки през 1976 г. София. 85-86.

Дремсизова, Ц. / Димитрова, Д. 1980. Разкопки на античната и средновековната крепост „Калето“, гр. Мездра. In: Археологически открития и разкопки през 1979 г. София. 161.

Дремсизова, Ц. / Димитрова, Д. 1981. Разкопки на средновековната крепост „Калето“ в гр. Мездра. In: Археологически открития и разкопки през 1980 г. София. 150-151.

*Дремсизова-Нелчинова, Ц. 1*996. Находки от крепостта край Мездра. – Thracia antiqua 10 (Studia in memoriam magistri prof. Georgi Mihailov), 254-263.

Дремсизова-Нелчинова, Ц. / Димитрова, Д. 1982. Разкопки на крепостта край град Мездра. In: Археологически открития и разкопки през 1981 г. Михайловград. 102-103.

Дякович, Б. 1904. Археологически излет в крайдунавска България. – Сборник за народни умотворения, наука и книжнина 20, 1-56.

Иванов, П. 1998. Топография и хронология на средновековните археологически паметници в Мездра. In:

Райкински, И. (ed.). Научна сесия „100 години Община Мездра“. Мездра, 18 май 1998 г. (Библиотека Български Северозапад 15). Враца. 26-33.

Лука, К. 2003. Античните паметници в Община Мездра. Мездра.

Машов, С. 1998. Мездра и нейният регион през античността. In: Райкински, И. (ed.). Научна сесия „100 години Община Мездра“. Мездра, 18 май 1998 г. (Библиотека Български Северозапад 15). Враца. 16-26.

Машов, С. / Ганецовски, Г. / Тодорова, К. 2004. Сондажни проучвания на праисторическо селище и антична крепост Калето край Мездра. In: Археологически открития и разкопки през 2003 г. София. 41-43.

Николов, Б. 1996. От Искър до Огоста. История на 151 села и градове от бившия Врачански окръг. София.

Торбатов, С. 2002. Укрепителната система на провинция Скития (края на III – VII в.). Велико Търново.

Торбатов, С. 2004. Пътна мрежа в Тракия и Мизия (I - III в.). In: Иванов, Р. (ed.). Археология на българските земи. Том I. София. 76-95.

Торбатов, С. 2009. Мездра през римската епоха и късната античност. In: Крумова, Л. (ed.). Мездра. Кратък исторически очерк. София. 33-51.

Торбатов, С. / Ганецовски, Г. 2006. Проучване на многослоен обект „Калето“ край Мездра. In: Археологически открития и разкопки през 2005 г. София. 265-267.

Торбатов, С. / Ганецовски, Г. 2007. Археологически проучвания на многослоен обект Калето край Мездра. In: Археологически открития и разкопки през 2006 г. София. 392-395.

Торбатов, С. / Иванова, Б. 2008. Проучвания на античния пласт на многослоен обект „Калето“ край гр. Мездра. In: Археологически открития и разкопки през 2007 г. София. 433-434.

Торбатов, С. / Иванова, Б. 2009. Проучване на пластовете от античната епоха на многослоен обект “Калето” край град Мездра. In: Археологически открития и разкопки през 2008 г. София. 506-508.

Торбатов, С. / Иванова, Б. 2010. Проучване на пластовете от античната епоха на многослоен обект „Калето“ край град Мездра. In: Археологически открития и разкопки през 2009 г. София. 332-334.

Торбатов, С. / Иванова, Б. 2012. Археологически проучвания на многослоен обект Калето в град Мездра. In: Археологически открития и разкопки през 2011 г. София. 274-275.

Торбатов, С. / Иванова, Б. 2013. Редовно археологическо проучване на многослоен обект „Калето“, гр. Мездра, Област Враца. Пласт от античната и късноантичната епоха в чертите на укрепената територия. In: Археологически открития и разкопки през 2012 г. София. 258-260.

Шкорпил, К. / Шкорпил, Х. 1892. Надписи и изображения на конници из разни краища на България. – Сборник за народни умотворения, наука и книжнина 8, 59-81.

Gerov, B. 1979. Die Grenzen der römischen Provinz Thracia bis zur Gründung des Aurelianischen Dakien. In: ANRW II/7.1, 212-240.

IGBulg II = Inscriptiones Graecae in Bulgaria repertae. Edidit Georgius Mihailov. Vol. 2. Inscriptiones inter Danubium et Haemum repertae. 1958. Serdicae.

IGBulg V = Inscriptiones Graecae in Bulgaria repertae. Edidit Georgius Mihailov. Vol. 5. Inscriptiones novae, addenda et corrigenda. 1997. Serdicae.

ILBulg = Inscriptiones Latinae in Bulgaria repertae. Edidit Boris Gerov. 1989. Serdicae.

Kanitz, F. 1882. Donau-Bulgarien und der Balkan. II. Band. Leipzig.

Kazarow, G. 1938. Die Denkmäler des Thrakischen Reitergottes in Bulgarien (Dissertationes Pannonicae, ser. II, fasc. 14). Budapest.

Oppermann, M. 2006. Der Thrakische Reiter des Ostbalkanraum im Spannungsfeld von Graecitas, Romanitas und lokalen Traditionen (Schriften des Zentrums für Archäologie und Kulturgeschichte des Schwarzmeerraumes 7). Langenweißbach.

Varbanov, V. 2007. Barbarian Invasions in the Provinces of Moesia Inferior and Thracia between AD 138-192 (according to the numismatic data). In: Vagalinski, L. (ed.). The Lower Danube in Antiquity (VI c BC – VI c AD). Sofia. 153-170.

Assoc. Prof. Dr. Sergey Torbatov
National Archaeological Institute with Museum
2 Saborna St.
BG-1000 Sofia
torbatov@abv.bg

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

A Comparison between *Novae* and *Durostorum* in Lower Moesia: Topography, Defensive System and Legal Status

Peti DONEVSKI

Topography

The choice of locations, first for the legionary camps at *Novae* and *Durostorum*, and then for the other civil structures, was made under different circumstances and not simultaneously. This determines the differences in their location, defensive systems and probably legal status. The first impression, when comparing the sites of the fortresses, is that the one at *Novae* is situated on a high terrace near the river, 20-25 m above it, and the slope displacement is about 20 m from south to north (Dyczek 2008, 258, fig. 42). The other, at *Durostorum*, is situated on a relatively flat terrain with a displacement of approximately 10 m from its position to the Danube, but the fortification is about 800-1000 m to the south of the river. This distance is probably due to the peninsula-like shape of the place in order to avoid the easy access to the fortification from the river. This access was additionally hindered by the *canabae,* which served as a buffer zone (Donevski 1990a, 238, Abb. 5).

At *Novae* there were two short gullies north of the *porta principalis dextra* and *porta principalis sinistra* of the fortress. They add to the natural fortification, in case the gullies existed at Roman times of course, and were not formed later by the rainy waters. At *Durostorum* the terrain is not as uneven as it is at *Novae*, although there is indirect evidence that in ancient times the terrain was not like it is today. At the eastern sides of both camps there were small rivers. Both locations are also strategically close to big islands situated east and west of them. This shows that the locations were very carefully and foresightedly chosen, so that the fords could be protected, too.

The transport entrances of the two fortresses were to the west, after getting off the main Danube road towards *porta principalis sinistra* (Dyczek 2008, 258, fig. 42). One important difference is that at *Durostorum* a road, the so called *via angularis,* has been discovered at a distance of 1.80 m south of the curtain wall (Donevski 2004, 17, fig. 2). It goes from west to east. There is no such road at *Novae*.

As far as the port locations are concerned, the data is clearer about *Novae* and presumed about *Durostorum*. At *Novae* there are some pieces of stone and timber equipment that could be accepted as wharfs, probably related to Roman times. They are situated west of the small river Dermen dere, under the *porta praetoria* (Sarnowski 1996, 195-200, Abb. 2). At *Durostorum*, by analogy to *Novae* and the present location of the port, it could be assumed that the harbour was near the place where the mentioned small river flows into the Danube.

The dissimilarities of the terrain at both places affected the development of military and civil structures during the Late Roman and Early Byzantine times. At *Novae* this is revealed by the addition of a terrace, relatively steep in its southern and eastern parts, to the former legionary fortress (Dyczek 2008, 258-259, fig. 250), and by the fortification of a hill, 4 km west of *Novae*, in the territory of the present-day town of Svishtov (Donevski 1997, 35-37, fig. 2).

At *Durostorum* this tendency is presented by the construction of a new, small fortress on the river bank (Ангелова 1973, 83-93). In the first case, the old legionary fortress and the construction added to the east of it later became the core of the early Byzantine city of *Novae* (**fig. 1**).

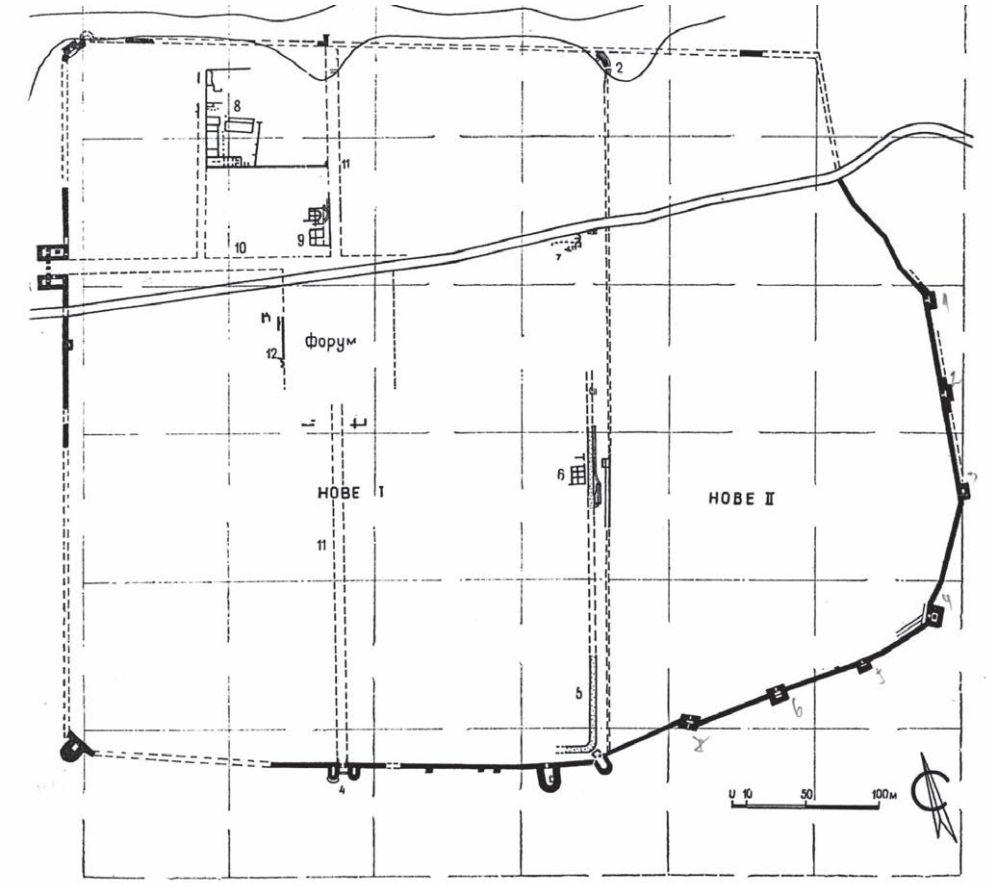


Fig. 1. Plan of *Novae* in 2nd-6th c. AD (after М. Чичикова)

In the second case, the former legionary camp, the transformed fort from Late Roman times and the space between them protected by an additional wall, formed the Early Byzantine city *Dorostolon* (**fig. 2**). What is more, the fortification on the Danube bank later became the core of the medieval city of *Drastar*, just like the fort located 4 km west of *Novae* turned into the medieval town of Svishtov.

The number of military units that took part in the construction of the respective military camps is one of the fundamental differences between the two places. At *Novae*, *Legio VIII Augusta* was accommodated first in AD 45, while *Legio I Italica* arrived 25 years later and remained there until Late Antiquity (Чичикова 1975, 36). For *Durostorum*, it is only supposed that before the arrival of *Legio XI Claudia* in AD 106, another smaller military unit (*Cohors II Flavia Britonum equitata, Cohors II Galorum* or *Cohors I Hispanorum*) had camped in the same place or near it (Damian et al. 2007, 61-62). Both camps were built on a terrain without settlements in a territory of about 18 ha for *Novae* and about 22 ha for *Durostorum*. This proves that they were constructed for only one legion. Early findings and some earth-and-timber constructions inside the stone fortification at *Novae* suggest that the *Legio VIII Augusta* camp could also be sought there. According to some researchers, the still preserved earth-and-timber defences and some other stone constructions should be related to it as well (Sarnovski et al. 2008, 153-172).

The next step after choosing the place for the *castra* is to determine locations for the *canabae* and the necropolises. Research has shown that the *canabae* of *Legio XI Claudia* were situated mainly north and north-west of its camp, including the vicinity of the Late Antiquity fort, on an area of 80-90 ha. The street network of the *canabae* was built to a great extent according to the roads starting from the legionary fortress (Donevski 2011, 158-160, fig. 2).

At *Novae* the *canabae* were situated mainly to the west and partly to the east and south of the fortress on an area of about 70 – 80 ha (Conrad et al. 2002, 674, fig. 5). At *Durostorum* the necropolis location is rather certainly outlined to the west, south and east of the legionary fortress (Donevski 1990a, 240, abb. 5), while at *Novae* it has been accepted that the necropolis is situated to the south of the camp (Dyczek 2008, 259). What is more, supposedly there

is another necropolis along the road going out of *porta principalis sinistra.*

Apart from the above described civil and military structures, there were also the so-called *vici*. There is epigraphic and archaeological evidence about these settlements and many of them have been unearthed along the Rhine – Danube border of the Empire. Such villages have been found both near *Novae* and *Durostorum*, at a distance of about 2-3 km east of the legionary fortresses (Gerov 1977, 300-301; Donevski 1990a, 241-244).

Defensive System

When comparing the defensive system of the two places, the first and most important difference between them is the presence of an earth-and-timber period in the camp at *Novae* and the lack of such at *Durostorum*. The rampart discovered in some places is built of sun-dried turf and its width is 4-6 m. The defense of the camp was strengthened by rectangular timber towers with dimensions of 6 x 3 m, situated at a distance of about 41 m from each other. At this period along the eastern, western and southern sides there were two ditches and only one along the northern side. The latter was filled when the stone wall was built, while the others were destroyed by the new ditches connected to it. This wall, studied best at its eastern side, is 1.50 m wide and made with yellowish mortar (Donevski 1996, 201-203, fig.1). It cuts the front part of the rampart. The colour of the mortar and the width of the other camp walls are the same, although the later enlargements of the inner or outer side of the wall and its upgrading make this argument rather unclear and somewhat arbitrary.

With reference to *Legio XI Claudia*, the initial stone curtain with white mortar was also 1.50 m thick in my opinion, although the visible width at the moment is 2.80-3.00 m at the substructure and 2.10 m above it. In a destroyed area, at one of the interval inner towers there is a variation of 0.70-0.80 m in the depth of the inner and outer halves of the foundation. At the same time, the eastern wall of this tower is obviously constructionally connected with the deeper, outside part of the curtain wall. If there was an enlargement of Trajan's wall, it probably happened after the attacks of the Costoboci in AD 170. This can be concluded on the basis of both the burnt layers in the camp and *canabae,* and some unearthed coins whose latest emission was AD 161 – 164 (Donevski 2004, 15-18, fig.1-3). It can be assumed, however, that initially the wall was 2.80-3,00 m wide, according to the *Vindonissa* tradition, where the legion, before departing east, built a 3 m-wide, double wall (Hartmann 1986, 76, abb. 62). This, however, does not explain the different construction of the foundation of the inner and outer part of the wall, provided that there are no terrain-related reasons. The only ditch discovered there functioned until *via angularis* was constructed after the supposed attacks of the Costoboci. Unlike in *Novae*, in the fortress of *Legio XI Claudia* no internal short walls perpendicular to the curtain have been found, used either to strengthen it, or as a bearing element of a timber platform.

Although there is evidence about early stone constructions inside the camp at *Novae*, the stone defensive system has to be dated back to the Trajanic-Hadrianic age. Archeologists accept that this is also the time when the military hospital was built in the place of the Flavian Baths, and the new *thermae legionis* appeared to the west of the *principia*. There are two types of towers at this site. The ones in the first group are not very big, their walls are about 1 m wide, built with yellowish mortar – just like the one used for the fortress wall. The other towers are bigger, the width of their walls is different and they are built with white mortar. Based on the used mortar, it can be concluded that their construction probably happened during the 2nd c. AD. At that time the initial distance of 75-80 m between the towers was reduced to 38-40 m, thus becoming almost like that between the timber towers. New research shows that the towers at *porta principalis sinistra* and *porta decumana* do not only project in front of the curtain wall, but part of them also to the inner side, as it is documented at *porta principalis dextra* (Donevski 1996, 201-203, fig. 3-4) and clearly seen at the eastern tower of *porta praetoria*. At *Durostorum* the distance between the early towers on the short side of the camp is about 60 m (Donevski 1990b, 932, Abb. 4). The fact that the gates have not been explored makes us assume that they, too, were constructed like the ones at *Novae*, having in mind the minor differences during in the period when the two fortresses were built.

In Late Antiquity the defensive systems of the two sites underwent changes that are revealed in a various way at the two places. At *Durostorum* after the invasions of the Goths, a big outer rectangular tower was erected at the south-western corner of the legionary fortress. Its dimensions are 21.70 x 12.80 m. It has four pillars, two of which stand on the layout of the early curtain wall (Donevski 1990b, 932, Abb. 2). The construction of this tower is divided into two periods – from the end of 3rd to the beginning of 4th century and from the end of 5th to the

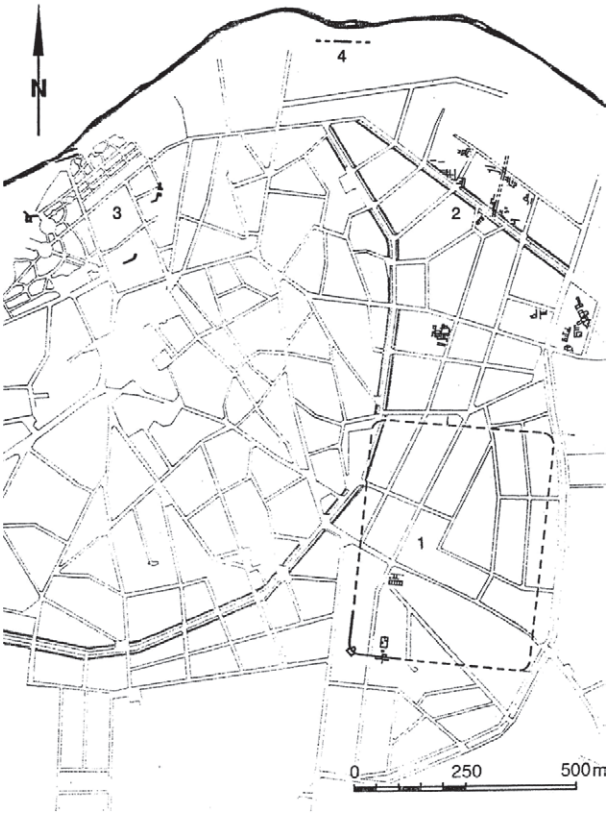


Fig. 2. *Durostorum*: **1** *Castra*. **2** *Canabae*. **3** Late Roman fortress. **4** Early Byzantine wall (after P. Donevski)

beginning of 6th century, the second period being in the Binder-Leufer technique. The construction of the curtain wall east of this tower is also similar. The outer wall at the inner interval tower can be also related to a newly-built tower from the 5th – 6th c. AD.

As already mentioned, at the end of 3rd c. AD and the beginning of 4th c. AD, 700-800 m northwest of the legionary camp a small fort was built. It probably served military and security purposes at the river ford. It was heavily reconstructed at the end of 5th – 6th c. AD and some sections were rebuilt. The towers which have triangular or pentagonal shape are massive and erected in front of the curtain wall.

The defensive system at *Novae* in Late Antiquity is rather different. Here the fortified site was a plateau, naturally defended at its northern side by the high Danube bank and at its eastern and southern ends by deep gullies. The initial stone curtain is 1.60 m wide and was later enlarged by additional 1.40 m at its outer side. All rectangular towers are projected in front of the curtain and one of them is used like a gate. Along the southern section of the old legionary camp, the early curtain wall was also enlarged to reach a width of 2.90-3.30 m, but from the inner side. New, outer rectangular and U-shaped towers were built there; at the two corners of the northern side were built semi-circular outer towers (Чичикова 1975, 36-39). In time, the western gate was further fortified. The enlargement to the east took place after the Romans withdrew from Dacia under the reign of the Emperor Aurelianus.

The changes in the defensive systems of the two sites can be obviously related both to the damages caused by the barbarian invasions and the military reforms undertaken from the end of 3rd c. onwards. In both cities, the recent research announcements and findings date back to the end of 6th c. AD and the beginning of 7th c. AD, but while in *Durostorum* life was revived in the Middle Ages and the settlement became one of the most important Bulgarian cities at that time, *Novae* had another fate and gradually sank into oblivion.

Legal Status

The archaeologically proved location of *canabae legionis XI Claudiae* and the one suggested by terrain investigations around *castra legionis I Italicae* have been already outlined. I paid attention to the sites of the *vici*, situated 2-3 km east of the two fortresses determined after terrain research, soundings or conventional excavations. The studies of the Rhine-Danube border of the Empire show that in most cases, one of these settlements, less often both of them, was elevated to the rank of *municipium* or *colonia*. It has been noted that until the reign of the Severan dynasty this settlement was the *vicus,* but after the changes that occurred in the legal status of the legionary territory, this could be the *canabae* (Piso 1991, 136).

On the premises of this rule, we should assume that if the epigraphically attested *municipia* at *Novae* and *Durostorum* concern the *canabae*, then they were raised to the rank of *municipia* at the end of 2nd c. AD the earliest, or at the beginning of the 3rd century.

I think that the topographical situation at *Novae* and *Durostorum* with the discovered *vici* some kilometers east of the legionary fortresses supports the settlement dualism, observed along the Rhine-Danube frontier, i.e. *canabae intra leugam* and *vicus* outside this solely legionary territory (Piso 1991, 139-155). Since at *Novae*, apart from the mentioned *vicus*, archeologists have found only one inscription concerning the *municipium*, and this inscription could belong to a very broad period of time, I feel uncertain and it is difficult to establish precisely the time, and therefore, determine the date of the settlement, which has received this privilege **(fig. 3)**. At *Durostorum* the scales are tilted in favour of the *vi-*

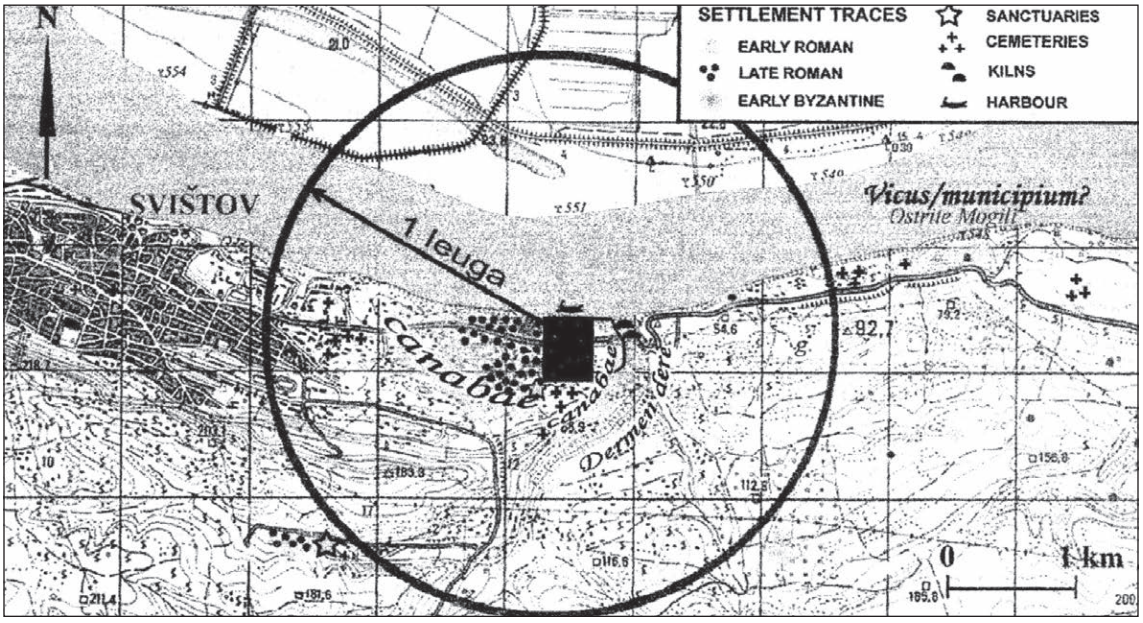


Fig. 3. Surroundings of the Roman military base of *Novae* (after S. Conrad)

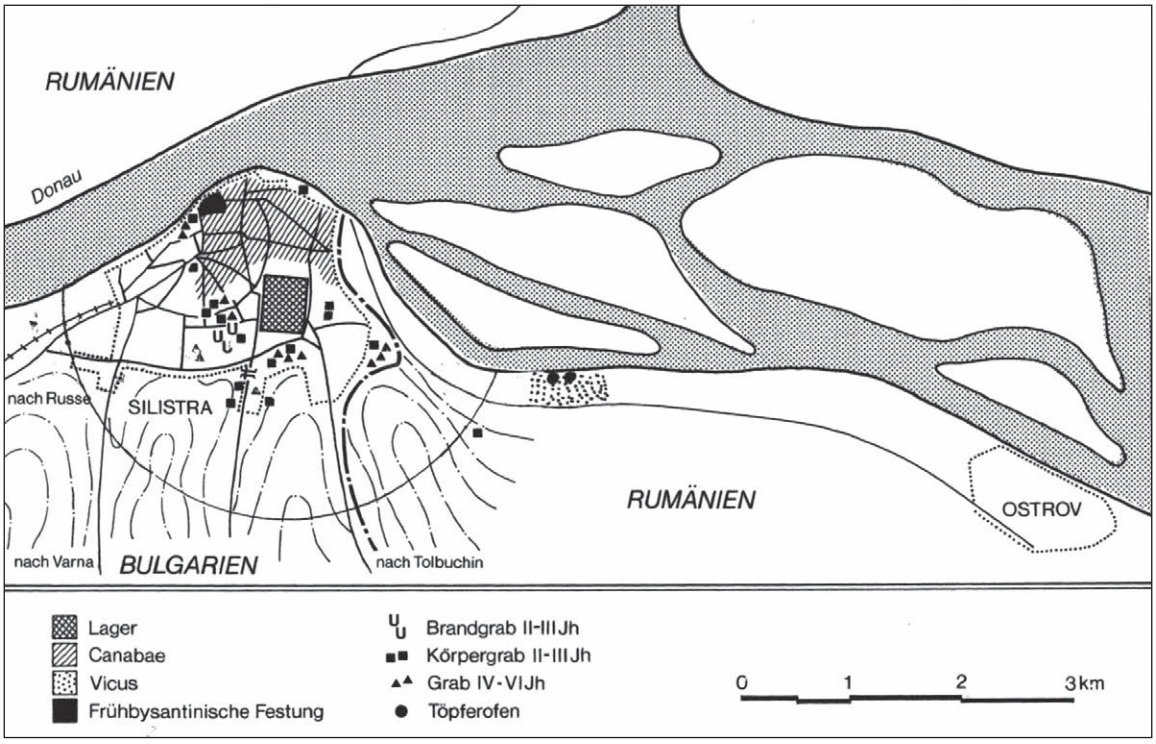


Fig. 4. Surroundings of the Roman military base of Durostorum (after P. Donevski)

cus, discovered in Romanian territory **(fig. 4)**. With its location, unearthed artifacts and the inscription about the *municipium Aurelium Durostorum* found nearby, this is the more likely pretender for the settlement elevated to the rank of a town at the time of Marcus Aurelius (Donevski 1989, 277-280).

I hope that this comparison has helped the clearer distinction of the characteristics related to the origin and development of the military and civilian structures at *Novae* and *Durostorum* and that it is a humble contribution to the research of the Roman *Limes* in Lower Moesia.

Bibliography

Ангелова, Ст. 1973. Крепостната стена на Дуросторум – Дръстър – Силистра (предварително съобщение). – Археология 3, 83-93.

Чичикова, М. 1975. Укрепителната система и градоустройство на Нове според последните археологически проучвания. – Векове 2, 36-51.

Conrad, S. / Stančev, D. 2002. Archaeological survey on the Roman frontier on the Lower Danube between Novae and Sexaginta Prista. Preliminary report (1997 – 2000). In: Freeman, Ph. / Bennett, J. / Fiema, Zb. / Hoffmann, B. (eds.). Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amman, Jordan, September 2000, vol. 2. 674.

Damian, P. / Bâltac, A. 2007. The civil Roman settlement of Ostrov – Durostorum. – Istros 14 , 61-70.

Donevski, P. 2011. Urban Planning of the Canabae Legionis XI Claudiae (Moesia Inferior). – Cultură şi civilizaţie la Dunărea de jos 28, 158 – 160.

Donevski, P. 2004. Some notes about the Legionairy fortress at Durostorum. – Novaensia 15, 17.

Donevski, P. 1997. New Late Roman fortress in Svištov to the west of Novae. In: Biernacki, A. / Pawlak, P. (eds.). Late Roman and early Byzantine cities on the lower Danube from the 4th to the 6th centuries A.D. Poznan. 35-38.

Donevski, P. 1996. Some Aspects of Defensive System of the Roman Camp Novae (Moesia Inferior) in Ist – IIIrd C. AD. In: Petrovic, P. (ed.). Roman Limes on the Middle and Lower Danube (= Cahiers des Portes de Fer, Monographies 2). Belgrade. 201-203.

Donevski, P. 1990a. Zum topographie von Durostorum. – Germania 1, 236-245.

Donevski, P. 1990b. Durostorum. Lager und Canabae der Legio XI Claudia. In: Vetters, H. / Kandler, M. (eds.). Akten des 14. International Limeskongress 1986 in Carnuntum. Wien. 931-939.

Donevski, P. 1989. Durostrorum. Municipium Aurelium und das Lager der Legio XI Claudia. In: Maxfield, V. / Dobson, M. (eds.). Roman Frontiers Studies 1989, Proceedings of the 15th International Congress of Roman Frontier Studies. Exeter University Press. 277-280.

Dyczek, P. 2008. The geography of the area and topography of Novae. In: Derda, T. / Dyczek, P. / Kolendo, J. (eds.). Novae. Legionary fortress and Late Antique town. Warsaw. 258-259.

Hartmann, M. 1986. Vindonissa. Oppidum – Legionslager – Castrum. Vindisch.

Parvan, V. 1924. Municipium Aurelium Durostorum. – Rivista de Filologia e d'Istruzione Classica II.3, 11-13.

Piso, I. 1991. Die Inschriften vom Pfafenberg und der Dereich der Canabae legionis. – Tyhe 6, 131-169.

Sarnowski, T. 1996. Die römishe Anlegestelle von Novae in Moesia Inferior. In: Petrovic, P. (ed.). Roman Limes on the Middle and Lower Danube (= Cahiers des Portes de Fer, Monographies 2). Belgrade. 195-200.

Sarnovski, T. / Kovalevskaja, L. / Kaniszewski, J. 2008. Novae – Castra Legionis, 2006 – 2009. Preliminary report on the excavation of the University of Warsaw archaeological expedition. – Archeologia 59, 153-172.

Peti Donevski MA
14 Rila St., ap. 8
BG-5250 Svishtov
peti.novae@abv.bg

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

"The Most Splendid Town of the Novesians…"[1]

Piotr DYCZEK

Despite years of archaeological excavations the issue of *Novae* **(fig. 1)** in Late Antiquity has not been fully explained. Discoveries by archaeologists from the Research Center for the Antiquity of Southeastern Europe of the University of Warsaw made in 2011 have thrown new light on the subject.

Last season excavations were initiated in a new sector, coded XII, situated on the south side of *via principalis,* the expected location of barracks of the first *cohors*, possibly of the *VIII Augusta* and the *I Italica* legions. A halved block of local limestone measuring 45 x 50 x 65 cm was excavated from archaeological layers dated to the 6th century AD. An inscription was found on two adjoining sides of this block (inv. # 74/11 w; sector XII, ha XVIII, sq 2) **(fig. 2)**.

The first inscription [A] was in Greek and was placed in a panel 50 x 65 cm **(fig. 3)**. The reconstructed text of the inscription, however, suggests that originally it must have been about 100 cm wide and similarly high. The text consists of 14 verses, the first of which incomplete, having lost the upper half, the next 13 fully preserved. More importantly, however, the name of *Novae* appears in this inscription for the first time in the epigraphic record and for the first time we are privy to how the inhabitants of *Novae* referred to themselves **(fig. 4)**.

The inscription field on the right side of the block is barely 20 x 26 cm and contains three verses of another inscription, also in Greek [B], each line being 5 cm high **(fig. 5)**. Because of the poor state of preservation, only individual letters can be recognized. The inscription will be the object of separate studies.

An examination of the stone surface and the carving of the inscriptions reveal a fairly complicated story. For the moment it would appear that the inscriptions were carved on the reused stone block. The reconstructed dimensions of the stone suggest that it was a large altar, while the rough chipping indicates a relief border of some kind around the inscribed field and a more elaborate molding at the bottom. The stone block was halved before the Greek inscriptions were carved and it was formed into a statue base. The broken surface was neatly smoothened and a side corner was cut to form an optical frame for the text. It seems that inscription A was completed first, and then inscription B was added. Ultimately, the inscriptions lost their significance and the block was cut off from the top and carved out, the hemispherical depression turning the former base into a large mortar. The mortar stood on the side with the Greek A inscription, thus ensuring good preservation of the text. The inscription B became almost completely obliterated over time.

By the epigraphic standards of Late Antiquity, the Greek inscription appears to have been neatly planned and executed (Łajtar 2013, 97-111). Some verses (e.g. 4 or 9) have preserved evidence of guidelines. Generally, letter height varies between 2.5 cm (O at the beginning of line 15) and 5 cm (F in line 12). In paleographic terms, the letters are upright epigraphic majuscules. They are provided with simple serifs. The inscription contains numerous ligatures, involving not only the letters of one word, but also two neighbouring words. The joined letters are normally those with vertical strokes, but in six cases the ligature consists of a letter without a horizontal stroke inscribed in a Π (ΠΡ and ΠΟ in lines 11 and 13, ΠΑ and ΠΟ in line 15). Words are occasionally abbreviated by suspension and the abbreviation is marked by a dot in the middle of the line height (ΘΕΣ • in line 8, ΠΡ • in line 11, ΠΡ • ΠΟΛ • in line 13, ΚΟΛΏΝ• in line 12). Dots standing on both sides of the letter A in line 5 mark the numeral.

[1] Scientific project financed by National Science Center, Poland. N N109 182 140.

The inscription runs as follows:

[- - - - - - - -] . . . . . O . A . [.]
[- - - - - - ἠν]δριασμένους σ[1-2]
[- - - - - - - -]οις δὲ τοῖς κασ[.]
4 [- - - - - - - τ]ῇ λαμπρᾷ Νοβησί-
[ων πόλει καὶ τ]ῷ λεγιῶνει α Ἰτα-
[λικῇ εὐχα]ριστοῦντες μνήμ-
[ης καὶ ca. 5]ης ἕνεκεν τὸν θεσπ-
[- - - - - - - -]τα ἀνδριάντα θεσ( ) ΤΗ
[- - - - - - - -] ἄριστον σχῆμα ἔχο-
[ντα - - - - στ]ρατιῆς καὶ πανόπλι-
[ον - - - - - -] Βάσσος πρ(ῶτος) πολε⟨ί⟩της
[τῆς Ἀλεξανδρ]έων κολων(είας) καὶ
Φλ(άβιος)
[- - - - - - - -]ος πρ(ῶτος) πολ(είτης)
Εἰλιεὺς θε-
[ὸν - - - - - οὐ]ράνιον εὐχ( ) τὸν σώσαντ(α)
[- - - - - - - -]ΔΟΙ . . ΚΙΝΙΣ παρ᾽
Ἑλλήσποντο[ν].

5. λεγιῶνι || 6. εὐχαριστοῦντες || 13. Ἰλιεὺς

It is translated as follows:

[- - -] and to the [- - -] to the glorious city of the Novesians and to the First Italic Legion in thanksgiving [and] because of the memory and [- - -] [erected] the statue [- - -] having a noble attire [- - -] of the army and in cuirasses [- - -] Bassos, first citizen of the colony of Alexandrians, and Flavios [- - -], first citizen of Ilion, [- -] the God of Heavens who saved [- - -] near Hellespontos.

The text speaks of two leading citizens, Bassos from Alexandria in the Troad and Flavios from Ilion, who appear to have offered to the "*glorious city of the Novesians*" and to the First Italic Legion a noble cuirassed statue in gratitude and as a symbol of their visit to *Novae*. It is not clear who was represented in the statue. Some contemporary "first citizen of *Novae*", or the emperor perhaps? The issue will remain hypothetical until other parts of the same inscription are uncovered.

The most important conclusion deriving from the reading of this text is that the towns of the Hellespont (mentioned in the last verse) were in lively trade contacts with *Novae* among others at the time of the carving of this inscription. The army context of the text suggests that *pastus militium* was surely an important part of these contacts. The use of the name of the First Italic Legion in this official document is also noteworthy, although it seems that in this late period the structure and operations of this army unit were completely different from that of the original Neronian formation (Sarnowski 1983, cf. 31-40 and 55-61 – discussion cf. Speidel 1987, 240-242; Sarnowski 1985, 107-127; 2007, 25-29).

The inscription discovered in Sector XII is a fitting addition to the known epigraphic sources from *Novae*, contributing data for studies of supply patterns, as well as a general reconstruction of the regional, not only commercial network. The said sources comprise four published texts. One of these is in Greek and mentions the *Legio I Italica* in the context of *pastus militum*. It is dated to AD 368 (Tatcheva 1999, 122-123; Božilova / Kolendo 1997, 180-181, no 178). The remaining three texts are Latin inscriptions on statue bases (Sarnowski 2005, 223-230), dated to AD 430-432, discovered in the still operational *principia* (Sarnowski 1999, 57-63). It is almost certain that the inscription now discovered in Sector XII had once stood in the command headquarters building. It cannot be dated by the archaeological context, but the nature of the inscription suggests its carving about the beginning of the 5th century.

The *Novae* inscriptions appear to resolve one of the issues connected not only to the former quarters of the *Legio I Italica*, but also with sites on the Lower Danube in general. There seem to be very few artifacts coming from North Africa in this region of Europe in Late Antiquity and Early Byzantine times, unlike sites situated in the western parts of the Empire. Suffice it to say that *Novae* has produced a single fragment of the highly specific North African tableware, while late antique amphorae of North African provenience are also very few and far between. Eastern forms prevail among the storage and transport containers, along with pottery typical of Asia Minor workshops. Why this was so has remained an unresolved issue and it is even more difficult to say where these "Oriental" and "Asia Minor" (Opriş 1999, 279) products actually came from.

The first suggestion of close links between *Novae* and the Hellespont region came from the great fourth-century basilica in *Novae*. The architectural decoration of the temple and elements of the interior furnishings were made of Proconessian marble (Skoczylas / Jochemczyk 1995, 87-90; Biernacki 1997, 71-80; Biernacki / Skoczylas, 2003, 197-203).

Object analysis has also contributed interesting information. One of the most frequent types of amphorae in *Novae* is a form classified as Zeest 90 / Dyczek 25 (Zeest 1960, 117, pl. XXXVI, 90; Dyczek

1999, 136-152; Dyczek 2001, 173-194), referring in shape to amphora types DR 24 and Mau XXIX. These pots often bear producer stamps, among which Greek names predominate, e.g. CTPATONEIKOY, CΩZΩN (Tudor 1968, 161-164). Latin names written in Greek are also present, such as, e.g. MAPKOY, TATIANOY (Scorpan 1977, 276).

One handle bore the impression of a coin, which was 3 cm in diameter. A flower or branch tied with a fillet figures in the center of this impression, while the text in the circumferential legend is of letters barely 2 mm high. The inscription runs from right to left and is in retrograde, that is, a mirror image. It is composed of two parts, separated by the top of the motif in the centre and reads: Ἐρυθραίων επ' Ἐπαράτ[ου] *Erythraeans in the* [*term of office of*] *Eparatos* **(fig. 6)**. This coin impression led to the suggestion that amphorae of this type were produced in the neighbourhood of the ancient town of *Erythrae* in Ionia, modern Ildire (Dyczek 2002, 7-23; Dyczek 2008, 515-521).

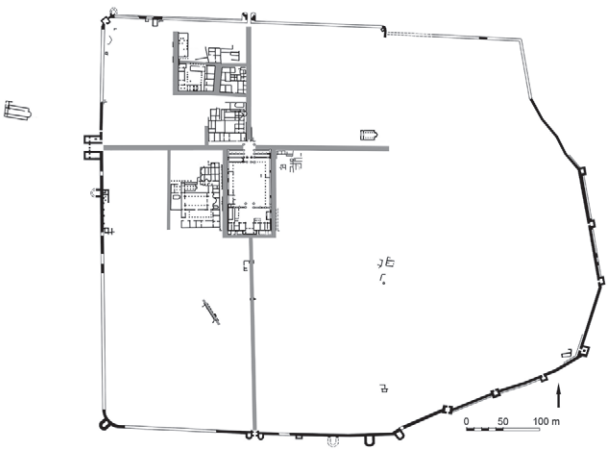


Fig. 1. Plan of *Novae* in Late Antiquity, P. Dyczek

Analysis of the *dipinti* brought even more interesting results, for it demonstrated that the amphorae in question were used to carry into the Lower Danube region a wide range of products: oil, nuts, but also quite uniquely, ΑΛΜΟΣΤΡΑ, that is oysters in brine (Dyczek 1996, 58). Other painted inscriptions are even more intriguing in the context of the legionary supply system. Some of the amphorae found in excavations in the army camp area bore an abbreviated version of the name of the First Italic Legion on the body (Dyczek 2001, 191, fig. 100/2, 3, 6). Examples with the name of *Legio V Macedonica* **(fig. 7)** have also been recorded (Dyczek 2001, 191,



Fig. 2. View of Sector XII, marked find spot of the inscription, photo J. Balcerzak, M. Pisz

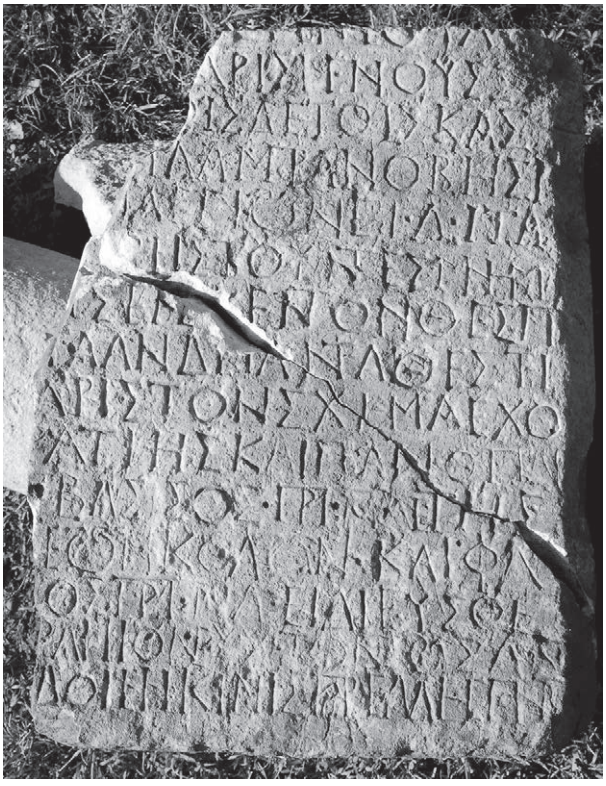


Fig. 3. Front face of the limestone block with Greek inscription, photo J. Recław

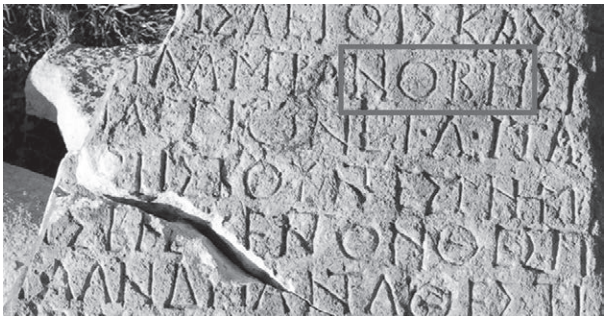


Fig. 4. Name of *Novae* written in Greek, photo J. Recław

fig. 109/15). More importantly, stamps and inscriptions on this kind of amphorae start to appear in the first half of the 3rd century, that is, practically just after the introduction of the *annona militaris*. It means that army supplies for the Roman units stationed on the Lower Danube were coming from the region of northwestern Asia Minor already in this period and this means in turn that this source of supplies for the army was operational for almost three centuries.

These ideas on the provenience of amphorae of the Dyczek 25 type appear to be corroborated by typological and archaeometric research, which has demonstrated that this type evolved into the LR 2 shape, which was produced in many ceramic centres for sure, but which initially came from workshops in Ionia/Asia Minor and the Hellespont (Dyczek 2007, 829-830).

The LR 2 amphora was common throughout the Empire, but especially on the Lower Danube (Barnea 1966, 244, 250, figs. 8/1, 12/7; Rădulescu 1976, 99-114; Kuzmanov 1985, figs 87-88; cf. Conrad 1999, 178-184; 2007, 210-214). On some sites in this region they constituted from 20% to 30% of all the amphorae from late antique horizons (Topoleanu 2000, 132; Opriş 2003, 177-178; Paraschiv 2006, 94).

The dating of LR 2 amphorae does not raise any controversies. These containers were in use from the 4th throughout the 7th century AD. The lower date is set by finds from the Athenian Agora and by the upper cargo of the Yassi Ada shipwreck (Robinson 1959, Pl. 29, M. 272; van Alfen 1996, 210).

Another equally popular form was the LR 1 amphora, referred to also as British Bii, Berenice LR 1, Carthage LR1, Peacock 44, Keay LIII, Râdulescu 10, Scorpan VIII B, Kuzmanov XIII, Bielajac XXI, and in newer studies as Opriş II, Paraschiv 42 (cf. Keay 1984, 268; Peacock / Williams 1986, 185; Paraschiv 2006, 89). The numerous variants are proof of production differences between ceramic workshop centres on one hand and on the other, of considerable differentiation of vessel capacity, reflecting either demand or merchant economic standing. Another idea is that the different capacity of the amphorae was connected with the kind of product carried in these containers (van Alfen 1996, 209).

The amphora has been attested practically at every site in the Lower Danube region. These are in Dobroudja (*Argamum, Histria, Tomis, Acrae, Bizone, Halmyris, Aegyssus, Dinogetia, Noviodunum, Troesmis, Beroe, Capidava, Axiopolis, Altinum, Sacidava*, Ibida, Babadag/Topraichioi), and in modern Bulgaria in, e.g., *Novae*, *Iatrus, Abritus, Nicopolis ad Istrum,* Vojvoda, Madara, Sadovec, *Odessos* (cf. e.g. Rădulescu 1976, 109; Scorpan 1977, 277-278; Böttger 1982, 54-47; Suceveanu 1982, 116; Kuzmanov 1985, 18-20; Uenze 1992, 243-244; Faulkner 1999, 252, 254; Opriş 2003, 53-59; Paraschiv 2006, 89-91).

The amphorae started to appear in the middle of the 5th century AD (Keay 1984, 272) and they remained in use until the third quarter of the 7th century AD at the latest, judging by the finds from the Yassi Ada shipwreck (van Alfen 1996, 210).

Archaeological data have produced incongruous results regarding the content of the LR 1 amphorae. Resinated inside body surfaces have suggested wine as the main transported product (Keay 1984, 271; Bonifay / Piéri 1995, 109; Opaiţ 1996, 48). Grape

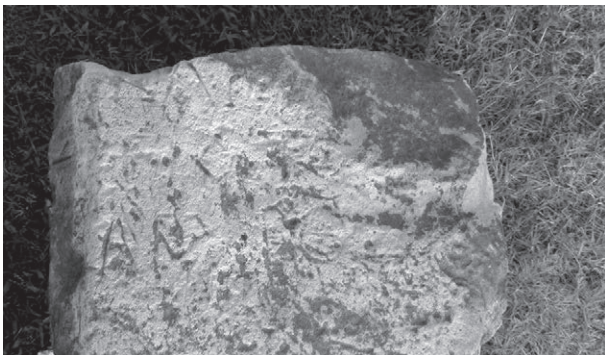


Fig. 5. Lateral side of the block with Greek inscription, photo P. Dyczek



Fig. 6. Impression of an Erythraean coin on an amphora handle, photo J. Recław

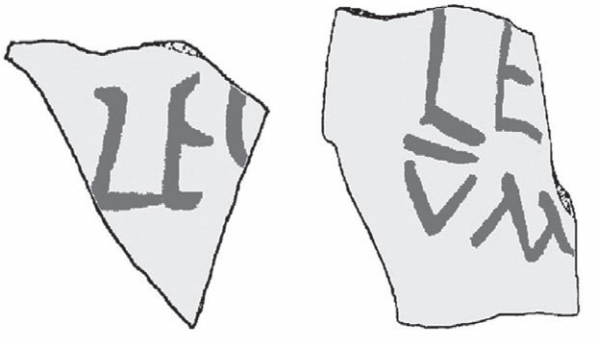


Fig. 7. Tracing of a *dipinto* with the abbreviated name of the *Legio I Italica,* and *Legio V Macedonica* found on a Dyczek 25 amphora, by P. Dyczek

pits in one of the amphorae from the Yassi Ada shipwreck could confirm this idea (van Alfen 1966, 203). Other content corroborated in the archaeological record includes sesame oil (Rodschild-Boros 1981, 86) wine vinegar (Uscătescu-Barrón 1992, 158) and olives in olive oil or wine (Steckner 1989, 58). It has been noted that certain *dipinti* indicate that the amphorae were produced in Cyprus, Lesbos, Euboea and Northern Syria (Peacock / Williams 1986, 186). The vicinity of Antioch, generally speaking the Cilician coast and the bay of Alexandretta, has been indicated as the main production centre. Others have pointed to Rhodes, southern Asia Minor and the Iskenderun bay (cf. Bonifay / Piéri 1995, 109), the region of Seleucia (Empereur / Picon 1989, 237, 241-242). The Pontic area has also been suggested by some (Sciallano / Sibella 1991, 100).

Shipwreck studies have demonstrated that amphorae of the LR 1 and 2 types were transported together for the most part (Parker 1992, no 352). Both types were also found together in wine/oil production centres, e.g., on Samos (van Alfen 1996, 212). This is proof either that the two forms of containers were produced in the same ceramic production centres and/or were used to transport products from the Hellespont, while the pots themselves were produced in workshops lying in close proximity to one another. In any case, the two types of amphorae confirm a lively trade exchange with northwestern Asia Minor, thus confirming the findings coming from the analysis of epigraphic data.

Taking into consideration the different goods carried in the said amphorae and the distribution of the vessels on individual archaeological sites, one is led to a broader look at the issue of trade supplies for the Lower Danube region in Late Antiquity and the beginning of the Byzantine period.

Army supplies for the units stationed at *Novae* stand on one side and ordinary trade with the inhabitants of *Novae* on the other. The inscription recording the inhabitants and the legion separately is the best proof of this, the legion being in this case synonymous with the last two cohorts supplied by two *primipilares*. Two other categories of finds, namely, some ceramic and glass lamp types (Čičikova 1999, 105-107; Dyczek 2012 – for the ceramic lamps; and Olczak 1984a 267-283; 1984b, 3-50 – for the glass ones) and pottery (Opaiţ 1996, 136-138; Klenina 1999, 90-91; Topoleanu 2000, *passim*; Opriş 2003, 150-151) – among them pottery from Troy (Klenina 2006, 100-101) – and glass vessels, which were the object of non-military trading, are proof of the Hellespont being the most important source of different kinds of goods and craftsmanship products in the end of the 4th and the first half of the 5th century AD. Both soldiers and civilians were supplied with oil and perhaps also some kinds of wine, and the Hellespont and Asia Minor were certainly producers of both (Brun 2003, 9 f., 194 f.; 2004, 92-94). It is not clear where the grain for both the army and civilians in *Novae* came from. There is indirect evidence in the form

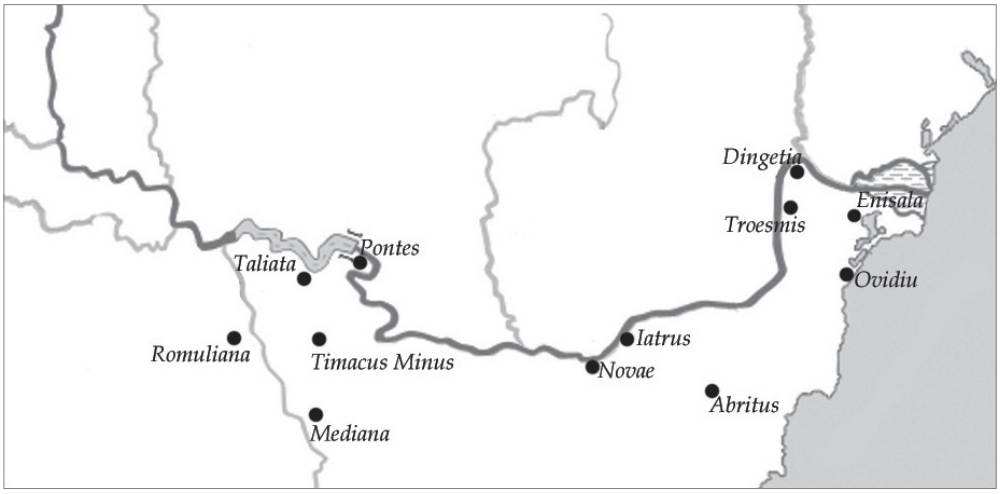


Fig. 8. Map localizing *horrea* operating in the Lower Danube region from the second half of the 3rd through the first half of the 5th century AD, by P. Dyczek

of a store/*horreum* discovered in *Novae* that it was imported in quantity and stored on site. An integral part of the architecture of this granary was a heated hypocaust system which indicates that the store served also as a drying chamber (Dyczek 1997, 87-94). Scythia Minor as a source of grain for the Lower Danube cannot be excluded. Another view holds that, starting from the 3rd century AD, grain production in the province was in decline and Scythia Minor was no longer capable of exporting surplus grain (Madgearu 2001, 207-217).

One thing is for certain: the full amphorae as well as all the marble elements had to be transported mainly by water. Alexandria was a large and important harbour. Shipping was generally the easiest form of transport of goods from the Hellespont. This is proved indirectly by the distribution of finds along the banks of the Danube. This is important information regarding the port at *Novae*, which is presumed to have been still a big river harbour, despite the lack of unequivocal archaeological evidence (Sarnowski / Trynkowski 1986, 536-541; 1990, 251-263), not the least because of the changing bed of the Danube (Sarnowski 1996, 195-203).

The physical evidence for lively trade relations and one of the elements illustrating the organization of this trade is provided by *horrea*, which have been discovered at ca. 40 sites along Lower Danube area. Two ideas are supported by the presence of these structures: that the economic and political situation in the end of the 4th and the first half of the 5th century AD was far from stable and that trade prospered, including *pastus militium* in its scope.

The history of the period is well known, hence the former statement is fairly trivial, but the latter was not so straightforward so far. The construction of large stores when faced with the size of the population, not so big in those times, indicates a pressing need for maintaining food reserves on a more or less stable level. Considering the relatively large size of the stores and keeping in mind that part of the imported goods ended up in shops, outside customers and private pantries, it can be said safely that the transports reaching *Novae* must have been very big.

Even a brief review of the best known and most imported *horrea* **(fig. 8)** leads to the conclusion that *Novae* was not exceptional in this respect.

The *horreum* in Brzi Brod – *Mediana*, almost 2500 m^2 in area, contained *dolia*, three containers rendered with hydraulic mortar, cart parts and iron tools. The building was dated to the 4th century (Petrović 1993, 175).

The structure in Gamzigrad – *Romuliana* covering approximately 1400 m^2 has been dated to the early-4th century AD (Srejović / Janković / Lalović 1981, 65; Srejović / Janković / Lalović / Jović 1983, 195; Srejović 1985, 51-67; Vasic 1993, 145-146).

The *horreum* in *Pontes* was raised in the times of Valentinian (Petrović / Vasić 1996, 22, 25). Two stores were discovered in Porečka Reka, one 216 m^2 and the other 233 m^2 in area, dating from the times of Valens and Valentinian (Perović 1981, 53-63; idem 1983, 285-291; Petrović / Vasić 1996, 25).

The granary in *Timacum Minus* with an area of 450 m^2 operated in the 4th and 5th centuries AD (Petrović 1995, 42; Petrović / Jovanović 1997, 18-21).

In Taliata excavations uncovered three *horrea,* one almost 300 m^2 in area and another 356 m^2, functioning from the middle of the 4th century AD (Petrović / Vasić 1996, 25; Popović 1983, 265-280), and a third occupying 320 m^2, which took over from the first two in the 5th and 6th centuries AD (Prodanović / Popopvić 1966, 74-78).

The *horreum* in *Novae* with its drying room heated by a hypocaust system occupied an area of 442 m^2. It was erected in the times of Constantius Gallus and was razed by an odd fire in the reign of Arcadius (Dyczek 1997, 87-94; Ciołek / Dyczek 2011, 269-270). A unique lead bar with stamp impressions was found in the fill of this building. It was published by Jerzy Kolendo, who dated it to the time from Valentinian I and Valens to Arcadius and Honorius (Kolendo 1995, 91-93).

The *horreum* in the *castellum* of *Iatrus* near *Novae* occupied almost 800 m^2 and was in use from the second half of the 4th through the first quarter of the 5th century AD (Döhle 1993, 141-163; Döhle 2007, 34).

The granary in *Abritus* from the second half of the 4th century measured 1232 m^2 in area (Hoddinot 1975, 158-159; Ivanov 1980, 30 – plan; Zahariade / Gudea 1997, 55).

Horrea in Enisala, *Dinogetia, Troesmis* and Ovidiu were dated to the times of Valens (Barnea / Suceveanu 1991, 58, 191). Of considerable interest is the granary in Topraichioi, occupying 532 m^2 in area and still containing large quantities of barley and rye, as well as lentils.

The average size of these *horrea*, except for the largest granaries in *Mediana*, Gamzigrad and *Abritus*, was approximately 400 m^2, giving an estimate of the size of the reserves that were maintained. They were apparently very similar at all of the sites in question.

The territorial distribution of the discovered granaries, combined with an analysis of the distribution of imported transport amphorae (or rather the imported foodstuffs which came in these containers) reflects clearly the scope of the trade entering the Lower Danube region from the Hellespont. It encompassed *de facto* the three late provinces of *Dacia Ripensis, Moesia Secunda* and *Scythia Minor*.

A look at the dating of these structures indicates a peak of these trade relations in the times of Valentinian I and Valens. The famine which spread south of the Danube in the late 370s, causing numerous perturbations that ended in the rebellion of the Visigoths, can be fingered as a probable cause. Raiding barbaric Huns in the middle of the 5th century presumably put an end to the lively trade with the Hellespont. Vestiges of the army structure supplied in the *pastus militium* system must have existed on the Lower Danube until this time and the local civilian population must have still been prosperous enough for the local market to be complemented with imported products.

The newly discovered inscription from *Novae* has helped to explain certain aspects of Roman army operations under the Late Empire and in the Early Byzantine period and, in connection with the evidence of other finds, to trace the general outlines of economic relations of the Lower Danube with northwestern Asia Minor and the Hellespont in particular. This in turn has also clarified the striking preponderance of Asia Minor products in the Lower Danube region, identifying the Hellespont and Asia as the production centres of many of the imports found here. Many questions still remain, answers for which may come with new discoveries.

Bibliography

Barnea, I. 1966. L'incendie de la cité de Dinogetia au VI^e siècle. – Dacia 10, 237-259.

Barnea, A. / Suceveanu, A. 1991. La Dobroudja Romaine. Bucarest.

Biernacki, A. B. 1997. Remarks on Early Christian Architectural Details Made of Proconesian Marble and Found in Novae (Moesia Inferior). In: Biernacki, A. / Pawlak, P. (eds.). Late Roman and Early Byzantine Cities on the Lower Danube from the 4th to the 6th Century AD. International Conference, Poznań, Poland 15-17 November 1995, Studies and Materials. Poznań.

Biernacki, A. / Skoczylas, J. 2003. The Classification of Rock Material in Juxtaposition with the Typology of Capitals in Novae. – Novensia 14.

Bonifay, M. / Piéri, D. 1995. Amphores du Ve au VIIe s. à Marseille: nouvelles données sur la typologie et le contenu. – Journal of Roman Archaeology 8, 94-117.

Böttger, B. 1982. Die Gefäßkeramik aus dem Kastell Iatrus. In: Iatrus-Krivina. Spätantike Befestigung und frühmittelalterliche Siedlung an der Unteren Donau. II. Ergebnisse der Ausgrabungen 1966-1973. Berlin. 33-148.

Božilova, V. / Kolendo, J. 1997. Inscriptions grecques et latines de Novae (Mésie Inférieure). Bordeaux.

Brun, J.-P. 2004. Archéologie du vin et de l'huile. Paris.

Brun, J.-P. 2003. Le vin et l'huile dans la Méditerranée antique: Viticulture, oléiculture et procédés de fabrication. Paris.

Čičikova, M. 1999. Lampes paléobyzantines de Novae. In: von Bülow, G. / Milčeva, A. (eds.). Der Limes an der Unteren

Donau von Diokletian bis Heraklios. Sofia. 105-110.

Ciołek, R. / Dyczek, P. 2011. Coins from Sector IV. In: Dyczek, P. (ed.). Novae. Legionary Fortress and Late Antique Town. Volume Two. Warszawa.

Conrad, S. 2007. Die Gefäßkeramik. In: von Bülow, G. et al. (eds.). Iatrus-Krivina. Spätantike Befestigung und frühmittelalterliche Siedlung an der intern Donau. VI. Mainz am Rhein. 209-264.

Conrad, S. 1999. Zu Typologie und Funktionsbestimmung der Amforen aus dem Kastell Iatrus. In: von Bülow, G. / Milčeva, A. (eds.). Der Limes an der Unteren Donau von Diokletian bis Heraklios. Sofia. 175-188.

Döhle, B. 2007. Die Grabungen der Jahre 1992 bis 1997 im Abschnitt westlich der Principia von Iatrus: Die Objekte I, X, XI, XLVI-LIV, LVI und ihre Periodisierung. In: von Bülow, G. et al. (eds.). Iatrus-Krivina. Spätantike Befestigung und frühmittelalterliche Siedlung an der intern Donau. VI. Mainz am Rhein. 11-68.

Döhle, B. 1993. Beobachtungen zur Bebaung und Bauabfolge in Westabschnitt von Iatrus (perioden A bis D). In: von Bülow, G. / Milčeva, A. (eds.). Der Limes an der unteren Donau von Diokletian bis Heraklios. Sofia. 141-163.

Dyczek, P. 2012, *in print*. A new way of dating so-called Byzantine lamps as exemplified by finds from Novae. Acta ILS Ptuj.

Dyczek, P. 2008. On the origins of amphora Zeest 90/Dyczek 25 – ultimate solution? – Rei Cretariae Romanae Acta 40, 515-521.

Dyczek, P. 2007. Late Roman amphorae from the site of valetudinarium at Novae, LRCW 2. In: Bonifay, M. / Tréglia, J.-Ch. (eds.). BAR International Series 1662 [II].

Dyczek, P. 2002. O genezie i rozwoju amfor typu Zeest 90 i LR 2. – Novensia 13, 7-23.

Dyczek, P. 2001. Roman Amphorae of the 1st –3rd centuries AD found on the Lower Danube. Typology. Warszawa.

Dyczek, P. 1999. Amfory rzymskie z obszaru dolnego Dunaju. Dystrybucja amfor i transportowanych w nich produktów w I – III w. po Chr. Warszawa.

Dyczek, P. 1997. New Late Roman horreum from sector IV at Novae. In: Late Roman and Early Byzantine Cities on the Lower Danube from the 4th to the 6th Century A.D. Poznań. 87-94.

Dyczek, P. 1996. Novae – Western Sector, 1992-1995. Preliminary Report on the Excavations of the Warsaw University Archaeological Expedition. – Archeologia 47, 51-64.

Empereur, J. Y. / Picon, M. 1989. Les regions de production d'amphores imperials en Méditérranée orientale. – Mélanges de l'Ecole française de Rome. Antiquité 114, 223-248.

Falkner, R. F. 1999. The Pottery. In: Poulter, A. G. / Falkner, R. K. / Shepherd, J. D. (eds.). Nicopolis ad Istrum: A Roman to Early Byzantine city. London. 55-296.

Gusić, S. 1993. Mediana. In: Srejović, D. (ed.). Roman Imperial Towns and Palaces in Serbia. Beograd. 169-177.

Hoddinott, R. F. 1975. Bulgaria in Antiquity. An Archaeological Introduction. London/Cambridge.

Ivanov, T. 1980. Abritus. Rimski kastel i rannovizantijski grad v Dolna Mizija. Sofija.

Keay, S. J. 1984. Late Roman Amphorae in Western Medditarean. A typology and economic study: the Catalan evidence. BAR International Series [i,ii].

Klenina, E. 1999. Table and Cooking Pottery of the IV-VI A.D. from the Excavation of the Episcopal Residence in Novae. In: von Bülow, G. / Milčeva, A. (eds.). Der Limes an der Unteren Donau von Diokletian bis Heraklios. Sofia. 87-93.

Kolendo, J. 1995. Suite sur le lignot portant des inscriptions mises au jour à Novae. – Archeologia 45, 91-93.

Kuzmanov, G. 1985. Rannovizantijska ceramika ot Trakija i Dakija (IV- načaloto na VII v.) (Razkopki i Proučvanija 13). Sofija.

Łajtar, A. 2013. A newly discovered inscription from Novae (Moesia Inferior) connected with pastus militum, Tyche 28, 97-111.

Madgearu, A. 2001. The End of Town-life in Scythia Minor. – Oxford Journal of Archaeology 20, 207-217.

Olczak, J. 1984a. Z badań nad oświetleniem rzymskim i wczesno-bizantyjskim miasta Novae. – Balcanica Posnaniensia 3, 267-283.

Olczak, J. 1984b. Lampy szklane z miasta rzymskiego i wczesnobizantyjskiego, Novae. – Archeologia 10, 3-50.

Opaiț, A. 1996. Aspecte ale vieţii economice din provincial Scythia (secolele IV – VI p. Chr.). Producţia ceramicii locale şi de import (Institutul Român de Tracologie. Bibliotheca Thracologica 16). Bucureşti.

Opriș, I. C. 2003. Ceramica romană târzie şi paleobizantină de la Capidava în contextual descoperirilor de la Dunărea de Jos (sec. IV – VI p. Chr.). Bucureşti.

Opriș, I. C. 1999. Decoration Techniques and Motifs of the Late Roman and Early Byzantine Ceramics. Fine Wares in Scythia Minor (4th-6th c. AD). In: von Bülow, G. / Milčeva, A. (eds.). Der Limes an der Unteren Donau von Diokletian bis Heraklios. Sofia. 275-280.

Paraschiv, D. 2006. Amfore romane şi romano-bizantine in zona Dunării de Jos (sec. I – VII p. Chr.). Iaşi.

Peacock, D. P. S. / Williams, D. F. 1986. Amphorae and the Roman economy. An introductory guide. London / New York.

Petrović, P. 1995. Inscriptions de la Mésie Supérieure, vol. III / 2. Timacum Minus et la Vallée du Timok. Belgrad.

Petrović, P. 1993. Medijana – rezidencija rimskich careva. Beograd.

Petrović, P. 1983. Porečka reka, sabirni centar za snabdevanije rimskich trupa u Đerdapu. – Starinar 33-34, 285-291.

Petrović, P. 1981. O snabdevanju rimskich trupa na Đerdapskom limesu. – Starinar 31, 53-63.

Petrović, P. / Jovanović, S. 1997. Kulturno blago knaževačkoz kraja. – Arheologija 39, 18-21.

Petrović, P. / Vasić, M. 1996. The Roman Frontier in Upper Moesia: Archaeological Investigations in the Iron Gate area – main results. In: Petrović, P. (ed.). Roman Limes on the Middle and Lower Danube. Belgrad. 22-25.

Popović, V. 1983. Donji Milanovac – Veliki Gradac (Taliata). Rimsko i rannovizantijsko utvrđene. – Starinar 33-34, 265-280.

Prodanović, L. / Popović, V. 1966. Vojni logor sa civilnim naseljem - Veliki Gradac [Taliate] kod Donjego Milanovca. – Arheološki Pregled (Arheološko Društvo Jugoslavija) 8, 74-78.

Rădulescu, A. 1976. Amfore romane şi romano-biznatine din Scythia Minor. – Pontica 9, 99-114.

Robinson, H. 1959. The Athenian Agora 5. Pottery of the Roman Perod. Princeton.

Rodschild-Boros, M. 1981. The determination of amphora contenst. In: BAR 102, 79-89.

Sarnowski, T. 2007. Novae in the *Notitia Dignitatum*. – *Archeologia* 58, 25-29.

Sarnowski, T. 2005. Drei spätkaiserzeitliche Statuenbasen aus Novae in Niedermösien. In: *Römische Städte und Festungen an der Donau*. Beograd. 223-230.

Sarnowski, T. 1999. Die Principia von Novae im späten 4. und frühen 5. Jh. In: von Bülow, G. / Milčeva, A. (eds.). Der Limes an der unteren Donau von Diokletian bis Heraklios. Vorträge der internationalen Konferenz Svištov. Sofia. 57-63.

Sarnowski, T. 1996. Die römische Anlegestelle von Novae in Moesia Interior. In: Petrović, P. (ed.). Roman Limes on the Middle and Lower Danube. Belgrad. 195-203.

Sarnowski, T. 1985. Der Legio I Italica und der unter Donauabschnitt der Notitia Dignitatum. – Germania 63, 107-127.

Sarnowski, T. 1983. Die Ziegelstempel aus Novae I. Systematik und Typologie. – Archeologia 34, 17-61.

Sarnowski, T. / Trynkowski, J. 1990. Stemple okrętowe Legionu I Italskiego na cegłach i dachówkach z Novae. – Balcanica Posnaniensia 5, 251-263.

Sarnowski, T. / Trynkowski, J. 1986. Legio I Italika – Liburna – Danuvius. In: Studien zu Militärgrenzen Roms 3. Stuttgart. 469-476.

Sciallano, M. / Sibella, P. 1991. Amphores. Comment les identifier? Aix-en-Provance.

Scorpan, C. 1977. Contribution à la connaissance certain types cèramiques romano-byzantins (IV^{e} – VII^{e} siècles) dans l'escpace istro-pontique. – Dacia (NS) 20.1, 269-297.

Skoczylas, J. / Jochemczyk, L. 1995. On Marbles and other Carbonate Materials Used at Novae. In: Biernacki, A. B. (ed.). Novae. Studies and Materials I. Poznań.

Speidel, M. P. 1987. Spätrömische Legionskohorten in Novae. – Germania 65, 240-242.

Srejović, D. 1985. Felix Romuliana – galerijeva palata u Gamzigradu. – Starinar 36, 51-67.

Srejović, D. / Janković, B. / Lalović, A. 1981. Gamzigrad. – Starinar 31, 65.

Srejović, D. / Janković, B. / Lalović, A. R. / Jović, V. 1983. Gamzigrad. Kasnoantički carski dvorac. Beograd.

Steckner, C. 1989. Bauerkonstruktion der Hauptbauphase. – Samos 17, 143-161.

Suceveanu, A. 1982. Histria 6. Les thermes romaines. Bucarest / Paris.

Tatcheva, M. 1999. Les inscriptions greques de Novae (Moesia Inferior). In : von Bülow, G. / Milčeva, A. (eds.). Der Limes an der Unteren Donau von Diokletian bis Heraklios. Sofia. 121-125.

Topoleanu, F. 2000. Ceramica romană şi romano-bizantină de la Halmyris (sec. I – VII d. Ch.). Tulcea.

Tudor, D. 1968. Oltenia romană. Bucureşti.

Uenze, S. (ed.) 1992. Die spätantiken Befestigungen von Sadovec (Bulgarien). Ergebnisse der deutsch-bulgarisch-oesterreichischen Ausgrabungen 1934-1937. I-II. (Münchener Beitraege zur Vor- und Fruehgeschichte 43). München

Uscătescu-Barrón, A. 1992. Cerámica importada en Gerasa [Ýaras, Jordania]: el lote de las excavaciones del Macellum. – Caesaraugusta 68, 115-182.

van Alfen, P. G. 1996. The 7th c. Yassi Ada shipwreck: the LR1 amphoras. – Journal of Roman Archaeology 9, 190-213.

Vasić, C. 1993. Felix Romuliana. Galerius' Palace at Gamzigrad. In: Srejović, D. (ed.) Roman Imperial Towns and Palaces in Serbia. Beograd. 145-146.

Yacobson, A. L. 1979. Keramika i keramičeskoje proizvodstvo de srednovekovoj Tavriki. Leningrad.

Zahariade, M. / Gudea, N. 1997. The Fortifications of Lower Moesia (AD 86 – 275). Amsterdam.

Zeest, I. B. 1960. Keramičeska tara Bospora. – Materiali i Issledovanija po Archeologii SSSR 83.

Prof. Dr. hab. Piotr Dyczek
Director of Research Center for the Antiquity of Southeastern Europe
of the University of Warsaw
Head of the Department of Material Culture in Antiquity of the
Institute of Archaeology of the University of Warsaw
Ul. Krakowskie Przedmieście 26/28
PL-00927 Warszawa
novae@uw.edu.pl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

An Outstanding Building in the North-Western Part of the Episcopal Complex in *Novae*

Rafał CZERNER

Archaeological and architectural research carried out in 2008 and 2009 in the Byzantine Episcopal Complex in *Novae* revealed in its north-western part remains of a great part of a large regularly planned building (**fig. 1**). In the area of approximately 18 m from east to west and 16 m from north to south no excavations have been carried out before. From the research of the rest of the complex, however, especially in the immediate vicinity, it appeared that this area should have been and indeed most of the time had remained undeveloped. Relics discovered there are, therefore, all the more interesting.

Rich remains of buildings of the Episcopal Complex in *Novae* have been archaeologically investigated for over fifty years. At that time, numerous studies were published about the architecture of individual buildings and their complexes (Novae 1978; 1981; Novae 1980-1994). Particularly well studied is the main building of the complex, the great Episcopal basilica (Parnicki-Pudełko1984; 1995; Kalinowski 2001) but also, of course, other buildings and the urban layout as a whole. In 2003-2006 and 2008-2011, as part of two research projects, extensive archaeological and architectural research was conducted, which complemented by the results of earlier studies, made it possible to present a comprehensive study on the architecture of the Episcopal Complex in *Novae* from the end of the fourth to the sixth century (Czerner 2013). The discovery described here is also a result of this research.

The Episcopal Complex of *Novae* was built on the site of a former Roman camp, on the ruins of the legionary baths. Their buildings were destroyed during the wars with *foederati* between 376 and 382. The earliest written mention of the bishop of *Novae* dates to the early fifth century (Dimitrov 1992, 84). The bishopric was established between 430 and 449 (Ilski 1984, 305-309; Parnicki-Pudełko 1995, 54). Its buildings began to be built in the first quarter of the fifth century (Biernacki / Klenina 2002, 188-190). The construction and transformation continued until the second half of the sixth century.

As a result of years of research, principal buildings of the complex were identified, and their relation and chronology of construction was defined. In particular, recent excavations and summarizing studies helped in distinguishing several phases of construction, during which new buildings were erected or already existing ones were improved (**fig. 2**).

The first stage at the end of the fourth century and the first half of the fifth century began with the construction of major structures: the great basilica with a narthex, an atrium and an entrance building on the north side of the atrium, the bishop's residence in the north-eastern part of the complex, and a *ptochotrophium* south of the basilica. In the second half of the fifth century the baptistery in the atrium was constructed as well as an outstanding building in the square located in the north-western part of the Episcopal Complex, which is the subject of this article. Between the two earthquakes of 488 and 518 this structure was rebuilt. In the bishop's residence baths were also built. The baptistery building in the atrium was pulled down. After another earthquake in 518, a second, smaller basilica north of the main one was erected, perhaps temporarily. The *ptochotrophium* complex was transformed. It was also eventually pulled down, probably damaged by the earthquake, the building in the north-western part of the complex, described in this article, thus completing its story.

In addition, further changes should be mentioned. Between the earthquake of 518 and the next

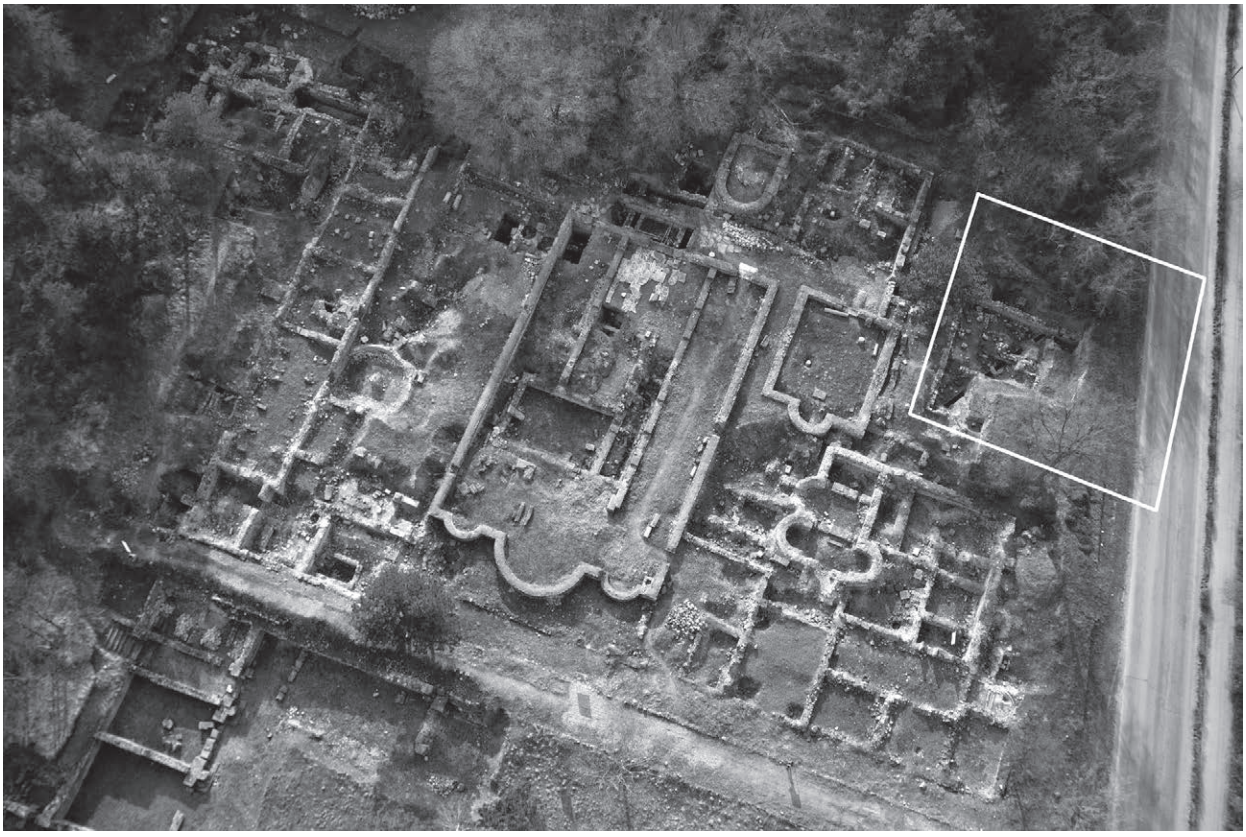


Fig. 1. Aerial view of the excavations in the Episcopal Complex in *Novae* (box: remains of the described structures) (photograph: Arc-photo)

one in 557, the eastern part and the narthex of the great basilica were rebuilt. After 557, a new baptistery building was built inside the great basilica in the east of the southern aisle, the small basilica was dismantled, and much of the buildings of the *ptochotrophium* were liquidated.

When the spatial arrangement of the Episcopal Complex was fully formed, already at the beginning of its functioning, its north-western part was left undeveloped (**fig. 3**). A large square with dimensions of approximately 30 x 35 m was formed here. It was practically outside the complex, and it preceded one of its main entrances.

The Episcopal Complex had two important entrances. Both of them, from two directions – west and north – led to the atrium in front of the great Episcopal basilica – the most monumental building of the complex. The basilica stood to the east of the atrium. The western entry, leading from the street which ran there in a north-south direction, was therefore, on the most important axis formed by the atrium, the narthex, the central portal of the basilica, and finally, the basilica itself and its nave. Due to the clarity of layout, this entrance should be considered as the most important.

The entrance from the north, however, despite the fact that did not lead straight towards the interior of the basilica, seems to have been more important after all. The reason for this is because it led through a specially constructed edifice with a large and spacious entrance hall, which occupied its greater part and entire width. At the front façade of the entrance building there was a columnar portico, which stretched over a length of about 35 m along the southern frontage of the discussed square. The boundary of the square from the east was defined by the walls of the bishop's residence and from the west by the mentioned street. The northern side of the square opened to the main communication artery of the city, the Roman *decumanus maximus*. Thus, the square was prominent and elegant, and so was the entrance to the Episcopal Complex, situated in its depth.

Quite early, in the second half of the fifth century, the square was almost entirely built up by the vast but dense and regularly planned object erected here (**fig. 3**). Despite its homogeneity, it consisted of two clearly separated large buildings. They were probably similar to each other, one in the north and one in the south, separated by a passage or a narrow

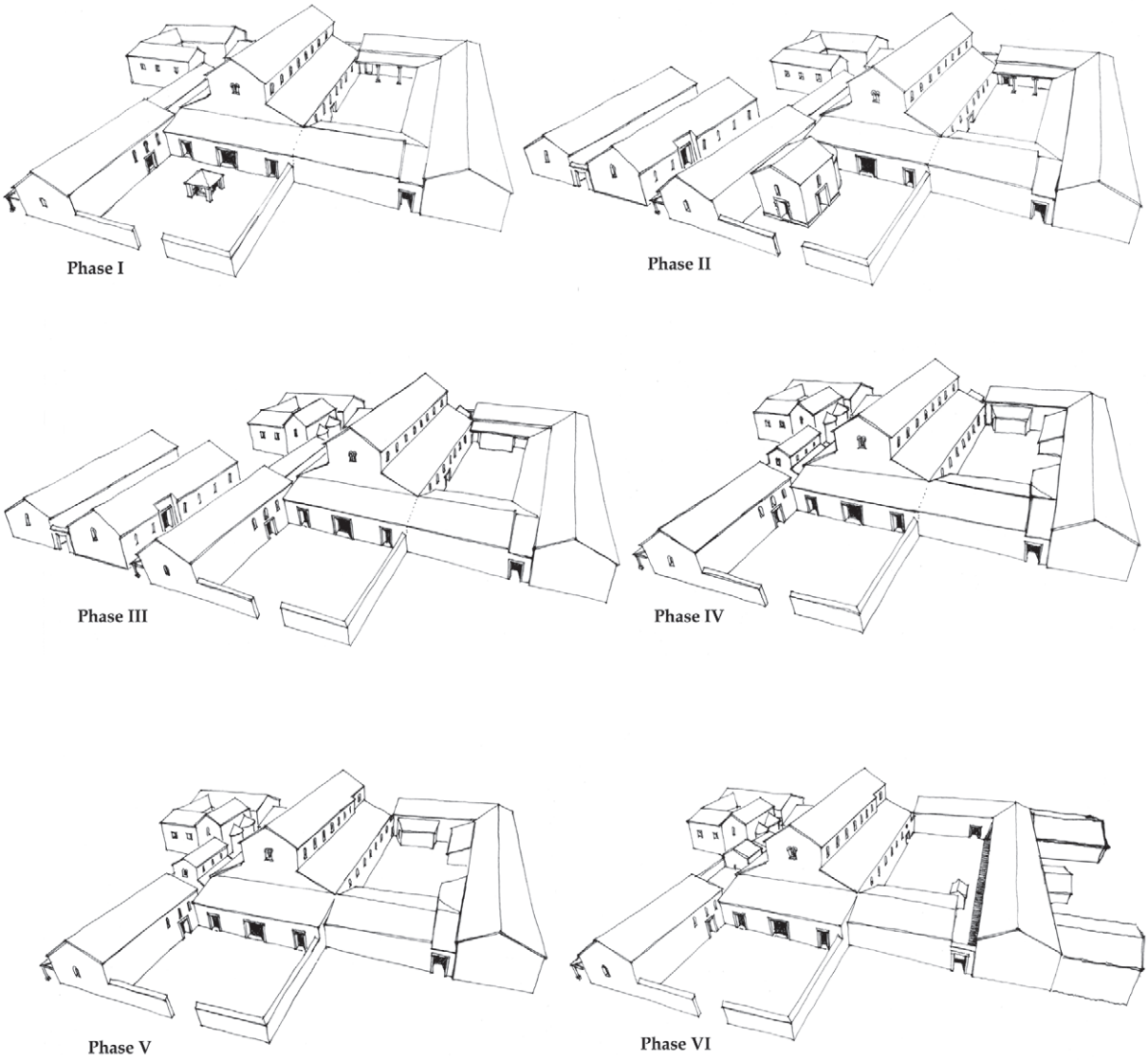


Fig. 2. Six phases of transformations of architecture of the Episcopal Complex in *Novae*, distinguished on the basis of studies and research from the years 2003-2009 (drawing: Rafał Czerner)

street. It is possible that there were further subdivisions in each of the buildings, which distinguished the western parts, slightly smaller in width. The western narrower part in the southern building can be distinguished with certainty.

Excavations carried out between 2008 and 2009 revealed only the south-eastern part of the structures erected in the square as well as the previously mentioned passage and the southern wall of the northern buildings. Based on its discovery, we concluded that a northern building or buildings existed. The size of these buildings which was similar to that of their existing southern counterparts is further supported by the distance between this wall and the *decumanus maximus*. Excavations further to the north are not possible due to the modern road that passes there today.

The entire edifice was erected in the square at a distance of about 7 metres from the frontages. So, it did not prevent the continued functioning of the square. However, it has become much more difficult. The structures also completely blocked the major and prominent entrance to the Episcopal Complex, but, of course, the proper input and passage could have been created within the newly constructed building. It is clear that the construction of buildings in this place was not originally planned, at a time when the spatial arrangement and functioning of the complex was being developed. Clearly, in the context of this situation, building up the square had to be caused by a very important need, as it has been decided to disrupt the elegant, thoughtful layout.

The remains of the south-eastern part of the building, excavated in 2008-2009, which stood in

the square, occupy a rectangular area with dimensions east-west from 14.65 m in the south to about 15.50 m in the north and south-north average of 11.35 m (**fig. 4, 5**). It is approximately one quarter of the area, which was then built up. The northern part that was likely to extend to the *decumanus maximus* was separated by a narrow street, passage or corridor, 2.85 m wide. The building lot adjacent to the west was narrowed down from the south of about 2.35 m. The wall separating the excavated parts, the broader and narrower, used a former wall from the Roman period for its foundations, which used to be the western border of the legionary baths complex. Buildings were superimposed upon other structures from the Roman times as well, including a deep canal, which evacuated water from the baths. In the relics of the described building, erected in the square in front of the entrance to the Episcopal Complex, two chronological phases could be clearly distinguished, marked by alteration of the interior (**fig. 4, 5**).

The south-western part of the building, where relics were examined, was built of irregular stones of unequal size, some very large, bonded by poor mortar and clay in the foundation part. The walls were quite narrow, of approximately 0.6 m width. In the original phase the building was divided into the three rooms en suite with internal widths from the east: about 5 m, 2.80 m and 4.15 m. An imprint of a not preserved stone threshold of a doorway was found, 1.6 m wide, between the middle and the western room. Along the wall that separated the two rooms on its eastern side, a channel ran to the north (sloping in that direction). After crossing the northern wall of the room, it was connected to another channel, which ran under the mentioned street or passage, decreasing to the west.

The deep foundation of the buildings and low utility level of the interior is difficult to explain. The aforementioned imprint of a threshold was more than two meters below the level of the entrance to the great basilica, located at a distance, but also the doorstep of a nearby entrance hall of the Episcopal Complex.

Perhaps the reason for the low level of the foundation was the lay of the land at the time of the construction of the Episcopal Complex on the ruins of the Roman baths. Studies concerning these showed that in this part of their ensemble there were no masonry buildings. When the Roman buildings were demolished, their rubble in the rest of the ensemble had to raise the ground level. In the area under consideration, this level remained unchanged and low. This situation had been found by the builders who were erecting the buildings of the Episcopal Complex. On the higher ground they began to construct buildings. In the low-lying area in the north-western part of the ensemble they formed a prominent square.

There is no data for the reconstruction of the height of the edifice, and it is even not known whether it had more than one storey. It is also difficult to reconstruct its form, or even a layout of the whole ensemble of which, after all, only a quarter of the area was examined, and more than a half cannot be excavated. Clearly, the buildings forming it were large. In the south-western, which was investigated, there were no internal courtyards, while the distance of 11.35 m between its façades is very large, comparable to the width of the nave of the great basilica – the largest building in the complex. The northern buildings should have been of the same breadth.

The discovered narrowing in the plan of the south-western part was not necessarily repeated in the northern buildings. After all, they reached the main street, *decumanus maximus,* and logically the façade from that side should have been rather equal. On the other hand, the cause of this narrowing in the plan of the southern building remains unknown. It is possible that it encompassed only few metres in front of the main entrance to the Episcopal Complex and further west the width of the building was again greater. In this way, a passage to this entrance would have been distinguished within the newly built structure.

The time of construction of the building can be defined as the second half of the fifth century. It has been determined on the basis of analyzes of construction techniques, artifacts, ceramics and coins (Dimitrov 2013) as well as on the basis of the relative chronology of the construction of buildings. Already at the turn of the fifth and sixth centuries, according to the research, the building was substantially rebuilt. Perhaps, like the other buildings of the complex, especially the baptistery, it suffered as a result of the earthquake in the year 488 and then, together with the reconstruction, was transformed (**fig. 5**). In the surveyed south-eastern part the wall separating the central and western rooms was pulled down. As a result, the wing was now divided only into two interiors: the western larger one, 7.80 m wide, corresponding to the two previous ones and the eastern of unchanged size.

The floor level was significantly raised, of approximately 0.95 m. The new floor was designed as wooden. The joists were supported on stone plinths

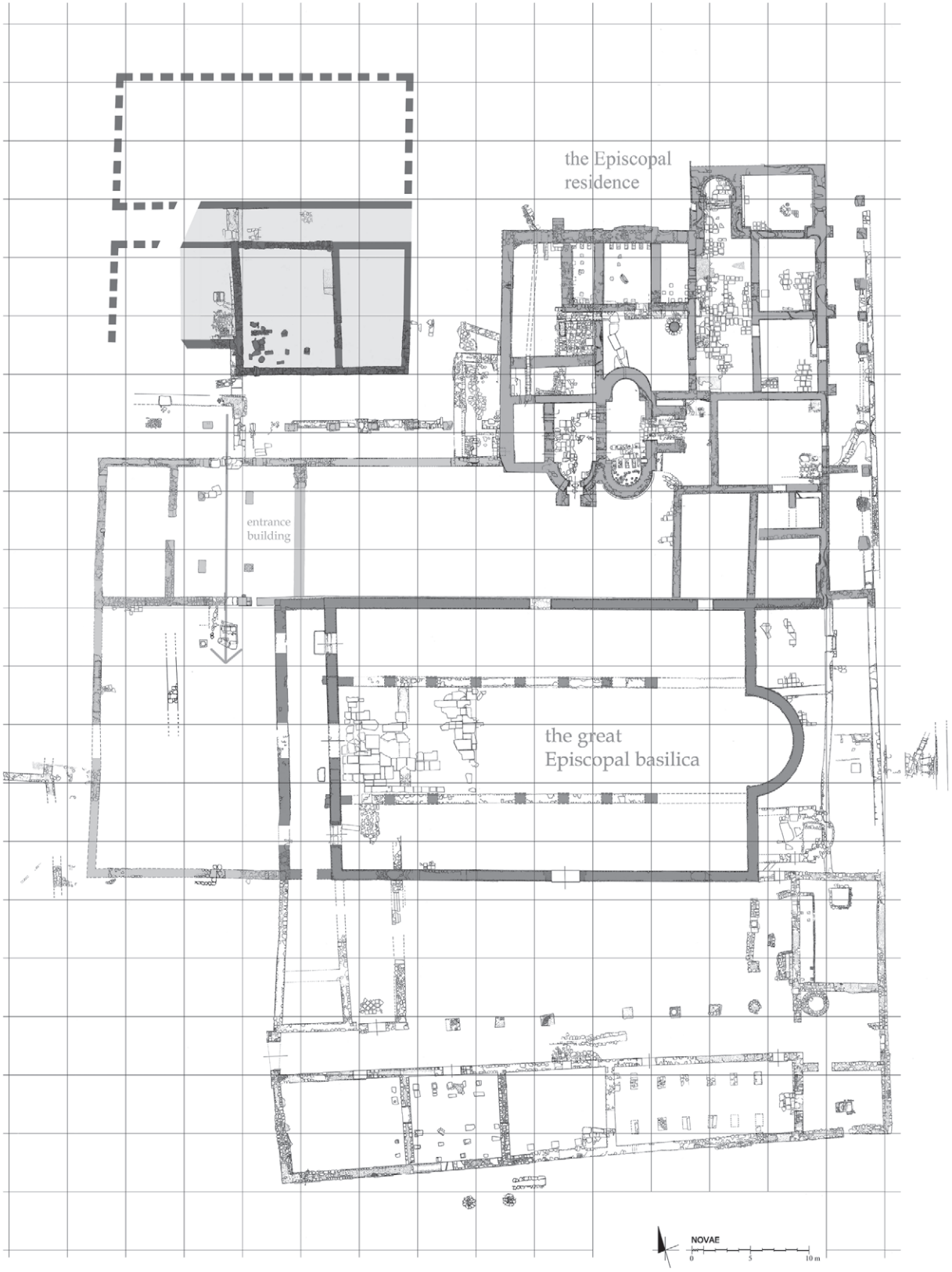


Fig. 3. *Novae*. Episcopal Complex remains plan, indicating the location and reconstructed extent of the described structures (drawing: Rafał Czerner, Agata Jasiewicz)

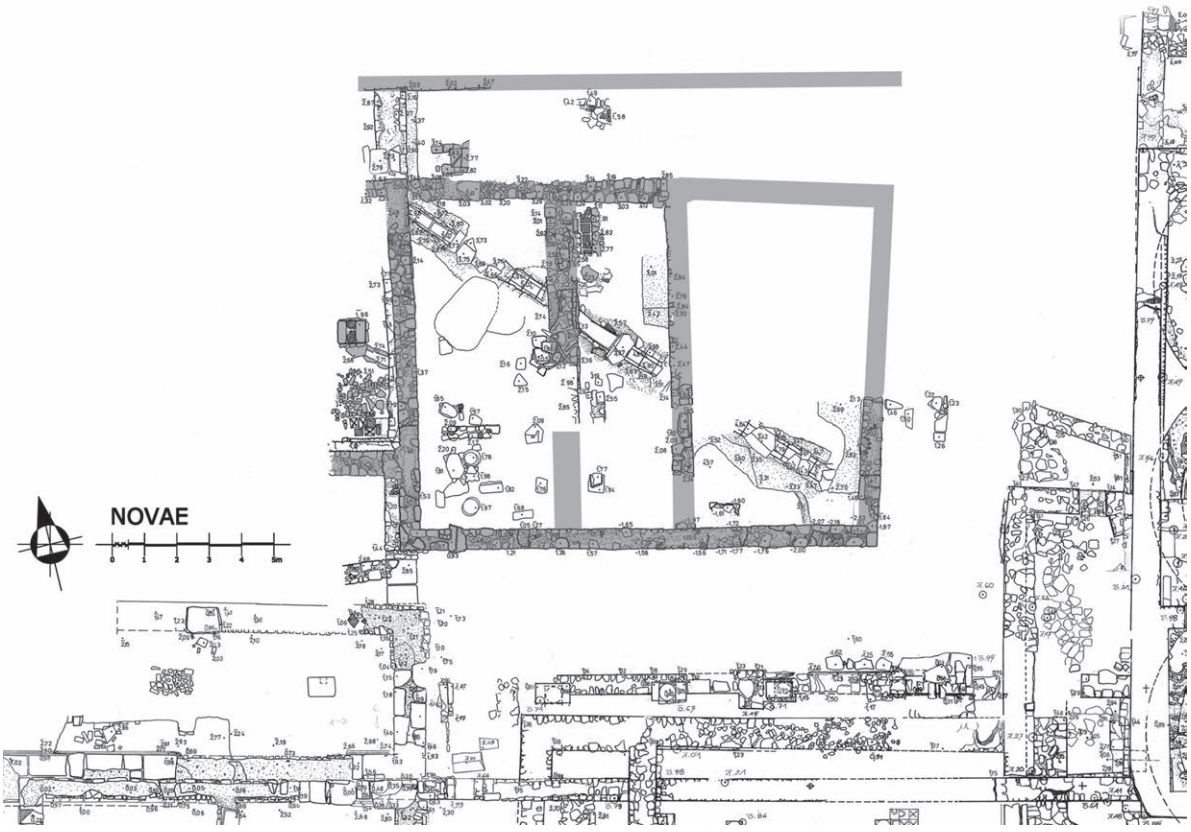


Fig. 4. *Novae*. Remains of the buildings in the square in the north-western part of the Episcopal Complex. Indicates the elements of the first phase – second half of the fifth century (measurement: Agata Jasiewicz, Marcus Markgraf)

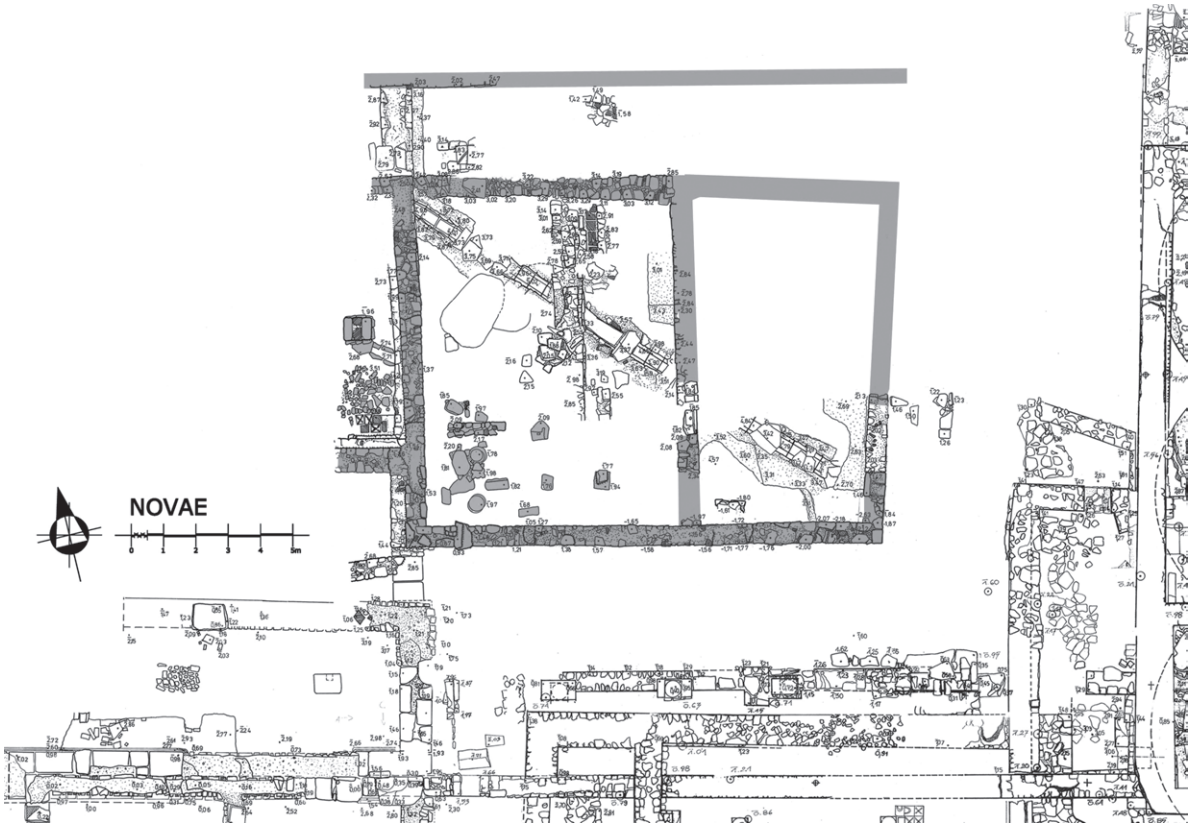


Fig. 5. *Novae*. Remains of the buildings in the square in the north-western part of the Episcopal Complex. Indicates the elements of the later phase – turn of the fifth and sixth centuries (measurement: Agata Jasiewicz, Marcus Markgraf)

laid directly on the ground (which was raised). Different architectural elements were re-used for the plinths, mostly fragments of column shafts and bases. Several of them, regularly spaced, are preserved in the south-western part of the building. Remains of two thresholds placed on a new higher level were also found. A wide stone threshold of the double entrance from the eastern to the western room is almost entirely preserved in situ. Holes for hinges and outlines of the jambs indicate that the door wings opened towards the west. The entire doorway was about 2.50 m wide, and the pillar between the two openings was 30 cm. Of the other threshold, approximately of the same dimensions as the previous one, an imprint in the structure of the wall is only preserved. It is located in the outer eastern wall of the building, close to the southern wall, 1.45 m from the inner corner. On the southern side a jamb is fragmentarily preserved to about 80 cm height. It is worth observing that below both thresholds there are no residues or other traces of earlier doorways. The described reconstruction is thus associated with rising of the floors level and the liquidation of one of the walls dividing the rooms. The positions of the door between the interior spaces and the entrance to the building were also changed. The changes were therefore more complex.

The use of the building or buildings that were erected in the middle of the square is unknown. They had, however, as already explained, an important function. This is shown by the fact that they were built on the prominent square that preceded the main entrance to the Episcopal Complex. It is also important that the structures were in the immediate vicinity of the bishop's residence and very close to the basilica, both to the main entrance and lateral on the north. The wooden floor indicates the residential character of the buildings. Although the preserved joist plinths come from the time of the rebuilding, the floor of the original stage could have been similar. Some rooms within the interior of the new structures are, as mentioned, channeled. This indicates not only the residential function, but it also points at the high rank of such an abode. Judging by the layout, the buildings size was considerable. The northern façade was adjacent to the main city street.

On the other hand, the quality of execution, at any rate of preserved foundations and lower parts of the walls is very low, quite slovenly. The foundation was built in the lower parts of irregular stones associated with clay mortar. In some places huge stone blocks are built in the walls. One of them, laid on over the level set by the threshold, and therefore, clearly in a part above the floor, is of especially large size exceeding the width of the wall and was only prepared and marked for cutting to the ordered size. This was never done. This and other examples of extremely poor overall quality of execution, combined with the described elegant layout and an important function, indicate that the buildings were erected in haste.

The edifice was built at a time when *Moesia Secunda* and *Dacia Ripensis* were inhabited by the Ostrogoths of Theodoric the Great, and *Novae* was the capital of his kingdom. We can thus discuss whether the hastily erected outstanding building could be connected with Theodoric staying in *Novae*, where he had a personal residence in the summer of 476 and in the years 486-488 (Prostko-Prostyński 1997, 25, 29-30). Such an association becomes more likely if we take into account the fact that the building, probably heavily damaged by the earthquake in the year 518, was not rebuilt after it. Apparently, it was no longer needed, and as we remember, yet blocked the main entrance to the Episcopal Complex.

Bibliography

Biernacki, A. B. / Klenina, E. 2002. Some Remarks on the Episcopal Residence from the 5th – 6th c A.D. in Novae. In: The Roman and Late Roman City. Sofia. 187-195.

Czerner, R. 2013. Architektura kompleksu budowli biskupstwa w Novae i jej przemiany w czasie. In: Biernacki, A. B. / Czerner, R. (eds.). Biskupstwo w Novae (Moesia Secunda) IV-VI w. Historia – Architektura – Życie codzienne. Vol. 1. Historia i architektura. Poznań. 55-96.

Dimitrov, K. 2013. Currency Circulation in Novae and the Coins from the Episcopal Complex in Novae (378-612 A.D.) In: Biernacki, A. B. / Klenina, E. Ju. / Genceva, E. (eds.). Biskupstwo w Novae (Moesia Secunda) IV-VI w. Historia – Architektura – Życie codzienne. Vol. 2. Życie codzienne. Poznań. 7-73.

Dimitrov, K. 1992. Novae on the Lower Danube as an Early Christian Centre (5th – 6th century AD). In: Akten des XII Internationalen Kongresses für Christliche Archäologie, Bonn 1991. Teil 1. Bonn. 700-704.

Ilski, K. 1984. Biskupstwo w Novae a zagadnienie Chrystianizacji Mezji Dolnej. – Balcanica Posnaniensia 1, 305-309.

Kalinowski, Z. 2001. Bazylika Biskupia w Novae. Wrocław. Unpublished doctoral thesis. Archives of the Institute of History of Architecture, Arts and Technology. Wrocław University of Technology. I-12/P-376/01.

Novae 1978, 1981. Novae – Sektor zachodni, Wyniki badań wykopaliskowych Ekspedycji Archeologicznej UAM, 1974; 1976 and 1978. Poznań.

Novae 1980-1994. Novae – Sektor zachodni. Sprawozdanie tymczasowe z wykopalisk Ekspedycji Archeologicznej Uniwersytetu im. Adama Mickiewicza w Poznaniu. – Archeologia 31; 33; 35; 37; 39; 41; 43; 45.

Parnicki-Pudełko, S. 1995. The Episcopal Basilica in Novae. Archaeological Research 1976-1990. Poznań.

Parnicki-Pudełko, S. 1984. Wczesnochrześcijańska bazylika episkopalna w Novae. – Balcanica Posnaniensia 1, 271-304.

Prostko-Prostyński, J. 1997. Theodoric the Great in Novae: Some remarks on the chronology of events. In: Late Roman and Early Byzantine Cities on the Lower Danube from the 4th to the 6th Century A.D. Poznań. 21-30.

Prof. Rafał Czerner
Wrocław University of Technology,
Faculty of Architecture, Institute of History of Architecture, Arts and Technology
PL-Wrocław
rafal.czerner@pwr.edu.pl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Free-Standing Towers West from *Novae*

Pavlina VLADKOVA

As a result of the excavations at *Novae* in the sector known in scientific literature as VIII A – buildings *extra muros*, situated from 70 to 200 m west from the western fortified wall of the camp and of the early Byzantine city, it has been ascertained that life in this place had begun at the early 2nd century AD and continued without a break until the beginning of the 7th century AD.

For the earliest building period, i.e. from the beginning until the 170s AD, there is not much evidence, but mostly singular finds – coins, lamps, pottery, *amphorae*, and bricks with seals. The insignificant architectural remains preserved, such as water-main, parts of a street pavement and wall foundations, give reason to specify the complex as part of the settlements around the camp, and for the distinction of at least four residential buildings.

After the 170s AD a *villa suburbana* was built, with an inner yard, a draw-well and various premises situated in all directions around them. Its western part is well examined, where vast *thermae* have been excavated. The movable finds indicate that life was most intense in the time of the Severan dynasty, at the end of the 2nd and early 3rd century AD. In the second part of the 3rd century AD the complex was damaged by some of the numerous "barbarian" raids.

As the stratigraphical observations show, for a very short period the ruins were cleared out, the walls of the buildings were partly renovated and set up with sun-dried bricks, and a new building, enormous in size and with a complex plan, functioned in this place again. It was organized around an inner yard with a small pool and a colonnade, and its four sides were orientated towards the four cardinal directions. Floor and wall heating, new water supply and drainage systems were built. The complex, defined by the experts as a residence, was functional throughout almost the entire 4th century AD. According to the numismatic material, the final destruction was a result of the Gothic invasions in the last quarter of the 4th century AD or shortly after that.

During the first half of the 5th century AD on the remains of the earlier buildings a large edifice was built, and some of its premises are partly preserved. It functioned most likely as a residential building, but was short-lived and its destruction and burning down could be connected to some of the Hunic invasions.

In the last quarter of the 5th century AD the place was used as a necropolis, of which over 100 graves have been examined and their inventory clearly shows that the deceased were Goths.

At the beginning of the 6th century AD a basilica with three naves and an apse was built. It overlaid some of the graves and was probably constructed in two phases. The latest coins from the sector show the final period of functioning of the cult building was from the last quarter until the end of the 6th century AD.

During the examination of the complex in the last years three free-standing stone towers were also found, situated north of the excavation field on the high Danube waterside **(fig. 1/1-3)**.

Information about each of them and arguments about the time of their initial construction and function shall be presented below. Archaeological and historical information about such structures, as well as results of examinations in different Roman provinces, will be used for that purpose.

Tower 1 (fig. 2)

To the north of the complex, 60 m away from the wall, in the lowest part of modern-day terrain, a stone structure with a rectangular shape emerged in 2013 during excavations in a private property. Only

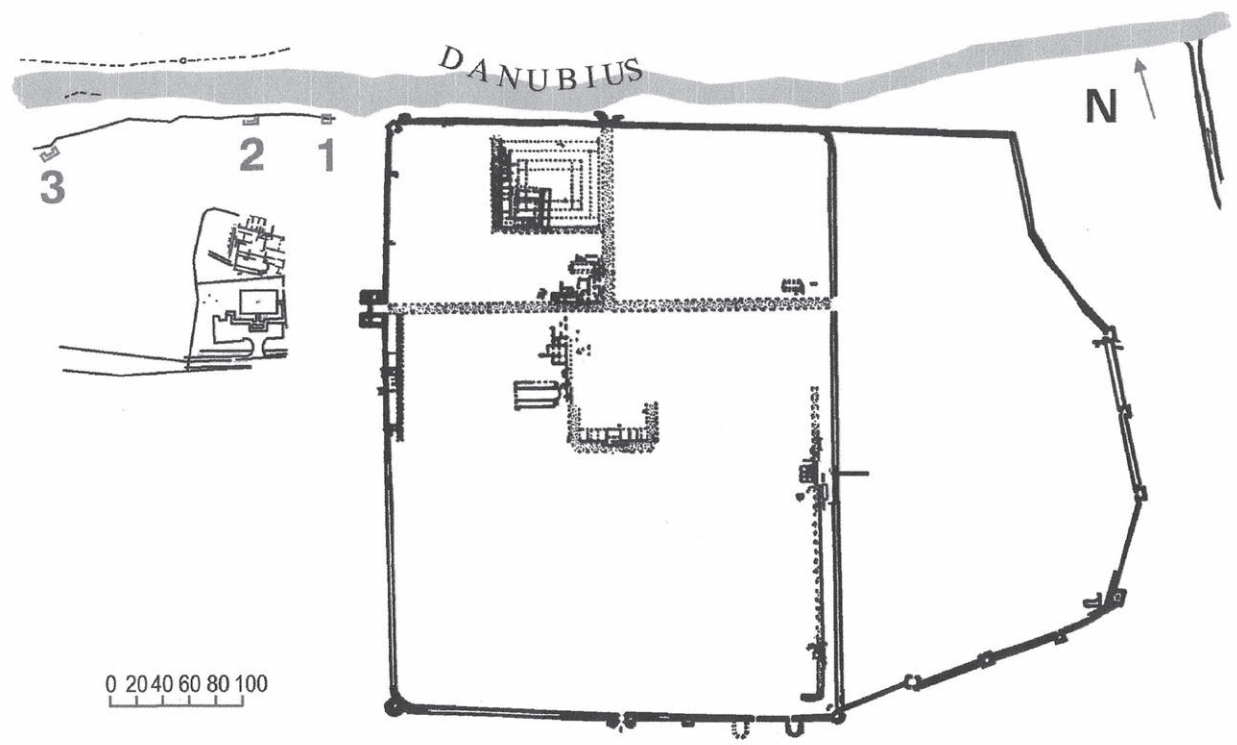


Fig. 1. Plan of *Novae* with the situation of the free-standing stone towers (1-3) (the author)

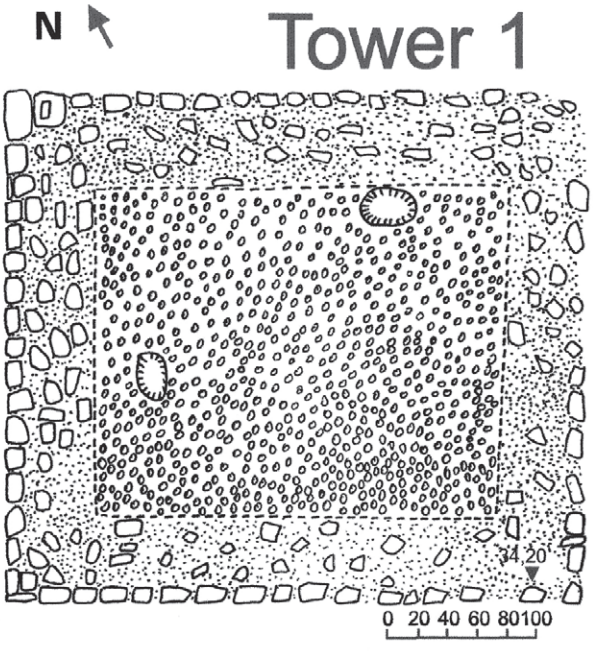


Fig. 2. Tower 1 – plan (the author)

parts of the foundations dug in the sterile layer are preserved from it.

The last row of stones from the foundation was discovered, forming a rectangular structure with the following dimensions: north-south 4 m, east-west 3.5 m, total area 14 square meters. The *substructio* is preserved to 0.20 m height. The stones with which it was built are 0.20 m wide, with the exterior sides better preserved, while the interior ones are quite ruined, and the thickness of the walls cannot be specified with certainty, but it is no less than 0.60 m.

The entire area inside is covered with a 0.20 m layer of rubble, but its initial thickness remains unknown. Under this layer is the sterile loess.

The structure is in the same axis with a corner north-west tower of the camp and is situated 38 m west from it. Its level is about 4-4.50 m above the river level, with 11 m lower than that of the inner courtyard of the building *extra muros*. This fact can be explained by the displacement of the ancient terrain from south to north and from west to east. For instance, sector VIII A – the complex *extra muros* is placed on a terrain which is 10 m higher than the place where the west gate of the camp and the early Byzantine city is situated.

The first suggestions for the functions of the construction were the following: the base of a tomb, a step of the west aqueduct of *Novae*, the drainage system of a building.

Tower 2 (fig. 3)

In 2006 sections of a stone construction were found in a private property north from the complex, after a sudden landslide of the Danube waterside caused by erosion. One corner of a construction was revealed, and its south and partly east wall were well

preserved. The walls are 0.80 m thick. The size of the construction in a north-south direction cannot be specified, the east wall revealed up to 2.80 m in length. In an east-west direction the inner length is 3.50 m and the outer is 5.10 m. The total area is not less than 12 square meters.

The foundations of the building were dug into the sterile loess to 1.30-1.40 m. The *superstructio* is preserved up to 0.80 m in height. The construction is in rows, the front side made of cut blocks, as the joints cross in every row. The mortar is hard, without mixed-in broken brick and tile. On the inner faces of the two walls (southern and eastern) white mortar plaster is preserved.

In the south-east corner, where the building is best preserved, and in the south-west part, brick pavement was discovered. The floor lies at 36.26 m a.s.l. Over the bricks a 0.05-0.07 m thick layer of pure clay was laid, and mortar putty above it. This fact shows that two construction periods of habitation can be differentiated. When compared to the construction method of the building *extra muros*, it can be concluded that the first construction period was in the 2nd until the middle of the 3rd century AD, and the raising of the level happened after that, but no later than the last decades of the 4th century AD.

Examination of the area to the south and east showed that no traces of other buildings were found. At 2.0 m distance to the east of the eastern wall was revealed a canal, made of bricks and *tegulae*, with a north-south orientation, inclined towards the Danube **(fig. 4)**. The level of its bed is 0.80 m higher than the floor level of the building and it was made undoubtedly later than the building.

In comparison to the level of the surface of the building with the inner courtyard from the 4th century, the inner courtyard of the building lies 9.0 m higher than the level of the newly discovered construction.

Tower 2 is 20 m away from tower 1.

Tower 3 (fig. 5)

In 2008, by examination of the riverside of the Danube north-west from the buildings *extra muros*, the remains of a stone construction were found. The south wall of the construction is entirely preserved, as the south-east corner is well shaped out and the layout of the entirely ruined western wall is discovered. As a result, the outer measurements in an east-west direction are 9.60 m (inner 7.60 m), but cannot be specified in a north-south direction. At the east wall they are no less than 6.20 m (inner over 4.20 m) in length. The total area is no less than 28 square meters **(fig. 6)**.

Only the foundation of the construction is preserved, deeply dug in the strong clay soil, as the *substructio* of the south wall has survived up to 3.80 m, and that of the east wall – up to 4.20 m.

The thickness of the walls is 1.00 m. They were built of very well cut ashlars. The first row is laid in

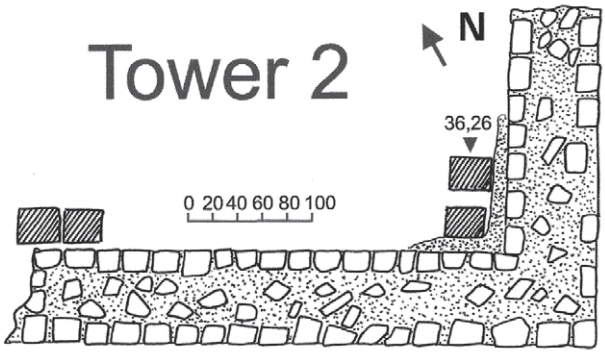


Fig. 3. Tower 2 – plan (the author)



Fig. 4. View towards the interior of Tower 2 (the author)

an already dug ditch, and the following ones (the preserved section at the east wall has 10 rows) have well-shaped front sides, as the stones have almost the same size (length from 0.15 to 0.30 m, height from 0.13 to 0.28 m), and the construction at some parts is leveled up with slab-stones. The *emplecton* consists of smaller broken stones and no bricks and tiles. The mortar is yellowish, sandy, mixed with rubble, without grind or broken bricks.

The preserved level of the front of the east wall foundations (in the highest section of the wall) is 40.60 m a.s.l., which is 2.20 m lower than the floor level of the tower 2.

Tower 3 is 75 m away from tower 2.

Summary

The statement above gives reason to affirm that three self-contained stone frontier watch towers were found at *Novae*. There are several arguments for this statement. First of all is the fact that the towers are the northernmost constructions situated west of the camp. Until now there is no evidence of any archaeological structures to the north of them. The towers are in the same axis with the northern fortified wall of the camp or, they are aligned with the bend of the Danube, respectively with the riverside.

During the examination of the area around them, small as it is, there were no remains or destructions from other buildings or constructions found, except for the canal to the east of tower 2, which, however, is on a higher level than the floor level of the tower, and belongs to the drainage of a building which functioned later than the tower. Particularly significant is the situation at tower 1, where from the last wall of the *villa* to the south wall of the tower, i.e. 35-40 m distance, no sign of constructions was found, except for two stains of fire, specified as fireplaces used in an unknown period. Or, in other words, the three constructions are isolated.

Another argument is the size of the constructions, which does not contradict the idea of their proposed use. Information about such structures from different provinces shows that these towers completely fit into the limits and standards for this type of buildings. The three towers differ in size, and it has to be noted that the easternmost is the smallest, while the westernmost is the biggest one. Probably this fact is significant and it is not accidental. It can be interpreted in relation to the nearness of the tower 2 to the camp, respectively to the corner north-west tower on the fortified wall.

Although in only one of the three cases the floor level is preserved, the thickness of the foundations and the fact that they were dug deep in the sterile layer undoubtedly show that the towers were built of stone in height, and probably were two-storied. Their roofs were covered with *tegulae* and *imbrices*, and it is possible for the later canal to the east of tower 2 to be made of re-used bricks and

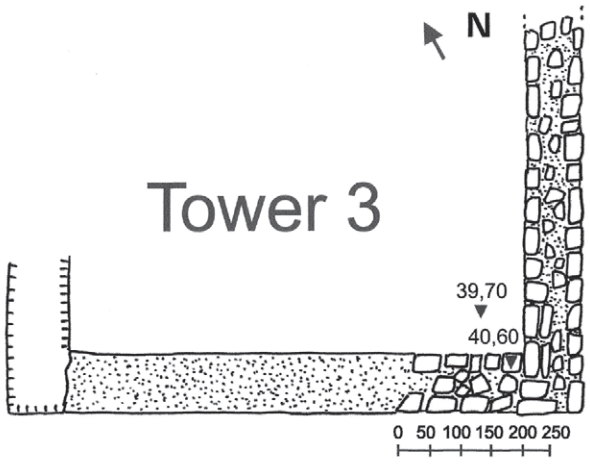


Fig. 5. Tower 3 – plan (the author)

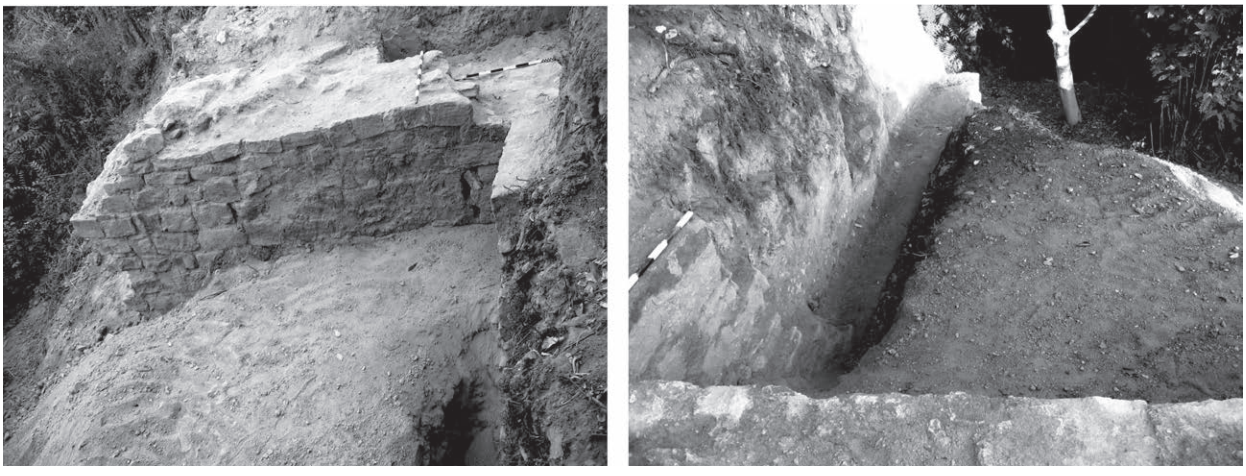


Fig. 6. View towards the interior of Tower 3 (the author)

tiles from that tower. In the presence of a roof one should consider the existence of a canal that leads the rain water away. In the three cases there is no such canal attested in an eastern direction, and it could be assumed that it was either situated to the west, directly next to the west walls of the towers, or there were gutters and the rain water flowed directly into the Danube.

There is no information and it cannot be presumed where the entrances of the towers were, except for the fact that such were to be found only on the first floor. There is also no evidence of a ditch around them (round or square), which is usual for most of the examined and published similar constructions, and in some cases it is even double (Visy 2008, 66).

Analogies

The westernmost Roman watchtower, found on the Bulgarian section of the Lower Danube, is situated to the north-east of Vidin (Динчев 2006, 171-180). The tower is a wooden construction, with a tiled roof and an area no smaller than 15 square meters. The explorer dates the construction and the functioning of the tower to the 3rd-4th century, but based on one *imbrex* with the seal of the First Cretan cohort (*Coh I Cre*), he presumed that it is possible for such construction to be built in the same place before the beginning of the *Dacian Wars* (Динчев 2006, 177). This is a hypothetical assumption, but it leaves the impression that the author considers that if there really was such an early tower, then it was also made of wood.

The other two known towers are at Batin village, in the province of Ruse (Stančev 1999, 201-205), and at Garvan village, in the province of Silistra (Torbatov 1999, 271-274). The examination of these two towers proved that they were made of stone and their construction and functioning could be dated to the 4th century AD.

To the west, around The Iron Gates (Danube), are located and examined stone watchtowers from the late 1st-early 2nd century AD, as well as from the late antique period (Пилетић 1984, 187-192; Петровић 1984, 127-129; Срејовић 1984, 197-199).

In Central and Western Europe, mainly along the Rhine and by the Danube, the free-standing frontier towers located, examined and definitely dated in the 1st-2nd or 3rd-4th century AD are numerous.

The study of Roman *limes* in *Pannonia* has led to the discovery of many wooden and stone towers. Those from the 1st century AD are only a few, while their number increases in the 2nd century AD, and in the 3rd-4th century AD the free-standing constructions definitely predominate. The explorations of the latter are most numerous and the archaeological information is verified by epigraphic and historical sources (Visy 2003, 164-178; 2008, 65-69; Mócsy 1974, 196-197).

Over the years researchers have spent considerable time and effort on discovering and interpreting the wooden watchtowers along the upper German-Rhine *limes*. As a result, the number of discovered towers is already over 900, and more than 20 of them are also reconstructed. It is proven that the first towers here were built in the beginning of the 2nd century, around the year 120 AD, in connection to the building of a palisade along the frontier. In the middle of the same century the wooden towers were replaced by stone-made ones. An interesting fact is that the old towers were not destroyed, but the new ones were built next to them, and in these cases it was not because of some attacks at the frontier, but rather for building necessities (Becker 2008, 149-162, with bibliography).

In broad terms the observations of the watchtowers in Britain can be generalized in the following way: the towers have massive foundations, door on the first floor, and in height they are built of a wooden construction, wattle and coat, which imitates a stone construction (Connolly 1991, 5).

The most important of all sources about the watchtowers along the frontiers of the Roman Empire are the images on Trajan's column, particularly scenes IV and V (Lepper 1988, 47-49). The fact that the Danube is presented in the foreground and the soldiers are in the background, gives reason for researchers to assume that the southern river bank is observed. Some details, which are definitely not accidentally presented, are worth to note. Such are: the pile of logs, the two straw pallets and the torch in the gallery on the second floor. They immediately show the function of the constructions presented here – the towers served as lookouts and for giving signals. During the daytime they sent smoke signals and at night – light signals.

Another interesting feature of the images on the column is that probably wooden towers are presented, and they are far easier for construction and more suitable for the purpose. Moreover, they have already proven that they served successfully along the north frontiers of the Empire, as early as the rule of Domitian (Lepper 1988, 48).

On the lower Danube, i.e. exactly in the section of the frontier presented on Trajan's column, the picture of watchtowers is still unclear. But the fact that

the first wooden construction of the type is already researched (the tower in the province of Vidin) shows that the images are most likely accurate, and not only a standard representation of guards on the Danube riverside.

Conclusion

The three stone towers at *Novae* were probably also used as watchtowers. According to the construction method and the material found, they were built in the rule of the Emperors Trajan and Hadrian. The towers stopped functioning no later than the last decades of the 4th century AD.

Considering the location of the towers with respect to the residential section *extra muros* and the distance of 35-40 m between them and the wall of the latter, it can be assumed that in this particular area north of the camp there was a road. It is not possible for it to be the Danubian road – most of the researchers logically consider that this road enters the city through the western gate, goes along the whole camp and comes out of the eastern gate. Although it is accepted for other Roman camps as well that main strategic roads pass through them, there is no archaeological or written evidence which can definitely prove this. In the last years, as a result of the research in to the west of the western gate of *Novae*, a street with a canal below it was found. However, this street was probably only a diversion from the main road. Systematic archaeological research has not been conducted south of the camp, but as a result of the observations of the topographical characteristics of the terrain, and also taking into an account the lack of any information from other excavation, building, ameliorative or treasure-hunting activity, it can be accepted for now that there is no certain evidence that the Danubian road was situated in this area (Dyczek 2008, 259-260). In this sense, the idea of a road north of the camp has not been expressed until now, but the three free-standing towers and the long distance between them and the north part of the complex *extra muros* certainly lead to such a hypothesis.

It is not certain, regardless of the assumptions, where exactly the port of *Novae* was situated. In any case, the traffic around it was under control and the goods loaded and unloaded there were guarded. It is logical for the main road, which was used for traffic and transport, to be situated in direct proximity to the port in a convenient and time-and-money-saving way. The port itself needed to be under permanent watch and guard, which was done by the towers.

It is very likely that the towers were connected to one of the main aqueducts of the camp. According to the researchers, the west aqueduct of *Novae* is built on the high Danube waterside, judging by the preserved remains of the permanent road (Стефанов 1930-31, 265-279; Biernacka-Lubanska 1973, 251), and undoubtedly the *castellum aquae* should be sought west of the camp wall. In the first years of the cooperation of the Bulgarian-Polish expedition, after a small-scale trenching an assumption was made that such a construction was discovered at about 130 m from the camp (Маевский 1963, 131; Biernacka-Lubanska 1973, 251) and its description in the specified publications shows undoubtedly that it was a water distribution tower. During the research of the buildings *extra muros* and the areas north and south of them, no traces of such towers were found. Not one of the three towers discovered in the last years and object of this research, does correspond in size, construction method, condition and preservation to the published descriptions of the architectural remains. Probably the tower documented in the 1960s is already ruined, because of the strong erosion in this area.

Traces of the aqueduct should be sought to the north of the complex *extra muros*, i.e. on the high waterside, or to the south, along the street which leads to the west gate. The information from excavations in the last years certainly exclude the possibility of the aqueduct and water-mains to be discovered further south, where the southern portico of the buildings was found, together with parts of the street with a canal below it, and another residential building immediately next to it.

Thus, the only remaining possibility is that the aqueduct, the *castellum aquae* and the water-mains to the camp were situated to the south of the discovered towers, which not only served as lookout structures and sent signals in case of danger, but also had the function to guard the water-supply facilities.

Bibliography

Динчев, В. 2006. Римска гранична наблюдателна кула в района на Видин. – Археология 1-4, 171-180.

Маевский, К. 1963. Археологические исследования западного сектора Нове в 1960-1961 г. – Известия на Археологическия институт 26, 115-132.

Петровић, П. 1984. Зиданац, касноантички speculum. – Старинар 33-34, 127-129.

Пилетић, Д. 1984. Велике и Мале Ливадице, антична осмотрачница и кастел. – Старинар 33-34, 187-192.

Срејовић, Д. 1984. Лепенски вир, римска кула. – Старинар 33-34, 197-199.

Стефанов, С. 1930-31. Римските водопроводи на Novae. – Известия на Българския археологически институт 6, 265-279.

Becker, T. 2008. Nature and Function of reconstructions on the Upper German-Raetian Limes using the example of wooden watch-towers. In: Breeze, D. / Jilek, S. (eds.). Frontiers of the Roman Empire. The European dimension of a World Heritage site. Edinburgh. 149-162.

Biernacka-Lubanska, M. 1973. Wodociagi rzymskie i wczesnobizantyjskie z obszaru Mezji Dolnej i polnocnej Tracji. Wroclaw.

Connolly, P. 1991. The Roman Fort. Oxford.

Dyczek, P. 2008. Geography and Topography of Novae. In: Novae. Legionary Fortress and late antique Town. Warsaw. 249-262.

Lepper, F. 1988. Trajan's column. A new edition of the Cichorius plates. Introduction, commentary and notes. Oxford.

Mócsy, A. 1974. Pannonia and Upper Moesia. A History of the Middle Danube Provinces of the Roman Empire. Budapest.

Stančev, D. 1999. Eine Befestigung beim Dorf Batin (Gebiet Ruse). In: Der Limes an der Unteren Donau von Diokletian bis Heraklios. Vorträge der International Konferenz Svištov (1. – 5. September 1998). Sofia. 201-205.

Torbatov, S. 1999. A Note on Dinogetia. In: Der Limes an der Unteren Donau von Diokletian bis Heraklios. Vorträge der International Konferenz Svištov (1. – 5. September 1998). Sofia. 271-274.

Visy, Z. 2008. The Hungariansection of the Roman limes as part of the European frontiers of the Roman Empire. In: Breeze, D. / Jelek, S. / Thiel, A. (eds.). A Roman Birodalom Hatarai. Pecs. 65-69.

Visy, Z. 2003. Towers and fortlets. In: Visy, Z. (ed.). The Roman army in Pannonia. An archaeological guide of the ripa Pannonica. 164-181.

Assoc. Prof. Pavlina Vladkova PhD
Regional Museum of Veliko Tarnovo
6 Nicola Picolo St.
BG-5000 Veliko Tarnovo
pavlina_v@hotmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Late Roman *Principia* at the Roman Fort *Dimum* (Now Belene, Bulgaria)

Gergana KABAKCHIEVA / Sonia LAZAROVA

The Roman fort *Dimum* is situated in the northern part of the town of Belene (Northern Bulgaria) and 14 km to the west of the legionary fortress *Novae* near Svishtov (Northern Bulgaria) (**fig. 1**). The fort is located in the centre of Belene Lowlands, which covers an area of 160 sq. km. On three sides (east, west, and south) it is surrounded by low-lying hills that visually separate it from the hilly Danubian Plain. The Belene Lowlands has been inhabited since prehistoric times. Certain finds discovered on its territory show that a large Thracian settlement existed in the region in the 1st millennium BC.

The first stage of the research at ancient *Dimum* was at the beginning of the 20th century, led by K. Škorpil (Шкорпил 1905, 459-460). Rescue excavations at the military fort have been carried out during the 80s and 90s of the last century (Mitova-Džonova 1986, 504-509; 1994, 47-65; Митова-Джонова 2003, 39-55). Regular archaeological studies are taking place since 2007 (Лазарова 2008, 337-340; Кабакчиева 2012, 257-259; Лазарова 2012, 260-262).

The results of the excavations at the Roman fort *Dimum* have allowed us to distinguish the following construction periods: 1) Early Roman period: from the first half of the 1st century AD until the rule of Emperor Hadrian (117-138); 2) Late Roman period: from the rule of Emperor Aurelian (270-275) to AD 378; 3) inhabited by *foederati* (Goths): 5th – 6th century. Reconstructions dated to the 6th century AD have been established along the fortress walls. The archaeological data about the fort from this period are limited since only a small part of the interior has been uncovered.

The strategic and naturally fortified location of the Belene Lowlands was highly appreciated by the Romans from the first time they set foot in the Lower Danube region. The dislocation of Roman military units in the region was part of the process of the organization of the Lower Danube frontier of the Roman Empire (*limes*) and the formation of the Province of Moesia. The *Dimum* fort played an important role in the defence and functioning of the Danube *limes* and the Lower Danube fleet to protect the north-eastern frontier of the Roman Empire (Геров 1948/49, 7-9; Kabakchieva 2012, 7-8).

As early as the Late Augustan time, a port of the Roman fleet was built near *Dimum* (Breeze 2012, 102; Matei-Popescu 2010, 245-246) as a port of the Lower Danube fleet. A cavalry military unit was dislocated in the Belene Lowlands to defend from one side the port and customs, and from the other side – the Roman military camp in *Novae* – first this of *Legio VIII Augusta* and after that the camp of *Legio I Italica.*

At the time of the Civil War (winter of AD 68-69) the fort was probably one of the fortresses burned down during the attacks by Dacians and Sarmatians in the Lower Danube region. The evidence of this period is the small finds, *terra sigillata* and amphorae sherds, and coins. Till now there are no discovered remains of the wood-earthen defence system of the oldest fort.

In the beginning of the 70s AD the military fort was rebuilt during the reign of Emperor Vespasian (69-79). A new defensive wall and towers were built to better protect the military camp. The new stone-earthen construction technique was already used for building the defence system, making it less flammable and much stronger. Sections of this defensive wall were discovered during the excavations in the south-eastern part of the fort. The masonry was made of big stone blocks for the outer faces of the wall, while the filling was made of earth mixed with

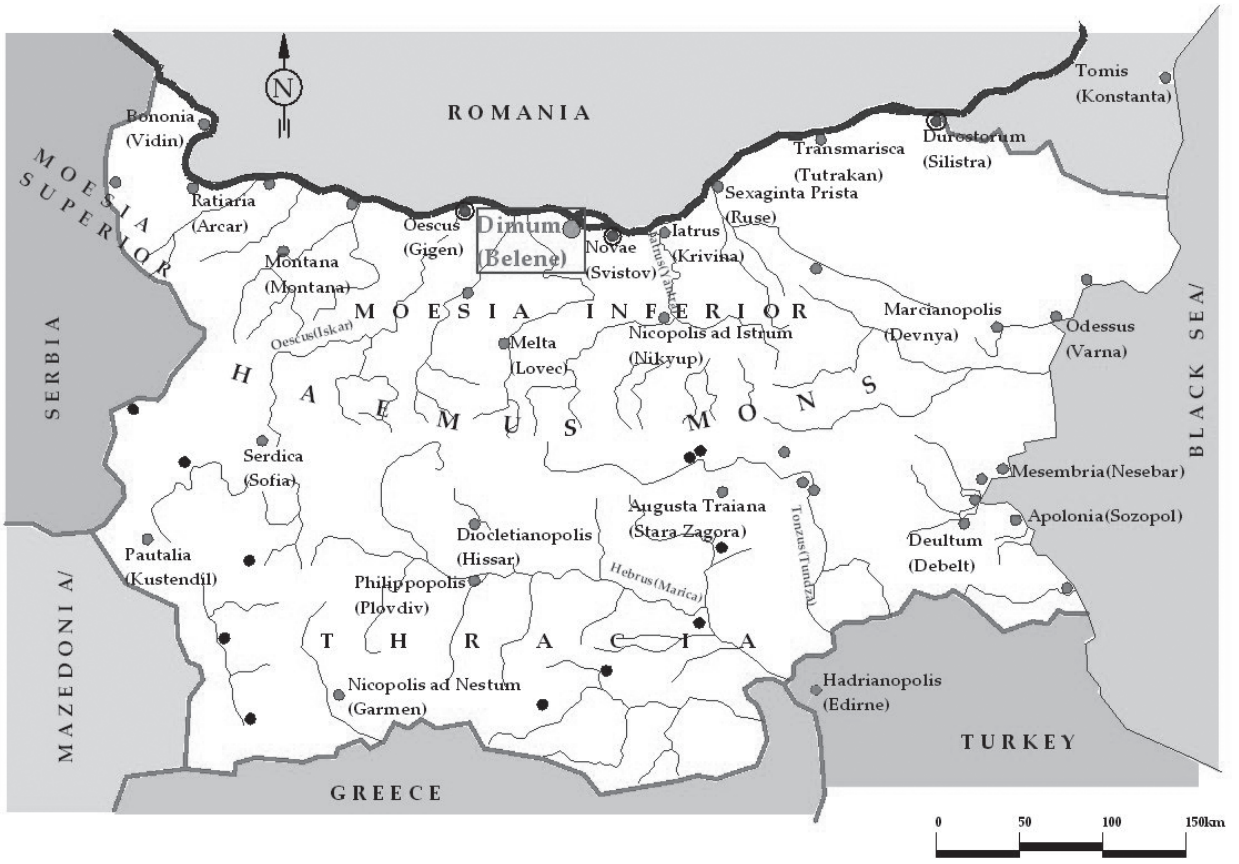


Fig. 1. The location of the Roman fort of *Dimum* on the Lower Danube

broken stones. The wall is 2.80 m thick at the base and 2.30 m thick in its section above the ground (Кабакчиева 2012, 257-258). The corners of the stone-earthen defence system were rounded and had inner towers. A small-sized inner tower was partially discovered at the south-eastern corner of the fort. The evidence of the archaeological excavations shows that the Early Roman military fort existed from the first half of the 1st century AD to the end of the rule of Emperor Hadrian (117-138).

In the second and third centuries, during the rule of the Antonines and the Severan House, the Belene Lowlands was continuously inhabited. A semi-urban civilian settlement developed under the name of *Dimum*. The military fort was probably located somewhere else. *Dimum* customs (*statio Dimensis*) as well as the port continued to operate (Kabakchieva / Lazarova 2012, 16). Economic life became more active over the period because of the transport opportunities the river and the road along the Danube offered as well as due to the proximity to the *Novae* (Svishtov) legionary fortress of *Legio I Italica*. The legion was a big consumer of goods and resources and thus, supported the development of *Dimum* in general. A number of bigger and smaller *villa* estates emerged to supply the legionary camp with agricultural and other goods. The numerous findings of household objects and pottery from the 2nd – 3rd century are indicative of the material and spiritual culture of the civilian population that lived near the port and the *Dimum* customs (Kabakchieva / Lazarova 2012, 22-27). Votive plates of deities and some sculptural monuments reveal the diversity of the cults spread in the region during Roman times. Pieces of sarcophagi and gravestones with inscriptions in Latin provide information about the social status of the population. A considerable number of architectural details, such as columns and frieze-architraves as well as pieces of sculptural monuments reused in Late Roman and Late Antique constructions, were discovered. All of the above serve as evidence of the monumental architecture in the civilian settlements near *Dimum* fort and port during the 2nd – 3rd century. Temples and sanctuaries to various deities, including Jupiter and Juno, Dionysus, Heracles, Hecate, and the Thracian Horseman among others, were built to meet the religious needs of the population in the region.

The civilian and military settlements in the Belene Lowlands faced considerable hardships at

about the mid-3rd century AD when the entire Lower Danube region was attacked by enemy tribes coming from the lands north of the Danube. These were united by the Goths. The damage was considerable. *Dimum* and the civilian settlements around it suffered a lot regardless of their proximity to the camp of *Legio I Italica*. The so-called First Gothic War of the Romans finished in the end of the 260s AD.

A new page in the history of ancient *Dimum* started with the administrative and military reforms and the big constructions undertaken in the last quarter of the 3rd century. From this time till the end of Antiquity *Dimum* belonged to the province of *Moesia Secunda*. A new military fort for a cavalry unit (*ala)* was built in the 270s (Kabakchieva 2012, 258-259). At that time the Roman Empire was ruled by Emperor Aurelian (270-276). A considerable number of coins with his image were discovered during the excavations at *Dimum*. The Late Roman fort not only protected the port and the customs that existed at that time but it also defended the west pass to *Novae* legionary camp of *Legio I Italica* and the civilian settlements around *Dimum*. The new fort was built over the remains of the Early Roman *Dimum*. Most probably, it had the same rectangular shape and covered the same area. The fort measured 240 m x 180 m (**fig. 2**). The *castellum* was with a deviation in west-east direction. Nowadays, a considerable section of the northern part of the fortification is under the waters of the Danube.

The towers of the Late Roman fortification were rectangular at the gates, fan-shaped at the corners and U-shaped on the two longer walls. The following sections of the defence system were investigated in archaeological excavations: the west gate with the surviving remains of its south tower, part of the south defensive wall, and one U-shaped tower.

The west gate was the main gate to the fort. It was in the middle of the shorter side of the military camp. Its north tower was carried away by the river. The ruins of the south tower have been investigated. It was rectangular in shape, jutted out the curtain wall and was solidly built. It measured 14.10 m x 8 m. A tower of this size belongs to the group of big towers flanking gates from the Late Roman period in the province of *Moesia Secunda*. Its walls were 2.50 m thick. The construction technique was *opus mixtum*. It was built using ashlars on top of a footing of big blocks of limestone. The space inside the wall was filled with broken stones and mortar. The preserved height of the eastern wall of the tower is up to 4.00 m above the ancient ground level. The entrance to the tower was cleared out. It was raised when repairing the defences but was preserved for as long as the fort existed.

What have been investigated of the south section of the defences of the fort are a U-shaped tower and partially a fan-shaped tower as well as about 60 m of the defensive wall (Митова-Джонова 2003, 41-43). The wall from the Late Roman period had the same layout as the Early Roman one. Most of the stones were probably reused. The wall is 2.30-2.50 m thick. It was built using the innovative for that time construction technique, namely, *opus mixtum.*

The entire system of fortifications and U-shaped towers at *Dimum* closely resembles those at other fortresses along the Lower Danube from the second half of the 3rd century and the 4th century. The closest resemblance is born to *Augustae* fortress (near the village of Harlets, Vratsa region), to the defences of *Iatrus* fort (village of Krivina, Ruse region) as well as to those at *Abritus* (Razgrad) civilian settlement.

The *principia* is the main building in the fort. Its investigations began in 2007 (Лазарова 2008, 337-340; 2012, 260-262). The *principia* is located at the centre of the fort in the so-called *retentura* (**fig. 3**). It is a large architectural ensemble – with a main entrance from the west, an open courtyard with *porticus* and special rooms to the east. The *principia* is still being excavated. Its axial orientation is east-west. The external dimensions are: width – 21.00 m (north-south) and open length of 31.00 m (west-east). It can be reached directly from the west gate via one of the main streets (*via praetoria)*. Till now, the west part of the *principia* has been uncovered: the western wall with the central gate and parts of the southern wall with a smaller gate as well as part of the northern wall. To the north the construction is strengthened with flying buttress. The walls are 1.35-1.40 m thick and with foundations at a depth of 2.40 m. The construction technique is mixed masonry or *opus mixtum.* The brick layers are of four rows. White mortar solution is used as a binder.

The main gate of the *principia* has been uncovered. It is 3.10 m long and 1.45 m wide. The door is double wing. The gate is located in the middle of the western side of the building. On the southern wall of the *principia*, 11.40 m from the south-western corner, there is another gate, 1.90 m wide. The threshold is made of two massive blocks. The door is double wing, wooden. This smaller gate is a service entrance.

The remains of two big and symmetrically positioned pillars inside from the main entrance have been uncovered. They are massive stone constructions bound with mortar and with dimensions of

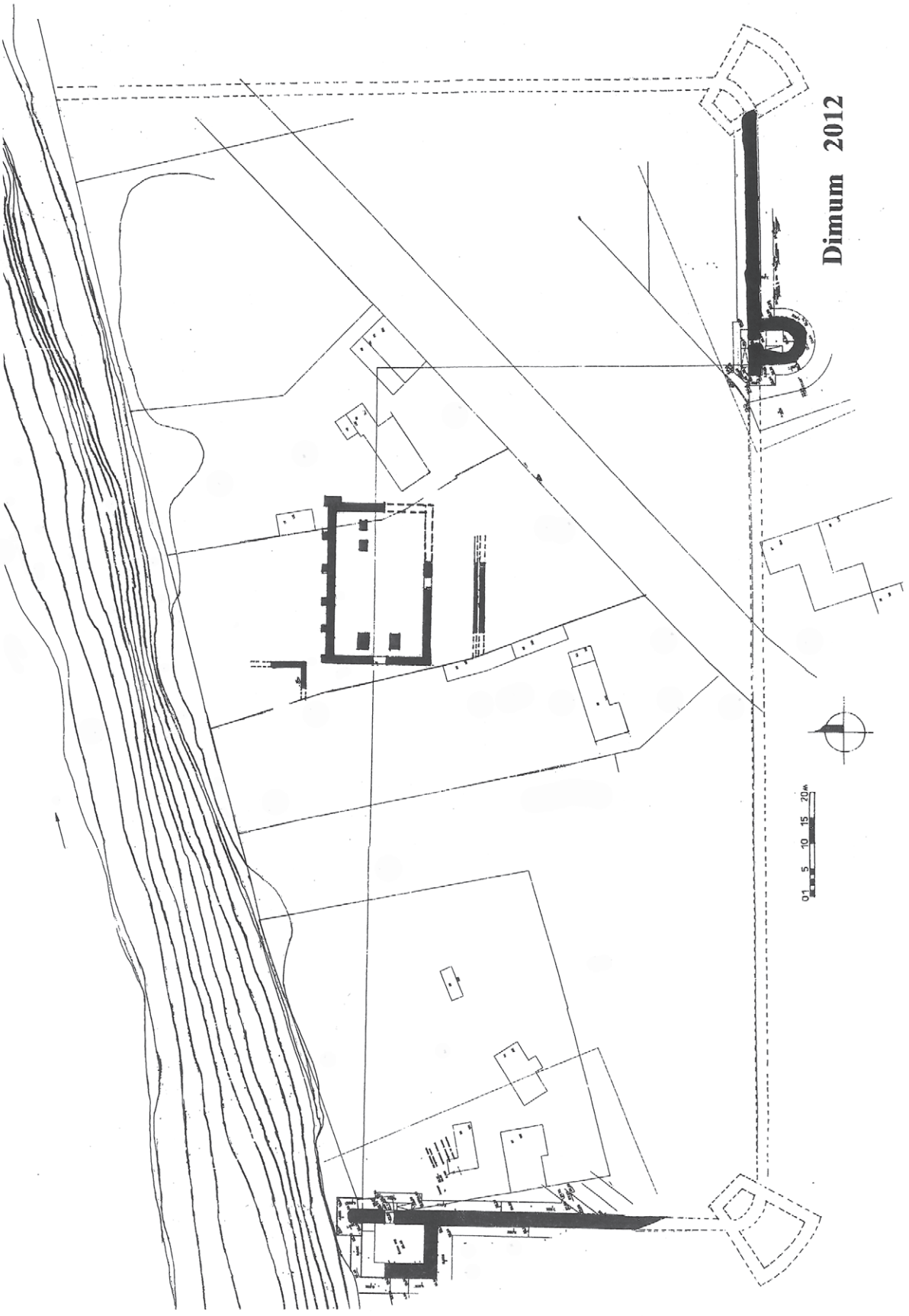


Fig. 2. The fortification and the *principia* of the fort of *Dimum* from the Late Roman period

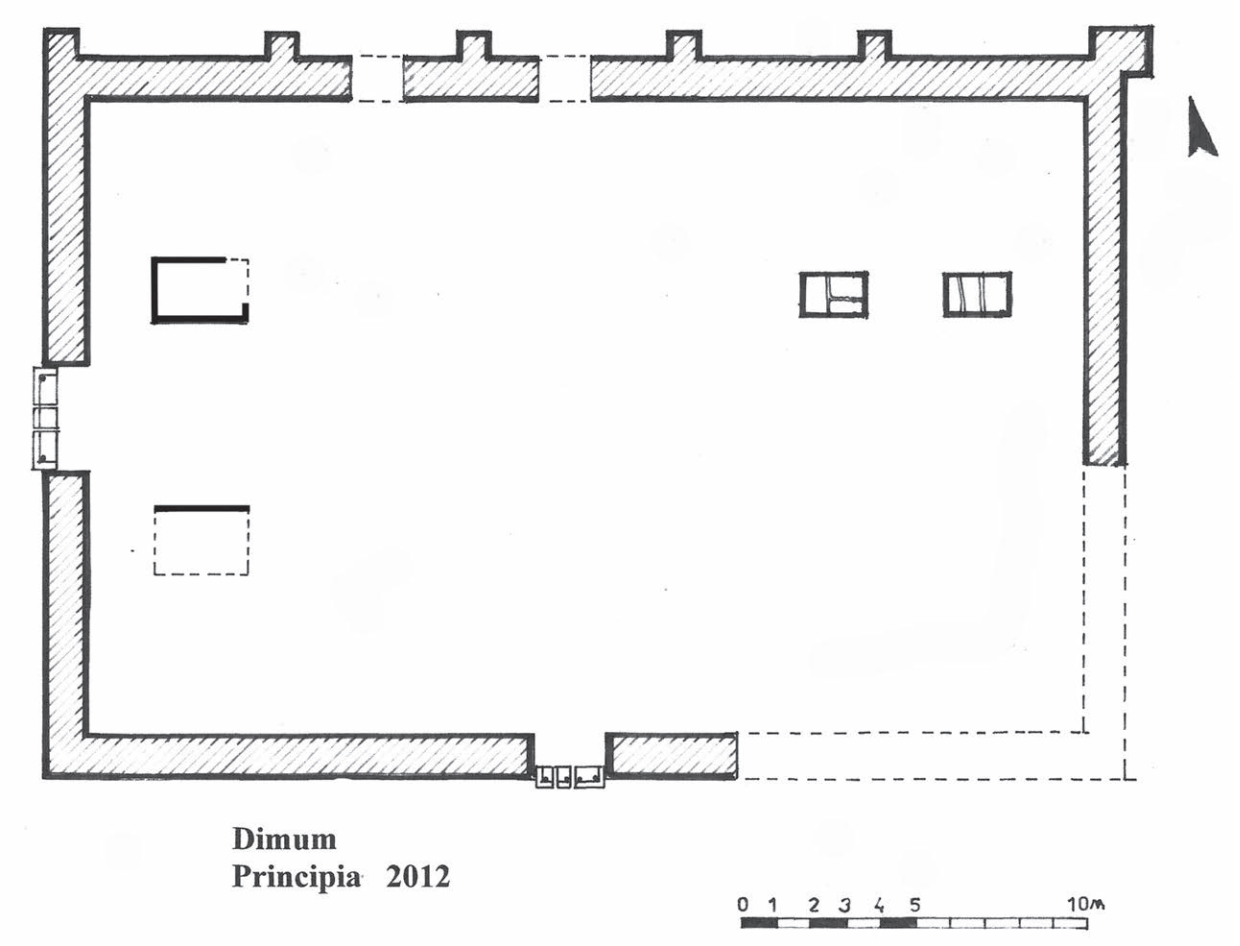


Fig. 3. Plan of the discovered part of the *principia* in *Dimum*

1.95 x 2.70 m. They are located at 1.90 m away from the western wall. Architectural details – columns and massive stone blocks – were placed near them. This part of the *principia* was entirely destroyed by fire in Antiquity. No detail from the architectural decoration of the gate has been preserved, because in the Middle Ages this area was reused for housing construction. It has been established that the floor of the building had mortar coating over a layer of crushed stones, consolidated in yellow clay soil. At the two sides of the main gate and the interior face of the wall there are traces of strong fire.

The excavations in 2012 were concentrated in uncovering the north-eastern part of the yard of the *principia*. Partly preserved remains of two pillars were found. They are 2.30 m away from each other in the east-west direction, along the longitudinal axis of the *principia* (**fig. 4**). The distance between the pillars and the interior face of the northern wall is 5.00 m, and the eastern wall – 2.10 m. Their internal dimensions are: 2.00 x 1.30 m. The construction comprises three carefully processed limestone blocks. The height of each layer is 0.40 m; two layers from the lower part of the pillars have been preserved. White mortar coating, 0.06 m thick, has been preserved on the upper surface of the stone blocks. The beds of bricks construction in height are visible on it. The newly discovered pillars and the wall east of them show that the courtyard was rectangular in plan and had a colonnade on three of its sides. How did the *principia* develop to the east will become clear after excavations in the next years.

The *principia* discovered along the Lower Danube limes are quite a few. The *principia* studied on the territory of Bulgaria include those at the legion camp *Novae* near the town of Svishtov (the camp of 1st Italic legion) (Sarnowski 1991, 303-307; 1999, 56-63), *Iatrus* fort (village of Krivina, Ruse region) (Döhle 1991, 35-58; 1995, 9-28), *Sexaginta Prista* fort (city of Ruse) (Върбанов / Драгоев 2006, 350; Dragoev 2012, 49) where an auxiliary unit was located. In the interior of the country, a *principia* has been excavated in the *Sostra* Roman fort (near the village of Lomets, town of Troyan) (Христов 2011, 70-71, обр. 8-9).

The *principia* in *Dimum* is more or less similar to these of *Iatrus* and *Sexaginta Prista* forts on the Lower Danube. All of them have a big yard with



Fig. 4. Two massive pillars in the northeastern part of the courtyard of the *principia*

colonnade and the area for the special rooms is built as a second, separate ensemble to which one can come through the entrances (Döhle 1991, 37-38; 1995, 13-18; Dragoev 2012, 49). The measurements of the courtyard of the principia in *Dimum* alone are 21.0 x 31.0 m, which means that it is bigger than those in *Iatrus* and *Sexaginta Prista*. The measurements of the principia in *Iatrus* are 24.8 m x 14.8 m and those at *Sexaginta Prista* – 30.50 x 16.50 m.

In *Dacia* and *Scythia Minor* (Isac 1999, 151-170; Benea 1999, 171-186; Avram / Petolescu 1999, 187-197; Zahariade 1999, 199-213) some *principia* in the Roman camps and forts have been studied but most of them have been built earlier than the one being investigated at *Dimum*.

The *principia* combined the functions of an administrative centre, military headquarters and a shrine, where the flag of the military unit was being kept. According to the typology by Rudolf Fellmann (Fellmann 1958, 163-170), the *principia* at the Roman fort of *Dimum* belongs most probably to the second type – a yard with a portico on three sides. The shrine and offices are in the eastern part of the ensemble. The two parts are divided by a wall with an entrance. Similar *principia* are the ones in the military camps of *Dura-Europos* and some of the Roman forts in *Britannia* such as Chester, Newstead, Housesteads etc. (Fellmann 1958, 150-153).

The studies at the *principia* at *Dimum* are ongoing. According to the historical sources, construction method (Велков 1994, 297-300) as well as the technique and finds, its erection is dated back to the Late Roman period. It was most probably built during the rule of Emperor Aurelian (270-276) or in the last quarter of the 3rd century AD. The stamps on the construction ceramics provide important information about the history of the military fort and its *principia*. They provide evidence not only on the connection between *Dimum* and the legion camp of 1st Italic legion but also about the trade activities of the troops on the Lower Danube region. The most frequent stamps on the bricks and tiles are: LEG(ionis) I ITALI(cae); LEG PRI ITAL; F F CO and construction stamps of types 3, 4 and 5 after T. Sarnowski (Sarnowski 1985, 113). The second group of stamps is: IITALFICOR; LEPIFICOR = LE(gionis) P(rimae) I(talicae) FI(glina) CO (ho)R(tis). The latter are dated by T. Sarnowski between 324-339 (Sarnowski 1985, 118). Probably, they were prepared by the cohort of the 1st Italic legion and supplied in *Dimum* for the repair works of the *principia* during the above period.

The stamps and other archaeological evidence show that the *principia* had two construction periods. The first is from the last quarter of the 3rd century and the first quarter of the 4th century. The second is from the time between 324-339 AD and 376-378, until the devastating Gothic invasions of *Moesia Secunda*. At this time the *principia*'s function as headquarters of the military unit ended.

After this time, on the area of the *principia* and around it, traces of a foederate settlement have been

found as well as evidence of occupation during the 5th century AD.

The latest evidence of the Late Antique occupation of the fort dates to the 6th – beginning of the 7th century AD. At the time of Justinian the Great (527-565) *Dimum* was repaired, which is known from historical sources and the archaeological remains of the western wall of the fort (Kabakchieva 2012, 45). This means that *Dimum* is one of the latest existing military forts on the right bank of the Lower Danube.

Bibliography

Avram, R. / Petolescu, C. C. 1999. Les fouilles archéologiques sur la frontière de Dacia Malvensis (1983-1997). In: Roman Frontier Studies 17. Zalău. 187-197.

Benea, D. 1999. Archäologische Forschungen auf dem Limes der Dacia Apulensis, 1983-1994. In: Roman Frontier Studies 17. Zalău. 171-186.

Breeze, D. 2012. The Frontiers of Imperial Rome. Barnsley.

Döhle, B. 1995. Die Siedlungsperiode A in Iatrus. In: Iatrus – Krivina, 5. Berlin. 9-28.

Döhle, B. 1991. Die Principia (Objekt XX/XXII). In: Iatrus – Krivina, 4. Ergebnisse der Ausgrabungen 1975-1981. Berlin. 35-58.

Dragoev, D. 2012. The Principia of the Late Roman Castle of Sexaginta Prista. In XXII International Limes Congress. 6-11 September 2012. Ruse. 49.

Fellmann, R. 1958. Die Principia des Legionslagers Vindonissa und das Zentralgebäude der römischen Lager und Kastelle. In Gesellschaft pro Vindonissa für 1956/1957 und 1957/1958. Brugg. 1-174.

Isac, D. 1999. Die Entwicklung der Erforschung des Limes nach 1983 im nördlichen Dakien (Porolissensis). In: Roman Frontier Studies 17. Zalău. 151-170.

Kabakchieva, G. 2012. Dimum in the Early Imperial Period (1st-2nd century AD). In: Kabakchieva, G. / Lazarova, S. (eds.). Ancient Military Fort and Customs Dimum. Plovdiv.

Matei-Popescu, F. 2010. The Roman Army in Moesia Inferior. Bucharest.

Mitova-Džonova, D. 1994. Dimum und regio Dimensis. In: Studii di storia 5 (Limes. A cura di Giancarlo Susini). Bologna. 47-65.

Mitova-Džonova, D. 1986. Stationen und Stützpunkte der römischen Kriegs- und Handelsflotte am Unterdonaulimes. In: Studien zu den Militärgrenzen Roms III. Vorträge des 13. Internationalen Limeskongresses. Aalen. Stuttgart. 504-509.

Sarnowski, T. 1999. Die Principia von Novae im späten 4. und frühen 5. Jh. – In: Der Limes an der Unteren Donau von Diokletian bis Heralios. Vorträge der Internationalen Konferenz Svištov (1. – 5. September 1998). Sofia. 56-63.

Sarnowski, T. 1991. The headquarters Building of the legionary Fortress at Novae (Lower Moesia). In: Roman frontier Studies 1989. Proceedings of the 17th International Congress of Roman Frontier Studies. Exeter. 303-307.

Sarnowski, T. 1985. Die Legio I Italica und der untere Donauabschnitt der Notitia Dignitatum. – Germania 63, 1, 107-127.

Zahariade, M. 1999. The Roman Frontier in Scythia Minor (1980-1995). In: Roman Frontier Studies 17. Zalău. 199-213.

Велков, В. 1994. Пътуванията на император Аврелиан през Мизия и Тракия. In: Историко-археологически изследвания в памет на проф. д-р Станчо Ваклинов. Велико Търново. 297-300.

Върбанов, В. / Драгоев, Д. 2006. Спасителни археологически проучвания на територията на римския кастел Сексагинта Приста. In: Археологически открития и разкопки през 2006 г. София. 348-350.

Геров, Б. 1948/49. Романизмът между Дунава и Балкана от Август до Хадриан. Част 1. – Годишник на Софийския университет, Историко-филологически факултет 45, 3-91.

Кабакчиева, Г. 2012. Археологически разкопки на античния кастел Димум (южен и западен сектор). In: Археологически открития и разкопки през 2011 г. София. 257-259.

Лазарова, С. 2012. Археологически проучвания на античния Димум при Белене, област Плевенска (сектор принципия). In: Археологически открития и разкопки през 2011 г. София. 260-262.

Лазарова, С. 2008. Археологическо проучване на античния Димум при Белене (Принципия). In: Археологически открития и разкопки през 2007 г. София. 337-340.

Митова-Джонова, Д. 2003. Димум (Dimum) и близката околност. In: Иванов, Р. (ред.). Римски и ранновизантийски селища в България. София. 39-55.

Христов, И. 2011. Кастелът Состра на пътя Ескус – Филипополис. Строителни периоди в изграждането на укрепения лагер и неговото развитие от II до V век. – Известия на Националния Исторически Музей София 23, 60-81.

Шкорпил, К. 1905. Некоторые из дорог восточной Болгарии. – Известия Русского археологического института в Константинополе 10, 443-502.

Assoc. Prof. Dr. Gergana Kabakchieva
National Archaeological Institute with Museum
2 Saborna St.
BG-1000 Sofia
gkabakchieva@yahoo.com

Sonia Lazarova MA
Military Historical Museum
157 Vasil Levski St.
BG-5800 Pleven
sonia.lazarova@abv.bg

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

In memoriam Dimităr Stančev

Zur Geschichte der Grabung *Iatrus* – Krivina

Gerda V. BÜLOW / Klaus WACHTEL

1. Von den Anfängen bis zur Wendezeit (1957–1989)

Mehr als ein halbes Jahrhundert ist vergangen von der Idee einer deutsch-bulgarischen Gemeinschaftsgrabung in dem spätantiken Limeskastell *Iatrus* bei dem Dorf Krivina, Bez. Ruse, Bulgarien. Im Jahre 1957 wurden die ersten Gespräche dazu geführt, und im Jahr 2007 erschien der sechste und damit letzte, abschließende Band der Grabungspublikation. Das waren 50 Jahre, in denen das Schicksal der Grabung verbunden war mit politischen und wissenschaftspolitischen Entwicklungen zunächst im östlichen Teil Nachkriegsdeutschlands, dann aber auch mit den Geschehnissen der sog. Wendezeit bis ins zweite Jahrzehnt des wiedervereinten Deutschland. Und selbstverständlich hat es im Verlaufe dieses halben Jahrhunderts auch in der partnerschaftlichen Zusammenarbeit zwischen bulgarischem und deutschem Grabungsteam bemerkenswerte Veränderungen gegeben. Es schien daher nicht unangebracht, einen Blick auf einige Momente dieser 50jährigen Geschichte zu werfen[1]. Der vorliegende Beitrag war quasi als Vorbereitung auf den Besuch von *Iatrus* während der Exkursion der Kongressteilnehmer nach *Novae* am 09.09.2012 gedacht.

Das Grabungsunternehmen war ein Kind der deutschen Teilung insofern, als es ins Leben gerufen wurde, um in der damaligen DDR Zugang zu feldarchäologischer Aktivität auf dem Gebiet der griechisch-römischen Antike zu schaffen, zunächst für den studentischen Nachwuchs der Klassischen Archäologen; zugleich und in zunehmendem Maße bot es aber auch Möglichkeiten für eine selbständige praxisorientierte Forschungsarbeit einer jungen Generation von Klassischen Archäologen, Epigraphikern und Numismatikern.

Als geeignete Institution für ein solches Unternehmen erwies sich – nicht zuletzt durch die bereits vorhandenen internationalen Beziehungen – das 1955 gegründete Institut für Griechisch-Römische Altertumskunde an der Deutschen Akademie der Wissenschaften im Ostteil Berlins, das nach den Worten seines damaligen geschäftsführenden Direktors, Johannes Irmscher, „die Aufgabe übernommen hatte, Untersuchungen auf allen Gebieten der griechisch-römischen Altertumswissenschaft durchzuführen. Soweit es sich dabei um die Erarbeitung und Bereitstellung von Quellen und Materialien für die Bereiche der Klassischen Philologie und Alten Geschichte handelt, hat das Institut in seiner bisherigen Tätigkeit diese Verpflichtung nach Kräften eingelöst; dagegen erlangte die Klassische Archäologie bisher noch nicht die ihr zukommende Position“ (Irmscher 1960, 292).

Bereits Anfang 1956 sind deshalb von der Leitung des Instituts Versuche unternommen worden, Kontakte zu archäologischen Instituten verschiedener sozialistischer Länder aufzunehmen mit dem Ziel, an feldarchäologischen Aktivitäten teilzunehmen. Diesbezügliche Anfragen waren u.a. nach Budapest, Bukarest, Moskau und Belgrad gerichtet, führten aber letztendlich lediglich mit Sofia zu positiven Ergebnissen, so dass bereits Anfang 1957 auf Vorschlag des Archäologischen Instituts der Bulgarischen Akademie der Wissenschaften eine gemeinsame Besichtigung von in Frage kommenden geeigneten Grabungsobjekten organisiert

[1] Eine ausführlichere Fassung des Vortrags erscheint in: Balkan Kontaktzone. Internationale Tagung in Frankfurt/Main vom 16. bis 18. Mai 2012 (in Vorbereitung).

wurde, zu der von deutscher Seite die Professoren Robert Heidenreich (Jena) und Johannes Irmscher (Berlin) sowie Dr. Helga Reusch (Berlin) und Dr. Gerhard Zinserling (Jena) teilnahmen. Diese Besichtigungsreise fand vom 16. bis 18. April 1957 statt; die bulgarische Seite wurde von Prof. Dimităr Dimitrov, einem der Direktoren des Sofioter Archäologischen Instituts und Leiter der Sektion für antike Archäologie, vertreten.

Die Reise (vgl. den Bericht Reusch 1957, 225-227) führte über etwa 2000 km von Sofia über Pleven – Svištov – Kolarovgrad (dem späteren Šumen) – Pliska – Madara – Stara Zagora – Kazanlăk – Plovdiv zurück nach Sofia. Besichtigt wurden als potentielle Grabungsobjekte die „Gradischta" (d. h. Ruinenstätten) bei den Orten Krivina (in der Nähe der Jantramündung in die Donau, etwa 15 km östlich der Donaustadt Svištov), Vojvoda (etwa 30 km nordöstlich von Šumen), bei Rupkite zwischen Stara Zagora und Plovdiv (später fand hier die deutsch-bulgarische Gemeinschaftsgrabung *Carassura* statt) (vgl. Wendel 2001, 9-14) und schließlich Tăža in der Nähe von Kazanlăk (**Abb. 1**).

Die Wahl fiel einstimmig auf das Ruinenfeld am Dorfrand von Krivina, das nach Meinung der Besichtigungsteilnehmer die günstigsten Voraussetzungen für eine erfolgreiche Gemeinschaftsgrabung bot. Ausschlaggebend für die Entscheidung waren folgende Gesichtspunkte:

1. Der antike Name des Objektes war bekannt, und zwar spätestens seit Karel Škorpil am Anfang des 20. Jh. den Ort besucht und beschrieben hatte.

2. Die Ausdehnung des Grabungsareals hielt sich in überschaubaren Grenzen (ca. 2,5 ha).

3. Das Gelände war unbebaut und wies keinen starken natürlichen Bewuchs auf und wurde außerdem nicht landwirtschaftlich genutzt, abgesehen davon, dass einige Dorfbewohner ihr Kleinvieh (Gänse und Truthühner) darauf weideten;

Als fünfter und – mit Blick auf die Unterbringung der Grabungsteilnehmer und das Vorhandensein von Arbeitskräften – nicht gerade unwichtigster Punkt galt die Nähe zum heutigen Dorf.

Die Grabungskampagnen 1 – 3 fanden in den Jahren 1958, 1960 und 1962 statt. Leiter der ersten Grabungskampagne war Robert Heidenreich (1899-1990), Ordinarius für Klassische Archäologie in Jena. Mit dem Wechsel Heidenreichs von Jena nach Leipzig 1959 war auch seine Leitung der Grabung beendet; die Leitung der Kampagnen 1960 und 1962 wurde Teofil Ivanov übertragen, einem ausgewiesenen Kenner römischer Architektur und Städtebaus, der seit 1945 die wichtigsten römischen Stadtgrabungen in Bulgarien durchführte: *Nicopolis ad Istrum*, *Serdica*, *Oescus*, *Abritus*. Die Ergebnisse der ersten drei Kampagnen von *Iatrus* wurden 1966 in einem Band der Zeitschrift Klio vorgelegt (Klio 47, 1966) (**Abb. 2**). Sie bestanden im Wesentlichen in der Klärung der Befestigungsanlage durch Ivanov, der Untersuchung von zwei übereinander liegenden Basiliken ebenfalls durch Ivanov sowie von zwei großen zweischiffigen Gebäuden im westlichen Teil des Kastellareals, an deren Erforschung mehrere Mitglieder des Grabungsteams beteiligt waren. Stratigraphische Beobachtungen und Auswertungen des Fundmaterials ergaben folgendes siedlungsgeschichtliches Bild: Die ältesten Bauten, zu denen auch die Festungsanlage gehörte, stammen aus dem Beginn des 4. Jh. Eine zweite Periode wird durch die massiven zweischiffigen Gebäude repräsentiert, deren Entstehung in die zweite Hälfte des 4. Jh. datiert wird[2]. Zu Beginn des 5. Jh. erfolgte deren Zerstörung und Wieder*besiedlung* (nicht Wieder*aufbau*) vor allem durch die Errichtung von kleineren Hauseinheiten in den Gebäudeschiffen. Die beiden Basiliken fügten sich folgendermaßen ein: die ältere wurde von Ivanov ins letzte Viertel des 4. und erste Viertel des 5. Jh. datiert, die zweite Basilika existierte nach ihm von Iustinian I. bis zum Ende des Kastells am Ende des 6. / zu Beginn des 7. Jh.

Nach dem Ende des spätantiken *Iatrus* erfolgte in seinen Ruinen innerhalb der Festungsmauern eine frühmittelalterliche slawische Besiedlung, charakterisiert durch halbeingetieefte Grubenhäuser, die mehreren Siedlungsschichten vom 8. bis 14. Jh. (*sic*!) zugeordnet wurden, und zwar nach der Keramik, die von Violeta Dimova bearbeitet wurde, die von 1960 bis 1979 als Vertreterin des Bezirksmuseums Ruse an den Grabungen teilnahm[3].

Nachdem die Ergebnisse der ersten drei Kampagnen ausgewertet vorlagen, konnte festgestellt werden: 1. die Grabung hatte ihren Zweck als Lehrgrabung erfüllt; dazu gehörte auch, dass aus dem Material zwei Dissertationen entstanden waren (Böttger 1967; Gomolka 1968). 2. Die wissenschaftlichen Ergebnisse rechtfertigten es, an

[2] Die Gebäude wurden als *horrea* (allerdings nicht als Getreidespeicher, sondern als allgemeine Magazinbauten) angesprochen: Wachtel 1979, 16 mit Anm. 59; v. Bülow 1995, 37 f. Eine andere Interpretation sieht in dem an die Festungsmauer angebauten Gebäude VII einen Kasernenbau für den *cuneus equitum scutariorum*, der laut *Notitia dignitatum* in *Iatrus* lag: Dintchev 1999, 165-174, vgl. Dinchev 2001, 225 f. mit Anm. 27; ihm hat sich Vagalinski 2003, 49 angeschlossen. Vgl. dazu auch unten S. 211.

[3] Zur später geänderten Chronologie, speziell des Beginns der mittelalterlichen Siedlung vgl. unten S. 206.

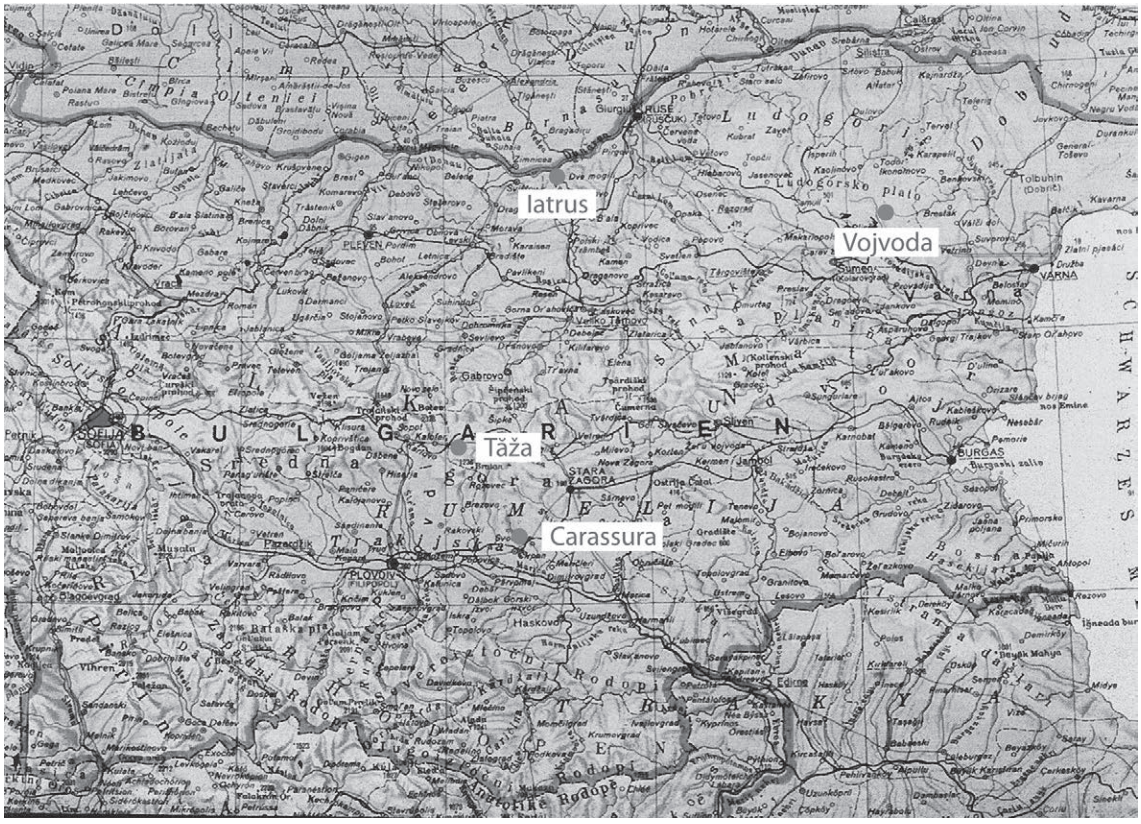


Abb. 1. Geographische Karte von Bulgarien mit den Orten der möglichen Grabungsobjekte

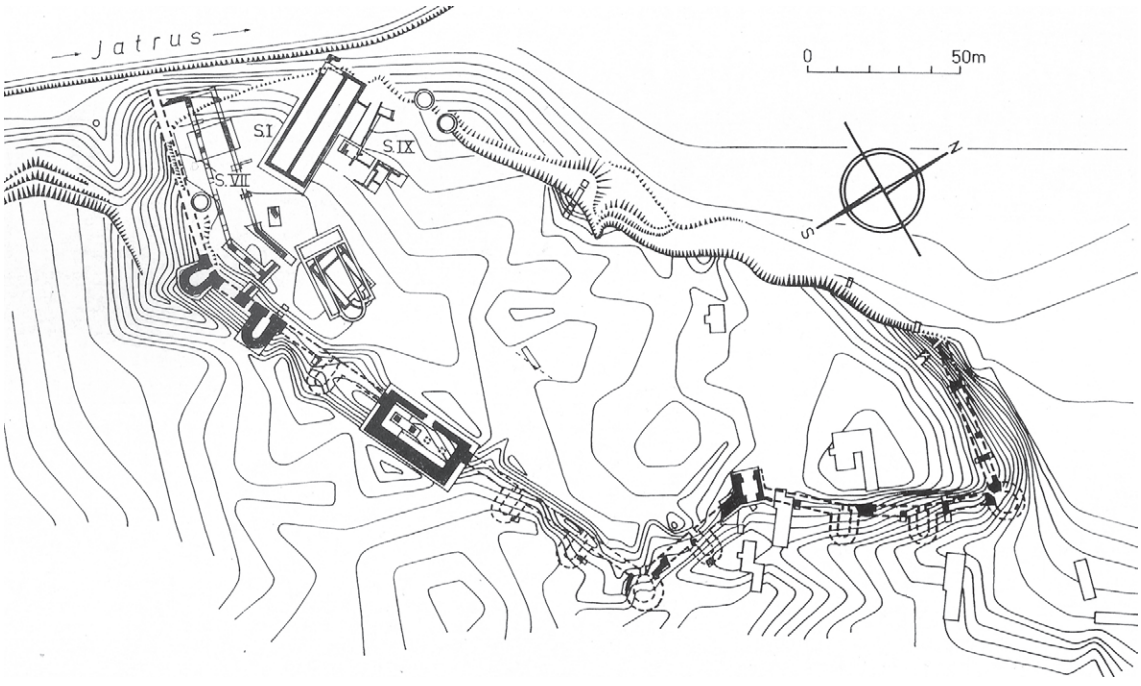


Abb. 2. Kastell *Iatrus*. Gesamtplan nach drei Grabungskampagnen 1966 (nach Klio 47)

eine Fortsetzung der Grabungstätigkeit zu gehen, so dass die Feldarbeiten im Jahre 1966 unter den veränderten Bedingungen einer weitgehend selbständigen deutschen Grabungsleitung mit mehr oder weniger intensiver Beteiligung der bulgarischen Seite wieder aufgenommen wurden.

Die 5 Grabungskampagnen in den Jahren 1966, 1968, 1970, 1972 und 1973, deren Ergebnisse in den Bänden 1 und 2 der Reihe „Iatrus-Krivina“ in den Jahren 1979 und 1982 veröffentlicht wurden,

korrigierten und vervollständigten sowohl das topographische Bild der einzelnen Perioden von *Iatrus* wie auch deren Chronologie. Hervorzuheben sind einmal die Untersuchung einer dritten Basilika unter den beiden bereits bekannten sowie die Freilegung des Peristylhofes der *Principia* und der von hier zum Osttor führenden Hauptstraße mit ihren Kolonnaden und den dahinter liegenden Raumreihen[4]. Dazu kam eine Anzahl von Wohn- und Wirtschaftsgebäuden.

Für das Grabungsunternehmen von entscheidender Bedeutung während dieser Zeit waren die Veränderungen an der Berliner Akademie, konkret die Akademiereform der Jahre 1968/69, in der die Akademie nicht nur ihren Namen Deutsche Akademie der Wissenschaften verlor und zur Akademie der Wissenschaften der DDR mutierte, sondern auch inhaltlich und organisatorisch zu einem sozialistischen Wissenschaftsunternehmen umgebaut wurde. Organisatorisch fand das für den Bereich der Altertumswissenschaften seinen Ausdruck in der Schaffung eines Zentralinstituts für Alte Geschichte und Archäologie (ZIAGA), in dem die Staatspartei SED und ihre Repräsentanten das entscheidende Wort hatten. Das führte inhaltlich dazu, dass die bis dahin die Altertumswissenschaften an der Berliner Akademie prägenden bekannten Traditionsunternehmen wie beispielsweise die großen Inschriftensammlungen des *Corpus inscriptionum Latinarum* und der *Inscriptiones Graecae* und die literarischen Gesamtausgaben wie das *Corpus Medicorum Graecorum* und die Griechischen Christlichen Schriftsteller zwar nicht aufgegeben wurden, aber ein im Wesentlichen zugunsten neuer, ideologisch geprägter Vorhaben zurückgedrängtes Dasein zu führen gezwungen wurden. Für das Schicksal der Grabung bedeutete die neue Ordnung, dass über die Weiterführung des Gemeinschaftsunternehmens endgültig erst nach dem Besuch des Direktors des Zentralinstituts, Joachim Herrmann, am Ende der 6. Grabungskampagne 1970 entschieden werden sollte. Dieser Besuch vom 9. bis 13. September stand unter einem für das Grabungsunternehmen günstigen Stern: die Ergebnisse der intensiven Profiluntersuchungen, die unter Herrmanns persönlicher Leitung durchgeführt wurden, riefen ein unerwartet hohes Interesse bei ihm, einem renommierten Slawenforscher, hervor: mehrere frühmittelalterliche Schichten und Hausgruben belegten eine Besiedlung, die (nach den Untersuchungsergebnissen Herrmanns) unmittelbar nach der endgültigen Aufgabe von *Iatrus* noch im 7. Jh. begann und bis ins 12. Jh. andauerte (vgl. Herrmann 1979a, 10 mit Anm. 3; Herrmann 1979c, 19-20). Ihre detaillierte Untersuchung versprach in den Augen Herrmanns wichtige Aufschlüsse zum Verhältnis der frühmittelalterlichen zur spätantiken Besiedlung. Das Schicksal der Grabung war damit positiv entschieden! Allerdings führte das zu einer veränderten Schwerpunktbildung, bei der die Erforschung des Mittelalters in den Vordergrund trat. Die dabei erzielten Ergebnisse riefen nicht nur freundliche Reaktionen bei einigen einflussreichen Vertretern der Mittelalterforschung in Bulgarien hervor. Vor allem war es die Frage nach der Datierung des Beginns der mittelalterlichen Neubesiedlung, also nach der Existenz bzw. dem Fehlen eines Hiats zwischen Spätantike und frühem Mittelalter, aber auch die Interpretation mancher Detailfragen der materiellen Kultur, an denen sich die Geister schieden und die Diskussionen entzündeten. Eine besondere Brisanz erhielt dieses gespannte Verhältnis durch die Tatsache, dass die bulgarische Seite durch Živka Văžarova repräsentiert wurde, die Leiterin der Sektion Mittelalterarchäologie des Archäologischen Instituts an der Sofioter Akademie, Mitglied einer alten Partisanenfamilie, die ihre wissenschaftliche Ausbildung in Moskau erfahren hatte und eine kompromisslose Gegenposition zu den Ergebnissen der deutschen Mittelalterforschung in *Iatrus* einnahm. 1975 übernahm sie die Leitung eines selbständigen bulgarischen Grabungsteams zur Erforschung der frühmittelalterlichen Schichten über dem spätantiken *Iatrus* auf einem eigenen Grabungsareal (Văžarova 1991).

Und so bedurfte es mancherlei diplomatischen Geschicks und des wohlwollenden Einsatzes von Gönnern wie des stellvertretenden Direktors des Sofioter Archäologischen Instituts, Velizar Velkov, um einen gedeihlichen Fortgang der Grabung zu gewährleisten. Schließlich wurden nach mehreren erfolgreichen Kampagnen 1978 die Erforschung der mittelalterlichen Siedlungsschichten, 1981 die Untersuchungen zum spätantiken Kastell im Wesentlichen abgeschlossen. Die Publikation der mittelalterlichen Siedlungen erfolgte 1986 im Band 3 der Reihe „Iatrus-Krivina", 1991 wurden als Band 4 (Redaktionsschluss 1984) die Untersuchungsergebnisse im Bereich des spätan-

[4] Strittig ist die Frage, ob man die Straße als *via praetoria*, das Tor als *porta praetoria* bezeichnen darf: vgl. Wachtel 1979, 15 f. mit Anm. 48; Wachtel 1991, 15-17; so beispielsweise auch v. Bülow 1991, 19 mit Anm. 1; mit Vorbehalt Döhle 1991, 33 mit Anm. 35.

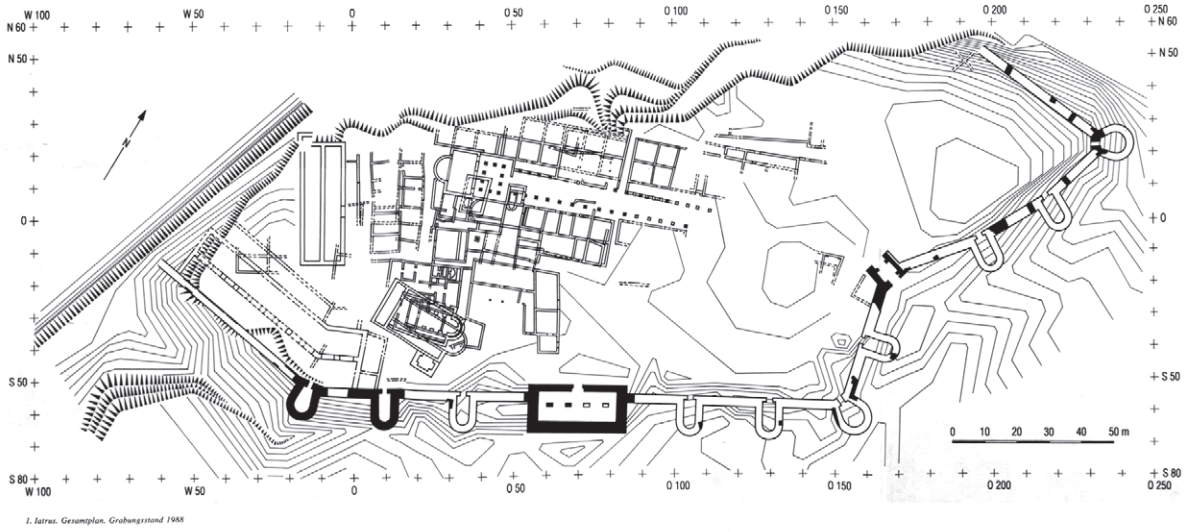


Abb. 3. Kastell *Iatrus*. Gesamtplan am Ende der ersten Grabungsetappe 1989 (nach Iatrus-Krivina 5)

tiken *Iatrus* vorgelegt. Der die Grabungsergebnisse zum spätantiken Kastell auswertende, zusammenfassende 5. Band erschien schließlich 1995 (**Abb. 3**).

Es soll in diesem Beitrag nicht Aufgabe sein, Einzelheiten zu den Gebäuden und deren Periodisierung sowie zur Stratigraphie und Chronologie von *Iatrus* vorzuführen, wie sie sich nach der Beendigung der Grabungsarbeiten in den achtziger Jahren darstellten, zumal diese nur einen Zwischenstand repräsentieren und die Grabungsarbeiten später wieder aufgenommen und mit 9 weiteren Kampagnen fortgesetzt worden sind. Dazu wird im folgenden Beitrag von Gerda von Bülow das Nötige gesagt werden.

Die Geschehnisse der sogenannten Wendezeit 1989 bis 1991 haben auch die deutsch-bulgarische Kooperation in der Feldarchäologie in starkem Maße betroffen. Das ZIAGA wurde wie alle Institute der Berliner Akademie der Wissenschaften in der Zeit vom Herbst 1990 bis Frühjahr 1991 evaluiert. Von den Projekten des ZIAGA, die nicht in der langen Tradition der Akademieunternehmen standen, fand der Großteil der archäologischen Themen natürlicherweise seinen neuen Platz im Deutschen Archäologischen Institut (DAI), zunächst als sogenannter Arbeitsbereich Ur- und Frühgeschichte, seit 1. Januar 1995 als neu gegründete Eurasien-Abteilung. Die Carassura-Grabung, die als Nachfolgerin in der bulgarisch-deutschen Zusammenarbeit die Iatrus-Grabung 1981 abgelöst hatte, war nicht unter den vom DAI übernommenen Projekten, doch konnte erfreulicherweise die Grabung Iatrus-Krivina unter dem Dach der Römisch-Germanischen Kommission (RGK) des DAI ihre Wiederbelebung feiern.

Abschließend noch ein Wort zur Frage der Konservierung: Das Problem der Erhaltung und damit Konservierung der freigelegten Großreste bildete eine frühzeitig diskutierte Frage, die aber vom dafür zuständigen Nationalen Institut für Denkmalpflege in Sofia (NIPK)[5] zunächst so entschieden wurde, dass mit Blick auf die Relation zwischen Kosten und Nutzen (zu geringe Besucherzahl) auf eine Konservierung der Steinmauern verzichtet wurde. Noch im Jahre 1978 wurden Pläne zur Konservierung mehrerer Komplexe aus den Jahren 1976 und 1977 durch das NIPK abgelehnt[6]. Den weiteren Bemühungen seitens des Museums Ruse war schließlich Erfolg beschieden: 1981 berichtete dessen Direktor, Stojan Jordanov, dass im NIPK Sofia Pläne zur Konservierung einiger Gebäude in *Iatrus* ausgearbeitet werden[7]. In den nächsten Jahren wurden bis 1984 die Principia des Lagers konserviert (**Abb. 4**); verantwortlicher Projektleiter war der Architekt Tončo Tončev von der Zweigstelle Ruse des NIPK[8].

Klaus Wachtel

[5] Nacionalen institut za pametnicite na kulturata: Nationalinstitut für die Kulturdenkmäler, Sofia, Dondukov 16.

[6] Brief vom NIPK vom 30.11.1978 an das Museum Ruse: Archiv des Hist. Museums Ruse.

[7] Brief Iordanov an Wachtel (undatiert): Archiv des Hist. Museums Ruse.

[8] Wie Nachfragen 2010 in Ruse (im Museum und telefonisch bei dem Architekten selbst) ergeben haben. Unterlagen konnten leider nicht aufgefunden werden: der Architekt gab an, selbst keine mehr zu besitzen; die Abt. Ruse des NIPK ist in den späten 80er Jahren aufgelöst worden, die Dokumentation entweder nach Veliko Tărnovo oder Sofia gebracht worden. Doch konnten weder



Abb. 4. Die *Principia* des Kastells *Iatrus* nach der Konservierung 1984

2. Von der Wiederaufnahme1992 bis zum Abschluss im Jahr 2000

Im Jahr des 22. Limeskongresses, 2012, jährt sich zum 20. Mal die Wiederaufnahme der deutsch-bulgarischen Gemeinschaftsgrabungen in dem spätrömischen Kastell *Iatrus*, bei dem Dorf Krivina, Bez. Ruse. Die erste Etappe der gemeinsamen Forschungen in *Iatrus* war im Jahr 1981 nach insgesamt 16 Grabungskampagnen beendet worden. In den folgenden Jahren stand ein neues Objekt im Zentrum der deutsch-bulgarischen Kooperation, die bereits erwähnte Straßenstation *Carassura* bei Čirpan, mit einer anderen wissenschaftlichen Fragestellung und einer neuen Arbeitsgruppe. Parallel dazu liefen die Vorbereitungen für die Grabungspublikation „Iatrus-Krivina". Im Jahr 1990 lagen die Manuskripte für den Band 5 vor, der eine auswertende Zusammenfassung der in den Bänden 1, 2 und 4 vorgelegten Grabungsbefunde enthält. Erschienen ist dieser Band nach mehreren erweiterten Diskussionsrunden schließlich 1995 und war in diesem Zeitraum von einer Abschlusspublikation zu einer Zwischenbilanz mutiert. Denn im Jahre 1992 war das Grabungsunternehmen Iatrus als deutsch-bulgarische Kooperation zwischen dem Nationalen Archäologischen Institut mit Museum (NAIM), Sofia, und der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts (RGK), Frankfurt am Main, reaktiviert worden (**Abb. 5**). Organisatorische Veränderungen, die den Veränderungen der politischen Verhältnisse nach der Vereinigung der beiden deutschen Nachkriegsstaaten geschuldet waren, hatte es aber nicht nur auf der deutschen Seite gegeben, sondern auch die bulgarischen Partner modifizierten ihre Arbeitsweise: Während in den früheren Jahren viele bulgarische Kollegen für eine oder zwei Kampagnen in *Iatrus* gewissermaßen Gastrollen gegeben hatten[9], so war von 1992 bis 1999 Lyudmil Vagalinski als Leiter der bulgarischen Arbeitsgruppe ständig an den Grabungen beteiligt, was zu einer sehr fruchtbaren, da durchaus kontroversen Diskussion führte, die für alle Beteiligten sehr anregend war[10]. Dabei ging es immer wieder auch um die Frage nach der Existenz eines kaiserzeitlichen Militärstützpunktes an der Jantramündung. Auf einer eng begrenzten Fläche innerhalb des spätantiken Kastellareals konnte L. Vagalinski Siedlungsspuren feststellen, die stratigraphisch älter als die Gründungsperiode des Kastells sind (Vagalinski 2003). Diese Befunde, die keine Reste von Steinarchitektur enthalten, interpretiert er als „zwei Müllgruben, Teile zweier eingetiefter Räume und ein Pflasterteil" (Vagalinski 2003,

hier noch dort die Unterlagen aufgespürt werden, wie persönliche Gespräche im September 2010 in V. Tărnovo und Sofia ergaben. Nach der Wiederaufnahme der Grabungsarbeiten 1992 gab es ernsthafte von der Obschtina Cenovo ausgehende Bestrebungen, *Iatrus* durch konservatorische Maßnahmen touristisch zu erschließen, die aber letztendlich ohne Erfolg blieben: die Unterlagen zu einem Projekt der Architektin Ljudmila Markova, damals stellv. Direktorin, später Direktorin des NIPK, aus den Jahren 1996/7, befinden sich im Archiv der RGK Frankfurt a.M., vgl. unten S. 214. Ein Projekt der bulgarischen Architektin Maria Živkova Chlebarova von Ilievprojekt Gabrovo aus dem Jahre 2008 konnte ich bei einem Besuch im NIPK am 2. September 2010 ansehen.

[9] Außer Violeta Dimova (von 1960 bis 1979 Vertreterin des Museums Ruse, s. o. S. 4), und Teofil Ivanov (von 1958 bis 1968 bulgarischer Grabungsleiter) haben die Kollegen Dimitrina Džonova-Mitova, Margarita Tačeva, Janka Mladenova und Georgi Kuzmanov nur kurzzeitig an den Ausgrabungen teilgenommen.

[10] Auf deutscher Seite waren ab 1992 die meisten Mitglieder des bisherigen Grabungsteams erneut an den Feldarbeiten sowie als Autoren an der Publikation des abschließenden 6. Bandes beteiligt: Burkhard Böttger (schied 1993 aus dem Grabungsteam aus), Gerda v. Bülow, Sven Conrad, Bernhard Döhle, Gudrun Gomolka-Fuchs, Edith Schönert-Geiß und Klaus Wachtel.



Abb. 5. 1994 konnte erstmals eine Gesamtansicht vom Kastell *Iatrus* vom Flugzeug aus aufgenommen werden

44). Diese Beobachtungen können jedoch nicht durch vergleichbare Befunde auf dem Kastellareal bestätigt werden[11], so dass die Annahme einer militärisch determinierten Vorgängersiedlung auf dem späteren Kastellgelände (Vagalinski 2012, 319) noch einer gründlichen Überprüfung bedarf.

Außerdem kamen an verschiedenen Stellen des Kastells Münzen und Kleinfunde zu Tage, die als Einzelstücke zwar in das 3. Jh. n.Chr. zu datieren sind, aber aufgrund ihrer sicheren Stratifizierung in eine Siedlungsschicht des spätantiken Kastells eindeutig als „Altfunde" anzusprechen sind[12]. Um unter anderem auch der Frage nach einer Vorgängersiedlung zum spätantiken Kastell im Umfeld der Jantramündung nachzugehen, wurde zwischen 1997 und 2001 eine großräumige Geländeprospektion durchgeführt, die jedoch ebenfalls zu einem Negativergebnis führte (**Abb. 6**), so dass die Lösung dieses Disputs als Aufgabe für spätere Generationen von Archäologen bestehen bleibt (Conrad 2006).

Stetig an den Ausgrabungen beteiligt war auch Dimităr Stančev vom Historischen Regionalmuseum Ruse. Er ist leider im Jahre 2010 gestorben, konnte aber das Erscheinen des 6. Bandes noch erleben, in dem er mit mehreren Beiträgen präsent ist, von denen der wichtigste der über das neutral als Objekt XLI bezeichnete Gebäude südlich der *Principia* ist, das er mit großer Wahrscheinlichkeit als *praetorium* anspricht (Stančev / Conrad 2007, 111-114).

Zwischen dem Beginn der neuen Grabungsetappe 1992 und deren Abschluss im Jahr 2000 wurden insgesamt neun Sommerkampagnen durchgeführt. Dabei wurde eine Gesamtfläche von ca. 2500 m^2 fast überall bis zum anstehenden Boden untersucht. Von der erhaltenen, rund 2,4 ha großen Kastellfläche ist nach Abschluß der Grabungen

[11] Im Nordostteil des erhaltenen Kastellgeländes wurden hingegen zwei hallstattzeitliche Körpergräber sowie eine gemauerte Grabkammer mit Leichenbrand von mindestens zwei adulten Individuen, die ebenfalls in die frühe Eisenzeit datiert werden kann, geborgen. Alle drei Grabstellen sind unmittelbar durch die spätantiken Gebäudemauern gestört, so dass hier eine zwischenzeitliche Besiedlung ausgeschlossen werden kann, s. Pytlik 2001.

[12] Das betrifft z.B. die Marmorplatte mit der Darstellung eines Thrakischen Reiters, s. Wachtel 1991, 309, Kat.-Nr. 15; vgl. auch Vagalinski 1997; dagegen Oppermann 2006, 118, Kat. 943. Zu den Münzen aus der Vorkastellzeit vgl. Schönert-Geiß 2007, 329-330. Eine Zusammenstellung dieser Funde findet sich bei Gudea 2006, wobei die relevanten Fundkontexte grundsätzlich keine Beachtung finden. Besonders deutlich als mehrfach wieder verwendeter Altfund muss das Fragment eines Militärdiploms gelten, s. Wachtel 2007, 322-323; vgl. auch Банев / Вагалински 1995.

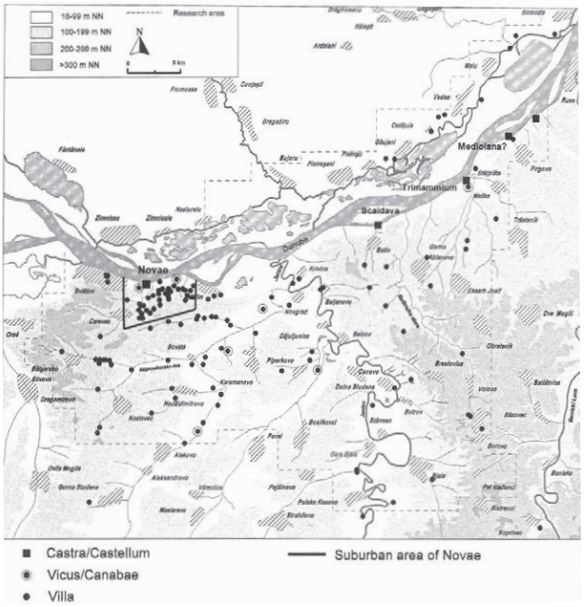


Abb. 6. Kartierung der durch die Geländeprospektion von 1997 – 2001 lokalisierten Fundplätze (nach Conrad 2006)

mit insgesamt etwa 1,4 ha Fläche etwas mehr als die Hälfte des Areals archäologisch erforscht. Die Aufarbeitung des Gesamtmaterials zog sich über mehrere Jahre hin und mündete schließlich in dem sehr umfangreichen und abschließenden Band 6 der „Iatrus-Krivina"-Reihe[13].

Worin bestehen aber die wesentlichen neuen Forschungsergebnisse?[14]

Die in Band 5 vorgenommene Neugliederung der Periodeneinteilung konnte grundsätzlich bestätigt werden (v. Bülow 1995, 29-31)[15]. Danach lässt sich die insgesamt knapp 300jährige Existenz von *Iatrus* in vier Perioden gliedern:

Periode A dauerte von 310/320 bis 350/360.

Periode B/C begann 360/375 und endete um 440/450 mit einer Zäsur zwischen den Phasen B und C um 410[16].

Periode D1 umfasste den Zeitraum von 490/500 bis 520/530 und

Periode D2 dauerte von 530/540 bis ca. 600.

Jede dieser vier Siedlungsperioden weist ein von den anderen unterschiedenes Siedlungsbild auf und wirft ganz spezifische Fragen zur historischen Interpretation auf.

Für die Periode A, die durch die neuen Grabungen als eine Neugründung „aus wilder Wurzel" (Herrmann 1979c, 11) bestätigt worden ist, stellt sich vor allem die Frage, wie weit in konstantinischer Zeit auf kaiserzeitliche Traditionen der Militärarchitektur zurückgegriffen wurde und welche Neuerungen vorgenommen worden sind (**Abb. 7**). Insgesamt konnte die in Band 5 aufgestellte These, dass in der konstantinischen Anlage von *Iatrus* noch einzelne Elemente der kaiserzeitlichen Militärarchitektur zu finden sind, für die Gesamtanlage jedoch neue Lösungsmöglichkeiten geschaffen wurden (Döhle 1995, 26), weiter erhärtet werden. Das betrifft sowohl das bereits angesprochene Prätorium wie auch einen größeren Gebäudekomplex westlich der *principia*, der auf Grund seiner tabernenartigen Gebäudestruktur wahrscheinlich als Baracken/Kasernen anzusprechen ist, obwohl die für kaiserzeitliche Anlagen typischen Kopfbauten fehlen[17]. Auch entlang der Nordseite der Hauptstraße konnte eine geschlossene Reihe von *tabernae* festgestellt werden, deren nordöstlicher Abschluss auch Bezug auf den gebrochenen Verlauf der Festungsmauer und die begleitende Straße nahm[18].

An der Errichtung des Kastells war die im nur 20 km entfernten *Novae* stationierte *legio I Italica* beteil-

[13] Iatrus-Krivina 6 umfasst ca. 460 Druckseiten sowie eine CD ROM mit der Grabungsdokumentation und weiteren Illustrationen zu den untersuchten Objekten.

[14] Die folgenden Ausführungen basieren auf den in Iatrus-Krivina 6 vorgelegten Beiträgen, die an dieser Stelle jedoch nicht im Einzelnen zitiert werden sollen.

[15] Für die einzelnen Perioden konnte stellenweise noch eine differenziertere stratigraphische Aufteilung der Baubefunde vorgenommen werden: Döhle 2007, 39-54.

[16] Auf Grund der Grabungsbefunde speziell im Bereich der Basiliken und der beiden Großbauten (horrea) im Westen bzw. Südwesten des Kastellgeländes waren zunächst die Siedlungsperioden B und C als getrennte Entwicklungsphasen der Besiedlung angesehen worden, was jedoch durch den weiteren Verlauf der Untersuchungen revidiert werden konnte, vgl. Herrmann 1979b, 11-14; Wachtel 1979, 15-19; v. Bülow 1995, 29-31.

[17] Vergleichbare Baustrukturen finden sich auch in anderen spätantiken Militärlagern, z. B. in *Diocletianopolis*: Маджаров 1993, 101-111; vgl. auch Brulet 2004.

[18] Betont man bei der Interpretation der Erstanlage von *Iatrus* die kaiserzeitlichen Traditionen der Lagerarchitektur, wie es in den verwendeten Gebäudebezeichnungen *principia* und *praetorium* zum Ausdruck kommt, können die „Hauptstraße" als *via praetoria* und die Straße an der Innenseite der Festungsmauer als *via sagularis* definiert werden. Eine *via principalis* hätte es demnach in *Iatrus* nicht gegeben, wohl aber wäre die Nord-Süd verlaufende Straße westlich der *principia* als *via quintana* anzusprechen, s. v. Bülow 1991. Eine ablehnende Position zu dieser Frage nimmt Döhle 1991, 33 ein. Diese Frage wird nach wie vor in der Forschung kontrovers diskutiert bzw. beantwortet, s. dazu o. S. 206 mit Anm. 4.

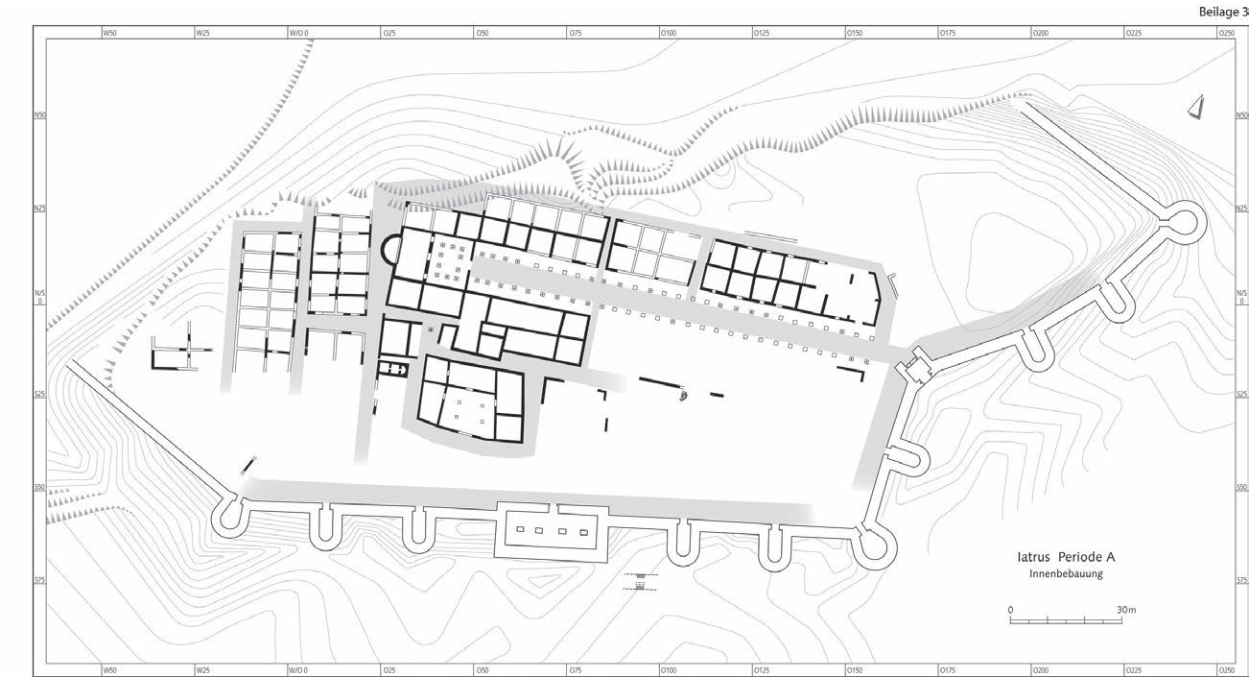


Abb. 7. *Iatrus*. Bebauungsplan der Siedlungsperiode A (nach Iatrus-Krivina 6)

igt, darauf weisen die Funde von Ziegelstempeln dieser Legion in *Iatrus* hin. Nicht sicher ist dagegen, welche Truppeneinheit in *Iatrus* lag: In der Not. dign. wird ein *cuneus equitum scutariorum* erwähnt, und T. Sarnowski meint, dass gerade dieser Abschnitt der *Not. dign.* nach der Mitte des 4. Jh. nicht noch einmal aktualisiert worden sei (Sarnowski 1985, 107-127). Das durch die militärischen Funktionsbauten geprägte Siedlungsbild der Periode A scheint diese These zu bekräftigen.

Das Ende der Siedlungsperiode A wurde nachgewiesenermaßen nicht durch eine gewaltsame Zerstörung herbeigeführt[19]. Vielmehr könnte die Aufgabe sämtlicher militärischen Funktionsbauten des Kastells mit einem Abzug eben dieses *cuneus* in der Regierungszeit von Constantius II. erklärt werden[20]. Der unmittelbar anschließende Wiederaufbau von *Iatrus* (Periode B/C) führte nämlich zu einem grundsätzlich anderen Siedlungsbild, für das nicht mehr militärische Funktionsbauten charakteristisch sind, sondern individuell gestaltete Wohn-Wirtschaftskomplexe und kleine Handwerksstätten (**Abb. 8, 9**). Außerdem wurde an der höchsten Stelle der ummauerten Siedlung die erste christliche Kirche errichtet sowie zwei große zweischiffige Gebäude, die als *horrea* gedeutet worden sind (v. Bülow 1995, 37-38)[21]. Die teils durch zivile Individualbauten, teils durch öffentliche Gemeinschaftsbauten geprägte Siedlung der Periode B/C lässt sich mit der Ansiedlung von Föderaten im dritten Viertel des 4. Jh. in Verbindung bringen, was sich auch durch einschlägiges Fundmaterial wie z.B. grautonige Keramik mit Einglättmustern belegen lässt (v. Bülow 1998, 145-157; Gomolka-Fuchs 1995, 81-105). Diese Interpretation ist jedoch nicht unumstritten, indem Venzislav Dinčev annimmt, dass zumindest eines der beiden „Horrea" (das direkt an die südwestliche Festungsmauer angebaute Objekt VII) als Kaserne für den erst jetzt, d.h. am Ende des 4. Jh. in *Iatrus* stationierten *cuneus* gedient habe (Dintchev 1999, 165-174; 2001, 225-226). Nicht zuletzt auf Grund des schlechten Erhaltungszustandes der Erstanlage dieses Gebäudes lässt sich die Frage bisher nicht eindeutig beantworten.

Am Ende der etwa 80 Jahre währenden Siedlungsperiode B/C stand eine vollständige

[19] Eine Brandkatastrophe als Ende der Siedlungsperiode A, wie sie Vagalinski 2012, 319 konstatiert, lässt sich archäologisch nicht nachweisen, s. Döhle 1995, 25.

[20] Die Aufgabe und den beginnende Verfall des Kastells bringt B. Döhle mit einem Abzug der Besatzung in den frühen 60er Jahren des 4. Jh. in Verbindung (s. Döhle 1995, 25 mit Anm. 74), während L. Vagalinski das Ende der Periode A aufgrund einer einzelnen Münze „prior to AD 347" ansetzt (Vagalinski 2012, 319; vgl. auch Vagalinski 2003, 46).

[21] Die *horrea* dienten vermutlich nicht ausschließlich als Getreidespeicher, da ihnen dafür einige bauliche Details fehlen, speziell die Kontraforce an der Außenseite der Längsmauern.

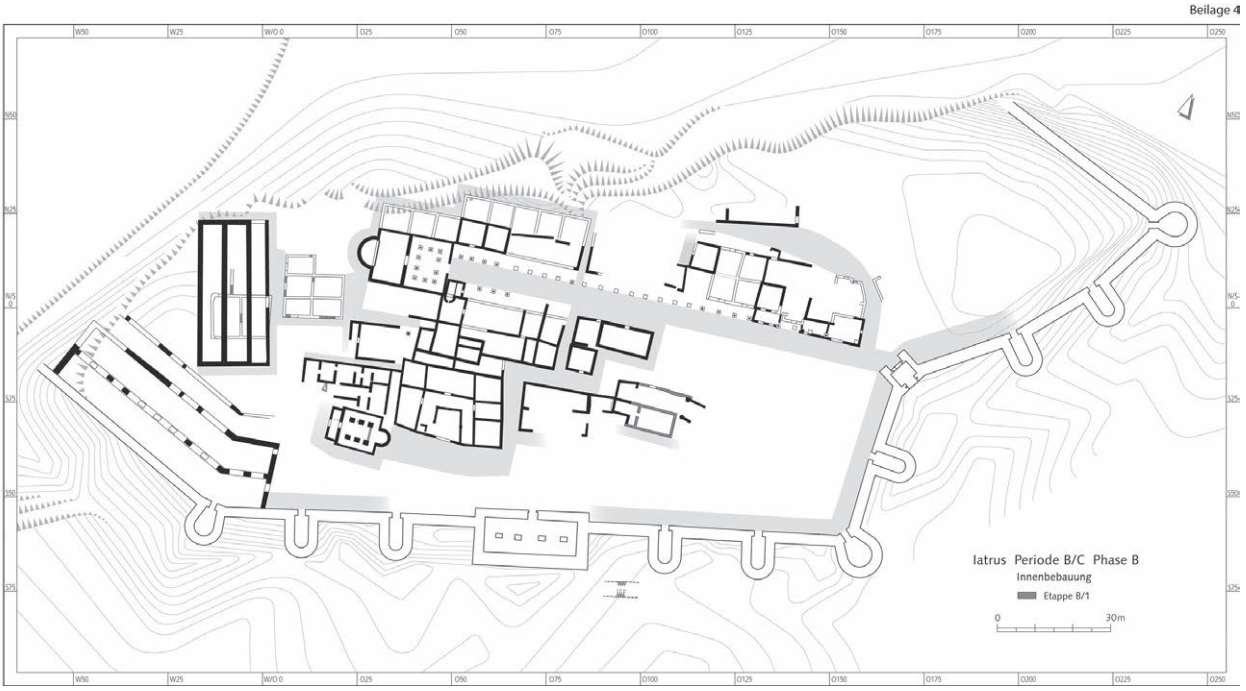


Abb. 8. *Iatrus*. Bebauungsplan der Siedlungsperiode B/C, Siedlungsphase B (nach Iatrus-Krivina 6)

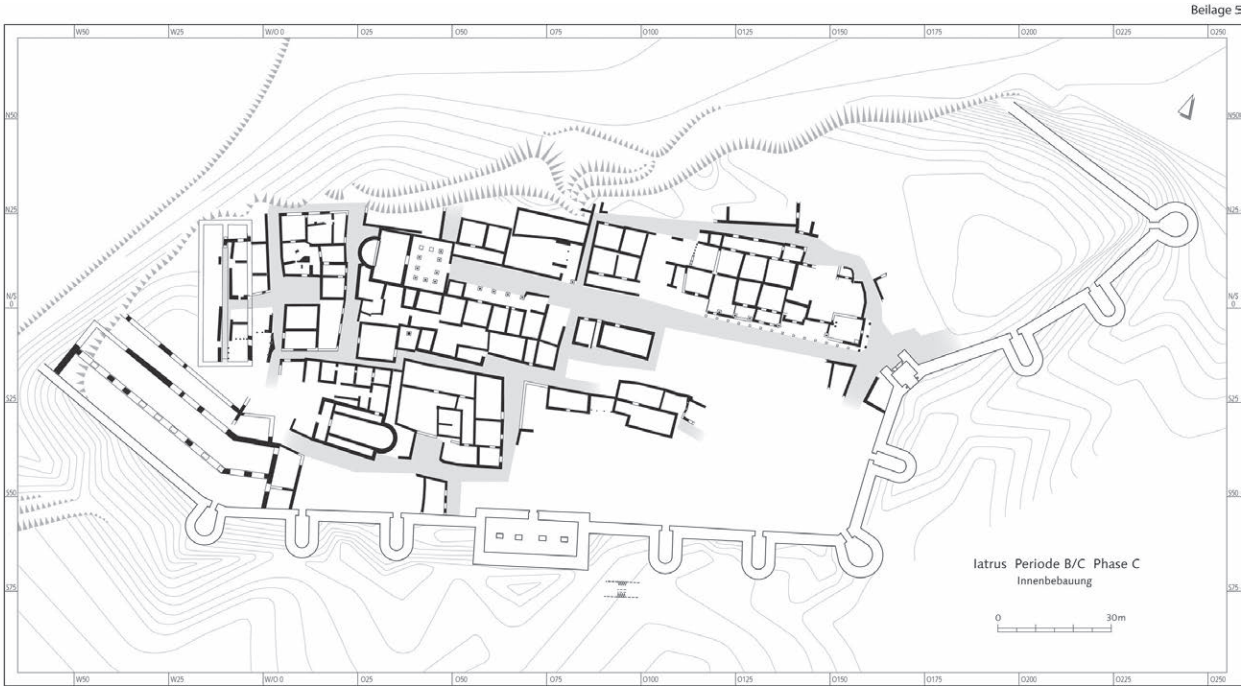


Abb. 9. *Iatrus*. Bebauungsplan der Siedlungsperiode B/C, Siedlungsphase C (nach Iatrus-Krivina 6)

Zerstörung, die sehr wahrscheinlich mit den Hunneneinfällen in den 40er Jahren des 5. Jh. in Verbindung steht[22].

Die Periode D1 begann nach einem ca. 50jährigen Siedlungshiat unter Kaiser Anastasius als Reaktivierung dieses für die Grenzsicherung strategisch wichtigen Platzes, allerdings auf einem relativ niedrigen städtebaulichen Niveau, indem vielfach vorhandene Ruinen provisorisch wieder bewohnbar gemacht wurden (**Abb. 10**). Auch die Festungsmauer

[22] Innerhalb dieses Gesamtzeitraumes lassen sich an verschiedenen Plätzen und Gebäuden verschiedene bauliche Reparaturen und Umbauten nachweisen, z.B. im Westabschnitt des Kastellgeländes, s. Döhle 2007, 25-54. So geben auch die von Vagalinski (2012, 319) beschriebenen Phasen B1 und B2 Befunde wieder, die auf punktuelle Baumaßnahmen zurückzuführen sind, aber keine Bedeutung für die chronologische Gliederung der Entwicklung des gesamten Kastells besitzen.



Abb. 10. *Iatrus*. Bebauungsplan der Siedlungsperiode D1 (nach Iatrus-Krivina 6)

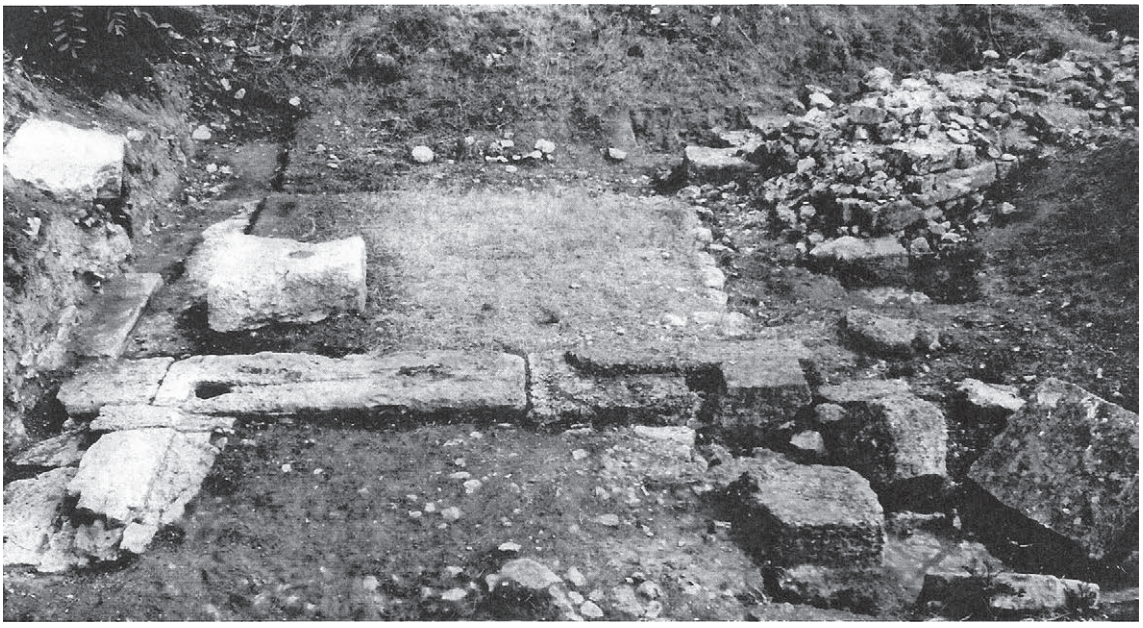


Abb. 11. *Iatrus*. Osttor, Torinnenraum nach der Zerstörung am Ende der Periode B/C (nach Iatrus-Krivina 6)

dürfte zumindest über größere Strecken noch funktionstüchtig gewesen oder repariert worden sein. Allerdings ist nach den neuen Befunden davon auszugehen, dass das einzige bekannte Tor nach der Hunnenzerstörung nicht mehr passierbar gewesen ist (**Abb. 11**) (v. Bülow 2007, 206-207).

Wahrscheinlich in den 20er Jahren des 6. Jh. wurde *Iatrus* erneut zerstört, und der Beginn der Siedlungsperiode D2 lässt sich stratigraphisch klar von der anastasischen Anlage unterscheiden und auf Grund von Münzfunden mit der bei Prokop (De aed. IV 7) erwähnten Erneuerung des Kastells unter Iustinian I. verbinden (**Abb. 12**). In dieser Zeit war das gesamte ummauerte Areal mit einzelnen Hütten aus Holz und Lehm besetzt, die von einigen wenigen Steinbauten sowie einer großen christlichen Kirche überragt wurden. Es sollte an diesem Platz die letzte antike Anlage sein, die bei den Angriffen der Awaren und Slawen um 600 endgültig zerstört wurde.

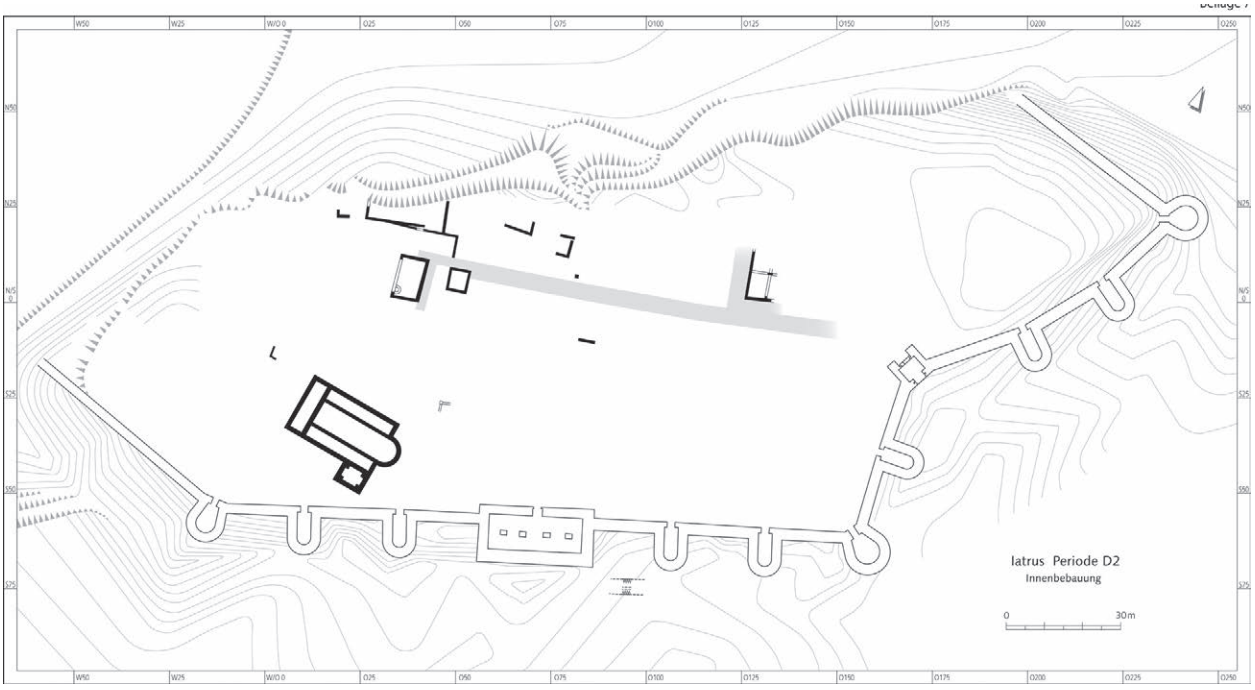


Abb. 12. *Iatrus*. Bebauungsplan der Siedlungsperiode D2 (nach Iatrus-Krivina 6)

Seit dem späten 7. oder spätestens seit dem 8./9. Jh. entwickelte sich an dem durch die rudimentär erhaltene Festungsmauer geschützten Platz eine mittelalterlich-bulgarische Siedlung, deren Ende mit der Eroberung des bulgarischen Staates durch Byzanz im dritten Viertel des 10. Jh. in Verbindung gebracht wird (Wendel 1986, 197-200). Bei den jüngsten Grabungen im Nordostteil des ummauerten Areals konnten mehrere münzdatierte Befunde, darunter ein Töpferofen, aus der ersten Hälfte des 11. Jh. erfaßt werden (v. Bülow 2007, 196-199).

Ein auch in den letzten neun Grabungsjahren in *Iatrus* leider nicht geklärtes Problem ist die Konservierung und Präsentation der freigelegten Architekturreste. Zwar erstellte Lyudmila Markova vom NIPK Sofia im Jahr 1996 einen Projektentwurf zur Sicherung der erhaltenen Bausubstanz und zu deren denkmalgerechter Präsentation[23]. Abgesehen von einer Diskussion am Ort und weiteren Gesprächen mit Frau Markova bei einem Arbeitsaufenthalt in Frankfurt 1996 ist dieses Projekt bislang noch nicht abgeschlossen und umgesetzt worden.

Insgesamt erstreckten sich die Untersuchungen im Kastell *Iatrus* über einen Zeitraum von 50 Jahren, mit einer größeren Unterbrechung von 11 Jahren. Viele Fragen sind, wie in den beiden Beiträgen zur Grabungsgeschichte gezeigt werden konnte, dabei gestellt und beantwortet worden, etliche stehen aber als Desiderata noch ungelöst im Raum.

Gerda v. Bülow

Bibliographie

Банев, К. / Вагалински, Л. 1995. Преторианска военна диплома от късноантичния кастел Ятрус при село Кривина, Русенска област (Северна България). – Археология 37, 2, 26-30.

Маджаров, К. 1993. Диоклецианопол, т. 1: Топография, укрепителна система, градоустройство и архитектура. София.

Brulet, R. 2004. Casernements et casernes en Gaule. In: Le Bohec, Y. / Wolff, C. (eds.). L'armée Romaine de Diocletien à Valentinien I[er]. Lyon. 191-199.

[23] Die Dokumentation einer beispielhaften Bauaufnahme und Vorschlägen zur Präsentation des Objektes XXX im Nordostteil des Kastells befindet sich im Grabungsarchiv in der RGK in Frankfurt/M. Vgl. dazu auch den Beitrag von K. Wachtel. Während des Limeskongresses 2012 erfuhr d. Verf., dass in der Gemeinde Cenovo, zu der das Dorf Krivina gehört, ein Projektentwurf zur Konservierung und Präsentation der erhaltenen Baureste des Kastells *Iatrus* erarbeitet worden ist, dessen praktische Umsetzung sehr wünschenswert wäre.

Böttger, B. 1967. Die Keramikfunde aus dem Kastell Jatrus und ihr entwicklungsgeschichtlicher Zusammenhang mit der spätantiken Keramik der Balkanländer. – Klio 48, 251-314.

v. Bülow, G. 2007. Das Objekt XXX. In: Iatrus-Krivina 6. Mainz am Rhein. 143-207.

v. Bülow, G. 1998. Föderaten im spätantiken Limeskastell Iatrus (Moesia secunda)? In: Peter, U. (ed.). Stephanos nomismatikos. E. Schönert-Geiß zum 65. Geburtstag. Berlin. 145-157.

v. Bülow, G. 1995. Die Entwicklungg des Siedlungsbildes von Iatrus in der Priode B/C. In: Iatrus-Krivina 5. Berlin. 29-53.

v. Bülow, G. 1991. Die via praetoria und das Straßensystem von Iatrus. In: Iatrus-Krivina 4. Berlin. 19-26.

v. Bülow, G. / Milčeva, A. (eds.) 1999. Der Limes an der unteren Donau von Diokletian bis Heraklios. Sofia.

Conrad, S. 2006. Archaeological Survey on the Lower Danube: Results and Perspectives. In: Guldager Bilde, P. / Stolba, V. (eds.). Surveying the Greek Chora. The Black Sea Region in a Comparative Perspective. Aarhus. 309-331.

Dinchev, V. 2001. Gesellschaftliche Komponenten der Struktur frühbyzantinischer befestigter Siedlungen. In: Wendel, M. (ed.). Karasura 1. Weissbach. 217-235.

Dintchev, V. 1999. Sur la caractéristique d'Iatrus (deuxième moitié du IV^{e} – début du V^{e} s.). In: v. Bülow, G. / Milčeva, A. (eds.). Der Limes an der unteren Donau von Diokletian bis Heraklios. Sofia. 165-174.

Döhle, B. 2007. Die Grabungen der Jahre 1992 bis 1997 im Abschnitt westlich der Principia von Iatrus: Die Objekte I, X, XI, XLVI-LIV, LVI und ihre Periodisierung. In: Iatrus-Krivina 6. Mainz am Rhein. 11-68.

Döhle, B. 1995. Die Siedlungsperiode A in Iatrus. In: Iatrus-Krivina 5. Berlin. 9-28.

Döhle, B. 1991. Die Kolonnaden nördlich und südlich der via praetoria (Objekte XXIV und XXV). In: Iatrus-Krivina 4. Berlin. 27-33.

Gomolka, G. 1968. Die Kleinfunde vom Limeskastell Iatrus in Moesia inferior. – Klio 50, 171-250.

Gomolka-Fuchs, G. 1995. Die Kleinfunde und ihre Aussagen zur Bevölkerung von Iatrus. In: Iatrus-Krivina 5. Berlin. 81-105.

Gudea, N. 2006. Contribuţii la cunoaşterea Limesului provinciei Moesai Inferior 1. Cazul Iatrus. – Revista Bistriţei 20, 177-186.

Herrmann, J. 1979a. Fragen der Stratigraphie von Iatrus-Krivina. In: Iatrus-Krivina 1. Berlin. 9-10.

Herrmann, J. 1979b. Die Siedlungsperioden von Iatrus / Krivina und deren Datierung. In: Iatrus-Krivina 1. Berlin. 11-14.

Herrmann, J. 1979c. Der Untergang des Kastells Iatrus und die frühmittelalterliche Besiedlung. In: Iatrus-Krivina 1. Berlin. 19-21.

Irmscher, J. 1960. Bericht über die archäologische Grabung des Instituts für Griechisch-Römische Altertumskunde der Deutschen Akademie der Wissenshaften zu Berlin auf der Gradischte bei Krivina (Bulgarien) im Sommer 1958. – Klio 38, 292-294.

Oppermann, M. 2006. Der Thrakische Reiter des Ostbalkanraumes im Spannungsfeld von Graecitas, Romanitas und lokalen Traditionen. Langenweißbach.

Pytlik, M. 2001. Hallstattzeitliche Bestattungen auf dem Gelände des spätantiken Limeskastells Iatrus / Krivina, Bez. Ruse, Nordbulgarien. – Archaeologia Bulgarica 5, 1, 20-44.

Reusch, H. 1957. 2000 km im „ZIM" durch Bulgarien. Spektrum. – Mitteilungsblatt für die Mitarbeiter der Deutschen Akademie der Wissenschaften zu Berlin 3, 225-227.

Sarnowski, T. 1985. Die legio I Italica und der untere Donauabschnitt der Notitia dignitatum. – Germania 63, 107-127.

v. Schnurbein, S. / Wachtel, K. 1995. Vorwort. In: Iatrus-Krivina. 5. Berlin. 5-6.

Schönert-Geiß, E. 2007. Die Fundmünzen von Iatrus-Krivina. In: Iatrus-Krivina 6. Mainz am Rhein. 329-382.

Stančev, D. / Conrad, S. 2007. Die Objekte XLI und XVIII. In: Iatrus-Krivina 6. Mainz am Rhein. 99-125.

Vagalinski, L. 2012. The Problem of Destruction by Warfare in Late Antiquity: Archaeological Evidence from the Danube Limes. In: The Lower Danube Roman Limes (1st – 6th c. AD). Sofia. 311-326.

Vagalinski, L. 2003. Ne varietatem timeamus – Über die Chronologie des spätantiken Kastells Iatrus an der unteren Donau (Objekt XLIV). – Archaeologia Bulgarica 7, 2, 43-82.

Vagalinski, L. 1997. On the Upper Chronological Limit of the Votive Reliefs of the Thracian Horseman. – Archaeologia Bulgarica 1, 2, 46-50.

Văžarova, Ž. 1991. Die bulgarischen Untersuchungen der mittelalterlichen Siedlung in den Jahren 1975 und 1977 bis 1981. In: Iatrus-Krivina 4. Berlin. 299-315.

Wachtel, K. 2007. Die Inschriften. In: Iatrus-Krivina 6. Mainz am Rhein. 305-327.

Wachtel, K. 1991. Zum Stand und zu einigen Problemen der Erforschung von Iatrus nach den Grabungskampagnen 1975-1981. In: Iatrus-Krivina 4. Berlin. 15-18.

Wachtel, K. 1979. Die Zuordnung der bisher untersuchten Objekte zu den Siedlungsperioden A – D. In: Iatrus-Krivina 1. Berlin. 15-19.

Wendel, M. 2001. Bemerkungen zur Forschungsgeschichte. In: Wendel, M. (ed.). Karasura 1. Weissbach. 8-14.

Wendel, M. 1986. Iatrus-Krivina 3. Berlin.

Dr. Gerda v. Bülow
Römisch-Germanische Kommission
des Deutschen Archäologischen Instituts
Palmengartenstr. 10-12
DE-60325 Frankfurt/Main
gerdavbuelow@gmx.de

Dr. Klaus Wachtel
Edenweg 42
DE-15344 Hoppegarten
dr.klauswachtel@t-online.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Le *refugium* de l'Antiquité tardive du IV–V s. près du village de Ruyno, région de *Durostorum* (Silistra – Bulgarie)

Georgi ATANASOV

Les savants bulgares connaissent la forteresse du moyen âge « Kartal kale » (« Forteresse des aigles ») dès le début du XX^{ème} siècle grâce à K. Škorpil (Шкорпил 1905, 483). Elle est située à 35 km au sud du Danube et à 3 km sud-est du village de Ruyno, municipalité de Dulovo, préfecture de Silistra (**fig. 1**), sur une colline rocheuse ayant la forme de langue, formée par un méandre du lit desséché de la rivière Senebir (Рашев 1982, 141-143). Lors des études systématiques archéologiques entre les années 2000-2004, il s'est éclairci le fait que c'est l'une des plus grandes forteresses du Premier Royaume bulgare avec une surface de 42 000 m^2, construite vers le début du X^{ème} siècle, détruite à la fin du X^{ème} siècle et définitivement quittée vers le milieu du XI^{ème} siècle (Атанасов et al. 2000; Атанасов 2007, 3-10; Атанасов 2014) (**fig. 2**).

Lors de fouilles en 2001 dans le coin nord-est de la forteresse, non loin de l'entrée, on a enregistré de la céramique et des trouvailles de l'Antiquité tardive ainsi que de l'époque thrace. Toutefois, R. Rashev a trouvé aussi des fragments isolés d'une céramique antique et thrace lors des sondages, mais il les a notés seulement dans le journal de terrain et dans le livre d'inventaire de terrain. Cependant dans une étude de la grande tour en forme de U, à l'entrée principale du passage étroit (**fig. 6, 9**), on a découvert une couche culturelle beaucoup plus prononcée et épaisse avec de la céramique d'usage quotidien (**fig. 3**) et de la céramique de construction (**fig. 4**) des siècles III^{ème}–IV^{ème} ap. J.-C. ainsi que des fragments de poterie thrace faite à la main et à la roue lente, datant des siècles VI^{ème}–IV^{ème} av. J.-C. (**fig. 5**). C'était la raison de prévoir des sondages archéologiques sur le terrain non étudié jusqu'à l'an 2001 près de l'entrée de la forteresse.

À la suite des fouilles on y a découvert une petite forteresse triangulaire (**fig. 2, 6, 7**), dont le mur sud-ouest a été le mieux étudié. Il est tracé à environ 80 mètres de l'entrée de la forteresse et bloque de rocher en rocher la haute monticule inaccessible en forme de langue, dans cette partie la hauteur de la couronne du rocher atteignant 50 m. Le mur est polygonal, inégal d'une longueur totale de 59 m. Sa largeur est de 1,50 m, construit de pierres semi-travaillées d'une taille moyenne, liées avec de mortier blanc, très fort (**fig. 6, 8**). Partout il est fondé sur un rocher dur (roche mère), lequel dans cette partie se trouve à 0,25–0,40 m seulement du terrain contemporain. Presque au milieu du tracé, devant le mur, à une distance de 3,50 m l'un de l'autre, sont formés deux pilastres rectangulaires, d'une longueur 1,60 mètres, qui sont saillants à 0,40 m devant la courtine. Cette muraille qui n'est pas particulièrement puissante, mais fermement construite, défend la fortification dans la partie la plus accessible, direction sud-est.

Au cours des opérations de construction au X^{ème} s., le matériel de construction de la forteresse de l'Antiquité tardive est démonté et utilisé de nouveau lors de la construction du nouveau système de fortification. Dans de nombreux endroits, les pierres sont tout à fait retirées tandis qu'ailleurs comme pour les pilastres elles sont stockées dans une seule rangée, exceptionnellement en deux rangées.

Dès le moment de l'étude de la forteresse médiévale, on a remarqué les refuges inhabituels pour ce type de fortifications du X^{ème} s., des tours spécifiques et de tailles disproportionnée, en forme de U, flanquant l'entrée principale dans le col de la monticule naturellement protégée (**fig. 6, 7**). La tour Est est presque complètement détruite et elle a

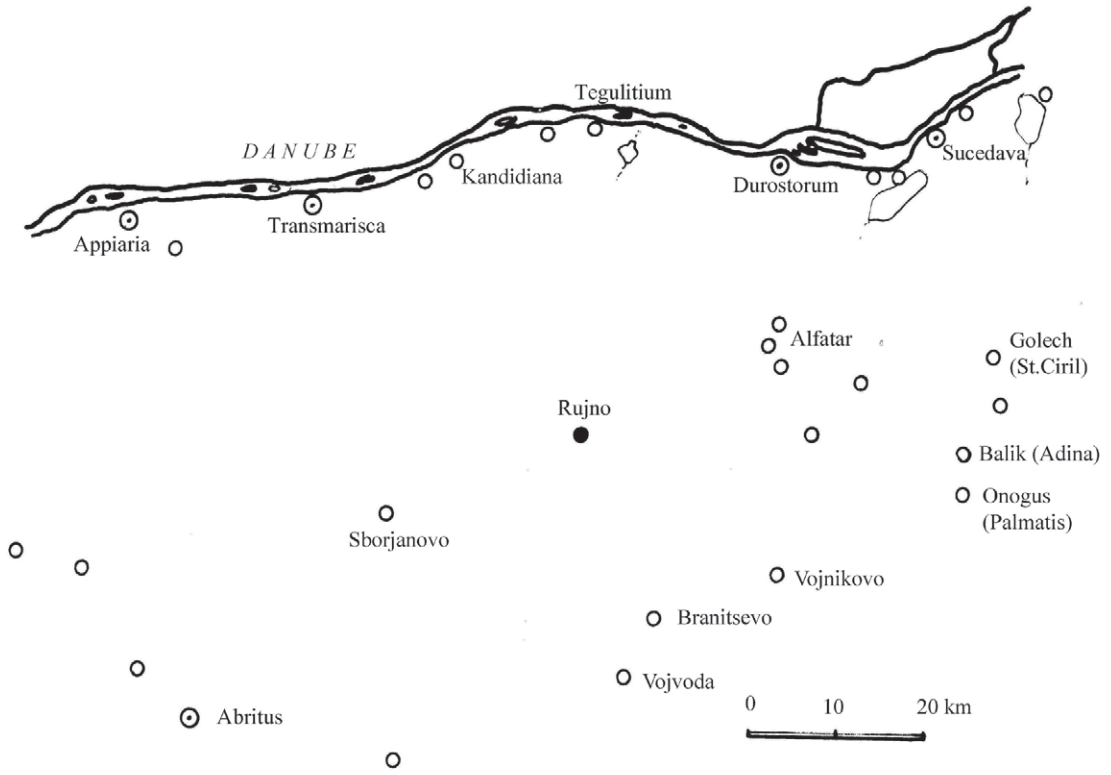


Fig. 1. Anciennes forteresses des IV–VI siècles autour de Ruyno, région de Silistra (*Durostorum*)

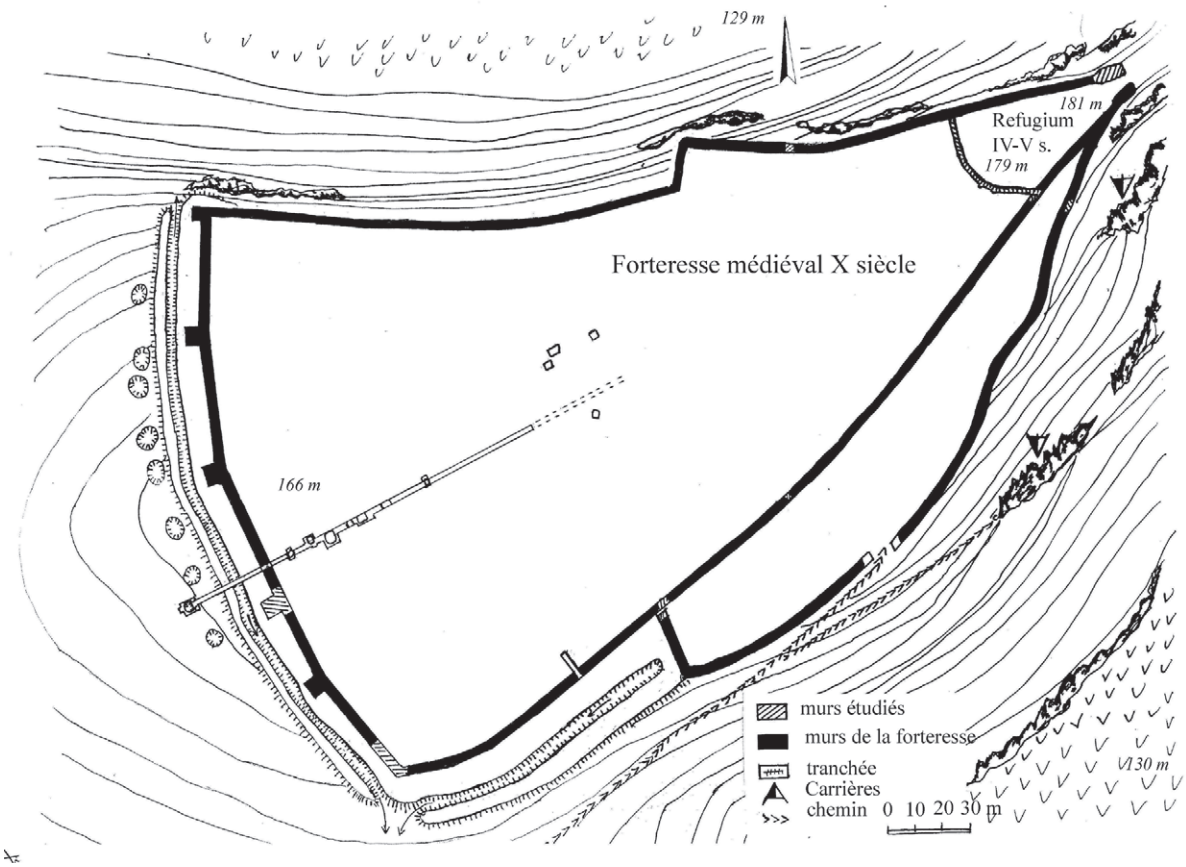


Fig. 2. Plan de la forteresse médiévale « Kartal Kale » du X siècle près du village de Ruyno (d'après G. Atanassov)

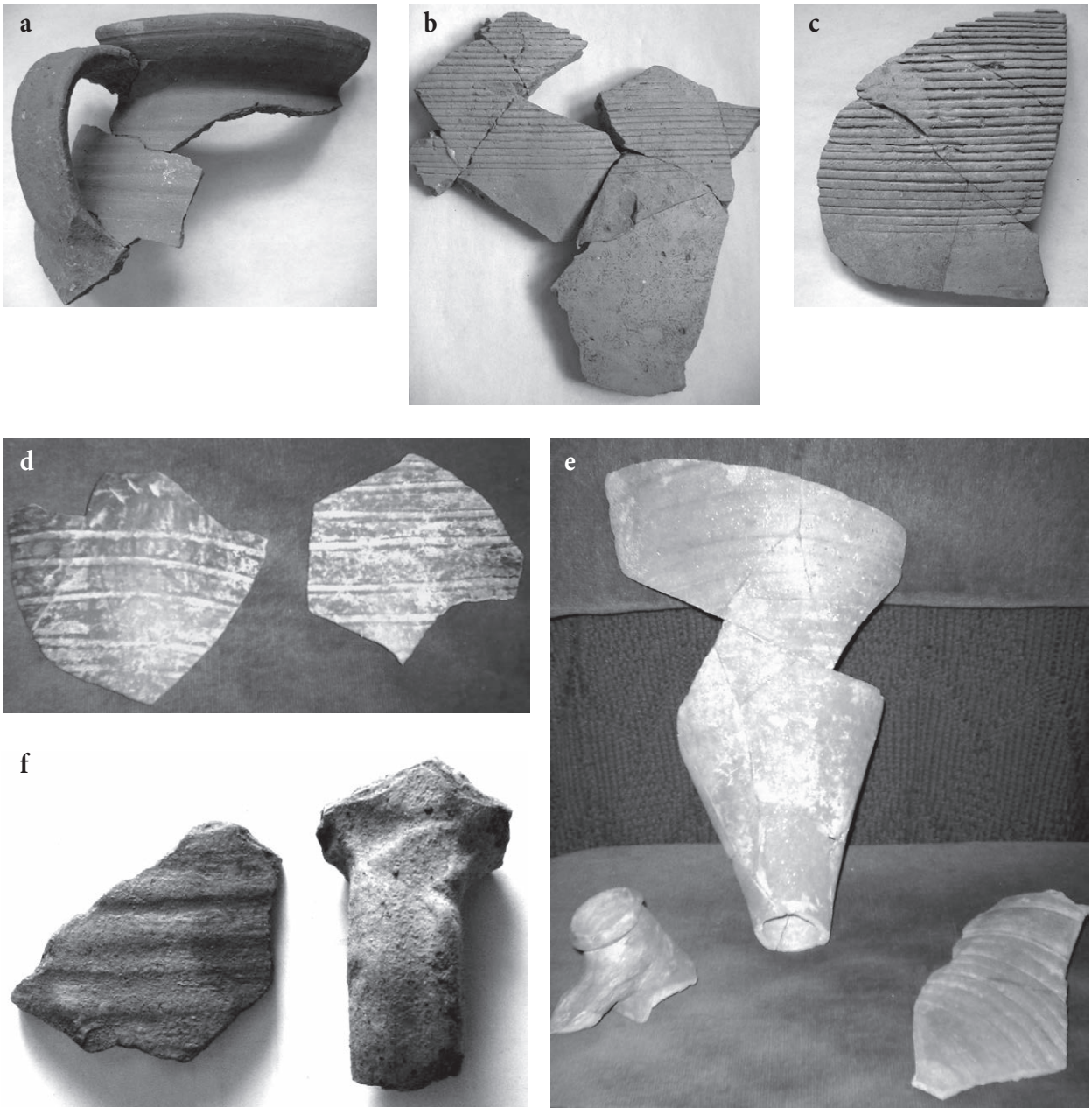


Fig. 3. Poteries anciennes des IV–V siècles

glissé dans l'abîme, tandis que la partie occidentale est préservée partiellement. Elle est en forme de U, d'une longueur de 12 mètres et d'une largeur de 5,30 m sur le front et 7,40 m au tournant du mur (**fig. 6-8**). L'entrée entre les deux tours est d'une largeur de 5,20 m. Contrairement à la construction des murs du X^{ème} siècle, ici les deux premières rangées de pierres sont cimentées avec du mortier blanc avec lequel sont couverts aussi tous les joints du front. Les blocs de pierre sont relativement bien travaillés, certains d'entre eux atteignant 0,90 / 0,40 / 0,30 m. Ils sont fondés directement sur la roche qui est trop oblique et en est la cause de glissement de la construction vers la falaise. En effet, cela peut être une des raisons pour le traçage des tours de surfaces relativement étendues. Probablement lors de leur élaboration en hauteur on a utilisé de la céramique de construction parce que devant la tour on a découvert plus de 200 fragments de briques, *tegulae* et *imbrices* (**fig. 4**). Céramique de construction en quantités limitées a été trouvée aussi autour du mur sud de la forteresse. Ayant en vue les dimensions trop grandes des deux tours, je n'exclus pas qu'en hauteur elles se seraient unies dans une seule tour – porte massive 15,80 x 7,40 m, laquelle aurait fermé d'une manière serrée l'accès à la forteresse de rocher au rocher (**fig. 6**).

Il faut marquer que dans l'angle sud-est et sud-ouest, de même lors de l'étude du mur ouest,



Fig. 4. La céramique de construction du IV–V siècle

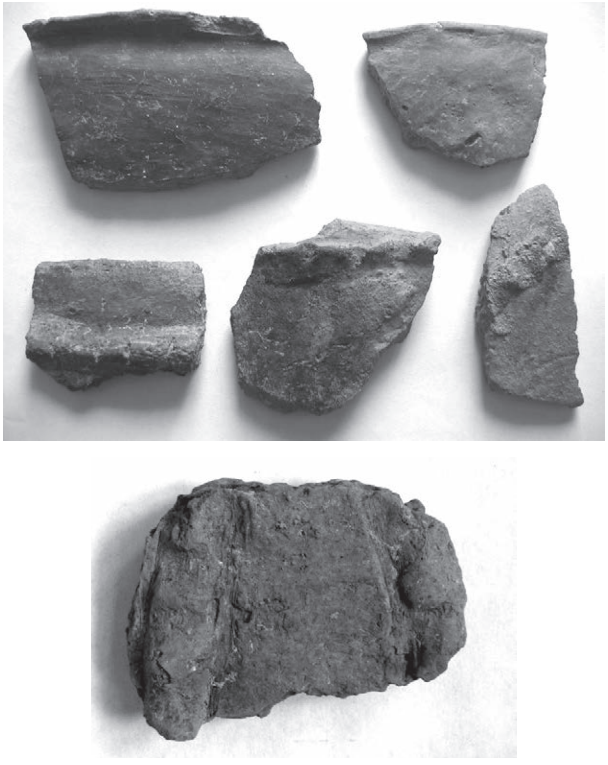


Fig. 5. Céramique thrace du VI–IV siècle av. J.-C.

tanguant à la tour, des preuves incontestables de l'existence de la muraille de l'Antiquité tardive n'ont pas été enregistrées. Cette particularité nécessite la formation d'au moins deux hypothèses. La première suggère que, compte tenu de l'inaccessibilité de l'élévation naturelle de l'est et de l'ouest et son accessibilité uniquement depuis le sud et le nord, seules ces approches ont été renforcées (**fig. 6**). Donc, au sud, d'une couronne rocheuse à l'autre, un mur a été érigé, et au nord-est dans le col sont construites deux tours puissantes – bastions, unies en hauteur dans une seule grande tour – porte. Voilà pourquoi ils sont si inhabituellement larges et ferment le passage accessible de couronne rocheuse à couronne rocheuse. En même temps, une telle pratique n'est pas connue dans les autres forteresses en Dobroudja, en Bulgarie et dans les Balkans, dont la plupart ont été construites sur des hauteurs rocheuses non moins naturellement protégées. Voilà pourquoi j'ai formulé encore une seconde hypothèse plus probable. Je suppose que lors de la construction de la fortification médiévale, les restes des murs de l'Antiquité tardive ont été complètement démontés et c'est sur ces murs justement qu'on a fondé la muraille du X^{ème} siècle, laquelle est deux fois plus large. Le fait que le mur sud, sur lequel un mur médiéval n'a pas été érigé, est complètement effacé dans certains endroits, fait une telle explication hypothétique. Bien que l'accès du côté est et du côté ouest est presque impossible, des murs ont été probablement construits ici de même (**fig. 7**). Le mur ouest est d'une longueur de 79 mètres et probablement se trouve entièrement sous la courtine de la forteresse du X^{ème} siècle. Lors de l'étude par sondage dans le coin sud-ouest des traces de ce mur n'ont pas été enregistrées. Le mur Est est long de 64 mètres et peut-être lui aussi se trouve sous la courtine de la forteresse médiévale. Afin de clarifier la stratigraphie et la relation entre le mur médiéval et le mur éventuel de l'Antiquité tardive, on a effectué des sondages également dans le coin sud-est du refuge. Dans cette section, on a enregistré des traces de mortier antique, ce qui présuppose aussi l'existence d'un mur, parce qu'au X^{ème} siècle on construisait seulement sur boue jaune. Il paraît que la muraille de l'Antiquité tardive est également 1,50 m de large et traverse une fosse thrace avec de multiples fragments de poterie faite sur une roue lente et faite à la main (**fig. 10**).

Le *refugium* étudié près de Ruyno, datant de l'Antiquité tardive, diffère des autres par le territoire protégé inhabituellement petit qui est seulement de 1 700 m^2, tandis que les autres forteresses de ce type sont au moins de 3 000–4 000 m^2. On peut affirmer avec certitude qu'il a été érigé sur les ruines du site thrace, dont les limites (définies sur la base de la diffusion de la céramique) coïncident incroyablement. Le matériel de l'Antiquité tardive (en général de la céramique de construction et de poterie d'usage

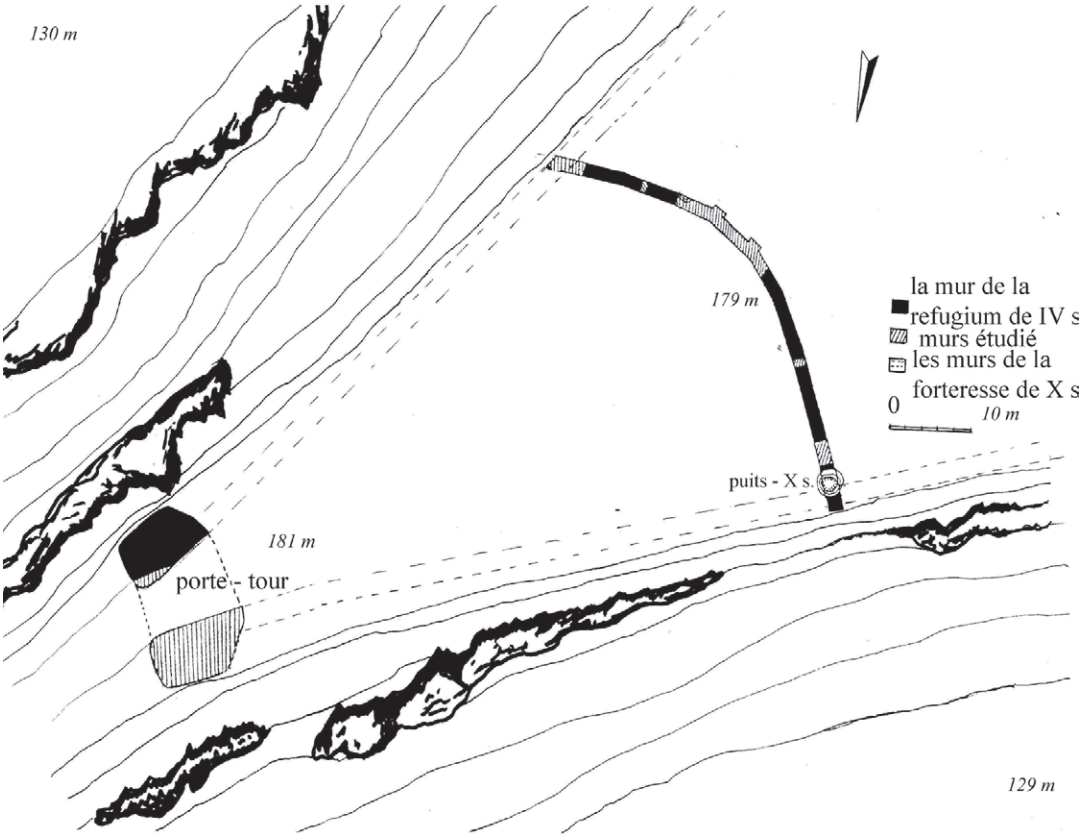


Fig. 6. Plan du *refugium* près du village Ruyno de IV–V siècle, version 1 (d'après G. Atanassov)

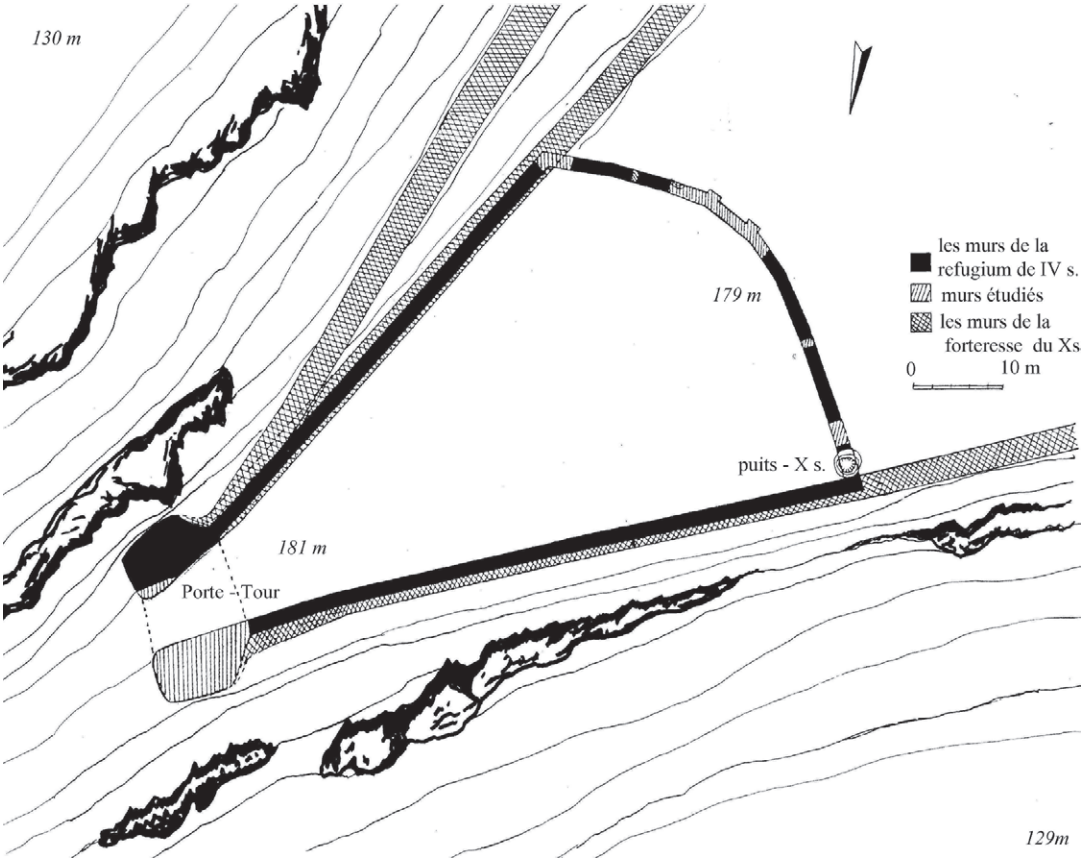


Fig. 7. Plan du *refugium* près du village de Ruyno, version 2 (d'après G. Atanassov)



Fig. 8. Mur occidental du *refugium* de IV–V siècle



Fig. 9. La tour à l'entrée du *refugium* de IV–V siècle

quotidien[1]) est également détecté seulement sur son territoire et il manque au sud, au sein de la forteresse médiévale.

Si l'on regarde la carte archéologique de la Dobroudja de sud, on va remarquer que le refuge découvert près de Ruyno reste isolé et solitaire dans une région où des fortifications antiques ne sont pas enregistrées (**fig. 1**). La forteresse la plus proche, datant de IV^{ème}–VI^{ème} siècle, à l'est, près de Voynikovo, se trouve à 30 km, au nord-est, près de Alekovo, –

[1] Parmi les fragments de céramique il y a quelques uns de couleur gris-noir et bandes brillantes du IV^{ème}–V^{ème} siècle (**fig. 3d**), lesquelles on peut attribuer à une influence barbare (gothique ?) (Vagalinski 2002, 30-39).



Fig. 10. Coin sud-est du *refugium* de IV–V siècle



Fig. 11. Pièce de monnaie de Théodose I (379-395)



Fig. 12. Pièce de monnaie de Théodose II, entre les années 425-450

à 33 km, et près de Alfatar – à 32 km, et au nord – *Tegulitium*/Vetren est à environ de 35 km. (Il est à noter que les forteresses voisines ont été construites au cours des siècles II-III ou bien au VI^{ème} siècle tandis que Ruyno est la seule où il existe des preuves de construction à la fin du IV^{ème} siècle). Les forteresses les plus proches dans la direction sud sont à 35–40 km, tandis que les principales villes fortifiées et castels comme *Transmarisca*, *Durostorum*, *Abritus* se trouvent à une distance de 50–60 km (**fig. 1**). Cette disposition est un premier signe que la forteresse est isolée des principales villes et castels et respectivement elle n'est pas liée à la construction de servage, dirigée par le pouvoir central. En même temps autour d'elle ont été enregistrés deux grands sites antiques des II^{ème}-IV^{ème} s. Le premier se trouve sur la rive gauche du lit desséché de la rivière, seulement à 2 km au nord-ouest de la forteresse. Le second se trouve à environ 4 km à l'ouest de la forteresse. Selon les fragments de céramiques, dispersés sur le terrain, on peut les dater le plus largement aux II^{ème}-IV^{ème} s. et pareillement à la forteresse ils ont été construits sur des sites thraces.

La mince couche culturelle et le peu de matériel de levage dans le *refugium* de Ruyno présupposent une courte occupation à la fin du IV^{ème} s. et au début du V^{ème} siècle. Très importantes pour la chronologie sont les trois pièces de monnaies en bronze, trouvées sur le terrain, sous les destructions du mur de la forteresse, derrière les pilastres. La première est le plus largement déterminée vers la fin du IV^{ème} siècle, et la seconde est du règne de Théodose I (379-395) (**fig. 11**), la troisième, avec la croix (**fig. 12**), est liée à la seconde moitié du règne de Théodose

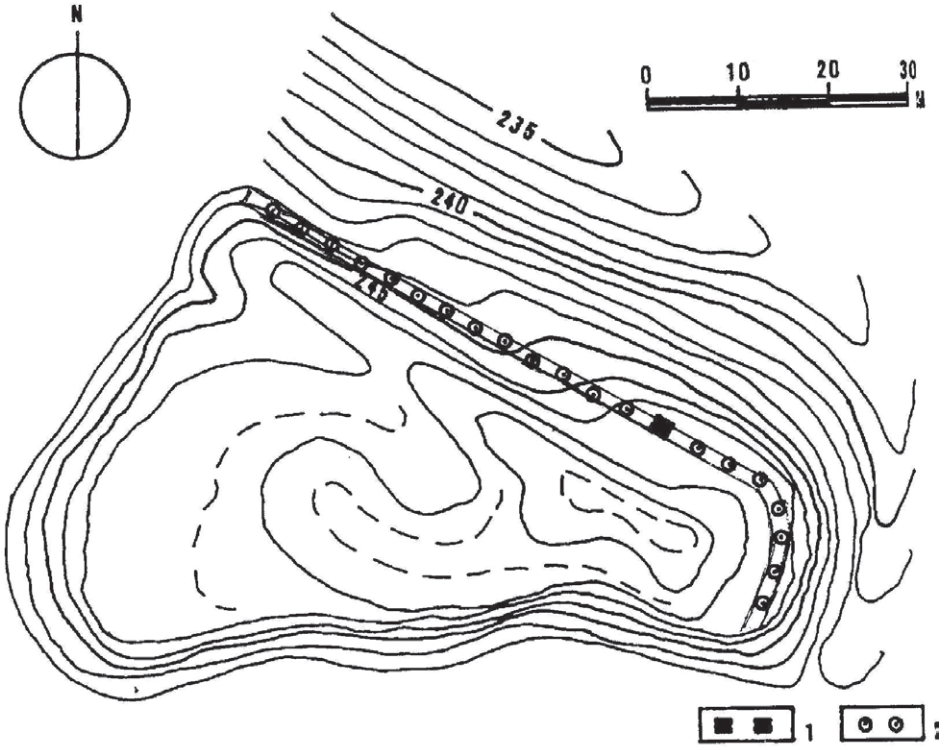


Fig. 13. Plan du *refugium* de IV–V siècle près du village de Debrene (d'après S. Torbatov)

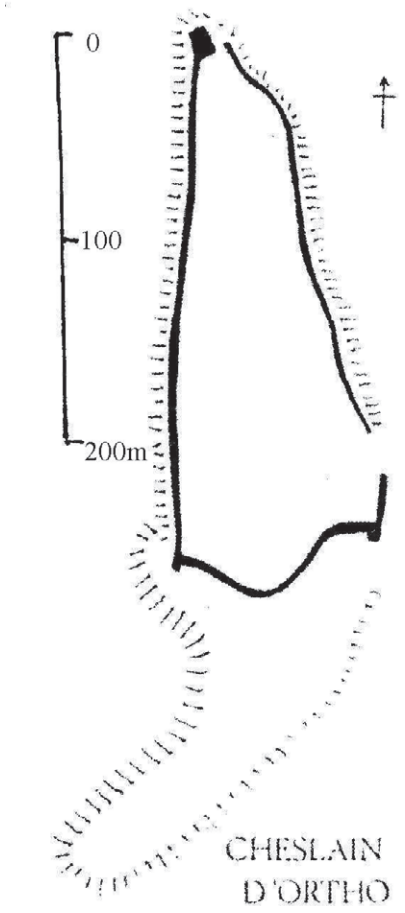


Fig. 14. Plan du *refugium* de V siècle près du Cheslain d'Ortho en Belgique (d'après St. Johnson)

II, entre les années 425-450.[2] Cette pièce de monnaie et le manque d'horizon important avec des artefacts et de la céramique, suggèrent que la petite forteresse fut abandonnée pendant les invasions des Huns qui ont dévasté Dobroudja après l'an 422 et surtout au cours des années 434 et 447 (История на Добруджа 1984, 162; Miteva 1989, 143-150). Du point de vue chronologie, espèce de fortification et situation, elle ressemble à plusieurs petites fortifications de l'intérieur de Dobroudja comme Debrene I (**fig. 13**), dont la surface est de 2 300 m^2, Hrabrovo couvrant environ 5 000 m^2 et Gaber avec une surface d'environ 20 000 m^2 (Торбатов 2002, 315-318, 345-347, 365-375, 369-375, fig. 85, 96, 105-109). S. Torbatov les détermine comme étant des refuges (*refugia*) sans traces de bâtiments dans la zone protégée, ayant fonctionné brièvement entre la fin du IV^{ème} s. et le milieu du V^{ème} siècle, quand ils ont été détruits et abandonnés lors de l'invasion des Huns. Pareillement à Ruyno ils sont disposés sur des hauteurs rocheuses, inaccessibles, naturellement protégées. Avec des murs fortifiés sont protégées uniquement les zones accessibles – à Hrabrovo et à Gaber une seule, à Debrene deux, et à Obrochishte – tous.

Certainement ils ne sont pas liés aux grandes forteresses, mais ils se trouvent en proximité des

[2] Les pièces sont définies par D^r D. Aladjova.

colonies non fortifiées. Les fortifications élémentaires ainsi que la construction pas assez précisément effectuée présupposent qu'ils étaient bâtis à l'initiative de la population locale qui ne disposait pas de ressources importantes et peut-être sans l'intervention spéciale du gouvernement central (Торбатов 2002, 405, 454).

Cependant, la construction de pareils petits logements, avec des fortifications pas très précises, par la population locale, en relation avec les invasions barbares au cours des siècles III–V, a été enregistré en tant que phénomène phasique dans d'autres provinces romaines. Les plus nombreux sont à la Rhénanie (parties des provinces romaines Belgique et Germanie supérieure), Haut Rhin, les vallées autrichiennes et les cols de montagne menant vers Italie par les Alpes juliennes, Dalmatie. Des objets isolés sont connus dans les provinces de l'Ouest comme le sud de la Gaule et de l'Espagne. Selon l'article de synthèse de St. Johnson, ils ont les caractéristiques suivantes (Johnson 1983, 226-244):

– Situées sur les hauteurs naturellement protégées (surtout sur les méandres des rivières), loin des routes principales et des forteresses.

– Parfois, ils sont disposés sur les ruines des colonies et des fortifications de l'âge de fer (Wittnauer Horn en Suisse) et dans des cas isolés sur leur emplacement sont construites des forteresses du Moyen âge.

– La zone protégée est petite, d'environ 60x40 m (Obersteufenbach, le Château des Fées à Bertrix, la Roche à Lomme à Dourbes, Vieux Château à Mont-Sommerain en Belgique, Schaan en Bavière, etc.) à d'environ 200/300x100/150 m (Cheslain d'Ortho (**fig. 14**), Waldfischbach, Buzenol, Mont en Belgique, Wittnauer Horn, Bürkli, Lorenzberg, Moosberg et d'autres encore en Suisse et en Bavière).

– En règle générale, des murs sont construits uniquement sur les zones facilement accessibles – un (Wittnauer Horn, Furfooz en Belgique) ou deux murs (Moosberg, Obersteufenbach, Waldfischbach), mais parfois toute la zone est bien renforcée (Cheslain d'Ortho, Lorenzberg, Dourbes, Bertrix).

– Les fortifications ne sont pas précisément construites, souvent sans mortier, et, dans certains cas, les murs avec de mortier sont épais de seulement 1,00 m (Moosberg) ou 1,50 m (Wittnauer Horn), ainsi qu'à Ruyno.

– Les tours sont rares, mais là où il y en a elles sont généralement situées près des portes.

– À quelques exceptions près, dans l'aire protégée il n'y a pas de bâtiments.

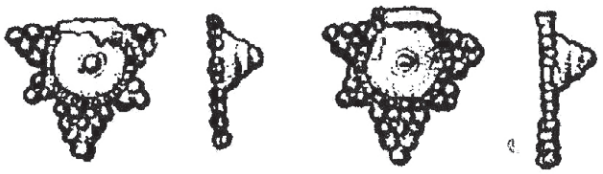


Fig. 15. Boucles d'oreilles des VI–VII siècle (Ruyno ?)



Fig. 16. Croix-encolpion du VI–VII siècle (Ruyno ?)

– Ils ont été utilisés comme abris temporaires pour les personnes, les animaux et les biens menacés par les barbares. Certains ont desservi de petites communautés – comme par exemple le site fortifié au-dessus du village à Willers-Chameleux, probablement Katzenberg près de Mayen, un petit village sur la route de Trèves à Coblence. Pour d'autres, il est supposé qu'ils ont été temporairement habités par des troupes (*laeti*). Un troisième groupe de forteresses «rurales» ou provinciales est associé aux *potentiores* locales.

– En termes de chronologie, presque la quasi-totalité est datée aux siècles III-V et associée aux invasions barbares, les tribus germaniques principalement (surtout Goths) et Huns.

Ces caractéristiques donnent lieu à ce que dans ce groupe de refuges (*refugia*) étudié on peut classer aussi Ruyno (qui a presque toutes les caractéristiques mentionnées ci-dessus) érigé par la population des proches habitats antiques de la fin du IV^{ème} s. en liaison avec les invasions barbares dans le dernier quart du IV^{ème} siècle et la première moitié du V^{ème} siècle. On peut citer aussi des similitudes formelles de Ruyno avec les sites cités ci-dessus comme Cheslain d'Ortho en Belgique (Johnson 1983, 227-228, fig. 85) (**fig. 14**). Il est situé dans une zone boisée, à côté de la route, sur une colline rocheuse naturellement protégée en forme de cap triangulaire, les fortifications suivant la configuration du terrain. Dans la zone protégée,

à nouveau il n'y a pas de bâtiments. On trouve des similitudes aussi avec la grande tour rectangulaire à l'entrée (forme étroite analogique) qui peut être aussi en hauteur une tour-porte massive pareillement à celle de Ruyno. Tours semblables près des portes sont enregistrées aussi à Bertrix (tour-porte ?) et à Wittnauer Horn (Johnson 1983, 228, 236, fig. 86, 89). Quelques parures (**fig. 15**), une croix (**fig. 16**) et une pièce de monnaie de Justin II et Sophie, découvertes par hasard et conservés au musée de Dulovo, suggèrent une très courte période de vie à Ruyno, pareillement à Debrene au VI[ème] siècle, mais lors des fouilles en 2001 cela n'a pas été confirmé avec certitude.

Bibliographie

Атанасов, Г. 2014. Крепостите до с. Руйно, Силистренско, или селищна агломерация без аналог през X век. In: България в световното културно наследство. Материали от Третата национална конференция по история, археология и културен туризъм „Пътуване към България" – Шумен, 17 – 19 май 2012 г. Шумен. 551-580.

Атанасов, Г. 2007. Аязма Руйно – култов център от три хилядолетия на три религии. Силистра.

Атанасов, Г. / Йотов, В. / Руссев, Н. / Засыпкина, М. 2000. Исследования городища Руйно-Картал кале (предварительное сообщение). – Stratum plus, 5, 97-107.

История на Добруджа, 1984. История на Добруджа. Т. 1. София.

Рашев, Р. 1982. Старобългарски укрепления на Долния Дунав (VII-XI в.). Варна.

Торбатов, С. 2002. Укрепителната система на провинция Скития (края на III-VII в.). Велико Търново.

Шкорпил, К. 1905. Некоторыя из дорог восточной Болгарии. – Известия Русскаго археологическаго института в Константинополе, 10 (=Абоба–Плиска), 443-502.

Johnson, S. 1983. Late Roman Fortification. London.

Miteva, N. 1989. Die Hunnen und die spätantiken Zivilisation in den Gebieten Thrakiens. – Thracia, 9, 143-151.

Vagalinski, L. 2002. Burnished Pottery from the First Century to the Beginning of the Seventh Century AD from the Region South of the Lower Danube (Bulgaria). Sofia.

Prof. Dr. Habil. Georgi G. Atanasov
Musée Régional d'Histoire
Rue G. S. Rakovski, 24
BG-7500 Silistra
geoatal@abv.bg

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Die frühbyzantinische Verteidigungslinie im Östlichen *Haemus*. Ergebnisse von den Untersuchungen in Eminska Planina

Hristo PRESHLENOV

Die Feldforschungen entlang der frühbyzantinischen Verteidigungslinie im östlichen *Haemus*-Gebirge begannen unter dem Namen "Haupttrennungslinie des Festungssystems im östlichen Balkangebirge" wissenschaftlich für die bulgarische Archäologie und Geschichte von K. Škorpil im frühen 20. Jahrhundert (Шкорпил / Шкорпил 1892, 47-58; Škorpil 1930, 204-223) und wurden neuerlich von V. Dinčev fortgesetzt (Динчев et al. 2007, 9-59, 111-130; Dintchev 2012, 495-526). Der gegenwärtige Beitrag faßt die wichtigsten topographisch-archäologischen Ergebnisse von den Feldforschungen und Ausgrabungen im Bereich des Pomorijski- und des Djulinski-Passes zusammen, die der Autor im Rahmen des Forschungsprojektes „*Scatrae*" über das antike und frühbyzantinische Siedlungs-, Verteidigungs- und Verkehrssystem auf dem Gebiet des Eminska-Gebirge durchführte.

Während der frühbyzantinischen Zeit führten durch die Päße Djulinski und Pomorijski Wege von strategischer Bedeutung, die die Provinzen *Moesia Secunda* und *Scythia* mit der neuen Hauptstadt Konstantinopolis verbanden (Torbatov 2000, 59-72; Торбатов 2004, 87-89; Шкорпил / Шкорпил 1892, 31-47; Прешленов 2002, 342, 346-347; Динчев et al. 2007, 128-130). Die Hauptrolle in der Verteidigung der Zugänge zu ihnen spielte die Landmauer und die mit ihr verbundenen Festungen, die bereits seit dem Anfang des 5. Jh. n. Chr. entlang des Kammes der Wasserscheide südlich vom Dwojnitsa-Fluß bei Obzor bis zum Čobanska-Fluß südwestlich vom Dorf Koznitsa errichtet wurden (Динчев et al. 2007, 116, 126-128, обр. 70, 71) (**Abb. 1/I**)[1].

Die Festungsmauer der frühbyzantinischen Stadt, die die römische Station *Templum Iovis* am Küstenweg durch den Pomorijski-Paß integrierte, geriet gänzlich innerhalb der Baugrenzen der heutigen Stadt Obzor. Sie war militär-strategisch mit der Landmauer verbunden und entwickelte sich nördlich von ihr (**Abb. 1/I, 1/1**). Unsere Untersuchungen erwiesen, daß die gegenwärtigen Bauarbeiten fast völlig die Fortifikationsanlagen vernichtet haben. Ihr Verlauf wurde auf dem Terrain aufgrund der Betrachtungen K. Škorpils (1930, 205-206) am Anfang des 20. Jhs. und des topographischen Plans von der Mitte desselben Jhs. festgestellt (**Abb. 1/1, 2/1**). Die Festung hat einen trapezartigen Plan. Entlang der anfälligsten nördlichen Mauer sind zehn Türme errichtet worden. Der westliche und der südliche Teil folgten den Tälern, die entschprechend in den Dwojnitsa-Fluß und ins Meer münden. Wahrscheinlich funktionierten sie als natürliche Gräben vor den Festungsmauern. Verständlich wurde die östliche „Meeresmauer", die auf der Meeresküste verlief, nur mit einem Turm befestigt. Die gesamte bebaute Fläche beträgt etwa 25 ha, was diese neuentstandene Stadt unter die großen Zentren jener Zeit in der Provinz *Moesia Secunda* einreiht (Dintchev 1999, 41, 48). Von der nordwestlichen Ecke der Festung verläuft die Mauer nördlich des Weges, der wahrscheinlich der Trasse des antiken sie bedienenden Weges folgt. Sie folgt dem steigenden Abhang des Hügels bis zu seinem Kamm, voher sie in Richtung Westen biegt, südlich von der Festung „Kozjak" (**Abb. 1/I, 1/2**). Erhalten geblieben sind ihre Teile, die aus Bruchsteinen und Ziegeln mit Mörtel zusammengesetzt sind, aber auch solche, deren Vorderseiten aus Ziegeln geformt sind.

Die Festung „Kozjak" (**Abb. 1/2**), die von K. Škorpil als mittelalterlich bestimmt wurde

[1] Bearbeitung der topographischen Grundlage weiter unten: A. Kamenarov. Thematischer Inhalt: nach K. Škorpil (1930, обр. 6-8, 10, 12, 20) und H. Preshlenov.

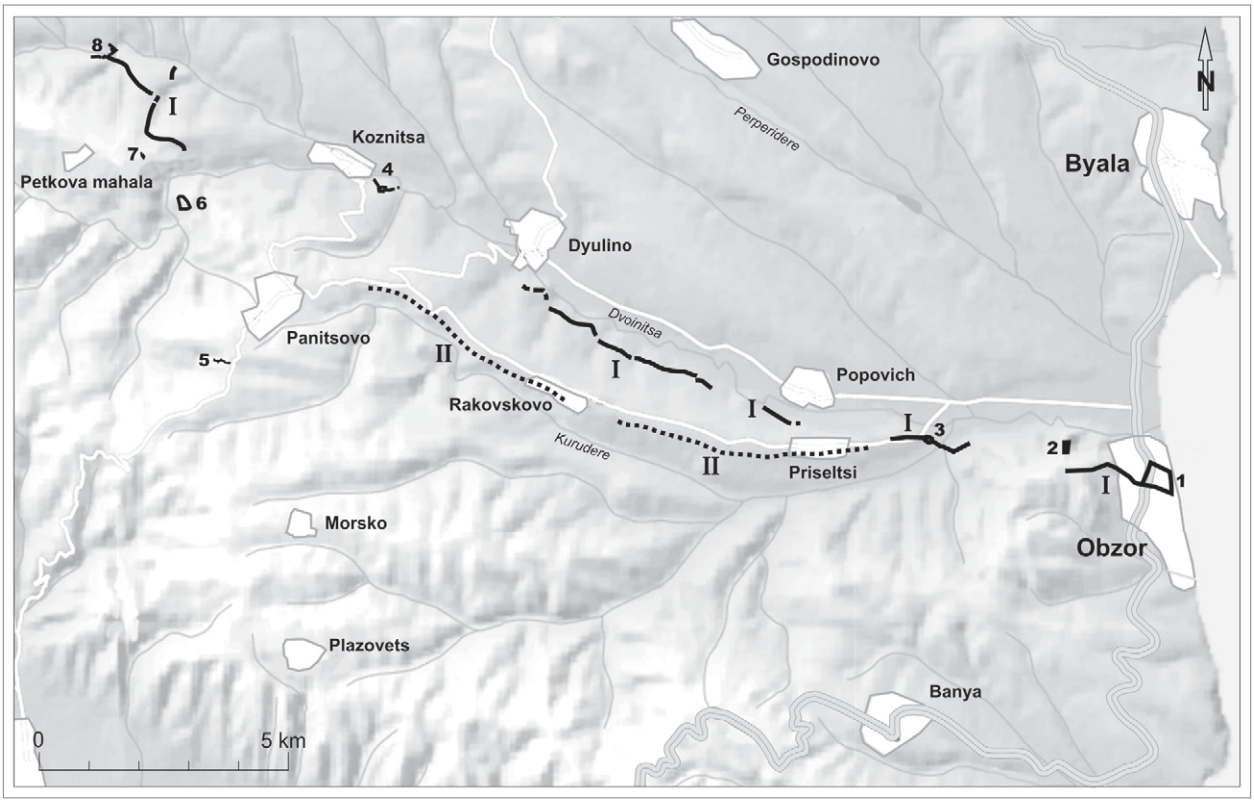
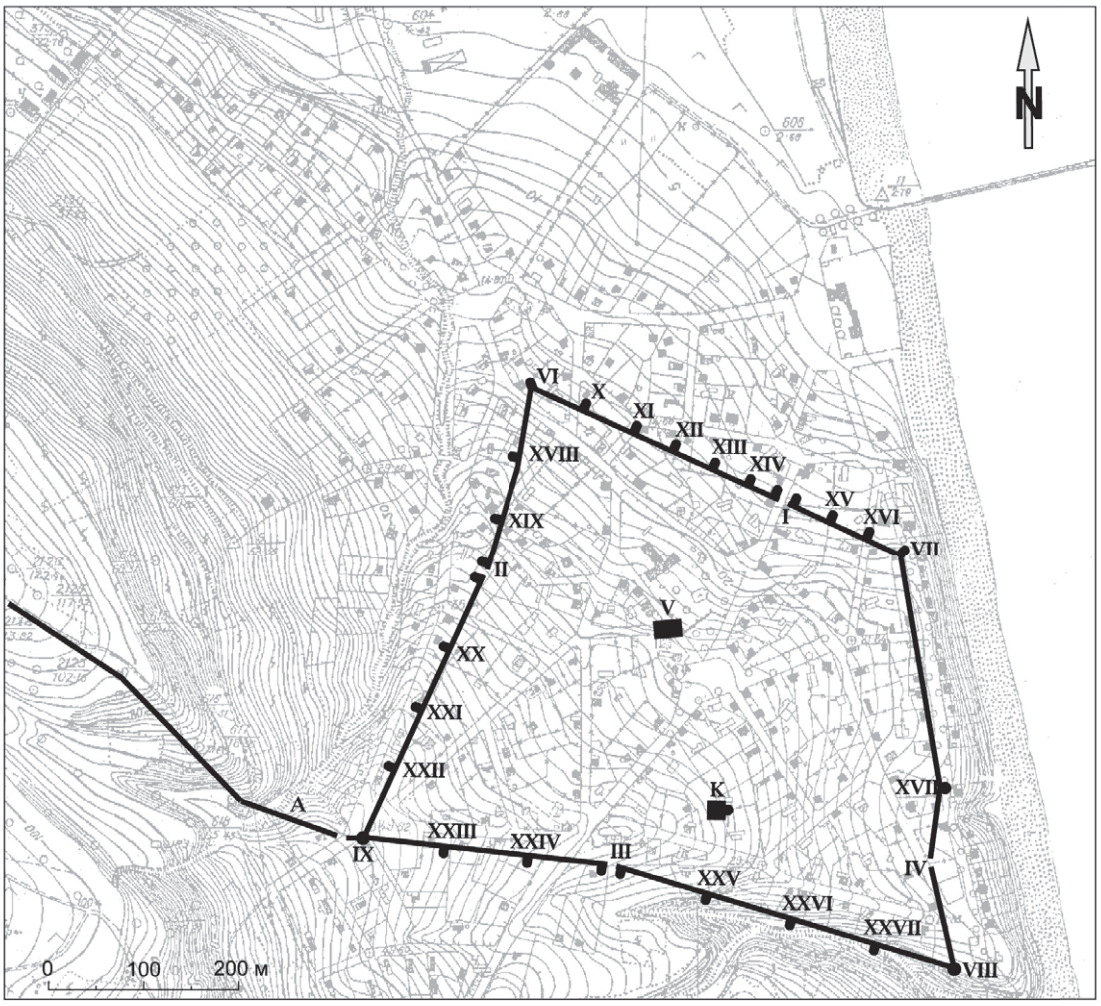


Abb. 1. Die frühbyzantinische Festungslinie (**I**), die Festungen in Obzor (**1**), „Kozjak“ (**2**), „Kale Germe“ (**3**), „Karamandzha Kale“ (**4**), „Ajvadziksko Gradischte“ (**5**), „Goljamo Erkečko Kale“ (**6**), „Malko Erkečko Gradischte“ (**7**), „Bjalo Gradischte“ (**8**) und der frühmittelalterliche Erdwall (**II**) im östlichen *Haemus*-Gebirge

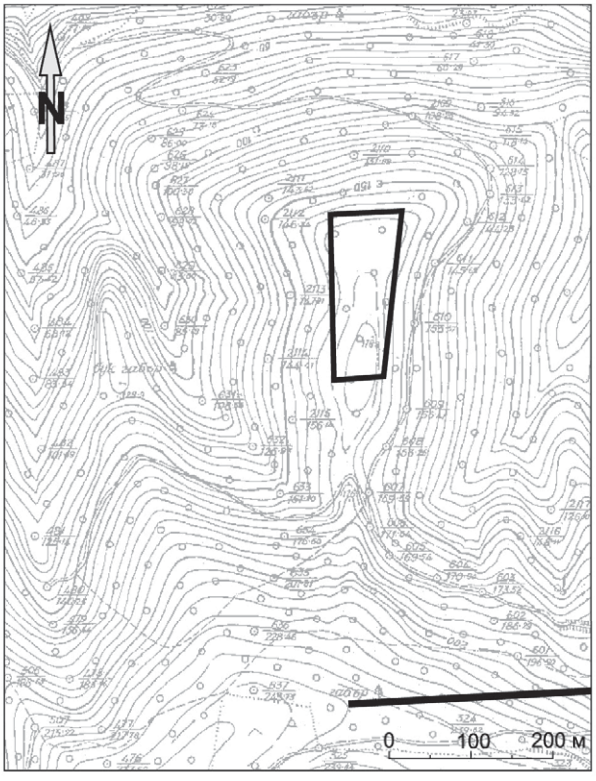
(Шкорпил / Шкорпил 1892, 57-58), liegt über dem Dwojnitsa-Fluß. Sie folgt der Kammeslinie eines Hügels und hat einen trapezähnlichen Plan und eine Fläche von etwa 1,8 ha (**Abb. 2/2**). Ihr Eingang ist auf der südlichen Seite, wo der natürliche Zugang zur Festung ist. Der schwächste südliche Teil ist mit Eck- und drei Zwischentürmen versehen. Wir stellten fest, daß die Besfestigung zwei Bauperioden hat, eine frühbyzantinische und eine mittelalterliche. Das Mauerwerk an manchen Stellen der östlichen Mauer ist in fünf Ziegelreihen *opus mixtum*.

Westlich der Festung verschwinden die Überreste der Verteidigungsmauer. Ihre Trasse neben dem rechten Ufer des Velikovska-Flusses blieb für K. Škorpil (1930, 207) unbekannt. Ihre Überreste wurden von uns westlich am Abhang „Dălgiya sărt“ des Hügels „Janko tepe“ entdeckt (**Abb. 1/I, 3/1**). Im Norden war er für die Besatzungstechnik und Transportwagen praktisch unüberwindbar und als eine natürliche geographische Barriere benutzt. Mehr Aufmerksamkeit wurde der Festigung des Teils bei der Talmude geschenkt, die den Abhang „Dălgiya sărt“ vom westlichen Hügel trennt. Entschprechend der Erfordernisse der Baupraxis wurden hier, beim Wechsel des Abhanges und der Richtung, zwei Wachtürme mit rechteckiger Form und Ziegeldach gebaut worden. Gebraucht wurden Bruchsteine, Ziegeln und Mörtel. Solche sind auch weiter im unteren Teil des Hügels südwestlich ersichtlich, wo die Verteidigungsmauer nach Nordwesten biegt und das rechte Ufer des Velikovska-Flusses erreicht. Die Mauertrasse ist hier von Ziegeln und Mörtel markiert. Auf dem linken Ufer ist die Trasse fast unsichtbar. Anfang des 20. Jahrhunderts lokalisierte K. Škorpil (1930, 207-208) drei Türme und die achteckige Festung „Kale Germe“ (mit einer Fläche von etwa 1,5 ha), deren Überreste wir am Schosse des Hügels „Sărta“ gefunden haben (**Abb. 1/3, 3/1**). Dadurch wurde offensichtlich die linke Flanke der Verteidigung des Tals des Velikovka-Flusses verstärkt. Nach der Festung folgt die Mauer dem steigenden Abhang des Hügels westlich in Richtung die Verteidigung „Karamandza Kale” des Djulino-Passes (**Abb. 1/4, 3/2**). Westlich davon biegt auch ein frühmittelalterlicher Erdwall (Рашев 1982, 53, табл. XII/1) (**Abb. 1/II**).

Bei den Feldforschungen der Trasse der Verteidigungsmauer des Djulino-Passes schenkten wir der Siedlung auf dem Hügel „Gradischteto“

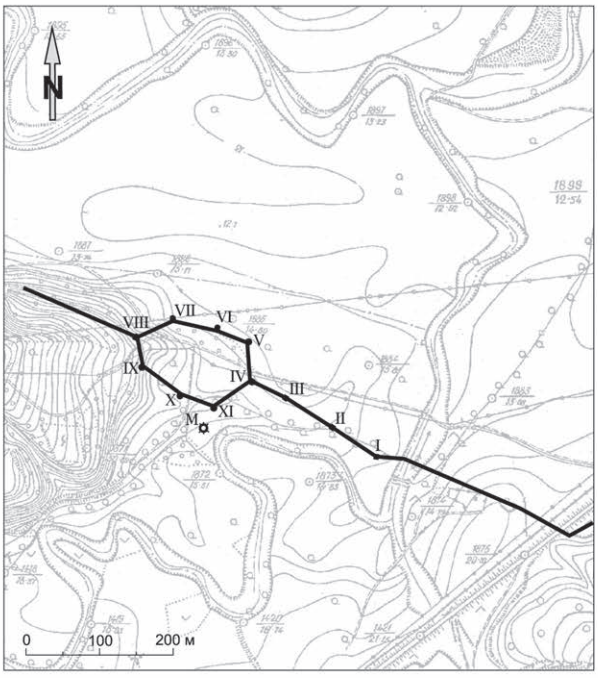


1

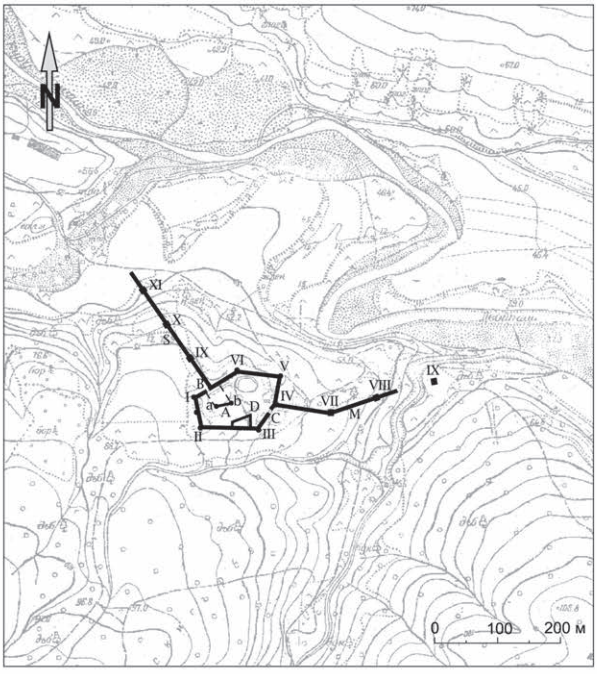


2

Abb. 2. 1) Die Festung in Obzor;
2) Die Festung „Kozjak“

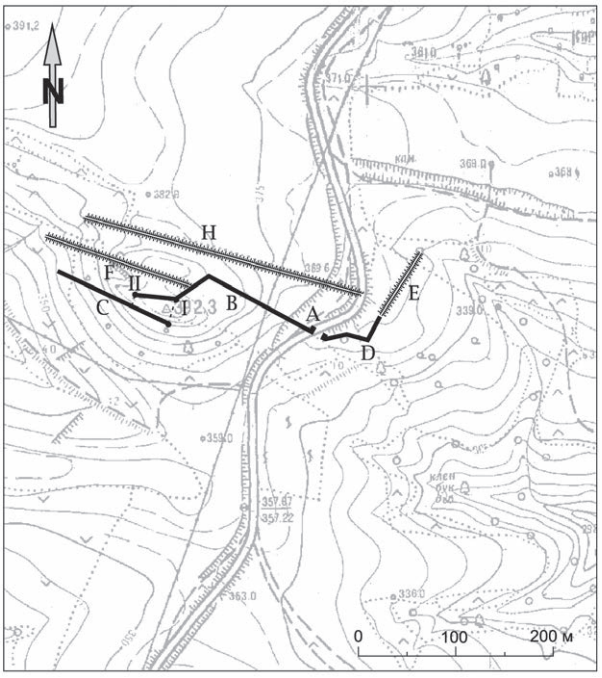


1

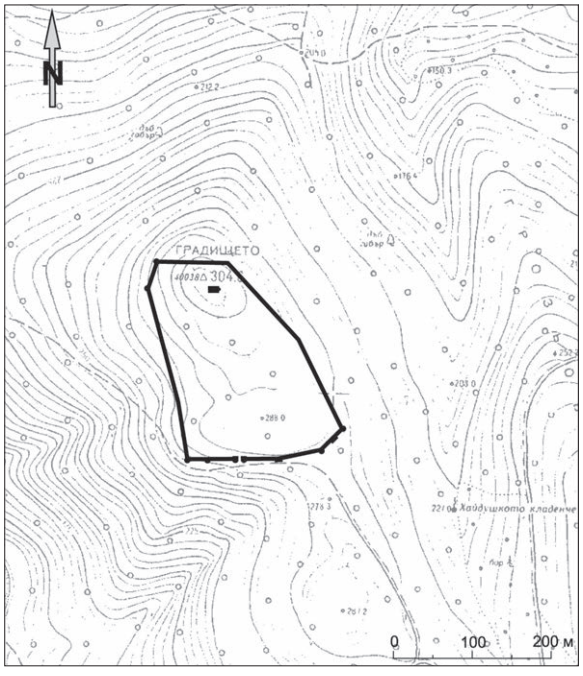


2

Abb. 3. 1) Die Festung „Kale Germe“;
2) Die Festung „Karamandzha Kale“



1



2

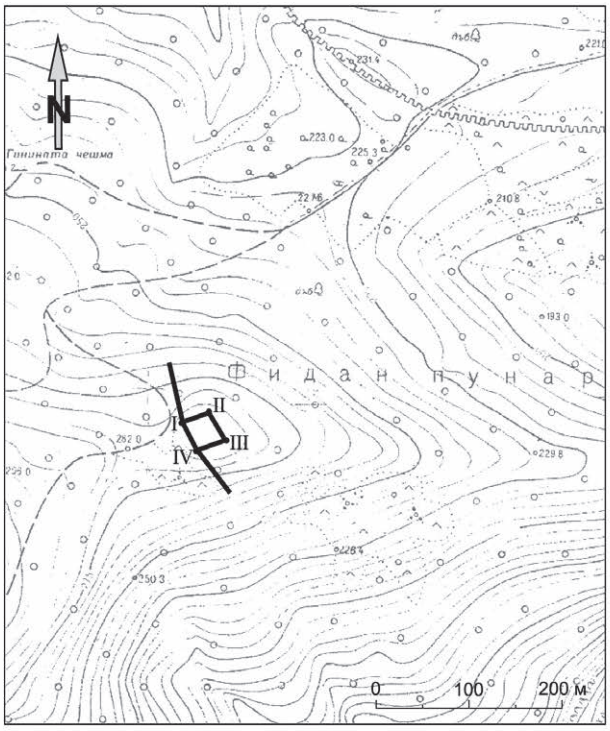
Abb. 4. 1) Die Festung „Ajvadžiksko Gradischte“;
2) Die Festung „Goljamo Erkečko Kale“

nordwestlich vom Dorf Panitsovo besondere Aufmerksamkeit (**Abb. 1/6**). Wir stellten fest, daß sich in dieser Siedlung bereits im 5.-4. Jh. v. Chr. eine Kulturschicht herausgebildet hat. Am Anfang des 5. Jh. n. Chr. wurde auf dem flachen Kamm des Hügels, an dessen Schössen im Westen und Norden der Čobanska-Fluß fließt, eine Festung, die K. Škorpil „Goljamo Erkečko Kale“ nannte (Шкорпил / Шкорпил 1892, 56), in *opus implectum* mit mehreckiger Form und mit einer Fläche von etwa 4,0 ha errichtet (**Abb. 4/2**). Der Zugang zu ihr war nur auf dem Weg von Süden möglich. Die Festungspforte, die von zwei Türmen flankiert war, war in der Mitte der südlichen Mauer angebracht, welche mit

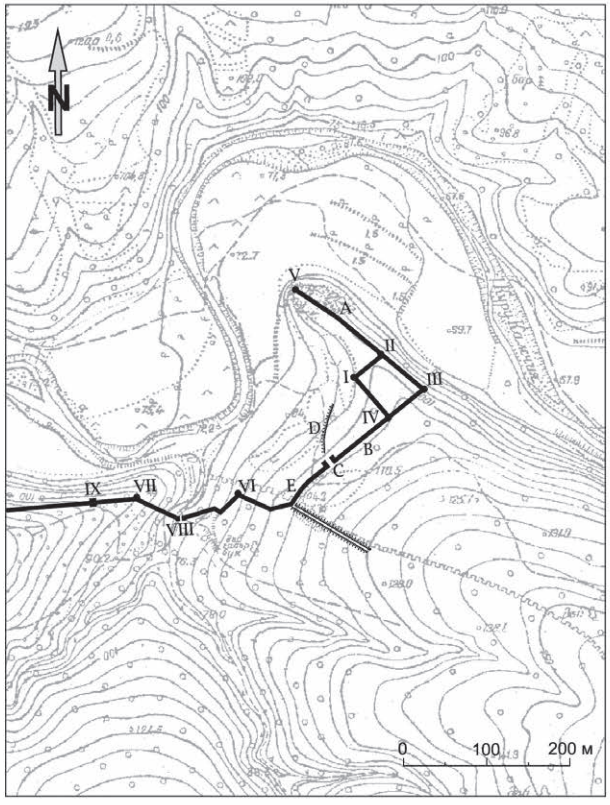
Eck- und vier Zwischentürmen verstärkt war. An der westlichen Mauer waren zwei Zwischentürme errichtet, während wir an der nördlichen und der östlichen Seite keine solchen entdecken konnten. Die Siedlung ist mit ähnlichen halbstädtischen befestigten Zentren vergleichbar (Динчев 2006, 9-22). Sie war ein strategischer Mittelpunkt, an dem einer der Wege zwischen *Marcianopolis* und *Anchialus* vorbeiführte. Dieser Weg war in der Gegend „Gradischteto", wo er mit einer Befestigung „Ajvadžiksko Gradischte" (Škorpil (1930, 227-228) *clausura*-Typus verstärkt war (**Abb. 1/5, 4/1**), durch einen Meilenstein in der Zeit des Kaisers Iulian 361-362 markiert und bei Valentinian, Valent und Gratian zwischen 367 und 375 wiederbenutzt (Бонева 1989, 73-74) wahrscheinlich im Zusammenhang mit dem Aufenthalt Valents in der benachbarten *Marcianopolis*.

Mittels lokaler Wege verband sich die Siedlung auf dem Hügel „Gradischteto" mit den Festungen, die die Verteidigungsmauer am südlichen Ufer des Dwojnitsa-Flusses bildeten oder mit der sie im Zusammenhang waren, sowie die Zugänge zum Paß von Norden bewachten. Am nördlichen Ufer des Čobanska-Flusses, nordwestlich von der Siedlung, war eine Festung „Malko Erkečko Gradischte" aus Bruchstein und Mörtel gebaut (Škorpil 1930, 212) (**Abb. 1/7**). Diese hatte eine Fläche von 0,1 ha (**Abb. 5/1**), einen viereckigen Plan *quadriburgium*-Typus nach C. Băjenaru (2010, 157, 170, fig. 345), Türme an den Ecken und einen einfachen Eingang. Die Festung hatte visuelle und operative Verbindung mit der Siedlung auf der Hügel „Gradischteto". Durch einen Erdwall westlich der Festung war sie mit der Verteidigungsmauer verbunden, die weiter nach Westen zur Festung „Bjalo Gradischte" verlief (Škorpil 1930, 214-215) (**Abb. 1/8, 5/2**). Östlich von der Siedlung befand sich die Festung „Karamandzha Kale" (Škorpil 1930, 209-210). Sie lag auf einer Flußterrasse nach der Mündung des Čobanska-Flusses in den Dwojnitsa-Fluß und war in der Verteidigungsmauer eingeschlossen (**Abb. 1/4**). Die Festung hatte einen fünfeckigen Plan, eine Fläche von etwa 1,15 ha und Türme in *opus mixtum* an den Ecken. Von ihrer südöstlichen Ecke verlief die Mauer, ebenfalls in *opus mixtum*, nach Osten zur Festung „Kale Germe".

Zusammenfassend kann man feststellen, daß die Feldforschungen die taktische Bedeutung der frühbyzantinischen Stadt in der Nähe von der Mündung des Dwojnitsa-Flusses erhellten (**Abb. 1/1**). Diese Bedeutung bezog sich auf die Überwachung des Küstenweges durch den Pomorijski-Paß, auf die



1



2

Abb. 5. 1) Die Festung „Malko Erkečko Gradischte";
2) Die Festung „Bjalo Gradischte"

Flankendeckung der Verteidigungsmauer und auf die Versorgung ihrer Verteidiger auf Meer. Die vor der Front der Verteidigungsmauer herausragende Nachbarfestung „Kozjak“ (**Abb. 1/2**) hatte Signal- und Wachfunktionen am Diagonalweg, der im Norden und Osten um den Hügel führte. Die Festung „Kale Germe“ (**Abb. 1/3**) und die Türme am nordwestlichen Schoß des Hügels beim Velikovska–Fluß boten Flankendeckung der Verteidigungsmauer im geographisch schwächsten Terrain im Tal dieses Flusses. Dadurch erschwerten sie die Umfahrt des Küstenweges. Ähnliche Funktionen bezüglich des Weges durch den Djulnski-Paß hatte die Festung „Karamandzha Kale“ (**Abb. 1/4**) bei der Mündung des Čobanska-Flusses in den Dwojnitsa-Fluß, während die Siedlung „Goljamo Erkečko Kale“ an der Wendung des Čobanska-Flusses (**Abb. 1/6**), die den Paß bereits seit dem 5.-4. Jh. v. Chr. kontrollierte, eher logistische Funktionen hatte.

Hypothetisch könnte die Verteidigungsmauer als den Feind aufhaltende Vorderbarriere aufgefaßt werden, die praktisch die natürliche Scheide des Balkangebirges ausnützte. Im Zusammenhang mit ihr waren die konstruktiv eingeschlossenen oder vor ihrer Front hinausragenden Festungen und Türme, die Kommunikationswege, die eine schnelle Umlagerung von Militäreinheiten erlaubten, sowie die Siedlungen, wo das Leben in Friedenszeiten organisiert war. Sie alle bildeten *de facto* die Verteidigungslinie zwischen den beiden Transportkorridoren durch die Djulinski und Pomorijski Päße.

Bibliographie

Бонева, И. 1989. Нов епиграфски паметник от пътя Анхиало – Марцианопол. – Векове 5, 73-76.

Динчев, В. 2006. Ранновизантийските крепости в България и съседните земи (в Диоцезите Thracia и Dacia) (= Разкопки и проучвания, XXXV). София.

Динчев, В. / Божкова, Б. / Кацарова, В. / Чолакова, А. / Христов, М. 2007. Археологическото проучване на Хемските порти (в м. Гермето при с. Голица, Варненска област) през 2005 г. (= Разкопки и проучвания, XXXVI). София.

Прешленов, Х. 2002. Пътят Анхиало – Марцианопол: късноантични селища и укрепления в проход Дюлино на Източна Стара планина. In: Бошнаков, К. / Ботева, Д. (eds.). Jubilaeus 5. Сборник в чест на проф. М. Тачева. София. 342-347.

Рашев, Р. 1982. Старобългарски укрепления на Долния Дунав (VII-XI в.). Варна.

Торбатов, С. 2004. Пътна мрежа в Тракия и Мизия (I-III в.). In: Иванов, Р. (ed.). Археология на българските земи, 1. София. 76-95.

Шкорпил, Х. / Шкорпил, К. 1892. Североизточна България в географско и археологическо отношение. – Сборник за народни умотворения, наука и книжнина 8, 3-58.

Băjenaru, C. 2010. Minor Fortifications in the Balkan-Danubian Area from Diocletian to Justinian. Cluj-Napoca.

Dintchev, V. 2012. The East-Balkan Wall and the “Gates of Haemus” Complex. In: Vagalinski, L. / Sharankov, N. / Torbatov, S. (eds.). The Lower Danube Roman Limes. Sofia. 495-526.

Dintchev, V. 1999. Classification of the Late Antique Cities in the Dioceses of *Thracia* and *Dacia*. – Archaeologia Bulgarica 3, 39-73.

Torbatov, S. 2000. The Roman Road Durostorum – Marcianopolis. – Archaeologia Bulgarica 1, 59-72.

Škorpil, K. 1930. Стратегически постройки в черноморската област на Балканския полуостров. – Byzantinoslavica 2, 197-230.

Associate Prof. Hristo Preshlenov PhD
National Archaeological Institute with Museum
2 Saborna St.
BG-1000 Sofia
hristo.preshlenov@abv.bg

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Roman Camp of *Apulum*. Archaeological Research in the *Principia*

Nicolae GUDEA / Constantin INEL / Ovidiu OARGĂ

Preliminaries

"*Universa Dacia devicta est*"; the Roman province Dacia was constituted on the 11th August 106 (CIL XVI, 160 = IDR I Dipl D I) (**fig. 1**), *Legio XIII Gemina* reached Dacia's border in ca. AD 101, it participated in the wars against the Dacians (101-102, 105-106) (AE 1934, 2), and in AD 106 it settled in *Apulum* (Alba Iulia, Romania) (Ritterling 1924, col. 1718; Moga 1985, 21; Strobel 1984, 95).

To prove this stand the ruins of the fortress and the civilian settlement *Apulum* (first phase), the inscriptions (IDR III, 5), the stamped tiles or the legion (IDR III, 6). The Romanian historiography accepted and sustained the idea that in the chosen place this fortress constituted the nucleus of Dacia's defense system (Christescu 1937, 130-131; Macrea 1969, 218 f.; Tudor 1968, 144-146; Gudea 1989, 107-109) and it became the most important urban centre of the province (**fig. 2**).

A medieval fortress was built on the ruins of the Roman camp, which functioned between the 12th and 16th centuries, called Bâlgrad/Gyulafehérvár; later, an Austrian fortress of Vauban-type with projecting outwork forming salient angles (1715-1738) was built and functioned here, facts that delayed the finding of information about the Roman fortress and the Roman town.

The founder of the Alba Iulia museum, A. Csernyi, tried at the end of the 19th century to give the first information about the fortress (Csernyi 1912, 106-112) after he had identified during some modern town planning works parts of the enclosure wall and inscriptions concerning the fortress and *Legio XIII Gemina* and of course countless stamped tiles. But the first archaeologist who inferred that the plan of the Roman fortress can be recognized after the route of the enclosure wall of the medieval fortress was M. Rusu (Rusu 1979) (**fig. 5**).

After 1966 due to modern, almost continuous planning works, successively, especially due to arrangements of residential areas and rescue excavations, information turned up concerning various parts of the enclosure wall and elements of its defenses (ditch, berm, turf wall) (Heitel 1985, 219-222; Moga 1998, 25-28).

Between 1986 and 1995, also due to modern town planning work and systematic excavations, new information was obtained about some elements of the enclosure wall on its southern side (the stone wall, the turf wall = *agger, via sagularis*) and the gate on the same side, which later on proved to be *porta principalis dextra* (Moga 1999; 2005).

There were several works on "the Roman fortress of *Apulum*/Alba Iulia" between 1925 and 2011, but the information about the fortress is faded by that about Legio XIII Gemina (Moga 1997; 1999; 2005). It was only in 2008 when a specialist in the research of the early medieval fortress of Alba Iulia presented a somewhat more complete route of the Roman fortress of Alba Iulia, giving also information about the archaeological material as well (Marcu 2008).

Preventive and Systematic Excavations in 2011

Within the rehabilitation project of the infrastructure of the Alba Carolina fortress in Alba Iulia (i.e. the Austrian Fortress) (Project # 213-1: Rehabilitation of the historical centre Alba Iulia – the Vauban-type fortress: access ways, external illumination and town furniture), the internal zone "on the place called" "Alba Iulia" during the year 2011, ample works or urban planning, restoration of his-

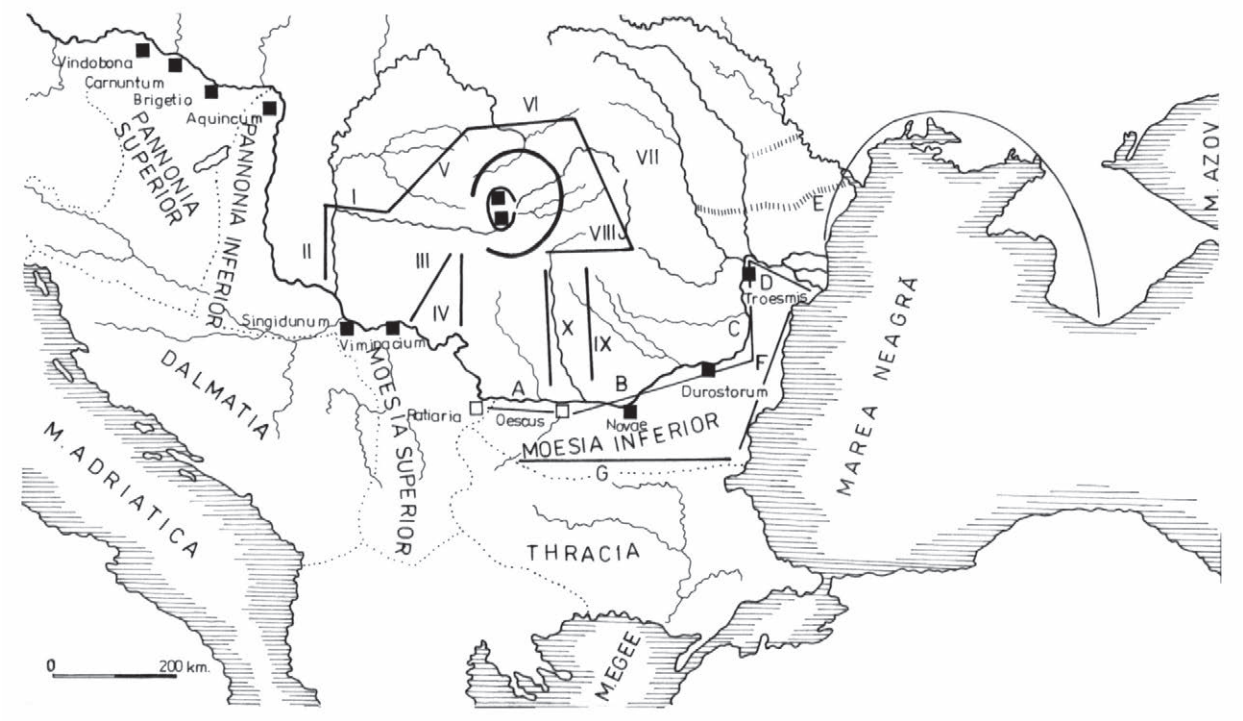


Fig. 1. Map showing the defensive system of the Dacian provinces (after N. Gudea); the legionary fortress of *Apulum* is in the center of the system

torical buildings, installation of drainage channels, water pipes and electrical installations were carried out. Parallel to these, in rather difficult conditions, preventive and rescue excavations were made in various parts of the fortress, the preventive /systematic ones only in the central area.

The excavations were carried out by a team of archaeologists from the National Museum of the Union (C. Inel, O. Oargă, G. Rustoiu, Ana Maria Duna, Anca Timofan, A. Bolog, L. Bălan) and Nicolae Gudea from Babeş-Bolyai University Cluj-Napoca as well as the students Ioan Oprea and Mihai Robu; graphical illustration was provided by Călin Adam (MNUAI) and Nicolae Moga (Group Corint).

Rescue excavations were made in the following research points (**fig. 3**): 1. *Praetentura dextra*; 2. *Via principalis* and construction elements around it; 3. *Latus dextrum* and constructions in the searched area; 4. *Retentura dextra* with parts from a temple; 5. Eastern enclosure wall situated south of *porta decumana* with its curtain towers; 6. *Principia*: its northern side with the corner and round way; 8. *Principia*: the western side with parts from the *tabularium* and southern side of *atrium*/courtyard with some rooms of the *armamentarium.*

In what follows, we are going to present the results at each research point/location, type of research, and discoveries.

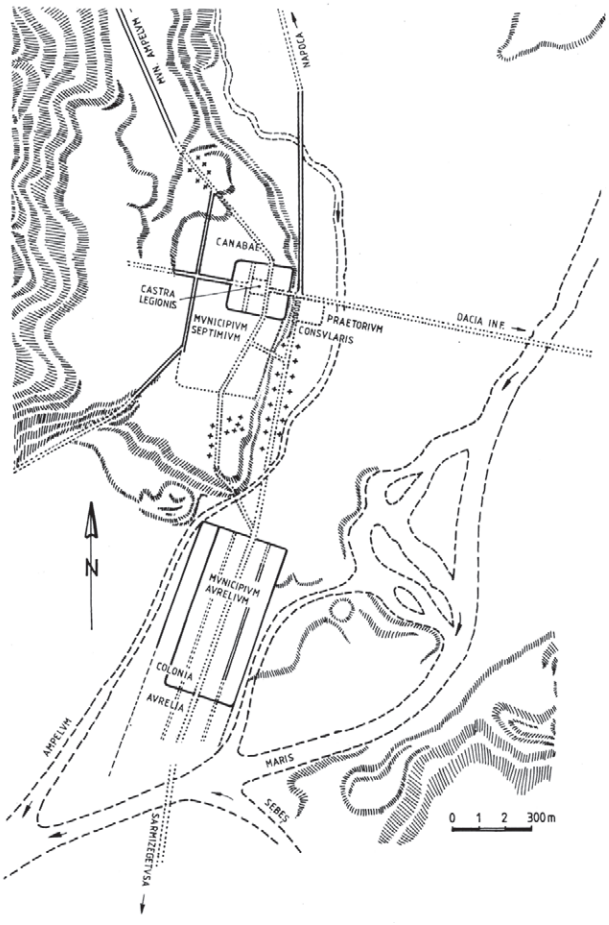


Fig. 2. Map showing the Roman site *Apulum* (fortress, towers, cemeteries) (after Al. Diaconescu)

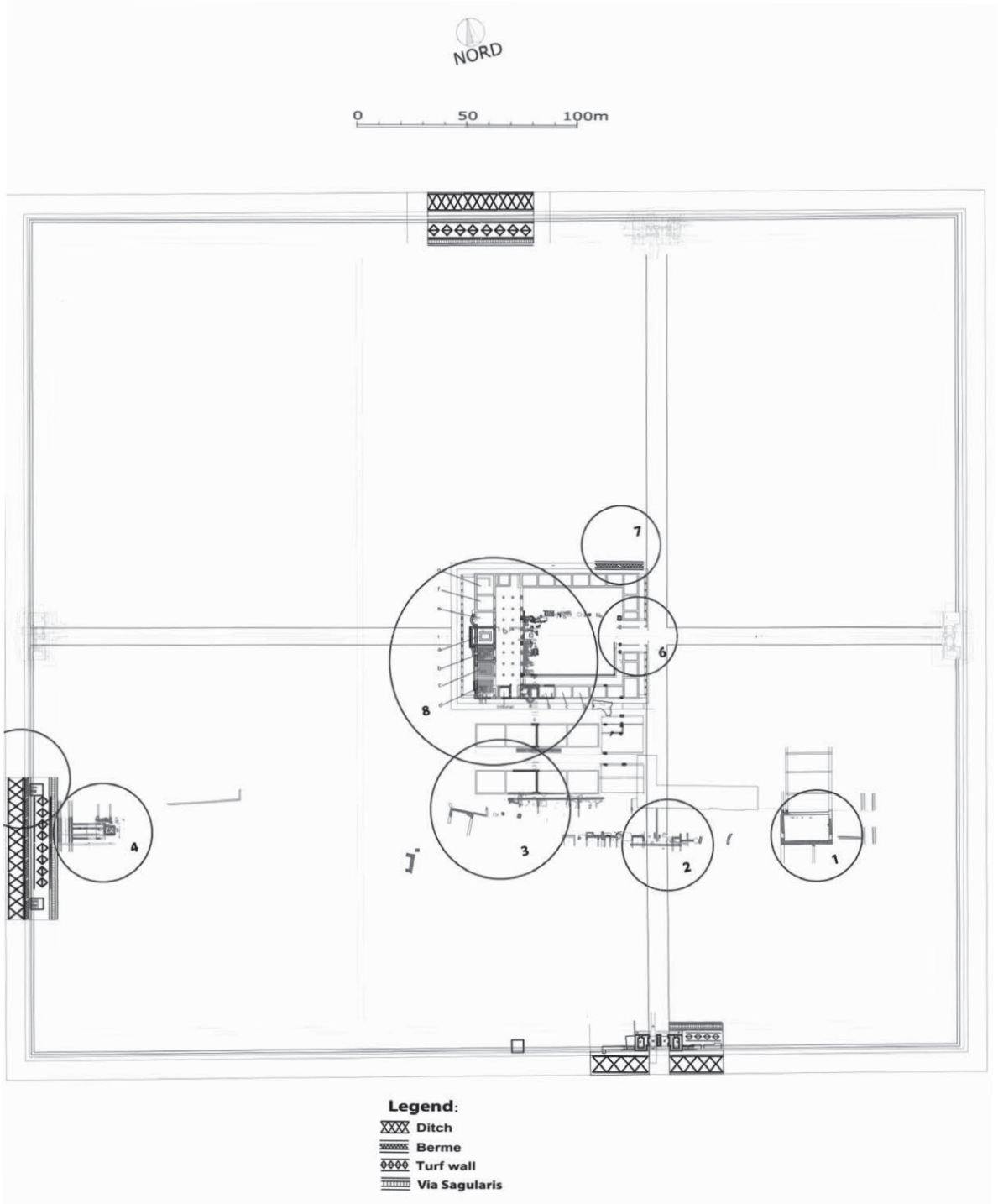


Fig. 3. *Apulum*. Plan of the legionary fortress (2011 excavation results): **1** *Praetentura dextra*; **2** *Via principalis* with drainage towards *porta dextra*; **3** *Latus dextrum*; *horrea* and a side of the *praetorium*; **4** *Retentura dextra*; the Nemesis temple; **5** The western enclosure wall with two internal towers; **6** *Principia*: the eastern gate zone; **7**-**8** *Principia*/headquarters

1. *Preatentura dextra*: rescue excavation; parts of a barrack

2. *Via principalis*: rescue excavation; the structure and dimensions of the road, the underground drainage towards the south

3. *Latus dextrum*; rescue excavations: parts of a large building and preventive excavations at two barracks or *horrea*?

4. *Retentura dextra*; rescue excavations; parts of a construction that might be a Nemesis temple.

5. The western enclosure wall; rescue excavations; the stone wall and two curtain towers south or *porta decumana*.

6-7-8. The headquarter/*principia*; preventive excavations combined with the rescue works; in the area of the former periphery of Custozza Park

the following research works were carried out:

- Trench S1; 94.00 x 3.00 m; oriented south-north (between the streets M. Viteazul and N. Iorga); crosses the preserved part of the *principia*.

- Trench S2; 74.00 x 5.00 m; developed from the rescue trench (installation of some electric wires); systematic excavations; oriented east-west, parallel to N. Iorga street, across the middle area of the courtyard (*atrium*) **(fig. 5b)**.

- Cassette C1; 30.00 x 6.00 m; respectively 8.30 x 6.00 m; oriented east-west; uncovered the southern part of the courtyard/*atrium* with a room called *armamentarium*, a part of the proper courtyard/*atrium*, part from the covered building cross – hall/*basilica* and a part of the back side of the headquarters southern part of *tabularium*.

- Cassette C2; west of cassette C1, in its prolongation; 10.00 x 10.00 m; identified another room of the *armamentarium*.

- Cassette C3; 30.00 x 15.00 m; oriented south-north; from trench S2 towards cassettes C1-C2; identified the room from the back side of the building (*tabularium*); rescue excavations due to the installation of checking chambers for electrical and communication outfits foreseen in the infrastructure project; transformed into systematic excavations.

- Cassette C4; 30.00 x 10.00 m; oriented east-west; rescue excavations due to the fitting up of drainage in the A. Suluțiu street; uncovered buildings from the headquarters on the eastern side.

Epigraphic Information concerning the Internal Organization of the Roman Fortress of *Apulum*

Some buildings are attested by inscriptions but they have not been archaeologically identified yet.

CIL III 1061 = IDR III.5, 185	from ca. AD 158; mentions bringing water supply into the fortress
CIL III 1071 = IDR III.5, 193	dated to AD 201-215; mentions *horologiarium*; inscription found in the *retentura*, present Roman Catholic diocese.
CIL III 7741 = IDR III.5, 426	reveals that non commissioned officers built a *schola speculatorum*
CIL III 1121 = IDR III.5, 285	mention the *conductores armamentarii*
CIL III 1019 = IDR III.5, 84	dedicated by the *legatus legionis* to *Genius Praetorii*, dated to AD 193-200
CIL III 14374 = IDR III.5, 295	dated to the 2nd – beginning of the 3rd century; mentions a *templum a novo* dedicated to the goddess Nemesis. According to Moga (2005, 57) "the inscription was found in the periphery of the fortress"; According to I. Piso (IDR III.5, 295) it was found in the governor's *praetorium* in *municipium Aurelium Apulense.*
AE 2007, 1199 = Moga et al. 2007	a *primipilus legionis* mentions the building of a *tetrastylum*; the inscription was found in the centre of the *principia*

Several inscriptions discovered in the Roman town (*Apulum*) as well as in the fortress, without precise locations of their discovery, mention buildings in the interior or the fortress, some of which are identified during our excavations.

General Results of the Archaeological Observation and Research. Information Concerning the Settlement/Fortress, Its Enclosure and Defense Elements

1. The legionary fortress is situated at the end of a promontory oriented west-east, finishing high above the Mureș River meadow.

2. The site on which the fortress stands has a main natural inclination from east and secondary inclination from the hill top towards the south and north (important for the understanding of the water drainage from the fortress). Consequently *porta decumana* on the western side thus complying with Hyginus' indications (Hyginus 56).

3. During the first building phase, possibly immediately after AD 106, a fortress protected by a turf wall was built. The information about this phase is scarce, being limited only to some parts of the enclosure wall (southern and western) and is still uncertain.

4. The fortress with stone enclosure has a quadrilateral plan in a rectangular shape; dimensions 480 x 440 m; the long sides being oriented east-west, so *porta praetoria* is on the eastern side; with the view to the Mureș River; as a type it is similar to the so called *castra tertiata* (Hyginus 21), but it is closer to a square.

5. The stone wall was built with big square stones in regular ashlar courses, *opus quadratum* (but more *pseudisodomum*, in which the courses are not uniform) with crenelated parapets; the average width is 1.90-2.20 m; in front of the wall between the bank

and the ditch there was a berm varying about 1.50-2.00 m; in front of it there was a trapezoidal trench 7.00 m wide and 6.00 m deep.

6. *Porta principalis dextra* is the only gate searched systematically; it gave access to the *via principalis* street which ran across the front of the central range; the gate is 10.37 m wide; double carrying ways; flanked by externally projecting towers 0.80 m; the towers have buttresses in the frontal part and on the interior corners; the western tower is 6.96 x 8.35 m; the eastern tower is 7.17 x 8.35 m; the gate plan recalls two arched passage-ways, 4.20 m wide; the arched portals are about 3.50 m high; the *spina* is 5.65 m long and 1.05 m wide having small buttresses on both ends; the road through the gate was metaled, it was provided by an underground drainage forming the outfall for internal drainage. The type of gate can be dated to the Hadrianic period (Lander 1994, 63).

7. On the western enclosure two intermediate (curtain) towers were identified; the one which is situated at 50 m south from *porta decumana* is built of big stone blocks; dimensions 6.25 x 4.25 m in the exterior, well preserved; it has a drainage channel made of limestone blocks; the second tower is at 45 m south from the first one; square plan; dimensions 5.75 x 5.75 m; distance from the corner tower 55 m; fact suggesting that on all short sides after the enclosure of the fortress, there could have been two curtain towers (on each).

8. *Praetentura dextra*; at 25 m from the gate Vauban III and 100 m east from *via principalis* a building was discovered, which seems to be the end of a barrack; 26.60 x 14.00 m; if our hypothesis is correct, this could be the centurions house; east of *via principalis* walls have been found which could also be parts of barracks.

9. *Via principalis* runs 75 m from *porta dextra* and 256 m from the western enclosure wall; 7.30 m wide; the road consisted of a layer of flagstones forming a base 0.25-0.35 m (*nucleus* and *ruderatia*); over this infrastructure there are big stone slabs (*stratum*); the road had 0.30 m deep central sewers; 1.25 m wide; stone built with flagged bottoms for easy maintenance; on the base there were floor tiles; the drainage runs to *porta dextra*.

10. *Latus dextrum*; in section/trench S1 two granaries have been identified, they complete the central range on opposite sides of the *principia* to the commandant house; they are parallel to the axis of the fortress; the granaries were long narrow structures with massive walls; H 1 100 x 11 m; H 2 100 x 11 m; between the two buildings ran a 12 m wide road. The finds are column fragments, brooches, stamped tiles, Samian ware and two coins of Hadrian.

11. 40 m west from the headquarters and 2.00 m west from the *horreum* H 1 a 48 m long wall was identified as well as some rooms along it; being the northern wall or the commandant house (*praetorium*)?

12. *Retentura dextra*; at 20 m east from the western enclosure wall and 60 m south from the axis of via decumana (in front of the Vauban gate IV) a big building was partially identified through rescue excavation. The building has a square plan; it is 29.30 m long and 8.9 m wide with *cocciopesto* floor. The finds: stone inscription for Nemesis, a stone/marble statuette of Nemesis, a stone altar of Mars.

13. The headquarters/*principia* is the central building in the fortress. It is well preserved, but only its southern half has been researched, as the other half is covered by the present day N. Iorga street and partially by the building of the University **(fig. 5b)**. On the basis of the searched part we reconstructed the plan of the whole building.

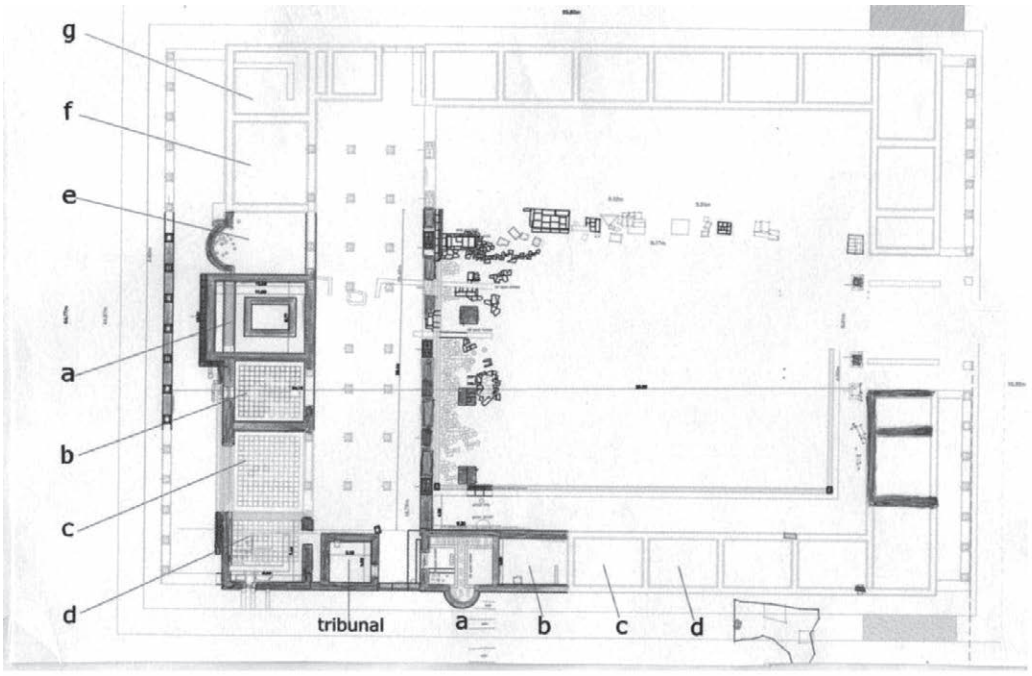
The building lies 170 m from the southern and northern enclosure/curtain wall and 245 m from the western curtain wall. The excavations were limited to the south-western part of the building, the court yard, the cross-hall, the *aedes* and small parts of contingent areas.

The estimated width of the *principia* is 65 m; its length is uncertain, but it was probably between 100-110 m. The frontal part of the building is covered by the present day Şterca-Suluţiu street and the Austrian military barracks (today the caserne of pontoons).

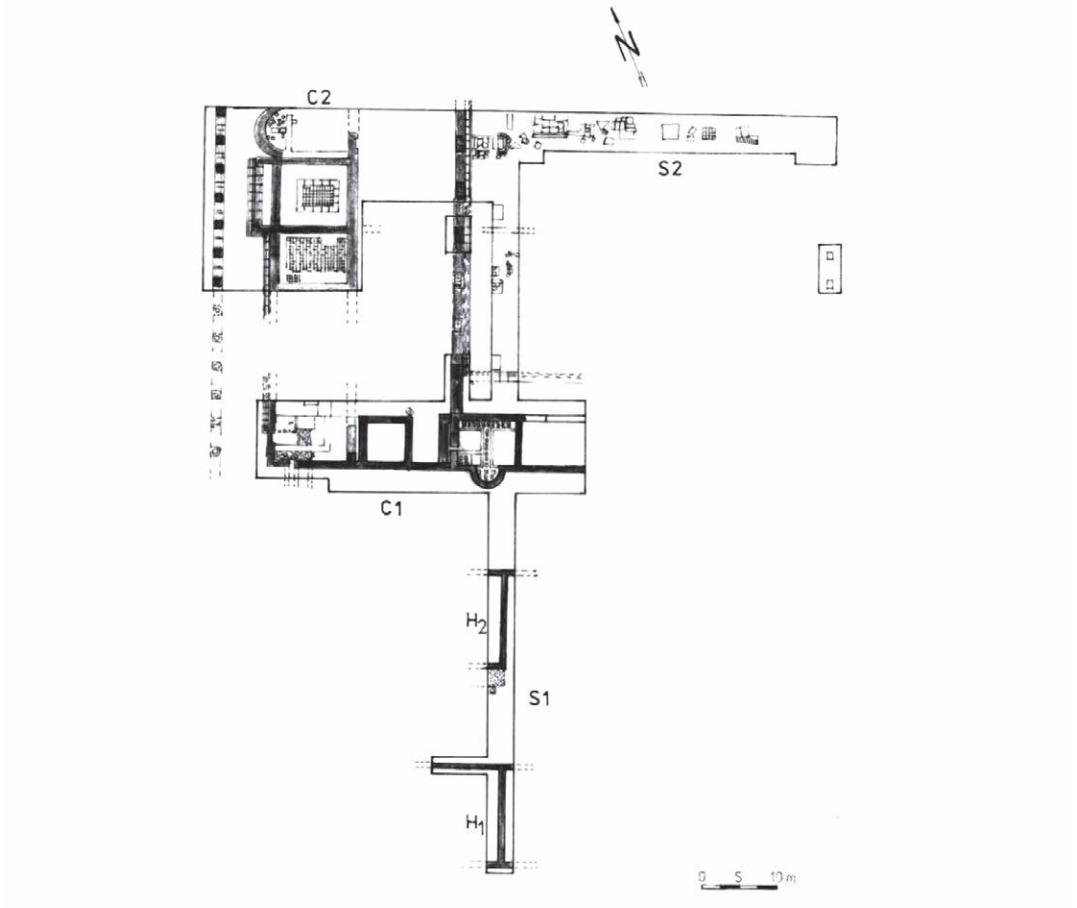
The headquarters consist of the three parts typical for a *forum* (Fellmann s. a., 15-21) **(fig. 4a)**: a courtyard/piazza (*atrium*) surrounded by verandas converted in small rooms on the southern side; an aisled cross-hall (*basilica*) in which on the south and north sides are the daises (tribunals); a rare range of rooms normally five in number (behind the cross hall).

1. The *atrium*/courtyard; the excavated part is 50.85 x 38.34 m; with gravel, later paved surface surrounded by portico and colonnades; a drainage channel along the wall of the *basilica*; narrow rooms on the south side serving perhaps as armories or store rooms; along the walls and portico a drainage channel.

2. Beyond the courtyard lay the second division of the building: a cross hall extending across the full width of the structure; the excavated part measures 30.74 x 32.34 m; the *basilica principiorum* had



a.



b.

Fig. 4a. *Apulum*. The restored plan of the *principia*/headquarters
Fig. 4b. *Apulum*. Plan of the rescue excavations in the headquarters (*principia*)



Fig. 5a. *Apulum*. The southern side of the *principia*: *armamentarium* (central part)
Fig. 5b. *Apulum. Principia*: the courtyard (*atrium*), trench S2

overall dimensions of 65 m length and 30 m width; it has a lefty nave and two aisles divided from the nave by two colonnades; on the southern side there is a room (tribunal); between the *basilica* and the big courtyard there is a colonnade supported by a substantial wall (portico).

3. Behind the *basilica*/cross-hall there is a rare range of rooms normally five in number (exceptionally seven); the width of the rooms is 9.00 m; the length is different; the *aedes* is 11.22 m; room b is 7.36 m, room c 7.50 m; all rooms being paved with tiles (*bipedales*). The central room (*aedes*) was preserved for the tresor; it was the regimental shrine, equipped with a stone built safe sunk into the floor to contain the military pay chest, the soldiers saving bank. The remaining rooms were assigned to clerical staff: two for pay, two for administration; behind the western wall ran a drainage channel oriented south.

The external part of the *aedes* and rooms at 4.28 m to the west are surrounded by a *porticus*, a substantial wall 1.13 m wide of big square blocks, researched on 15.30 m; on the wall there are column bases distanced at 3.60 m.

A short presentation of the parts of the headquarters building **(fig. 4b)**:

1. The courtyard/*atrium*; the preserved part measures 35 x 45 m; the graphically completed yard measures 50 x 50 m; at its bases there was a layer of sand and gravel (which might have constituted the pavement in the first phase) on its top a pavement of big stone slabs.

- On the southern side a row of rooms (*armamentarium*) 5.80 m wide which probably covered the whole side: room a is 7.55 m wide, 5.80 m wide in interior; in a later phase it was modified having an apsis on the southern side and a *hypocaustum* installation in the interior **(fig. 5a)**; a fragmentary inscription was found near the southern side of the inner wall. The other rooms on the southern side of the atrium up to the entrance have not been searched yet.

- Other installations found inside the courtyard: a drainage channel with stone walls near the *porticus* wall; at 5.00 m distance from the same wall a row of pedestals making up perhaps the proper *porticus* of the courtyard; in the central area or the *atrium* towards the northern side, in S 2, above the

paved floor several fragmentary inscriptions, the bulk of them dating the room to the beginning of the 3rd century.

- The eastern side of the *atrium* and the entrance' four pedestals made of stone and bricks were identified, 4.00 m distance between them, perhaps parts of the *porticus* on the eastern edge of the courtyard; laterally from the *porticus* parts of a room which was probably closing the *atrium* to the east; rear of pedestals at 10 m from the courtyard a brick floor; a votive shrine dedicated to Serapis and a fragment of votive plate with Serapis representation.

1. Between the *atrium* and the cross-hall/*basilica* there were a *porticus* and stairs, the wall is 1.00 m thick; on the wall pedestals for the colonnades at 16.75 m distance from one another, from several cohorts, a colonnade fragment with an eagle in the front and a Doric capital and a fragmentary inscription.

3. The preserved half of the cross-hall/*basilica* measured 45.00 m in length and 12.78 m in width; the pavement consisted of a layer of sand and beaten gravel, on the southern end a room 5.30 m x 5.09 in the interior, perhaps a tribunal; in the middle of the hall two parallel rows of pedestals being a support of the roof on the colonnades.

4. The rooms on the back side constituted the *tabularium*, they are situated south of the *aedes* and one north of the former; there must have been seven for the entire building (but we identified only five); the rooms are 9.00 m wide; the central room (*aedes*) is 11.22 m long, having a 2.27 m prominence from the back wall; the other rooms vary in length: room b is 7.35 x 9.00 m; room c is 7.50 x 9.00 m; room a is 7.44 x 9.00 m (the northern part of the wall has not been uncovered); all three rooms south of the *aedes* were paved with *bipedales* tiles; in the last one (e) there was a hypocaust heating system; the central room a (*aedes*), the so-called *Fahnenheiligtum* (room of flags) is a second phase of construction raised on the stone walls of an old room measuring 10.19 x 11.96 m (in its interior 9.00 x 11.22 m); the new wall is 0.74 m thick, 0.50 m deep, paved with *bipedales* bricks; dimensions of the *aerarium*: 4.25 x 6.10 m; the room has traces of *hypocaustum* (central heating).

Finds in the area of the *tabularium*: a monument for Medusa, three chiseled blocks with vegetal decorations, marble plates with names of soldiers from various cohorts, a honorary shrine for Antoninus Pius, two coins, stamped tiles and bricks.

On the western side of the row of rooms (*tabularium*) at 4.28 m distance from the back wall runs a wall, 1.13 m thick, built of big chiseled stone blocks; the searched length is 15.30 m; 6 pedestals at 3.60 m distance between them, serving as bases for the columns.

Near the hind wall of the *tabularium* there was a drainage channel, built of hallowed out stones which runs along the back wall from the side of the *aedes*, taking a turn and running along the wall up to the south-eastern corner.

Conclusion. Elements for Dating the Headquarters/*Principia*

In our opinion the first phase of the building goes back to the turf wall phase of the fortress; recognizable elements:

- the sand and gravel floor of the courtyard and perhaps the old phase of the *aedes*
- the first phase of stone wall construction most likely dates to the time of Hadrian
- in a later period, at the beginning of the 3rd century (under the Severan dynasty) changes were made at some parts of the *principia*:

a. on the western side of the *tabularium* a new room (a) was built and an *aerarium* was arranged; the old walls being reused or parts or them being leveled;

b. the room (a) on the southern side (*armamentarium* zone) was modified: an apsis was added and a hypocaust heating system was introduced;

c. the large courtyard/*atrium* was paved with large stone slabs.

Bibliography

AE = L'Année épigraphique. Paris.

CIL = Corpus Inscriptionum Latinarum. Berlin.

Csernyi, B. 1912. Alsófehér vármagye története a róma i korban. Nagy Enyed.

Cristescu, V. 1937. Istoria militară a Daciei romane. Bucureşti.

Fellmann, R. s. a. Principia – Strabagebäude. Stuttgart.

Gudea, N. 1989. Porolissum. Un complex arheologic daco-roman la marginea de nord a Imperiului Roman. – Acta Musei Porolissensis 13.

Heitel, R. R. 1985. Principalele rezultate ale cercetărilor arheologice din zona sud-vestică a cetăţii de la Alba Iulia (1968-1971). – Studii şi cercetări de istorie veche şi arheologie 36, 3, 215-232.

Hyginus. De munitionibus castrorum, ed. D. S. Crişan. Timişoara, 2001.

IDR = Inscripţiile Daciei Romane. Bucureşti.

Lander, J. 1994. Roman stone fortifications. Variation and change from the first century to the fourth. London.

Macrea, M. 1969. Viaţa în Dacia romană. Buucreşti.

Marcu, D. 2008. Catedrala romano-catolică „Sf. Mihail" şi palatul episcopal din Apulum. Cercetari arheologice (2000-2002). Alba Iulia. 45-68.

Moga, V. 1985. Din istoria militară a Daciei romane. Legiunea XIII Gemina. Cluj-Napoca.

Moga, V. 1997. Un secol de investigaţii în castrul roman de la Apulum. Alba Iulia.

Moga, V. 1998. Castrul roman de la Apulum. Cluj-Napoca.

Moga, V. 1999. Fortificaţia romană şi cele două centre urbane la Apulum. In: Napoca. 1880 de la începutul vieţii urbane. Cluj-Napoca. 175-180.

Moga, V. 2005. Castrul roman Apulum – porta principalis dextra. – Apulum 42, 117-122.

Moga, V. / Piso, I. / Drîmbărean, M. 2007. L'aigle de la Legio XIII Gemina. – Acta Musei Napocensis 43-44/1, 177-184.

Ritterling, E. 1925. Legio (Kaiserzeit). In: Paulys Real-Encyclopädie der classischen Altertumswissenschaft, Bd. 12. Stuttgart. 1211-1829.

Rusu, M. 1979. Castrul roman Apulum şi cetatea feudală Alba Iulia. – Anuarul Institutului de Istorie şi Arheologie din Cluj 22, 47-70.

Strobel, K. 1984. Untersuchungen zu den Dakerkriegen Trajans. Studien zur Geschichte des mittleren und unteren Donauraumes in der hohen Kaiserzeit (= Antiquitas, Reihe 1, Band 33). Bonn.

Tudor, D. 1968. Oraşe, târguri şi sate în Dacia romană. Bucureşti.

Prof. Dr. Nicolae Gudea
Faculty of Greek Catholic Theology,
University "Babeş-Bolyai"
1 Mihail Kogălniceanu St.
RO-400084 Cluj-Napoca
ngudea@gtc.ubbcluj.ro

Dr. Constantin Inel
National Museum of the Union
Alba Iulia
12-14 Mihai Viteazu St.
RO-510010 Alba Iulia
inel_constantin@yahoo.com

Ovidiu Oargă
National Museum of the Union
Alba Iulia
12-14 Mihai Viteazu St.
RO-510010 Alba Iulia
ovidiu_maxim_oarga@yahoo.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Legionary Roman Fortress *Apulum*. *Porta Principalis Dextra*. A Proposal for Reconstitutions

Nicolae GUDEA / Constantin INEL / Ovidiu OARGĂ / Călin ADAM

Preliminaries

The problem of graphic reconstitution, or the reconstitution on the ground of whole Roman constructions or parts of them took a swing in the last years due especially to the progress made in the study of the Roman Empire **(fig. 1)**, and in the study of Roman Provincial archaeology as well as to the desire of creating a modern museography which would attract more visitors and at the same time would fulfill its educational role. The reconstitution process would include constructions with military destination: fortresses and forts, parts of courtyards, gates, towers, headquarters, barracks for soldiers, stables for horses, etc. as well as civilian constructions: fortified towns, farms (*villae rusticae*), houses, workshops, etc.

Up to now special attention has been paid on reconstitution works carried out at military fortresses and forts and gates, but other elements of the fortresses and forts like corner towers or interior constructions (headquarters, barracks, etc.) have not been neglected as well.

The main objective of the present paper is a sketch of the reconstitution project of *porta principalis dextra* of the legionary fortress *Apulum* **(fig. 2).** We call it a sketch as it constitutes just part of a larger project aiming at the reconstitution of the gate on the ground.

As models for our graphic reconstitution stand the graphic reconstitution of the legionary fortress gate from *Mogontiacum*/Mainz in *Germania Superior* and the one of Mirebeau in *Gallia Lugdunensis*, both for the conception in the reconstitution and for the proposed working methods.

There are numerous reconstituted gates on the ground, especially of forts auxiliary units: at Southshields/*Britannia*, Saalburg/*Germania Superior*, Weissenburg/*Raetia*, Pfunz/*Raetia*, Welzheim/*Raetia*, Moigrad/*Dacia Porolissensis* and Bivolari/*Dacia Inferior*.

We also studied the proposals of graphic reconstitutions of the gates of legionary fortresses like Leon/*Hispania*, Regenaburg/*Noricum* and of the forts for auxiliary units Aslen/*Raetia*, Bucium/*Dacia Porilisensis*, Cîmpulung Muscel/*Dacia Inferior* and several others.

Apulum – Porta Principalis Dextra

The rescue excavations carried out in and round the legionary fortress *Apulum* were brought about mostly by some ample town planning and restoration works on the area of the former Austrian Vauban-type fortress, on the spot called "Cetate". The Austrian fortress includes in its perimeter the entire Roman fortress. Despite the difficulties induced by the present day works, it was possible to identify parts from the interior of the fortress: *porta decumana* (partially), *porta principalis dextra*, curtain towers on its western side, respectively elements of the interior organization: *praetentura, latus praetorii dextrum, retentura dextra* and various parts in the interior of these elements **(fig. 3)**.

Systematic rescue excavations have been carried out only at *porta principalis dextra* and the principia/headquarters.

Some special, favorable conditions existing today will make possible the reconstitution of *porta principalis dextra* on the spot, in accordance with the rules of historical reconstitution. Our project consists of ample documents sustained historically, archaeologically and architecturally and will be implemented by the Corint SA – a company which is

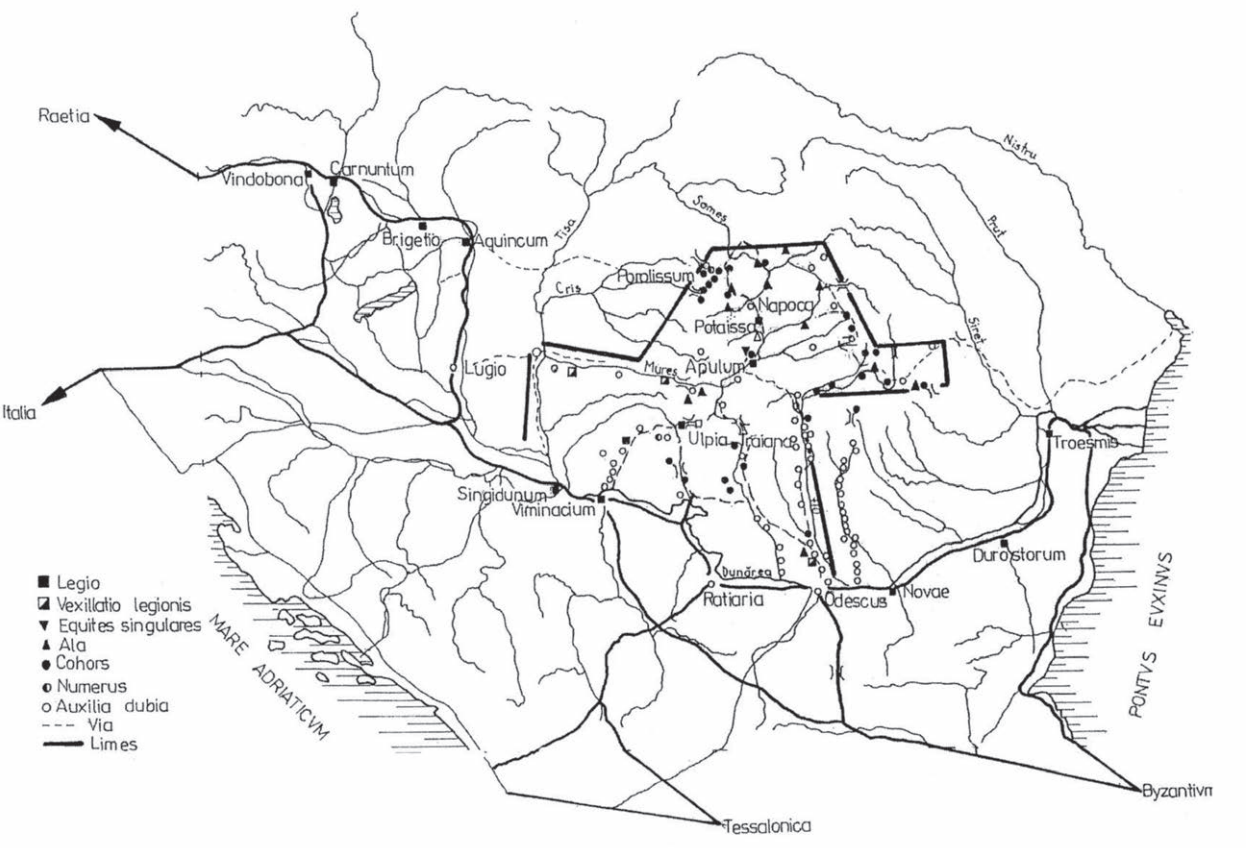


Fig. 1. Map showing the defensive system of the Dacian provinces (after N. Gudea)

specialized in historical restoration and reconstitution works (D. Sabău, M. Sabău), the graphics being executed by the designers C. Adam and N. Moga.

Porta principalis dextra is on the southern side of the fortress: essentially reveals two arched passage-ways, set slightly back from the rampart face; the width of the gate together with the towers is 24.50 m; the width of the gate is 10.37 m; the width of the passage-ways are 4.10 (east) and 4.21 m (west). The gate passages had arched portals; the passage-ways are flanked by two square towers; dimensions: 7.17 x 8.35 m; externally projecting with 0.80 m forward of the stone wall; between the passage-ways there is a stone wall (*spina*) dividing the passages; the *spina*, 5.65 m long and 1.05 m wide, has on the ends small buttresses opposite to the buttresses of the towers; the towers have buttresses in the frontal part and on the interior corners; the entrances in the gate towers are on the back side, 1.34 m wide.

Porta principalis dextra was built of square blocks in regular ashlar courses (*opus quadratum*): the square stone blocks faced the internal and external masonry.

The archaeological excavations show in the two passage-ways metaled roads (*via munita*) with gravel broken stone and lime (*rudus*) and over the crown of the road paved with rectangular large blocks of *saxum quadratum*; the eastern passage-way have a deep central sewers built from square stone graved blocks in channel.

Archaeological rescue excavations in 1980 – 1991 unearthed the gate; without a solid scientific preparation the gate was partially restored.

The Reconstitution Project of the *Porta Dextra*

In the following we shall present the principles of reconstitution and the method of the reconstitution works:

a) as a basic principle for the reconstitution we adopted the system of the German archaeologist H. Busing applied to the *porta praetoria* of the legionary fortress *Mogontiacum*/Mainz (*Germania Superior*) and of the French architect P. Adam, applied to the eastern gate of the legionary fortress Mirebeau (*Gallia Lugdunensis*).

b) we collected large quantities of building stones with *signa* of special function found on the spot window – heads, merlon caps – stones, elements of Corinthian entablature (fragments of architraves, friezes, cornices), incompletely worked stones, architectural sculptures, moulded blocks,

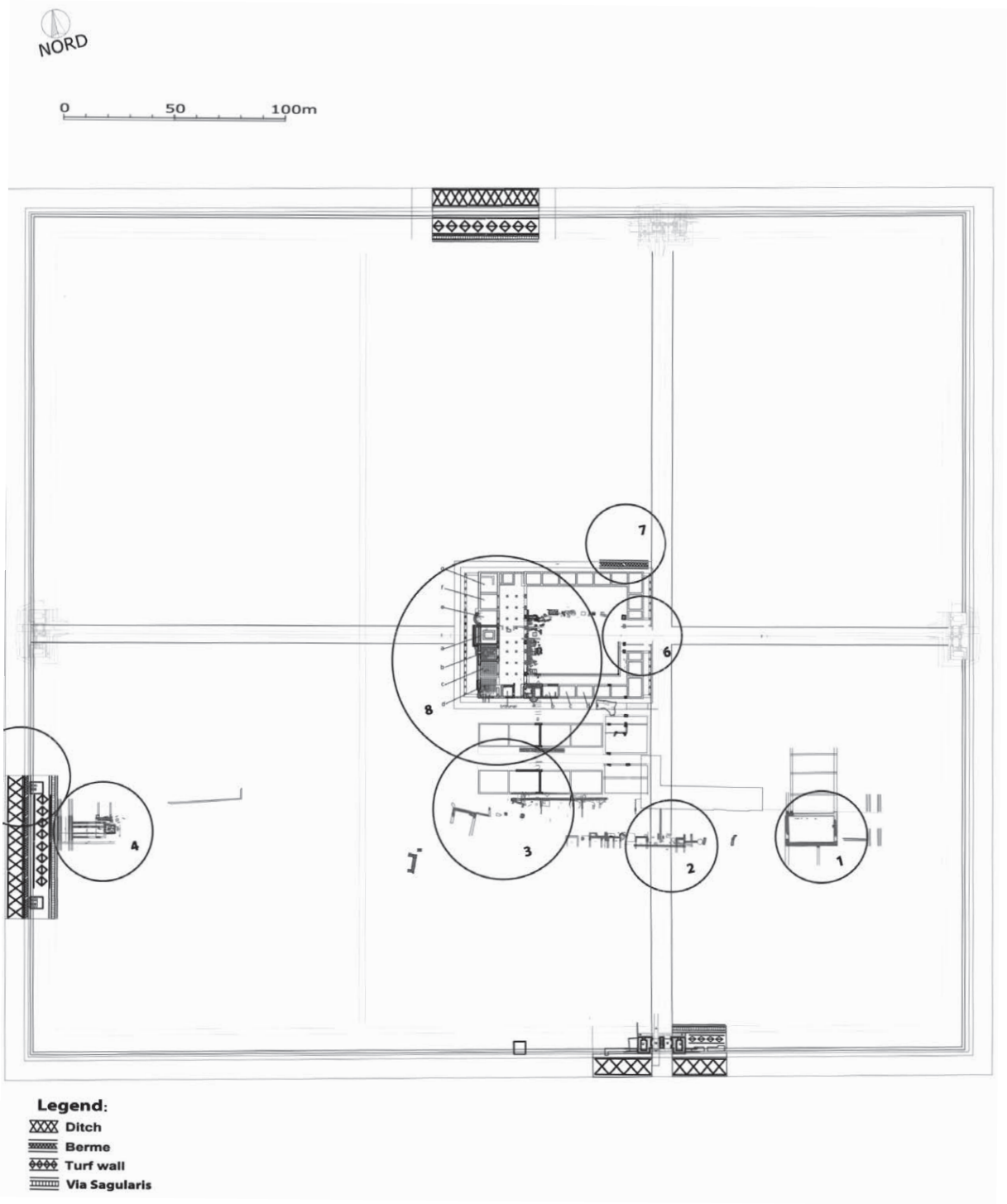


Fig. 2. Plan of the legionary fortress *Apulum* (results of the 2012 excavations)

column shaft fragments, engaged columns and column bases, pivot stones, fragments of capitals.

c) we adopted the system of a gate house with two storey high with a pitched roof; between the towers a gallery with parapet, a low guarding wall with crenels and merlons.

d) as antique sources we used several examples; the most important are the following: 1. the legionary fortress gate of *Castra Regina*/Regensburg (*Noricum*); 2. *Porta Nigra*, the gate of the Roman city *Augusta Treverorum*/Trier (*Gallia Belgica*); 3. clay models of the gate of the fortress *Aquincum*/ Budapest (*Pannonia Inferior*); 4. A graffito (depiction drawn on the wall) representing the auxiliary fort Bu Ngem (*Tripolitania*).

e) the reconstituted gates of different auxiliary forts.

f) the above mentioned archeological and archi-

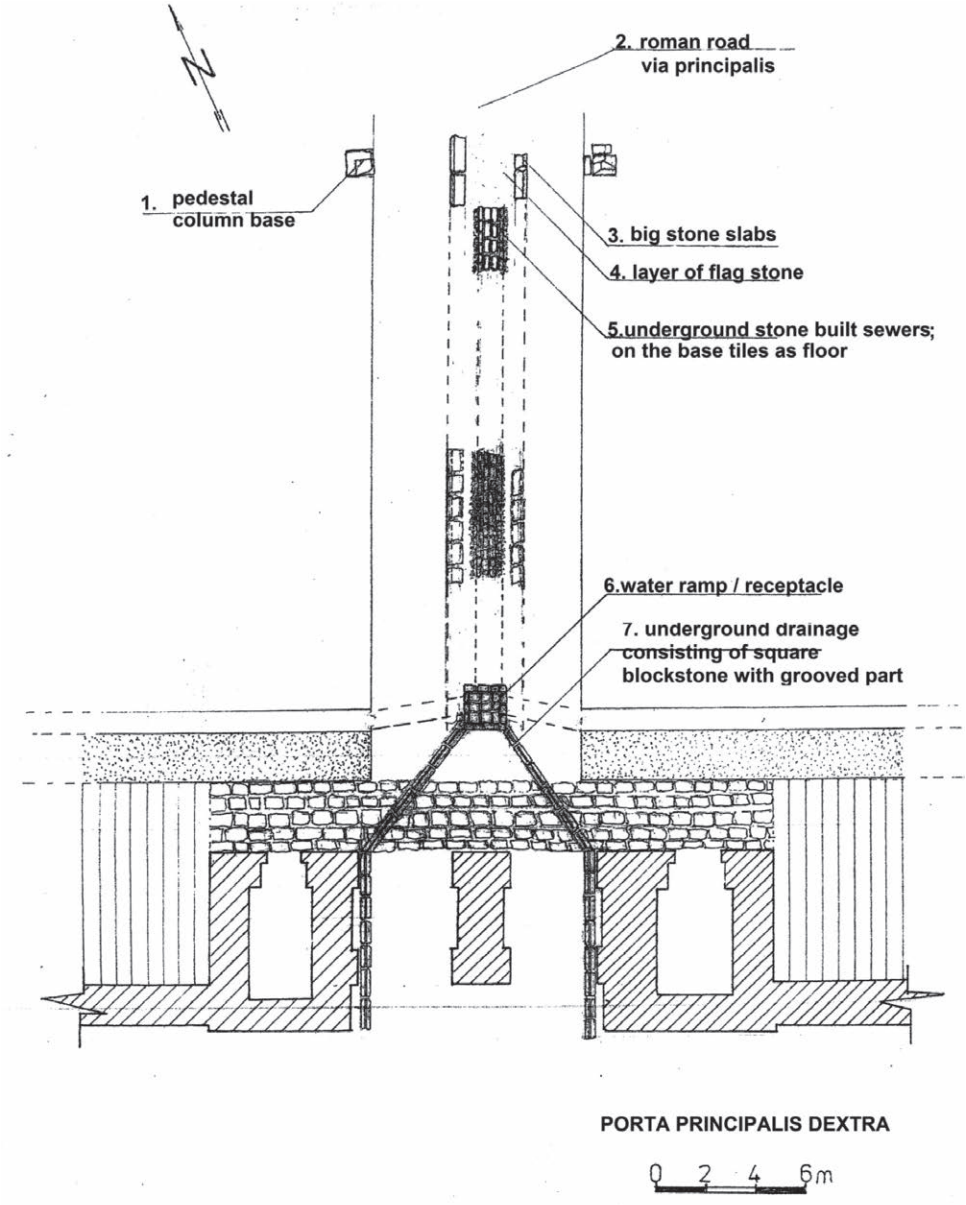


Fig. 3. *Apulum*. Plan of the southern gate (*principalis dextra*) with the underground drainage

tectural material found in the ruins of *porta dextra*, selected with care.

Ground floor/first level

1. pitch faced square regular stone blocks of fine ashlar, of different dimensions (no uniform length and height) facing the front side; the external part of the masonry distinguished by elaboration of architectural details.

2. square block stones from gateway with graved part from the water sewerage **(fig. 4a).**

3. polygonal blocks of hard stone which paved the two passage-ways (*pavimentum*).

4. fragments of the arch of the gate passage **(fig. 5a)**.

5. fragment of a stone piece of the gate pavement with a pivot hole **(fig. 5b)**.

6. fragments of thresholds showing the check in the pier **(fig. 5c)**.

7. elements/parts of the columns (half columns, engaged columns) from the towers, from the *spina* (column bases, column shafts, capital fragments).

8. entablature parts: fragments of the frieze blocks (**fig. 5d**).

9. entablature parts: fragments of the cornice blocks.

10. entablature parts: fragments of the cornice blocks; the third uppermost division of the entablature, resting on the frieze.

The first floor/the second level

(towers and corridor between the towers)

1. square regular blocks from the façade of the masonry.

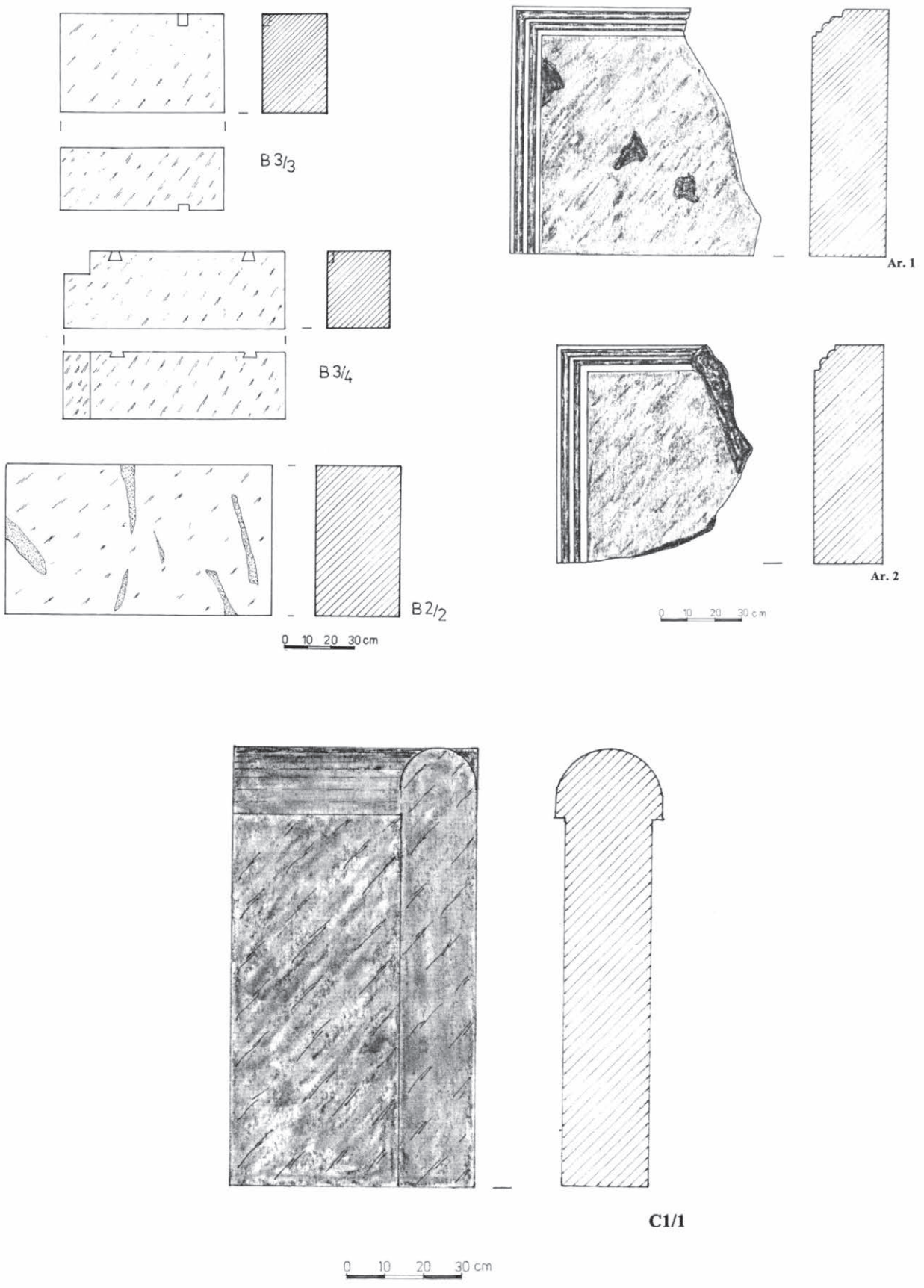


Fig. 4. *Apulum. Porta dextra*: **a** Squared calcar stone blocks from the gate masonry; **b** fragments of architrave blocks; **c** merlon (the solid alternate between the embrasure of the battlement at upper part of guarding)

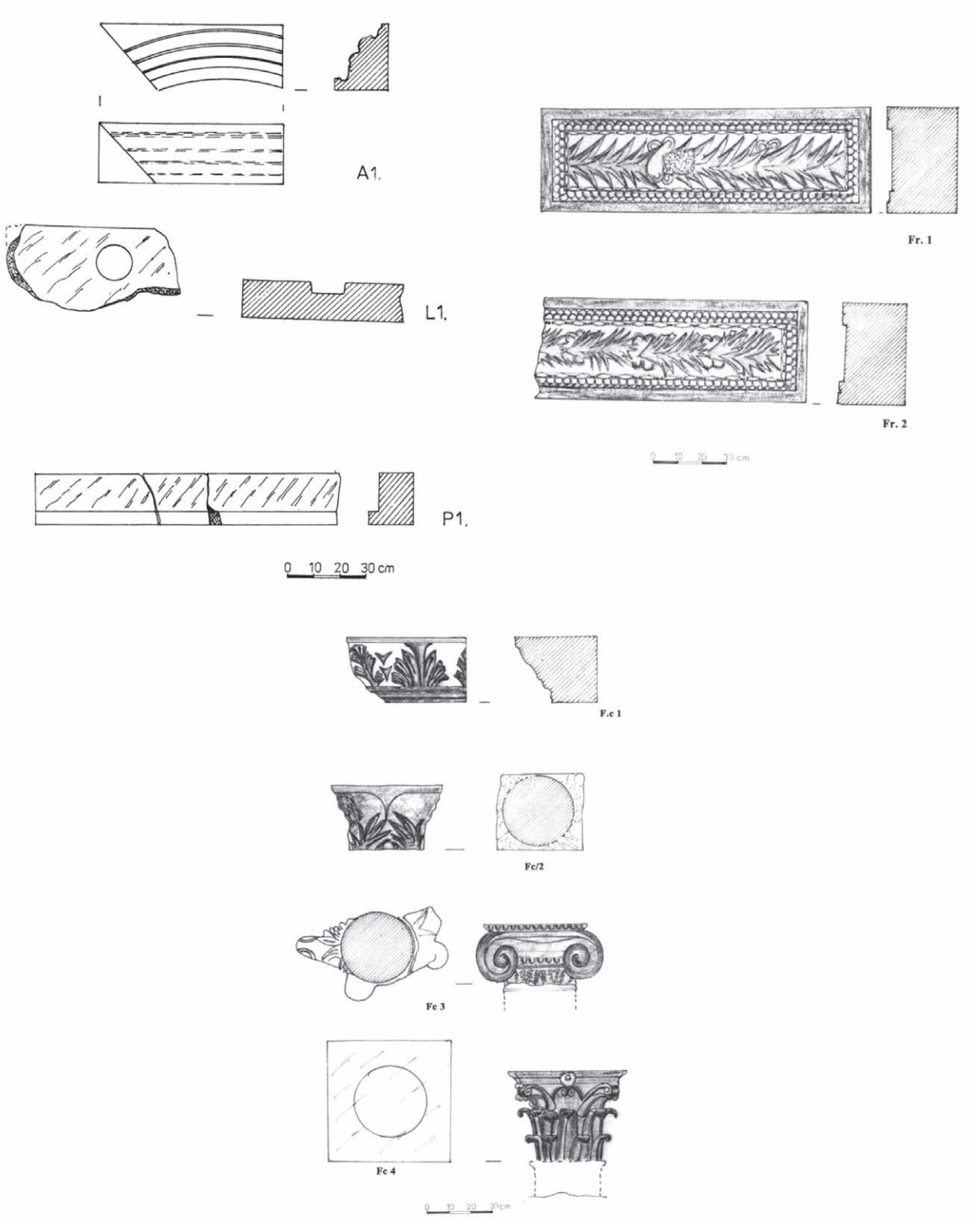


Fig. 5. *Apulum. Porta dextra*: **a** fragment from the arch of the portal of the passage-way; **b** fragment of the pivot stone block of the door jambs; **c** fragment of the threshold from the gate door; **d** fragments of frieze blocks and fragments of Corinthian capitals

2. fragments of window heads (*fenestrae*) and window frames/jambs.

3. entablature parts: fragments of architrave blocks.

4. entablature parts: fragments of frieze blocks (the middle horizontal part of a classical entablature above architrave and below the cornice).

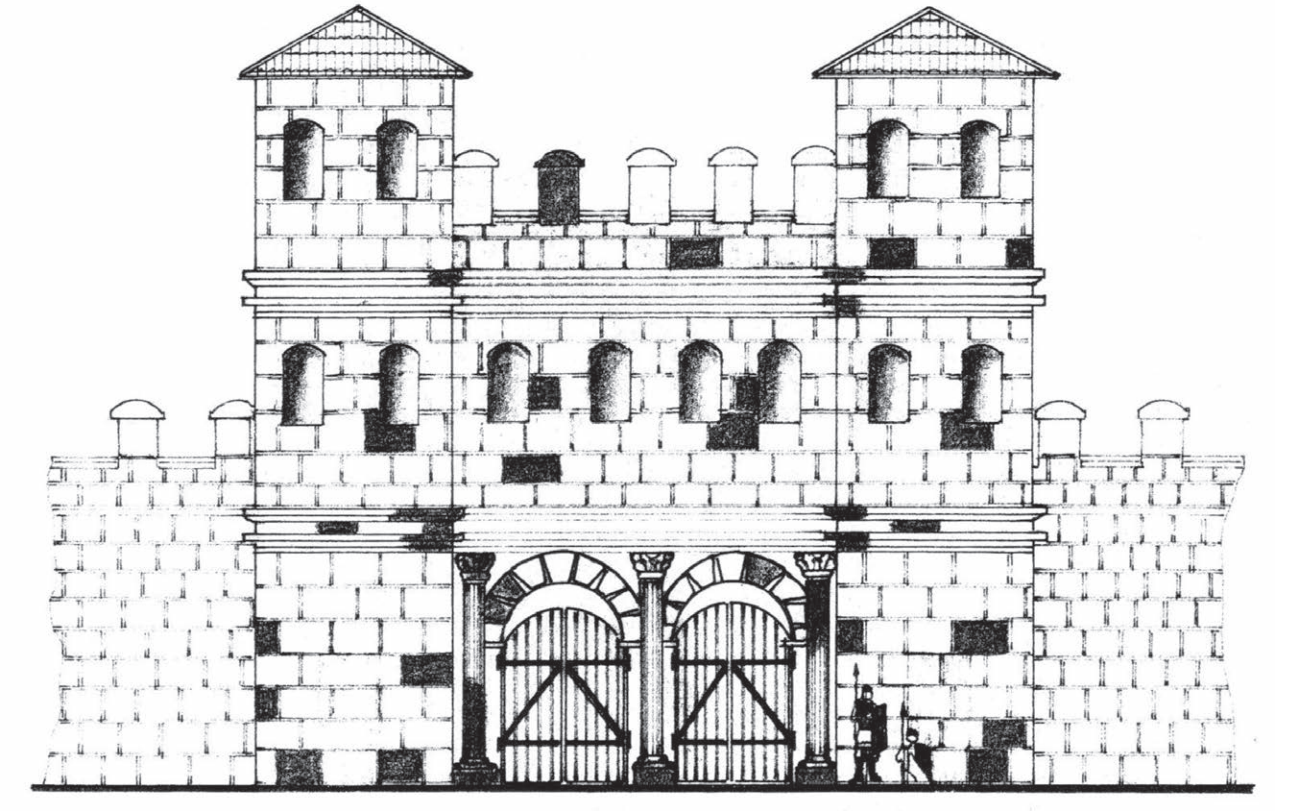


Fig. 6. *Apulum. Porta dextra*; reconstituted front side of the gate

5. entablature parts: fragments of the cornice blocks resting on the frieze.

The second floor/the third level

(towers and the gallery between the towers)

1. square regular stone blocks in regular ashlar courses, from the tower façade.

2. fragments of window heads and window frames of the towers.

3. entablature parts: fragments of the architrave blocks by the towers **(fig. 4b)**.

4. merlon capstone – a solid alternate between the embrasures/crenels of the battlement **(fig. 4c)**.

5. entablature parts: fragments of frieze blocks by the towers.

6. entablature parts: fragments of cornice blocs by the towers.

The roof – cover of the towers

Including the roofing and all other materials necessary to carry and maintain it on the walls.

1. collar beam roof – a roof supported by rafters, quin posts tied together by collar beams.

2. mails/spikes for the wooden gallery.

3. tiles (*tegulae hamatae*): sometime with stamps of the Legion XIII Gemina.

4. crest tiles (*imbrices*) organized in *imbrex supinus*.

5. antefixes – decorated upright ceramic slabs used to close the open end row of roof tiles.

Reconstitution Methods and Practice

At the end of the paper we have proposed the practical reconstruction (**fig. 6**):

Ground level

1. the underground block stones of the sewerage in the western passage-way of the gate.

2. the large rectangular blocks of *saxum quadratum*, the crown of the road upon the nucleus (*rudus* and *statumen*); 7.00 x 4.10 m.

3. near the buttresses of the towers the two stone blocks with pivot holes and the block stone of the threshold; 0.40 x 0.50 m + 3.50 x 0.60 m x 2 (gateways).

4. the portal/monumental entrance consisting of wedge-shaped blocks with a key-stone which is supported at the side of the towers or *spina* wall; the height of the arch is 3.50 m.

5. entablature (the platform upon the ground level): architrave blocks, frieze blocks (rests on the architrave blocks) and upper part cornice blocks; 24.50 frontal part of the gate + 16.70 lateral part + 24.50 m back part.

6. square regular stone blocks of different dimensions in ashlar line facing the front side and interior face of the towers; 28.00 m + 20.00 m x 4.00 m

(high); some of them having swallow tail fillet.

The first floor

(towers and corridor)

1. square regular stone blocks of different dimensions facing the front side of the floor and internal face of the towers and the corridor between towers; 24.50 the front side + 16.70 m the lateral parts + 24.50 m the front side + 10.37 m the wide of corridor x 4.00 m the height of the floor.

2. window frames and window heads from towers (4) and corridor (2); 24 pieces for eight windows.

3. entablature: architrave blocks, frieze blocks. Cornice blocks: 24.50 m the frontal part +16.70 m the lateral side of the towers + 24.50 the back side.

The second floor

(towers and embrasure)

1. square regular clocks of different dimensions facing the front side of the towers, the internal side, this lateral and back side and the lowest part of the embrasure; 24.50 m the front side + 16.70 m the lateral side + 24.50 the back side for towers x 4.00 m high + 1.50 m the high of the embrasure.

2. window frames and window heads from the towers; 8 stone pieces for 4 windows.

3. merlons from the upper part of the embrasure; 6 pieces.

4. entablature: architrave blocks, frieze blocks (only for the towers) 7.17 x 8.35 x 8.00 m = 123.76 m.

The roof

(the cover of the gate towers)

1. wooden beam – structural part whose function is to carry the traverse load (jest, grider, rafter and collar beam) 5 m^3.

2. iron nails/spikes and clamps; 250 pieces.

3. tiles (*tegulae hamatae*), crest tiles (*imbrices*) and antefixes; 2500 pieces; 160 pieces; 64 pieces.

4. *mortarium*/*caementum*.

Prof. Dr. Nicolae Gudea
Faculty of Greek Catholic Theology,
University "Babeş-Bolyai"
1 Mihail Kogălniceanu St.
RO-400084 Cluj-Napoca
ngudea@gtc.ubbcluj.ro

Dr. Constantin Inel
National Museum of the Union
Alba Iulia
12-14 Mihai Viteazu St.
RO-510010 Alba Iulia
inel_constantin@yahoo.com

Ovidiu Oargă
National Museum of the Union
Alba Iulia
12-14 Mihai Viteazu St.
RO-510010 Alba Iulia
ovidiu_maxim_oarga@yahoo.com

Călin Adam
National Museum of the Union
Alba Iulia
12-14 Mihai Viteazu St.
RO-510010 Alba Iulia

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Troesmis: From the Legionary Fortress to the Byzantine Fortification

Cristina-Georgeta ALEXANDRESCU / Christian GUGL

Lying to the northwest of Dobroudja, the ancient *Troesmis* (localized not far away from a former early modern settlement named Igliţa, which does not exist any more today) occupied a strategic key position on the Roman Danube *limes* (**fig. 1**). The Roman-Byzantine settlement was situated on the steep right bank of the Danube, about 15 km to the south of the modern city Măcin (the ancient *Arrubium*) and 4 km to the north of the village Turcoaia (both in Tulcea County, RO). In front of *Troesmis*, the meandering Danube forms a broad flooding zone. The extensive area of the ruins, dominated today by two fortifications, extends from the Danube to the east, up to the foothills of the Măcin-mountains (**fig. 2**).

The ancient site became internationally known around 1864 due to the publication of several inscriptions found there, which allowed its identification with *Trosmis/Troesmis*, an ancient place mentioned in *Tabula Peutingeriana* (segm. VII) and other ancient itineraries[1].

This paper will introduce a new cooperative research project of the Archaeological Institute 'Vasile Pârvan' of the Romanian Academy of Sciences and the Austrian Academy of Sciences, which deals with the transformation processes of settlements in Antiquity on the Lower Danube with main focus on the case study of *Troesmis*.

History of *Troesmis*

For the history of *Troesmis* the most eloquent sources remain the inscriptions and the mentions by ancient writers, starting with Ovid[2]. In one of his letters from Pontus (IV, 9, 78-79) he mentions for about 15 AD raids of the Getai, a tribe from the other side of the river, against a settlement called *Troesmis*. Later, Ptolemy and a large number of inscriptions from the 2nd century AD attest the fortress of *legio V Macedonica* in *Troesmis*, starting probably with the reign of Trajan[3].

Further several inscriptions mention the *canabae legionis* and a civil settlement called *Troesmis*[4]. The exact location and dimensions of those two settlements in the region are not yet clarified.

Finally, during the Parthian and Marcomannic wars the legion leaves *Troesmis*, thus establishing a new garrison in Dacia, at *Potaissa*. After that, at the end of the reign of Marcus Aurelius between 177 and 180 AD, *Troesmis* becomes a *municipium*[5]. According to the inscriptions, *Troesmis* was, at least for some time, the place where the *concilium*

[1] For an overview on the history of research of the site see Doruţiu-Boilă 1972.

[2] For an overview on the ancient sources see Doruţiu-Boilă 1972, 136 note 3.

[3] The earliest epigraphic evidence for *legio V Macedonica* in *Troesmis* dates in the time of Hadrian: Doruţiu-Boilă 1972, 136 (ISM V 137). Before the reign of Trajan, the legion camped in the same province, in *Oescus*: Kabakcieva 1996.

[4] Vulpe 1953; Mihăilescu-Bârliba 2012: The following administrative persons are mentioned in the *canabae*: *magistri canabensium* (ISM V 154. 156), *quinquennales canabensium* (ISM V 155. 158).

[5] The newest information on the *municipium* in *Troesmis* is given by the fragments of the *lex municipalis*, dated during the reign of M. Aurelius and Commodus (Eck 2014). The epigraphic evidence prior to this find attests the *canabae* in one inscription dated to AD 170 (ISM V 145), while the earliest mention of *municipium Troesmense* dated from the reign of Septimius Severus, Geta and Caracalla, AD 208-211 (ISM V 150) – Doruţiu-Boilă 1978, 247.

provinciae was held and had a flourishing community of people from different areas of the Empire[6].

In Late Roman times several written sources mention the presence of the *legio II Herculia* in *Troesmis*[7], while the *Itinerarium Antonini* (225.2) mentions *legio I Iovia* here. The scholars have postulated more than one interpretation of the situation on site corroborated to the written sources, without being able to provide a final and acceptable solution[8].

Troesmis is present again in the ancient literature in relation to the activity of rebuilding the frontiers during the Byzantine period, under Justinian (Procop. *de aedif*. 4.11.33). Numismatic evidence seems to cease with finds of coins of Mauricius Tiberius, found in the Western fortification[9]. The end of the 6th century seems to be the end of the ancient settlements of *Troesmis*. The archaeological excavations in the 1970s brought to light small finds, ceramic and coins dating back to the 10th-13th century (Simion et al. 1980). This corresponds to the last mention of the place in the 10th century written sources, by Constantine VII Porphyrogennetos (*de them*. 2.47.17).

State of Research

Archaeological research in *Troesmis* started in the summer of 1865, when emperor Napoleon III sent an archaeological mission to the Lower Danube, with the task of documenting a Roman fortification. A. Baudry and G. Boissiere dug up the so-called Eastern fortification, especially the walls, several towers and the main gate. From the interior they managed to bring to light the fundaments of buildings identified by their shape as *basilica* and *principia*. However, the documentation of the excavations, with the exception of a plan and a fantasy reconstruction, was not properly published, the main interest at that time being focused on the fortification and the epigraphic material[10].

A second French expedition was organized two years later, led by E. Desjardins, who is known to have established the plan of the Western fortification[11], localized 700 m away from the Eastern fortification. This plan was not published. For the time being, only some elements of the irregular fortification wall, several towers and so-called bastions can be identified in the terrain. The dating of the Western fortification into (early) Byzantine times remains a hypothesis.

After 1877, the region became part of Romania and Gr. G. Tocilescu from the National Museum for Antiquities in Bucharest, together with his topographic engineer P. Polonic undertook surveys and especially further excavations in *Troesmis*, with particular interest in the recovery of (reused) inscriptions. Polonic made the first, though very schematic plans of both fortifications, and also documented the traces of ancient roads and aqueducts (Ștefan 1971, figs. 6, 7 and 8). His observations were completed and corrected by A. S. Ștefan in 1971, as he made use of aerial photographs and also localized a large number of tumuli (Ștefan 1971).

In the 1970s the project to build an irrigation pipeline made rescue excavations possible, focused on the plateau between the two fortifications. The archaeologists also identified a complex considered to belong to a thermal building (A. Opaiț in: Simion et al. 1980, 203), without being able to complete the research.

The area was declared archaeological reservation and the modern building activity in the region was very limited. However, the lack of protection due to the very large area made it very attractive for illegal metal detectors. Among the great (known) losses are two bronze tablets with fragments of the *lex municipalis*[12]. The discovery context of these valuable finds can not be reconstructed.

The interpretation of the aerial photographs for the area of *Troesmis* in the 70s of the 20th century by A. S. Ștefan (Ștefan 1971; Ștefan 1974) brought to light new topographical information regarding the settlements, both on the plateau near the Danube and at the periphery, towards the line of the mountains. This kind of investigation, as well as archaeological excavations found however no continuation in the region, leaving the ancient *Troesmis*, so far, a poorly researched site.

[6] Epigraphically attested are *sacerdotes provinciae*: ISM V 151 (AD 218-222) and 194 (2nd century AD).

[7] *Not. Dign. Or.* 39.13.19.

[8] Doruțiu-Boilă 1972, 135, 137-138 (with an overview on the discussion); Zahariade 1988, 182-183.

[9] E. Oberländer-Târnoveanu, in: Simion et al. 1980, 248, 274.

[10] Alexandrescu 2013. The presentation and valorisation of all still available documentation on the French missions – with substantial addition from the French archives – is under study within our 'Troesmis Project' and going to be published in 2015.

[11] The West Fortification was the focus of the research started by the Romanian Emil Coliu in 1939. His early death in the same year stopped the project and almost all the documentation is lost.

[12] The reading of this very important document has been shortly presented in Berlin in August 2012 by Professor W. Eck to the International Congress for Greek and Latin Epigraphy; see also: Eck 2007, 49-64, especially 55 with note 26; Eck 2014.

The '*Troesmis* Project'

During 2011 the Romanian and the Austrian Academy of Sciences started with an initial campaign of four weeks, focusing on the topographic documentation of the visible ruins of two fortifications[13]: the so-called Eastern fortification of the 4th century AD and the Western fortification, presumably erected in Byzantine times. This work included the mapping of the still visible remains on the plateau, which were either a part of the *canabae legionis* or the later *municipium*[14].

The main question for our first campaign was however the location of the legionary camp and the civil settlements mentioned in the inscriptions. We considered that the size of the camp in *Troesmis* must have had similarities to the other Roman legionary camps from the 1st-3rd century AD, like *Durostorum* (*legio XI Claudia*) and *Novae* (*legio I Italica*), about 18 to 24 ha[15]. For the *canabae* the probable location is near the camp while the *vicus*, like in other cases of double civil settlements near the legionary camps in the time prior to the end of the second century AD, may have developped further away from the camp[16]. After the legion left *Troesmis*, the *municipium* might have been established on the same place.

We approached this topic by using the geomagnetic prospection, carried out in October 2011 over an area of about 7.5 ha by the team of the Archaeological Institute of the University of Innsbruck[17]. This first attempt (**fig. 3**) delivered new insights into the settlement structure of the site.

The ditch and two lines of anomalies to the south are recognizable (**fig. 3/nr. 1**). The gap in the middle can be related to the area in which the remote sensing data localize the main road and the aqueduct. We therefore assume to have a gate here. To the north there are also two linear anomalies (**fig. 3/nr. 2**), corresponding to the ones on the south side, but in a straight angle to them.

We consider that those lines represent the wall and the (sanitary) channel in the interior of the camp.

In the interior, to the west, a massive building is to be seen (**fig. 3/nr. 3**). To the east, the prospections made it evident that the assumed channel (**fig. 3/nr. 4**) bends over with a straight angle.

For the time being the geomagnetic survey needs to be extended and we can therefore only postulate to have localized in this first campaign the eastern third of the legionary camp in the field. This hypothesis is also supported by comparisons with other legionary fortresses, for example with the 'Koenen-Lager' in Neuss[18].

Prior to the survey in the fall of 2011 we investigated aerial and satellite photographs as well as archive materials. Besides the two fortifications and the ruins on the plateau, we localized a number of tumuli and tried to identify them in the field. The intense agricultural activities in the last decades, as well as the construction of a pig farm, have made several of them disappear. The dating of the *tumuli* needs proper field documentation and excavation. For the time being we can only rely on the analogy in *Noviodunum*[19] and the alignment of several of the tumuli when postulating a date in the 2nd-3rd century AD.

The water supply of *Troesmis* was the second focus of the campaign. In 1882 Polonic documented one of the aqueduct lines with the name "Trajan's palisade". Nowadays, we know that this structure has to be identified with the final part of the water conduit. This starts in the east, in the higher areas near the Măcin-mountains and goes in a more or less straight line to *Troesmis*. This part of the aqueduct was partially over the surface and still in use in the 20th century, being still visible on the aerial photographs of the 1970s.

With the help of the local people in the village of Greci we found several ceramic tubes at the western slope of the Măcin-mountains that came up to the surface due to the erosion and landslides. This is probably one area where water sources supplying the Roman town have to be located.

[13] An overview on the actual state of research has been published recently: Alexandrescu / Gugl 2014.

[14] For the prior interpretations and postulations on the localisation of the different settlement nuclei see Doruțiu-Boilă 1972, 133-144; Ștefan 1974, 98-99.

[15] Ivanov 1996, 163-166. – See also the situation of the camp in *Potaissa*, the legionary camp of the legion after leaving *Moesia inferior*: Bărbulescu 1987.

[16] Doruțiu-Boilă 1972, 140; Mócsy 1953, 179-200; Vittinghoff 1968, 132-142, especially 137; Sommer 2004, 312-321; Doneus et al. 2013.

[17] Gerald Grabherr and Barbara Kainrath from the Institut für Archäologien of the University of Innsbruck using a SENSYS 5-channel-magnetometer.

[18] Koenen et al. 1904, Taf. 3 (Nr. a).

[19] Ștefan 1974, fig. 2; Simion 1994-1995, 121-149.

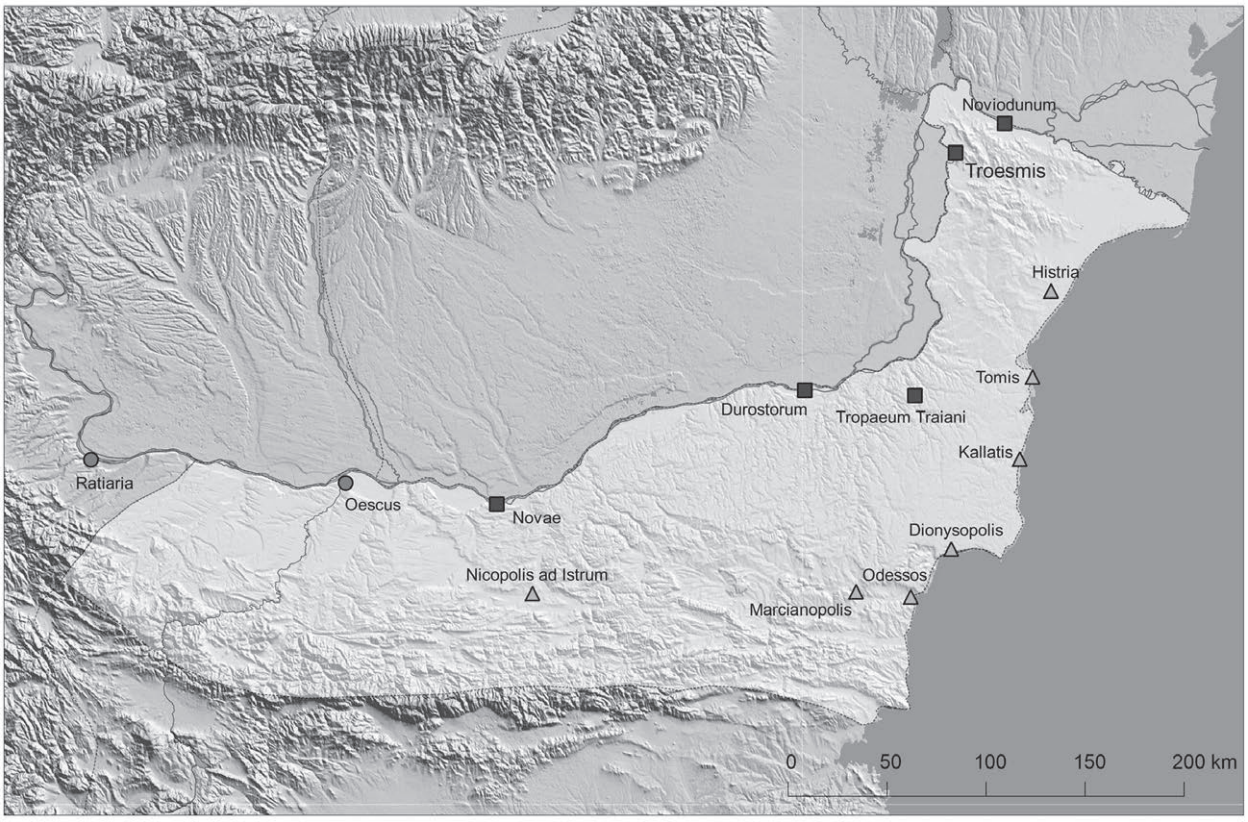


Fig. 1. *Moesia inferior* at the end of the second century AD (© Gugl)



Fig. 2. Digital surface model of the area of the legionary fortress (ditch 3), the Western fortification with the related settlements (ditches 1-2) and the Eastern fortification. The Airborne Laser scanning flight was carried out in November 2013 by Airborne Technologies, Wiener Neustadt, A (© Gugl)

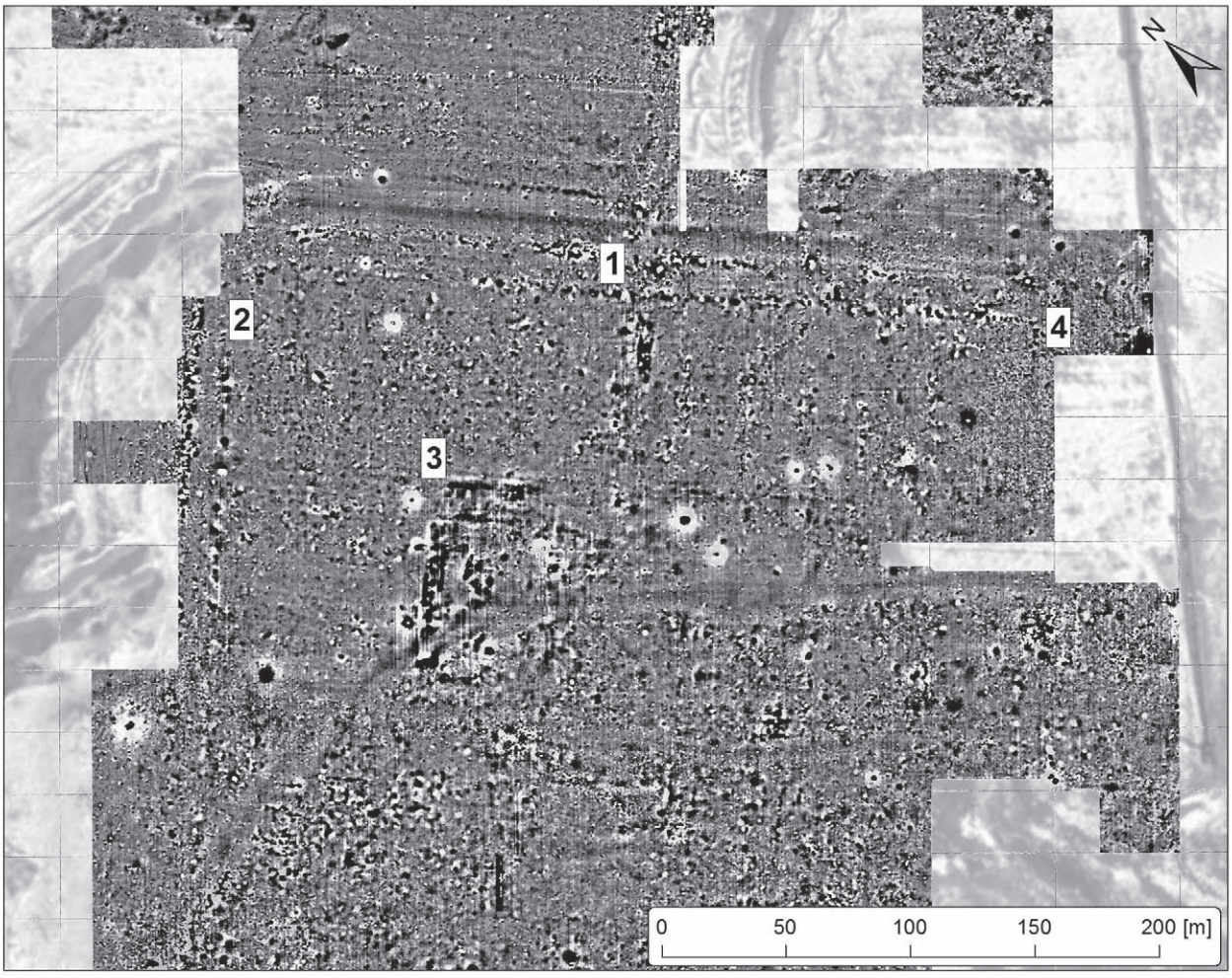


Fig. 3. Geomagnetic prospections 2011–2012 (© 2012 Alexandrescu / Grabherr / Gugl / Kainrath. – Satellite foto: Terra Server/2006-01-30)

Through mapping the field observations and comparing the aerial and satellite photographs it was possible to reconstruct the line of the aqueducts, even if the technical details still remain to be investigated (**fig. 4**). What is relevant is the relief in the surroundings of *Troesmis* (which was modeled here by using Shuttle Radar Topography Mission-data). Between the sources on the West side of the Măcin-mountains and the town of *Troesmis* there was a sink and several hill-like formations that had to be taken into consideration when building the aqueduct along the contour lines.

Since 2010 all the epigraphic material and stone monuments from *Troesmis* and the surrounding areas have been systematically documented in the frame of the ArheoMedia-project[20]. We managed to localize and investigate archive materials of the 19th century French missions and also to undertake geological analyses of the used stone[21]. One of the main results is the observation on the awareness of the ancient population of *Troesmis* of the local stones: they brought limestone and sandstone from far away (Central Dobroudja) for sculpture and inscriptions, ordered specially carved limestone blocks from Southern Dobroudja for the towers and made frequent use of the granites from the surrounding mountains. Imported marble is very rare and until now identified only for votive reliefs.

The region is very rich in granite quarries but it was limestone which was needed for building both

[20] NCSRHE Project TE 113 (2010-2013) in the frame of PN II (2007-2013) Human Resources "Arheo-Media: formation, transmission and transformation of images and texts in Greco-Roman era with special regard to the use of polychromy in the Carpathian-Danubian-Pontic area": www.arheomedia.ro (dir. Dr. C.-G. Alexandrescu).

[21] The monuments from *Troesmis* are now in various collections in Romania and France. They are going to be published according to their actual state of preservation and location, together with all new information gained from the archives and interdisciplinary analysis, within the volume we prepare for 2015.

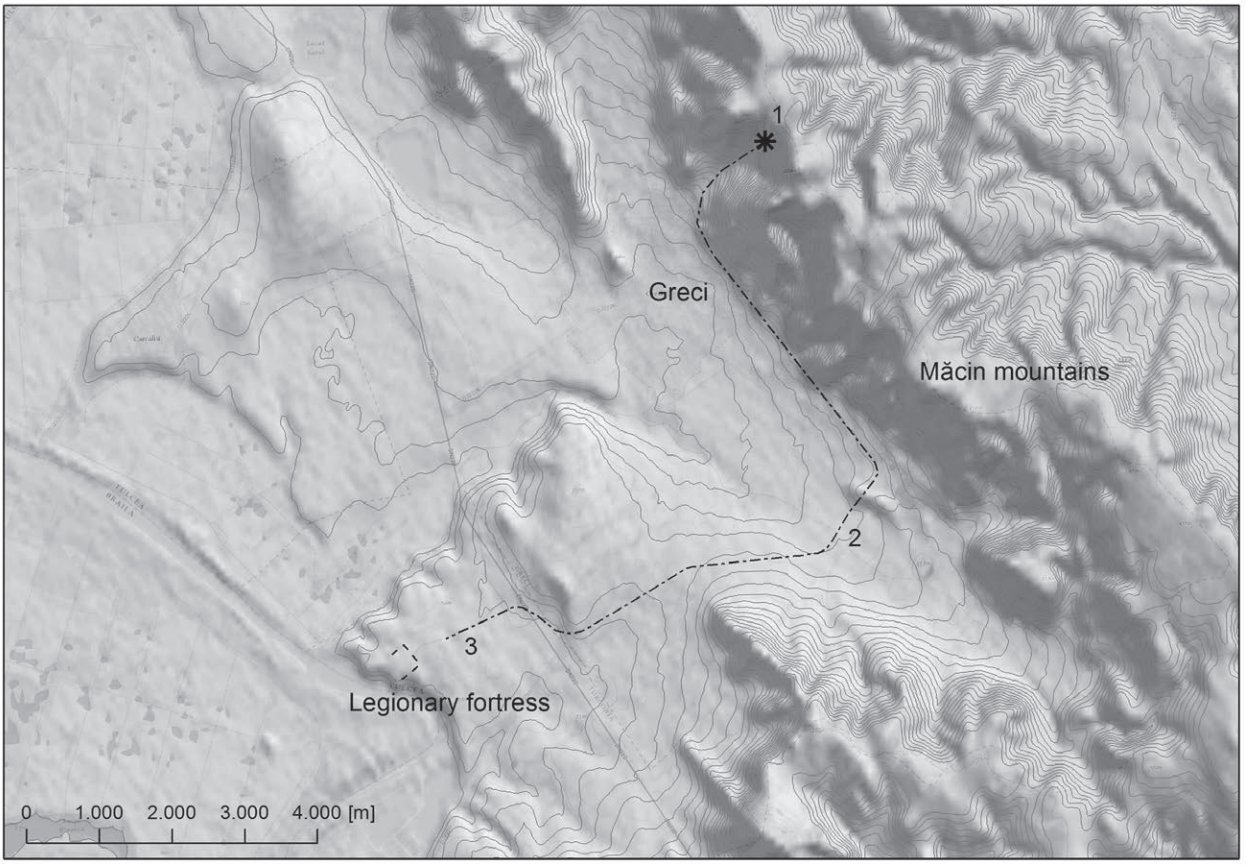


Fig. 4. Possible line of the Roman water supply: The headwaters lay in the Măcin mountains, above the modern village of Greci (1). A fragment of a Roman water pipe was found at (2), in close vicinity to remarkable linear crop marks, indicating the line of the water conduit. At (3) the Roman aqueduct was attested in the 19th century (© Gugl/Kainrath)

in antiquity and in modern times. The limestone blocks brought for the early Roman constructions, votive and funerary monuments of the 2nd and 3rd century AD[22], were simply reused in late Roman and Byzantine times, when the two still recognizable fortifications – the so-called Eastern and the Western fortification – were built up. In the same manner, modern building activities in the late 19th century reused the stone once more and contributed both to the destruction of the ancient monuments and to the localization of *Troesmis*.

The very promising results of this first phase of our project provide the basis for further activities in the next two years. Despite its very high importance for the Lower Danube the ancient *Troesmis* was for too long outside the interest of the scholars. The geophysical prospections are going to be extended and completed by an intensive survey with the aim of locating the different settlement cores for the 2nd -3rd century AD.

Bibliography

Alexandrescu, C.-G. 2013. Napoleon III and the Roman fortifications at the Lower Danube: the case of Troesmis. – Caiete ARA 4, 57-68.

Alexandrescu, C.-G. / Gugl, C. 2014. Troesmis – Die Römer an der unteren Donau. – Acta Carnuntina –Mitteilungen der Gesellschaft der Freunde Carnuntums 4 (1), 50-57.

Bărbulescu, M. 1987. Din istoria militară a Daciei romane. Legiunea V Macedonica și castrul de la Potaissa. Cluj-Napoca.

Curcă, R. / Zugravu, N. 2005. "Orientaux" dans la Dobroudja romaine. Une approche onomastique. In: Cojocaru, V. (ed.). Ethnic Contacts and Cultural Exchanges North and West of the Black Sea from the Greek Colonization to the Ottoman Conquest. Iași. 313-329.

Doneus, M. / Gugl, C. / Doneus, N. 2013. Die Canabae von Carnuntum – eine Modellstudie der Erforschung römischer Lagervorstädte. Von der Luftbildprospektion zur siedlungsar-

[22] The epigraphic investigation for *Troesmis* is the most advanced, attesting the various origins of the population, the administrative forms and different cults: ISM V; Curcă / Zugravu 2005, 313-329; Mihăilescu-Bârliba / Piftor 2005, 331-337; Mihăilescu-Bârliba 2009, 385-388; Mihăilescu-Bârliba 2012.

chäologischen Synthese (RLÖ 47). Vienna.

Doruțiu-Boilă, E. 1980. Inscriptiones Scythiae Minoris Graecae et Latinae (=ISM) 5. Capidava-Troesmis-Noviodunum. București.

Doruțiu-Boilă, E. 1978. Über den Zeitpunkt der Verleihung des Munizipalrechts in Scythia Minor. – Dacia NS 22, 245-248.

Doruțiu-Boilă, E. 1974. Troesmis und die Organisierung des skythischen Limes in der frühen Kaiserzeit, in: Pippidi, D. M. (ed.). Actes du 9e Congrès international d'études sur les frontières romaines. Mamaia 6-13 septembre 1972. Bucarest / Köln / Wien. 89-94.

Doruțiu-Boilă, E. 1972. Castra legionis V Macedonicae und Municipium Troesmense. – Dacia NS 16, 133-144.

Eck, W. 2014. Das Leben römisch gestalten. Ein Stadtgesetz für das municipium Troesmis aus den Jahren 177–180 n. Chr. In: Kleijn, G.d. / Benoist, S. (eds.). Integration in Rome and in the Roman world. Proceedings of the Tenth Workshop of the International Network Impact of Empire (Lille, June 23-25, 2011). Impact of Empire 17. Brill / Leiden / Boston. 75-88.

Eck, W. 2007. Befund und Realität. Zur Repräsentativität unserer epigraphischen Quellen in der römischen Kaiserzeit. – Chiron 37, 49-64.

Horvat, J. / Lovenjak, M. / Dolenc Vičič, A. / Lubšina-Tušek, M. / Tomanič-Jevremov, M. / Šubic, Z. 2003. Poetovio. Development and Topography. In: Šašel Kos, M. / Scherrer, P. (eds.). The autonomous towns of Noricum and Pannonia. Die autonomen Städte in Noricum und Pannonien: Pannonia I (Situla 41). Ljubljana. 153-189.

Ivanov, R. 1996. Der Limes von Dorticum bis Durostorum (1.-6. Jh.). Bauperioden des Befestigungssystems und archäologische Ergebnisse 1980-1995, in: P. Petrović (Hrsg.), Roman limes on the middle and lower Danube 2, Cahiers des Portes de Fer 2. Belgrad. 161-171.

Kabakčieva, G. 1996. Frührömische Militärlager in Oescus (Nordbulgarien). Ergebnisse der Ausgrabungen 1989-1993. – Germania 74, 95-117.

Koenen, C. et al. 1904. Novaesium. Das im Auftrag des Rheinischen Provinzialverbandes vom Bonner Provinzialmuseum 1887–1900 ausgegrabene Legionslager (Bonner Jahrb. 111/112). Bonn.

Mihăilescu-Bârliba, L. 2012. Aspects prosopographiques concernant la colonisation dans les canabae de Troesmis: Les élites locales. Invigilata lucernis 34, 147-155.

Mihăilescu-Bârliba, L. 2009. Note épigraphique. Trois familles d'Oescus à Troesmis. – Pontica 42, 385-388.

Mihăilescu-Bârliba, L. / Piftor, V. 2005. Les familles d'Ancyre à Troesmis. In: Cojocaru, V. (ed.). Ethnic Contacts and Cultural Exchanges North and West of the Black Sea from the Greek Colonization to the Ottoman Conquest. Iași. 331-337.

Mócsy, A. 1953. Das territorium legionis und die canabae in Pannonien. – Acta Archaeologica Hungarica 3, 179-200.

Simion, G. 1994-1995. Ensemble funéraire de la nécropole tumulaire de Noviodunum (Isaccea). – Dacia NS 38-39, 121-149.

Simion, G. / Baumann, V. H. / Opaiț, A. / Vasiliu, I. / Mănucu-Adameșteanu, G. / Oberländer-Târnoveanu, E. 1980. Șantierul arheologic Troesmis. – Peuce 8, 151-288.

Sommer, S. 2004. Intra leugam, Canabae, Kastellvici und der obergermanisch-raetische Limes. In: Găzdac C. et al. (eds.). Orbis antiquus. Festschrift für I. Piso. Cluj-Napoca. 312-321.

Ștefan, A.-S. 1974. Recherches de photo-interprétation archéologique sur le limes de la Scythie Mineure à l'époque du Bas-Empire. In: Pippidi, D. M. (ed.). Actes du 9e Congrès international d'études sur les frontières romaines. Mamaia 6-13 septembre 1972. Bucarest – Köln – Wien. 95-108.

Ștefan, A.-S. 1971. Troesmis, consideratii topografice. – Buletinul Monumentelor Istorice 40/4, 43-52.

Vittinghoff, F. 1968. Die Bedeutung der Legionslager für die Entstehung der römischen Städte an der Donau und in Dakien, in: Claus, M. / Haarnagel, W. / Raddatz, K. (eds.). Studien zur europäischen Vor- und Frühgeschichte. Festschrift für H. Jankuhn. Neumünster. 132-142.

Vulpe, R. 1953. Canabenses et Troesmenses. – Studii și Cercetări de Istorie Veche 4, 557-582.

Zahariade, M. 1988. Moesia Secunda, Scythia și Notitia Dignitatum (Biblioteca de arheologie 49). București.

Dr. Cristina-Georgeta Alexandrescu
Institutul de Arheologie „Vasile Pârvan"
11 Henri Coandă St.
RO-010667 București
cgalexandrescu@gmail.com

Dr. Christian Gugl M.A. MSc (GIS)
Österreichische Akademie der Wissenschaften
Institut für Kulturgeschichte der Antike
Bäckerstr. 13
AT-1010 Wien
Christian.Gugl@oeaw.ac.at

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Illuminating the Soldiers' Homes. The Evidence of Lighting Devices from the Barracks of Forts and Fortresses in Roman Dacia[1]

Monica GUI / Dávid PETRUȚ

According to our current knowledge related to the soldiers' barracks during the time of the Principate, the architectural features of these structures did not provide access to a suitable amount of natural light. Therefore, the need to attend to this shortcoming by means of artificial lighting would seem evident. In fact, the barracks reconstructions from South Shields and Saalburg display structures with rather dim interior spaces, where hardly any activity would be possible without artificial lighting. Conversely, the question of lighting in the barracks has not been addressed so far through the systematic analysis of the lighting devices pertaining to these buildings. While not excluding the use of other lighting methods, oil lamps represent by far the most significant archaeological evidence for artificial lighting in this period. The analysis of lamp consumption at certain sites may prove instructive, as the use of these implements displays a high degree of both spatial (i.e. between provinces and sites) and chronological oscillation, for which a wide range of possible explanations have been put forward (see Eckardt 2002, passim). The barracks of forts and fortresses from Roman Dacia have so far benefited from limited research, the archaeological investigations converging mainly on the defensive works and the central buildings of the forts (Marcu 2009, 14-19). Consequently, only in a few cases were there fully excavated barracks published.

1. Object and Method

The current paper intends to offer insight into the question of illumination in the barracks of legionary and auxiliary soldiers from Roman Dacia, by analyzing the evidence of lighting devices discovered in the respective buildings. Along with the primary questions related to the degree to which artificial lighting was employed and its impact on the lives of soldiers, the proportion of lighting devices found in the barracks compared with other internal structures and the possible discrepancy between lamp usage in auxiliary forts and legionary fortresses will also be addressed. The evidence related to natural lighting (i.e. window glass and window frames) is an essential component in the investigation of this subject. However, the state of research and publication of the respective sites does not allow at the moment the useful integration of such data. Lighting devices (almost exclusively lamps) unearthed in barracks are known in the case of the auxiliary forts from Buciumi, Ilișua (*Dacia Porolissensis*) and Feldioara (*Dacia Inferior*) as well as from the legionary fortress from *Potaissa* (Turda) in *Dacia Porolissensis* (see Roman 2006, 79, tab. 1).

The discussion regarding the finds will rely partially on the functional aspects related to the lighting devices, although a typological framework will be set for the sake of coherence. For a closer estimation of the lighting requirements of the soldiers' rooms, a 3D computer simulation was employed, which displays the lighting efficiency of the oil lamps in the context of a closed virtual environment shaped by our partially hypothetic knowledge of Roman contubernia.

2. Barracks Layout and Architecture

The barracks of the Roman army are well known especially in terms of their ground plans. Regarding the soldiers' actual accommodation, solving issues

[1] For a detailed version of the paper see Petruț et al. 2014. This work was supported by a grant of the Ministry of National Education, CNCS-UEFISCDI, #PN-II-ID-PCE-2012-4-0618 and #PN-II-PT-PCEE-2013-3-0924.



Fig. 1. Barracks reconstructions (# 1-3 after Connolly 1998, fig. A-C; # 4 after Haalebos 1992, 655, Abb. 2)

like furnishing or illumination relies mostly on guesswork and common sense. Nevertheless, their layout and architecture offer some valuable clues.

Typically arranged in pairs, it is clear that these structures would have been dim even during daytime, since the rear windows were seriously obstructed, or non-existent if two barracks were adjoined (Davison 1989, 20, 77, fig. B/1-2). Clerestories, basilical roofs (Johnson 1983, 172; Davison 1989, 20) or 'mezzanini' (Haalebos 1992, 655, Abb. 2)[2] are envisioned (**fig. 1**), but not all agree with these reconstructions (Bidwell 1997, 60). If the *calones* were lodged in the roof space of cavalry barracks (Hodgson / Bidwell 2004, 136, 147, fig. 8), then there would have been more problems concerning illumination. Moreover, even though window glass is quite abundant in military installations[3], it never achieved perfect transparency (Haevernick / Hahn-Weinheimer 1955, 66). Furniture could further contribute to natural or artificial light hindrance, the possible use of bunk beds being just an obvious example.

A few military sites form Dacia with enough published finds from the barracks as to be relevant were selected as case studies: the auxiliary forts from Buciumi, Ilișua and Fledioara, and the legionary fortress at *Potaissa*. Even so, especially the plans of the auxiliary barracks are sometimes bewildering; coherent contextual information about the archaeological material usually refers to their last phases.

At Ilișua, the sequence of the forts seems straightforward: an initial Trajanic timber and earth fort, probably intended for a cohort, was enlarged at the beginning of Hadrian's reign to accommodate the *ala I Tungrorum Frontoniana*. This unit subsequently rebuilt it in stone, following the same layout. Eight barracks from the initial fort are known, but the details are sketchy: some are 9 m wide, with a single row of 3.3 m long chambers

[2] We owe this particular reference to P. Franzen.

[3] See, for example, Fellmann 2009, 96-98, Taf. 32c for numerous finds from *Vindonissa*; also, Davison 1989, 230; a 3rd century funerary inscription from *Carnuntum* (ILS, 9094) names a *speclariarius* as *immunis* of *legio XIIII Gemina*.

preceded by a 2 m wide corridor, while others comprise of 3.5 × 4 m undivided *contubernia* with a 1 m wide corridor in front (Gaiu 2006, 211-213, figs. 2, 4). As to the last two phases of the fort, there is a general disagreement between excavation reports and plans: reports mention five timber barracks, all 'double' except for one, whereas the accompanying plans always feature seven identical structures. They are stated to be around 65 × 11 m, separated by alleyways 4-4.60 m in width. Also, it is maintained that the size of a *contubernium* ranges between 3/3.7 × 4/4.5 m (Protase / Gaiu 1999, 418; Protase et al. 1997, 38). The ground plans display barracks with two rows of chambers, each of roughly the size given for a single *contubernium.* It is not clear whether two rows of undivided *contubernia* are meant, or these are actually *papiliones* and *armae*. Furthermore, it might be that there were typical cavalry barracks at Ilișua, with horses quartered in the *arma* and cesspits in front, although this was not realized by the excavators (Marcu 2009, 82-84). Unfortunately, it seems impossible to overcome the inconsistencies.

An auxiliary cohort was garrisoned at Feldioara. The fort probably had a Trajanic / early Hadrianic earth-and-timber phase, succeeded by an Antonine stone fort, but only two double barracks from the latest phase could be observed. Since they were investigated through a series of 1.25-1.50 m wide trenches, little else is known apart from their outline. The wattle and daub structures, both 45 m long and 20, respectively 18 m broad, were built at 5 m from each other (Gudea 2008, 42-48).

The fort from Buciumi had three phases, successively garrisoned by two cohorts, also housing, at times, various detachments. The general layout of the barracks seems to have remained more or less the same, displaying both simple and double buildings. From the *praetentura,* the simple B1 and the double B2 and B5 barracks were almost completely unearthed. Initially, B1 and B2 appear to be of Davison type F, with a narrow corridor that ran through the middle, dividing the *papiliones* from the *armae*; each chamber was about 2-2.5 m wide (Gudea 1997, 30, figs. 19/1.a, 2.a). B1 had a 2 m wide veranda, and probably also B2 on one of its sides; apparently, the two adjoined barracks making up the latter had different plans (Marcu 2009, 44-46). In the second, late Trajanic, phase they were transformed in what N. Gudea identifies as Davison type A (though the *contubernia* sized 3.5 × 3.5 m seem undivided), with 2-2.5 m porticoes in front[4]. When the fort was rebuilt in stone, probably at the start of the 3rd century, it was assumed little changed in the case of the barracks: only the pillars of the porticoes were replaced and based on stone walls (Gudea 1997, 50-51, figs. 19/1.c, 2.c). A graphical reconstruction proposed for the last phase of B2 illustrates the double barracks as having three rows of rooms, the middle one (presumably a large hall) considered a potential storage space illuminated through windows on the lateral sides (Landes-Gyemant / Gudea 2001, 151, Abb. 19). In each phase the barracks were built of wattle and daub[5].

The stratigraphy is less problematic in the case of *legio V Macedonica*'s garrison, since the troop only arrived at *Potaissa* following the Marcommanic wars. A few of its barracks (all of which entirely built from stone) were fairly extensively excavated, and the fact that some belong to quingenary cohorts and some to the *cohors milliaria* provides an interesting comparison (**fig. 2**). The quingenary barracks form the *latus praetorii sinistrum* were of Davison's type G, arranged in facing pairs, creating an 'internal courtyard' of 11-11.60 m in width. Less well known are those from the *retenura*, but some of their rooms were apparently fitted with hypocaust installations. In the case of the milliary quarters, situated in the *latus praetorii dextrum*, the officers' chambers were completely detached. These barracks had undivided *contubernia,* wide porticos (3-3.5 m) and were laid out as to form a courtyard through which ran 3 m wide alleyways. The residences of the first cohort were bigger, measuring 75 × 10.5-11 m, hence approximately 10 m longer and 3 m wider than the rest, with rooms of 5 × 9.5 m, contrasting to quingenary quarters of only 4.80/5.70 × 6.80/7.10 m (Bărbulescu 1987, 169-172; Bărbulescu 1997, 34-35, figs. 16, 17).

Window glass was very likely used in Dacia, as elsewhere, but one of the most intriguing clues is provided by a fragmentary inscription from *Apulum,* potentially mentioning a *speclar(iarius)* among the *dimissi* from *legio XIII Gemina*[6].

In conclusion, the barracks considered here appear to be indeed poorly lit spaces. However, some

[4] See Davison 1989, 75 for type G with portico, fig. A/A, G.

[5] Gudea 1997, 23, 28-29, 50. Cf. Marcu 2009, 46, 50, who believes that the stone walls surrounding the barracks were not meant for the portico pillars, but were actually sill walls upon which rested wooden barracks.

[6] We grant that the preferred reading (AE 2007, 1197) is *spec*(*u*)*la*(*to*)*r*.

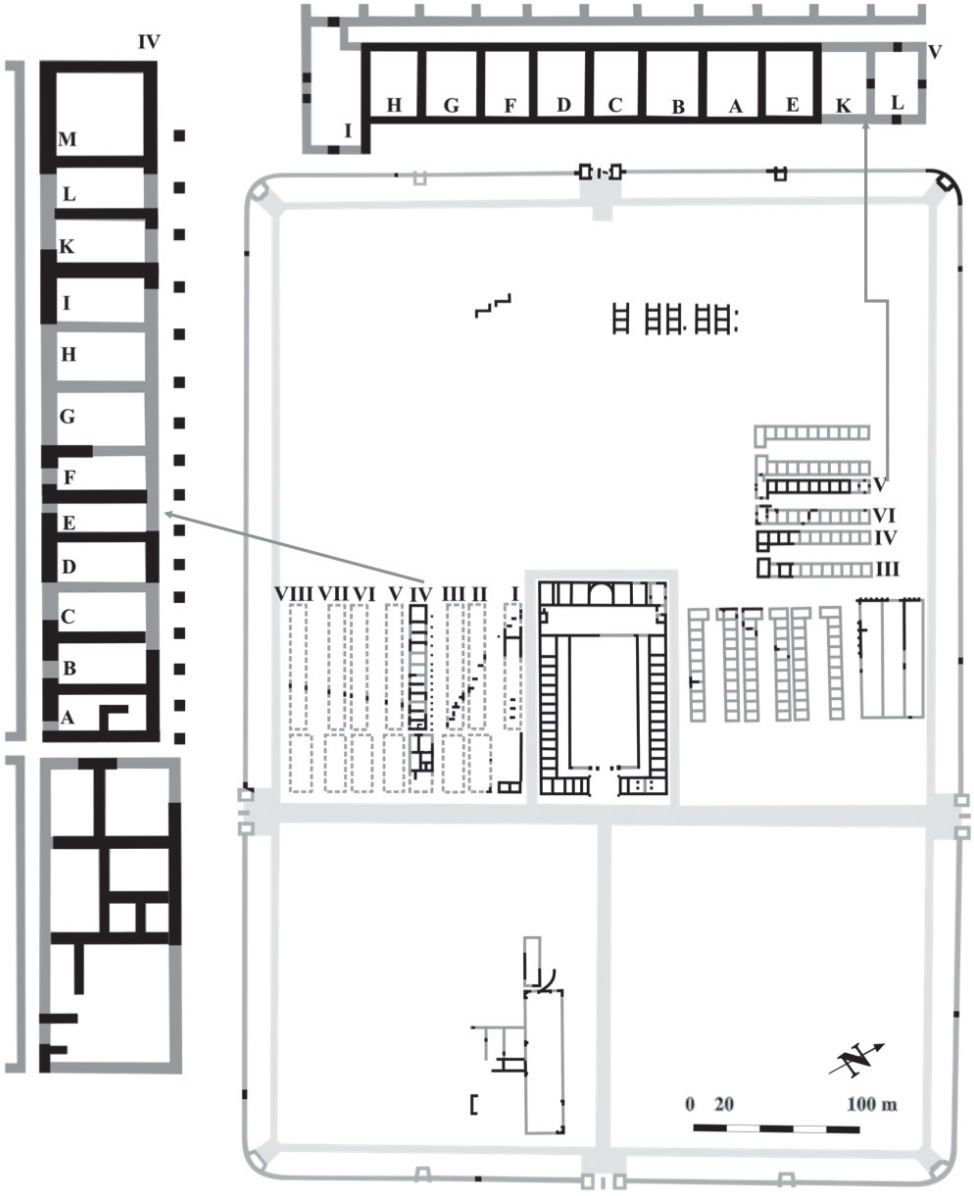


Fig. 2. Plan of the legionary fortress at *Potaissa* as it was known in 1996 (redrawn after Bărbulescu 1997, fig. 5), with detailed view of a *cohors milliaria* and a *cohors quingenaria* barracks (redrawn after Bărbulescu 1997, figs. 16-17)

of the undivided *contubernia* could have been illuminated through rear, and front windows. Their size and internal arrangements also impacted on the way artificial light was employed. A telling example of the difference between legionary and auxiliary living standard is presented by the barracks from *Potaissa*: larger, uncluttered, with wide porticoes and courtyards; also, the use of hypocaust means that windows could have been significantly larger.

3. The Finds

The analyzed material is comprised of 224 pieces discovered in the barracks of the abovementioned four military sites, and, apart from one candlestick fragment, consists entirely of oil lamps. As expected, over half of the lighting devices discussed in the present study (118 pieces) were uncovered in the legionary fortress from *Potaissa* (Cătinaș 2002)[7],

[7] Catalogue # 48, 51, 55, 56, 58, 59, 60, 64, 65, 75, 78, 82, 87, 88, 90, 97, 98, 102, 106, 107, 108, 109, 111, 112, 116, 119, 120, 121, 123, 127, 128, 129, 130, 136, 145, 154, 155, 157, 152, 160, 164, 193, 198, 199, 202, 206, 207, 208, 211, 121, 214, 216, 217, 218, 219, 220, 221, 222, 223, 246, 248 (*Firmalampen*); 1, 4, 5, 7, 14, 17, 25, 41, 42 (Loeschcke type VIII); 179 (Loeschcke type VII *similis*); 186 (Circular wheelmade lamp); 316 (candlestick fragment); 43, 146, 167, 194, 196, 197, 200, 225, 227, 228, 229, 231, 232, 234, 236, 239, 240, 243, 245, 247, 250, 253, 254, 255, 256, 257, 261, 263, 264, 265, 267, 268, 274, 275, 277, 278, 279, 280, 283, 284, 287, 289, 293, 296 (undetermined fragments).

while the barracks from the two auxiliary forts from the Northern and North-Western frontier of *Dacia Porolissensis*, Buciumi with 47 pieces (Gudea / Cosma 2008)[8] and Ilişua with 44 pieces (Gaiu 2010)[9], have yielded approximately the same number of finds (see **fig. 3**). This seems to be in accordance with the relatively similar state of research concerning the barracks of the two auxiliary forts. The situation regarding the fort from Feldioara, in the inland of *Dacia Inferior,* is somewhat different, since only two barracks were investigated. Consequently, the number of recorded lamps is 15 (Gudea 2008, 172-173). The material from the first three military sites discussed above can be classified in eight typological categories, in addition to a separate category comprising the undeterminable fragments. Apart from the pottery lamps, which make up the overwhelming majority of the lighting devices, only two metallic (copper-alloy) objects were recorded: a candlestick fragment from *Potaissa* (Cătinaş 2002, 322, # 316) and a lamp from Ilişua (Gaiu 2007, 417-418, # 3, fig. 4.). The typological framework applied for the analyzed artefacts consists of the following categories (see **fig. 4**):

Firmalampen (114)
Loeschcke type I (2)
Loeschcke type I *similis* (2)
Loeschcke type VII *similis* (1)
Loeschcke type VIII (19)
Circular wheel made lamps (8)
Loeschcke type XXI bronze lamps (1)
Candlesticks (1)
Undetermined fragments (76)

4. Context and Functionality

Regrettably, high resolution contextual data is unavailable: there is not a single site wherein both detailed spatial distribution and artefact layering are noted. Though recognizing the ensuing shortcomings, we tried to see if the lamp distribution inside the considered forts is in any way informative.

The data on which our analysis is based is summarized in **fig. 3**. The resulting table is self-explanatory, and requires but little comment. *Potaissa* is the only site where lighting implements could be assigned to individual *contubernia.* The difference between the almost completely unearthed barracks V of the quingenary cohort and IV of the *cohors milliaria* is striking. The latter yielded twice as many lamps as the former. Only the numbers recovered from the *principia* are comparable with those recorded from the area in which the first cohort was quartered. Also, lavish implements, like the acrobat or *silenus* candlesticks found in the headquarters (Bărbulescu 1994, pl. 10/1, 3, fig. 31), cannot be associated with the barracks. Due to the problems mentioned before, not much can be said about the lamp distribution at Ilişua, especially since the numbering convention used for the barracks is never explained. It is also difficult to discern between lamps originating from different phases. The highest number recorded from a single barracks (IV in the *praetentura dextra*) is 10, but this could be a single or a double barracks for all we know. Two iron open lamps from a chandelier were found in the *principia.* While in other provinces these so-called 'stable-lamps' appear mostly in rural areas (see Eckardt 2000, 14-16), in seems that in Dacia there is a bias towards military sites, but the numbers are too low to infer anything[10]. Two copper-alloy finds were published: a lamp that could derive from a barracks and one shaped like a pine cone, damaged in antiquity and stored for recycling in one of the *porta praetoria* towers, along with other pieces of scrap metal (Gaiu 2007, 418, # 5). The number of lamps discovered in the double barracks B2 and B5 from Buciumi are approximately double those from the simple B4. Keeping to a chronological sequence devised based on loose-finds stratification (Gudea / Cosma 2008), what ensues is that this trend is maintained at least throughout the 2nd century. Thus, perhaps some kind of meaningful pattern can

[8] Catalogue # 13, 16, 17, 18, 19, 20, 21, 24, 25, 31, 32, 34, 35, 37, 39, 42, 46, 47, 49, 52, 55 (*Firmalampen*); 2 (Loeschcke type I); 3 (Loeschcke I *similis*); 10, 11, 27, 28 (Loeschcke type VIII); 3, 4, 5, 6, 29 (circular wheelmade type); 9, 43, 48, 50, 51, 53, 56, 57, 58, 59 (undetermined fragments). In addition to the published lamps, a further six finds could be added to the list of artefacts discovered in the barracks from Buciumi, after examining the inventory catalogues and the artefacts kept at the County Museum of History and Art Zalău. Among these pieces, two were unpublished and four were mistakenly discussed as finds from other structures of the fort by the authors of the respective study (# 29, 33, 39, 40).

[9] Catalogue # 26, 29, 30, 31, 32, 34, 36, 38, 44, 47, 50, 51, 52, 53, 57, 61, 62, 64, 65, 66, 67, 68, 70, 72, 80, 81, 82, 84 (*Firmalampen*); 16 (Loeschcke type I); 9, 13, 14, 18, 20 (Loeschcke type VIII); 5, 19, 23, 71, 74, 75, 76, 78 (undetermined fragments); Gaiu 2007, 417-418, # 3, fig. 4 (bronze lamp).

[10] Regep (Regep 2000) records just ten from Dacia: five were found in forts, the rest in civil settlements adjacent to forts; the author states that these must be connected to workshops, though only one has a secure provenance in a workshop from *Tibiscum* while three were found in *principiae*.

Potaissa (Turda)

barracks *coh. quing., latus praet. sinistrum*	**b. I**	**b. V**	Total: 36
	?: **2**	A: **3**	
	b. II	B: **4**	
	?: **3**	C: **1**	
	b. III	D: **1**	
	S: **3**	E: **0**	
	?: 2	F: **3**	
	b. IV	G: **1**	
	B: **3**	H: **0**	
	C: **1**	I: **1**	
	D: **4**	J: **0**	
	?: **1**	K: **1****	
	b. VI	?: **1**	
	?: **1**		
barracks *coh. ∞, latus praet. dextrum*	**b. IV**		Total: 54
	A: **4**	I: **3**	
	B: **0**	J: **0**	
	C: **1**	K: **2**	
	D: **2**	L: **0**	
	E: **3**	M: **2**	
	F: **4**	O: **3**	
	G: **3**	portico: **8**	
	H: **6**		
	?		
	15		
barracks, *retentura*	**20**		Total: 20
principia	rooms: **40** + **4****		Total: 60
	well, room I: **8**		
	porticoes: **4** + **1***		
	?: **3**		
gates	W gate		Total: 3
	southern tower: **2**		
	?: **1**		
thermae	**12**		Total: 12
building near b.I *coh. ∞*	**7**		Total: 7
?	**3**		T: 3

Feldioara

barracks	**b. 1**	**b. 2**	Total: 14
	?: 11	?: 3	

Arcobadara (Ilișua)

barracks, *praetentura dextra*	**b. I**	**b. III**	Total: 26
	mid. 2nd c.: **2**	1/2 2nd c.: **1**	
	3rd c.: **1**	mid. 2nd c.: **1**	
	b. II	end 2nd- beg. 3rd c.: **2**	
	1/2 2nd c.: **1**	?: **1**	
	2/2 2nd c.: **3**	**b. IV**	
	2nd c.: **1**	1/2 2nd c.: **1**	
	end 2nd- beg. 3rd c.: **1**	2nd c.: **2**	
	?: **2**	end. 2nd- beg. 3rd: **2**	
		3rd c.: **1**	
		?: **4**	
barracks, *praetentura sinistra*	**b. 1** (1st pahse?)	**b. VI**	Total: 17
	1/2 2nd c.: **1**	beg. 2nd c.: **2** (1st phase)	
	?: **1**	1/2 2nd c.: **3**	
	b. V	2/2 2nd c.: **1**	
	end 2nd- beg. 3rd: **1**	2nd c.: **1**	
	3rd c.: **1**	?: **2**	
	?: **4**		
praet.	2/2 2nd c.: **2**		Total: 5
	2nd c.: **1**		
	?: **2**		
p.	?: **2***		T:2
gates	*porta praetoria*	*porta princ. dextra*	Total: 4
	?: **1**	on the road, 1/2 3rd c.: **1**	
	tower: **1***	*porta decumana*	
		1/2 3rd c.: **1**	
?	beg. 2nd c.: **3** + **1*** (1st phase?)	3rd c.: **1**	Total: 10
	1/2 2nd c.: **2**	?: **3**	

Buciumi

barracks, *praetentura*	**b. 1**	**b. 4**	Total: 41
	0	1/2 2nd c.: **3**	
	b. 2	2nd c.: **1**	
	1/2 2nd c.: **3**	3rd c.: **3**	
	2/2 2nd c.: **9**	**b. 5**	
		1/2 2nd c.: **8**	
	3rd c.: **4**	2nd c.: **11**	
		3rd c.: **5**	
pr.	?: **1**		T.:1
others	building C4	building C3	T:4
	?: **2**	?: **2**	
c. tw.	southern tower	eastern tower	T: 2
	?: **1**	?: **1**	
gates	*porta princ. dextra*	*porta princ. sinistra*	T: 5
	?: **3**	?: **1**	
?	?: **2**		T: 6

Fig. 3. Lamp totals, grouped according to their provenance, based on data from Cătinaș 2002 (*Potaissa*), Gudea 2008 (Feldioara), Gudea, Cosma 2008 (Buciumi) and Protase et al. 1997, Gaiu 2007, Gaiu 2010 (Ilișua); b. = barracks; A-S = individual *contubernia* from *Potaissa*; *p.* = *principia*; *pr.* = *praetorium*; c. tw. = corner towers; c. = century; 1/2 = 1st half of century; 2/2 = 2nd half; beg. = beginning; mid. = middle; T = total; * = metal; ** = candlestick; ? = unknown date / location

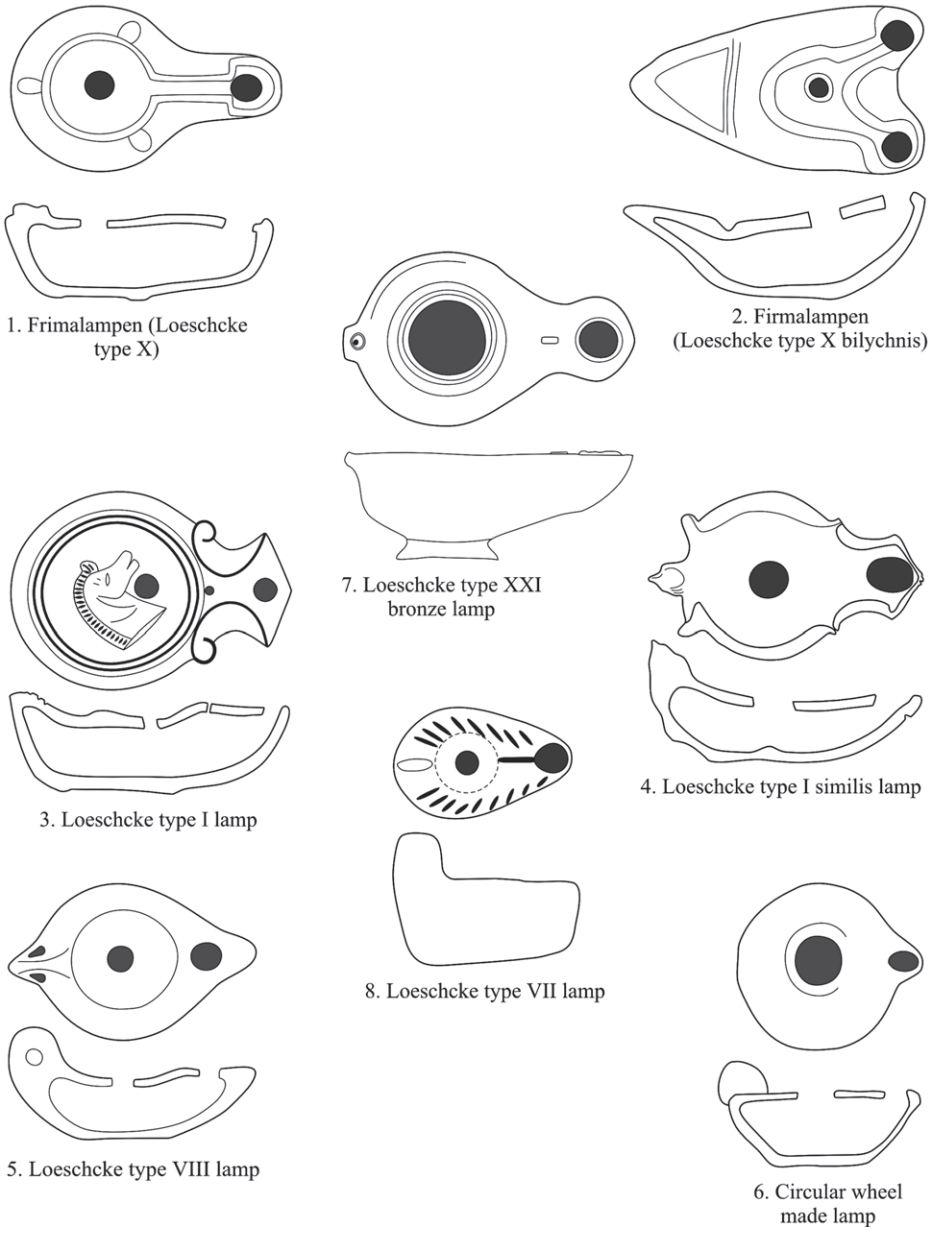


Fig. 4. The typology of the oil lamps discovered in the barracks. # 1 from Ilişua (redrawn after Gaiu 2010, 225, # 34, Pl. 5); # 2 from Buciumi (redrawn after Gudea / Cosma 2008, 127, # 56, Taf. 97); # 3 from Ilişua (redrawn after Gaiu 2010, 221, # 1, Pl. 1); # 4 from Buciumi (redrawn after Gudea / Cosma 2008, 122, # 3, Taf. 90); # 5 from Ilişua (redrawn after Gaiu 2010, 222, # 13, Pl. 2); # 6 from Buciumi (redrawn after Gudea / Cosma 2008, 126, # 51, Taf. 96); # 7 from Ilişua (redrawn after Gaiu 2007, 417-418, # 3, Fig. 5); # 8 from Turda (redrawn after Cătinaş 2002, 277-278, # 197)

be detected at this particular site. Considering the excavation technique used at Feldioara, which did not allow the unearthing of a significant area of the barracks, the lamp totals are higher than expected. Unfortunately, no attempt has been made to correlate their discovery context with the successive phases of the fort.

These numbers are only tentatively given, and the general picture might be completely skewed by the number of lighting implements with unknown find spot. Anyway, we cannot take these as reflecting a real-life situation, like a daily life snapshot, especially since there were a lot of processes involved in the formation of the 'archaeological record' inside Roman forts: recycling, abandonment etc. (Bishop 1986). The shortage of finds could also be explained by clearances prompted by enlargement or rebuilding, which obviously took place at the sites in question. While not dismissing the difference in size between forts and garrisons, it appears at first glance that the legionaries used a lot more lamps than their auxiliary counterparts, fact which may or may not be explained merely by their larger *contubernia*.

The functional analysis is based in this case on the following morphological features: 1) the enlargement of the filling holes either as the result of a specific manufacturing process (i.e. wheel throwing) or achieved through the careful breaking of the *discus* subsequent to production, resulting sometimes in its complete removal; 2) the presence or absence of a handle; 3) the presence of more than one nozzle. It has to be noted from the start that quantification is based overwhelmingly on the data from the publications. As such, it is almost certain that some examples were missed. Therefore, the numbers given here have to be regarded as minimum figures.

The totals for each analyzed criterion are fairly low. Regarding the increased size of the filling holes, only 19 examples could be found, among which eight are circular wheel made lamps with wide filling orifices, while 11 others, consisting mostly of *Firmalampen* (in addition to one Loeschcke type VIII lamp) have broken discuses. The minimum percentage of lamps with wide (or widened) filling holes appropriate for functioning with tallow rather than vegetable oils is 8.4 %. Altogether, a number of 27 pieces or lamp fragments could be identified as having handles[11]. Most come from *Potaissa* (13), while the barracks from Ilișua have yielded nine, and the ones from Buciumi only five. Based on these figures, it can be said that a minimum of 12% of the joint lamp assemblages had handles, suggesting a mostly indoor use of these lighting implements, as opposed to an outside, or 'on the move' use (Eckardt 2011, 186). The minimum percentage of the lamps with more than one nozzle is only 3% (7 pieces and fragments). The figures indicate that there was only a minimal effort to increase the lamp's efficiency by using the *multilychnis* variants of the lamps.

The relatively low consumption level of oil lamps in the temperate regions of Europe has been attributed to the joint effect of specific economic and cultural factors. The presumably high price of olive oil (given the transport costs) correlated with excessive fuel consumption rate of these devices resulting in a low light efficiency, most probably acted as serious disincentives in the widespread adoption of this lighting method in these regions (Wunderlich 2003, 255-256; Crnobrnja 2008, 409-411). Given the high consumption of olive oil, admittedly an expensive commodity in Roman Dacia, and the constant need for looking after (e.g. trimming the wick), makes it unlikely that averagely more than two or three lamps were working in each *contubernium*. Furthermore, cultural processes have to be taken into account. Eckardt has shown that the symbolic meaning associated with these objects, i.e. connection (and later disconnection) to the material culture 'package' expressing Roman identity, influenced to a great extent their adoption and rejection in remote provinces such as *Britannia* (Eckardt 2002, 37). The higher degree of oil lamp usage in legionary fortresses compared to auxiliary forts has been noted in the case of other provinces as well (Eckardt 2002, 37). This phenomenon can be linked to the possibility that the legions enjoyed a better supply system than their auxiliary counterparts, but at the same time, cultural and social factors cannot be ruled out either.

An important part of our study was to see the lamps at work in the context of a Roman barracks. For this purpose, a 3D simulation modelled on a 3.5 × 3.5 m and 3 m high chamber closely resembling the Buciumi *contubernia* (**fig. 5**) was created[12]. As a lighting device, a *Firmalampen* fuelled by olive oil was chosen; its illuminace, measured at a distance of 1 m, is 1 lux (lx), luminous intensity 1 Candela (Wunderlich 2006, 256). Nine points of interest were selected, and both illuminace and luminace[13] were measured in three different scenarios: 1) one lamp on the table, 2) one lamp on the table and one on the shelf, 3) two lamps on the table and two on the shelf. Of primary concern is luminace, which was noted for each scenario in **fig. 5.**

To get an idea of what this means in real life, experiments have shown that for young and middle-aged subjects, a minimum luminance of about 0.45 cd/m^2 is required to be able to read an 8 pt. Futura Demibold font (Welsh et al. 1977). The simulation shows that a single lamp produced enough light for readability only on the table it was placed on. With an additional lamp on the shelf, conditions do not seem to improve significantly for the lower beds. Even in the third scenario, only points 1, 2, 7 and 8 achieve high enough levels of illumination. This suggests that activities like reading, writing, and even the more probable gaming would have been

[11] Only the functional handles (mostly circular) were taken into account, while the decorative triangular handles displaying mostly palmette motifs have been left out, as their role was merely ornamental.

[12] We would like to thank H. Trîncă (Computer Science Department, Babeș-Bolyai Univeristy) who created the 3D model and interpreted the illumination results. For a detailed account of the methods and results see Petruț et al. 2014, 84-87.

[13] Illuminance (measured in lx) refers to the light emitted by the light source measured at a specified distance, whereas luminance (measured in cd/m^2) refers to the amount of light reflected by the receiving surface.

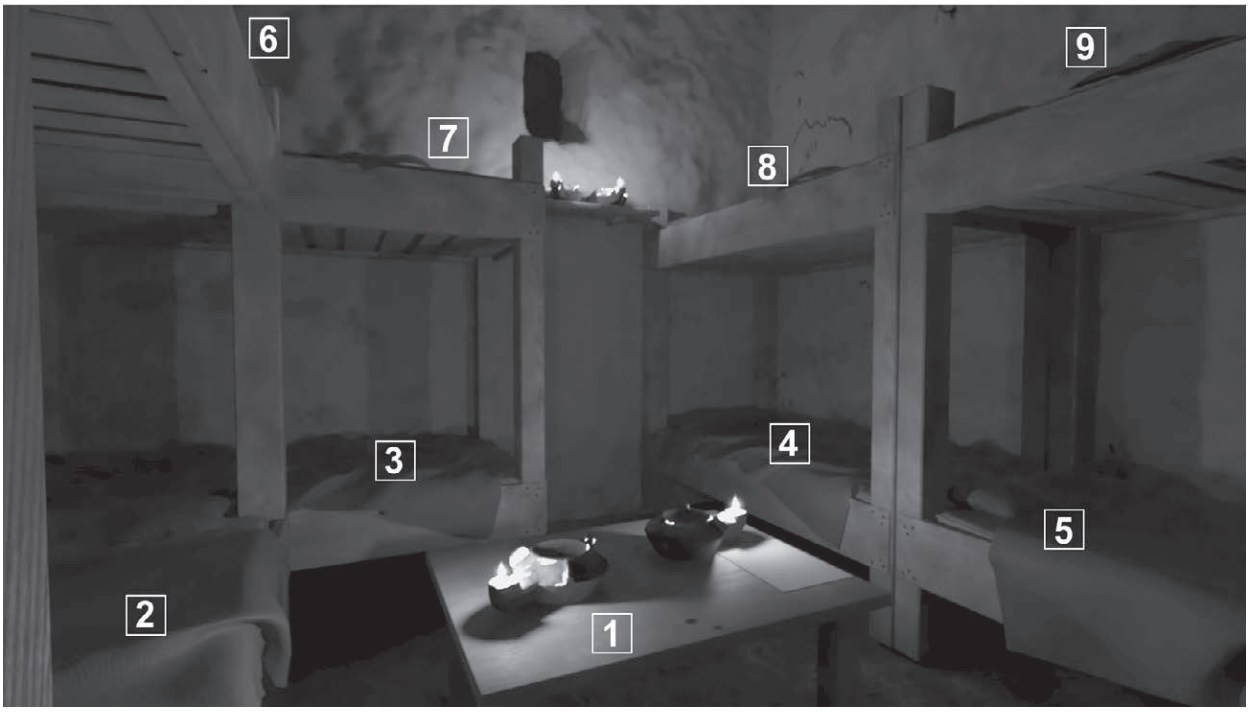


Fig. 5. Reconstructed barracks interior. Luminance values for each of the three scenarios: pt. 1 = 2.73/ 2.83/ 2.90, pt. 2 = 0.19/ 0.21/ 1.10, pt. 3 = 0.21/ 0.22 /0.43, pt. 4 = 0.36/ 0.39/ 0.53, pt. 5 = 0.32/ 0.35/ 0.49, pt. 6 = 0.11/ 0.21/ 0.40, pt. 7 = 0.13/ 0.74/ 2.98, pt. 8 = 0.12/ 2.41/ 3.17, pt. 9 = 0.12/ 0.20/ 0.37 cd/m2

quite difficult in the evenings or during night time, at least if less than four lamps were employed.

5. Conclusions

The investigation so far has shown that the conspicuously low number of lamps discovered in the studied military installations was probably insufficient to provide alone a suitable amount of artificial light. The use of alternative sources of light, as asserted in other cases, must be considered here as well, though there is little archaeological proof to substantiate this. The view is further supported by the virtual light intensity simulations. These measurements demonstrated that the lamps within the individual *contubernia* could not provide sufficient light for activities that required focus on detail (such as reading or gaming) even if they were centred in the immediate vicinity of two or more lamps situated, hypothetically, on a table.

Due to research deficiencies in this field, it is nearly impossible to establish chronological tendencies in lamp usage with respect to the barracks. Still, the figures from the fort at Buciumi indicate a possible peak in lamp consumption at the end of the 2nd century AD. However, the low numbers of lamps taken into consideration, as well as the ambiguous dating methods employed, induce a high level of uncertainty.

The compared figures from the discussed military sites also indicate some potential differences. The finds from the legionary fortress at *Potaissa* clearly show a considerably more intensive lamp consumption compared to the auxiliary forts. It is likely that this discrepancy is not simply a consequence of the difference in the dimensions of the respective military facilities, and might be connected with the idea that legionary fortresses have enjoyed a more prolonged and relatively constant supply of olive oil.

Bibliography

AE = L'Année épigraphique.

Bărbulescu, M. 1997. Das Legionslager von Potaissa (Turda) / Castrul legionar de la Potaissa (Turda). Zalău.

Bărbulescu, M. 1994. Potaissa. Studiu monografic. Turda.

Bărbulescu, M. 1987. Din istoria militară a Daciei romane. Legiunea V Macedonica şi castrul de la Potaissa. Cluj.

Bidwell, P. 1997. The Book of Roman Forts in Britain. London.

Bishop, M. C. 1986. The distribution of military equipment within Roman forts of the first century A.D. In: Unz, C. (ed.). 13. Internationales Limeskongress Aalen 1983. Stuttgart. 717-723.

Cătinaş, A. 2002. Opaiţele romane din Potaissa. Dissertation. Cluj-Napoca.

Connolly, P. 1998. The Roman Fort. Oxford.

Davison, D. 1989. The Barracks of the Roman Army from the 1st to the 3rd Centuries A.D. (= BAR International Series 472). Oxford.

Crnobrnja, A. N. 2008. Economic aspects of the use of Roman oil lamps in Moesia Superior. In: Gergova, D. / Bozhkova, A. / Popov, Chr. / Kuzmanov, M. (eds.). Phosphorion. Studia in honorem Mariae Čičikova. Sofia. 408-412.

Eckardt, H. 2011. Heating and lighting. In: Allason-Jones, L. (ed.). Artefacts in Roman Britain. Cambridge. 180-193.

Eckardt, H. 2002. Illuminating Roman Britain (= Monographies Instrumentum 23). Montagnac.

Eckardt, H. 2000. Illuminating Roman Britain. In: Fincham, G. / Harrison, R. / Rodgers Holland, R. / Revell, L. (eds.). TRAC 99. Proceedings of the Ninth Annual Theoretical Roman Archaeology Conference. Oxford. 8-21.

Fellmann, R. 2009. Römische Kleinfunde aus Holz aus dem Legionslager Vindonissa. Brugg.

Gaiu, C. 2010. Opaițele ceramice de la Arcobadara. – Revista Bistriței 14, 217-244.

Gaiu, C. 2007. Lucernele de bronz din castrul roman de la Ilișua. In: Nemeti, S. / Fodorean, F. / Nemeth, E. (eds.). Dacia Felix. Studia Michaeli Bărbulescu oblata. Cluj-Napoca. 414-429.

Gaiu, C. 2006. Ilișua – castrul traianic. In: Teodor, E. S. / Țentea, O. (eds.). Dacia Augusti Provincia. Crearea provinciei. Actele simpozionului desfășurat în 13-14 octombrie 2006 la Muzeul Național de Istorie București. București. 207-217.

Gudea, N. 2008. Castrul roman de la Feldioara. Încercare de monografie arheologică. Cluj-Napoca.

Gudea, N. 1997. Castrul roman de la Buciumi. Zalău.

Gudea, N. / Cosma, C. 2008. Die Lampen aus dem Römerkastell von Buciumi (Dacia Porolissensis). In: Roman, C. / Gudea, N. (eds.). Lychnological Acts 2. Acts of the 2nd International Congress on Ancient and Middle Age Lighting Devices. Cluj-Napoca. 117-128.

Haalebos, J. K. 1992. D. P. Davison, The Barracks of the Roman Army. – Bonner Jahrbüher 192, 653-657.

Haevernick, T. E. / Hahn-Weinheimer, P. 1955. Untersuchungen römischer Fenstergläser. – Saalburg Jahrbuch 14, 65-73.

Hodgson, N. / Bidwell, P. 2004. Auxiliary Barracks in a New Light: Recent Discoveries on Hadrian's Wall. – Britannia 35, 121-157.

ILS = Dessau, H. 1892-1916. Inscriptiones Latinae Selectae vol. 1-3. Berlin.

Johnson, A. 1983. Roman Forts of the 1st and 2nd centuries AD in Britain and the German Provinces. London.

Landes-Gyemant, A. / Gudea, N. 2001 Dar Römerkastell von Buciumi. Vorschläge für eine grafische Wiederherstellung. – Saalburg Jahrbuch 51, 127-151.

Marcu, F. 2009. Organizarea internă a castrelor din Dacia (= Bibliotheca Mvsei Napocensis 30). Cluj-Napoca.

Petruț, D. / Gui, M. / Trîncă, H. 2014. Lighting Roman military barracks. An interdisciplinary approach based on evidence from Dacia. – Archaeologia Bulgarica 18, 3, 65-92.

Protase, D. / Gaiu, C. 1999. Le camp romain et l'établissement civil d'Ilișua. Les résultats des fouilles archéologiques effectuées dans le courant des annés 1978-1995. In Gudea, N. (ed.). Roman Frontier Studies. Proceedings of the XVIIth International Congress of Roman Frontier Studies, Zalău, September 1997. Zalău. 415-429.

Protase, D. / Gaiu, C. / Marinescu, G. 1997. Castrul roman de la Ilișua. Bistrița.

Regep, S. 2002. Opaițele din fier din Dacia romană. – Apulum 39, 265-272.

Roman, C. A. 2008. Lămpi din Dacia Porolissensis I. Castrele Porolissum-Moigrad, Buciumi, Gilău, Samum-Cășei. Zalău.

Welsh, K. W. / Rasmussen, P. G. / Vaughan, J. A. 1977. Readability of Alphanumeric Characters Having Various Contrast Levels as a Function of Age and Illumination Mode, Federal Aviation Administration Office of Aerospace Medicine, Technical Report # DOT/FAA/AM-77/13.

Wunderlich, Ch. H. 2006. Light and economy. An essay about the economy of prehistoric and ancient lamps. – Nouveautés Lychnologiques / Lychnological News, 251-263.

Monica Gui, PhD
Romanian Academy. Institute of Archaeology and Art History in Cluj-Napoca
12-14 Mihail Kogălniceanu St.
RO-400084 Cluj-Napoca
monica_gui@ymail.com

Dávid Petruț, PhD
Mureș County Museum
8/a Mărăști St.
RO-540328 Târgu Mureș
petrutdavid@gmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Closing a Gap. A Roman Fort Rediscovered*

Ovidiu ŢENTEA

The mapping and recording of the forts and military infrastructure of the Roman defensive system on the Lower Danube were topics constantly mirrored in archaeological publications. Following new data gathered, this paper aims to outline, the location of an important fort in north-west Dobruja, close to the Danube curvature (**fig. 1-2**). The area of interest, situated between the forts at *Troesmis* and *Noviodunum*, was particularly important for the Roman frontiers in the area. The Danube curvature corresponds to the Siret and Prut river mouths thus making the area highly vulnerable. This is one of the main reasons why the Roman garrisons were located in this area left to the Danube, both on the fort at Barboşi as well as the small fortlets defending the territory delimited by the earth *vallum* Traian – Tulucești (Țentea / Oltean 2009, 1515-1524).

Close to this area, the forts at *Arrubium* and *Troesmis* were located southwards and that at *Noviodunum* eastwards. In the framework of the discussions related to the communication means between the area within the province and the territory of Galaţi, one of the issues was the lack of any correspondence datable to the same period in *Dinogetia* area (we know though, that the earliest evidence on the site dates later).

If distances to *Arrubium* and onwards to *Troesmis* allow good visibility between respective forts and implicitly, good opportunities for any corresponding signalling, not the same applies to the forts east to Galaţi. If from a chronological point of view the forts at Barboşi (Galaţi area) and *Dinogetia* are hard to link, an issue difficult to understand is the great distance between the said area and *Noviodunum*. As also noticeable on the map in **fig. 2**, the Luncaviţa area constitutes a gap in the frontier within the respective territory.

The site was discussed either in syntheses on Roman borders (Polonic 1935, 18-36; Zahariade / Gudea 1997, 81, #49; Gudea 2005, 457-458, #49; Zahariade 2006, 4, 46, 118, 139, 187, 188, 190) or dictionaries, either under short mentions of archaeological research made in the respective area, yet concerning other historical periods or chance finds (Comşa 1952, 413-416; Poenaru-Bordea / Ocheşeanu 1996, 86-87, #140-141). Gudea (2005, 457-458, #49) locates erroneously at Luncaviţa a more recent rescue excavation carried out at Rachelu (Zahariade 1999, 202), the *quadriburgium* nearby (Băjenaru 2010, 130, #48).

Repertories texts on the limes during the Principate bring no new data compared to Polonic's plans. Noticeably, fort sizes were computed based on the plan in Tocilescu's manuscript (**fig. 4**): 225 × 75 m (Barnea 1996, 334); respectively 69/75 × 220 m (Zahariade / Gudea 1997, 81 #49; Gudea 2005, 457). This plan delimits the fort on three sides, the northern being seemingly destroyed by erosion.

The first known records are mentioned in Gr. Tocilescu's manuscripts (Tocilescu 1898, 100-101; Polonic 1935, 23; TIR L 35, 49), data which were often used in subsequent works. The plan was drawn up by the topographical engineer P. Polonic in the last years of the 19th century, when he was appointed by Tocilescu (at the time Director of the National Museum of Antiquities) to carry out sur-

* This paper is supported by the Sectoral Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and the Romanian Government under contract number SOPHRD/89/1.5/S/59758.

I wish to thank Mihail Zahariade and Irina Achim for their suggestions in drafting this text, as well as Bogdan Venedict (figs. 7.a, 7.b) and Maria-Magdalena Ștefan (figs. 2, 3), for their help in drawing up certain plates.

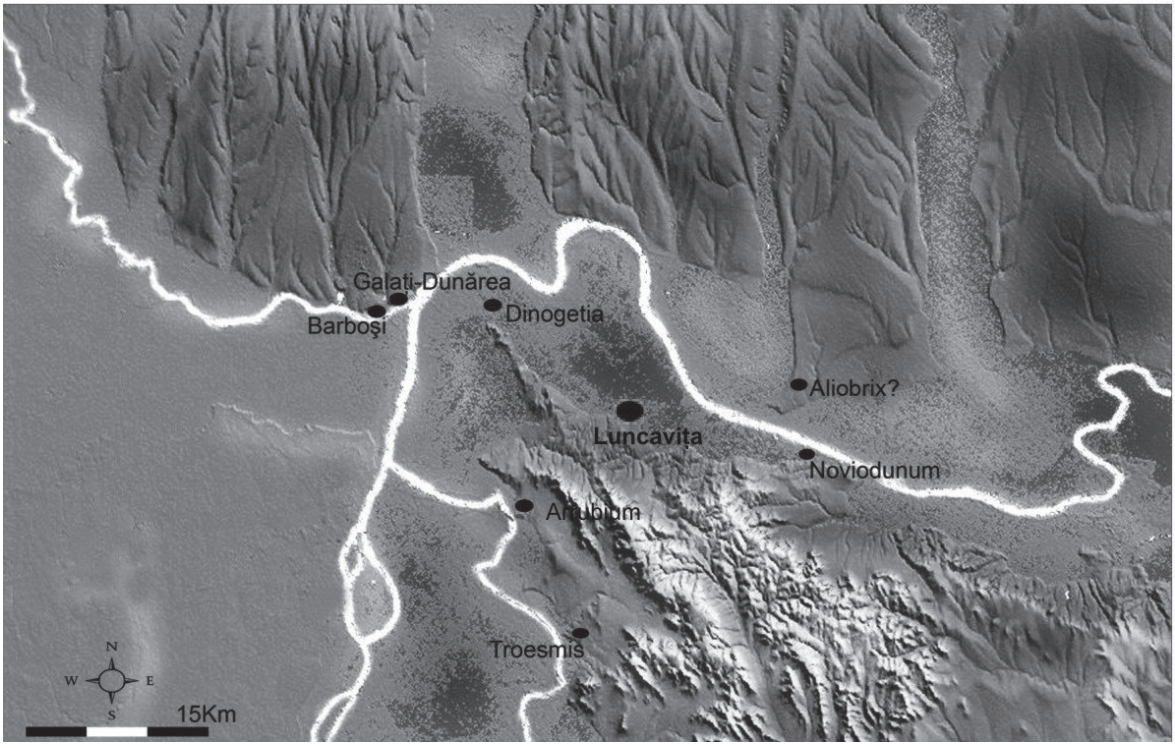


Fig. 1. Roman forts along the Danube during the Principate (after Ţentea / Oltean 2009, 1516, fig. 2)

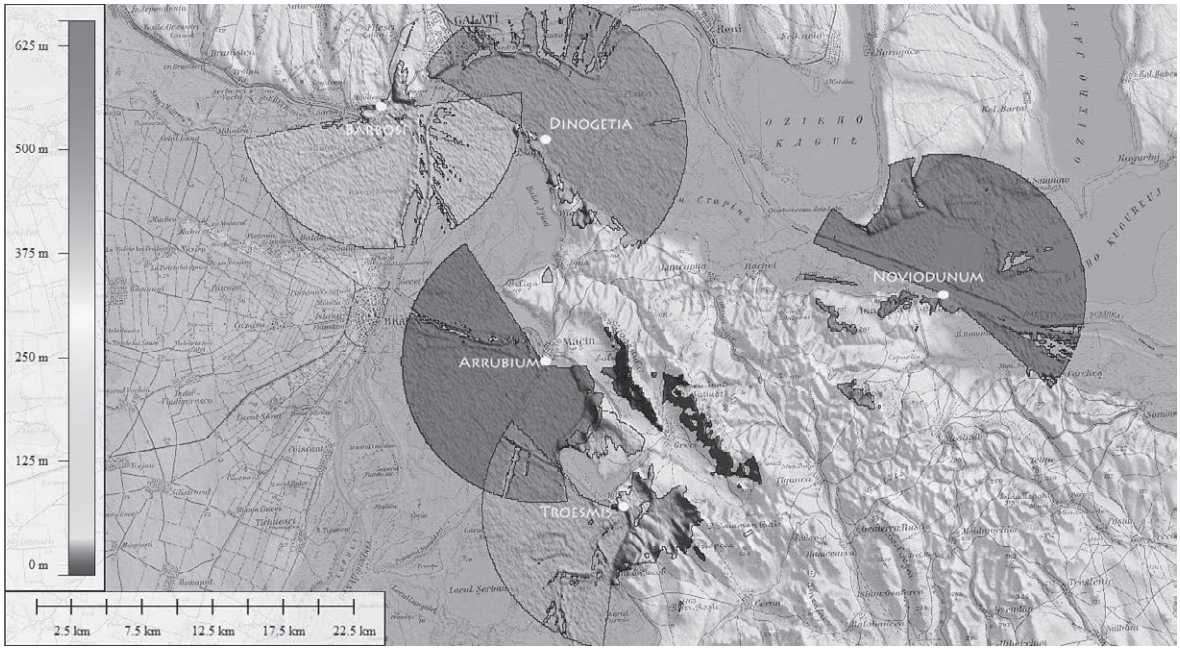


Fig. 2. Roman forts along the Danube curvature and their intervisibility

veys and surface measurements in various areas of Dobruja. These data were most likely included in *Marele dicţionar geografic al României (The Great Geographical Dictionary of Romania)*, co-authored by Tocilescu and published in 1901 (Lahovari et al. 1901, 339), in the section referring to *Dealul Milan (Milan Hill)* (local toponym of the hill onto which the discussed fort lay). Dealul Milan is a 48 m high rocky formation. From its top, among others, the forts at Garvăn (*Dinogetia*) and Galaţi (Barboşi) were visible. The author of the note hypothesised on the existence of a Roman fort, also reporting that no inscriptions were discovered following the performed excavations (*"not for this purpose [...] of re-*

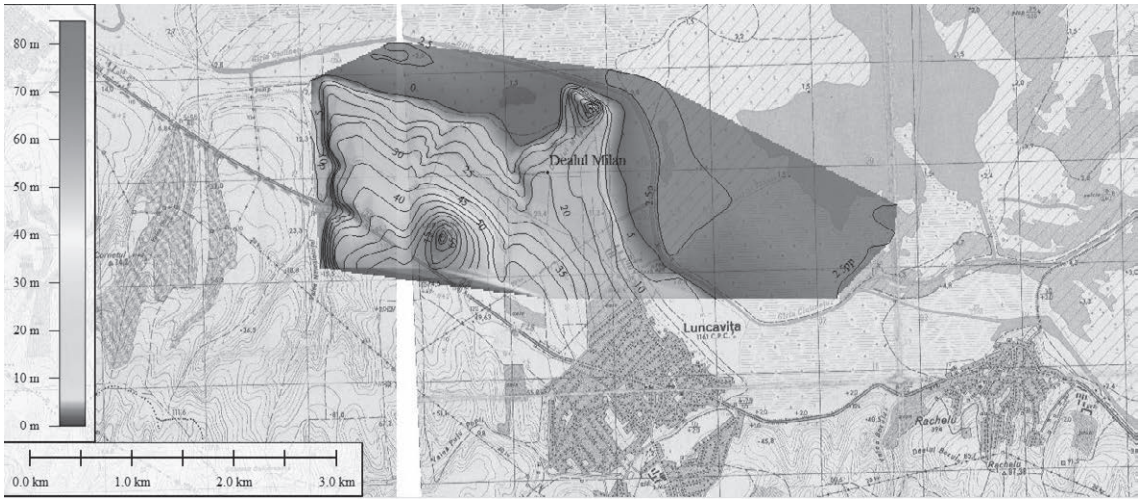


Fig. 3. Location of the fort on Milan hill compared to that of the modern settlement at Luncaviţa (Tulcea county)

moving stone for house building"); which made him conclude that most likely, a Turkish fortification was located there.

The pointing out of a fortification in archaeological repertories concerning the limes during the Principate was made up to now without any novel data provided by the respective texts compared to Polonic's plans.

Within a project, which aimed at documenting Roman borders in Romania, we investigated the Roman territory from Galaţi and related areas as a case study (*STRATEG. Defensive strategies and cross border policies. Integration of the Lower Danube area in the Roman civilization*, further details available at www.strateg.org.ro). The detailed examination of the orthophotoplans (**fig. 6**) and maps evidenced a much more complex situation than that already known from publications. We analysed in detail this matter by increasing the resolution of the relevant satellite images and using oblique aerial photos and a partial 3D scanning of the site. The scanning of the south-western area of the fort and the processing of the data resulted from this preliminary investigation was carried out by Bogdan Venedict, whom we thank this way too. On this occasion, survey measures were taken and main objectives were photographed. During the aerial reconnaissance of the area between *Troesmis* and *Halmyris,* Ioana A. Oltean (University of Exeter) and W. S. Hanson (University of Glasgow) took some aerial photos in July 2008 (**fig. 5**). The publication of the results is a preliminary one, being the starting point for a future project aiming at a more thorough research of the fort and its main objectives.

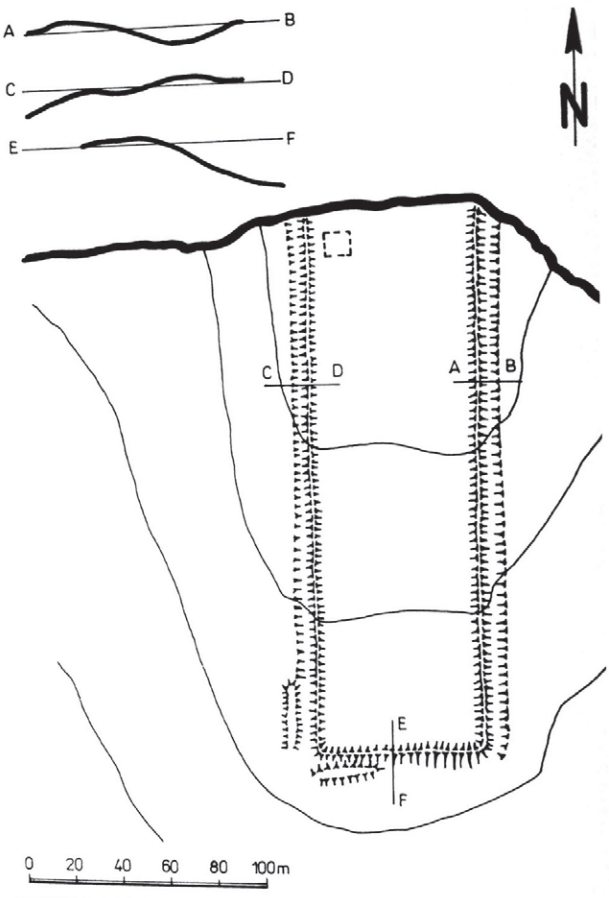


Fig. 4. Luncaviţa fort according to the plan drawn by P. Polonic (Tocilescu 1898, 100-101)

Which are thus the main data?

The outlines of the enclosure walls and those of certain inner buildings are clearly visible on the negatives of the walls removal trenches (**fig. 5**). Without being able to draw a very accurate plan, we succeeded in rendering part of the fort layout and



Fig. 5. Oblique aerial photography taken in July 2008 (Ioana A. Oltean, W. S. Hanson – STRATEG project archive)

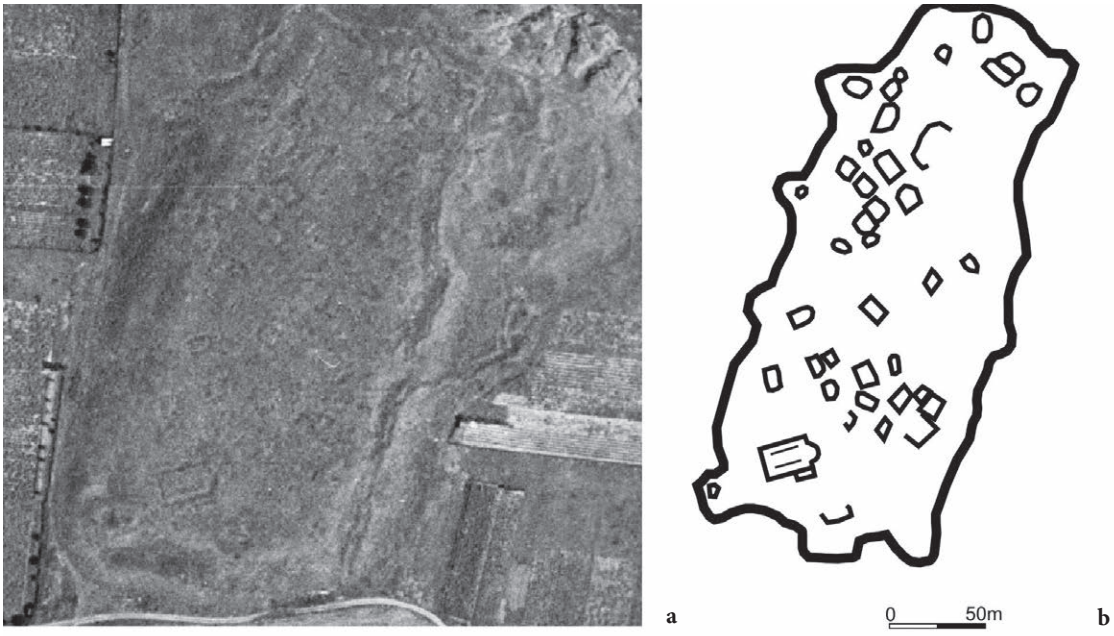


Fig. 6. a. Orthophotoplan (ANCPI – Agency for National Cadastre and Real Estate Publicity); b. Luncaviţa fort layout

some of the inner buildings. The deviation correlation had no major influence on the layout of the entire fort. Walls removal trenches were dug along them, tracing one of the walls sides. The quantity of earth disposed of following such works is not high, thus our observations were not much disrupted. Not the same applies to the case of cleaning up the enclosure walls. Their outlines are hardly noticeable, namely the watchtowers and gates. As previously mentioned, these works were carried out prior to the beginning of 20th century. The enclosure shape is rectangular, being almost double in length compared to the width (**fig. 7**), which also shows on Polonic's plans.

The long side, oriented north-south is 237 m long and the short varies between 87 m (northern side) and 93 m (southern side). Watchtowers and gate towers are noticeable on the eastern, southern and western sides and in the corners. The south-western tower is best visible. Three towers may be seen on each of the long sides, the gates area being only supposed. Their shape cannot be defined with precision, however they most likely must have been in a horseshoe shape, which is the most frequent tower shape in the Lower Danube area (Scythia), for instance at *Dinogetia, Capidava, Halmyris*, yet the U-shape cannot be excluded either.

A good analogy for the shape and dating of the fort is *Egeta*/Brza Palanka – *castellum* II – Dacia Ripensis (Băjenaru 2010, 199 #28, 295, pl. 65/ 277, 278). Other shape analogies may be established with Vodno – "Markovi Kuli" (Dardania, near *Scupi*) (Băjenaru 2010, 47, 220, 249 pl. 10/37); Ram / *Lederata* (Băjenaru 2010, 222, 269, pl. 39/224 [2]), Bushati (Băjenaru 2010, 218, 239, pl. 9/30), however smaller. Analogies with the forts in closer areas may be made only in terms of surface and certain aspects related to the internal planning: *Dinogetia* (Barnea 1986, fig. 3), *Troesmis*, the western fortress (Tocilescu 1882, 105), *Salsovia* (Haynes et al. 2007, 135, fig. 3). None of the above analogies though have enough common elements with our case that would support any furthering of the discussion for the time being.

A number of over 30 prints delimited by stone removal trenches may be seen inside the fortification, from buildings belonging to the last inhabitancy stage there. Some are irregular in shape, ovoid, yet

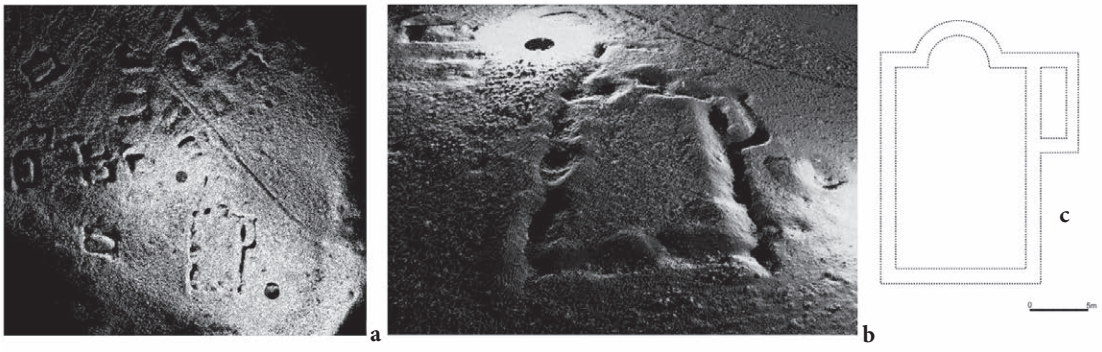


Fig. 7. Early Christian church at Luncaviţa. a. 3D scanning; b. 3D scanning – detail; c. Hypothetical reconstruction of the layout



Fig. 8. Early Christian church at Luncaviţa – photo during the 3D scanning

the majority are rectangular. By analogy to the well known circumstances in *Capidava,* this is a fortified settlement of huts, overlapping the internal structures of the 5th-7th century Romano-Byzantine fortification (Florescu 1958, 138-152; Florescu 2001).

Among these vestiges a church located in the south-western side of the fortification is distinguishable. It (**fig. 8-10**) has a rectangular nave, very likely made up of a single aisle, which together with the altar apse evidences the total building length (measured onto the axis oriented east-west) to 19 m. Its width is 11 m. Sizes were calculated on the outer part of the trenches for the walls' cleaning up. In the central part on the western side becomes apparent a rather well marked curve, which must pertain to the building apse. A rectangular additional building is obvious close to the south-eastern corner, attached to the southern side. No prints of any internal divisions of the aisles or other details are noticeable. The best analogy is the church at *Capidava*, datable to the 6th century AD (Achim / Opriş 2010, 528, 533 fig. 3).

Another analogy for this building is found at *Dinogetia*, with size and proportions very much alike, similarly to the location of the building in the south-western corner of the fort (Barnea 1986, fig. 3). Additionally, at *Troesmis*, in the western fort, there is the basilica II, an edifice located north to the so-called Episcopalian basilica, resembling that in our case (Tocilescu 1882, 105; Barnea 1948, 229, fig. 9). Below, we shall mention a few other analogies in a more recent work for easy examination: *Nicopolis ad Istrum* (Atanasov 2012, 344, fig. 13), St. Cyril (Golesh) (Atanasov 2012, 347, fig. 15), *Durostorum* (Atanasov 2012, 367, fig. 18), *Abritus* (Atanasov 2012, 367, fig. 19), Boljetin/Smorna (Băjenaru 2010, 100, 222, #48, pl. 48/242)**.**

According to the fort features restorable upon the data available to the moment, we may argue that in the Late Roman period Luncaviţa becomes a pillar of strength between *Noviodunum* and *Dinogetia.* The *quadriburgium* type fort at Rachelu (Zahariade 1999, 202) is an intermediary insertion from the Tetrarchic period, meant to support the activity of the fort at Luncaviţa. The ancient name of the fort is unknown for now and there is no record on any of the troops garrisoned there.

A detailed analysis of the materials discovered there over time as well as of all data registered in the field would bring additional information on its history. We argue that the Late Roman fort overlapped a fortification of the Principate; the elements of both defensive structures are yet to be identified. These must have fulfilled an important function in both monitoring the afferent frontier sector, as well as in connecting the forts located close to the Danube curvature, since visibility from hill Milan was very good.

Bibliography

Achim, I. / Opriş, I. C. 2010. Loca sancta Scythiae: l'église paléochrétienne de Capidava, un monument délaissé. In: Angelescu, M. V. / Achim, I. / Bâltâc, A. / Rusu-Bolindeţ, V. / Bottez, V. (eds.). Antiquitas istro-pontica. Mélanges d'archéologie et d'histoire ancienne offerts à Alexandru Suceveanu. Cluj-Napoca. 521-534.

Atanasov, G. 2012. Christianity along the Lower Danube in the Roman Provinces of Dacia Ripensis, Moesia Secunda and Scythia Minor (4th – 6th c. AD). In. Vagalinski, L. / Sharankov, N. / Torbatov, S. (eds.). The Lower Danube Roman Limes (1st– 6th C. AD). Sofia. 327-380.

Barnea, Al. 1986. La fortresse de Dinogetia à la lumière de dernières fouilles archéologiques. In: Studien zu den Militärgrenzen Roms III. Akten des 13. Internationalen Limeskongresses Aalen 1983. Stuttgart. 447-450.

Barnea, I. 1996. Luncaviţa. Enciclopedia Arheologiei şi Istoriei Vechi Româneşti, vol. II**. 334.**

Florescu, Gr. 1958. Locuinţele. In: Florescu, Gr. / Florescu, R. / Diaconu, P. (eds.). Capidava. Monografie arheologică. Bucharest. 138-152.

Florescu, R. 2001. Bordeiul medio-bizantin de la Capidava şi rolul său în viaţa familiilor de stratiotai <http://www.capidava.ro/publicatii.php#2>

Băjenaru, C. 2010. Minor Fortifications in the Balkan-Danubian Area from Diocletian to Justinian. Cluj-Napoca.

Gudea, N. 2005. Der untermoesische Donaulimes und die Verteidigung der moesischen Nord- und Westküste des Schwarzen Meeres. Limes et Litus Moesiae inferioris (86-275 n. Chr.). – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 52, 319-566.

Haynes, I. / Bogdan, D. / Topoleanu, F. 2007. Salsovia: A Roman Fort and Town on the Lower Danube. The Lower Danube in Antiquity (6th Century BC – 6th Century AD). In. Vagalinski, L. F. (ed.). International Archaeological Conference Bulgaria-Tutrakan, 6.-7.10.2005. Sofia. 131-140.

Lahovari, G. I. / Brătianu, I. C. / Tocilescu, G. G. 1901. Milanul. Marele dicţionar geografic al României alcătuit şi prelucrat după dicţionarele parţiale pe judeţe. 4. Bucharest. 339.

Poenaru-Bordea, Gh. / Ocheşeanu, R. 1992-1993. Un tezaur de denari romani din secolul I p. Chr. de la Rechelu şi câteva descoperiri monetare izolate din comuna Luncaviţa, jud. Tulcea (Un trésor de dénars romains du Ier siecle apres J. C. de Rachelu et quelques découvertes monétaires isolées de la commune de Luncaviţa). – Buletinul Societatii Numismatice Române 1992-1993 [1996], 86-87, 140-141, 77-94.

Polonic, P. 1935. Cetăţile antice de pe malul drept al Dunării

(Dobrogea) până la gurile ei. – Natura 24, 18-36.

Tocilescu, Gr. G. 1898. Tocilescu, mss. rom. 513 [Romanian Academy Library], 1898 [5132] mss. 100-101.

Tocilescu, Gr. G. 1882. Monumente epigrafice şi sculpturale din Dobrogea. – Revista pentru istorie, arheologie si filologie 1, 97-132.

Ţentea, O. / Oltean, I. A. 2009. The Lower Danube Roman Limes at Galaţi (Romania). Recent results from excavation and aerial photographic interpretation. In: Morillo, A. / Hanel, N. / Martín, E. (eds.). Limes 20: Estudios sobre la Frontera Romana, Roman Frontier Studies, vol. III, Anejos de Gladius 13, León, Spain, September 2006. Madrid.1515-1524.

Zahariade, M. 2006. Scythia Minor. A History of a Later Roman Province (284–681). Amsterdam.

Zahariade, M. 1999. The Roman Frontier in Scythia Minor (1980-1995). In: Gudea, N. (ed.). Proceedings of the XVIIth International Congress of Roman Frontier Studies, Zalău 1997. Zalău. 199-213.

Zahariade, M. / Gudea, N. 1997. The Fortifications of Lower Moesia (AD 86-275). Amsterdam.

Dr. Ovidiu Ţentea
National Museum of Romanian History
12 Calea Victoriei St.
RO-030026 Bucharest
ovidiu.tentea@gmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Archaeological Monuments at the North-Balkan Periphery of the Roman Empire in Old Cartography

Dragoș MĂNDESCU / Ion DUMITRESCU

Our paper[1] tries to display from the perspective of history of archeology the image of the archaeological monuments from the Balkan boundaries of the Roman world as it was perceived in old maps, until the dawn of modern cartography in the second half of the 19th c. For some of these Roman archaeological monuments, the old maps were their first historical mention and the first episode of their research. On the other hand, these cartographic documents, less studied so far (Croitoru 2007, 114-120), provide a clear view of how scholars of late-medieval and early-modern period have referred to the ancient relics of Eastern Europe, still unaware of its Roman heritage.

Already in the second half of the 16th c., many of the maps included by Abraham Ortelius in his atlas *Theatrum Orbis Terrarum* contained clear references to some Roman monuments in the northern Balkans, the most common being the Trajan's Bridge from *Drobeta*. The localities having Roman ruins are dotted fair enough such as Ulpia Traiana Sarimizegetusa, Apulum, Porolissum, Ratiaria and so on, but in the works of this period there is not necessarily a cartographic accuracy, since at that time the emphasis was on the beauty of the map, the execution on the cartridge, and less on precision. The map of Transylvania by Johanes Sambucus (1566) or the map of Dacia and Moesia (1595) (Ciortan et al. 2004, 34-35, 122-123) are good examples in this respect.

A huge step forward in mapping the northern Balkan area was the establishment of the Habsburg domination in Transylvania at the end of the 17th c. A very elaborate map of Transylvania made by Giovanni Morando Visconti for the imperial new administration was printed in Sibiu in 1699 (Plihál 2000). In this map, not only most places with ruins in Transylvania were marked as *Citta Romana* or *Castrametatione Romana* such as Apulum or Porolissum, but also some Roman monuments south of the Carpathians, such as castra from *Arutela*-"Poiana Bivolari" and Câmpulung-"Jidova", were represented for the first time (**fig. 1**) (Măndescu 2012, 108-112, fig. 13-14).

One year later, in 1700, the map of Wallachia was printed in Padua. It was drawn up by the High Steward of Wallachia, Constantin Cantacuzino, so, a local and very familiar with the country and its history. The map gives some important archaeological details such as the ruins of the Trajan's Bridge from *Drobeta* and also of the bridge from *Sucidava*-Celei. In this map for the first time the *Limes Alutanus* is pointed out as a Roman road of stone, attributed to Emperor Trajan, which starts from the Danube and forward to the north, along the Olt River (Giurescu 1943, 20-22).

Also at the end of the 17th c., the Bolognese soldier and *virtuoso* Luigi Ferdinando de Marsigli, serving the Habsburg Empire, carried out an intense activity of field mapping of the northern Balkan area. His work provides the most complete picture upon the Roman antiquities from the northern Balkans (Stoye 1994, 61-101, 277-310). Marsigli's and his collaborator, Johann Christoph Müller, drawings, sketches and maps accurately recorded the Roman ruins, camps, towns, roads, and fortifications (Kisari Balla 2005; Deák 2006). But his great work, *Danubiuis Pannonico-Mysicus*, was published in Holland only more than a quarter of a century later, in 1726. Numerous other sketches and maps were left in manuscript.

[1] This work was supported by a grant of the Romanian National Authority for Scientific Research, CNCS-UEFISCDI, project number PN-II-RU-TE-2011-3-0078.

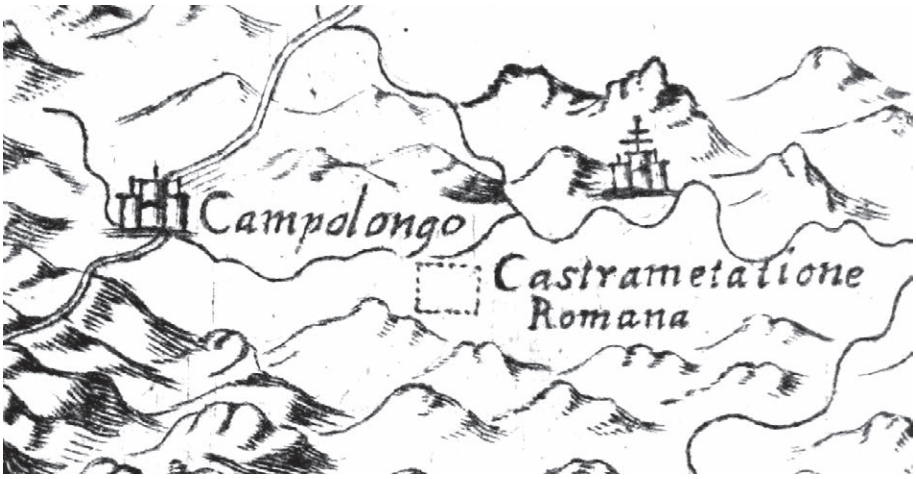


Fig. 1. Giovanni Morando Visconti, *Mappa della Transiluania*, Hermannstadt (Sibiu), 1699. Detail showing the first cartographic attestation of the "Jidova" Roman station nearby Câmpulung. Brukenthal Library in Sibiu. Photo by D. Măndescu

But until the great work of Marsigli to be published, much of its archaeological information was disseminated through the maps of Hungary and neighboring countries printed in Paris starting in the first years of the 18th c. by the French cartographer Guillaume Delisle (Szántai 1996, 142; Szántai 2004). On Delisle's map, for example, albeit very approximately, the old Roman roads in Wallachia and the places of some Roman cities were marked such as Romula: *Antina, ou il y a beaucoup des ruines.*

In the early 18th c., Dimitrie Cantemir was the first one to discuss the furrows from Tisa's Field and Wallachia and Moldova. He considered these furrows (which in his opinion started at Petrovaradin, in Vojvodina) a unitary system of fortifications built as a shield against the barbarians. He considered the Emperor Trajan to be their founder and called them all *Fossa Trajani imperatoris* (Nicolaescu-Plopșor 1927, 71).

Cantemir's opinion was certainly influenced by the tradition that the inhabitants of the three provinces – Banat, Wallachia and Moldova – kept alive; they called such type of fortifications "Trojans", from the name of the emperor. They are firstly mentioned in the Medieval documents (DRH Moldova 1980, 50, 201, 285; Croitoru 2007, 83-95) and then in the notes of some foreign travelers, for whom the furrows represented a curiosity (Călători străini 1997, 142; Croitoru 2007, 57-69). This tradition, according to which some of the buildings had Trajan as a founder, has older origins, even in the late Antiquity, when the Byzantine authors remarked that the population from the Lower Danube still kept the memory of the emperor alive (Petolescu 2007, 72).

Dimitrie Cantemir even drawed a map of Moldova, printed for the first time in Leipzig in 1716, then in Amsterdam in 1737 (Dimancesco 1934-1935, pl. 132). On this map, in the southern part of the country, the author drawed a furrow called *Via Trajani*. The drawing of the furrow was the product of fantasy, a continuous line being drawn from Siret to Dniester, although in reality the Leova – Kopanka furrow, which eastern end finishes at the Dniester's shore, to the south of the nowadays town of Bender, was not built as a prolongation of the Traian – Tulucești furrow (the furrow of Galaţi) (Vulpe 1974, 273-274, fig. 1; Croitoru 2004, 80-90).

The Cantemir's map constituted an important source for the maps further edited. The most convincing example is Georges Louis de Rouge, who in August 1770 in Paris published *Carte de la Moldavie dressée sur celle du Prince Cantemir*. As expected, the furrow from southern Moldova was drawn like the one from the Cantemir's map, the only difference being the French translation of the name of the fortification, i.e. *Voye Trajane.*

In the same imaginative manner these furrows were drawn on the map *Troisième partie de la Carte d'Europe contenant le midi de la Russie, la Pologne la Turquie y compris celle d'Asie presqu'entière*, by Jean-Baptiste Bourgignon d'Anville's. This map was published in Amsterdam in 1760. In fact, d'Anville used as a source the same map of Cantemir's, as he himself admitted: "the prince Antiochus Cantemir allowed me, the Russian ambassador to the king, to copy entirely the map drawn by Demetrius Cantemir, his father, when he led this province as a Hospodar or Voivode" (quoted in Popescu-Spineni 1978, 192).

In the same year Emmanuel Bowen printed "The Large English Atlas". Before editing this work, Bowen had drawn individual maps that he published during the period 1749-1760. On the map "A new and accurate map of Turky in Europe with the adjacent Countries of Hungary, Little Tartary etc., collected from the best authorities" (Dimancesco 1934-1935, Pl. 134), is mentioned the city of Roman as Roman-wazar (using the Hungarian name of the city, Románvásár), but much further south than it actually is. It is possible that this unexplained displacement to southern Moldova has been influenced by the presence here of Roman archaeological remains, such as "Traian – Tulucești Furrow" or "the furrow of Galați" (Vulpe 1974, 275-276) to which Bowen seeks to bind the Roman resonance name of a known city.

At the end of the 18th c., in the period of the Russian-Austrian-Turkish wars, the first topographic maps were drawn, as a consequence of the necessity of the three powers to better know the topography of the Romanian Principalities where their military operations took place.

Two such maps representing the southern and eastern Carpathians area were drawn, one for Moldova in 1781, created by Friedrich Wilhelm von Bauer and another one by Obristen Specht for Wallachia, in 1790-1791.

The Friedrich Wilhelm von Bauer's map was drawn during the Russian-Turkish war from 1769-1774 and was published in 1781 with the title *Carte de la Moldavie pour servir à l'Histoire militaire de la guerre entre les Russes et les Turcs* (Dimancesco 1934-1935, Pl. 139-141). It was printed in Amsterdam by the engraver Jean von Schley. Six plates formed the cartographic document; the scale is about 1:288000; it is rather accurately drawn. The measurements were carried by the Russian army in the field, in 1769 (Popescu-Spineni 1978, 190-191).

On the Bauer's map the furrows Traian – Tulucești and Vadul lui Isac – Sasâc Lake are drawn. Two parallel dotted lines represent the route. By comparing the Bauer's map and the Austrian military one published in 1910, it is clear that the route of the "Traian – Tulucești Furrow" is slightly deviated, while the western end of the "Vadul lui Isac – Sasâc Lake Furrow" is wrongly situated at the north of the village Colibași (nowadays in the Cahul County, Republic of Moldova), the rest of the furrow following the correct line (except a few deviations, caused of course by the measurement system applied during the 18th c., more precarious than the one used at the beginning of the 20th c. when the Austrian map was drawn).

The Bauer's map influenced the ulterior cartographic creations. Thus, on the F. C. Rhode's map, *Trium Magnorum Imperiorum Austriaci, Russici et Osmanici* composed by six plates and published in 1785 in Amsterdam, the "Traian – Tulucești Furrow" is drawn as a sector separated by one of the furrows from Basarabia, its eastern end being placed in the north of Brateşu Lake, as it is drawn on the Bauer's map. Beyond the Prut, only a part of "Vadul lui Isac – Sasâc Lake Furrow" is drawn, namely, the segment from Vadul lui Isac to Tobak. It is interesting that on this map the "Traian – Tulucești Furrow" is drawn as a continuation of the furrow known in the literature as "The Northern Novac's Furrow" which crosses Oltenia and Wallachia from Drobeta-Turnu Severin to Ploiești. The two fortifications bear the name *Fossa Trajani oder Avarische Landwehr.*

The one who used the name *Fossa Traiani oder Avarische Landwehr* for the big furrow crossing Wallachia west to east was Jakob Adam. In 1781 (few years before F. C. Rhode), he published *Karte der Wallachei* (**fig. 2**). The map of Jakob Adam's is an annex to the work of Franz Joseph Sulzer, *Geschichte des transalpinischen Daciens* (Wien, 1781-1782), in which the author discussed in a big chapter the issue of the furrows from the Tisa's Field and Wallachia and the southern Moldova. Thus, the representation on a map of this furrow is explained.

Franz Joseph Sulzer contradicts Dimitrie Cantemir, who considered these furrows foundation of Emperor Trajan. Sulzer bases his opinion on the information offered by the anonymous medieval chronicler from Saint Gall, who considered the Avars as the constructors of theses furrows; it is an opinion which also influenced the cartographic toponymy (Nicolaescu-Plopşor 1927, 72-75).

On the Jakob Adam's map, the big furrow from Wallachia, "The Northern Novac's Furrow" (Croitoru 2004, 40-59) began from the Danube's shore from the south of the village Humova, which is the actual village Hinova (nowadays in Mehedinți County) and continued to the north of Cocoz (Cacoți, nowa-

[2] Actually, the furrow crossed much southern from the village Cocoți (see Vlădescu 1977, 81, fig. 11).

[3] The village of Predeşti is wrongly mapped, far north of Craiova. In fact, this village is located in the north-west section of Craiova and the furrow passes south of the village (see Vlădescu et al. 1978, 164).



Fig. 2. Jakob Adam, *Karte der Wallachei*, Wien, 1781. The first cartographic attestation of "The Northern Novac's Furrow". Romanian Academy Library in Bucharest. Photo by I. Dumitrescu

days Izvorul de Jos, Mehedinți County[2]), Cârna, Predești (nowadays in Dolj County, in the vicinity of Craiova)[3], to the south of Slatina, then to the north of Burlițe, Sapora, Stănislăvești (nowadays in Olt County[4]), Zuzeo(?), in the south of Petroia (Pătroia, Dâmbovița County), Târgoviște, to the north of Tătărani (a village in Prahova County), through Ploiești, to the north of Urlat (a corrupted form of the name of the village Urlați, Prahova County), Lipii (a disappeared hamlet from Buzău County), Scurtești (nowadays in the parish Vadu Pești, Buzău County), Ovidiț (?), Măxineni, it continued over the Siret River and stopped at Trajan, wrongly placed over the Prut River.

The Jakob Adam map was later used as a trusted source for other maps. Firstly by F. C. Rohde, who copied it entirely in order to draw the Wallachia area, then by C. L. Thomas. The latter published in 1788, *Carte von Schauplatz des Krieges die Maldau, Carte von Schauplatz des Krieges die Maldau, Wallachay, Bulgarien, Bosnien, Servien, Dalmatien, Basarabien, die Crimm einen Theile des Russischen Reichs und des Königsreichs Polen, Gallizien, ganz Hungern, Bukowina, Siebenbürgen, Slovenien, einem Theil von Österreich, Mähren, Schlesien verfertigt durch C. L. Thomas, Ingenieur und Geograph zu Frankfurt-am-Mein bey welchem diese Carte zu finden ist 1788.* It is drawn using a bigger scale than that used by Jakob Adam and F. C. Rhode. This is the reason why fewer localities are drawn on it. The C. L. Thomas's map shows the area where the Austro-Russian-Turkish war took place in 1787-1792. The name used for the furrow is *Fossa Taraiani oder Avarische Landwehr.* The only difference by comparison to the Jakob Adam's map is seen in the part of the furrow from the east of the Siret; from here to the Tobak Lake the route is drawn as on the Bauer's (1781) and Rhode's (1785) maps.

Trajanishe Strasse oder Avarische Landwehr is the name given to the furrow on the Abbé Max Schimek's map, *Österreichisch – Russisch – Türkischer Kriegsatlas*. The cartographic document was print-

[4] Here the furrow passes south of the village, not north.

ed in 1788 on twelve colored plates. In order to draw the Wallachia area the author seemed to have used the map of d'Anville's (Popescu-Spineni 1978, 198). Unlike the C. L. Thomas's map, more localities are drawn on the Schimek's map, because of the smallest scale of the second one. "The Northern Novac's Furrow" and the furrows from southern Moldova and Basarabia are represented as a continuous line which begins from the Danube and finishes to the Dniester's shore. The author, influenced by d'Anville, shares the Dimitrie Cantemir's opinion.

Like on the C. L. Thomas' map, the furrow begins from the front of Ostrov Island, more exactly to the south of the village Kiokowa (Hinova). Up to the river Jiu, the furrow follows a SE-NW oriented route crossing to the north of the village Drivița and to the south of Filiaș. Beyond the Jiu, the furrow followed a NE direction crossing to the north of Craiova, to the south of the localities Spin, Palota, Cepturoia (?), to the north of Brâncoveni (Olt County), and continued over the Olt crossing the area from the south of Slatina, to the north of the villages Șerbănești (nowadays in Olt County) and Slăvești, through Costești, then it crosses the Argeș River to the south of the village Buteroia (Pătroia, Dâmbovița County) and continues to the south of Târgoviște, Marzinan (probably Mărgineni, Prahova County), to the north of Ploiești, south of Buzău and Râmnic (Râmnicu Sărat), then directed to the SE following a route parallel to the Buzău River up to Măxineni. Over the Siret, the furrow is drawn in the same manner as on the d'Anville's and Philipe Louis le Rouge's maps, i.e. following a NE direction, to the south of the village Predești, to the north of Akkerman, through Sălcuța to the north of Căușani.

Though from a topographical viewpoint the route of "The Northern Novac's Furrow" pictured on these maps suffers some deviations, its western end is situated to the south of the village Hinova, at the same point where it was identified by Pamfil Polonic in the last decade of the 19th c. (Tocilescu 1900, the map *La Dacie Romaine*). It is possible that the furrow continued beyond the eastern side of Ploiești up to the Danube, an argument for this hypothesis being the drawing of this sector of the furrow on all the four aforesaid maps. In fact, the continuation of the furrow beyond Ploiești was intuited by Pamfil Polonic, who identified it along some parts at Tufești and Viziru (Brăila County) (Tudor 1978, 247).

Unlike the other linear earth fortifications from the Lower Danube, "Troianul" [= "The Trojan"] (this is the name given in the literature to the Roman *vallum* built in Western Wallachia, in the front of the camps along the *Limes Transalutanus*) is figured on maps only at the end of the 18th c., especially on military maps.

"Troianul" is drawn for the first time on the Obristen Specht's manuscript map (1790-1791). Here, it is called *Trajanische Landwehr*. The complete title of the map of the colonel Specht is *Militairische Carte der Kleinen oder Österreichischen und Grossen Wallachei,* and it is formed by 108 plates at a scale of about 1:57000. Like Bauer's map, it was drawn conformable to the military measurements effected in the field (Năstase / Osaci-Costache 2005, 20-21). "Troianul" is drawn on two plates. It begins at Turnu and ends near the Vedea River, to the north of Scrioaștea. A Roman camp is situated to its end, certainly the one from Gresia. A second Roman camp is drawn in an upper position, at Crâmpoia[5]. The Roman camps are drawn in the manner of Vauban type fortresses and are marked as *Römer Schanz* (**fig. 3**).

The southern end of the furrow was wrongly positioned at Turnu Măgurele, but the northern one was very correctly drawn (as we have mentioned, its end is drawn near Gresia; it does not reach the Vedea River's shore). It is the same situation noticed by Pamfil Polonic two centuries later, who wrote in the report of his researches that "…eastern Gresia "Troianul" ends near a clogged channel of the Vedea River", meaning that it did not reach the river's shore (Polonic 1900-1901, 262f.).

The fact that on the Specht's map between the Roman camps from Gresia and Crâmpoia the earth wave no longer appears (Polonic did not find it there too), confirms the Ioana Bogdan-Cătăniciu's assumption (1997, 82-83), who said that in this sector the furrow was replaced by the flow of the Vedea River. Pamfil Polonic thought that in the mentioned area the furrow was destroyed by the waters of the Vedea River (Polonic 1900-1901, 262f.). Don't forget that in 1790-1791, when Specht drew up his map, the route of the furrow must have been clearly visible, as long as it was not affected by the agricultural works.

"Troianul" is drawn in the same manner and bears the same name on the Franz von Weiss' map, *Carte der Europaeischen Türkei nebst einem Theile von Kleinasien.* Weiss was a cartographer officer

[5] Prepared by the High Command of Austrian Army in the late 18th c., this manuscript map was never printed. An original exemplar studied by us is kept by the Romanian Academy Library in Bucharest (inventory # H 1003).



Fig. 3. Colonel Obristen Specht, *Militairische Carte der Kleinen oder Österreichischen und Grossen Wallachei*, manuscript map, 1790-1791. Detail showing the Roman camp at Crâmpoia. Romanian Academy Library in Bucharest. Photo by I. Dumitrescu

of the Austrian army and his map has 21 plates. Although it was drawn at a big scale (1:563000), the map represents rather accurately the hydrographical network and the roads, and this is why the British army used it regularly during the Crimean War. It was printed in 1829 in Wien and re-edited in 200 copies in 1854 by the English major Thomas Best Jervis (Ploutoglou et al. 2011, 29-30). "Troianul" is drawn like a road on plates 5 and 8.

Joseph Ritter von Scheda was an Austrian geographer and cartographer, member of the Military Geographic Institute from Wien. "Troianul" is drawn on two of his maps. The first map, *Generalkarte von Europe*, was printed in Wien in the period 1845-1847 (25 plates at the scale of 1:2920000). "Troianul" is drawn on plate 19. It is represented in the same manner as on the previous maps, Specht and Weiss respectively, i.e. with the name *Trajanische Landwehr*, while its route coincides with that of the road from Turnu Măgurele to Roșiori de Vede. The second map, *Generalkarte des österreichischen Kaiserstaates mit einem großen Theile der angrenzenden Länder* (20 plates), has a military character and its scale is smaller than the first one – 1:576000. It was published in 1856 and it is drawn conformable to the field measurements which were performed in Oltenia and Wallachia in the period 1854-1855. In this map, "Troianul", called *Drum Trajanum* and *Trajans Landwehr*, is for the first time correctly drawn (on plates 15 and 20). Its route begins on the Danube shore, to the east of the village Flămânda (Teleorman County) and finishes at Ruşnianca (Valea Urluii). From the north of the village Adâncata to Ruşnianca the route of "Troianul" is superposed to the road from Turnu Măgurele to Roşiori de Vede (**fig. 4**).

A special map of Wallachia was also drawn based on the measurements performed in 1854-1855 by the Austrian army, reprinted by Carol Popp de Szathmáry in 1864 under the title *Charta României Meridionale*. It is a topographic map, formed by 112 plates numbered on columns and series; the scale is 1:57600 and the unit for the highs is the old Romanian "stânjen" (Ostaci-Coche 2000, 120; Popescu-Spineni 1978, 228).

On three plates, column 6, series 8-10, "Troianul" is drawn; it is called *Drumul Troianului*. Its route is drawn in the same manner as the roads; it is presented as a continuous furrow from Flămânda to the north of Roşiori de Vede. The map confirms that some parts of the furrow were used as a road. This fact could be observed in the following parts: first, to the north of Ciuperceni, where the road that began from Flămânda, crossed the respective village and ended in the furrow. Today, this road is used as field road; second, from eastern Băneasa, more exactly from the front of the two Roman camps, to Valea Adâncă (on the map it is called



Fig. 4. Joseph Ritter von Scheda, *Generalkarte des österreichischen Kaiserstaates mit einem großen Theile der angrenzenden Länder*, Wien, 1856. Detail showing the first correct mapping of the Limes Transalutanus' *vallum*. Romanian Academy Library in Bucharest. Photo by I. Dumitrescu



Fig. 5. Carol Popp de Szathmáry, *Charta României Meridionale*, Bucharest, 1864. Detail showing the two Roman camps at Băneasa. Romanian Academy Library in Bucharest. Photo by I. Dumitrescu

"Valea Adâncatu"), where the road that starts from Putineiu meets "Troianul". The superposing of the road upon the furrow between Băneasa and Valea Adâncă is not drawn on the Scheda's map from 1856. This difference is recorded probably because of the scales of the two maps, as long as the road from Băneasa to Valea Adâncă being of secondary importance by comparison to the sector from Valea Adâncă and Roşiori de Vede, which was a link between this locality and the town Turnu Măgurele. This sector (Valea Adâncă – Roşiori) was partially used as a field road till the 20th c., a reality described by Pamfil Polonic (1900-1901, 263f.).

Like the Specht's map, the Szathmáry's map is a topographic one and it offers field details. This explains why some Roman camps from the *Limes Transalutanus* appear on it. At Putineiu the Roman camp is drawn as a square to the SE of the village, at Băneasa the two Roman camps are positioned to the east of the village. In both situations the *vallum* that enclosed the fortifications is only suggested. The manner of representation of the Roman camps from Băneasa (**fig. 5**) is not at all quite different from the topographic sketches of Pamfil Polonic (1900-1901, 140-141f.; Tocilescu 1900, fig. 66, 74). The big Roman camp from Băneasa is divided in two parts by a *vallum* (?), just like Polonic will sketch it. At Crâmpoia, the Roman camp is drawn to the east of the village, both the *vallum* and the *fossa* that enclosed the fortification being suggested (Tocilescu 1900, fig. 69). Though the Roman camp is not drawn at Valea Urluii, behind the furrow where it should be positioned a mound was drawn. No other Roman camps or furrows are drawn to the north of Crâmpoia locality.

With the Szathmáry's episode we dive into a new stage of map-making, which goes beyond the boundaries of this topic. It's about modern cartography, more elaborate, which requires another kind of approach. Starting with the second half of the 19th c., the Roman archaeological monuments from the Lower Danube will be increasingly present in the mapped area, more and more precisely marked.

Bibliography

Bogdan-Cătăniciu, I. 1997. Muntenia în sistemul defensiv al Imperiului roman sec. I-III p.Chr. Alexandria.

Călători străini 1997. Călători străini despre Ţările Române, 9. Holban, M. (ed.). Bucureşti.

Ciortan, I. / Radu, M. / Penda, O. I. 2004. Descriptio Romaniae. Bucureşti

Croitoru, C. 2004. Fortificaţii liniare romane în stânga Dunării de Jos (secolele I-IV p.Chr.), 1. Galaţi.

Croitoru, C. 2007. Fortificaţii liniare romane în stânga Dunării de Jos, II (Terminologie relativă). Brăila.

Deák, A. A. 2006. Maps from under the Shadow of the Crescent Moon. Esztergom.

Dimancesco, D. 1934-1935. Monumenta cartographica Moldaviae, Valachiae et Transilvaniae. San Francisco.

DRH Moldova 1980. Documenta Romaniae Historica, A. Moldova, 3 (1487-1504). Pascu, Ş. / Ştefănescu, Ş. / Cihodaru, C. / Caproşu, I. / Ciocan, N. (eds.). Bucureşti.

Giurescu, C. C. 1943. Harta stolnicului Constantin Cantacuzino. O descriere a Munteniei la 1700. – Revista Istorică Română 13, 1, 1-26.

Kisari Balla, G. 2005. Marsigli tábornok terkepei / La mappe del generale Marsigli. Budapest.

Măndescu, D. 2012. "Jidova" înainte de Danubius Pannonico-Mysicus. Luigi Ferdinando Marsigli, cartografia militară habsburgică şi primele atestări ale castrului de piatră de lângă Câmpulung. In: Spaţiul vechii Dacii în reprezentări cartografice medievale şi moderne din patrimoniul Muzeului Judeţean Argeş. Un catalog al colecţiei Lelia şi Aureliu Popescu întocmit de Dragoş Măndescu. Piteşti. 93-115.

Năstase, A. / Osaci-Costache, G. 2005. Topografie şi cartografie. Bucureşti. Second edition.

Nicolaescu-Plopşor, C. 1927. Troianul: istoricul cercetărilor scriitorilor români şi străini cu privire la această chestiune (până la 1900). – Arhivele Olteniei 4, 69-80.

Oaci-Costache, G. 2000. Principalele hărţi ale Munteniei din perioada 1860-1980. Cu privire specială asupra Muşcelelor Argeşului. – Analele Universităţii Bucureşti (Geografie) 1, 120-128.

Petolescu, C. C. 2007. Contribuţii la istoria Daciei romane, 1. Bucureşti.

Plihál, K. 2000. G. M. Visconti Erdély térképe 1699-böl. – Cartographica Hungarica 7, 2-24.

Ploutoglou, N. / Boutoura, Ch. / Livieratos, E. / Pazarli, M. 2011. Franz von Weiss's maps of SE Europe (1821, 1829) issued in two crucial dates associated with the establishment of the modern Greek state in early 19th century: A digital comparative approach. – e-Perimetron 6, 1, 29-38.

Polonic, P. 1900-1901. Săpături arheologice la Jidova (Muscel), Troianul (Teleorman), Purcăreni (Muscel), corespondenţă oficială şi particulară în legătură cu semnalări arheologice, rapoarte ale lui Pamfil Polonic, ş.a. Manuscript, 357 ff., Romanian Academy Library, ms. rom. 5137.

Popescu-Spineni, M. 1978. România în izvoare geografice şi cartografice. Din antichitate până în pragul veacului nostru. Bucureşti.

Stoye, J. 1994. Marsigli's Europe. 1680-1730. The life and times of Luigi Ferdinando Marsigli, soldier and virtuoso. New Haven – London.

Szántai, L. 2004. Delisle 1703 – as Magyarország – térképének rejtélyei. – Cartographica Hungarica 7, 75-80.

Szántai, L. 1996. Atlas Hungaricus. Magyarország Nyomatott térképei. 1528-1850 (I). Budapest.

Tocilescu, Gr. 1900. Fouilles et recherches archéologiques en Roumanie. Communication faites à l'Académie des Inscription et Belles Lettres de Paris, 1892-1899. Bucureşti.

Tudor, D. 1978. Oltenia romană. Bucureşti. Fourth edition

Vlădescu, C. 1977. Noi observaţii asupra traseului Brazdei lui Novac de nord pe raza judeţului Mehedinţi. – Studii şi Materiale de Muzeografie şi Istorie Militară 10, 79-88.

Vlădescu, C. / Moghior, N. / Stoica, O. 1978. „Brazda lui Novac" pe teritoriul judeţului Dolj. – Studii şi Materiale de Muzeografie şi Istorie Militară 11, 153-165.

Vulpe, R. 1974. Les valla de la Wallachie, de la Basse-Moldavie et du Boudjak. In: Pippidi, D. M. (ed.). Actes du IXe Congrès International d'Études sur les Frontières Romaines, Mamaïa, 6-13 septembre 1972. Bucureşti / Köln / Wien. 267-276.

Dragoș Măndescu, PhD, MA
dragos_mandescu@yahoo.com

Ion Dumitrescu, PhD candidate
ion_dumitrescu09@yahoo.com

ARGEȘ COUNTY MUSEUM
44 Armand Călinescu St.
RO-110047 Pitești, Argeș County

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Remains of the Roman Fort at Kadykovka (Balaklava) in the Crimean Peninsula

Radosław KARASIEWICZ-SZCZYPIORSKI / Oleg Â. SAVELÂ / Radosław A. GAWROŃSKI / with contribution by Andreî A. FILIPPENKO

In the year 1992 at Kadykovka (a northern district of the city of Balaklava), the archaeologists working for the National Preserve "Tauric Chersonesos" from Sevastopol unearthed part of a building, and named it with the symbol "A". The small finds dated the structure to the first centuries AD. Later excavations of the nearby *Dolichenum* temple showed that the two buildings belonged to the same period and should be connected with the presence of the Roman garrisons on Tauric soil. The *Dolichenum* publication signaled the first hypothesis about the possible layout and the location of the Roman fort at Kadykovka. The building "A" was located *intra muros* of the supposed Roman fort (Sarnowski, Savelja 2000). From 2009 on, a joint Polish-Ukrainian archaeological expedition, under the guidance of the authors of the present paper, continues the research in order to establish the plan of the building "A" and to determine the layout of the supposed Roman fort (Karasiewicz-Szczypiorski / Savelâ 2011; 2012; 2013; 2014).

The Balaklava-Kadykovka fort was part of the highly developed system of defensive structures, located alongside the so-called Sapun-ridge (**fig. 1**). The Sapun-ridge has gentle western slopes, which descent in the direction of the ancient city of Tauric Chersonesos (now in the center of Sevastopol), and steep eastern slopes. Therefore, the Sapun-ridge forms a natural barrier that divides the Heraclean peninsula, on which the rural territory of the city of Tauric Chersonesos was located, from the distant eastern Inkermann and Balaklava valleys. The borderland area could have been easily observed and any hostile activity could have been detected sufficiently early from the towering ridge. More numerous Roman garrisons occupied the remote valleys and the distant Tauric Chersonesos or Balaklava-Kadykovka garrisons could not efficiently control the borderland areas. Therefore, the Romans decided to build a chain of watchtowers on the Sapun-ridge.

The research work of the Polish-Ukrainian archaeological expedition has discovered the remains of two Roman observation posts, similar in layout and dimensions (Sarnowski, Savelja, Karasiewicz-Szczypiorski 2002; 2007). At the post located in the northern ridge part (Kazatskaya hill – cf. **fig. 1-2**), the unearthed remains were considerably better preserved than at the tower from the so- called Kavkaz Bair, which was explored later. The Kavkaz post was badly damaged during the World War II and the land reclamation process after it. The towers from both sites had almost identical dimensions (about 7 x 7 m). Each of them was positioned in the middle of the post. Around them was a courtyard, surrounded by a curtain wall made of irregular stone blocks, joined with raw clay mortar. The wall was erected upon the surface of the contemporary soil, without any foundations. On the outer side of the wall, a V-shaped moat was added. The diameter of the enclosure measured about 25 m. The defenses at both sites probably differed a little. The Kavkaz walls, reconstructed on the basis of the remains of a moat, had a square layout. On the Kazatskaya hill some residential premises were built inside the enclosure. Further information about the research at both sites can be obtained from the earlier publications (Sarnowski / Savelja / Karasiewicz-Szczypiorski 2002; 2007; Wróbel / Piątkowska-Małecka / Karasiewicz-Szczypiorski 2008; Nessel 2011).

Each of the Sapun-ridge posts was designed for circular defense and there were no traces of a wall, which could have connected the posts or could have been built in their immediate foreground alongside the Sapun-ridge. In this regard, the research

at Kazatskaya Hill and Kavkaz Bair confirms earlier analysis, carried out on the basis of previous publications and excavation reports (Sarnowski, Kovalevskaja 2004, 46-47).

The posts in question were similarly designed and almost certainly built at the same time. Both towers have to be treated as neighboring elements of the same system. The Kazatskaya post served as its farthest northern element. The traces of the next tower were unearthed at the Kavkaz site; the place was located somewhat nearer to the Balaklava-Kadykovka fort. The crews from both towers were connected by the line of sight, yet even from the Kavkaz tower the nearest Balaklava-Kadykovka fort could not have been seen. The towers in question were built within two Roman miles from each other. Just another two Roman miles to the south, counting from the Kavkaz post, lies the southern end of the Sapun-ridge, called Karagatsch. From this part of the Sapun-ridge, the fort in Balaklava-Kadykovka can easily be seen. This is the place where the supposed third tower should have been located.

In 2008, the excavations were carried out at Karagatsch, in a place that mostly resembled the two previous sites (Karasiewicz-Szczypiorski 2008, 93-94). The result was negative. Although the remains of an unidentified stone structure were found, the method of construction and the accompanying pottery excluded the possibility that it had belonged to the remains of Roman tower. Small finds date the tower to the 8th century AD. Possibilities for selecting another place for further research are extremely limited because the majority of the land is now densely wooded or occupied.

Yet, an important argument for the existence of another tower is given by the 19th century Swiss traveler Frédéric Dubois de Montpéreux. According to his narrative, a square walled tower was built somewhere in the Karagatsch (Dubois de Montpéreux 1843, 189-190). It should be emphasized that his account about the other ancient remains in the rural territory of Chersonesos is quite reliable and gives a number of important details, confirmed by modern archeology.

The presence of a third tower would allow instant communication with the nearby Kadykovka fort and rapid transmission of any information about the enemy's approach. The terrain configuration, i.e. the Sapun-ridge elevation and deep gorges in its immediate hinterland, practically made any direct assault on the city of Chersonesos from the eastern direction impossible. The only convenient way to avoid the barrier required circumventing the hills from the south, which was associated with crossing the valley in the vicinity of the Balaklava-Kadykovka fort.

The system was in many respects unique, tailored to the specific local conditions and limited abilities of a small Roman garrison. For the Sapun-ridge towers it does not seem to be appropriate to look for analogies in the typical northern borders arrangements. The installations of the *Dacia Porolissensis* (Gudea 1997) or earlier arrangements known in Scotland under the modern name of the Gask Frontier (Fields / Spedaliere 2005, 20; Woolliscroft / Hoffmann 2006; Sarnowski / Savelja / Karasiewicz-Szczypiorski 2007, 67) may provide us with some point of reference. In these areas the towers were built without any reinforcements in the form of linear fortifications. In both cases, different ways of contact between posts were used. In Dacia, the forts were linked with several towers, closest by the line of sight; the posts were erected on the hills, suitable for overlooking the border areas (Gudea 1997, 15, Abb. 8). In the second case, the signal traveled along the protected path, from tower to tower, until it reached the nearest fort. Yet, the Dacian or Caledonian posts differ considerably from the ones known at Chersonesos. It seems that the closest analogy of the post Kazatskaya, in terms of the interior layout, is the North African station Tisavar/Ksar Rhilane (Mackensen 2010), in southern Tunisia.

The Kadykovka fort could have been alerted in advance about any impending danger only by the information acquired from Sapun-ridge posts. But it does not seem possible that the observation posts were able to serve as a barrier for any frontal attack. We should bear in mind the minimal number of posts, the large distance between them and the lack of any evidence supporting the existence of linear fortifications.

At this point may be raised the question: why was the Balaklava-Kadykovka fort erected in a seemingly inconvenient place? It seems that the fort place was chosen to secure the access to the Balaklava bay port (Sarnowski / Kovalevskaja 2004, 47). Since ancient times it has served as a refuge for ships navigating around the Tauric coast. The fort also allowed control of the only road to the bay (**fig. 1**).

The fort was located on a small hill at the confluence of two local streams, one of which flows to this day. This location also allowed an eye contact with the alleged Karagatsch tower. It was impossible to see, looking from the Balaklava-Kadykovka, the far northern Kavkaz Bair and Kazatskaya Hill posts. This observation points to the need for a third tower at the southern Sapun-ridge end. The suggestion about even one more tower belonging to the same

system, built on the hill Suzdalskaya near Inkerman (Doroško 2010: 42), seems to be unjustified in the light of the arguments stated above.

The results of the research work carried out from 2009 helped to determine the stratification and the plan of building "A" and the layout of the Roman fort located at Balaklava-Kadykovka. The clear understanding of the function and plan of the fort in question requires a closer look at them.

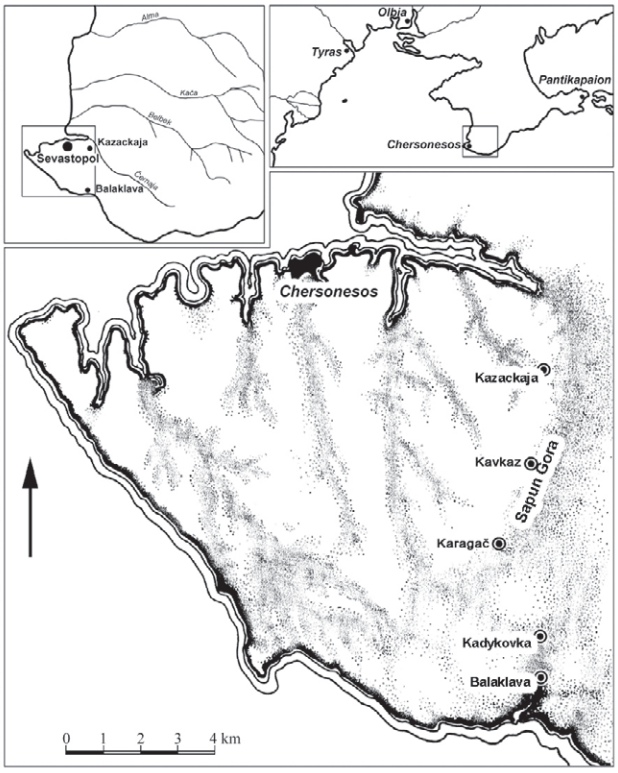


Fig. 1. Black Sea. Northern Coastline – South-Western Crimea – Heraclean Peninsula. Maps by P. Zakrzewski

The last season of research work has confirmed all relevant stratigraphic observations and findings about the division of the construction phases. The earliest trace of human presence in the studied area is a thin layer of burnt soil (containing fragments of burnt clay floor) which, due to the small finds, dates back to the first half of the 1st century AD. It is almost perceptible throughout all of the studied area. Later foundation trenches intersect it in many places. The burnt layer was covered with the remains of the subsequent phases, related to the presence of the Romans. They include not only stratification layers, but also architectural debris. The discovered remains are made of local broken stone, filled with raw clay mortar, the lime mortar occurs very rarely. These remains can be divided into three subsequent phases:

Phase 1. We have no evidence for the precise dating of the Phase 1. The only clue is the relative chronology and reference to the stratigraphic position between the lower layer and the next phase of burning, defined as Phase 2. Remains of layers and architecture of Phase 1 are traceable deeply in the ground and are preserved only fragmentary (Karasiewicz-Szczypiorski / Savelâ 2012, 174, fig. 1/5-7; 2013, 123). At this stage, the amount of available information prevents the reconstruction of the plan and a clear indication of the function of the existing facility. However, it can be certainly said that the existing structure was placed at an angle to all subsequent walls and rooms, so it belonged to an entirely different architectural structure. Later, the area was leveled by removing the ruins above the building. Perhaps the leveling was made while preparing the site for the construction of the Phase 2.

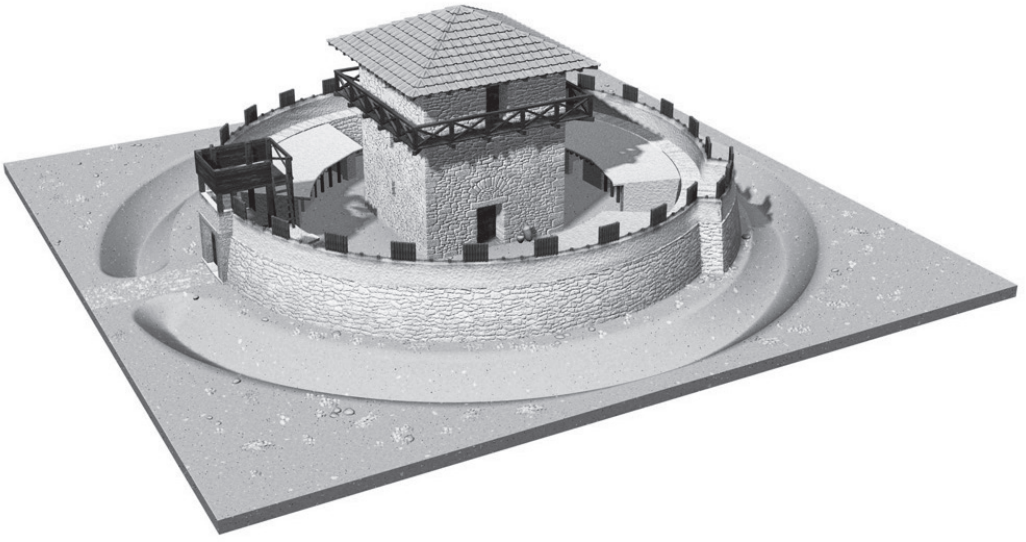


Fig. 2. Kazatskaya Hill. Roman Watchtower – reconstruction by T. Sarnowski & J. Kaniszewski

Phase 2 (**fig. 3**). Dated to the 2nd century AD, with an indication for the second half of it. The dating is based on observations of the stratigraphy and analysis of the *tegulae* found at the place. The material was compared with the previously worked out data, obtained from the sets of stamped tiles, recovered from the nearby *Dolichenum* temple, from the citadel of Chersonesos and from the other Crimean sites (Sarnowski 2006). When the building „A" was constructed, it was probably used as barracks. At least some premises of the building were intended for standard *contubernia*. To the south and west of the building ran two streets. Along the first one the portico was built, probably constructed on wooden supports. The street to the west was paved with small stones. Across the street the fort defenses were constructed. The parallel course of the fort wall indicates that it belonged to the same architectural concept as the building described above. Mainly the lower parts of the wall were preserved, the fort defenses were built of large lumps of broken stone, without any foundations. The wall was 1.3-1.4 m wide. The technique used resembled that known from the nearby hill post Kazatskaya (Sarnowski / Savelja / Karasiewicz-Szczypiorski 2002, 2007: 60-61).

In a similar way, the wall has been erected without any foundation and the inside of the fortifications preserved traces of thickening. By analogy one can identify this structure as part of the entrance on the walls (*ascensus*). On the outside of the fortifications the remnants of the ditch were still recognizable. Yet, the remains of modern trenches prevented recognition of the original width of the moat. Traces of an entry in the walls indicated that there were nearby towers, which flanked the fort gate. That was positively verified during the subsequent excavations. Also in this case the modern trenches have reduced considerably the area available for research work. Regardless of that, it was possible to record the remains of two towers and a fragment of cobbled street in between. Part of the towers outline was traceable only as foundations negative. The width of the wall fragments and the foundations negatives measured about 1 m. The total width of the towers was 3.20 m. They were erected partly inside of the fortifications, thus causing narrowing of the perimeter street (*via sagularis*). It cannot be said precisely how far they reached into the interior of the fort, but counting from the line of the peripheral wall, it was no less than 4.5-4.8 m. Nor do we know whether the towers projected before the fortifications line, but one can specify that the street in the gate entrance was about 2.6 m wide.

The surviving tower remains are different from those of the defensive wall. In contrast to the latter, the towers were built with the foundations, which at their deepest point reached about 0.4 m. The towers were also built of more carefully carved stone blocks and in the bonding clay can be seen traces of lime, usually not used in the construction of the fort walls. The curtain wall and tower walls also noticeably differ in thicknesses. Numerous differences may indicate that the towers and the *ascensus* were added later to the existing wall, yet all these elements were included into fortification belonging to the same phase.

Traces of similar addition of a tower to an existing defensive wall, visible next to the gate, are known from the citadel of Chersonesos. Near the 3rd century AD curtain 21, a new tower (XLI) was built (Karasiewicz-Szczypiorski 2001, 68). In the case of Balaklava fort, the careful investigation of the link between the rests of the towers and the defensive wall can be difficult. It is impossible to state clearly

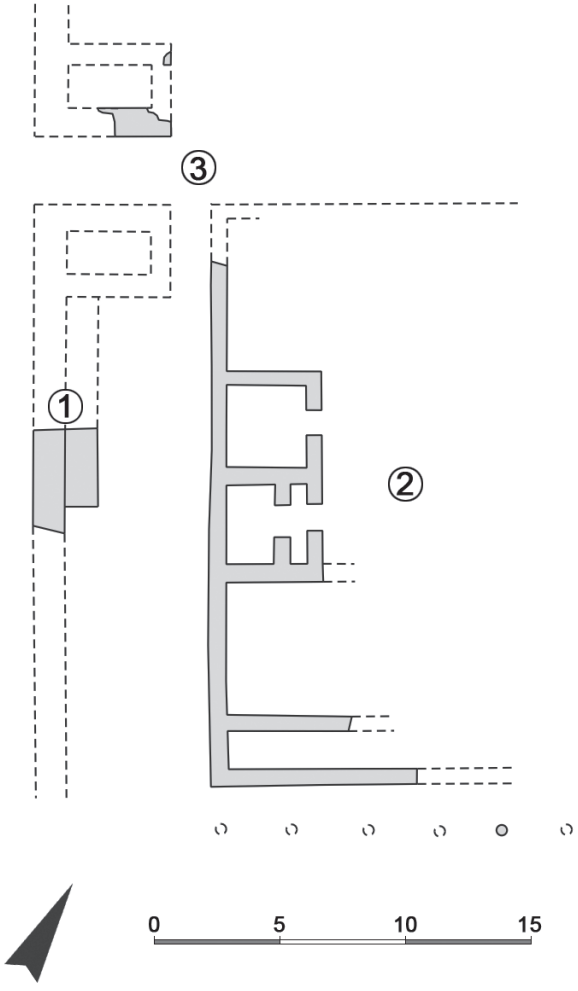


Fig. 3. Balaklava-Kadykovka – Plan of excavations – Phase 2 (1 – curtain wall with *ascensus*; 2 – Building A – Barracks ?; 3 – Main street with remains of the gate?) by R. Karasiewicz-Szczypiorski & J. Kaniszewski

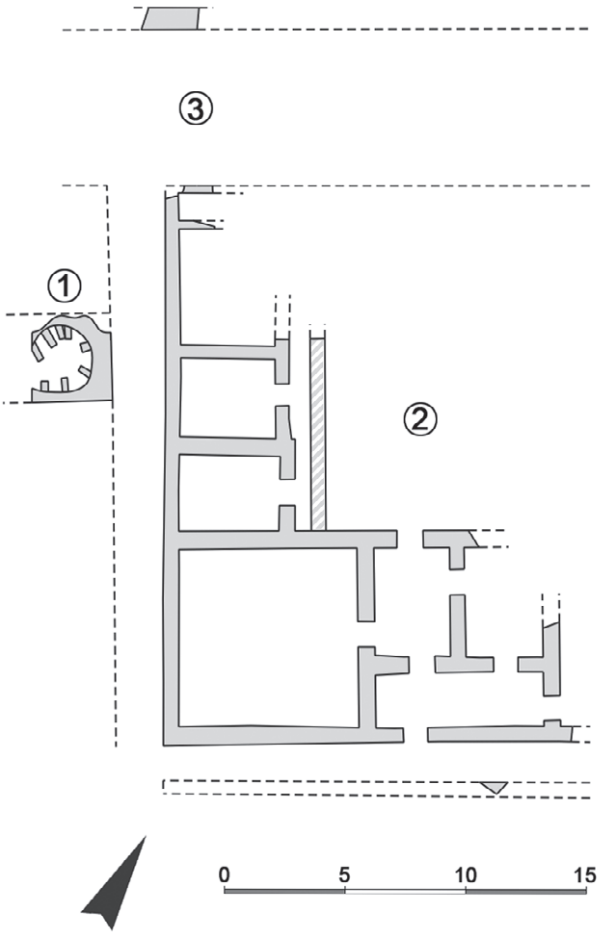


Fig. 4. Balaklava-Kadykovka – Plan of excavations – Phase 3 (1 – Thermae ?; 2 – Officer's house with peristyle; 3 – Main street) by R. Karasiewicz-Szczypiorski & J. Kaniszewski

how much remained of the further fortifications. New excavations may dispel these doubts.

Phase 3 (**fig. 4**). Dated to the first half of the 3rd century AD. The end of its existence is set to the decline of the Severan dynasty, according to a coin hoard hidden in the walls of the "A" building (Filippenko / Alekseenko 2000). Stratigraphic observations indicate that during this phase an extensive rebuilding took place. The changes concerned not only the barracks, but also the neighboring streets and the fortifications located further west. The barracks were expanded west, at the expense of the perimeter street (*via sagularis*), with an addition of a whole row of rooms. Evidence of this includes the fact that the foundations of added buildings are closely adjacent to the other remains. Moreover, the foundations of the new parts were erected above the street pavement from Phase 2, or intersect in it. More changes occurred inside the building. Some walls were destroyed. At least in one case, a larger room was built. The inner courtyard was enlarged at the expense of the surrounding premises. At the same time, the defensive wall from the previous phase was dismantled. On the opposite side of the narrowed western street, on top of the defenses relics, another building was added. So far only a room corner was revealed. One of its walls form ed an apse in its inner side. A hypocaust cellar was built under the entire room. Inside the cellar's filling, an unspecified fragment of stone sculpture and a fragmentary Greek inscription on a raw re-burnt clay piece were found. In terms of its design, the unearthed cellar is unique. The supports were made of bricks, not really used in other buildings of the Roman Balaklava. All bricks had the dimensions: 0.23 x 0.23 x 0.08 m. The walls were made of local stone and were protected against fire via a re-burnt clay coat. On the supports, the floor remains were preserved, made of irregular stone slabs, sealed on top with clay. During Phase 3 the gate towers were redeveloped. In this case the fortifications were also dismantled, but some foundations were preserved by using their surface as a supplement to the street pavement. The street running from the inside of the fort in the direction of the former gate was extended in the area. The expansion was mainly in the north direction, starting from current street axis. The cobbled street was 7.2 m wide; the depth of the portico at its south side (running alongside the former barracks building) was 1.30 m. On the opposite side there are no perceptible traces of the portico, yet the foundations of the house located further to the north were found in the place. Street surface was partially made of small stones combined with lime mortar. Similar hardening was used for the portico to the south of the barracks building. That portico gained the stone foundations (stylobate) during this period. Despite the fundamental reconstruction of the area, the street courses from Phase 2 were preserved. This suggests the maintenance of the general plan from the previous phase. The overall changes were minimal: the circular street was narrowed and the Phase 2 "gate" street was significantly expanded.

Conclusion

Phase 3 was not a simple continuation of Phase 2. Part of the barracks with *contubernia* premises was adapted to build a house with a peristyle. Additional space was obtained at the expense of the perimeter street adjacent to the west. It can be assumed that in this way a house of a high-ranking officer was built (*praetorium* ?). The changes were traceable not only in the preserved barracks. The entire fort was enlarged to the west (in the direction of the nearby stream). In the space obtained by the demolition of fortifications, a new building with a hypocaust cellar was

erected. It was probably a baths complex, although this hypothesis should be verified in the course of further research. A similar pattern was observed in the citadel of Chersonesos. Here the Hellenistic period fortifications left no space for the development of garrison buildings. The Romans pulled down the wall as far as the Karantinnaya bay and in this place the new baths were built (Karasiewicz-Szczypiorski 2001; Antonova / Zubar' 2003, 54).

The results of the Balaklava research indicate that fort from the Antonine period was rebuilt in preparation for the entry of a new garrison during the reign of Septimius Severus. The enlargement of the fort may indicate that at the end of 2nd century AD an augmented Roman unit was introduced to the Crimean Peninsula. This observation seems to be confirmed by the construction of a new (outer) line of fortifications in the fort at Cape Ai-Todor and by the doubling of the surface of the local baths (Blavatskij 1951; Novičenkov / Novičenkova 2002). Baths in the citadel of Chersonesos were not only rebuilt, but also have been expanded at the same time (Antonova, Zubar' 2003, 54).

All of these reasons help to extend the assumption about the significant strengthening of the Roman garrisons on the Crimean Peninsula during the reign of Septimius Severus.

Bibliography

Antonova, I. A. / Zubar', V. M. 2003. Nekotorye itogi archeologičeskich issledovanij rimskoj citadeli Chersonesa. – Chersonesskij Sbornik 12, 31-68.

Blavatskij, V. D. 1951. Charaks. – Materialy i issledovanija po Archeologii SSSR 19, 251-289.

Doroško, V. V. 2010. Plato Sapun-gory vo II – pervoj polovine III vv. n.e. In: Izbrannye materially meždunarodnych naučnych konferencij "Lazarevske čtenija", Pričernomor'e. Istorija, politika, kul'tura. III. Serija A, 41-44.

Dubois de Montpéreux, F. 1843. Voyage autour du Caucase, chez Tcherkesses et les Abkhases, en Colchide, en Géorgie, en Armenie et en Crimée 6 = Paris.

Fields, N. / Spedaliere, D. 2005. Rome's Northern Frontier AD 70-235. Beyond Hadrian's Wall. Oxford

Filippenko, A. A. / Alekseenko, N. A. 2000. Der römische Münzschatzfund von Balaklava. In: Sarnowski, T. / Savelja, O. Ja. (eds.). Balaklava. Römische Militärstation und Heiligtum des Jupiter Dolichenus, Warschau, 167-175, pls. 12-15.

Gudea, N. 1997. Der dakische Limes. Materialen zu seiner Geschichte. Sonderdruck Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 44, Mainz.

Karasiewicz-Szczypiorski, R. (with contributions by *Myc, V.* and *Lysenko, A.*) 2008. Roman military sentry posts in Crimea. New discoveries? – Światowit" 7 (48), Fasc. A. (2006-2008), 93-99.

Karasiewicz-Szczypiorski, R. 2001. Cytadela Chersonezu Taurydzkiego w okresie rzymskim. Próba rozwarstwienia chronologicznego i rekonstrukcji planu zabudowy. – Światowit 3 (44), fasc. A, 59-75.

Karasiewicz-Szczypiorski, R. / Savela, O. Ja. 2011. In the Heart of a Roman Fort in Crimea. Excavations in Balaklava (Sevastopol, Ukraine). Season 2009-2010. – Światowit 8 (49), Fasc. A., 173-175.

Karasiewicz-Szczypiorski, R. / Savelâ, O. Â. 2013. Balaklava (Sevastopol, Ukraine) – Season 2012. Some remarks on the chronology and spatial layout of the Roman fort. – Światowit 10 (51), Fasc. A., 123-138.

Karasiewicz-Szczypiorski, R. / Savelâ, O. Â. 2012. Discovery of fortifications of a Roman fort in Balaklava, Excavations in Balaklava (Sevastopol, Ukraine). Season 2011. – Światowit 9 (50), Fasc. A., 173-182.

Mackensen, M. 2010. Das commoduszeitliche Kleinkastell Tisavar/ Ksar Rhilane am Südtunesischen Limes Tripolitanus. – Kölner Jahrbuch 43, 451-468.

Nessel, V. A. 2011. Stolovaja keramika iz raskopok rimskogo voennogo posta v okruge Chersonesa tavričeskogo. – Chersonesskij Sbornik 16, 117-122.

Novičenkov, V. I. / Novičenkova, N. G. 2002. O nižnej oboroniteľnoj stene rimskoj kreposti Charaks. – Materialy po Archeologii, Istorii i Etnografii Tavrii 9, Simferopol, 27-35.

Sarnowski, T. 2006. Römische Militärziegel von der südwestlichen Krim. Probleme der Produktionstätigkeit und Produktionsorte. – Archeologia (Warsaw) 56 (2005), 91-101.

Sarnowski, T. / Kovalevskaja, L. A. 2004. O zaščite Chersonesskogo gosudarstva sojuznym Rimskim voennym kontyngentom. – Rossijskaja Archeologija 2, 40-50.

Sarnowski, T. / Savelja, O. Ja. 2000. Balaklava. Römische Militärstation und Heiligtum des Jupiter Dolichenus. Warschau.

Sarnowski, T. / Savelja, O. Ja. / Karasiewicz-Szczypiorski, R. 2007. Roman military sentry posts in the border zone of Crimean Chersonesos. – Archeologia (Warsaw) 58 (2007), 57-67.

Sarnowski, T. / Savelja, O.Ja. / Karasiewicz-Szczypiorski, R. 2002. Extra fines Imperii. Rzymski posterunek wojskowy w okolicach Sewastopola na Krymie. – Światowit 45, 167-172.

Woolliscroft, D. J. / Hoffmann, B. 2006. Rome's First Frontier: The Flavian Occupation of Northern Scotland, Stroud.

Wróbel, M. / Piątkowska-Małecka, J. / Karasiewicz-Szczypiorski, R. 2008. Meat eaten by Roman soldiers at the sentry post on Kazackaya Hill near Inkerman (Sevastopol, Ukraine). – Światowit 48, Fasc. A. (2006-2008), 101-115.

Radosław Karasiewicz-Szczypiorski
Institute of Archaeology, Warsaw University,
Krakowskie Przedmieście 26/28
PL-Warsaw
radoslaw.szczypiorski@gmail.com

Oleg Â. Savelâ
National Preserve "Tauric Chersonesos"
1 Drevnaya St.
UA-Sevastopol

Radosław A. Gawroński
Institute of Archaeology, University of Cardinal Stefan Wyszyński, ul. Wóycickiego 1/3
PL-Warsaw
rgawr@o2.pl

With contribution: **Andreî A. Filippenko**
National Preserve "Tauric Chersonesos"
1 Drevnaya St.
UA-Sevastopol

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Sebastopolis – a fortification of the "Pontic *Limes*"

Alik GABELIA

At the dawn of the Christian era Rome was aspiring to protect the Asia Minor territories of its empire from attacks by enemies constantly invading through Colchis, and expended huge material and spiritual efforts in strengthening its borders. In this connection Rome began placing its active armed forces along the Eastern Black Sea Coast, having begun the creation of the "Pontic *Limes*" – a chain of Black Sea fortifications with garrisons for the guarding of approaches to the eastern frontiers of the Roman Empire. "*Limes*" means the system of defense of the borders, including a maintenance service by a special military division, as well as the building of various fortification constructions and communications networks.

In the late sixties of the 20th century the Georgian researcher V. A. Lekvinadze, having investigated the Roman fortifications of the Black Sea Coast, included them within the general category of standard constructions, simultaneously revealing the features which allowed him to allocate them as "Eastern frontier" type and to name them "Pontic" according to their site (Леквинадзе 1969, 75; **fig. 1**).

The Roman garrisons on the Eastern Black Sea Coast appeared immediately after Vespasian placed two legions in Cappadocia. In the 1st-2nd century AD these fortifications were under the authority of Cappadocia governors, and after the formation of the province *Pontus Polemoniacus*, all Colchis forts were transferred to Cappadocian control. This union of Black Sea fortifications in 4th century included more than ten sites, and was a stronghold at first for the Romans, and then for the Byzantines in the Eastern Black Sea region (Воронов 2006, 314).

According to Lekvinadze, the sharp rise in the number of permanent Roman troops in Cappadocia gave Rome the chance to begin the placing of garrisons along the Eastern Black Sea Coast. The creation of the "Pontic *Limes*" was an organic part of the military transformation of Cappadocia which was conducted by Vespasian. The legate of Cappadocia Flavius Arrian visited them to make an inspection on the instructions of the Roman Emperor Hadrian (Леквинадзе 1961, 230).

As noted above, Roman garrisons were placed along all the Eastern Black Sea Coast. The most southerly fortress on the Black Sea Coast was *Apsaros* (**fig. 2.1**), located in the village of Gonio, to the south of modern-day Batumi in Georgia. This garrison is mentioned in "Natural History" by Pliny the Elder as a *castellum* – as the ordinary Roman boundary fortress entering into a system of *Limes* was called. The quadrangular *castellum* of *Apsaros*, characteristic of the majority of Roman fortresses, is one of the rare undestroyed monuments of Roman serf architecture (Закарая / Леквинадзе 1974, 149).

Flavius Arrian in his *Periplus Ponti Euxini* or "Circumnavigation of the Black Sea" gave the description of one more rectangular Roman fortress around modern Poti (*Phasis*) in Georgia, a schematic plan of which was drawn by Frédéric Dubois de Montpéreux (**fig. 2.2**). Arrian also describes a settlement outside the fortress, the so-called *canabae*, which were usually formed near Roman boundary fortresses.

In the early seventies of the 20th century, Georgian researchers Zakaraia and Lekvinadze recorded the remnants of the Roman fortress of *Ziganis* in the territory of the modern village of Gudava (Великий Питиунт 1975, 35; **fig. 3**).

The Roman fortress of *Pityos*, in the western part of Abkhazia in the modern city of Pitsunda, has been thoroughly investigated by archaeologists (**figs. 5-6**). Here a considerable number of monuments representing a picture of the life of a stronghold throughout several hundreds of years have been revealed



Fig. 1. Roman fortresses on the Eastern Black Sea Coast (the line marks the route of Flavius Arrian)

(Великий Питиунт 1977 and 1978; Леквинадзе 1969). Most likely, a *castellum* – a stronghold rectangular in form– was originally erected. In the beginning of 4th century AD the fortress walls which had been destroyed by Goths were restored with more towers, of which the corner ones had a fan-like form in plan, characteristic of architecture of the Constantine I era. In addition, to the east a large area was surrounded by a wall to form a *canabae* – a place where retired legionnaires lived with their families. In the territory of the basic fortress a great number of various constructions were excavated. The eastern gates of the *castellum* had protruding semicircular towers, as did the gates of Rome.

In the territory of the *Pityos canabae*, the most ancient Christian temple ever discovered on the Eastern Black Sea Coast was excavated. According to Lekvinadze, the specificity of *Pityos* is that its stronghold formed an entire defensive system with a *castellum*, unlike the *canabae* at *Phasis* (Латышев 1947, 86).

3-4 kilometers to the northwest from *Pityos castellum* the remnants of a defensive wall with a circular-shaped tower attached, dated from the end of II to the beginning of the 3rd century, were excavated. A fragment of a brick inscribed with the letters "*leg(io)*" was found there. It was probably a stamp with a mark of the legion which was taking part in the building of the defensive stronghold at *Pityos*. Flavius Arrian mentions one more stronghold of the Pontic *Limes* – *Nitika* – in the area of modern Gagra in Abkhazia (**fig. 2.3**).

The major link to the Pontic *Limes* was *Sebastopolis,* located in Sukhum and based on the site of the ancient Greek Milesian colony of *Dioscurias*. This most ancient Roman stronghold, mentioned by Pliny the Elder in 1st century AD, was visited in 137 AD by the governor of Cappadocia, Flavius Arrian, on the instructions of the Roman emperor Hadrian. Judging by the message of this envoy of the emperor, the city of *Sebastopolis* in the first half of 2nd century AD represented a small fortress with a Roman garrison.

Archaeological researches show that ancient *Sebastopolis* had some citadels. The remnants of defensive works testify to this in various parts of modern Sukhum. The most considerable complex of defensive strongholds has been found on the city quay, where the well-known construction now called the Sukhum fortress is situated.

The Sukhum fortress has drawn the attention of researchers for a long time. Here various stages of the historical life of an ancient city are present, from the antique epoch to the late middle ages. Assembled defenses of ancient *Sebastopolis* are represented by three powerful walls (Трапш 1969; Соловьев / Шервашидзе 1960; Леквинадзе 1966; **fig. 4**).

The first (earliest) wall was built parallel to the seacoast and consisted of two lines separated from each other - western and eastern. According to Trapsh, the eastern line is from a later time. The seaside wall runs in an East-West direction, its length is more than 140 m, and it is formed from granite boulders on a lime mortar with sea gravel and sand. The wall foundation was originally made from wooden logs, so-called "sleeper joists", laid horizontally both lengthways and across the wall. This method of masonry was known in extreme antiquity. The defensive line was equipped with two quadrangular towers, and later with five buttresses. According to Trapsh, the wall with its two towers belongs to one of the citadels of ancient *Sebastopolis*, being a northern wall of a fortress (*castellum*) (Трапш 1969, 298-309), and the major part

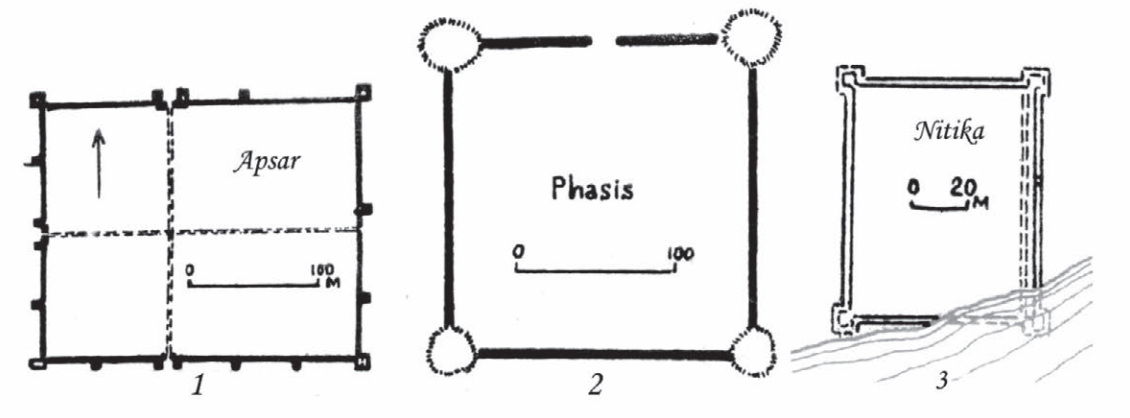


Fig. 2. General plans of fortresses *Apsaros* (1), *Phasis* (2) – according Dubois de Montpéreux, and *Nitika* (3)

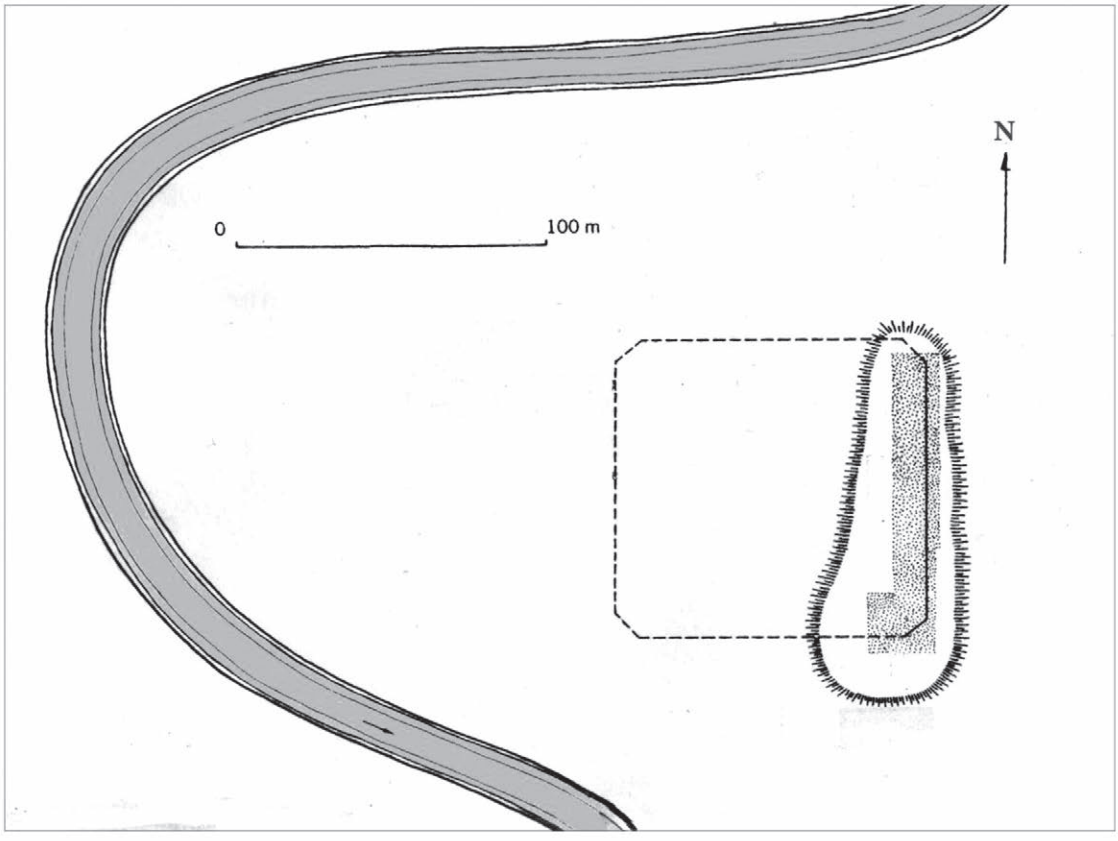


Fig. 3. Roman fortress of *Ziganis* in the territory of the modern village of Gudava

of the stronghold was on territory now occupied by the sea. The Georgian researcher Lekvinadze noticed one more detail of the construction, namely the roundness of a preserved northern corner which was characteristic of Roman *castellum* (Леквинадзе 1966, 207).

In 1958 Soloviev and Shervashidze excavated another wall on the Sukhum quay with tower-like ledge sat each end (Соловьев / Шервашидзе 1960, 172). Probably this is a further remnant of the *castellum*-II which was built after the destruction of *castellum*-I. The remnants of *castellum*-II were

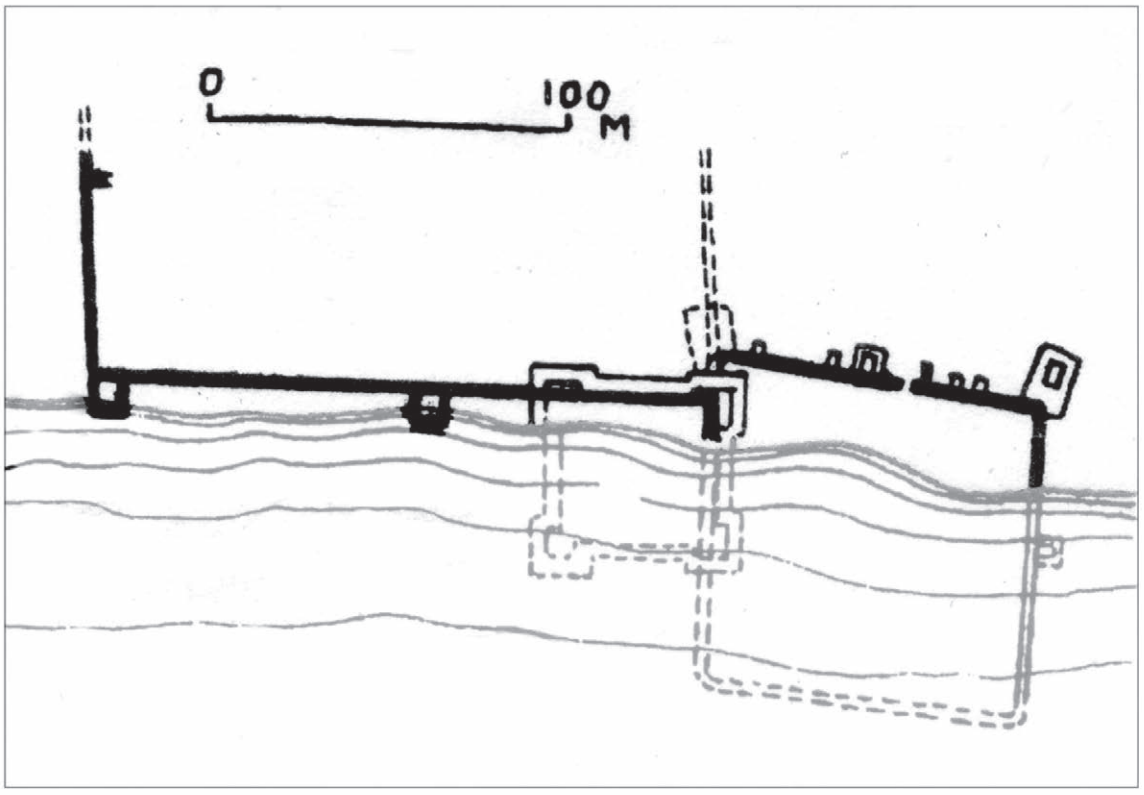


Fig. 4. Plan of *Sebastopolis* fortress

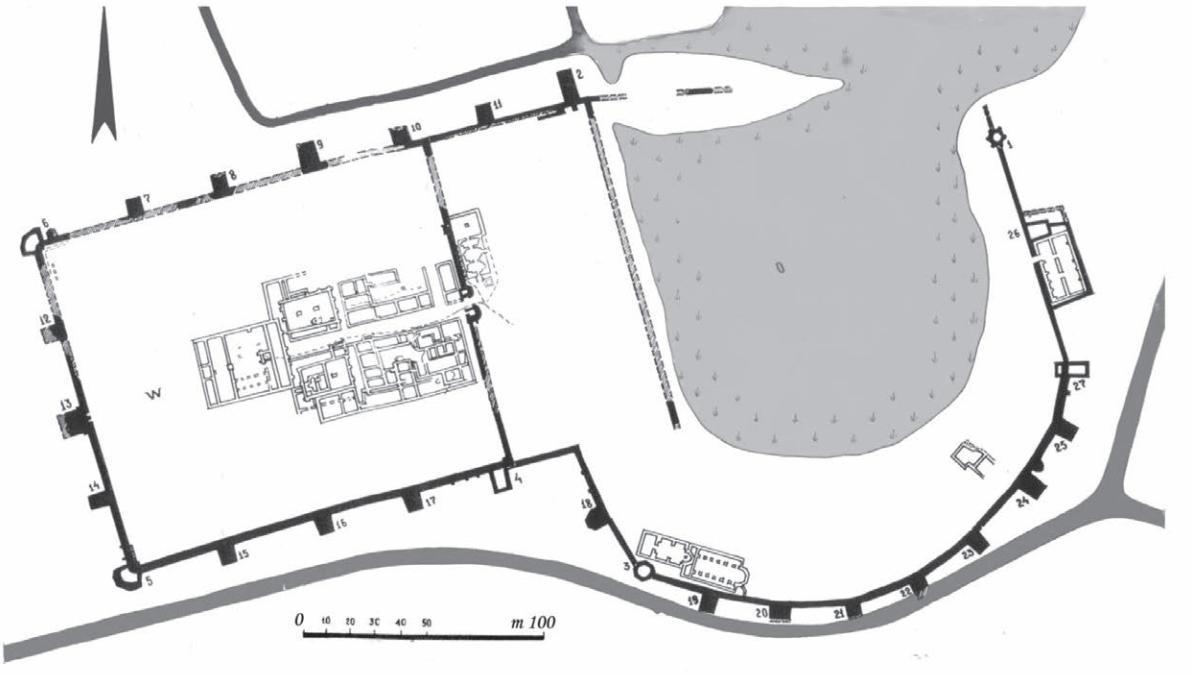


Fig. 5. Plan of *Pityos* fortress

closely adjoined to the inside of one more wall, with a length of 134 m. The investigators (Shervashidze and Soloviev) consider these to be remnants of the most ancient stronghold of *Sebastopolis*.

Thus the constructions revealed on the Sukhum quay represent the ruins of at least two *castella* functioning at different times, the most part of which was located in territory nowadays occupied by the sea. Walls of a more ancient Roman *castellum* were constructed using an *opus mixtum* laying in which the "belt" has two rows of bricks. The plan of the *castellum* had a parallelogram form, with rounded corners. One more feature was noted by Lekvinadze: in both remaining walls of the *castella* there were no entrances, and most likely their main gates faced the sea, as was typical for other Eastern Black Sea Coast *castella*.

Along the Eastern Black Sea Coast from the third quarter of the 1st century AD to the middle of the 4th century AD more than ten seaside strongholds existed. There are two points of view about their importance. Lomouri considers the coastal cities and fortresses of western Transcaucasia as having been of local significance. Apakidze supports this opinion, which indicates *Pityos* in the first centuries of its existence as being a local city whose population was compelled to go into union with the Romans, owing to historical conditions. The Abkhazian researcher Voronov adheres to the hypothesis of Lekvinadze, who considered these strongholds as being Roman (Воронов 2006, 166).

So, it is undisputed that from the end of 1st to the beginning of the 4th century AD on the Eastern Black Sea Coast there was a complicated system of coastal Roman strongholds. If in the middle of the 1st century AD, according to Flavius Josephus, peace in the whole Black Sea area was maintained by means of three thousand heavily armed legions and forty military ships, with the beginning of the building of the "Pontic *Limes*" the aggregate number of Roman soldiers began to increase sharply, and reached five to six thousand troops occupying more than a dozen fortresses. The "Pontic *Limes*", especially in combination with an internal foothill line of fortresses in the territories of *Abasgia*, *Apsilia*, *Misiminia* and *Lazika* which arose in 5th-6th century AD, represented a grandiose defensive boundary throughout several hundred years.

The Roman Empire, having through huge efforts constructed the "Pontic *Limes*", involuntarily involved the local population within the sphere of their influence and promoted the creation of more complicated and stable political and economic structures in the approaches to the *Limes*, which led to the further stratification of local society and the development of state formations.

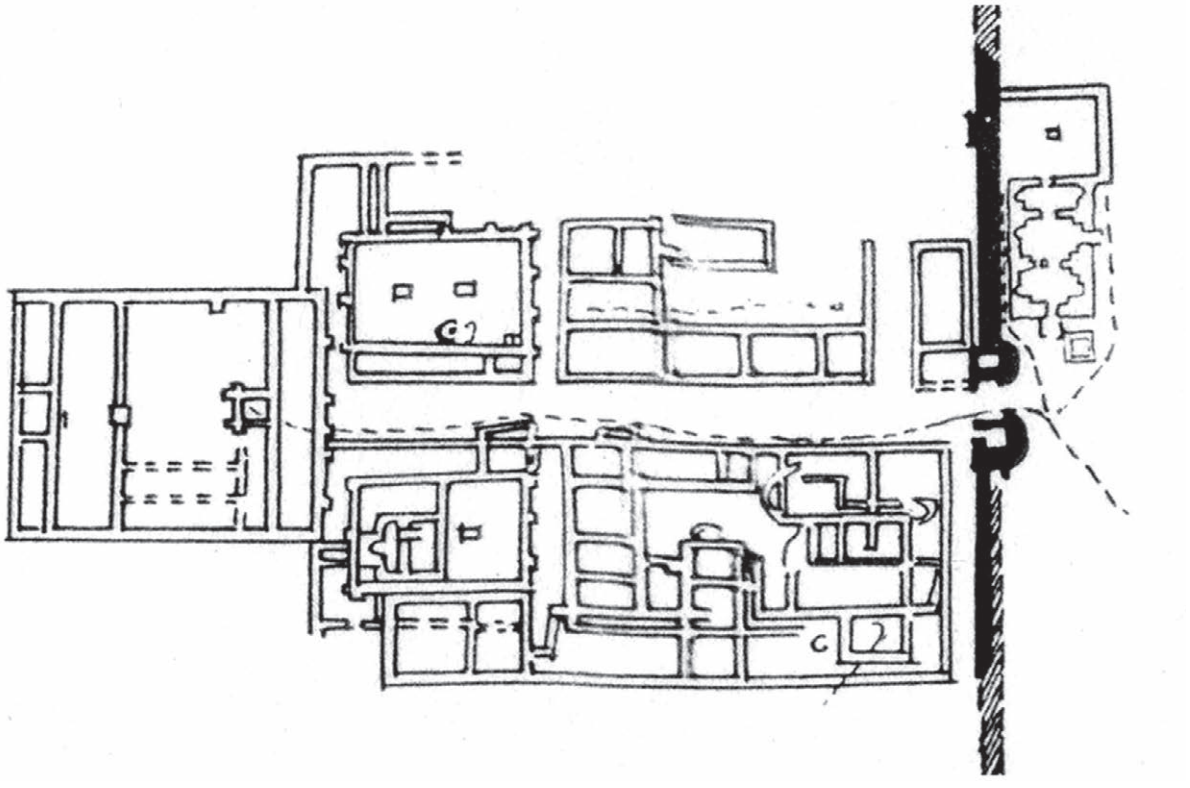


Fig. 6. Plan of the center part of *Pityos* fortress

Bibliography

Великий Питиунт (1975-1978) = Апакидзе, А. М. (ed.). Великий Питиунт: Археологические раскопки в Пицунде, 1-3. Тбилиси.

Воронов, Ю. Н. 2006. Колхида в железнем веке. Колхида на рубеже средневековья. In: Бгажба, О. Х / Ковалевская, В. Б. / Воронова, С. В. (eds.). Ю. Н. Воронов. Научное наследие, т. 1. Сухум.

Закарая, П. П. / Леквинадзе, В. А. 1974. Археологические раскопки в Гудаве в 1971 году. – Археологическая экспедиция Государственного музея Грузии 3, 148-153.

Латышев, В. В. 1947. Известия древних писателей о Скифии и Кавказе. – Вестник древней истории 4, 86.

Леквинадзе, В. А. 1969. Понтийский лимес. – Вестник древней истории 2, 75-93.

Леквинадзе, В. А. 1966. Оборонительные сооружения Себастополиса. – Советская археология 1, 203-210.

Леквинадзе, В. А. 1961. Материалы по истории и архитектуре Апсарской крепости. – Византийский временник 20 (45), 225-242.

Соловьев Л. Н. / Шервашидзе Л. А. 1960. Исследование древнего Себастополиса. – Советская археология 3, 171-179.

Трапш, М. М. 1969. Древний Сухуми. In: Халиков, А. Х. (ed.). М. М. Трапш. Труды, т. 2. Сухуми.

Prof. Alik Gabelia
Abkhazian State University
1 University St.
Abkhazia, Sukhum
agabelia@mail.ru

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Udhruh Archaeological Project – the 2011-2012 Field Survey*

Mark DRIESSEN / Fawzi ABUDANAH

Introduction

The Udhruh Archaeological Project was launched in 2011. The project is a joint venture between the Petra College for Tourism and Archaeology of the Al-Hussein Bin Talal University from Wadi Musa – Ma'an (Jordan) and the Faculty of Archaeology of the Leiden University (The Netherlands). The project is an international and interdisciplinary research program that combines archaeology, geoarchaeology, archaeological related disciplines, sustainable tourism and environmental sciences as irrigation and land degradation. With this interdisciplinary approach in mind it is feasible that other research partners will be added to the project in the future.

Udhruh

The site of Udhruh has enormous archaeological potential. Situated 15 km east of Petra the site covers 4,4 ha, in places with more than 3 m of intact stratigraphic layers. Where else can one find a Roman legionary fortress that is not overbuilt by a bustling modern town (**Fig. 1**) or has not been completely demolished by the need for easily available building materials throughout later periods? Considering the numerous Roman settlements in the wider region with Nabatean origins the expectation of finding some remains of an earlier Nabatean site beneath or near the Roman fortress of Udhruh is by no means implausible[1]. Besides the surviving remnants of the Roman *castra*, it is the long term occupation of this site and surroundings that make it a challenging place for archaeological research. The site was occupied continuously throughout the Byzantine and Islamic periods, with all intriguing cultural, technical, socio-economical and religious transformation processes concerned. These transformation processes can be followed not only on the site itself but also in a surrounding landscape with limited disturbance caused by later human activities. A landscape where antique field systems, sophisticated water management and irrigation techniques, watch towers, roads and stone quarries can still easily be distinguished. An environment that can nowadays be characterized as harsh and dry but with a very friendly and cooperative population that has a great interest in the history of the people who altered this landscape in ancient times. For an archaeologist it is clear that Udhruh has great potential not only in studying the site and the environment from a local and regional perspective with all diachronic developments but also in broader comparative analyses. Supraregional exchange and trade, religious transformation processes and the purpose and role of the Roman limes are possible subjects of such broad comparative studies. Udhruh offers interesting possibilities for applied archaeology and interdisciplinary research related to modern sustainable agricultural use and community-based tourism. Because of the impact of these interactions and possibilities it is necessary to understand the regional embedding before beginning to formulate research objectives and start excavations. This can be accomplished by starting the archaeological research in and around Udhruh with systematically set-up field surveys.

The Field Surveys – Methodology

Archaeological field surveys can be based on the premises: "*that human actions may occur, and leave*

* This paper is submitted on 9 February 2013, with some small editorial changes on 17 July 2014.

[1] For Nabatean origins of many Roman military sites see e.g. Kennedy 2004.

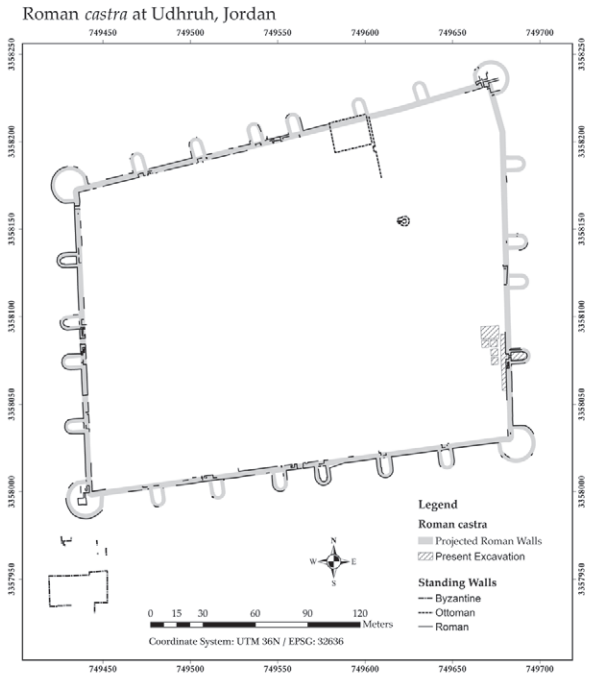


Fig. 1. The Roman castra at Udhruh (illustration by R. Emaus)

an essentially continuous 'blanket' of traces, anywhere in the landscape, that the resulting surface is a palimpsest of such traces through time, and that patterns in this record may be explained in part by the in turn limiting and enabling qualities of the landscape" (Van Leusen 2002, 1-3). The objectives of the Udhruh field surveys are threefold. Datable and diagnostic (cultural) material is collected to get information about the chronology of the habitation in and around Udhruh. The identification of structures and systems will provide information about the social, economic, infrastructural and military embedding of the site in the surrounding area. The surveys will give insights into the local, regional and supraregional functions of the site of Udhruh in a diachronic comparative framework.

On the basis of archaeological and epigraphic evidence concerning settlements around Roman castra and their surrounding *canabae legionis* along the European Roman frontiers an area of 25 km² around Udhruh was selected for the field surveys. Inscriptions from the Pfaffenberg at *Carnuntum* indicate that the outer boundary of the *canabae legionis* is to be found at 1 *leuga* (1.5 Roman mile; approx. 2.2 km) from the legionary fortress. At most European *castra* a third – civil, not military – settlement is located at a distance of around 2.5 km from the fortress (Piso 1991, 138 ff.). This *extra leugam-vicus* would have been situated outside the military territory and had a different juridical status which probably allowed the inhabitants to own the ground they lived upon (Driessen 2007, 149; Mason 1988, 148). It is not clear if this *intra leugam*-principle was also implemented for the *castra* of the Roman province Arabia. Although the legionary fortress of El Lejjun was surrounded by *canabae legionis*[2], no research has been conducted outside Europe to trace the boundaries of these *canabae* and *extra leugam-vici*. Because the Roman legionary fortress provides the earliest evidence for large scale habitation in and around Udhruh it was decided to make use of this Roman *intra leugam*-principle by selecting a radius of 2.5 km from the fortress of Udhruh – extended to four square blocks of 6.25 km² each – as the initial basis for the area of the surveys.

The archaeological survey area of 25 km² is divided in three zones which are divided by the three main contemporary roads: the road from Udhruh to Ma'an, the road from Udhruh to Wadi Musa (Petra) and the road from Udhruh to ash-Shawbak (**fig. 2**). A fourth research area focusses on the ancient water management systems southeast of Udhruh in the direction of Ma'an. This separate transect lies for the most part outside the key survey area of 25 km².

Aerial photographs, satellite images and preliminary investigations of the area surrounding Udhruh, show not only a differentiation in geological zones, but also make clear that the antique landscape was affected by different natural and anthropogenic processes, which will necessarily affect the quality of retrieved data and artefacts. The methodology of the survey has been adapted to these differentiations in the landscape by describing and mapping the geomorphology in detail. The landscape is subdivided by units, called tracts, the edges of which are distinguished in the field by topographic and geomorphic features. The tract boundaries are mapped during the field surveys by both digital and analogue methods. The spatial and chronological distribution patterns of archaeological remains are naturally important research criteria. All (possible) archaeological structures are categorised and described in full detail[3]. These archaeological structures, their relation to the geomorphology and archaeological patterns within and between the dif-

[2] See for the *canabae* of El Lejjun: Clark 2006; Crawford / Parker 2006; De Vries 2006.

[3] For this classification of the archaeological remains we relied upon the categorisation used by the Wadi Fanyan Landscape Survey (Creighton / Barker / Mattingly 2007, Table 4.1) which was extended and adjusted with own criteria and observations.

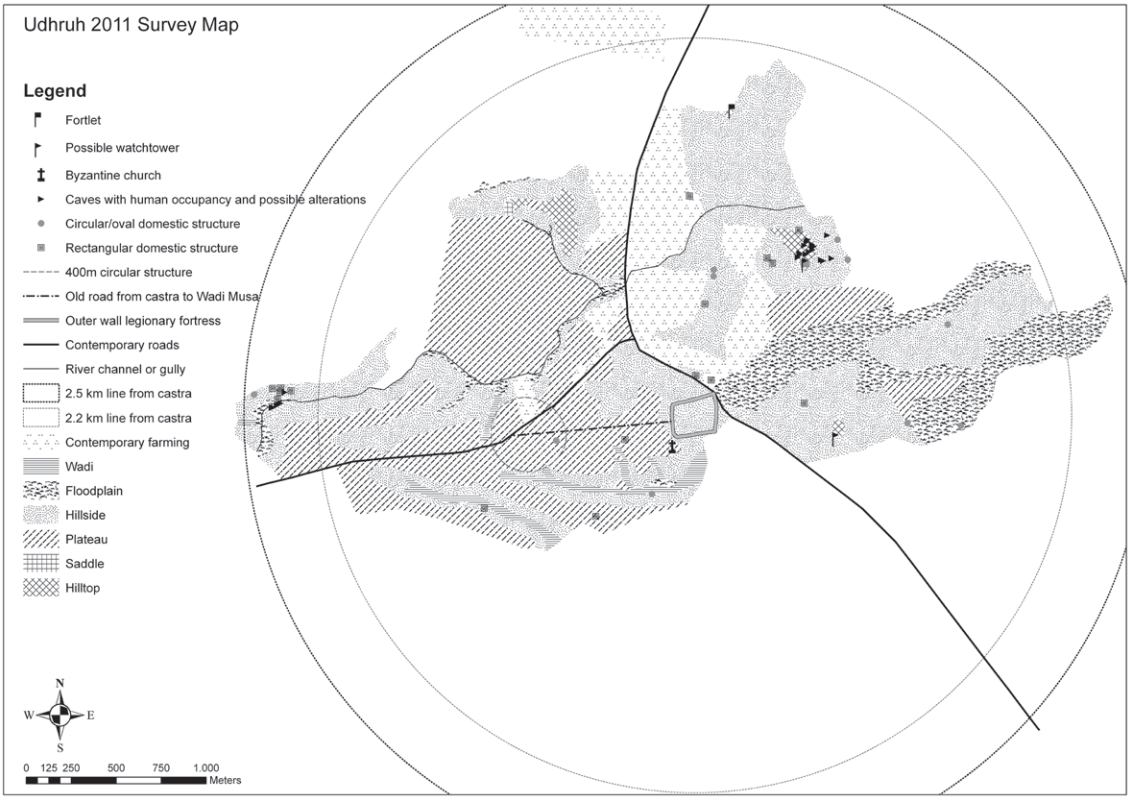


Fig. 2. Map of the archaeological structures retrieved during Udhruh 2011 campaign (illustration by R. Emaus)

ferent tracts of the survey area will be analysed by means of the GIS-databases. During the pilot field survey it was decided not to collect individual artefacts with the exception of diagnostic material that might help with the dating of (larger) archaeological structures.

The 2011-2012 Field Surveys – Results

During the 2011 pilot field campaign a total area of 5.6 km² (**fig. 2**) and in 2012 more than 15 km² was surveyed. Although the data of this second, five week field campaigns had not yet been processed, a résumé of this campaign is included here. The field surveys demonstrated that the area around the castra of Udhruh was actively exploited. As it concerns still work in process it was decided to mention here only some aspects which are interesting for this volume.

Traces of a straight road coming from the western gate of the *castra* in the direction of Wadi Musa – Petra were discovered during the survey (**fig. 2**). This old road becomes unclear at about 900 m west of the fortress where it converges with the modern tarmac road to Wadi Musa[4]. The connectivity of the fortress of Udhruh in a wider setting becomes also clear from the survey of several hilltop sites in the region. Seven of them were probably part of a signalling system due to retrieved remains of watchtower-like structures on top and/or the sight lines that connect them to each other, the fortress of Udhruh and Petra (**fig. 3; table 1**)[5]. On top of Jabal al-Tahkim – 1600 metres north of Udhruh – one can find the remains of a small L-shaped fortress[6]. Next to 1st century AD Nabatean pottery, sherds from Roman, Byzantine and Early Islamic pottery were also collected here. The so called Relais Tower, halfway between Udhruh and Petra, with a square watchtower on top[7] was probably an important structure within the (military) signalling and communication system as there are excellent views over the whole area from this site, making it a very strategic point for the region. Tell Abara (2000 m southwest of Udhruh) is a strategic territorial marker for this region and has an overall view in all directions

[4] See for instance the aerial picture of Udhruh with traces of the old road converging with the modern road to Wadi Musa in the upper right corner of this picture: http://www.flickr.com/photos/apaame/4928247123/in/photostream/.

[5] See Woolliscroft 2001 for the basic ideas behind this system.

[6] See for this fortress also Glueck 1935, 77; Killick 1983, 127.

[7] This watchtower is probably the one Killick (1986, 440) mentions and is depicted in his Plate 24.14.

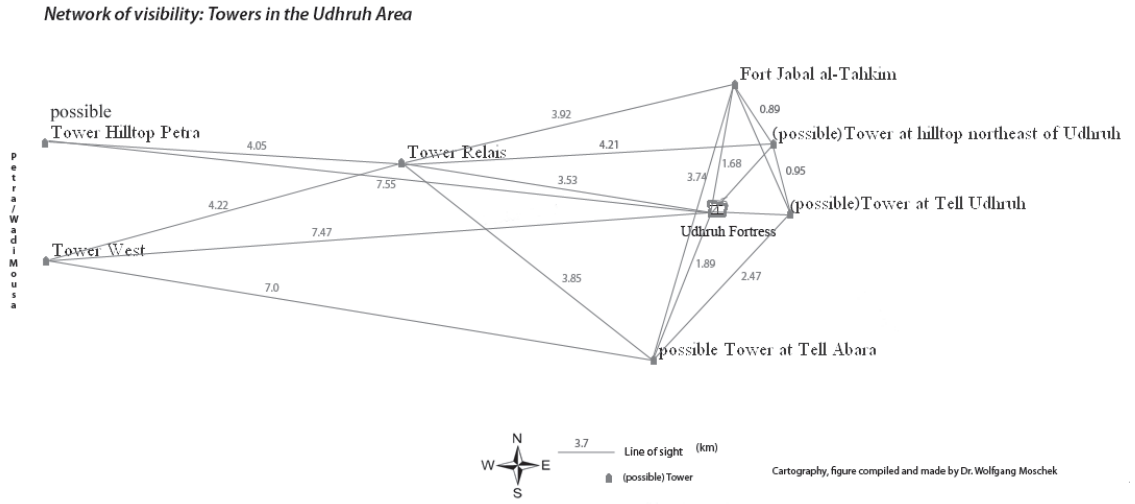


Fig. 3. Network of visibility: Towers in the Udhruh area (illustration by W. Moschek)

Visibilitiy	Fortress Udhruh	Tell Udhruh	Hilltop NE Udhruh	Jabal al-Tahkim	Tell Abara	Relais Tower	Hilltop Petra	Hilltop West
Fortress Udhruh	NA	Y	Y	Y	Y	Y	N	Y
Tell Udhruh	Y	NA	Y	Y	Y	Y	Y	Y
Hilltop NE Udhruh	Y	Y	NA	Y	Y	Y	Y	N
Jabal al-Tahkim	Y	Y	Y	NA	Y	Y	Y	N
Tell Abara	Y	Y	Y	Y	NA	Y	Y	Y
Relais Tower	Y	Y	Y	Y	Y	NA	Y	N
Hilltop Petra	N	Y	Y	Y	Y	Y	NA	N
Hilltop West	Y	Y	N	N	Y	N	N	NA

Table 1. Visibility between (possible) watchtowers in the Udhruh area and the legionary fortress of Udhruh

and has sight lines that connect it with all the visited hilltops (**fig. 3; table 1**). A rectangular enclosure on this hill was described as a possible temporary Roman camp (Killick 1986, 436-8; Kennedy 2004, 180). This enclosure lies on the very steep slopes of the southern side of the hill, which makes it not very suitable as a location for a Roman camp[8]. Although no remnants of a watchtower were retrieved from this site, the location has distinct strategic value for the region. The further examination of the hilltops in the region, their sightlines and the collection and determination of cultural artefacts are planned for the coming seasons.

Dozens of quarries, large and small, were discovered northwest, southeast and southwest of Udhruh. The dimensions of these limestone-, sandstone- and flint-quarries vary from 20 to almost 1000 m². More, even larger quarries were noticed in the large plateau area northwest of Udhruh. Different techniques of quarrying stone blocks could be distinguished when exploring these sites. At a few quarries some unfinished blocks were left behind (**fig. 4a-b**). The provenance and the dimensions of these blocks correspond with those used in the fortress. Samples of all the different provenances of natural stone used in and around the fortress of Udhruh were collected and examined[9]. Some of these samples could already be compared with quarry sites.

A settlement was discovered at 2.2 km distance in western direction from the legionary fortress of Udhruh (**fig. 2**). It consists of many caves with cut-out rooms and outside enclosures. One rectangular cut-out cave was used as a cistern (7x4x3 m). At the eastern entrance of this cistern a broken well covering stone (1x1 m) was still *in situ*[10]. The OSL-

[8] See also http://www.flickr.com/photos/apaame/4928846474/in/photostream.
[9] This was executed by Guus Gazenbeek: our stone and building ceramics specialist.
[10] The missing corner was found at the bottom of the cistern.

dating of the mortar used for the cistern walls will hopefully give an indication of the date of construction. Two now abandoned houses of (reused) stone blocks were probably rebuilt over older buildings. The foundations of these houses are quite different in size, material and set-up than the contemporary walls. The first analysis of the pottery around these houses and caves seems to indicate that this site was already in use in the Roman and Byzantine periods, though contemporary refuse shows that these cave sites are still being (temporarily) used, most probably by local shepherds[11]. Foundation walls of other buildings and structures indicate that this site was most probably L-shaped along the *wādī* and measured around 20,000 m² (5 acres). Broad foundations walls made of large cut stones of flint were probably used to block the water coming from two *wādī*'s at the western side of the settlement, directing it through the main gully to prevent flooding the lower parts of the settlement. At the place where this dam abuts the gully the natural bedrock terrace of hardstone (local flint) is tooled. At the edge of this natural terrace two parallel trenches of about half a metre wide and a meter long were cut in the bedrock. The use of these trenches is till unclear, but a function as a mill is possible[12]. Quite remarkable is the fact that the eastern side of this settlement is situated at 2.2 km westwards from the legionary fortress. Between the fortress and this settlement – except for the large circular structure and some stone heaps – no clear archaeological structures could be traced. Nor did we notice any clear artefact 'sites' of spatially concentrated ceramic clustering between the two sites. When approaching this settlement from eastern direction through the *wādī* – that flows in west-east direction – we encountered higher concentrations of pottery than at any point since leaving the perimeters around the fortress. Further analysis of the layout and use of this settlement, the pottery and the OSL-dating of the mortar will provide more information concerning the dating of this site and whether the location might be related with the intra leugam-hypothesis. On the northern slope above the caves and houses of the village three flat bedrock floors with side walls of cut stones were found (180-550 m²). These could possibly have been used as threshing floors, as other ancient threshing floors have also been found in this region. North and west of this settlement extensive (terraced) field and wall systems have been retrieved.

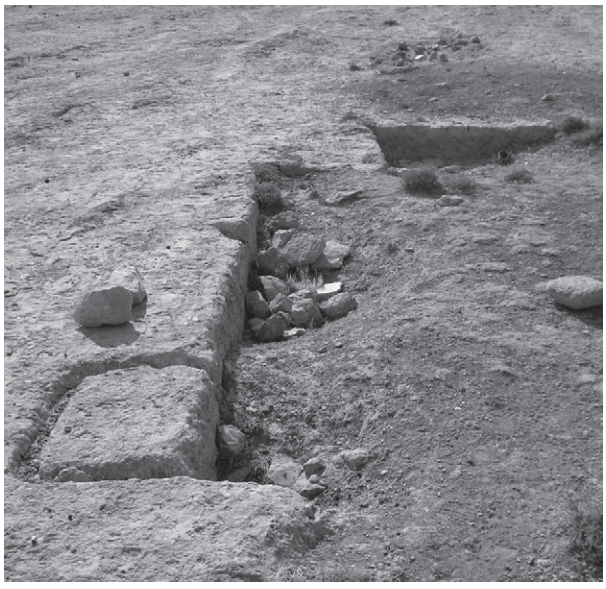


Fig. 4a. Unfinished block in quarry to the west of Udhruh



Fig. 4b. Unfinished blocks in quarry northwest of Udhruh

An impressive network of ancient water conservation measures and irrigated field systems was investigated to the south and southeast of Udhruh. During the 2012 surveys emphasis was placed upon water distribution and field systems in the Wadi el-Fiqay region, 5.7 km southeast from the legionary fortress (**fig. 5**). The geomorphology of the approx. 7 km² area where these were retrieved was again mapped[13]. To get an idea of the interrelationship of the different parts, levels of all the water and field related systems were measured. Some of the built up channels had been exposed during recent

[11] During the field surveys we met a few shepherds around this site and a lot of sheep dung in and around these caves.

[12] See for Roman water mills: De Vries 2006; Spain / Sparey-Green / Wilson 2010; Wikander 2000; Wilson 2008.

[13] These surveyed systems lay outside the initially planned research area of 25 km².

[14] See also Abudanh / Twaissi 2010.

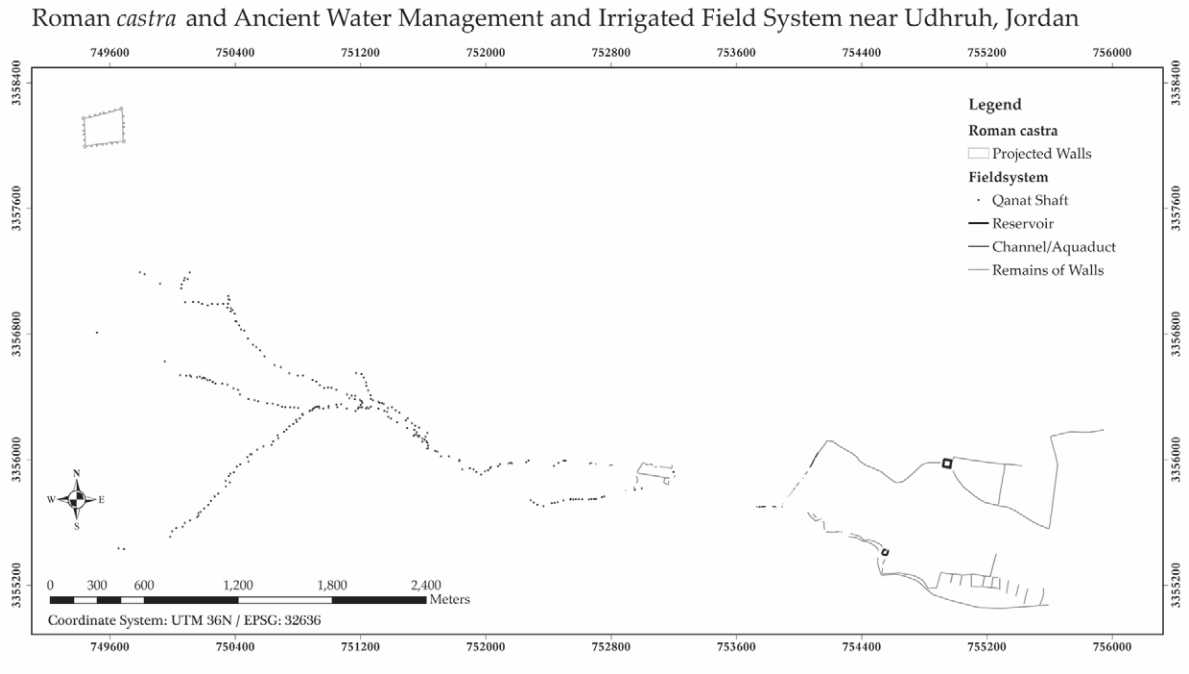


Fig. 5. Ancient water conservation measures and irrigated field systems southeast of Udhruh (illustration by R. Emaus)

wet seasons and are now visible in erosion gullies which are sometimes several meters wide and deep (**fig. 6**). Four *qanat* branches with more than 200 shafts are still recognisable in the landscape 1000-1400 m south to southeast of the Udhruh-fortress[14]. These filled up shafts, which are recognisable by the 4-6 meter wide spoil rings, were used for the construction and maintenance of subterranean galleries that tap water from aquifers. The *qanat* galleries lead this water over a distance of approx. 4-5 km by means of gravity flow to lower-lying ground where it flows through built-up channels and aqueducts to large reservoirs (**fig. 7**). One of these reservoirs was unfortunately demolished by treasure hunters who used a bulldozer in their search for gold and other valuables. Two other reservoirs are – till now – more or less intact. The most northern reservoir is made up of large cut stones, in size and provenance resembling the ones which are used in the walls of the Roman fortress at Udhruh. This 50x50 m open reservoir – with standing walls still up to 1.5 metres – was used to irrigate a walled field system of approx. 20 hectares (50 acres). This field system consisted in two large level or levelled fields which were divided by a wall. After determining the high measurements of the channels, aqueducts and the reservoirs, we could work out which water works related to this reservoir. These calculations brought us to a rough estimate of a height of 2 metres for this reservoir, giving it a capacity of approx. 5000 m^3 (= 5.10 litres water). The capacity of the second, southern reservoir (34x36m) could in the same way be estimated at approx. 2500 m^3. This reservoir was used to irrigate a long rectangular field system of approx. 15 hectares (37.5 acres). This field system was subdivided into separate plots which were probably used for different purposes employing different irrigation techniques. At the eastern extremity a wall connected the eastern division walls of the two main field systems. At both the northern side of the northern field system as on the southern side of the southern field system walls were retrieved that continued for at least an extra 900 metres for the northern system. We followed and measured the southern wall for approx. 400 m, but it could be seen to continue for several hundred metres.

Qanat systems are difficult to date, but it seems that they were in use from at least the Late Roman period in the Levant region (Kamash 2010, 34-37). In appearance and construction of the *qanat* channels around Udhruh it is clear that these were made by highly qualified water engineers (**fig. 6**). Kamesh suggests that the Roman army played an important role in the construction of the *qanats* and irrigation works in the Roman Near East (Kamesh 2012, 70-72). The Petra Papyrus 25 mentions a well-irigated, cultivable plot of land around Udhruh – described as *patrimonium* – which was sold under control of

[15] We hope the optically stimulated luminescence dating will work out as this technique has proven to be effective for the area (see Beckers et al. 2013).



Fig. 6. Built up channels in recent erosion gully in Wadi el-Fiqay, 5 km southeast of Udhruh (picture by S. Al Karaimeh)

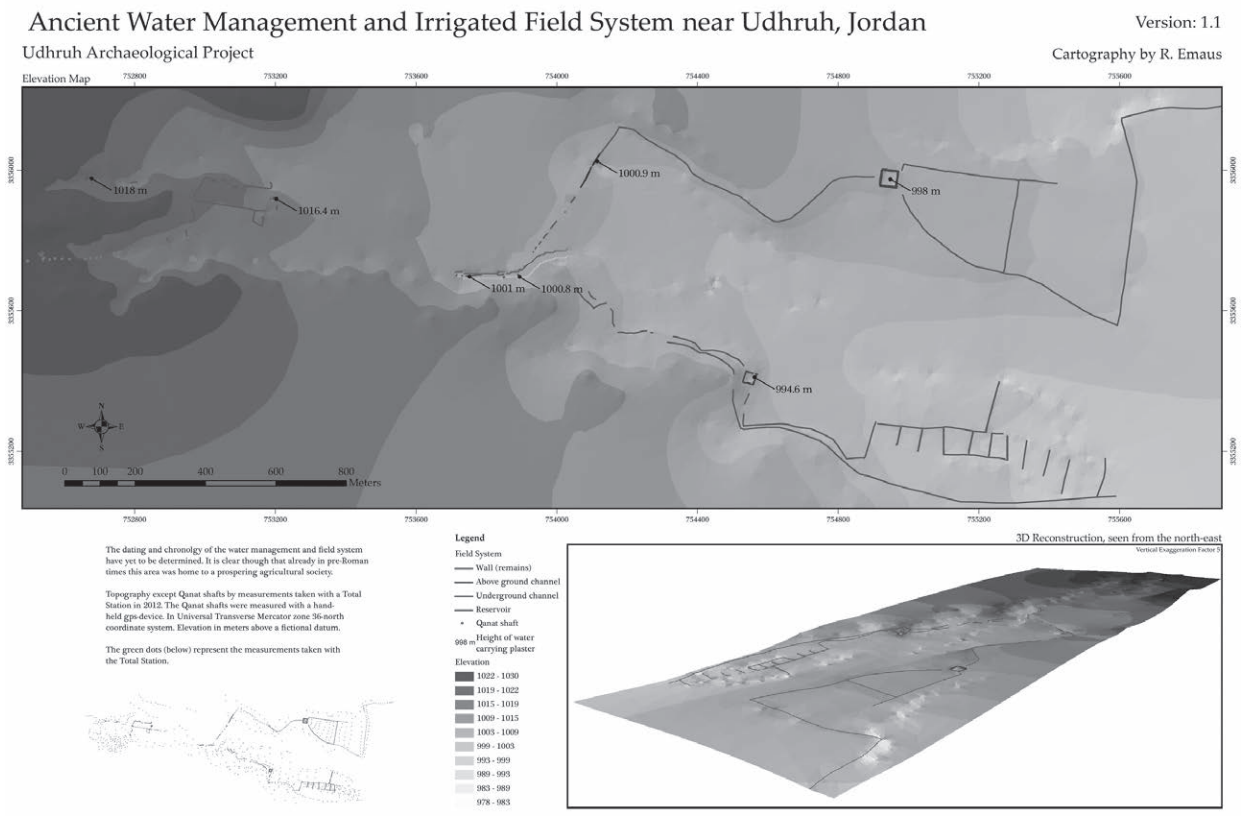


Fig. 7. Map of the ancient built up channels, aqueducts and irrigated fields in Wadi el-Fiqay, southeast of Udhruh (illustration by R. Emaus)

the imperial treasury in 559 CE (Arjava et al. 2007, 79-83). This description makes clear that the irrigation system around Udhruh was (still) in use in the Byzantine period. Mortar samples were taken of foundations, side walls, bottom and wall linings of the exposed channels, aqueducts and reservoirs. These will be used for OSL-dating and XRS-analysis[15]. The two fields of the northern field system were intensively surveyed to collect all possible diagnostic cultural finds. With the kind permission of the DOA all the diagnostic pottery sherds from this intensive field survey are taken to the Faculty

of Archaeology of Leiden University to be analysed the coming year. Diagnostic artefacts such as fragments of Mamluk and Ottoman glass bracelets were left at the Al Hussein Bin Talal University.

One of the *qanat* shafts was partially excavated: at a depth of 3 metres the original shaft was located, cutting right straight down through the bedrock. The rectangular shaft – which could be excavated for a further 3 metres – is 0.9 by 0.6 metres. On the short sides, round 10 cm holes were drilled at regular distances possibly to hold wooden pegs for some kind of ladder. For the 2013-2014 seasons it is planned to excavate several of these vertical shafts to reach the horizontal *qanat* shafts and the original aquifers. This might shed light upon the way the qanat was constructed and maintained, while the OSL-datings of the deepest sediments will hopefully clarify the point of abandonment.

Community Based and Interdisciplinary Approach

The Udhruh Archaeological Project was not only initiated to satisfy the professional and scientific wishes of the archaeologists involved. We also hope to meet the interests and needs of other stakeholders, as for instance the local community. During a meeting with the local authorities and the people of Udhruh several wishes and ideas came to light. First of all it became clear that the local community showed great interest in the archaeological heritage they live among. So we decided to start with an oral history project for the coming season. Local perceptions, ideas and oral traditions about the archaeology of the region are being collected to create a multi-vocal perspective on the site, to learn what value is ascribed to the place, and to promote awareness of the archaeological heritage among the local community. This information is gathered through semi-structured interviews and conversations with the local population. The plan is that the collected narratives will be published by a local printing company in both Arabic and in English. This booklet will first of all be distributed among the people with a connection to the heritage site: inhabitants as well as professionals and visitors. This will give the local community a voice in the archaeological project and it will give the professionals the opportunity to take the local views into account by the interpretation and management of the remains. Secondly, the booklet will be distributed among a wider public, through touristic places in the country (e.g., Wadi Musa, Jerash, Wadi Rum), to inform potential visitors and to attract them to the site. Although the Udhruh-region has great archaeological potential and is situated close to the touristic town of Petra, its inhabitants do not benefit from the nearby tourist industry. Collecting, publishing and distributing local stories can help to acquire more publicity for this archaeological site. This might be a start for the development of local community based tourism which will be of long-term economic value for the local population. To this end, contacts with the Cultural Geography Group of Wageningen University (The Netherlands) are being developed. With this we come to the second wish of the local community, that of economic development. There is a high level of unemployment in the region and the level of agriculture is mostly very basic. A quick scan showed that fertile and cultivable soils are still available. For proper analyses of the soil and sediments in the region a joint venture with the Institute of Geography of the Friedrich-Alexander-University Erlangen-Nürnberg (Germany) is being set up. There seems to be good agricultural potential here, as in the region several farms using efficient water application are already very profitable cash crop producers. A sustainable and very efficient method of irrigation seems to be the key to long term success in this. An annual precipitation of 100 mm does of course not allow large valley-based agricultural schemes, but history and archaeology show that the region used to be agriculturally rich in the past[16]. Antique sources point out that Udhruh was one of the richest towns in the province *Palaestina Tertia* in the Byzantine period[17]. Profitable agriculture was possible because of the antique *qanat* and field systems. Preliminary research of these systems point to a long period of use, which can be supported by the still ongoing use of these systems in other parts of the Middle East. These seem to be sustainable water supplying systems, provided that they are well maintained and that limited amounts of water are drained from the aquifers, in order to prevent them from drying up and also to avoid the salinization of the soils. In the future – in cooperation with local/regional communities and irrigation and dry-agricultural experts of Wageningen University – the ancient know-how and perhaps even (some of) the surviving antique system can be used to promote small scale, sustainable community based agricultural schemes. In try-

[16] There is some evidence that the region seem to have been dry but a bit wetter in the Roman and Byzantine period than today (see e.g., Bar-Matthews et al. 1998; Bruins 2006, 32; Gilbertson et al. 2007, 417-418).

[17] See for instance Beersheba edict; Stephanus of Byzantium 18,18.

ing to accomplish this many years of research will have to be carried out by a wide range of experts, but these somewhat weighty ambitions are a great goal to aim at.

The 2011-2012 field surveys have produced some interesting results. Hopefully these surveys will be continued in the coming seasons to get a more complete and diachronic view of the human activities in and around antique Udhruh. The joint venture between the two international institutes has proved to be full of success and synergy. We are confident that this international cooperation can benefit us all – the people of Udhruh as well as the archaeological partners.

Acknowledgements

The results of the Udhruh archaeological project and this paper were not possible without the work and assistance of our team. The Udhruh archaeological project core team consists of Roeland Emaus, Guus Gazenbeek, Sufyan al Karaimeh, Maarten Sepers, Frans Theuws, Sarah Wenner, Fawzi Abudanah and Mark Driessen.

Bibliography

Abudanh, F. / Twaissi, S. 2010. Innovation or Technology Immigration? The Qanat Systems in the Regions of Udhruh and Ma'an in Southern Jordan. – Bulletin of the American Schools of Oriental Research 360, 67-87.

Arjava, A. / Buchholz, M. / Gagos, T. (eds.) 2007. The Petra Papyri III. Amman.

Bar-Matthews, M. / Ayalon, A. / Kaufman, A. 1998. Middle to Late Holocene Paleoclimate in the Eastern Mediterranean Region from Stable Isotopic Composition of Speleothems from Soreq Cave, Israel. In: Issar, A.S. / Brown, N. (eds.). Water, Environment and Society in Times of Climatic Change, Amsterdam. 203-214.

Beckers, B. / Schütt, B. / Tsukamoto, S. / Frechen, M. 2013. Age determination of Petra's engineered landscape – optically stimulated luminescence (OSL) and radiocarbon ages of runoff terrace systems in the Eastern Highlands of Jordan. – Journal of Archaeological Science 40, 333-348.

Bruins, H. J. 2006. Desert environment and geoarchaeology of the Wadi Arabah. In: Bienkowski, P. / Galor, K. (eds.). Crossing the Rift: Resources, routes, settlement patterns and interaction in the Wadi Arabah, Oxford (Levant Supplementary Series 3). 29-43.

Clark, V. A. 2006. The Vicus Temple (Area Q). In: Parker, S.T. (ed.). The Roman Frontier in Central Jordan: Final Report on the Limes Arabicus Project, 1980-1989. Washington (Dumbarton Oaks Studies 40). 259-270.

Crawford, P. / Parker, T.S. 2006. The East *Vicus* Building (Area P). In: Parker, S.T. (ed.). The Roman Frontier in Central Jordan: Final Report on the Limes Arabicus Project, 1980-1989. Washington (Dumbarton Oaks Studies 40). 247-258.

Creighton, O. / Barker, G. / Mattingly, D. 2007. Recording and classifying the archaeological record. In: Barker, G. / Gilbertson, D. / Mattingly, D. (eds.). Archaeology and Desertification. The Wadi Faynan Landscape Survey, Southern Jordan. Oxford (Wadi Faynan Series 2 – Levant Supplementary Series 6). 97-140.

De Vries, B. 2006. The Water-mills in Wādī Lejjūn. In: Parker, S.T. (ed.). The Roman Frontier in Central Jordan: Final Report on the Limes Arabicus Project, 1980-1989. Washington (Dumbarton Oaks Studies 40). 271-280.

Driessen, M. J. 2007. Bouwen om te blijven: de topografie, bewoningscontinuïteit en monumentaliteit van Romeins Nijmegen. Amersfoort (PhD thesis: The Topography, Settlement Continuity and Monumentality of Roman Nijmegen: University of Amsterdam – Rapportage Archaeologische Monumentenzorg 151, with summaries and conclusions in English and German).

Gilbertson, D. / Barker, G. / Mattingly, D. / Palmer, C. / Grattan, J. / Pyatt, B. 2007. Archaeology and desertification: the landscapes of Wadi Faynan. In: Barker, G. / Gilbertson, D. / Mattingly, D. (eds.). Archaeology and Desertification. The Wadi Faynan Landscape Survey, Southern Jordan. Oxford (Wadi Faynan Series 2 – Levant Supplementary Series 6). 397-421.

Glueck, N. 1935. Explorations in Eastern Palestine II. New Haven (The Annual of the American Schools of Oriental Research 15).

Kamash, Z. 2010. Archaeologies of Water in the Roman Near East. New York (Gorgias Near Eastern Studies 54).

Kamash, Z. 2012. Irrigation technology, society and environment in the Roman Near East. – Journal of Arid Environments 86, 65-74.

Kennedy, D. L. 2004. The Roman army in Jordan. London.

Killick, A. C. 1983. Udruh. The frontier of an empire: 1980 and 1981 seasons, a preliminary report. – Levant 15, 110-131.

Killick, A. C. 1986. Udruh and the southern frontier. In: Freeman, P.W.M. / Kennedy, D.L. (eds.). The Defence of the Roman and the Byzantine East. Oxford (BAR Int. Series 297). 431-446.

Mason, D. J. P. 1988. The Roman Site at Heronbridge, near Chester, Cheshire: Aspects of Civilian Settlement in the Vicinity of Legionary Fortresses in Britain and Beyond. – Archaeological Journal 145, 123-157.

Piso, I. 1991. Die Inschriften vom Pfaffenberg und der Bereich der *Canabae legionis.* – Tyche 6, 131-177.

Spain, R. J. / Sparey-Green, C. / Wilson, A.I. 2010. The Roman watermills. In: Bennett, P. / Riddler, I. / Sparey-Green, C. (eds.) The Roman Watermills and Settlement at Ickham, Kent. Canterbury (The Archaeology of Canterbury New Series 5). 42-67.

Van Leusen, M. 2002. Pattern to Process, methodological investigations into the formation and interpretation of large-scale patterns in archaeological landscapes. Groningen (PhD thesis, University of Groningen).

Wikander, Ö. 2000. The Water-Mill. In: Wikander, Ö. (ed.).

Handbook of Ancient Water Technology. Leiden (Technology and Change in History 2). 371-400.

Wilson, A. I. 2008. Hydraulic Engineering. In: Oleson, J. P. (ed.). Handbook of Engineering and Technology in the Classical World. Oxford. 285-318.

Woolliscroft, D. J. 2001. Roman Military Signalling. London.

Dr. Mark Driessen
Leiden University
P.O. Box 9515
NL-2300RA Leiden
m.j.driessen@arch.leidenuniv.nl

Dr. Fawzi Abudanah
Petra College for Tourism and Archaeology
Department of Archaeology
Al-Hussein Bin Talal University
Jordan
fawziabudanh@yahoo.co.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Ancient Campaign Camps at *Dura-Europos*, Syria: A Preliminary Note

Simon JAMES

The Greco-Semitic city of *Dura-Europos* on the Syrian Euphrates, the so-called 'Pompeii of the East', met its destruction as the result of a ferocious siege conducted c. AD 256 by the Sasanian king Shapur I. He was intent on eliminating this Roman garrison town which, through massive reinforcement of its defences over the preceding year or two, had been turned into a fortress (James 1985; MacDonald 1986). As the city was depopulated and abandoned after it fell, the defences and siege-works were left undisturbed, and have offered us some of the most dramatic evidence ever recovered for the archaeology of war. Indeed, as this siege was effectively historically unattested, the story has been told entirely through archaeological fieldwork, providing us not only with unparalleled insights into the life of a Roman garrison and fighting force, but also into the awesome capabilities of an early Sasanian army (Leriche 1993; James 2011). These battlefield capabilities in turn imply organizational and logistic capacities of a high order, and the likelihood that the Sasanian besiegers constructed a huge and highly organised camp.

For many years we have known about a huge, apparently embanked or walled enclosure on the arid, virtually soilless limestone plateau, facing the western defences of Dura across its sprawling necropolis, recorded as a dotted line on the detail of a French military map showing Dura and its environs reproduced by Rostovtzeff in his overview of the Yale-French Academy excavations (1928-1937: Rostovtzeff 1938, fig. 4). Bigger than Dura itself, the enclosure incorporated a wadi which gave internal access from the waterless plateau to the Euphrates upstream of the city. Part of its nearer perimeter, including at least one entrance, appears on the map of the necropolis published in the *Preliminary Report*, in which the enclosure was first identified as a Sasanian siege work, although it was thought to be part of a circumvallation (Rostovtzeff et al. 1946, 1, Pl. I); it was apparently not realised that this was one side of the enclosure shown in the previously published French army cartography.

Some further exploration of these earthworks was undertaken by the recent Franco-Syrian expedition, under Pierre Leriche. In 2001 Mathilde Gelin cut trenches across the earthwork beyond the necropolis (pers. comm.: unpublished: fig. 1). She found still in situ a couple of courses of sun-dried brick, marking the foundation of a wall. Its exact width is not available, but from my own photographs it is c. 2 m. The bricks were made from the thin layer of dust-storm-deposited sandy red soil of the plateau. The low extant earthwork above the surviving brick was thought to represent coarse inclusions derived from the upper courses of similar bricks of a much taller superstructure which, over the centuries, has otherwise gradually blown away. There is no outward ditch as cutting one was practically impossible; the plateau surface comprises a layer of limestone so iron-hard that it has been known to break bulldozers (P. Leriche, pers. comm.).

Gelin initially identified the enclosure bricks as being of the same characteristic type as were used in the Sasanian siege ramp (pers. comm.). At the time this reasonably led her and Pierre Leriche to conclude that the enclosure was Shapur's camp for the final siege of the city. However, recently she has expressed reservations regarding the issue of common brick types in ramp and camp wall (pers. comm.). Nevertheless, her work is consistent with Yale's interpretation of the earthwork as plausibly related to the final siege, which therefore constitutes an important addition to our burgeoning knowledge of Sasanian military engineering practices and capabilities, attested at Dura and now also Hatra (Hauser / Tucker 2009); ***Hauser, this volume too? .



Fig. 1. Left, Gelin's 2001 excavation of the southern end of the eastern enclosure and putative Sasanian siege camp, its rampart here showing as a soil mark in spring vegetation. Right, another 2001 trench photographed in 2005, here across the western perimeter of the eastern enclosure where it is traceable as a low stony earthwork (photos: Simon James)

In 2011, while searching for the best available remote sensing imagery of Dura in connection with my current project studying the intramural Roman military base, I came across excellent sub-metre resolution satellite coverage of the city on Bing Maps (http://www.bing.com/maps/). In using the Bing imagery also to examine the city's environs, I was astonished to see that there was not just one enclosure near the city, but two more beyond the first, comprising three enormous conjoining earthwork-defined spaces strung for several kilometres along the edge of the plateau (**fig. 2**). The enclosures stretch from one point on the Euphrates cliffs in the NW to another outside the city walls in the SE, spanning a distance of 4.5 km.

Each enclosure incorporates more than a square kilometre of flat ground, backs onto the river cliff, and was positioned to enclose a wadi giving internal access to the Euphrates. The river cliffs are eroding quite rapidly in geological terms, but less so on the historical timescale, and so the archaeological remains under discussion are probably still very similar to their original form and size.

The three enclosures are contiguous, i.e. the western and eastern enclosures each share a partial common boundary with the central one. Further, from their shapes and their apparent interrelations they appear, at least superficially, to comprise a series of enclosures built in succession from the west towards the city; i.e. the central enclosure seems to have been laid out from the east side of the western enclosure; and the eastern enclosure laid out from the east side of the central one.

Their areas (enclosed flat ground, measured from the satellite imagery using Bing maps area measuring tool and the Google Earth path measuring tool) are as follows:

Western enclosure: c. 117 ha
Central enclosure: c. 124 ha
Eastern enclosure: c. 121 ha

Examining the imagery in detail, it was also possible to make out entrances. All three possess *tutulus* gates (entrances comprising a gap in the main earthwork line screened by a short outer earthwork), although that nearest the city also apparently possessed at least two entrances of a different form (below). While some corners are angular, others are rounded, which in combination with the *tutulus* gates makes them look strongly like Roman campaign camps.

In the absence of 'ground truthing' (impossible in the foreseeable future due to the tragic political situation in Syria, at the time of writing full-blown civil war), it is presumed that all three enclosures were built using the method revealed by excavation in the easternmost, i.e. they were entirely surface-built using air-dried mud brick.

This apparent method of construction, demanded by the geological peculiarities of the area, has a very important potential consequence for understanding the Dura earthwork enclosures. Roman campaign camps elsewhere are primarily attested

not by their upstanding earthworks (which survive in some areas, but most often have been ploughed flat), but rather from the outer ditches which had produced the rampart material. Even where the banks have long since vanished, the ditches may still be detectable through air photography or geophysical prospection; such camps are extensively explored in Britain particularly (Jones 2011; 2012). However, if the Dura enclosures simply comprised stacks of mud brick on the ground surface, they could easily have been reconfigured, or even wholly or partly removed without trace at any time, by simply (re)moving the bricks; and indeed there is reason to suggest that two further enclosures had suffered this fate (below).

Morphologically, then, these three enclosures closely resemble Roman temporary camps of forms well known from Europe. While I see no reason to doubt that, at least in its final form, the easternmost camp is indeed that of Shapur's siege army, I propose that all the Dura camps were most likely originally constructed by Roman forces (below). However, they are on a prodigious scale, much bigger than any other previously discovered Roman examples.

Along with modern plots of the Roman camps described by Polybius and Pseudo-Hyginus (after Jones 2012, fig. 14 and 15), **fig. 2** shows the Dura enclosures at the same scale as two camps in Scotland, St. Leonards and Logie Durno (Jones 2011, 299-300, 264-265 respectively). St. Leonards is the largest Roman marching camp previously known anywhere (Jones 2011, 299), which underlines the prodigious scale of the Dura examples: almost twice the size.

Soon after encountering the satellite imagery of the enclosures, I discovered that Pierre Leriche of MFSED was also aware of the three enclosures as a group. He has not published his case in detail, but Leriche regards the three enclosures as parts of a one-phase, multi-enclosure Sasanian siege camp, implicit in his brief reference to the matter: 'Shapur I besieged the city in 256 with a huge army, whose camp occupied four times the surface area of the city' (Leriche et al. 2011, 27 and fig. 1-12 which in-

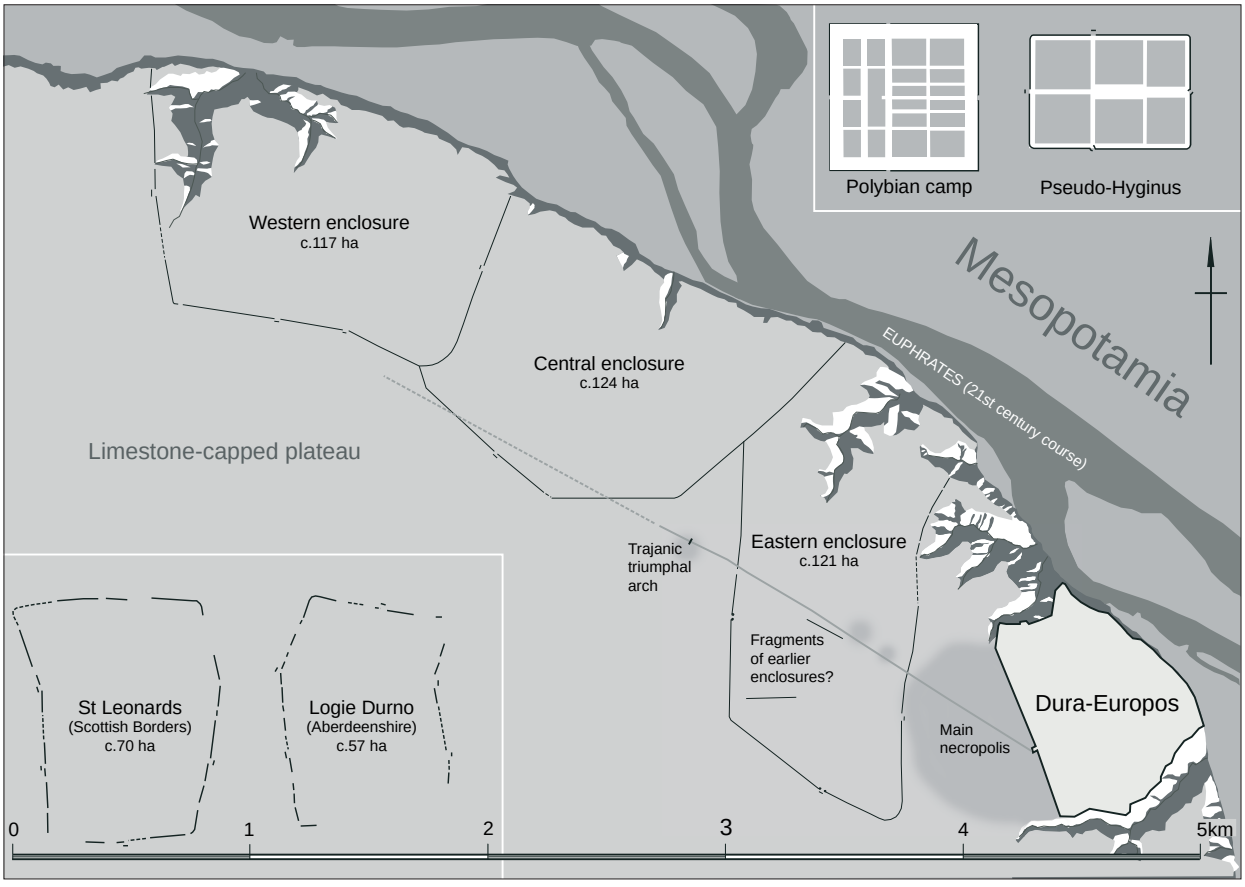


Fig. 2. The three complete enclosures and possible fragments of two others on the plateau northwest of *Dura-Europos*. These are identified as a sequence of mostly Roman field fortifications, in part reused by the Sasanians in AD 256. For comparison, two of the hitherto largest known Roman marching camps, and plots of the campaign camps described by Polybius and Pseudo-Hyginus, are presented at the same scale (after Jones 2012). (Drawing by Simon James)

cludes outlines of the eastern and central enclosures and part of the western). It turns out that not just the easternmost enclosure, but all three had been plotted in outline on the pre-World War II French military cartography extending beyond the area of the map reproduced by Rostovtzeff, which I had not previously seen. However, neither the French military survey nor Leriche's interpretative drawing include the vital detail of the entrances visible on the satellite imagery.

As we have already seen, from Gelin's excavations there are good reasons to believe that the easternmost enclosure facing the city is indeed Sasanian—or at least, has a Sasanian final phase. Further, the only other known ancient siege camp of comparable size is that recently elucidated, again with the help of satellite imagery, at Hatra, also plausibly ascribed to a Sasanian siege which took place about 15 years before Dura's. However, Hatra was a bigger objective, and also had to be invested on all sides. Dura, protected on one side by river cliffs and on two more by steep or vertically-sided wadis, could only practicably be attacked across the plain from the west.

It is hard to see why the Sasanians would have needed such a vast force that it demanded a triple camp. Why three contiguous enclosures with little or no intercommunication, rather than one large enclosure? It is suggested that, if the Sasanians did use more than one of the enclosures, this was because the others already existed anyway. While we need not doubt that the one nearest the city was indeed Shapur's camp, there are reasons to argue that the complex of enclosures had a much longer history, and that the more distant pair, indeed probably all three enclosures, had earlier, Roman origins.

Further, there are indications that the easternmost camp itself was actually multiphase. To begin with, it has more than one type of gate in its perimeter: two entrances exhibit expansions on each side, at the ends of the adjacent ramparts—towers?—features not known to me from Roman contexts; it also possesses two Roman-style *tutuli*. Was it therefore a Sasanian reworking of an older Roman camp? Equally striking, within its interior there are two other stretches of linear earthworks each around 200 m long. I suggest these earthworks are truncated lengths of perimeter boundaries representing two more, otherwise completely 'erased', mud brick enclosures: i.e. two further, earlier camps. We may, then, be dealing with a sequence comprising as many as five enclosures on the plain before the walls of the city, suggestive of a long history.

At the time of its destruction by the Sasanians, Dura had been in Roman hands for about 90 years, since its seizure from Parthian sovereignty under Lucius Verus. There is no indication (yet) that the Arsacids built fieldworks like this; if the Dura camps do represent an extended sequence, then it is inherently likely to be mostly Roman, as the general morphology of the enclosures also suggests. There are strong historical reasons for expecting that a series of Roman temporary camps will have been constructed around Dura, over the 150 years predating Shapur's siege; and that, given the ground conditions and history of the site, traces of some or all of these, as well as the final Sasanian siege camp, could well persist to the present.

A number of historically attested imperial expeditions certainly or probably passed down the Euphrates to Dura, beginning with Trajan's Parthian War. In his account of this conflict, Lepper argued that at least part of Trajan's army advanced to Dura before the end of 115—although it is not clear the emperor was there himself (Lepper 1948, 103, 116). Lepper concluded that *legio III Cyrenaica* had probably taken and occupied Dura by the winter of 115/6. He argued that Trajan himself then passed through Dura in 116, where, as part of a pincer strategy also involving a major attack on the Tigris axis, 'another army, supported by a supply fleet, awaited him', and he then marched quickly down the Euphrates towards Seleucia (Lepper 1948, 210; also 127, 133-4). Here, then, are two distinct but related contexts for possible campaign camps outside Dura: one relating to the initial Roman taking of the city and, soon after, the use of the city and doubtless its environs as the assembly point for a further major expedition.

Rome abandoned Dura on Trajan's withdrawal from Mesopotamia and, so far as we know, the city was not troubled by Roman forces again until the reign of Lucius Verus when, c. 165 during renewed conflict with Parthia, it was taken by the army of Avidius Cassius and permanently annexed. The course of this war is notoriously obscure, attested largely by Lucian's *How to Write History*, which takes satirical swipes at the ignorance of historians through discussing reportage of incidents from the campaigning. This work refers to an apparently major battle at 'Europos', which some modern commentators still place at Dura (Sheldon 2010, 159, citing Lucian, *How to Write History*, 20, 24, 28). However, this is much more plausibly locatable at Carchemish, another Hellenistic 'Europos', given its proximity to other specific locations mentioned in

the record (Edwell 2008, 161). Nevertheless, Dura clearly did come under permanent Roman control from the time of this war, so c. 165 is another plausible moment for the Romans to construct or refurbish a campaign or siege camp outside Dura.

Under Roman rule, on at least one occasion a huge imperial force passed by Dura again. In 198, Septimius Severus used the Euphrates route on his way to attack Babylonia: '…Severus… constructed boats on the Euphrates and proceeded forward partly by sailing and partly by marching along the river. … Thus he soon had seized Seleucia and Babylon…' (Cassius Dio, 76.9). Such a major imperial expeditionary force—imperial court, army, fleet and baggage train—would have been far too large to accommodate in the city, and so may have reused any existing military enclosures. Or quite conceivably Severus built new ones as both security measure and training exercise, as he worked up his army for war.

From the 220s Rome was on the back foot against rising Sasanian power, but Dura continued to serve the role of prospective advanced invasion base for any attempted imperial counterstrokes. In 232 during Severus Alexander's multi-pronged attack on the Sasanians, one of his three armies apparently advanced down the Euphrates and so passed through Dura. It has been suggested that this emperor himself also visited the city (Cumont 1926, lix).

Dura may well have fulfilled the role of expedition base or waypoint again in 244, if Sasanian accounts of the defeat of a Roman army led by Gordian III in battle at *Meseke* (or *Misiche*) are accurate (*Res Gestae Divi Saporis*, 3–4; Huyse 1999), and if this is correctly located on the Euphrates near modern Fallujah. Roman accounts do not mention this battle at all, perhaps because it was a humiliating defeat; where Shapur claimed to have killed Gordian, the Roman sources focus on his alleged assassination by Philip the Arab. Whatever the truth, Ammianus reported that Julian's army encountered Gordian's tomb on the march from Circesium to Dura and the emperor sacrificed there, which again indicates a Euphrates route for his operations (Amm. 23.5.4-8; Chalmers 1959).

Finally, a century after Shapur besieged Dura, Julian's army also advanced past the city on its ill-fated invasion of the Sasanian empire (Ammianus 24.1. 5), although it is not clear that the Romans still built temporary camps by that date.

There is one other possible historical context for construction of an actual siege camp outside Dura; for the city may have fallen to the Sasanians twice. Grenet has argued that textual evidence implies the city was briefly held by the Sasanians c. AD 252-3 (Grenet 1988). The circumstances are obscure, and if the city was taken then it probably capitulated without major fighting, as there seem to be only a single set of Sasanian siegeworks, but it may only have surrendered after the Sasanians had created a camp. Even if Grenet is correct, Dura is known to have been back in Roman hands by 254, when its defences were massively strengthened in correct anticipation of a determined siege.

How far can we bring together these historical episodes with the archaeological events attested by the enclosures at Dura? The answer is, not far yet, without being able to 'ground-truth', especially given the peculiarities of the construction of the camps and their consequent easy mutability, potentially leaving no trace of any changes. However, although space precludes further discussion here, existing contextual evidence from Dura does suggest that considerably more may be said about the 'conflict landscape' (Coulston 2001) at Dura-Europos, which satellite imagery confirms covers a much larger area that has hitherto been realised and which likely includes not only the famous siege works and newly identified camps, but also an important open battlefield as well. These arguments will be explored in further publications.

Acknowledgements

I would like to thank Gaelle Coqueugniot and Mathilde Gelin for information, and Pierre Leriche for past discussions of the eastern enclosure, but must note that none of the aforementioned necessarily agrees with the interpretations expressed here.

Bibliography

Chalmers, W.R. 1959. An Alleged Doublet in Ammianus Marcellinus. – Rheinisches Museum für Philologie Neue Folge 102, 2, 183-189.

Coulston, J.C.N. 2001. The Archaeology of Roman conflict. In: Freeman, P.W.M. / Pollard, A. (eds.). Fields of Conflict: Progress and Prospect in Battlefield Archaeology (= British Archaeological Reports International Series 958). Oxford. 23-49. British Archaeological Reports International Series 958. 23-49.

Cumont, F. 1926. Fouilles de Doura-Europos 1922-3. Paris: Geuthner.

Edwell, P. 2008. Between Rome and Persia: The Middle Euphrates, Mesopotamia and Palmyra Under Roman Control. London: Routledge.

Grenet, F. 1988. Les Sassanides à Doura-Europos (253 ap. J.C.): réexamen du matériel épigraphique iranien du site. In: Gatier, P.-L. / Helly, B. / Rey-Coquais, J.P. (eds.). Géographie historique au Proche-orient. Paris: Centre national de la recherche scientifique. 133–158.

Hauser, S.R. / Tucker, D.J. 2009. The Final Onslaught. The Sasanian Siege of Hatra. – Zeitschrift für Orient-Archäologie 2, 106-139.

Huyse, P. 1999. Die dreisprachige Inschrift Šābuhrs I. an der Ka'ba-i-Zardušt (ŠKZ). London: School of Oriental and African Studies.

James, S.T. 2011. Stratagems, combat and "chemical warfare" in the siege-mines of Dura-Europos. – American Journal of Archaeology 115, 69–101.

James, S.T. 1985. Dura-Europos and the Chronology of Syria in the 250s AD. – Chiron 15, 111-124.

Jones, R.H. 2012. Roman Camps in Britain. Stroud: Amberley Publishing.

Jones, R.H. 2011. Roman Camps in Scotland. Edinburgh; The Society of Antiquaries of Scotland.

Lepper, F.A. 1948. Trajan's Parthian War. Oxford: Oxford University Press.

Leriche, P. 1993. Techniques de guerre sassanides et romains à Doura-Europos. In: Vallet, F. / Kazanski, M. (eds.) L'armée romaine et les barbares du III^{e} au VII^{e} siècle. Rouen and Saint-Germain-en-Laye: Association Française d'Archéologie Mérovingienne and Musée des Antiquités Nationales. 83-100.

Leriche, P. / Coqueugniot, G. / de Pontbriand, S. 2011. New Research by the Franco-Syrian Archaeological Expedition to Europos-Dura and New Data on Polytheistic Sanctuaries in Europos-Dura. In: Chi, J.Y. / Heath, S. (eds.). Edge of Empires: Pagans, Jews, and Christians at Roman Dura-Europos. Princeton. 15-38.

MacDonald, D. 1986. Dating the Fall of Dura-Europos. – Historia 35, 1, 45-68.

Rostovtzeff, M. 1938. Dura-Europos and its Art. Oxford: Clarendon Press.

Rostovtzeff, M. / Bellinger, A. / Brown, F. / Welles, C. (eds.) 1946. The Excavations at Dura-Europos, Preliminary Report on the Ninth Season, 1935-1936, Part 2: The Necropolis. New Haven: Yale University Press.

Prof. Simon James BSc PhD FSA
School of Archaeology & Ancient History
University of Leicester
UK-Leicester LE1 7RH
stj3@le.c.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Roman Army at *Petra*

S. Thomas PARKER

When Trajan annexed the client kingdom of *Nabataea* in AD 106 and transformed it into the new Roman province of *Arabia*, the regional capital moved from *Petra* in the heart of the former kingdom to *Bostra* in the far north (**fig. 1**). The latter city henceforth served as the usual seat of the provincial governor and the headquarters of the new province's legionary garrison, *legio III Cyrenaica*. Yet there is much evidence to suggest that *Petra* remained a city of considerable size and importance after the annexation (Fiema 2003). Various lines of evidence, including papyri and inscriptions, suggest a substantial Roman military presence in and around the city (**fig. 2**). The evidence attests the presence of both legionary and auxiliary forces. It has been suggested that one sector of the city, the North Ridge, which commands the center of the city, may have even served as a military compound after the annexation (**fig. 3**). This area was the focus of new excavations at *Petra* launched in the summer of 2012. This paper will summarize the available evidence and consider the strength and mission of the Roman army at *Petra* from the second to the fourth centuries. Evidence for the presence of the Roman army at *Petra* during the Byzantine period is beyond the scope of this paper.

Clearly this is not the place for another re-examination of the vexed questions surrounding the Trajanic annexation itself. I have offered my own views in more detail in a paper delivered to the Congress in Spain (Parker 2009a). But a brief summary of how this event may have directly affected *Petra* itself is obviously relevant to the present question of the city's initial Roman military presence. Various archaeological excavations suggest destruction around the turn of the 2nd century in several different sectors within the urban center, including the Temple of the Winged Lions, the so-called Great Temple, and the domestic complex of ez-Zantur. This destruction is paralleled elsewhere in the Nabataean kingdom. Although it is likely that at least part of this destruction may be attributed to an otherwise unattested earthquake in this region, the evidence from the Great Temple is especially evocative. Here the excavators discovered systematic blockage of the building's entrances, a great cache of stone ballista balls, and a destruction layer that yielded a number of arrow heads and other military equipment, all dated to the turn of the 2nd century. The most plausible explanation of this evidence is that the "Great Temple" was fortified as a center of resistance within the city. If so, of course, all this was futile, for the Roman army certainly soon crushed all resistance.

This is evident from the famous papyrus (P. Mich. 466) of March 107, written from the new province by a Roman legionary soldier to his father in Egypt, that suggests that the Romans were in full control of the city scarcely one year after the annexation (Preaux 1950-51). This letter contains a number of critical details that illuminate the local situation at this time. The soldier, Gaius Julius Apollinarius, is serving in *legio III Cyrenaica*, part of the original invasion force under the command of Claudius Severus. This letter was presumably written in *Bostra*, the new provincial capital in the north of the province, since Julius mentions that he was enrolled "in the cohort stationed there". Julius then mentions that *Bostra* "lies eight days' journey from *Petra*, perhaps implying that he had already visited the Nabataean capital or perhaps was intending to go there. He also writes that he is eager to come home to Egypt for a visit, "as soon as the commander begins to grant furloughs", implying that the local security situation still does not permit this (Freeman 1996). On the other hand, since merchants were

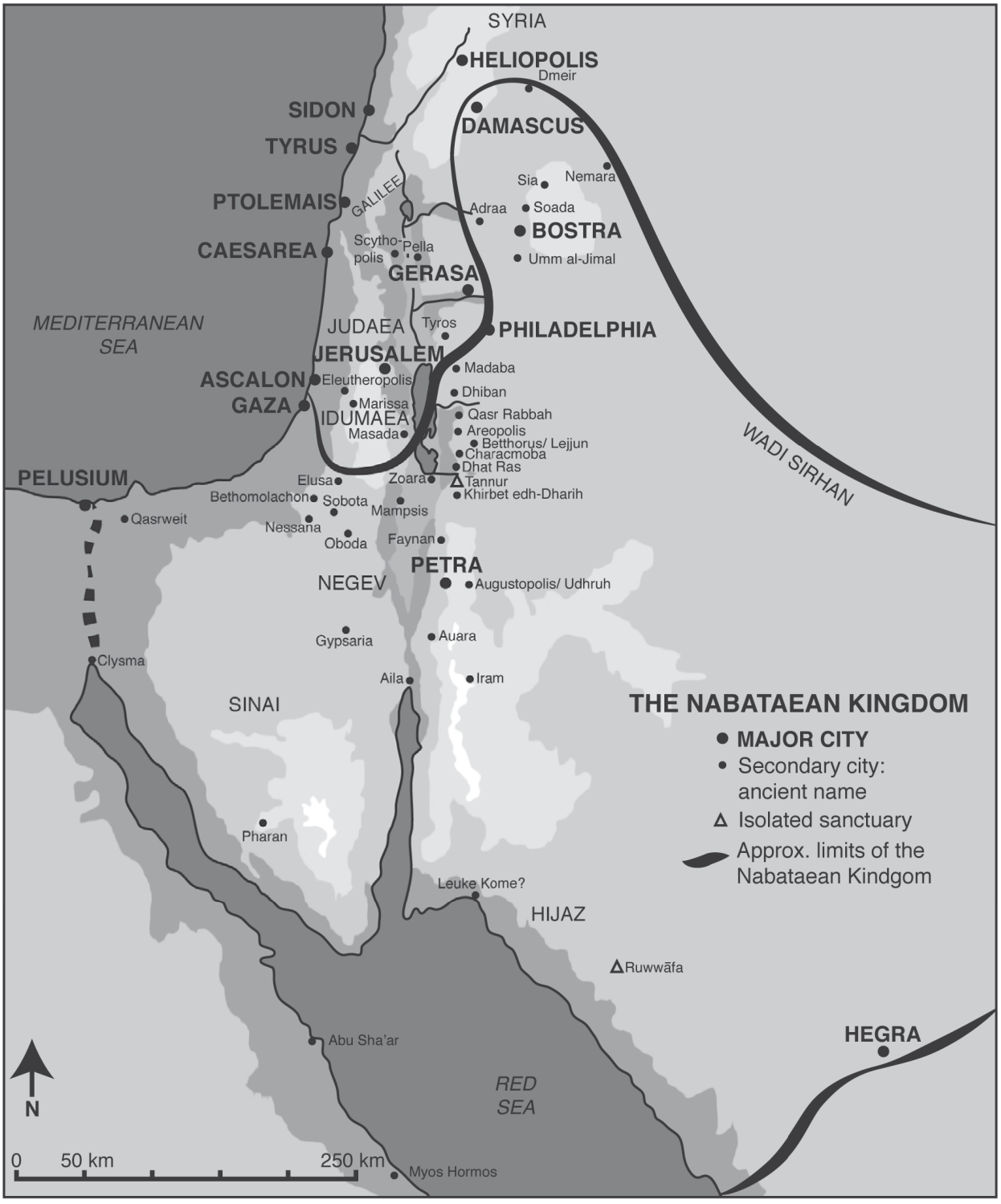


Fig. 1. Map of the Kingdom of Nabataea with locations of *Petra* and *Bostra*

arriving daily from *Pelusium* in Egypt, normal economic activity such as regional trade had apparently resumed in the region. Finally, Julius mentions that he had been spared the onerous task of some of his comrades, who were "cutting building stones all day long" among other duties. We will return to this last detail shortly.

In 2012 the author co-directed with Megan Perry renewed excavations on the North Ridge of Petra. This project, among other objectives, aimed to investigate a sector of *Petra*'s city wall which has been mapped from surface observation for decades but has also remained undated. Proposed dates have thus ranged from the Nabataean era to the

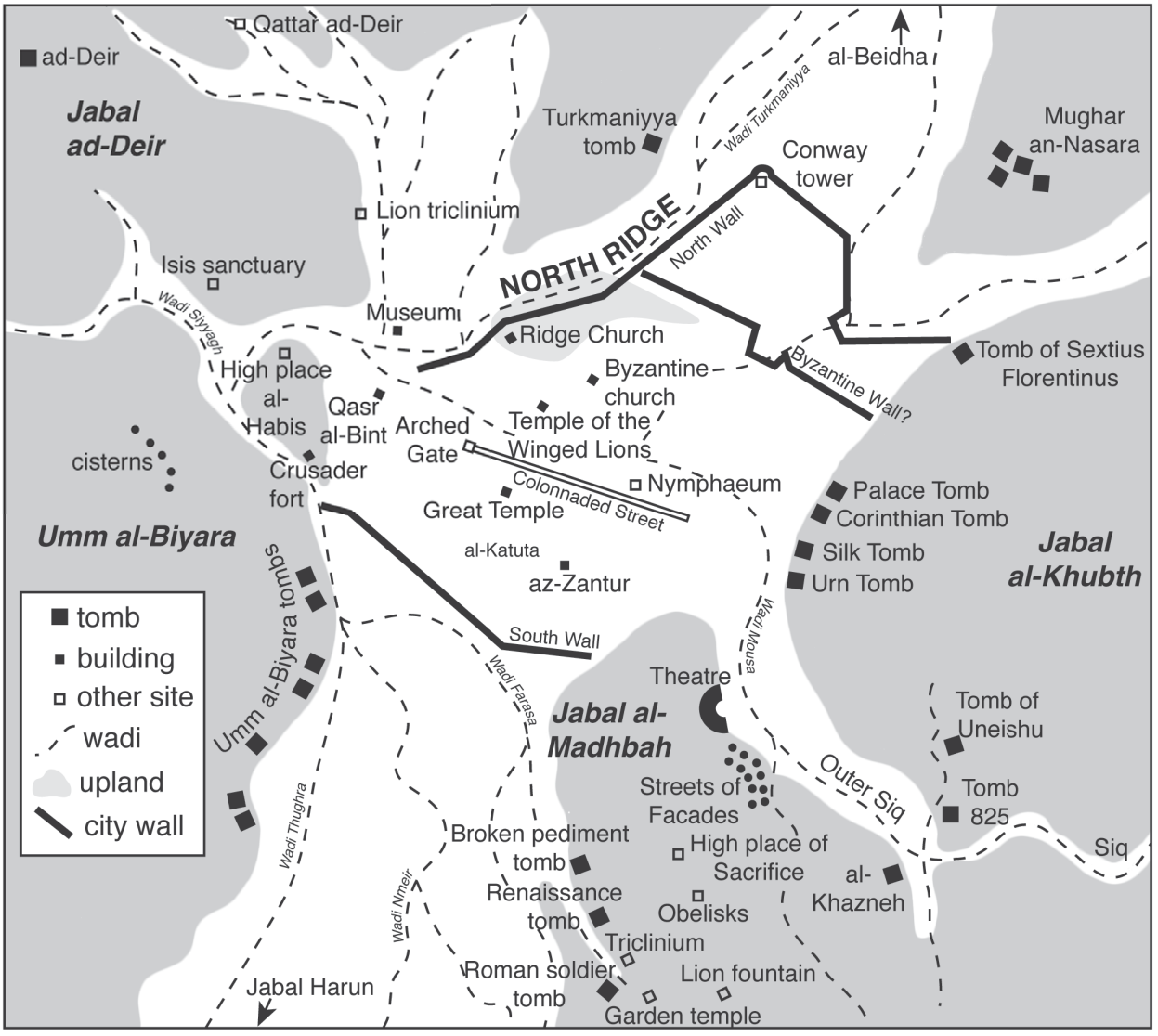


Fig. 2. Plan of *Petra* city center

Byzantine period. The northern segment of the city wall extends along the North Ridge and thus was a major target of our new excavation (**fig. 4, 5**). The wall in this sector is constructed of coursed masonry, averages 1.7 m in thickness, and rests on a thin layer of ashy soil which in turn directly overlies bedrock. The wall still stands in places up to 3.75 m in height.

An excavation by Peter Parr in the 1960s exposed apparent domestic structures outside the north face of the wall on the ridge. These domestic structures clearly antedate the wall, which partially cuts through and extends over the domestic structures. Parr's unfortunately only published a brief preliminary statement (Parr 1986, 200). We opened three trenches along the south or inner face of the curtain wall, i.e. on the opposite side of Parr's area. Two of these trenches, A.2 and A.3, reached the foundations of the city wall's south face. Excavation also revealed that the domestic structures Parr exposed north of the city wall continued south of the wall but had been cut and partly demolished by the city wall's construction. These domestic structures dated to the 1st century AD (i.e., to the Nabataean period) but appeared to have been abandoned prior to their partial demolition by the erection of the city wall. The segment of the wall exposed in Trench A.3 included a rectangular stone structure bonded into and projecting from the south wall face. This may have served as a rampart. The latest pottery recovered from under the foundations of the city wall dated to the early 2nd century, providing a *terminus post quem* for construction of at least this segment of *Petra*'s city wall. Given that at least this segment of the city wall of Petra was possibly erected in the early 2nd century, i.e. around the time of the Roman



Fig. 3. Photograph of northern segment of *Petra*'s city wall. Earlier Nabataean domestic structures are visible in front of wall to the right (photo by S. Thomas Parker)

annexation, what are the historical scenarios surrounding its construction?

The first possibility is that the city wall was erected by the Nabataeans immediately before the Roman invasion that began in March of 106. Close examination of the wall reveals that it was constructed of diverse materials, including stones apparently robbed from other structures. The north face of the segment excavated in Trenches A.2 and A.3, for example, seems to have reused stones robbed from the earlier domestic complex over which the city wall extends. There is also an apparent lack of towers along the north wall, including the c. 60 m segment planned by the project. The contrast with fortifications of other major cities of the province, such as *Gerasa*, which has been broadly dated to the same period, could not be more pronounced. In short, the city wall of Petra might be interpreted as a desperate, if ultimately vain, effort to fortify the city center in a rather hurried fashion.

However, an alternative is also obvious: the city wall was erected by the Roman army soon after its occupation of *Petra*. Given the archaeological evidence for serious resistance to the annexation, quite possibly centered in *Petra* itself, Claudius Severus might well have felt an urgency to fortify a sector of the city to protect any newly installed garrison. Although there is no direct evidence for the presence of a Roman garrison at *Petra* immediately after the annexation, this still seems highly probable. We have already noted above that the letter of Julius Apollinarius implies that, even a full year after the annexation, local commanders apparently had not yet begun to grant leaves to their troops in *Petra*. And Philip Freeman has argued that the rather enigmatic gap of five years between the annexation and the earliest dated milestones of the *via nova Traiana* in AD 111, as well as other evidence, suggests that the province of *Arabia* was not effectively organized until the latter date until various internal security problems could be resolved (Freeman 1996). Finally, the reference of Julius Apollinarius to soldiers cutting building stones all day long might well refer to such military construction.

The North Ridge is in fact the most likely site within the city for such a military base. The ridge is defensible and offers commanding views of the urban center. This location and the discovery of several later Roman military inscriptions, reused in the Byzantine churches erected on the ridge, has

led Patricia Bikai (oral communication) to suggest that the North Ridge became the Roman military headquarters within *Petra* during the 2nd and 3rd centuries. This remains an attractive if still far from proven suggestion.

The chronological evidence from the recent excavations does not permit a definitive answer between these two alternative scenarios. Given that the dating evidence is thus far purely ceramic, this issue can only be resolved definitively by yet to be discovered epigraphic evidence. Another major problem is how this segment of city wall on the North Ridge relates to other segments traced, if often only tenuously, to the south. Various plans published over the years present somewhat differing alignments and even sometimes disagree over what physical remains should be considered as segments of the city wall. Clearly, we need a more careful, comprehensive survey and further selected excavations to understand more fully the nature, date, and purpose of *Petra*'s urban defenses. But least we now have firm evidence for the northern segment with all its possible implications for the Roman army in *Petra*.

Subsequent evidence for the presence of the Roman army in *Petra* for the remainder of the Principate is sparse. An epitaph of C. Antonius Valens, an *eques* of the cavalry unit attached to *III Cyrenaica* from the vicinity of *Petra*, is undated but presumably dates from the 2nd or 3rd century (Sartre 1993, 52). Since this soldier died at age 24, he likely died in rank and thus while stationed in or near *Petra*.

David Kennedy has reasonably supposed that at *Petra*, as a metropolis and a regular stop for the provincial governor on his judicial tours, one might expect *beneficiarii* of the governor and a small permanent garrison in the 2nd and 3rd centuries (Kennedy 2004, 176). There is no mention of any garrison at *Petra* either in Eusebius' *Onomasticon* (dated to the turn of the 4th century) or in the *Notitia Dignitatum* (*Oriens 34*). Instead, it seems much more likely that, once the new province had been pacified, the main military presence in the region in the 2nd and 3rd centuries was posted at Udhruh, a major site c. 10 km east of *Petra*. Udhruh commands a perennial water source and lies on a Roman road. A still unpublished auxiliary diploma from the reign of Antoninus Pius was allegedly found here and a fortress for *legio VI Ferrata* was erected here during the Tetrarchy (Kennedy / Falahat 2008). The *Notitia* does list several auxiliary units posted in the wider region around *Petra*

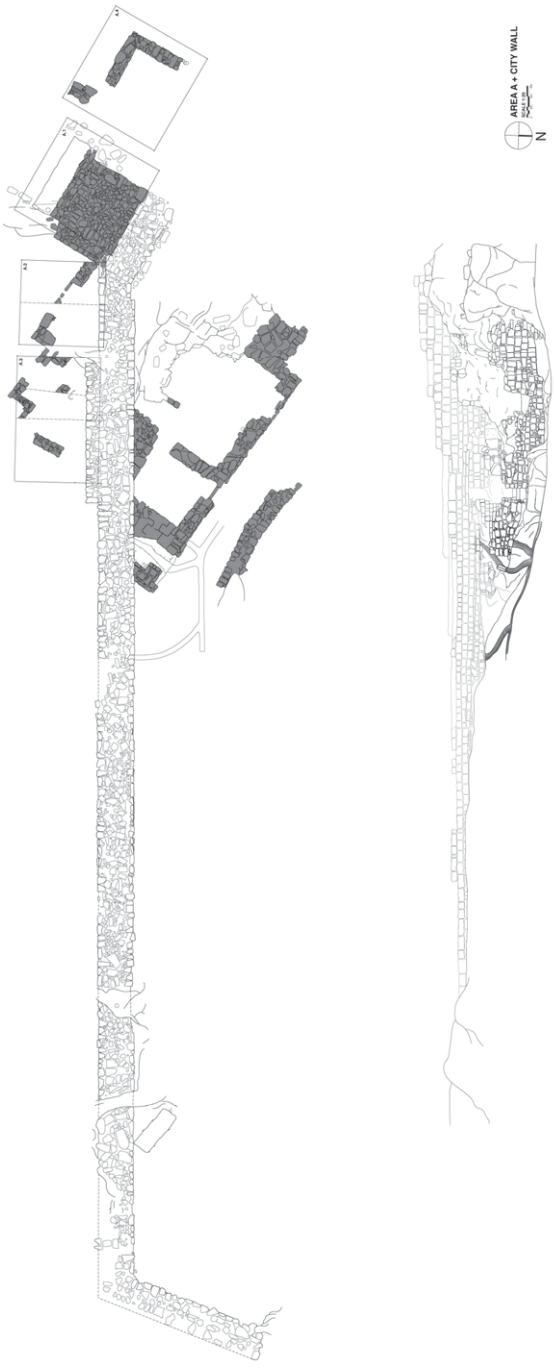


Fig. 4. Plan and elevation of northern segment of *Petra*'s city wall, with excavation trenches of Petra North Ridge Project (drawing by Anna D. Hendrick)

by the late 4th century, when *VI Ferrata* had been withdrawn (Parker 2009b).

On balance, it seems that once the province had been pacified, any significant Roman garrison posted at *Petra* was soon withdrawn for service elsewhere. *Petra* probably retained a small garrison, perhaps only a small detachment drawn from the legion and/or the provincial auxiliary garrison, to enforce order and serve the governor during his regular vis-



Fig. 5. Photograph of inner (south) face of the northern segment of *Petra*'s city wall. The buttress is visible at the base of the wall (photo by Abigail Turner)

its. This small garrison may have been stationed on the North Ridge, although the evidence is far from conclusive. Perhaps the ongoing excavations here will reveal more evidence in this regard.

Bibliography

Fiema, Z. 2003. Roman Petra (A.D. 106-363): A Neglected Subject. – Zeitschrift des Deutschen Palästina-Vereins 119, 38-58.

Freeman, P. W. M. 1996. The Annexation of Arabia and Imperial Grand Strategy. In: Kennedy, D.L. (ed.). The Roman Army in the East. – Journal of Roman Archaeology Supplementary Series 18, 91-118.

Kennedy, D. 2004. The Roman Army in Jordan. London.

Kennedy, D. / Falahat, H. 2008. Castra Legionis VI Ferratae: A Building Inscription for the Legionary Fortress at Udruh near Petra. – Journal of Roman Archaeology 21, 150-169.

Parker, S. T. 2009a. Arabia Adquisita: The Roman Annexation of Arabia Reconsidered. In: Morillo, A. / Hanel, N. / Martín, E. (eds.). Limes XX: Roman Frontier Studies. XXth International Congress of Roman Frontier Studies. 3 vols. Madrid. 1585-1592.

Parker, S. T. 2009b. The Roman Frontier in Southern Arabia: A Synthesis of Recent Research. In: Hanson, W.S. (ed.). The Army and Frontiers of Rome: Papers offered to David Breeze on the occasion of his sixth-fifth birthday and his retirement from Historic Scotland. – Journal of Roman Archaeology Supplementary Series 74, 142-152.

Parr, P. 1986. The Last Days of Petra. In: Bakhit, M.A. / Asfour, M. (eds.). Proceedings of the Symposium on Bilād al-Shām During the Byzantine Period. vol. 2. Amman. 192-203.

Préaux, C. 1950-51. Une source novella sur l'annexation de l'Arabie par Trajan. – Phoibus 5, 123-139.

Sartre, M. 1993. Inscriptions de la Jordanie 4: Petra et la Nabatène (= IGLS XXI). Paris.

S. Thomas Parker, Ph.D.
Department of History
USA-North Carolina State University
thomas_parker@ncsu.edu

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Origin of the Ring Buckle Belt and the Persian Wars of the 3rd Century

Stefanie HOSS

The Roman military belt was the distinguishing object that visually set the soldiers apart from civilian men in Roman society and marked them as *milites* even when they were not wearing arms and armour (Hoss 2011, 29-31; 2013). The depictions of soldiers on official monuments and on their gravestones provide evidence that the military belt was used by legionaries, auxiliaries and navy alike – only the cavalry seems to have used a different belt during the first two centuries AD (Hoss 2010, 286-287).

It is a testimony to the conservativeness of the Roman army that the belt seems to have kept this important function even after the sword was carried on the shoulder-belt or baldric from the 2nd century AD onwards. The continuing importance of the belt becomes especially obvious in the late 2nd and early 3rd century AD, when a new system of fasting the belt became fashionable, namely the ring buckle (von Schnurbein 1977, 87-89). This style quickly spread to soldiers in all regions of the Roman Empire and is depicted on a vast number of funerary monuments. In contrast to the earlier belts, the gravestones prove that all soldiers – including cavalry soldiers – wore the ring buckle belt (Hoss 2010, 288).

The origin of this belt fashion – which according to von Schnurbein (1977, 89) has no Roman predecessors – has previously been assumed to lie in the German, Danubian or Sarmatian regions (Schnurbein 1977, 87-91; Raddatz 1953, 77), but none of the suggestions have so far been conclusive. As Simon James (2004, 249-250 and 2012, 215, fig. 66, 76) has previously shown, evidence from Iran points towards a different origin.

Finds of ring buckles from the region are unfortunately without context, although they are believed to come from graves in southeast Iran (James 2004, 250), and are only insecurely dated. The most reliably dated pieces of evidence are several depictions of ring buckle belts on the triumphal reliefs of Shapur I. This Sassanid king (reign AD 240/42 – AD 270/72) celebrated his victories over the Roman emperors in no less than five rock reliefs, three of which depict ring buckle belts. Of these, two are located in a river gorge near the city of Bishapur, situated west of Shiraz in Iran. The third relief is located in Naqsh-e-Rustam, a rock face about 5 kilometres from *Persepolis*, east of today's Shiraz.

According to Herrmann (1998, 41), the dating and thus the sequence of the three reliefs is not quite clear, but more relevant for the question examined here is that they depict ring buckle belts in two different manners. The identification of the Roman emperors on the reliefs follows McDermot (1954, 76-80), who was able to name the figures in the Bishapur reliefs with the help of the contemporary inscription on the wall around the Ka'ba-ye Zartosht at Naqsh-e-Rustam (see below, Gignoux 1991). The correlation between the position of each Roman emperor (kneeling versus standing) and their different belt accessories (ring buckle versus frame buckle) in the reliefs Bishapur II and Naqsh-e-Rustam in my opinion indicates that the same person was meant each time.

All three reliefs have a scene showing Shapur on a horse, with the defeated Roman emperors on foot. In Naqsh-e-Rustam (**fig. 1**), King Shapur is pictured from the right, holding the right hand of emperor Valerian, whom he captured in AD 260 (Herrmann 1989). The hand is hidden in the sleeve as a sign of respect towards the Sassanid king. Emperor Philippus Arabs, who sued for peace in AD 244, is kneeling in front of the horse. He wears a baldric on which his sword hangs, and a belt with a ring buckle. The belt of Valerian, on the other hand, seems to

have a frame buckle, a variant of the ring buckle that is more or less square and is depicted on some funerary monuments as well, such as the sarcophagus of a *signifer* and his wife from Budapest or the tombstone of Marcus Cocceius Superianus from Lobor in Croatia.[1] The manner in which the belt ends of Valerian's belt are tucked under on both sides of the buckle also corresponds to depictions from soldier's funerary monuments, such as the one of Marcus Aurelius Lucianus from Rome.[2]

The reliefs Bishapur II and Bishapur III show similar scenes placed in the centre of the relief (Hermann 1981-83; Vanden Berghe 1983, # 60 and 61). They are flanked by additional registers depicting less elevated personages on both sides, with horsemen on the registers on the left and men on foot on the right. The central scene of the Bishapur III relief is quite damaged, but seems to be more or less a copy of the Bishapur II central scene (**fig. 2**). The latter depicts all three Roman emperors defeated by Shapur the First: in addition to the standing Valerian, being held by his right hand (again, hidden in the sleeve) and the kneeling Philippus Arabs, begging for mercy with folded hands, we can see Gordian III lying dead under Shapur's horse. Gordian died (under circumstances that are still under debate) during the campaign against Shapur in AD 244.

Philippus Arabs wears a belt with a ring buckle and a baldric with a round mount and a heart-shaped pendant. From this hangs his sword with a hilt that may be a crude version of an eagle's head. Valerian wears a similar baldric and – as in the Naqsh-e-Rustam relief – a belt with a frame buckle.

As noted previously, the registers flanking the central scene on the Bishapur II and III reliefs show horsemen on the left side. Both Hermann (1998, 44) and von Gall (1998, 52) agree that the horsemen, which are placed behind the king on his horse, are dressed and attributed in typical Persian fashion and can thus confidently be identified as Persians (**fig. 3**).

In both Bishapur reliefs, men on foot advance from the right towards the central scene with the Sassanidan king. But the right-hand registers of Bishapur II and III differ slightly: the Bishapur II relief has two right hand registers, which are divided into five groups of three men each, each of these groups having its own frame (**fig. 4**). The two upper frames show (**1a**) men bearing *signa*-like implements and (**1b**) men carrying very long swords on low-slung belts. All are wearing ring buckle belts and none are wearing baldrics. The three lower frames show from left to right: (**2a**) another group with very long swords on low-slung belts and a different headgear and (**2b**) and (**2c**) two groups of unarmed men carrying various objects. Again, all men are wearing ring buckle belts, and again, none of them wears a baldric. Two groups (**2b** and **c**) have the ends carried back to the belt in a bow and fixed there, which is similar to some Roman gravestones and to the depiction of one of the emperors (Valerian) on the Naqsh-e-Rustam and Bishapur II reliefs.

All five registers on the right-hand side of the Bishapur III relief show unarmed men on foot bringing diverse objects and animals. This ties in very well with other Persian reliefs showing conquered peoples bringing tribute (Herrmann 1998, 42). But only the men in the upper three registers wear small ring buckle belts, with short ends hanging straight down from the buckle (**fig. 5**).

Von Gall and Herrmann each have tried to identify the ethnicity of the men on the right-hand sides of the Bishapur II and III reliefs. Both agree that the different dress and attributes of the various groups on the right-hand side of the Bishapur II and III reliefs were used to indicate different peoples. Both then use the same method in comparing these representations with other reliefs, where the various peoples depicted are known.

Georgina Herrmann (1998, 45-48) notes that all the men on the right-hand side of the Bishapur III relief (**fig. 5**) look alike: they have smooth, shoulder-length hair, they wear heavy moustaches and the typical Iranian dress of a loose knee-length tunic with long sleeves and loose trousers tucked into calf-high boots. They bring various gifts, which, in addition to vessels, bolts of material and heavy bags on poles, include a horse, an elephant and a hunting cheetah. In her opinion, the best comparison for this dress can be found among the eastern delegations on the Apadana reliefs in *Persepolis*. In addition to that, the gifts represented in this relief are similar to the gifts brought by the men on the Bishapur III relief. She deduces from this that these men represent peoples from the eastern borders of the Sassanid Empire in Central Asia, with the elephant indicating a people from the part of Kushan (modern Afghanistan) that was conquered by the Sassanid Empire. Her conclusion is that the depiction is a visual version of the

[1] See internet-database Ubi erat Lupa # 2910 and 3110 at www.ubi-erat-lupa.org (last accessed 14-01-2013).

[2] See internet-database Arachne # 99019 (individual objects) at http://arachne.uni-koeln.de/drupal/ (last accessed 14-01-2013).

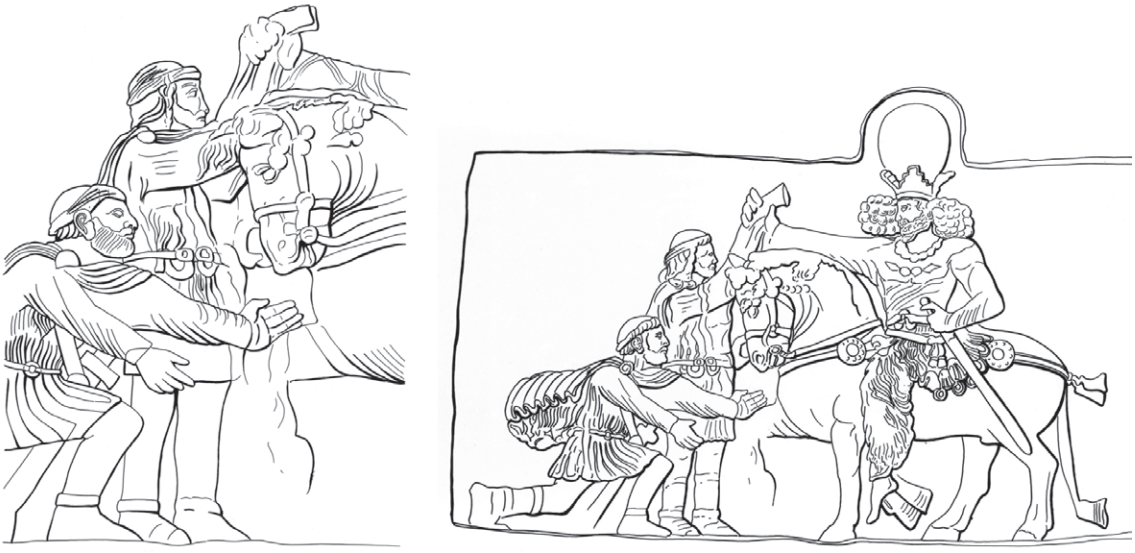


Fig. 1. Naqsh-e-Rustam rock relief: Shapur with two Roman emperors (drawing R. Reijnen)

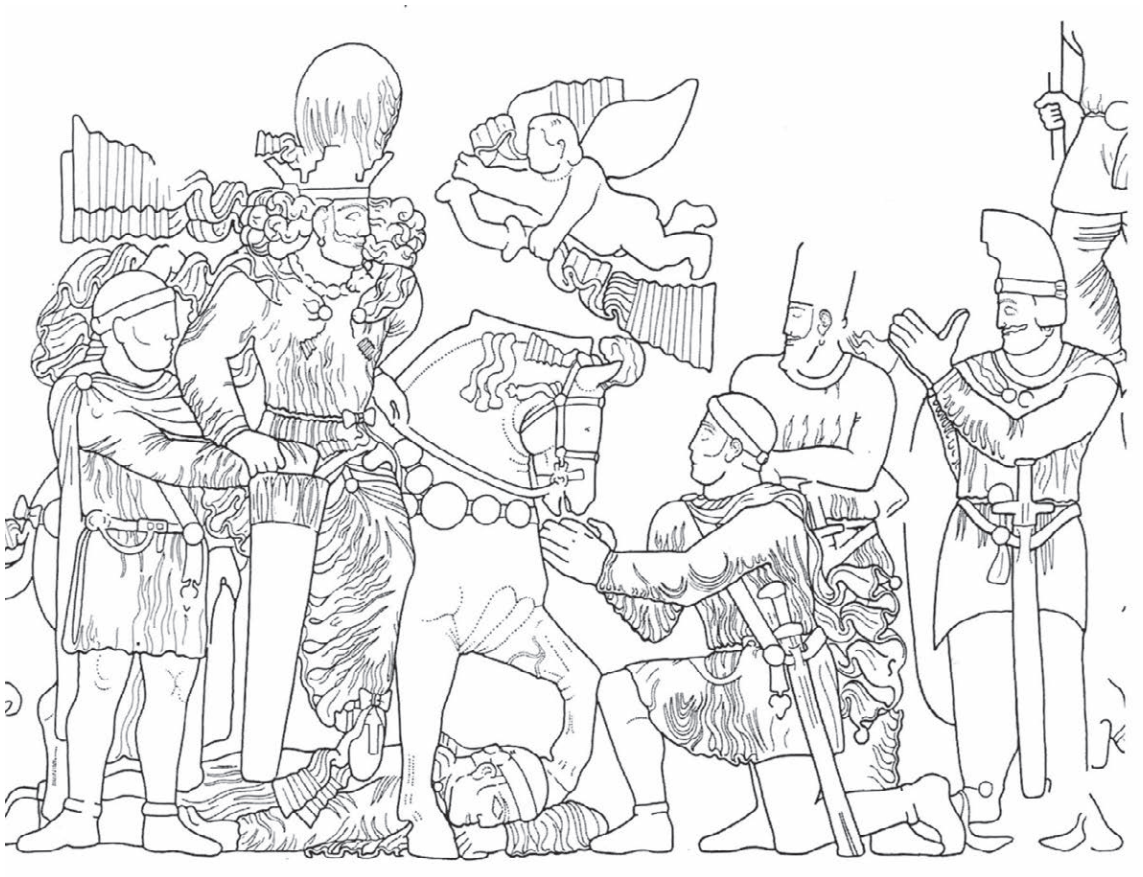


Fig. 2. Bishapur II rock relief, central scene: Shapur with three Roman emperors (drawing A. Smadi after Herrmann, in Fischer 2012)

enumeration of the peoples of the eastern part of the Sassanid Empire in the inscription on the wall surrounding the Ka'ba-ye Zartosht at Naqsh-e-Rustam (Gignoux 1991).

The relief of Bishapur II (**fig. 4**) is dated later than Bishapur III in Herrmann's opinion and she interprets the groups on the right-hand registers of the Bishapur II relief as similar in origin to those on the right-hand registers of the Bishapur II relief.

In his analysis of the Bishapur II relief, Hubertus von Gall (1998, 53-55) identifies the first group (**2a**) on the lower register as Arabs from the Sassanid satrapy of Arabistan, because their close-fitting headgear is similar to that pictured on a delegation on the



Fig. 3. Bishapur rock relief, upper left-hand row: horsemen in Persian dress (drawing R. Reijnen)

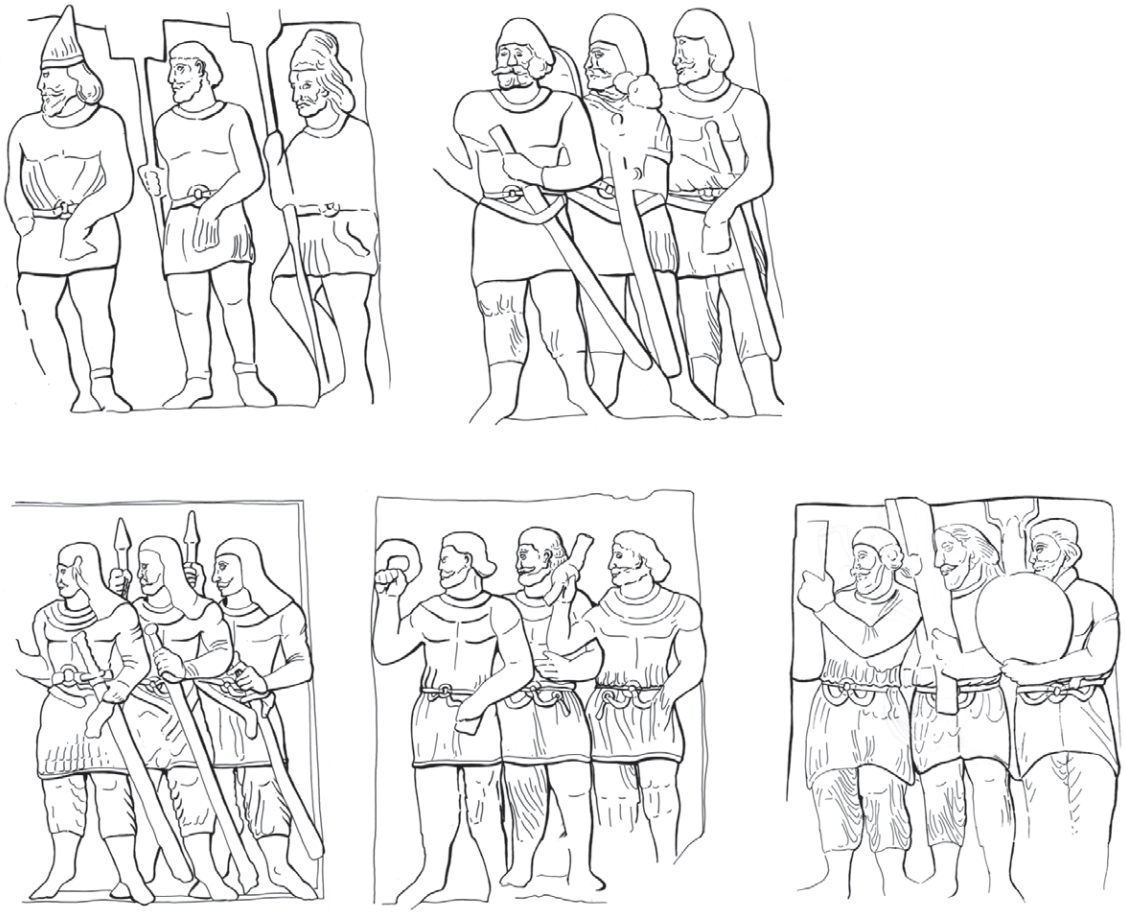


Fig. 4. Bishapur II rock relief, upper and lower right-hand rows: men on foot (drawing R. Reijnen)



Fig. 5. Bishapur III rock relief, upper three left-hand registers: men on foot (drawing R. Howell, in Hermann 1983)

Bishapur IV relief. The men on this relief, being received by king Bahram II, are generally accepted to be Arabs because of the dromedary accompanying them. The second (**2b**) and third (**2c**) group in the lower register he categorizes as coming from Syria, because of the similarity of the mode in which the ends of the belts are returned in a bow to the side of the belt, to that pictured on sculpture in Palmyra.[3] The third group carries several unfinished objects, which in von Gall's opinion (1998, 54) indicate the bringing of supplies. This also applies to the first group in the upper register (**1a**), although this time in the form of carrying *sacinae*, the Roman legionary's marching pack on a pole (containing a pot, a cloak bag and food in a net). Von Gall sees this as implying that the men are bringing supplies for the army of the king. He identifies the men as coming from Osrhoëne by their pointed caps, which are

[3] But the Palmyrenian belts are made of cloth and closed with a knot, while the belts on the Bishapur relief are closed with ring buckles.

often pictured on grave reliefs in Osrhoëne. The second group on the upper register (**1b**) are identified as Iranians from within the Sassanid Empire by their tight fitting helmets, which are known from other Sassanid rock reliefs. Another indicator for the identification of these peoples is the inscription of the high priest Kartir on the wall surrounding the Ka'ba-ye Zartosht at Naqsh-e-Rustam (Gignoux 1991), where the conquests of Shapur in the west are mentioned, among them the regions named here. According to von Gall, the men on the right of the Bishapur II relief thus represent a range of regions in the border zone of the Roman and Sassanid Empires: while the groups with arms represent Arabs (**2a**) and Iranians (**1b**) from within the Sassanid Empire, the groups carrying various objects are representing peoples from former Roman provinces or client kingdoms – Syria and Cilicia (**2b**, **2c**) and Osrhoëne (**1a**) – which are pictured here as defeated, with their home countries incorporated into the Sassanid sphere of influence and the peoples forced to provide supplies to the army (von Gall 1998, 54).

It is interesting to note that, while both von Gall and Herrmann interpret the groups on the right-hand registers of the Bishapur II and III reliefs as representing different peoples because of their different dress, the fact that they wear similar belt buckles is not commented upon. It is very likely that this type of belt buckle was an accepted mode of dress for males, both fighting and non-fighting in the Sassanid sphere of influence, as the reliefs show both men armed with long swords and unarmed men wearing it.

While the discussion about the identification of the different peoples on these reliefs seems unlikely to be resolved soon, it is important to note what these men do quite definitely not represent, namely regular Roman soldiers. These would have carried their sword on a baldric and would have been dressed very differently. Both trousers and tunics pictured on the reliefs as worn by the men coming from the right are wide and made of fabric forming many pleats. Roman tunics and trousers of the time were worn quite narrow and are not depicted as forming many pleats. This can be seen particularly well on the so-called Julius Terentius wall painting in the Temple of Bel in *Dura Europos*, which predates the abandonment of *Dura* after its conquest in 257 AD.[4] Here, the trousers are only recognizable because of their dark colour. On many 3rd century gravestones of Roman soldiers, the trousers are depicted as being so tight, that they are almost invisible and can only be recognized by a hem above the foot. This can also be seen on the Roman emperors on the reliefs of Bishapur and Naqsh-e-Rustam. The emperors on these reliefs also wear the ensemble of ring buckle belt and baldric with the sword hanging from it typically found on Roman soldier gravestones. This clearly demonstrates that the Sassanid sculptors were able to depict the dress and belt accoutrements of Roman soldiers correctly if they chose to do so and thus disproves the argument that the men on the right hand registers are supposed to be Romans, which were incorrectly depicted by the sculptors.

If Georgina Herrmann's interpretation is correct, the peoples pictured on the right side of the Bishapur II and III reliefs are supposed to come from the eastern parts of the Sassanid Empire and are auxiliaries of the Sassanid armies. And if the interpretation of Hubertus von Gall is correct, the men armed with swords depicted on the Bishapur II relief are supposed to be auxiliaries of the Sassanid armies from their western satrapies, while the unarmed men represent peoples defeated and forced to pay tribute in army supplies by Shapur. In any case, the ring belt buckle seems to have been a male mode of dress widely accepted by the peoples in the Sassanid Empire and probably even beyond it.

The precise identification of the people first wearing the ring buckle belt is not the priority here, but rather the time, place and manner this type of belt buckle was adopted by the Roman army. The evidence from the three reliefs clearly indicates that this belt form originated in the Sassanid Empire and became the fashion in the Roman Army during the wars in Persia. But how did this happen? Both Lendon and Phang have identified the so-called "honour"-competition as a main driving force behind much of the fighting power of the Roman soldiers (Lendon 2005, 218-242; Phang 2008, 242-275). While honour could also be won by the competent execution of difficult tasks – like the building of a bridge – the main source for honour was of course feats of daring on the battlefield.

Next to official decorations, the visual outward expression of such a fighting honour is the possession of splendid arms and armour, decorated and polished to a high finish. Together with the sword, the sword-belt can be described as an outlet of such an honour culture.

[4] See e-artgallery Yale Univeristy at http://ecatalogue.art.yale.edu/detail.htm?objectId=4961 (last accessed 14-01-2013).

Taking the enemy's weapons and accessories does not only disarm him, but is also a very effective humiliation, while it at the same time increases the status of the wearer, especially if the enemy was respected and feared as a fighter. The bearskins of the British Grenadier Guards, adopted from the French Imperial Guards after Waterloo, are a famous modern case in point. A Roman period example is formed by the *torques* and *armillae* of the Celtic warriors, which were transformed from being the personal jewellery of individual enemies into official Roman decorations to be worn while on parade (Maxfield 1981, 86-91).

The symbolic importance of the waist-belt had traditionally been very high in the Persian and Parthian Empires and remained so in the Sassanid period (Ghirshman 1979; Peck 1990; Sarkhosh Curtis 2001; James 2004, 249): in addition to the religious importance of the waist-belt in dividing the body into two spheres (ration and instinct), investiture ceremonies typically included waist-belts as the belt was closely linked to tying and binding someone to someone else. Widengren (1968, 140-146) has argued that the belt was the physical expression of the link between a vassal and his lord. This circumstance makes it very likely that the belt was highly prized and accordingly highly decorated by the soldiers of the Sassanid armies.

During the campaigns in Persia, the Roman soldiers met Sassanid armies wearing this belt form. Because of their fighting prowess, they must have gained the respect of the Roman soldiers, which made the conspicuous belts first-rate trophies. At first, the ring buckle belts must have been literally taken off the dead enemies by individual Roman soldiers. As they became fashionable, the buckles were copied and worn by others who did not have 'originals'.

If ring buckle belts were (also) worn by peoples allied with Rome, they might still have fought in a manner that gained the respect of the Roman soldiers, inspiring them to copy the distinctive belt fashion. Modern examples of characteristic military items of dress being made fashionable and worn by different armies include – among others – the dolman and shako of the Hussars. These dress items originated in Hungary during the 15th century and subsequently spread to the whole of Europe, without this being the result of an armed conflict with the original Hussars. The process of the acquisition of specific dress elements of the indigenous dress of a border population or an enemy by members of an imperial army has been described by Abler (1999) for the 19th century, but similar mechanisms can be supposed for analogous phenomena in Antiquity.

It seems thus quite likely that the ring buckle belt was worn as a mark of honour by those soldiers of the Roman army that had participated in the campaigns in Persia. Because the armies fighting in the East were made up from many different detachments of various legions and auxiliary units, they may have used the ring buckle belt as a distinguishing mark, setting them apart from those soldiers of their unit that had not participated in the Persian campaigns. This would fit with the vigorous culture of honour described by Lendon and Phang and demonstrated by soldiers of different units taunting each other and even occasionally breaking out in fights, as recorded in the ancient sources (Tacitus, *Hist*. I, 64 and II, 66).

Human nature being what it is, the high status of the ring buckle belt will have ensured that this fashion spread among non-participants in the decades following the return of the men to their home units, resulting in the modern impression of the ring buckle belt as the omnipresent belt form of the 3rd century AD.

BIBLIOGRAPHY

Abler, T. S. 1999. Hinterland Warriors and Military Dress: European Empires and Exotic Uniforms, Oxford.

Fischer, Th. 2012. Die Armee der Caesaren. Regensburg.

Gall, H. von 1998. The representation of Foreign Peoples on the Rock-relief Bishapur II. An iconographic and historical problem. In: Sarkhosh-Curtis, V. / Hillenbrand, R. / Rogers, J. M. (eds.). The Art and archaeology of Ancient Persia. New Light on the Parthian and Sassanid Empires. London. 52-57.

Ghirshman, R. 1990. La ceinture en Iran. – Iranica Antiqua 14, 167-96.

Gignoux, P. 1991. Les quatre inscriptions du mage Kirdīr. Leuven.

Herrmann, G. 1998. Shapur in the East. Reflections from his Victory Reliefs. In: Sarkhosh-Curtis, V. / Hillenbrand, R. / Rogers, J. M. (eds.). The Art and archaeology of Ancient Persia. New Light on the Parthian and Sassanid Empires. London. 38-51.

Herrmann, G. / Howell, R. 1983. The Sasanian Rock Reliefs at Bishapur, Part 3: Bishapur I, The Investiture/Triumph of Shapur I and Sarab-I Bahram, Bahram II enthroned; The Rock Relief at Tang-I Qandil. Iranische Denkmäler 11. Berlin.

Herrmann, G. / Howell, R. 1981. The Sasanian Rock Reliefs at Bishapur, Part 2: Bishapur IV, Bahram II receiving a delegation, Bishapur V, The Investiture of Bahram I, Bishapur VI, The Enthroned King. Iranische Denkmäler 10. Berlin.

Herrmann, G. / Howell, R. 1980. The Sasanian Rock Reliefs at

Bishapur, Part 1: Bishapur III, Triumph Attributed to Shapur I. Iranische Denkmäler 9. Berlin.

Herrmann, G. / Mackenzie, D. N. / Howell, R. 1989. The Sasanian Reliefs at Naqsh-i Rustam: Naqsh-i Rustam 6, The Triumph of Shapur I. Iranische Denkmäler 13. Berlin.

Hoss, S. 2013. A Theoretical Approach to Roman Military Belts. In: M. Sanader / A. Rendić-Miočević / D. Tončinić / I. Radman-Livaja (eds.), Proceedings of the XVIIth Roman Military Equipment Conference: Weapons and Military Equipment in a Funerary Context (XVII Roman Military Equipment Conference, Zagreb, 24th - 27th May, 2010), Zagreb, 2013, 317-326.

Hoss, S. 2011. The Roman Military Belt. In: Nosch, M.-L. (ed.). Wearing the Cloak. Dressing the Soldier in Roman Times. Ancient Textiles Series vol. 10. Oxford.

Hoss, S. 2010. The military belts of the equites. In: Schalles, H.-J. / Busch, A. W. (eds.). Waffen in Aktion. Akten der 16. Internationalen Roman Military Equipment Conference (ROMEC), Xanten, 13.-16. Juni 2007. = Xantener Berichte 16, 313-322.

James, S. 2012. Rome & the Sword. How warriors & weapons shaped Roman history. London.

James, S. 2004. The Excavations at Dura-Europos conducted by Yale University and the French Academy of Inscriptions and Letters 1928 to 1937. Final report VII: The Arms and Amour and other Military Equipment. British Museum Press. London.

Lendon, J. E. 2005. Soldiers & Ghosts. A History of Battle in Classical Antiquity. New Haven.

Maxfield, V. A. 1981. Dona Militaria: The Military Decorations of the Roman Army. Berkeley.

McDermott, B. C. 1954. Roman Emperors in the Sassanid Reliefs. – Journal of Roman Studies 44, 76-80.

*Peck, E. H.*1990. Belts. In: Encyclopedia Iranica IV, 130-136 or http://www.iranicaonline.org/articles/belts (last accessed 14-01-2013)

Phang, S. E. 2008. Roman Military Service. Ideologies of Discipline in the Late Republic and Early Principate. Cambridge (USA).

Raddatz, K. 1953. Zweck und Herkunft einer jungkaiserzeitlichen Ringform. – Offa-Hefte 12, 73-77.

Sarkhosh-Curtis, V. 2001. Parthian belts and belt plaques. – Irania Antiqua 36, 299-327.

Schnurbein, S. von 1977. Das römische Gräberfeld von Regensburg. Materialhefte zur bayrischen Vorgeschichte Reihe A, Band 31. Kallmünz /Opf.

Vanden Berghe, L. 1983. Reliefs rupestres de l'Iran ancient. Brussels.

Widengren, G. 1968. Le symbolisme de la ceinture. – Irania Antiqua 8, 33-55.

Dr. Stefanie Hoss
Groot-Britanniestraat 122
NL-6663 HV Lent
stefanie.hoss@tele2.nl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Innovation at Persia's Frontiers: Sasanian Campaign Bases and Defensive Barriers

Eberhard W. SAUER / Hamid OMRANI REKAVANDI / Tony WILKINSON / Jebrael NOKANDEH

A recent joint fieldwork project between the Iranian Cultural Heritage, Handcraft and Tourism Organisation (ICHHTO), the Iranian Center for Archaeological Research (ICAR) and the Universities of Edinburgh and Durham has explored the Great Wall of Gorgān and the Tammīsheh Wall. These defensive barriers in modern Golestān, Iran, were of a similar date, as shown by their similar architecture and scientific dating. The construction of the Great Wall of Gorgān, frequently misattributed to the Parthians (most recently by Ellerbrock / Winkelmann 2012, 85), and that of the Tammīsheh Wall is now firmly dated to the AD 420s-540s (Sauer et al. 2013, *passim*, especially 593-599). The historical context suggests that it took place in the first half of this period, rather than the second.

These barriers employ construction techniques which are different to those used in any Roman long walls. They were built of fired bricks, with a large-scale canal system providing the water for brick production. The scale of construction works dwarfs all barriers in the late Roman world. The Great Wall of Gorgān reached c. 195 km length, though with its western end buried under marine sediments, almost certainly well over 200 km, and the Tammīsheh Wall over 11 km (**fig. 1**). If the two walls were in fact part of a single barrier, the missing link buried under marine sediments of the Caspian Sea, as circumstantial evidence suggests, their combined length may have amounted to some 250 km. The height of the walls is unknown, as the sought-after fired bricks have everywhere been robbed until no section of the brick wall remained upstanding. The probably contemporary Ghilghilchay Wall (**fig. 1-2**), built of sun-dried mud bricks not suitable for reuse, survives to a height of up to 6-7 m in the vulnerable coastal section (Aliev et al. 2006, 154) and will have been substantially higher prior to decay. With one brick kiln, each measuring some 4 x 7 m and the combustion chamber being 2 m high, every 37-86 m in our survey areas, there may have been as many as 3,000-7,000 kilns to enable the construction of the Gorgān and Tammīsheh Walls. The combined size of over 30 forts along the walls, densely filled with military barracks (**fig. 3**), is estimated at well over 80 ha. It is clear that this construction project, of unparalleled architectural design and extraordinary scale, was not based on any models from elsewhere, but reflects independent design and provides evidence for the Sasanian Empire's remarkable resourcefulness.

In the hinterland of the Gorgān Wall four heavily fortified compounds, averaging some 40 ha interior size each, have been found (**table 1**). One of them, Qal'eh Kharābeh, yielded radiocarbon dates of the same time period as the Gorgān Wall and we may assume that the other three are of a similar age. There are further large compounds which share some architectural characteristics with these four and may be contemporary, but more fieldwork is needed to test this hypothesis for each of them. Neatly aligned double-rows of rectangular enclosures, undoubtedly for tents, have been identified via magnetometer survey at Qal'eh Kharābeh (**fig. 4**) and one of them partially excavated. Wide access corridors between each double row may also have provided space for tethering horses. Each 40 ha-compound will have sheltered thousands of horsemen on campaign, perhaps 10,000 in total to judge by the spacing of tent enclosures and the base's

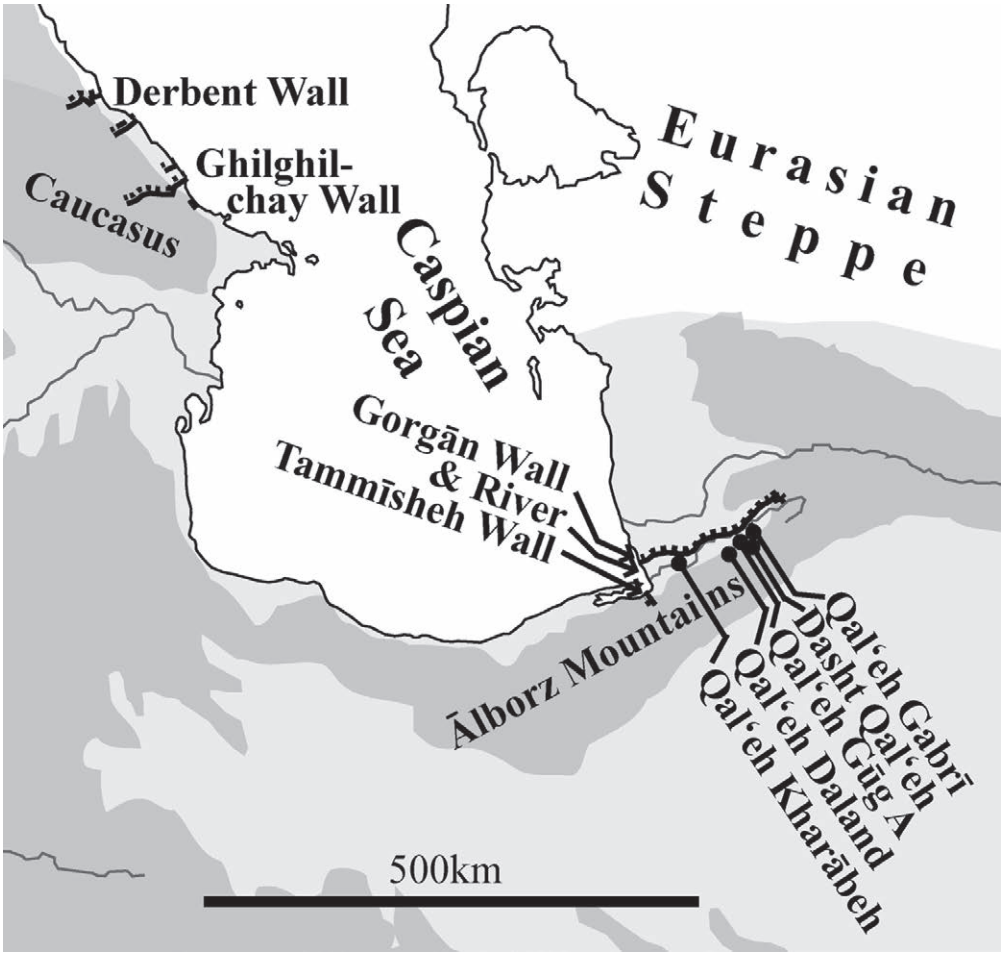


Fig. 1. Frontier walls in the north of the Sasanian Empire. Dark shading: mountainous terrain; light shading: approximate extent of the Sasanian Empire



Fig. 2. The coastal section of the Ghilghilchay Wall, in modern Azerbaijan, reaches impressive dimensions. The horses on the left (to the north) of the wall provide an idea of its scale

Table 1. Sasanian campaign bases in the Gorgān Plain (excl. several additional possible and probable representatives): standardised architecture for units of standardised size, of c. 10,000 men each?

Name	Internal dimensions (approx.)	Size, (excl. defences, incl. citadel)	Corner citadel	Moat (width)	Towers per side	Raised canal(s)
Qal'eh Gūg A	665 x 665 m	c. 45 ha	Reused, polygonal	?	22 (?)	?
Qal'eh-ye Daland	655 x 655 m	c. 43 ha	None	Yes (c. 60 m)	20	Yes
Qal'eh Kharābeh	630 x 650 m	c. 42 ha	New, square	Yes (c. 70 m)	20	Yes
Gabrī Qal'eh	585 x 585 m	c. 35 ha	New, square (?)	Yes (c. 80 m)	?	Yes

overall size. Vegetius' claim (1.21, 3.10) that the Late Roman army no longer built marching camps, whilst postulating that the Persians had copied doing so from the Romans, seems to be true in so far as the Persians in Late Antiquity indeed built temporary military bases, unlike the Roman army at the time. Unconvincing by contrast is Vegetius' hypothesis that the emergence of such installations in the east was a result of copying, as there is no parallel for heavily defended campaign bases of similar design in the west. Indeed, as, to our knowledge, we lack archaeological evidence for any new Late Roman temporary camps, the Persian campaign bases must be the products of local innovation, even if probably inspired by earlier Central Asian compounds of similar design. They are much larger than any Late Roman, exclusively military, bases built from scratch, suggesting that the number of well-organised troops the Sasanian Empire could mobilise was significant. If Vegetius (3.10.14-16) is right that (more transient?) temporary Persian camps were often built of sacks of sand, there will be many more than we will ever know.

Our fieldwork on the Gorgān Wall and in its hinterland (Sauer et al. 2013), as well as recent research on sieges at Dura-Europos (James 2011a; 2011b; 2009; 2005) and Hatra (Hauser / Tucker 2009; Tucker 2010) and on military equipment (James 2006), has shown that the Sasanian army was in the vanguard of development. Scholars, who believed the Sasanian army to be disorganised and heavily reliant on *ad hoc* drafts of unprofessional soldiers (e.g. Rubin 1995, 290-291), have been proven wrong. It now appears that, in terms of its level of organisation, capabilities and probably numerical strength, the Sasanian military matched the Roman army – and may have more than matched it by the 5th to 7th centuries (Sauer et al. 2013; cf. Howard-Johnston 2012).

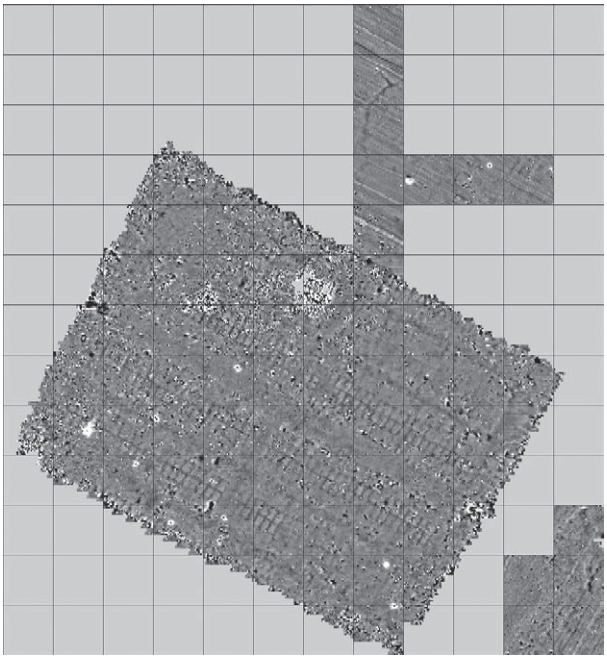


Fig. 3. Magnetometer Survey of Fort 4 on the Gorgān Wall by the joint project, Abingdon Archaeological Geophysics and the ICHHTO, notably Roger Ainslie et al., showing clearly three of the fort's four double barracks. Each survey square measures 30 x 30 m

Such findings help to explain the Sasanian Empire's ability to invade the Roman Empire repeatedly. The empire's largely successful border defence and investment in infrastructure and irrigation also appear to have led to unprecedented population growth, urban expansion and prosperity in various territories in the interior. Symptomatic is the discovery that a large city, Dasht Qal'eh, in the fertile land south of the Gorgān Wall was established at, and occupied for, a similar period of time as the forts on the wall (**figs 1, 5**). At 3 km^2 interior size, it was evidently designed for a substantial number of inhabitants and also boosted

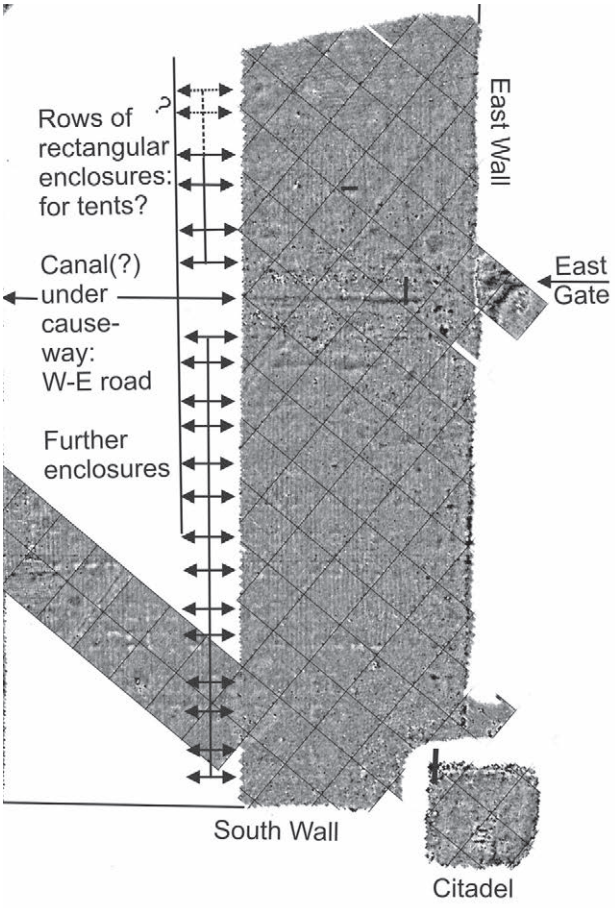


Fig. 4. Magnetometer Survey of the south-east of Qal'eh Kharābeh by the joint project, Abingdon Archaeological Geophysics and the ICHHTO, showing double rows of rectangular enclosures, each probably enclosing a tent. Each survey square measures 30 x 30 m

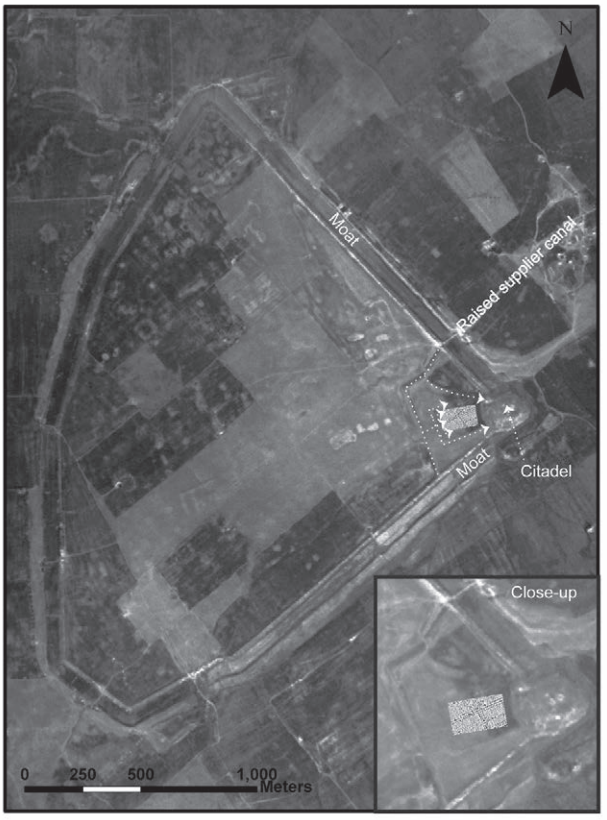


Fig. 5. Dasht Qal'eh, a city of c. 3 km^2 interior size in the hinterland of the Gorgān Wall. Radiocarbon dates indicate that the foundation of the geometric compound, sharing architectural features, i.e. a broad moat and corner citadel with Sasanian campaign bases, dates to the same period as the construction of the Gorgān Wall. Effective defence, it seems, led to a period of urban growth and economic prosperity. CORONA Satellite image by courtesy of US Geological Survey

impressive urban architecture, notably colonnaded streets and probably a flowing water supply (Sauer et al. 2013, 382-406; Amin Pour 2012, 353). Long underestimated or disregarded by the scholarly community, there is no longer any doubt that the Sasanian Empire's ability to embark on large-scale construction projects and its remarkable geographical extent over more than four centuries, expanding its large dominion even further in the late 6th and early 7th centuries, was not the result of chance, but of prudent strategies.

Acknowledgements

This article represents a concise summary of some of the results of our joint fieldwork project. A much more detailed report with extensive references has been published a few months after the 22nd Limes Congress (Sauer et al. 2013), even if the above article includes additional recent publications and observations. The full report also contains more detailed acknowledgements (*ibid.*, xiv-xvi) of the numerous individual supporters of our project. Here there is only space to gratefully acknowledge the generous financial support provided by several organisations, without which our fieldwork from 2005 to 2009 would not have been possible: the Arts and Humanities Research Council, the British Institute of Persian Studies, the Iranian Cultural Heritage, Handcraft and Tourism Organisation, the Iranian Center for Archaeological Research, the British Academy, the University of Edinburgh, the Iran Heritage Foundation, the Stein Arnold Exploration Fund, the Carnegie Trust for the Universities of Scotland and the Ancient Persia Fund. The European Research Council has kindly funded further fieldwork on the Sasanian Empire from 2012 onwards, including a visit of the Ghilgilchay Wall.

Bibliography

Aliev, A. A. / Gadjiev, M. S. / Gaither, M. G. / Kohl, P. L. / Magomedov, R. M. / Aliev, I. N. 2006. The Ghilghilchay Defensive Long Wall: New Investigations. – Ancient West & East 5, 143-177.

Amin Pour, B. 2012. Archaeological Geophysics in Iran / Zheʾofizik dar bastan shenasi Iran. In: Hassanzadeh, Y. / Miri, S. (eds). 2012. Eighty Years of Iranian Archaeology, vol. 2. Tehran, 13, 345-358.

Ellerbrock, U. / Winkelmann, S. 2012. Die Parther. Die vergessene Grossmacht. Mainz.

Hauser, S. R. / Tucker, D. J. 2009. The Final Onslaught. The Sasanian Siege of Hatra. – Zeitschrift für Orient-Archäologie 2, 106-139.

Howard-Johnston, J. 2012. The Late Sasanian Army. In: Bernheimer, T. / Silverstein, A. (eds.). Late Antiquity: Eastern Perspectives. Exeter. 87-127.

James, S. 2011a. Dark Secrets of the Archive: Evidence for "Chemical Warfare" and Martial Convergences in the Siege-Mines of Dura-Europos. In: Brody, L.R. / Hoffman, G.L. (eds.). Dura Europos: Crossroads of Antiquity. Chestnut Hill. 295-317.

James, S. 2011b. Stratagems, Combat, and "Chemical Warfare"in the Siege Mines of Dura-Europos. – American Journal of Archaeology 115.1, 69-101.

James, S. 2009. Death Underground: Gas warfare at Dura-Europos. – Current World Archaeology 38 (2009-2010), 20-27.

James, S. 2006. The Impact of Steppe Peoples and the Partho-Sasanian World on the Development of Roman Military Equipment and Dress, 1st to 3rd Centuries AD. In: Mode, M. / Tubach, J. (eds.). Arms and Armour as Indicators of Cultural Transfer: The Steppes and the Ancient World from Hellenistic Times to the Early Middle Ages. Wiesbaden. 357-392.

James, S. 2005. The deposition of military equipment during the final siege at Dura-Europos, with particular regard to the Tower 19 countermine. – Carnuntum Jahrbuch, 189-206.

Rubin, Z. 1995. The Reforms of Khusro Anūshirwān. In: Cameron, A. (ed.). The Byzantine and Early Islamic Near East III: States, Resources and Armies. Princeton. 227-297.

Sauer, E. W. / Omrani Rekavandi, H. / Wilkinson, T. J. / Nokandeh, J. / Hopper, K. / Abbasi, G.A. / Ainslie, R. / Roustaei, K. / MacDonald, E. / Safari Tamak, E. / Ratcliffe, J. / Mahmoudi, M. / Oatley, C. / Ershadi, M. / Usher-Wilson, L.S. / Nazifi, A. / Griffiths, S. / Shabani, B. / Parker, D. / Mousavi, M. / Galiatsatos, N. / Tolouei, H., with contributions by Priestman, S. / Mashkour, M. / Batt, C. M. / Greenwood, D.P. / Jansen Van Rensburg, J. / Caputo, F. / Radu, V. / Schwenninger, J.- L. / Fattahi, M. / Gale, R. / Poole, I. / Hoffmann, B. / Evershed, R. / Thomas, R. 2013. Persia's Imperial Power in Late Antiquity: the Great Wall of Gorgān and Frontier Landscapes of Sasanian Iran. A joint fieldwork project by the Iranian Cultural Heritage, Handcraft and Tourism Organisation, the Iranian Center for Archaeological Research and the Universities of Edinburgh and Durham (2005-2009). British Institute of Persian Studies Archaeological Monographs Series II. Oxford.

Tucker, D. 2010. Ardashir at Hatra. In: Rollinger, R. / Gufler, B. / Lang, M. / Madreiter, I. (eds.). Interkulturalität in der Alten Welt, Vorderasien, Hellas, Ägypten und die vielfältigen Ebenen des Kontakts. Philippika. Marburger altertumskundliche Abhandlungen 34. Wiesbaden. 635-653.

Hamid Omrani Rekavandi, Vice-director
Iranian Cultural Heritage, Handcraft and Tourism Organization
80 Mofidian House, Emamzadeh Alley,
7th Sarkhajeh St.
Iran-49186 94165 Gorgan
homrani1347@yahoo.com

Prof. Tony J. Wilkinson
Durham University, Department of Archaeology, South Road
UK-DH1 3LE Durham
t.j.wilkinson@durham.ac.uk

Dr Jebrael Nokandeh
Iranian Cultural Heritage, Handcraft and Tourism Organization
80 Mofidian House, Emamzadeh Alley,
7th Sarkhajeh St.
Iran-49186 94165 Gorgan
jnokandeh@yahoo.com

Prof. Eberhard W. Sauer
University of Edinburgh, School of History, Classics and Archaeology
William Robertson Wing, Old Medical School
Teviot Place
UK-EH8 9AG Edinburgh
eberhard.sauer@ed.ac.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Zawiyet el-Agdab – an Unknown Roman Fort in North-western Egypt in the Context of the Roman Saharan Border[1]

Anna-Katharina RIEGER

My contribution draws attention to a newly found Roman fortified building in north-western Egypt, in a region which is not known for its rich remains of either civil or military character. The work was restricted to a reconnaissance survey at the site, which was found by chance. The building itself, named Zawiyet el-Agdab, is not of great architectural prominence. However, its mere existence is noteworthy and entails implications for the Roman-Saharan border.

Environmental, Geopolitical and Strategic Situation

The military building is situated roughly between the Nile Valley and Cyrenaica, on the northern fringe of the Libyan Desert. On a modern map one can find it close to the Libyan-Egyptian border town of Sollum, 8 km south of the coast (**fig. 1**).

The region, where the fort of Zawiyet el-Agdab lies, was called *Marmarica* in antiquity, and belonged in political terms to Ptolemaic Egypt, later to the Roman province of *Aegyptus*. After the Diocletian reforms it became the *Libya inferior* or *sicca*. Even though the *Marmarica* was always part of a state entity based in the more fertile landscapes neighbouring it, it remained partially ungoverned because it consists mainly of steppe and desert.

In the course of a landscape archaeological project we conducted in the region in order to learn about agricultural systems, habitation patterns and infrastructure on the Marmarica-Plateau, we used maps combined with satellite imagery for orientation. On one of these maps, based on the data of the "Survey of Egypt", a Roman fort is marked to the west of our investigation area. When we checked how reliable the information is, we found an exceptional – at least for the region we are working in – archaeological site: a large building forming a courtyard, with high upright walls, while normally ancient remains in the region do not consist of larger buildings and are mostly preserved at surface height. Zawiyet el-Agdab houses one of the most complete ancient structures found yet in the Eastern Marmarica (**fig. 2, 3**).

The permission for a two-day surface survey enabled us to collect some initial information. From these first insights, questions have arisen about the historical and functional context of the site. The main aim of the paper is to discuss the implications the building carries for the concept of the Roman Saharan border.

A first approach to explain the function of the building is provided by its surroundings. Its environmental situation is that of a typical steppe (**fig. 2, 3**). The landscape on the northern fringe of the Libyan Desert is semi-arid to arid and characterised by a vegetation of scattered bushes on a flat terrain of sand and stones (Vetter et al. 2009). The geopolitical and strategic situation of the fortified site is closely connected to its topographical position: it

[1] The text corresponds to my talk given at the XXII Limes Congress. My sincere thanks go to the organisers for all their efforts and to the participants for their stimulating talks. I thank the MSA of Egypt for permission, support and highest courtesy. Waleed Semafa and Mohamed el-Awdy were our inspectors during the visit to Zawiyet el-Agdab. Belonging to the team of the two day survey besides the author were B. Böhm (archaeologist), F. Schill, Ch. Haberkorn (surveyors), Th. Vetter, A. Nicolay (geographers) and H. Möller, who did the preliminary analysis of the pottery. I thank them all for their work and continuous support.

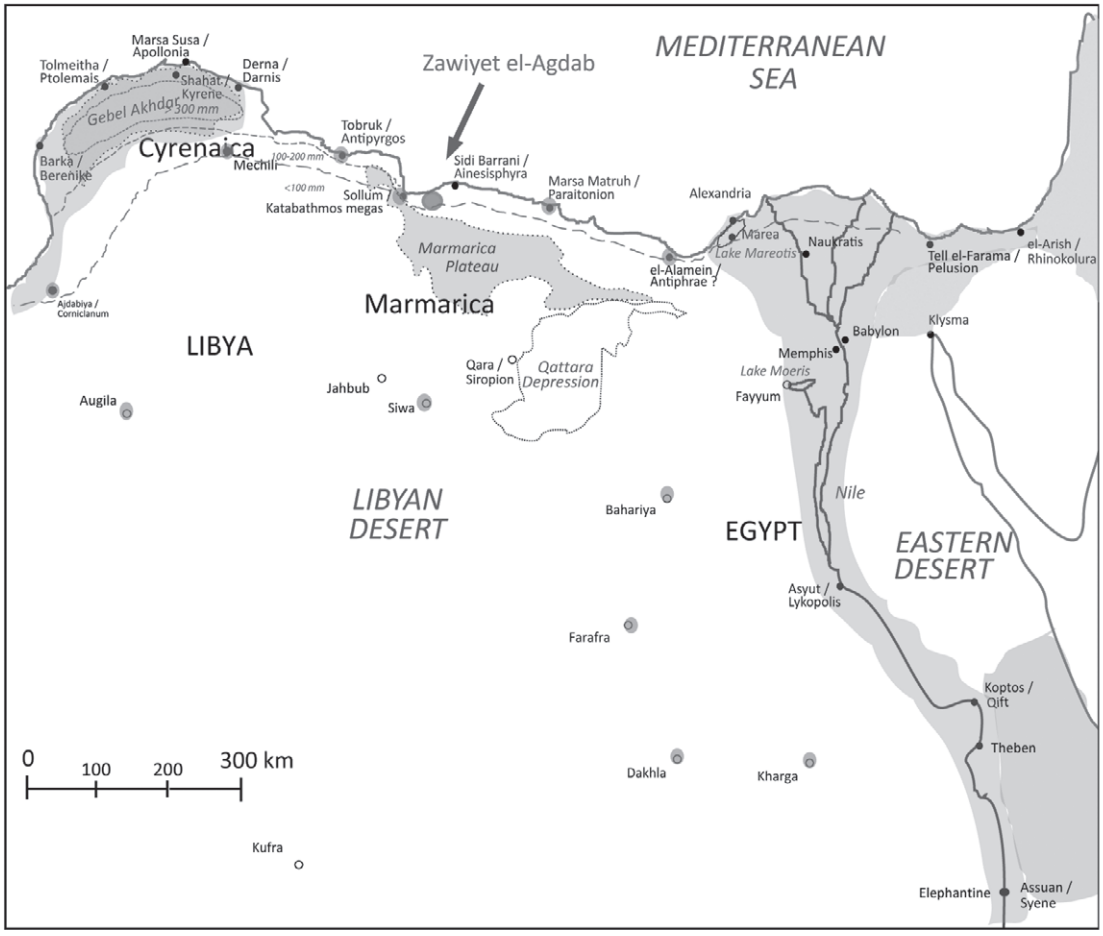


Fig. 1. Map of eastern North Africa with isohyets (Rieger based on Rieger et al. 2012, fig. 11/1)

is located between the fertile regions of Cyrenaica in the west and the Nile Valley in the east, both around 400 km distant. In-between the two powerful areas of ancient Eastern North Africa the Marmarica-Plateau makes up the largest part of the northern fringe of the Libyan Desert. Close to the location where Zawiyet el-Agdab was built, the Marmarica-Plateau meets the Mediterranean Sea and forms a pass descending for around 200 m to the coastal plains and the Bay of Sollum (**fig. 1**). The ancient name of Sollum carries its topographical setting: *Katabathmos megas*, the great descent. Although Sollum was not always a border point as it is today, it represents a topographical point of transition marked by geo-morphological features independent of the world's political phase in history. From WWII for example the point is known as Halfaya-Pass, a notorious barrier in the east-west movement of troops. The escarpment of the Marmarica-Plateau swings back east of the natural harbouring opportunity at Sollum and opens for the coastal plain where the fort of Zawiyet el-Agdab is situated, controlling this area.

Building Remains and Infrastructural Installations

The site and building itself consist of different parts visible on surface (**fig. 2-4**). The main parts are a large quadrangle complex made by upright walls, whose eastern parts are partly collapsed; they form a courtyard, in which a square room is situated in the east; outside the enclosure, there are some wall structures in the west and also probably in the east, covered by debris. The rectangular room attached on the exterior of the eastern wall belongs to a later mosque, recognisable by the mihrāb.

The remains were roughly documented with a RTK-GPS in order to provide an approximate plan of the building (**fig. 2** below): its square ground plan measures about 50 by 50 m. Rectangular towers stand at the corners, of which only one and a half are preserved on the western side. No intermediate towers are inserted in the curtain walls. Narrow walls are visible in the inner of the enclosure, running to the enclosure walls (**fig. 2**). Only one gate in the eastern wall gave access to the courtyard. Since only the slabs of the threshold are preserved, its shape

and design, important for chronological specifications, remains unclear. Remains of staircases are preserved in the north-western corner, leading up to the upper part of the towers or to the wall crown. The thickness and position of the dismantled parts of the eastern wall could be evidence for a second set of stairs (**fig. 4**).

At least two phases of the whole complex (its original layout and recent reuse) are recognisable in the aboveground structures. Two vaulted rooms were added onto the western wall using a different masonry technique. Together with the construction of the mosque, these alterations were most likely made in the 19th century, when the site was used as a Senussi camp. The walls outside on the western side of the building may also belong to the later use of the building (**fig. 2**).

For the original building, double-walled masonry using blocks of local limestone, filled with cobbles and smaller fieldstones was employed (**fig. 4** below). The curtain walls are preserved to a height of ca. 5 m (or 14 courses of ashlars); their thickness does not exceed 2 m, which is not very solid. The mortar is whitish with charcoal as aggregate. The burnt wood added in large pieces, presumably from the shrubs growing in the area, may help to date the construction of the walls by a C14-analysis. The walls inside the courtyard, whose foundations are made from fieldstones, presumably had rising parts of mud brick, since this building material is usually used in the ancient settlements of the region (Rieger et al. 2012a).

Noteworthy are the water facilities belonging to the building. Two manholes, presumably of one cistern, are found at the site. One is installed inside the complex, the second outside on the south side of the building (**fig. 2**). Both were recently covered by a fresh layer of concrete, showing that they are still in use, but problematic for any dating of the installation. At the outer cistern one can see some distribution bunds, also remade in recent times, which channel the water coming from the south to the cistern. The availability of water is of course a crucial premise for the function of the building and for the people gathering in the arid environment at Zawiyet el-Agdab.

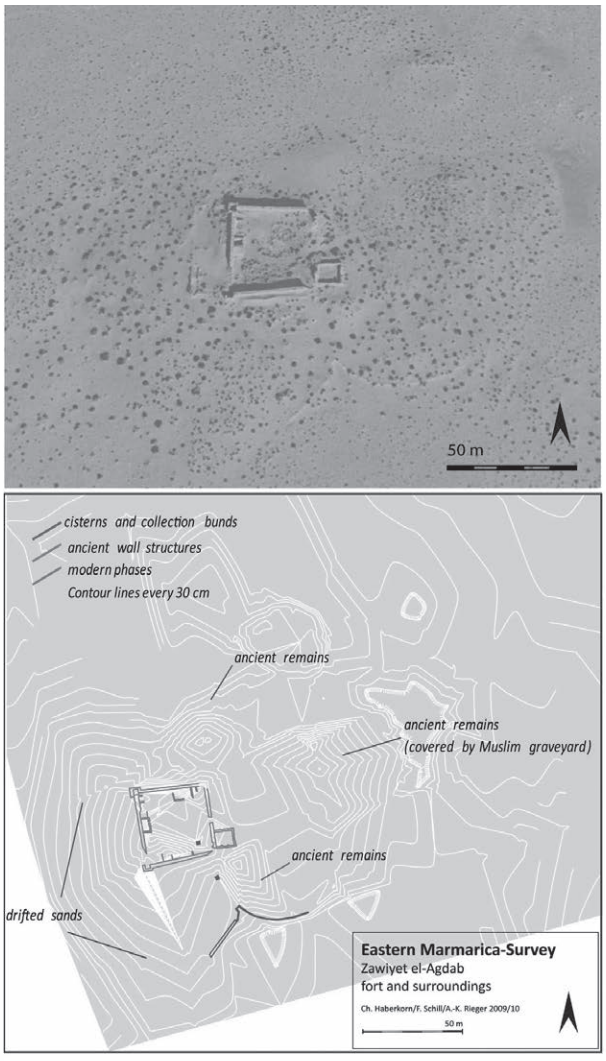


Fig. 2. Satellite view of the site of Zawiyet el-Agdab (©Google Earth) with schematic map (Haberkorn, Schill, Rieger)



Fig. 3. Zawiyet el-Agdab, view from the north (Rieger)

The Surface Finds and the Question of Chronology

The building is surrounded by some small hills of debris, which are likely to cover ancient structures. The find material on these hills as well as the inner of the courtyard consists of pot sherds. Other artefacts than pottery were not recognised – given the short time available at Zawiyet el-Agdab. From the surface material we were allowed to study on site we got a small "slice" of the pottery spectrum of the site.



Fig. 4. Above: Courtyard of Zawiyet el-Agdab, view from the east. Below: Dismantled and partly collapsed enclosure wall on the eastern side of the enclosure (Rieger)

The sherds are – as is common in the region – highly fragmented. As far as they are diagnostic, they cover the whole variety from common ware and transport vessels (amphorae, jugs) to cooking and fine ware including pieces of imported *terra sigillata*. Their chronological spectrum ranges roughly from the 4th to the 6th / 7th century CE. The upper end conforms to the picture we see at other sites in the region. The lower end is rather late regarding the strong predominance of find spots with materials from the 2nd to the 4th century CE observed in the coastal zones, but corresponds to the chronology of sites on the Marmarica-Plateau. The late start of the lifespan of Zawiyet el-Agdab raises the question, of whether earlier material is covered by the layers of debris and built structures from the Late Roman times at the site.

Clarifying the issue of chronology is crucial for any thoughts about the phases of use and the function of the building at Zawiyet el-Agdab. Are there predecessors at the site, are they fortified or of different character? What can we learn about the end of the building as a fortified site from the archaeological remains? This point remains open until further investigations at the site. Presently we can base our assumptions on the chronology only from the first glimpses of the surface pottery.

The Question of Purpose

The issue of the purpose opens up the way to explain the status of the building: is it a single, isolated building or part of a row of buildings? What is its relation to Sollum, the next urban, administrative and military centre known in the area? Can we expect any similar structures to the east, west or south of Zawiyet el-Agdab? And as a last point: is it possible to see in this fortified site with its four towers the *tetrapyrgia* as mentioned by Strabo when he described the area of the Bay of Sollum (Strabo 17.3.22)? Even though archaeological data about the building of Zawiyet el-Agdab is scarce at present, we can approach one of these questions by analysing its regional context: Zawyiet el-Agdab is not an isolated site, because it is connected to an ancient route system spanning the whole Marmarica-Plateau that we were able to reconstruct (**fig. 5**). Yet, it is unique, since no comparable structure with military character was observed in the areas to the east (Vetter et al. 2013). From Sidi Barrani / *Ainesisphyra* to the west there runs a coastal route, but there is also a more inland running route that crosses Zawiyet el-Agdab. Some north-south connections between the Mediterranean Sea and the desert centres pass by Zawieyt el-Agdab. Embedded in a route system and positioned on a water supply facility, the cistern, it marks a halt providing the scarce resource water in the arid environment. One of the functions of the building is as stopover along the communication line running south of the Mediterranean coast.

However, this explanation does not take into consideration the military features of the edifice. To further progress on this issue the typology of its architectural layout and topographical embeddedness have to be analysed. Is it rather a fort or a *hydreuma* – in the sense of a protected water supply station on a route, as we know them in the Eastern Desert? Determining the difference between a *hydreuma* and fort – whether a civil or a military purpose of the building at Zawiyet el-Agdab prevailed – is difficult, since *hydreumata* were fortified and forts needed a water supply. While the passage of Pliny (*Nat. Hist.* 6.26) refers to *hydreumata* in the context of the Eastern Desert, the word is used in other regions rather for irrigation systems than for buildings (e. g., in Hibis, Parsons 1971). A regionally in-

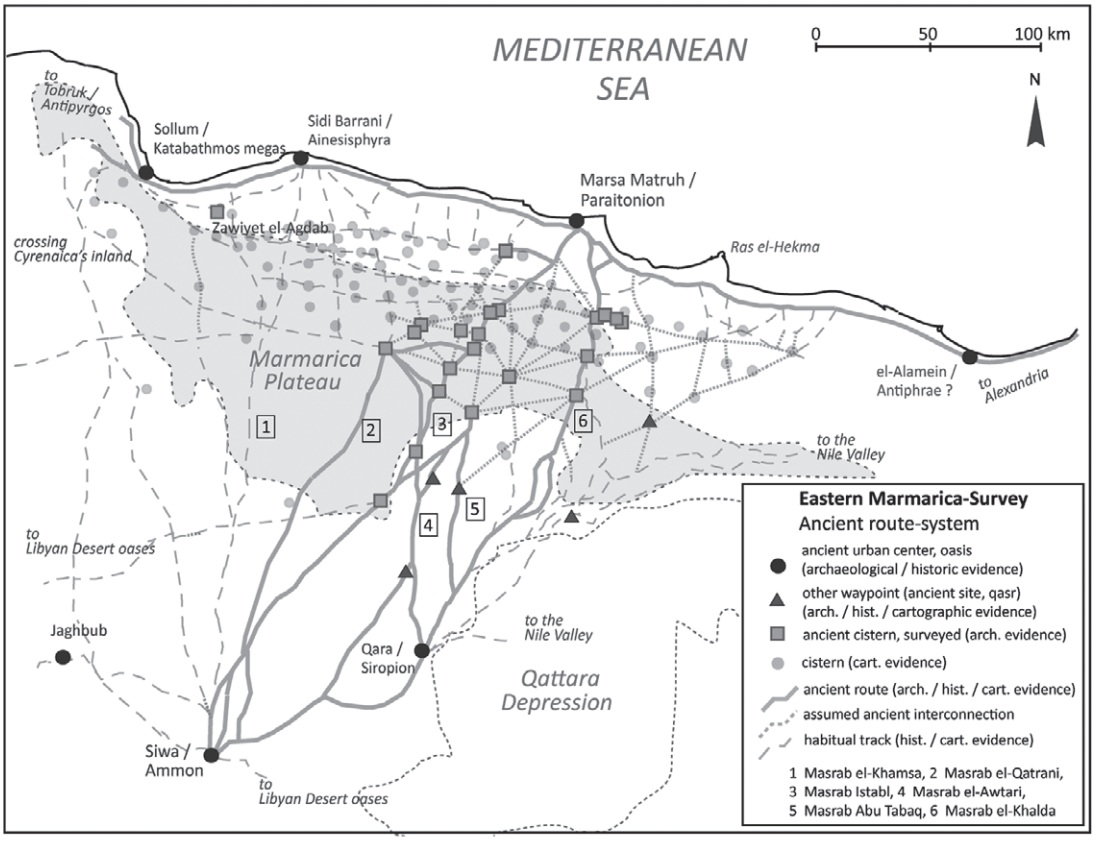


Fig. 5. Map showing the route system with water supply stations on the Marmarica-Plateau (Rieger based on Vetter et al. 2013, fig. 23)

dependent definition of *hydreuma* in architectural terms has never been established. Looking at comparable installations along the Mons Porphyrites Road, even the main purpose of the edifices in the Eastern Desert cannot unequivocally be identified (Sidebotham 1991). The complexes at Deir el-Atrash, Qattar or Badia' possess corner towers characteristic of forts, while the structures at Wadi Belih and Umm Balad do not.

As a comparison for the military features of Zawiyet el-Agdab – the high curtain walls and angle towers – one can look at the fortress of Raithu on the Sinai founded in the 6th century CE by Iustinianus I. In its initial phase, the courtyard is of similar dimensions, rectangular towers mark the corners, and, unlike Zawiyet el-Agdab, there is an intermediate tower on each side. An example of Late Roman military architecture from the Nile Valley itself is the fortress of Nag el-Hagar close to Assuan. It differs in size (more than four times larger than Zawiyet el-Agdab) and in the intermediate U-shaped towers, which provide evidence for its origin in Tetrarchic times (Mackensen 2009).

The building of Zawiyet el-Agdab is embedded in a route system, is fortified and has water facilities, comparable to the *hydreumata* in the Eastern Desert. However, there the roads and protected stations are so numerous and packed into rows, that one realises immediately the very strong presence of Roman administration and military in this outpost area, because of the importance of the mines and resources coming from here. All this is absent in the Libyan Desert: There are no resources to be exploited; there is a route system but not at all kept under state surveillance. Yet, the northern parts of the Libyan Desert with the Marmarica-Plateau are a region of transition and heavy traffic between the Sahara and the Mediterranean Sea as well as in the east-west directions.

Zawiyet El-Agdab in the Context of the Saharan Frontier in Eastern North Africa

Whatever the more prominent function of the building at Zawiyet el-Agdab was – fort or protected *hydreuma* – a fact is the existence of a fortified building in a region where military facilities at least in ancient and especially Roman times were very rare. Since the concept of frontier was never the focus of research in the region that the newly found fort lies in (Goodchild 1953), there is little idea of the kind of frontier the Roman and

Byzantine Empire had with the Sahara and the Saharan people.

The situation in the eastern parts of North Africa differs from other arid regions the Roman Empire expanded into, e. g., the Near East, where transitional zones with declining precipitations lie between the Fertile Crescent and desert. Taking rainfall as a marker for climatic conditions (cf. Breeze this volume assessing water as a criterium of *limites* of the Roman Empire), the *Marmarica* and especially its eastern part, the *Libya sicca* or *inferior*, lies below the 200 mm isohyet, in most parts even below the 100 mm isohyet. From 200 mm downwards the steppe environment starts (the so-called "steppe line", **fig. 1**), the limiting factor for a sedentary life-style. In the *Marmarica*, in contrast to other "Steppengrenzen", the steppe directly meets the Mediterranean Sea and is not buffered by a more fertile region, where Graeco-Roman inhabitants could have settled down and built up a kind of frontier zone. South of the Mediterranean Sea with Graeco-Roman urban centres there is no area – in terms of Roman territorial conception and organisation – in which to expand.

A second very important difference to the "Steppengrenze" in the East is embraced by the issue of "hostilities risk". Were there groups in the steppe land who were continuously menacing the Roman territory to make it worthwhile to equip and keep a militarily protected border? Of course Libyan nomadic / Berber tribes peopled the northern fringes of the Sahara, but there was no opponent challenging the Roman and Byzantine Empire like the Arsacids and Sassanians on the Eastern "Steppengrenze". The sources about the people of the Libyan Desert reflect the majority – i. e. sedentary – view that refers to raids and attacks: from the 3rd to the beginning of the 5th century CE there are reports on nomadic aggressions against the villages in Cyrenaica and settlements in the Nile Valley and the Wadi Natrun (Syn. *ep*. 78. 108. 125. 130; Joh. Ant. 313; *POxy* 46, 3292; *POxy* 33, 2681; *BGU* 3, 395). But they do not represent a continuous military threat and carry less potential for conflict than Blemmyes in southern and eastern Egypt or Arsacids and Sassanians in the Near East. We have to rather suppose that a network of coalitions, enmities and changing economical and political interests existed – difficult to disentangle by researchers without emic sources.

However, the fact, that there was a *dux* in charge of the provinces of Lower and Upper Libya from the 4th century CE on (*AE* 1934, 7-8; *Not. Dig. Or.* I), calls for a certain kind of military presence in the region west of the Nile. In the 6th century CE, the conflicts and military necessities that the East Roman Empire was confronted with had an impact on Eastern North Africa, and military facilities were built or restored under Iustinianus I (Procop. *De aedificiis*). Changes and enhancements to the fortifications are testified for example at Marsa Matruh / *Paraitonion* and Tobruk / *Antipyrgos*. In Egypt, still one of the richest provinces of the Empire, Iustinianus I changed the administrative organisation with the Edict 13 and installed a military and civil governor instead of the *praefectus* – pointing to some military necessity. Besides this information in the edict, in our context the mentioning of a *limes Libycus* gains more importance. Is the fortified building of Zawiyet el-Agdab part of this *limes*?

Even though the later sources speak about a *limes Libycus,* I hypothesise that it was not comparable to other *limites* of the Iustinian time. *Limes* in the regional context of northwestern Egypt, the *Libya inferior*, paraphrases an administrative and military Roman section west of the Nile, squeezed between two natural borders: the Mediterranean coast and the desert. There is a line of communication that can be called *limes* in the literal sense of the word as an expression for a road (and its protected way stations) marking the Roman sphere of influence (Forni 1987; Isaac 1988; Cordovana 2012). Of course there were close contacts to the southerly-situated oases or trading centres in the Eastern and Central Sahara, not forgetting the Graeco-Roman population at Siwa, a Berber-dominated oasis. But there was never a military presence in the sense of a territorial claim on the part of the Roman Empire. Thus, I tend to see the Roman Empire and its limits in the *Marmarica* not as shown on maps, where a southern borderline crosses the Libyan Desert at the height of Siwa (cf. Wittke et al. 2009, 147). In other depictions of North African frontiers (Daniels 1987, 10.18) the provincial borders running north-south end in the no-man's-land, and the question of a spatial definition of spheres of influence remains open in these parts of the Northern Sahara.

I would add a third possibility to depict the limit of the *Libyae* that reduces the concept of frontier and Roman military presence in the region to a line along the coastal strip, combined with dots in the desert where centres of economic interest are situated (**fig. 1, 5**). The end of the Roman Empire seems to correspond to the coastal line. Future investigations of the building at Zawiyet el-Agdab will hopefully be the starting point for corroborating this hypothesis and open a new view on the Saharan border of the Roman Empire.

Bibliography

Cordovana, O. 2012. Historical Ecosystems. Roman Frontier and Economic Hinterlands in North Africa. – Historia 61, 458-494.

Daniels, Ch. 1987. The Frontiers: Africa. In: Wacher, J. S. (ed.). The Roman World I. London / New York. 223-265.

Forni, G. 1987. Limes. Nozioni e nomenclature. In: Sordi, M. (ed.). II confine nel mondo classico, CISA 13. Milano. 272-294.

Goodchild, R.G. 1953. The Roman and Byzantine Limes in Cyrenaica. – Journal of Roman Studies 43, 65-76.

Isaac, B. 1988. The Meaning of the Terms "Limes and Limitanei". – Journal of Roman Studies 78, 127-147.

Mackensen, M. 2009. The Tetrarchic fort at Nag al-Hagar in the province of Thebais: Preliminary report (2005-2008). – Journal of Roman Archaeology 22, 286-311.

Parsons, P.J. 1971. The Wells of Hibis. – The Journal of Egyptian Archaeology 57, 165-180.

Rieger, A.-K. / Vetter, Th. / Möller, H. 2012. The Desert Dwellers of the Marmarica, Western Desert. Second Millenium BCE to First Millenium CE. In: Barnard, H. / Duistermaat, K. (eds.). The History of the Peoples of the Eastern Desert. Los Angeles. 156-173.

Rieger, A.-K. / Möller, H. / Valtin, S. / Vetter, Th. 2012a. On the route to Siwa: A Late Roman roadhouse at the cistern site Abar el-Kanayis on the Marmarica-Plateau. With contributions by V. Asensi, U. Thanheiser, N. Pöllath and H.-C. Noeske. – Mitteilungen des Deutschen Archäologischen Institut Kairo 68, 135-173.

Sidebotham, S.E. / Zitterkopf, R.E. / Riley, J.E. 1991. Survey of the 'Abu Sha'ar-Nile Road. – American Journal of Archaeology 95, 571-622.

Vetter, Th. / Rieger, A.-K. / Klammer, O. / Möller, H. 2013. Water, routes and rangelands. Traffic and grazing infrastructure on the Marmarica-Plateau. In: Riemer, H. / Förster, F. (eds.). Desert Road Archaeology in Egypt and Beyond (= Africa Praehistorica 26). Cologne. 455-484.

Vetter, Th. / Rieger, A.-K. / Nicolay, A. 2009. Ancient rainwater harvesting system in the north-eastern Marmarica (north-western Egypt). – Libyan Studies 40, 9-23.

Wittke, A.-M. / Olshausen, E. / Szydlak, R. (eds.) 2009. Historical Atlas of the Ancient World. Der Neue Pauly. Suppl. 3. Stuttgart.

Dr. Anna-Katharina Rieger
Max-Weber-Kolleg für kultur- und sozialwissenschaftliche Studien
Universität Erfurt
Nordhäuser Str. 74
Forschungsgebäude 1 (Haus 27 – Gelände Helios Klinikum), Raum 0218
DE-99089 Erfurt
anna-katharina.rieger@uni-erfurt.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Results of Fieldwork at *Berenike* (Red Sea Coast), Egypt 2008-2012[1]

Steven E. SIDEBOTHAM

Background

Recent fieldwork in and around *Berenike* (23° 54.62' N/35° 28.42' E) on Egypt's Red Sea coast, ca. 825 km south southeast of Suez and 260 km east of Aswan, totaled five seasons: 2008-2012 (**figs. 1-2**). This University of Delaware (USA) – Polish Centre of Mediterranean Archaeology, University of Warsaw effort co-directed by S.E. Sidebotham and I. Zych[2] built on research conducted in 1994-2001 by the University of Delaware (USA) and Leiden University (the Netherlands) / UCLA (USA).

Ptolemy II (reigned 285/283-246 BC) founded *Berenike* (Pliny, *NH* 6.33.168) as part of a broader policy of infrastructure development in the Eastern Desert of Egypt and along the Red Sea coast of Africa. The latest ancient literary reference to *Berenike* (*Martyrium Sancti Arethae* 27, 28, 29) highlights its relative unimportance by 524/525 AD (Van Hecke 1970, 743, 747; Huxley 1980, 49-51); before the middle of the sixth century archaeological evidence indicates that *Berenike* lay abandoned.

During these centuries *Berenike* experienced three peak periods: Early-Middle Ptolemaic (mid-third to mid-second century BC), Early Roman (first century AD) and Late Roman (mid-fourth century AD into the fifth). Diminished activity interspersed these eras of prosperity and also afflicted the final phase of the port's existence.

Ptolemaic *Berenike*'s primary contacts were with other areas of Egypt, the Levant (especially Rhodes) and the Red Sea coast of Africa. Importation of African elephants and ivory benefited mainly the Ptolemaic government and military (Sidebotham 2011, 32-53)[3].

Berenike's Early Roman mercantile activities dwarfed Ptolemaic efforts in volume and geographic breadth. Roman-era trade was also more commercial and civilian in nature than it had been in Ptolemaic times. *Berenike*'s Early Roman contacts extended from the Iberian Peninsula, northwest Africa and Gaul, to the Indian Ocean coast of Africa, southern Arabia, India and Sri Lanka. A few beads from Java and perhaps Thailand and/or Vietnam suggest sporadic interaction, likely through third parties, between those lands and *Berenike*. Archaeological evidence from Red Sea-Indian Ocean sites attests this prosperity across a broad network. Literary and epigraphic sources including Roman, South Arabian, Indian and others confirm this as a period of exceptionally vibrant commercial and cultural interaction.

After an extended nadir in the second-early third through the first part of the fourth century AD, there was a renaissance at *Berenike* starting in the mid-fourth century. There was, however, little contact with the central or western Mediterranean at that time, but rather mainly with the Levant. Berenike's connections with other areas of the Red Sea (Kingdom of Axum) and Indian Ocean (southern Arabia, India and Sri Lanka)[4] were vibrant in this period.

Fieldwork

Geomagnetic surveying has covered 60-70% of the site. This technology provides a better understand-

[1] This paper represents a synthesis and modification of Sidebotham / Wendrich 1998; 2001-2002; Sidebotham / Zych 2010; 2011; 2012a; 2012b.

[2] In general for *Berenike* see Sidebotham 2011 with extensive bibliography and supra note 1.

[3] Literary evidence also indicates exchanges between Ptolemaic Egypt and southern Arabia and India: Sidebotham 2011, 32-39.

[4] Tomber 2012, 204-206, for Axumite, South Arabian and Indian sherds documented from *Berenike*.

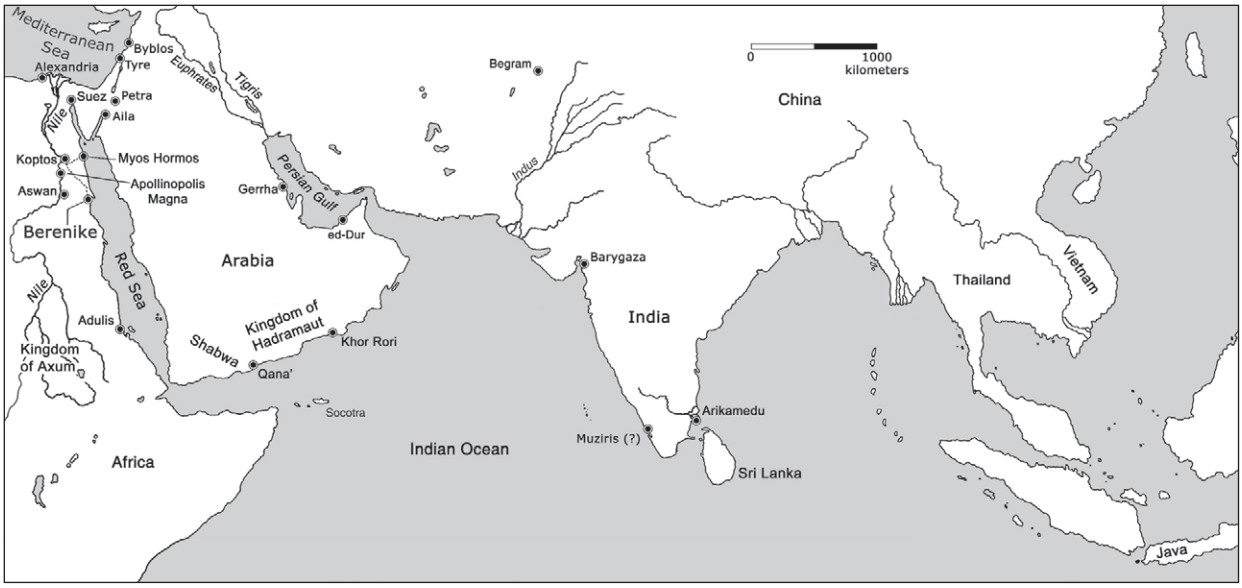


Fig. 1. Map of the Red Sea and Indian Ocean showing relevant sites. Drawing by M. Hense

ing of the city plan in those unexcavated phases lying immediately beneath the ground surface.

Areas excavated in 2009-2012 were: the Ptolemaic industrial and military zone at the western side of the site, the southwestern harbor, the Early Roman trash dump north of the city center, the so-called Serapis Temple in the center of the site and a Late Roman trash deposit towards the eastern edge of the city (**fig. 3**).

Excavations in the Ptolemaic area documented copper alloy and iron nails, tacks and fittings, and lead sheathing, much of which was used in ship maintenance and repair. Copper alloy and silver Ptolemaic coins have also been documented. A V-shaped ditch may have originally been for early Ptolemaic defense, but the find of elephant teeth[5] suggests that it may also have served as a retaining pen for pachyderms imported by sea for the Ptolemaic army (Sidebotham 2011, 39-53). A robbed Ptolemaic tower is the earliest structure documented on the site, *viz.* mid-third century BC. These tower foundations together with walls connected to it, which have not been excavated and appear only on a geomagnetic survey, have numerous parallels, in plan at least, elsewhere in the Hellenistic world (Adam 1982; McNicoll / Milner 1997).

After abandonment, parts of this Ptolemaic area became burial and/or dump sites for both human and canine remains. North of the tower was an undated grave, which contained several human burials and amphora fragments.

Excavation of a Ptolemaic trash dump recorded floral and faunal remains and inorganic and organic artifacts including two scarabs. Of the latter, one was anepigraphic and made possibly of peridot mined on St. John's Island ca. 80 km southeast of *Berenike* (Harrell / Bloxam 2010). The second, made of faience, was broken and preserved a cartouche of the 21st Dynasty Pharaoh Siamun (ca. 978-959 BC). It is the oldest datable artifact, likely a personal heirloom, documented from the site.

Trenches excavated in the southwestern harbor produced industrial waste, including sard, beryl, obsidian, selenite and mother-of-pearl shell (Zych 2011, 162, catalogue # 131-132, figs. 12-127 and 12-128)[6]. Charred cedar wood planks of first or second century AD date were portions of ships' hulls joined using a pinned mortise-and-tenon technique, one seen in contemporary ship construction in the Near East and Mediterranean (Casson 1994, 31, 32, nos. 24-26; Steffy 1994, 65-72; Fitzgerald 1994, 178-185; Casson 1996; Wilson 2011, 218-219)[7]. Ropes made of palm leaf fibers measuring up to 13 m long and 6-6.5 cm in diameter lay amidst the ship timbers; they must have had a maritime application. Layers of ash nearby possibly represent charcoal production, which may have used the ship timbers.

Excavations in the harbor and the early Roman

[5] Likely either the bush elephant (*Loxodonta africana*) or the smaller, but more easily trained forest elephant (*Loxodonta cyclotis*).

[6] For the use of selenite at *Berenike* see Kucharczyk 2011, 88-89 and Fig. 9-1.

[7] Blue et al. 2011, 179-181, note two pieces of Roman ship planking fastened using the mortise-and-tenon technique that had been recycled into a second century AD doorway at the Roman Red Sea port of *Myos Hormos* ca. 300 km north of *Berenike*.

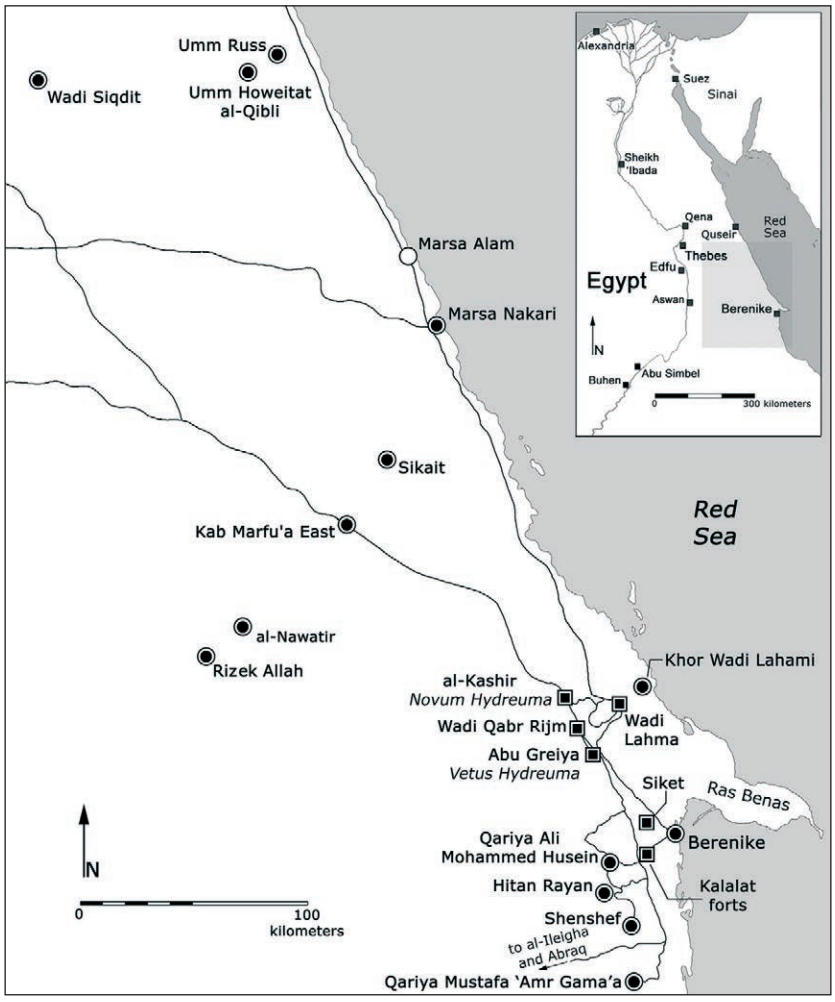


Fig. 2. Map of the region northwest of *Berenike*. Drawing by M. Hense

trash dump documented pieces of thin lead sheathing, some with extant nail holes indicating that they had been affixed to the hulls of ships, as well as brailing rings of various sizes made of animal horn and wood[8].

The southwestern harbor silted up as the result of flooding into the basin from the adjacent desert. This caused portions of the harbor to fall out of use during the second century AD. There was no attempt to dredge the harbor, though this would have been technologically possible (cf. Wilson 2011, 226-228).

Farther south in the harbor basin excavations recorded two major features. The earliest was a sunken rectilinear shaped structure made of white gypsum / anhydrite ashlars (**fig. 4**), apparently erected on a small island. Early through Late Roman material had been dumped into the sunken area, including fragments of fired bricks, which suggest hydraulic activities, ceramics, peppercorns, fragments of painted ostrich egg shells, architectural elements, and eye insets and a bronze digit from at least two life-sized bronze statues. An inscription of Domitian (81-96 AD), whose name had suffered *damnatio memoriae*, had also been thrown into the sunken area. Though this oddly shaped sunken ashlar feature could not be dated except broadly on *a terminus ante quem* basis (the Domitian text), the materials and methods of construction are identical to those employed in the so-called Serapis Temple at the center of the site, which was originally at least Early Roman and, possibly, Mid- to Late Ptolemaic in date.

Another feature of the southwestern harbor was a Late Roman temple (**fig. 5**). Apparently also built on the same island as the sunken gypsum/anhydrite structure, sedimentation and wind-blown sand eventually linked the temple and sunken structure to the rest of the sanded up harbor. The

[8] Cf. Copeland 2011,101, # 185-189 and Figure 10.12 for lead sheathing from *Myos Hormos*; Blue et al. 2011,186-188 for lead sheathing, and 191-193, 195-196 for brailing rings found at *Myos Hormos*.

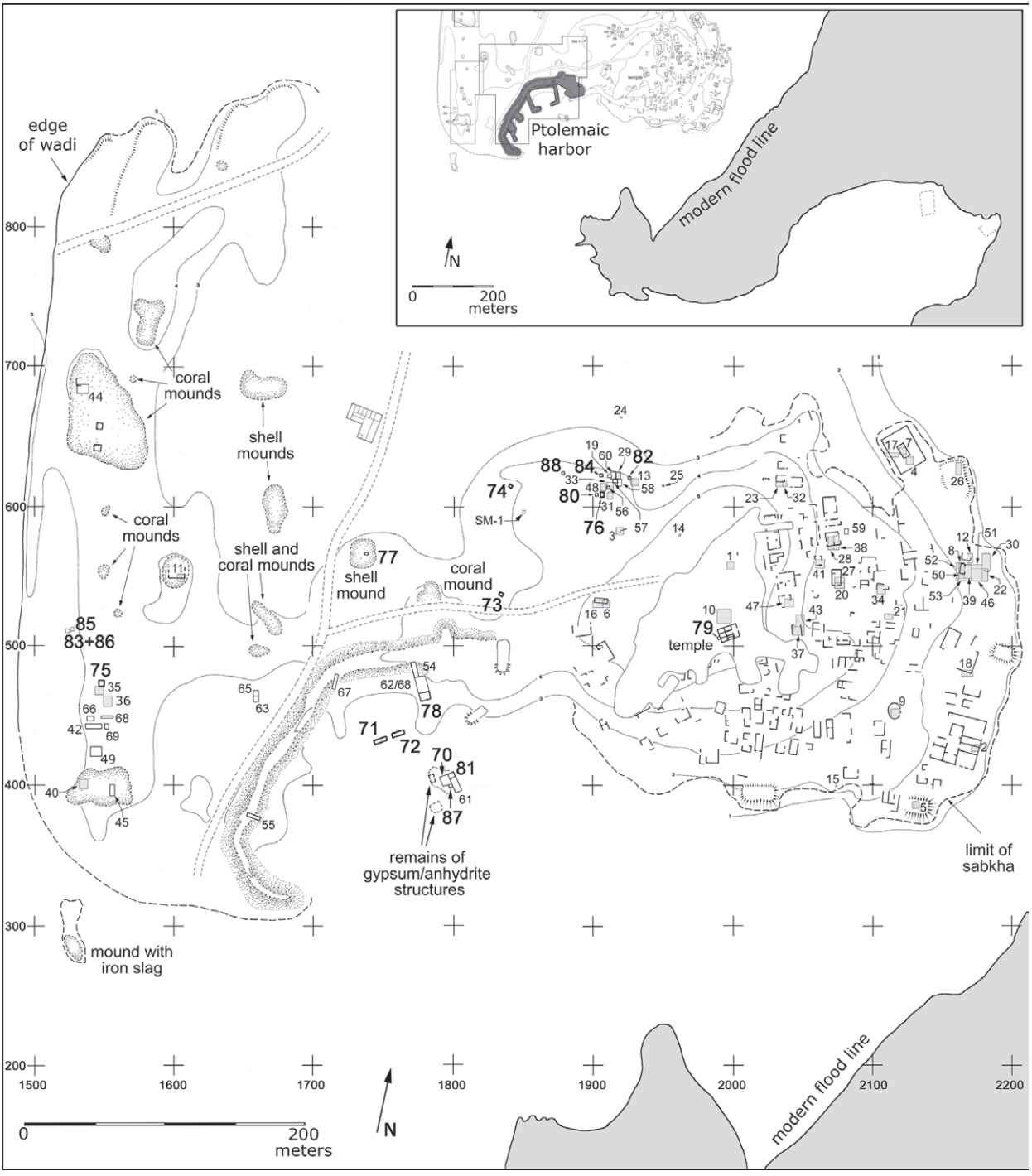


Fig. 3. Plan of *Berenike*. Numbers indicate trenches. Drawing by M. Hense and S. Maslak

outer walls of this temple comprised fossilized coral heads, typical of other Late Roman buildings in *Berenike*. In the northern wall and the eastern and western walls at their norten ends these coral heads incorporated white gypsum/anhydrite ashlars that extended eastward from the sunken structure. Whether this indicates a functional association between the sunken structure and the Late Roman temple remains to be determined.

Excavations inside this harbor temple recorded activity in the mid-late fourth century and into the fifth. There were interior walls parallel the outer ones, and between these interior walls and the exterior ones were mats made of local tamarisk shrubs, atop which lay bones of young ovicaprids and fragments of Aswan made bowls typically dated to the fifth century AD. These remains suggest that sacrificial meals were consumed here. Associated with



Fig. 4. Sunken feature made of white gypsum/anhydrite ashlars in the southwestern harbor. View looking southwest. Photo by S.E. Sidebotham

the earlier period of temple use were attributes of an early Egyptian creation myth. These included a symbolic *benben*, which is the earth emerging from receding flood waters (*Nun*) and a cosmic egg made of vesicular basalt, which could be a substitute for the *Nun / benben.* Immediately north of the *benben* and cosmic egg were the seeds of lotus flowers. Lotus flowers were the first plants to emerge atop the *benben* after the mythical flood waters receded (cf. Tyldesley 2010, 37-41; and Wilkinson 2003, 117-118). There were also remains of over two dozen wooden bowls used, no doubt, for some ritual purpose[9].

Also in this phase toward the interior rear of the temple was a columnar shaped altar near the base of which lay a miniature bronze bull's head. The head appeared to have been removed from a now missing body and subsequently soldered onto a curved plate with two holes by which, no doubt, it could be affixed to some surface. The closest stylistic parallels date second century BC-second century AD from southern Arabia (Sima 2005, 57, Fig. 6; Gunter 2005,135 (10); Schulz / Foster 2008, 75, 77-78, Pls. 33, 35-36, 116-118) where the bull was a popular symbol, especially of the moon god (Rice 1998, 195), but of other deities as well (Breton 1999, 124-125, 127). Near the bronze bull's head was a worn *AE* 1 coin of Julian II (Augustus 361-363 AD) pierced by three holes, with the reverse of a standing bull. These representations of the bull inside the temple were likely not associated with Mithras or Apis, but with some other cult, perhaps of South Arabian origin. The temple also preserved stone altars / incense burners, one of which was decorated in a South Arabian style; the latter stood atop a recycled and badly decayed stone temple pool. There was a bronze *patera / phiale* with stubs of iron tripod legs. Also documented were bronze lamp holders, a terracotta incense burner and an intact miniature temple pool made of stone; miniature stone temple pools are typical of Upper Egypt and Lower Nubia (Kuentz 1981) and have been documented from other religious contexts at *Berenike* (Sidebotham 2011, 84, 268). Also recorded were about 50 deliberately pierced or halved cowry shells used for prognostication; these probably originally hung on a cord over or near the narrow entrance to the shrine and were found inside the temple towards

[9] Wooden bowls are common in all non-Christian shrines at *Berenike*: Sidebotham 2011, 268.



Fig. 5. Late Roman temple in the southwestern harbor. View looking southwest. Photo by S.E. Sidebotham.

its southern end and in the entrance. An inscription of Trajan honoring Isis, Tyche and perhaps Serapis lay on its side. Whether it had any affiliation with the cults worshipped inside the temple in the fifth century or had merely been placed here for some other reason remains uncertain. There were numerous ostrich egg shell fragments painted in red with magical incantations. The bottom of a terracotta lamp had carved into it a pentagram and one of the ostrich egg shell fragments had a pentagram painted on it. Symbol of the Dog Star Sirius, which rose in the Egyptian heaven in late August and marked the start of the Egyptian year and the beginning of the inundation season, the pentagram was also associated with Isis. The appearance of Isis as one of the deities worshipped here should not be surprising. Her association with sailors, maritime activities and the opening of the sailing season in the Mediterranean (*Ploiaphesia / Navagium Isidis*) (Witt 1971, 101-179; Dunand 1973, 223-230) would have had immediate relevance to those either returning from or embarking upon dangerous voyages in the Red Sea and beyond. In the latest phase of this temple was a small terracotta jar nestled in the southwestern interior corner, which contained several dozen thin *repoussé* lunate-shaped pieces of silver. These were pierced and some holes preserved remains of small copper alloy nails or tacks. Possibly these had once been attached as decoration to the prow of a ship.

Early Roman-era graffiti on sherds of South Arabian provenance were written in Hadramauti, a pre-Islamic South Arabian language. There was a parallel with one excavated by a Saudi-American team at Jurash (ʿAsir province), Saudi Arabia[10] while the other recorded Šaqr, the name of the royal palace at Shabwa[11], the capital of the Kingdom of Hadramaut. There was a royal Hadramauti monopoly on frankincense in Pliny's day (*NH* 12.32.63; *Periplus Maris Erythraei* 27); thus, it is not surprising that the palace name appears in connection with that lucrative trade both at the Indian Ocean Hadramauti port of Qanaʾ (Sedov 2010, 218, catalogue # 925, 219, figure 94, # 925, 526, Planche 99), through which some of the frankincense was exported, as well as at foreign emporia where it was

[10] Personal observation of Sidebotham.

[11] *Sabata* in Strabo 16.4.2; *Sabota* in Pliny, *NH* 6.32.155, 12.30.52, 12.32.63; *Saubatha* in the *Periplus Maris Erythraei* 27; *Sabbatha* in Claudius Ptolemy, *Geography* 6.7); personal communication from A. Sedov.

imported. A parallel for the Šaqr graffito also appears at the Roman port of *Myos Hormos*, about 300 km north of Berenike (Tomber 2008, 75, fig. 13 left; Tomber et al. 2011, 8, # 8, 9, figure 2.7; see note 7 above for location of Myos Hormos). Ships' ballast made of vesicular basalt found in the southwestern harbor at *Berenike* was also from Qana' (Peacock et al. 2007, 59; personal communication from J.A. Harrell). South Arabian-made storage jars found at Berenike also likely arrived via Qana' (Tomber 2012, 204-205).

The trash dump north of the city was primarily a first century AD deposit. There were some later intrusions and beneath the dump lay the remains of part of a human male skeleton, age about 25 years at death. A burial of a human adolescent lay just beyond the trash dump. Cat and dog remains, some deliberately buried, also lay within and beneath the Early Roman dump. One male dog, which had died of osteosarcoma at about the age of four years, had been wrapped in a mat and then covered with amphora fragments. There were floral and faunal remains, and organic and inorganic artifacts, which represented both domestic and also public activities. An intaglio depicted a seated female winged sphinx of the late first century BC (Platz-Horster 2011) and a rope with lead seal attached preserved the representation of a seated male figure holding a staff / scepter in his right hand (cf. Copeland 2011, 106, # 251 and 107, figure 10.19 for parallels from Myos Hormos). There were also two polychrome Roman mosaic face beads.

A wooden plaque pierced with a hole at one end preserved a Greek text in black ink on one side and Semitic letters on the other. Likely, this had been affixed to cargo arriving at Berenike. There were approximately 275-280 ostraca written mainly in Greek, some in Latin (Ast / Bagnall 2011). Most dealt with the Roman army's control of the conveyance and distribution of potable water to the city. These ostraca and most from earlier excavations at the site represent mainly public documents while many papyri preserve primarily private correspondence (cf. Bagnall et al. 2000, 2005; Ast / Bagnall 2011)[12].

The date of construction of the so-called Serapis temple in the center of the site has not been securely established, but several nineteenth century travelers recorded hieroglyphic texts of Tiberius, Domitian or Trajan and Marcus Aurelius / Lucius Verus (Sidebotham 2011, 81, 83). These provide a *terminus ante quem* date. The reigns of Ptolemies VI-VIII (180-116 BC) witnessed wide spread temple construction throughout Egypt (Hölbl 2001, 257, 259) and the "Serapis" Temple at Berenike may date from this period.

The temple had been cleared several times during the nineteenth century. Thus, our project had no plans to conduct further work here. In 2007/2008, however, unknown persons damaged the temple while searching for antiquities. Thereafter, we decided to uncover it and make a detailed photographic and architectural record. The project also excavated part of the outside rear (western) wall of the temple where tumbled ashalrs and a small stone statuette of a Horus-headed crocodile were documented.

Towards the eastern side of the site excavation in a large, mainly fifth century AD, trash dump, deposited over structures dating ca. 400 AD, recorded floral and faunal remains, and organic and inorganic artifacts. The latter included pottery, over 1000 beads, and remains of wood, leather, animal horn and turtle shell working industries (cf. Hamilton-Dyer 2011, 158-162, for parallels from Myos Hormos, though of Early Roman date). There were also textiles, including Indian-made specimens, and dozens of mainly fourth century coins, which had circulated into the fifth. The latter included a small *aes* with obverse resembling Axumite issues and reverse imitating the Late Roman VOT/MVLT series. This Late Roman dump also contained banded agate cameo blanks / nodules imported probably from the Barygaza region of India (*Periplus Maris Erythraei* 48, 49; Harrell 1998, 143-144; Harrell 1999, 112; cf. Gupta et al. 2004, 32 for Kamrej; Francis 2004, 492, fig. 7.31 for Arikamedu); these were likely Early Roman in date; there were also some extremely worn Early Roman coins.

In the Eastern Desert the project drew plans of emerald mining settlements in Mons Smaragdus at Middle Sikait, North Sikait and Nugrus, identified sites in Khor Wadi Lahami / Lahma, Wadi Siqdit and at Rizek Allah, examined Kab Marfu'a East, recorded a *skopelos*-tomb cum route marking cairn, which lay about 1 km north of forts in Wadi Abu Greiya (*Vetus Hydreuma*), revisited the five forts at *Vetus Hydreuma* to collect additional sherds and surveyed ancient graves at Bint Abu Greiya. The project also surveyed and partially excavated

[12] In a personal communication to the author Justin Blake indicates, possibly, an analogous situation at *Vindolanda*. There wax tablets might have been used to record official documents, while the wooden tablets were either private or drafts of official correspondence.

a Copper / Bronze Age (ca. 3100-1500 BC) cattle cemetery in Wadi Khashab.

Conclusion

These five seasons expanded knowledge of Ptolemaic *Berenike* and of the southwestern harbor including documentation of Early Roman ship timbers and ship building technologies. Also recorded were a sunken ashlar edifice and a Late Roman temple. The Early Roman trash deposit produced ostraca documenting the Roman army's role in the acquisition, transportation and distribution of potable water to the city; the discovery of a pet cemetery was also noteworthy. Vandalism prompted a long-term program to record photographically and with architectural drawings the so-called Serapis Temple. Excavation of a fifth century trash deposit provided data about *Berenike*'s revived prosperity and contacts with other areas of the Red Sea and South Asia at that time. Survey and excavation in the Eastern Desert provided additional insights on the history of the region.

Bibliography

Adam, J.-P. 1982. L'Architecture militaire grecque. Paris.

Ast, R. / Bagnall, R.S. 2011. Ostraka. In: Sidebotham, S.E. / Zych, I. (eds. & contributors). Berenike 2008-2009. Report on the Excavations at Berenike, Including a Survey in the Eastern Desert. Warsaw. 77-78.

Bagnall, R.S. / Helms, C.C. / Verhoogt, A.M.F.W. 2000. Documents from Berenike I. Greek Ostraka from the 1996-1998 Seasons (Papyrologica Bruxellensia 31). Brussels.

Bagnall, R.S. / Helms, C. / Verhoogt, A.M.F.W. / Bülow-Jacobsen, A. / Cuvigny, H. / Dijkstra, M. / Kaplony-Heckel, U. 2005. Documents from Berenike 2. Texts from the 1999-2001 Seasons (Papyrologica Bruxellensia 33). Brussels.

Blue, L. / Whitewright, J. / Thomas, R. 2011. Ships and Ships' Fittings. In: Peacock, D. / Blue, L. /Whitewright, J. (eds.). Myos Hormos – Quseir al-Qadim. Roman and Islamic Ports on the Red Sea. Volume 2: Finds from the excavations 1999-2003. Oxford. 179-209.

Breton, J.-F. 1999. Arabia Felix from the Time of the Queen of Sheba. Eighth Century B.C. to First Century A.D. Notre Dame, Indiana.

Casson, L. 1996. Sailing Ships of the Ancient Mediterranean. In: Gardiner, R. (ed.). Conway's History of the Ship. The Earliest Ships. The Evolution of Boats into Ships. London. 39-51.

Casson, L. 1994. Ships and Seafaring in Ancient Times. Austin, Texas.

Copeland, P. 2011. Metal and Metal Working. In: Peacock, D. / Blue, L. / Whitewright, J. (eds.). Myos Hormos – Quseir al-Qadim. Roman and Islamic Ports on the Red Sea. Volume 2: Finds from the excavations 1999-2003. Oxford. 89-120.

Dunand, F. 1973. Le Culte d'Isis dans le Bassin Oriental de la Méditerranée. III. Le Culte d'Isis en Asie Mineure Clergé et Rituel des Sanctuaires Isiaques. Leiden.

Fitzgerald, M.A. 1994. The Ship. In: Oleson, J.P. / Fitzgerald, M.A. / Sherwood, A.N. / Sidebotham, S.E. / Hohlfelder, R.L. / Vann, R.L. / Raban, A. (eds.). The Harbours of Caesarea Maritima. Results of the Caesarea Ancient Harbour Excavation Project 1980-1985. Volume 2: The Finds and the Ship (Center for Maritime Studies, University of Haifa Publication No. 5) (BAR International Series 594). Oxford. 163-223.

Francis, P., Jr. 2004. Beads and Selected Small Finds from the 1989-1992 excavations. In: Begley, V. (ed.). The Ancient Port of Arikamedu: New Excavations and Researches 1989-1992. Volume Two (Mémoires Archéologiques 22.2). Paris. 447-604.

Gunter, A.C. (ed.) 2005. Caravan Kingdoms. Yemen and the Ancient Incense Trade. Washington, D.C.

Gupta, S.P. / Gupta, S. / Garge, T. / Pandey, R. / Geetali, A. / Gupta, S. 2004. On the Fast Track of the Periplus: Excavations at Kamrej – 2003. – Journal of Indian Ocean Archaeology 1, 9-33.

Hamilton-Dyer, S. 2011. Worked Faunal Materials. In: Peacock, D. / Blue, L. / Whitewright, J. (eds.). Myos Hormos – Quseir al-Qadim. Roman and Islamic Ports on the Red Sea. Volume 2: Finds from the excavations 1999-2003. Oxford. 155-166.

Harrell, J.A. 1999. Geology. In: Sidebotham, S.E. / Wendrich, W.Z. (eds. & contributors) Berenike 1997. Report of the 1997 Excavations at Berenike and the Survey of the Egyptian Eastern Desert, including Excavations at Shenshef. Leiden. 107-121.

Harrell, J.A. 1998. Geology. In: Sidebotham, S.E. / Wendrich, W.Z., (eds. & contributors). Berenike 1996. Report of the 1996 Excavations at Berenike (Egyptian Red Sea Coast) and the Survey of the Eastern Desert. Leiden. 121-148.

Harrell, J.A. / Bloxam, E. 2010. Egypt's Evening Emerald. – Minerva 21, 6, 16-19.

Herbich, T.M. 2011. Magnetic Survey (2008 and 2009). In: Sidebotham, S.E. / Zych, I. (eds. & contributors). Berenike 2008-2009. Report on the Excavations at Berenike, Including a Survey in the Eastern Desert. Warsaw. 11-18.

Herbich, T.M. 2007. Magnetic Survey. In: Sidebotham, S.E. / Wendrich, W.Z. (eds. & contributors). Berenike 1999/2000. Report on the Excavations at Berenike, Including Excavations in Wadi Kalalat and Siket, and the Survey of the Mons Smaragdus Region. Los Angeles. 22-29.

Hölbl, G. 2001. A History of the Ptolemaic Empire. London / New York.

Huxley, G.L. 1980. On the Greek Martyrium of the Negranites. – Proceedings of the Royal Irish Academy. Section C – Archaeology, Celtic Studies, History, Linguistics, Literature 80, C., No. 3, 41-55.

Kucharczyk, R. 2011. Glass. In: Sidebotham, S.E. / Zych, I. (eds. & contributors). Berenike 2008-2009. Report on the Excavations at Berenike, Including a Survey in the Eastern Desert. Warsaw. 83-111.

Kuentz, C. 1981. Bassins et Tables d'Offrandes. – Bulletin de

l'Institut français d'Archéologie Orientale 81, 243-282.

McNicoll, A.W. / Milner, N.P. 1997. Hellenistic Fortifications from the Aegean to the Euphrates. Oxford.

Peacock, D. / Williams, D. / James, S. 2007. Basalt as Ships' Ballast and the Roman Incense Trade. In: Peacock, D. / Williams, D. (eds.). Food for the Gods. New Light on the Ancient Incense Trade. Oxford. 28-70.

Periplus Maris Erythraei = Casson, L. 1989.The Periplus Maris Erythraei. Text with Introduction, Translation, and Commentary. Princeton.

Platz-Horster, G. 2011. Seated Sphinx Intaglio. In: Sidebotham, S.E. / Zych, I. (eds. & contributors). Berenike 2008-2009. Report on the Excavations at Berenike, Including a Survey in the Eastern Desert. Warsaw. 113.

Rice, M. 1998. The Power of the Bull. London / New York.

Schulz, R. / Foster, G.V. 2008. (eds.). Faces of Ancient Arabia: The Giraud and Carolyn Foster Collection of South Arabian Art. Baltimore, Maryland.

Sedov, A.V. 2010. Les fouilles du secteur 6. In: Salles, J.F. / Sedov, A.V. (eds.). Qāni': Le port antique du Ḥaḍramawt entre la Méditerranée, l'Afrique et l'Inde. Fouilles russes 1972, 1985-1989, 1991, 1993-1994 (Indicopleustoi). Turnhout. 183-281.

Sidebotham, S.E. 2011. Berenike and the Ancient Maritime Spice Route. Berkeley, California.

Sidebotham, S.E. / Wendrich, W.Z. 2001-2002. Berenike Archaeological Fieldwork at a Ptolemaic-Roman port on the Red Sea coast of Egypt 1999-2001. – Sahara 13, 23-50.

Sidebotham, S.E. / Wendrich, W.Z. 1998. Berenike: Archaeological Fieldwork at a Ptolemaic-Roman Port on the Red Sea Coast of Egypt: 1994-1998. – Sahara 10, 85-96.

Sidebotham, S.E. / Zych, I. 2012a. Berenike: Archaeological Fieldwork at a Ptolemaic-Roman Port on the Red Sea Coast of Egypt 2011-2012. – Sahara 23, 29-48.

Sidebotham, S.E. / Zych, I. 2012b. Results of Fieldwork at Berenike: A Ptolemaic-Roman Port on the Red Sea Coast of Egypt, 2008-2010. – Topoi supplément 11, 133-157.

Sidebotham, S.E. / Zych, I. (eds. & contributors) 2011. Berenike 2008-2009. Report on the Excavations at Berenike, including a survey in the Eastern Desert. Warsaw.

Sidebotham, S.E. / Zych, I. 2010. Berenike: Archaeological Fieldwork at a Ptolemaic-Roman Port on the Red Sea Coast of Egypt 2008-2010. – Sahara 21, 7-26, Plates A1-A7.

Sima, A. 2005. Religion. In: Gunter, A.C. (ed.). Caravan Kingdoms. Yemen and the Ancient Incense Trade. Washington, D.C. 52-58.

Steffy, J.R. 1994. Wooden Ship Building and the Interpretation of Shipwrecks. College Station, Texas.

Tomber, R. 2012. From the Roman Red Sea to Beyond the Empire: Egyptian ports and their trading partners. – British Museum Studies in Ancient Egypt and Sudan 18, 201-215.

Tomber, R. 2008. Indo-Roman Trade: from Pots to Pepper. London.

Tomber, R. / Graf, D. / Healy, J.F. / Römer-Strehl, C. / Majcherek, G. 2011. Pots with Writing. In: Peacock, D. / Blue, L. / Whitewright, J. (eds.). Myos Hormos – Quseir al-Qadim. Roman and Islamic Ports on the Red Sea. Volume 2: Finds from the excavations 1999-2003. Oxford. 5-10.

Tyldesley, J. 2010. Myths & Legends of Ancient Egypt. London / New York.

Van Hecke, J. / Bossue, B. / De Buck, V. / Carpentier, E. 1970. Martyrium Sancti Arethae. Acta Sanctorum Octobris 10. Brussels.

Wilkinson, R.H. 2003. The Complete Gods and Goddesses of Ancient Egypt. London.

Wilson, A. 2011. The Economic Influence of Developments in Maritime Technology in Antiquity. In: Harris, W.V. / Iara, K. (eds.). Maritime Technology in the Ancient Economy: Ship-Design and Navigation (Journal of Roman Archaeology Supplementary Series Number 84). Portsmouth, Rhode Island. 211-233.

Witt, R.E. 1971. Isis in the Graeco-Roman World. Ithaca, New York.

Zych, I. 2011. Finds. In: Sidebotham, S.E. / Zych, I. (eds. & contributors). Berenike 2008-2009. Report on the Excavations at Berenike, including a survey in the Eastern Desert. Warsaw. 117-162.

Prof. Dr. Steven E. Sidebotham
Department of History
236 Munroe Hall/46 West Delaware Avenue
University of Delaware
USA-19716-2574 Newark, Delaware
ses@udel.edu

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Interior Buildings of the Severan Oasis Fort of Gheriat el-Garbia in the Late Roman Period

Michael MACKENSEN / Florian SCHIMMER

At the turn of the 2nd to the 3rd c. AD the emperor Septimius Severus initiated a new military building programme at the so-called *limes Tripolitanus*, the southern frontier of the Roman Empire in southern Tunisia and northwestern Libya. This programme included a move of the frontier from the east-west main road (cf. *Itinerarium Antonini* 73-77) about 200-250 km to the south of the agriculturally prolific Gebel area (esp. olive production), incorporating large parts of the Tripolitanian pre-desert zone into the province of *Africa proconsularis* (**fig. 1**). The pre-desert zone was basically a semi-arid to arid stony area and agriculture was possible on a limited, rather modest level, which depended on the seasonal rainfall (ca. 100-200 mm *per annum*) and sophisticated irrigation systems in the wadis. As a result, the three oasis forts situated on the main roads leading to the south were established far beyond the wadi Sofeggin: *Gholaia* / Bu Njem in the East, Gheriat el-Garbia in the middle and *Cidamus* / Ghadames in the West. These forts were constructed by vexillations of *legio III Augusta* from *Lambaesis* (eastern Algeria). The legionary garrisons controlled not only the access to the oases which functioned as resting and supply sites for caravans, but also the cross-border movements of travellers, merchants and goods (Mackensen 2012, 43 f.). The three fairly remote forts are all located within the pre-desert zone. In contrast to Ghadames, where few traces are preserved, the fort and *vicus* of Bu Njem were extensively excavated by R. Rebuffat between 1967 and 1977 providing spectacular results (Rebuffat 1989). On the other hand, no excavations were conducted at Gheriat el-Garbia. The site is located about 270 km south of the Mediterranean coast on the direct route from *Oea* / Tripoli down to Fazzan on the fringes of the Hamada al-Hamra desert (**fig. 1**).

The Severan Fort of a Legionary Vexillation

In 1850 the German explorer H. Barth was the first European scholar to discover the ruins of Gheriat el-Garbia. A century later this fort attracted the attention of R. Goodchild who published a plan and an aerial photograph of the fort (1954, 60-66, figs. 2-4, pls. 12-13b). Substantial progress was made when D. Mattingly and D. Welsby explored the fort and its surroundings in the context of the UNESCO Libyan Valleys Archaeological Survey in 1981 (Welsby 1983, 57-64, figs. 10-15; Mattingly 1996, 98-105, figs. 14, 1-12). However, the investigations were mainly focussed on the defences with their still standing gate, interval and corner towers as well as the topography while the fort's interior buildings remained more or less unknown. It is to Welsby that we owe the first reliable plan which depicts also the medieval to modern Berber village inside the Roman fortifications. This Berber settlement caused profound damage to the already collapsed Roman buildings in the interior; these were almost completely dismantled and the building materials re-used.

A two year German-Libyan archaeological field project was started in spring 2009. The project was aimed primarily at an investigation of the layout of the interior buildings, but also at a detailed documentation of the defences and the area around the fort. Generally, there was little doubt that the Roman occupation of Gheriat el-Garbia was limited to the 3rd c. AD. However, we have shown that this assumption has to be fundamentally revised, for the survey and the excavations provided unexpected and exceptional stratigraphical numismatic and epigraphic evidence of a late antique occupation dating from mid- / late 4th to mid-6th c. In comparison

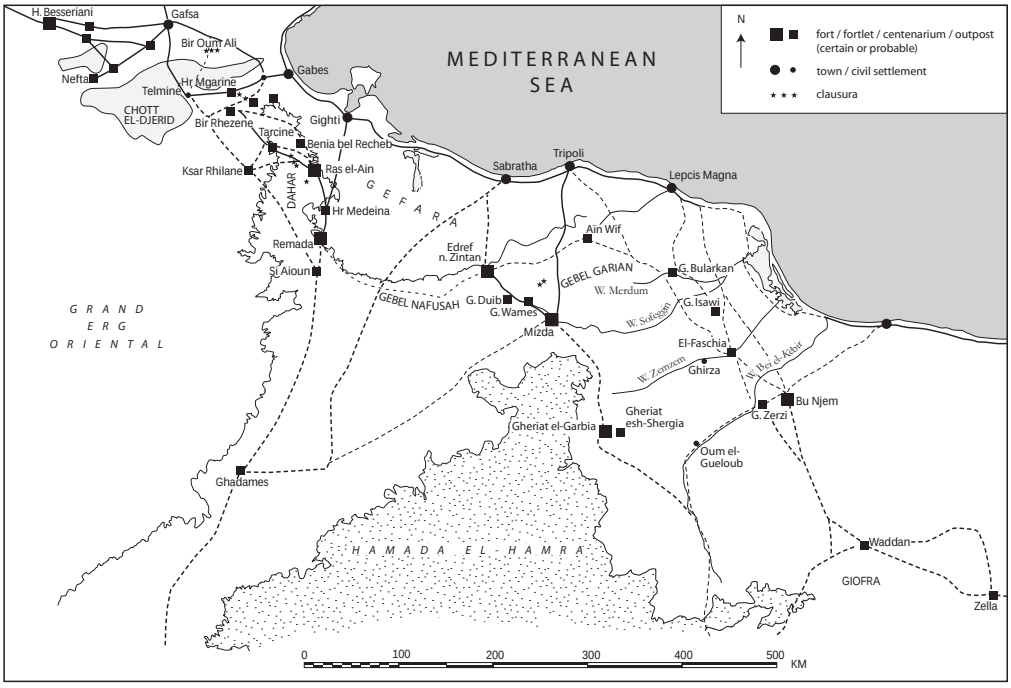


Fig. 1. Mid- and Late Roman military sites in Tripolitania (M. Mackensen)

to Bu Njem (1.15 ha), the Severan fort of Gheriat el-Garbia stands out in particular due to its larger interior size of 128 x 176 m (2.25 ha). In addition, both the curtain wall, the gates (particularly the *porta praetoria*) and two interval towers show a remarkably good state of preservation, partly standing to a height of 8-10 m. According to a building inscription, the fort was constructed between AD 198 and 201 (Di Vita 1966, 109-111, fig. 12, pl. 43a).

The fort is located on top of a 20 m high limestone plateau with steep slopes on three sides, falling away to the wadi and the nearby oasis. Access for soldiers, mounts and beasts of burden was given by a 3 m wide ramp, cut into the slope of the northern limestone plateau (**fig. 2/4**). Further access was possible from the wadi up to the *porta decumana* and to the *porta principalis dextra,* as well as to the *porta praetoria* via the eastern corner of the fort (**fig. 2/1-2**). The c. 10 ha large *vicus* is located at the south-western and western foot of the plateau, while a quarry was discovered about 120 m north of the *porta praetoria* (**fig. 2/5**) and half way up to the so-called temple plateau where the remains of five sanctuaries (GG2-6) are still visible on the ground (**fig. 2/6**); one of these was partly excavated (Mackensen 2012, 54, fig. 12).

The excavations in 2009 and 2010 provided numerous new insights into the construction, history and organization of the fort; the results are published in two extensive preliminary reports and some articles (Mackensen 2010; 2011; 2012; Haensch / Mackensen 2011). Fieldwork was concentrated mainly on the gates and parts of the curtain wall as well as on the fort's central area and the northern *praetentura*. One of the most exceptional discoveries of a mid-Roman date is a dedicatory inscription by the garrisoned vexillation of *legio III Augusta* to Iulia Mamaea, mother of Severus Alexander, on a large statue base which was re-used in a secondary blocking of the carriageway of *porta praetoria*. The inscription, dating to AD 222/23, records the first three letters of the site's ancient name MYD(---). This name, probably a Libyan toponym, was previously unknown (Mackensen 2010, 441-447, figs. 68-71; 2012, 50, fig. 8).

In the centre of the fort we managed to excavate two central rooms in the rear range of rooms of the headquarters building (**figs. 3/15; 4**): the fort's shrine, the *aedes*, was located on the main axis of the *via praetoria* extended to the Southwest; an adjacent room might have functioned as bureau (*officium*) (**fig. 6/R1-2**) (Mackensen 2011, 302-313, figs. 52-58). The possible existence of a *groma* building in front of the *principia* (c. 36 x 38-40 m) may be indicated by a monumental Severan building inscription which was later re-used at the northern corner of the *porta decumana* (Mackensen 2011, 293-296, figs. 45-46; 336-343; 356). An area of about 200 m^2 was excavated in the northern *praetentura* in order to trace remains of mid-Roman barracks. However,

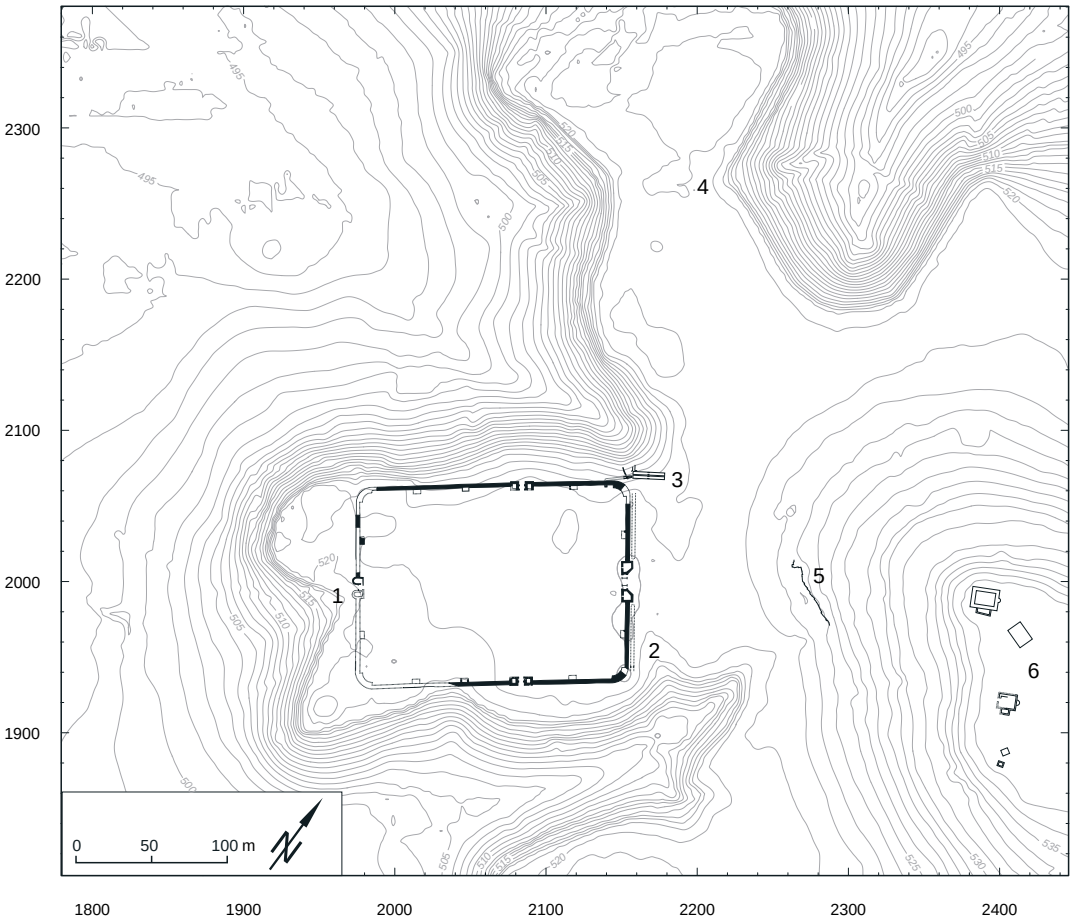


Fig. 2. Gheriat el-Garbia. Topographical plan with Severan fort. 1 – southwest access, 2 – east access, 3 – double chamber cistern, 4 – north access, 5 – quarry, 6 – northeast plateau with temples GG2-6. Scale 1:5000 (M. Stephani / M. Mackensen / F. Schimmer)

only very few structures datable to the 3rd c. could be observed. According to the numismatic evidence, the mid-Roman garrison withdrew from the site around AD 275/80 (Mackensen 2011, 358; 2012, 44; 55).

Late Roman Building Activities and Settlement

A Late Roman occupation at Gheriat el-Garbia (**fig. 5**) is attested not only by Late Roman structures, but also by large amounts of high quality red slip pottery and small finds, as well as coins dating from the mid-4th to the mid-6th c. This result is remarkable, as no other Late Roman forts have been attested in Northwest Libya south of the middle and lower Wadi Sofeggin (**fig. 1**) (Mattingly 1995, 190, fig. 10.1). It has to be emphasized that at Gheriat el-Garbia there is no indication of an occupation between the 280s and the time around AD 360/80 at the earliest which implies a *hiatus* of roughly 80/100 years.

In about 360/80 (or maybe two or three decades later) the carriageway of the *porta praetoria* was walled up with *spolia* and used as living quarters until the mid-5th c. at the latest, while the lateral passages remained unblocked. A mortared internal wall of large re-used ashlars was added to the northern gate tower (Mackensen 2010, 432-434, figs. 60-61; 437 f., fig. 65). Substantial changes are attested during the middle third of the 5th c.: the carriageway, as well as the open area southwest of the *porta praetoria*, was filled up with huge dumps of various kinds of domestic waste. Moreover, the area south of the south tower of the *porta praetoria* was used for animal husbandry during the second half of the 5th c. (Mackensen 2010, 432; 440; 2011, 362 f.). Additionally, the northern tower of the *porta decumana* was reinforced by a mortared oblique, glacis-like buttress wall of evenly set mortared masonry of small-sized ashlars. This buttress was set against the north-western side of the northern gate tower and can be dated probably after AD 420 (calibrated radiocarbon date of 1551 ± 43 BP [Erl-16637]; calendar date [2 sigma] AD 420-597) (Mackensen 2011, 292 f., fig. 40; 44; 2012, 51, fig. 9-10).

Regarding the interior structures of late Roman date, an almost square building was excavated in the northern *praetentura* (**fig. 5/B**). The building consisted of just a single large room (6.0 x 6.5 m) with

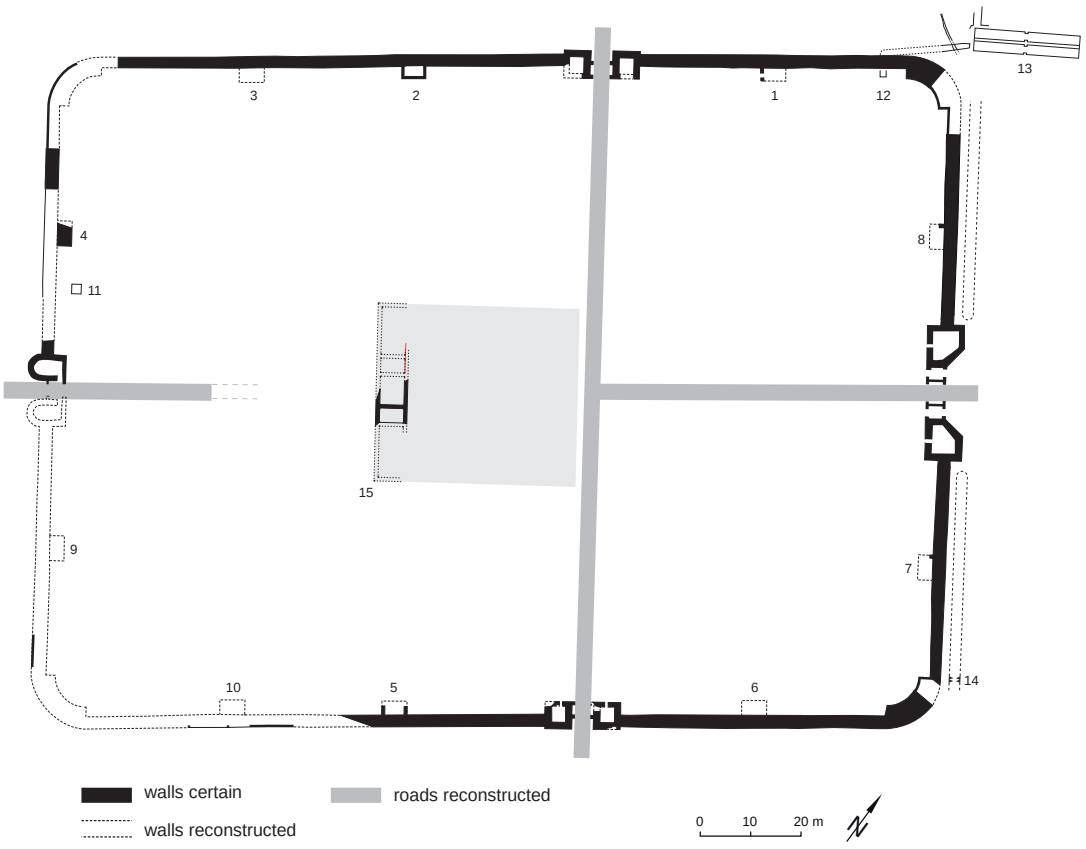


Fig. 3. Gheriat el-Garbia. Plan of the Severan fort with gates, curtain wall, angle towers and interval towers 1-10; 11 – well, 12 – entrance to underground tunnel, 13 – double chamber cistern, 14 – ditch, 15 – headquarters building (*principia*). Scale 1:1500 (M. Mackensen / F. Schimmer)

a storage pit. The stratified pottery indicates a construction date probably in the first half of the 5th c. (F. Schimmer in: Mackensen 2011, 313-327).

Further late Roman building activities were detected and identified in the area of the headquarters building (**figs. 4; 5/A; 6/R1**): The *opus signinum* pavement of the shrine of the mid-Roman headquarters building (R1) was heightened by a new mortar floor which provided us with a charcoal sample (calibrated date of 1595 ± 38 BP [Erl-16639]); the time-span of the calendar date ([2 sigma] AD 391-551) indicates that the restoration of at least the central room (4.8 x c. 6.0 m) which was reached by two steps, did not happen earlier than c. AD 390 (Mackensen 2012, 52). Two massive walls (**fig. 6/M2-3**) seem to be connected with the two re-used central rooms of the rearward wing of the mid-Roman *principia*, but the restoration of these two rooms and the building of the two walls are not necessarily simultaneous; the walls might belong to an even later development connected with a functional change of the central room. Two doorways through the new wall M2 led to a rectangular hall (2.4 x c. 10.5 m) which still gave access to the central room R1 and to the adjacent room R2, all belonging to a large building of at least c. 12 x 12.5 m in size (**fig. 6**), which was only partly excavated in 2010. The quality of the structures and the building technique with embedded re-used ashlars and a mid-Roman gravestone differ clearly from the rather irregular dry walls of the mostly 18th to early 20th c. Berber houses (**fig. 4**) which had destroyed most of the Late Roman layers.

Additional chronological indications are provided by unstratified Late Roman North Tunisian and Tripolitanian red-slip ware and lamps. Of particular importance is an unstratified bronze coin of Justinian I, found near the central rooms and dating to AD 533/34–537, i.e. after the Byzantine recapture of North Africa.

However, the exact function of the building in its final version, which belongs to the Late Antique period, cannot be determined yet. Regarding its central position, the good quality of the walls with horizontally set, medium-sized ashlar courses and the intentional use of *spolia* at the doorways, a late Roman official building of some importance may be considered. But there is no direct view from the



Fig. 4. Gheriat el-Garbia. Rear range of rooms of headquarters building (*principia*) with mortar floors of central room (*aedes*) and adjacent room (*officium*) to the left, in the background dilapidated houses of Berber village (M. Mackensen)

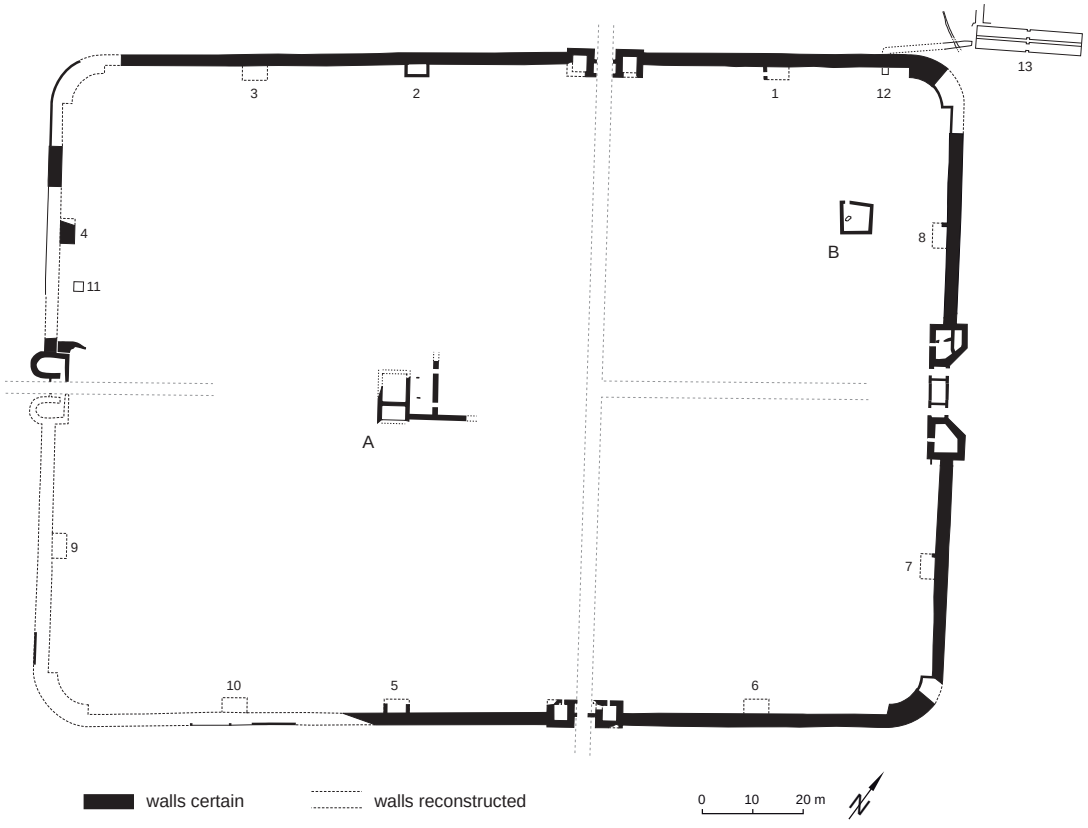


Fig. 5. Gheriat el-Garbia. Plan of Severan fort with Late Roman restorations of main gate (*porta praetoria*) and rear gate (*porta decumana*) in the early 5th century. 1-10 – interval towers, 11 – well, 12 – underground tunnel, 13 – double chamber cistern, A and B – Late Roman buildings. Scale 1:1500 (M. Mackensen / F. Schimmer)

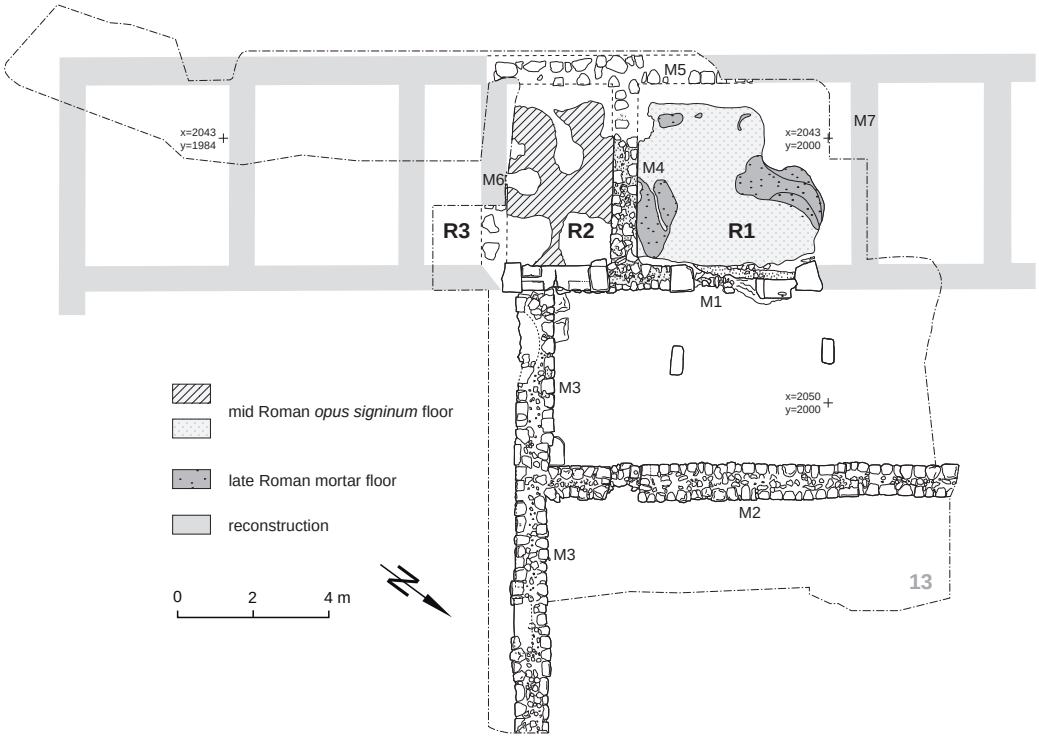


Fig. 6. Gheriat el-Garbia. Rear range of rooms of headquarters building (R1-3) and Late Roman walls M2-3. Scale 1:200 (M. Mackensen / F. Schimmer)

north to the former shrine (R1), this having been blocked by the east-west wall (M2) with its two decentralised doorways (**fig. 6**). Therefore, an interpretation as headquarters building does not seem plausible (Mackensen 2012, 52; 56).

Interpretation of the Late Roman Settlement

It is evident that both the construction of a new, fairly large building in the fort's central area as well as the reinforcements of the *porta decumana* required Roman specialists. Two radiocarbon dates provide us with *termini post quos* of AD 391 and 420 for restoration and building activities. Therefore, the presence of a Late Roman garrison of unknown size at Gheriat el-Garbia seems likely from about 360/380, but more probable around 390/420. Moreover, the range of red slip wares and amphorae from the second half of the 4th and the 5th c. AD indicate trade relations to North and Central Tunisia and even to the Eastern Mediterranean. Several *ostraca* written in Latin italics, but in a Semitic language (Punic), attest the literacy of at least some of the occupants of the site as well as their regional origin (Ziegler / Mackensen 2014).

The interpretation of the available evidence and various observations proves to be rather difficult. It is noteworthy that small finds from the first half of the 4th c. AD are missing almost completely. On the other hand, a fragmentary inscription recording building or restoration activities sheds more light on the Late Roman settlement: the two fragments were found in the area of the *porta praetoria*. According to R. Haensch, the inscription probably dates to the second half of the 4th or maybe even to the first half of the 5th c. AD, due to the style of lettering and parallels to the formula employed in the literary text. The first part of the inscription records heavy rainfalls (*ab impetu aquarum*) at many sites (*multa loca*) accompanied by water floodings, which caused marshy conditions (*palus*). It was concluded that many cisterns and wells were filled with mud and had to be cleaned and restored by the Roman authorities. This evidently happened along a section of the frontier of 107 Roman miles leading up to the *limes Tentheitanus* which is mentioned on the inscription (Haensch / Mackensen 2011).

This Latin inscription has to be judged as an official Roman document, which cannot be expected in an indigenous settlement. Therefore we have to conclude from the archaeological and epigraphic evidence that Rome made a decision to deploy a garrison to the oasis of Gheriat el-Garbia as a countermeasure to the raids by the *Austuriani* that started in the 360s and lasted until the first quarter of the 5th c. AD (Mackensen 2012, 57).

There is no reference to specific frontier sections, re-occupied mid-Roman military sites or new forts in the epigraphic sources from this period. This applies to the honorary inscriptions (with statues) for the governor and commander-in-chief Flavius Nepotianus (*ante* AD 363), *comes et praeses provinciae Tripolitanae*, as well as to the inscriptions recording military commanders such as Flavius Victorianus (AD 378), *comes Africae*, and the important commander in chief Flavius Ortygius, *comes et dux provinciae Tripolitanae*, whose inscription is datable between AD 408 and 423 and who successfully fought the *Austuriani* (Tantillo / Bigi 2010, 26; inscriptions # 29, 31, 41).

As for the restored fortification of Gheriat el-Garbia, a garrison consisting either of so-called *gentiles* or (much more probably) of *limitanei* (meaning border units) is imaginable. The garrison may have been commanded by an indigenous tribal chieftain in Rome's pay or (much more likely) by a Roman officer with the rank of *praepositus*. This officer was also responsible for the security along the road running from Gheriat el-Garbia to Mizda, the terminal point of the *limes Tentheitanus* (Mackensen 2012, 57).

An interesting point is the record of a unit called *milites munifices in castris Madensibus* in the *Notitia Dignitatum Occ.* 31, 30. This unit can be identified as *limitanei* who were garrisoned in regular *castra*. There is only one more reference to *castra* in the Tripolitanian section of the Notitia: the *castra Leptitana* at *Lepcis Magna*. But where can we locate the *castra Madensia*? Gheriat el-Garbia may be a likely candidate for this site, regarding its size and the restored fortification. Furthermore, linguistic analysis has shown that certain Punic vowels did not exist in Latin and that this led to slightly ambiguous spellings. Therefore, it was suggested that the 3rd c. name *Myd(---)* was also recorded as *Mad(---)*. As a consequence, it seems plausible that the *castra Madensia* refer to *Myd(---)*/Gheriat el-Garbia, even though further epigraphic evidence is needed to verify this hypothesis. The *Notitia Dignitatum* also lists a *praepositus limitis Madensis* (*Not. Dig. Occ.* 31, 22). The location of this *limes* section is unknown, even though D. Mattingly considered the area of Dehibat or Sebkha Tauorgha (1995, 189). However, the *limes Madensis* may just as well correspond to the route from Gheriat el-Garbia to Mizda (Mackensen 2011, 364; 2012, 57).

At the current state of research it is impossible to determine precisely when Gheriat el-Garbia housed a garrison after AD 360/380 or even as late as AD 390/420 and how long it remained there. One may speculate about an end of military garrisoning by AD 430/455, being presumably caused by the Vandal capture of *Africa Proconsularis* (AD 429) and Carthage (AD 439) or *Tripolitana* (AD 455). The character of the occupation obviously changed around the mid-5th c. at least in the area of the *porta praetoria*. The reason for this process may be a change of power or responsibilities. On the other hand, archaeological and numismatic evidence proves settlement activities well into the early Byzantine period around AD 540. It is uncertain what happened at the site during this final period, but an indigenous Libyan settlement under a tribal chieftain seems conceivable (Mackensen 2011, 364; 2012, 58).

Bibliography

Di Vita, A. 1966. La villa della "gara delle nereidi" presso Tagiura: un contributo alla storia del mosaico romano ed altri recenti scavi e scoperte in Tripolitania. Libya Antiqua, Suppl. 2. Tripoli.

Goodchild, R. G. 1954. Oasis Forts of Legio III Augusta on the Routes to the Fezzan. – Papers of the British School in Rome 22, 56-68.

Haensch, R. / Mackensen, M. 2011. Das tripolitanische Kastell Gheriat el-Garbia im Licht einer neuen spätantiken Inschrift: Am Tag als der Regen kam. – Chiron 41, 263-286.

Mackensen, M. 2012. New fieldwork at the Severan fort of Myd(---)/Gheriat el-Garbia on the limes Tripolitanus. – Libyan Studies 43, 41-60.

Mackensen, M. 2011. Das severische Vexillationskastell Myd(---) und die spätantike Besiedlung in Gheriat el-Garbia (Libyen). Bericht über die Kampagne im Frühjahr 2010. – Mitteilungen des Deutschen Archaeologischen Instituts in Rom 117, 247-375.

Mackensen, M. 2010. Das severische Vexillationskastell Myd(---)/Gheriat el-Garbia am limes Tripolitanus (Libyen). Bericht über die Kampagne 2009. – Mitteilungen des Deutschen Archaeologischen Instituts in Rom 116, 363-458.

Mattingly, D. J. (ed.) 1996. Farming the Desert. The UNESCO Libyan Valleys Archaeological Survey II. Gazetteer and Pottery. Tripoli and London.

Mattingly, D. J. 1995. Tripolitania. London.

Rebuffat, R. 1989. Notes sur le Camp Romain de Gholaia (Bu Njem). – Libyan Studies 20, 155-167.

Tantillo, I. / Bigi, F. (eds.) 2010. Leptis Magna. Una città e le sue iscrizioni in epoca tardoromana. Collana Scientifica 27. Edizioni dell'Università degli Studi di Cassino. Roma.

Welsby, D. 1983. The Roman Fort at Gheriat el-Garbia. – Libyan Studies 14, 57-64.

Ziegler, S. / Mackensen, M. 2014 (forthcoming). Spätantike Ostraka aus Gheriat el-Garbia in der Provinz Tripolitana (Libyen) – Belege für eine regionale Variante des Punischen – Mitteilungen des Deutschen Archaeologischen Instituts in Rom 120.

Prof. Dr. Michael Mackensen
Institut für Vor- und Frühgeschichtliche
Archäologie und Provinzialrömische Archäologie
Ludwig-Maximilians-Universität
Geschwister-Scholl-Platz 1
DE-80539 München
m.mackensen@vfpa.fak12.uni-muenchen.de

Dr. Florian Schimmer M.A.
Österreichisches Archäologisches Institut
Franz Klein Gasse 1
AT-1190 Wien
florian.schimmer@oeai.at

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Reflection on Some Architectural Peculiarities of the Late Roman *Principia* in Egypt by the Example of Luxor

Dmitry KARELIN

The main aim of the article* is to discuss some features of the Roman *principia* in Egypt from the architectural point of view mainly by the example of *principia* at Luxor.

I would like to emphasize the fact that the architectural features of the Roman *principia* were studied a lot by many researchers[1]. That is why I only want to pay attention to a few questions. The first one is the significance of such monuments for their urban environment. The second problem concerns the possible architectural prototypes for the late Roman *principia* among the civil examples of the imperial cult temples. The third question touches upon some peculiarities which connect the architecture of the Roman imperial cult temple at Luxor with the pharaonic one.

I have information about thirteen Roman *principia* in Egypt. Six of them are the earlier examples and were built mainly in I-II AD[2]. There were also found traces of seven late Roman *principia* in Egypt probably built at the end of III – IV AD. They were in the fortresses at Luxor (El-Saghir et al. 1986), Dionysias (Schwartz 1969, Carrié 1974), Medinet Madi[3], Abu Sha'ar (Sidebotham et al. 1989, Sidebotham 1994), el-Kab (Badawi 1947, Grossmann 2003), Nag el-Hagar[4] (Mackensen 2009) and Tell el-Herr (Valbelle and Carrez-Maratray 2000, 98). Archaeological evidence makes possible to imagine architecture of the *principia* from six of them except for Tell el-Herr. There is no doubt that the *principia* at Luxor was the most interesting and wonderful of these monuments.

* I would like to thank Chris Snook who read the text of my report during the XXII International Limes Congress at Ruse and gave a lot of useful remarks. In addition I would like to acknowledge Olga Volgina's immense help with the English translation of the article's text. I am very grateful to my sister Maria Karelina for her help with translating some articles from German. I am very grateful to Boris Kozhushaniy for his help, understanding and support. I would especially like to thank my wife Irina Kulikova for her help with translating some French and German scientific works, editing the article and her kind and various assistance and support in every way. The article was prepared as part of project # 13-34-01203 supported by Russian Foundation for Humanities and be keeping with project # 14-18-01601 supported by Russian Science Foundation.

[1] For their general analysis see: von Domaszewski 1889; Johnson 1983, 104-132. The features of the late Roman *principia* were studied by R. Felmann and T. Blagg (Felmann 1979, Blagg 2000). Unfortunately, I was not able to read another article by R. Felmann (1976).

[2] The peculiarities of their architecture were studied in detail by M. Reddé (Reddé 2003b, 248-251; 2004). They were the *principia* at *Maximianon* (Brun and Reddé 2003; Reddé 2003b, 248-251; Reddé 2004, 444-445), *Didymoi* (Reddé and Brun 2011), Umm Balad (Reddé 2004, 445-448), *Mons Claudianus* (Peacock and Maxfield 1997, 49-50), Qasr Banat (Reddé 2003a; 2003b, 248-251; Reddé 2004, 443-444) and the newly discovered example at Xeron Pelagos (M. Reddé made the report "The shrine (*aedes*) of the *praesidium* of Xeron Pelagos" at the XXII International Limes Congress). I would like to thank Michel Reddé for sending me the text of his report.

[3] Unfortunately, I have not found any publication about this fortress and had to use the information from the official internet site prepared by E. Bresciani: http://www.egittologia.unipi.it/pisaegypt/MMscavi06-07.htm [accessed 14.08.2012].

[4] The *principia* at Nag el-Hagar has been studied recently and complete information has not been published yet. However, the latest information was given in R. Franke's talk at the XXII International Limes Congress. This monument had non-typical plan with the octagonal hall of the *principia* chapel.

All of them had several typical features of the late Roman *principia*, for example, apsidal sanctuaries. However, there is some difference between their plans. One could conclude that there were two types of the late Roman *principia* in Egypt[5]. The smaller ones (*Dionysias*, Aby Sha'ar and el-Kab[6]) did not have a classical plan including a court and a basilica. The chapel therefore occupied the major part of the whole *principia*.

The Luxor *principia* is the only example of another type. It had a standard scheme (**fig. 1**)[7]. The space of the ancient Egyptian temple was very useful for creating the classical *principia* as M. Reddé mentioned (El-Saghir et al. 1986, 25, 31). The court of Amenhetep III[8] became the main court of *principia*, the hypostyle hall probably became the basilica, the temple of the Roman imperial cult occupied the chamber of the divine king and the additional chambers, which had been pharaonic chapels before. Among the late Roman *principia* the most similar for the Luxor example was such a monument at *Palmyra*[9].

R. Felmann and T. Blagg discussed the architectural peculiarities of the late Roman *principia*. The main idea of their studies is that there was the process of the monumentalization of *principia*'s architecture, probably connected with the increasing significance of the Roman imperial cult. The latter caused the appearance of some new architectural features (Felmann 1979, 50-52; Blagg 2000, 142-145). The first one is the presence of an apse. The apse was the typical feature of the late Roman religious architecture[10]. There were apses in the late Roman temples of the imperial cult, temples of the deities, *Mithraea*, synagogues and early Christian churches. Public buildings connected with the Roman imperial cult also contained this architectural detail[11]. The rising of the chapel's floor level became the second innovation. The third new feature was the appearance of the monumental entrances to the court, basilica and chapel. In *Palmyra* they were the porticoes with Syrian pediments. In Luxor there was a monumental portal at the entrance of the temple of the imperial cult, four tetrarchic statues in front of the hypostyle hall, and the triple gate from the colonnade of Tutankhamen and Horemheb to the court of Amenhetep III. Besides the quantity of the additional rooms in the *principia* reduced. That is why the space of the chapel became more significant and more open to the basilica and to the court. But, in the small examples the significance of the chapel increased due to disappearance of the court and the basilica which made the connection between the chapel and the outer space of the fortress stronger (Felmann 1979, 52).

However, all these features which were new for the *principia* had already existed in some earlier examples of the temples of the Roman imperial cult. I suppose that the most similar prototypes for the late Roman *principia* were the so called "Kalybe Structures" from Hauran region in Syria and Jordan. These temples were built from the middle of the II century to the end of the III century and mainly were dedicated to the Roman imperial cult[12]. The temples at Iś-Śanamên (Cummings 1909), Musmiye (Hill 1975, Segal 1998), "Kalybe" and "Hexastyle" in *Philippopolis*, "Temple C" at Kanawat and "Kalybe" at Bosra (Segal 2001; 2008, 122-128) had a lot of the same features and the spatial structure similar to the studied chapels in the late Roman *principia*. They also had the monumental entrance. Their inner space was highly raised above the street level. At their far end the apse was situated.

"Hexastyle" at *Philippopolis* and "Temple C" at Kanawat according to the reconstructions of E. Ben-Dov had monumental porticoes with Syrian pediments[13], which were similar to such architectural elements in the *principia* at *Palmyra*. "Kalybe" at *Philippopolis* and Bosra did not have any porticoes[14]. However, in both cases their inner space

[5] Different types of fortresses and *principia* were discussed by R. Felmann (1979, 48-52) and M. Reddé (1995, 107-121).

[6] For their plans see respectively: Schwartz 1969, Plan 2; Sidebotham 1994, Fig. 2; Grossmann 2003, Fig. 19.

[7] For the description of the fortress and *principia* see: El-Saghir et al. 1986, 5-19, 20-31, Pls. I-XXII.

[8] Here and below I mainly use the names of Luxor temple chambers (Fig. 1) from the L. Bell's article (1997, Fig. 56).

[9] This likeness could be explained by close dates of their construction, similar fortresses' sizes and functions. The *principia* at *Palmyra* was already built in 303 AD (Gawlikowski 1984, 10). According to the tetrastyles' inscriptions P. Lacau dated the Luxor fortress between 300 and 309 AD (1934). M. Reddé supposed that the fortress and the *principia* had been already built by 301 AD (El-Saghir et al. 1986, 20-21).

[10] For the examples see: Suzawa 2008, 55-74; Brenk 2010, 13-55.

[11] Roman *gymnasia* had halls with apses for the Roman imperial cult: Yegül 1982. In addition, the colossal statue of Constantine in the western apse of the Basilica of Maxentius probably was the architectural expression of the Roman imperial cult inside the public building, taking into consideration the possibility that Maxentius could plan to set there his own statue: Brenk 2010, 46-50.

[12] About the "Kalybe Structures" see: Segal 1998; 2001; 2008, 120-132; 2013.

[13] For their reconstructions see: Segal 2001, Figs. 7, 13; 2008, Pls. XXXVIII, XLI.

[14] For their reconstructions see: Segal 2001, Figs. 10, 18; 2008, Pls. XLIV, XLVII.

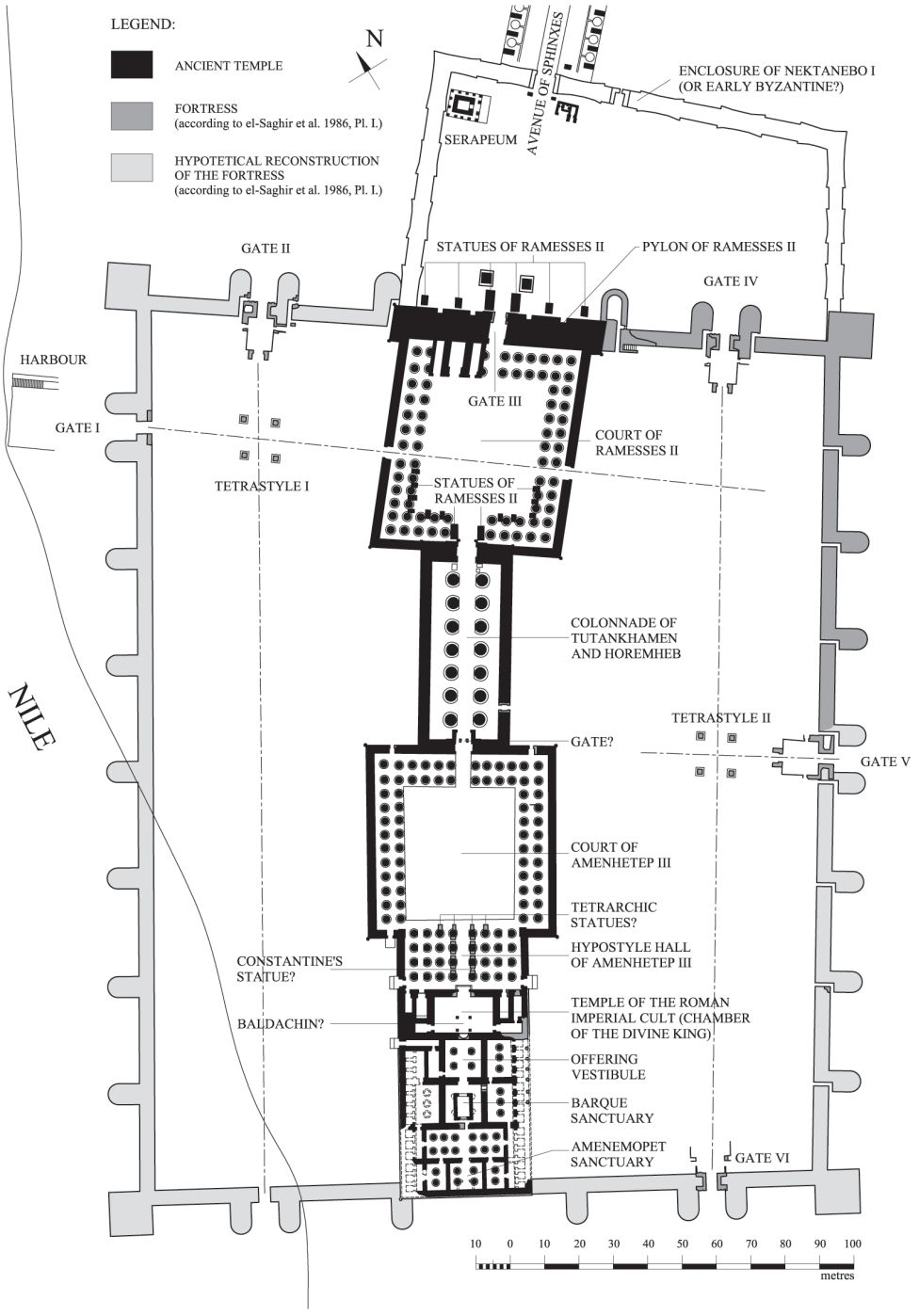


Fig. 1. Plan of the Luxor fortress (Drawn by the author, based on: El-Saghir et al. 1986, Pl. 1; Bell 1997, fig. 56)

was open outside. Furthermore, the luxurious facades of both temples at *Philippopolis* and of the one at Bosra were open to space of the main streets or squares of the ancient cities. That is why their inner spaces were very important for the urban environment.

The *principia* at *Palmyra* and Luxor were situated inside the fortresses, however they could be significant for the urban environment. The former monument was situated on the axis of one city street and at a very high point. Therefore it was highly visible from a large part of the city. The Luxor *principia* also was dominant not only for the fortress, but for the urban space of Thebes too. It was situated on the axis of the main street – the avenue of sphinxes connecting Luxor and Karnak temples. This street had great importance for ancient Thebes and could play a significant role in the Opet-Festival (Bell 1997, 156, 157-177). It is remarkable that L. Török supposed that there could

be two separate fortresses with different legions[15] on both sides of the ancient temple. He suggested that the temple included both the Roman imperial cult and the Egyptian cult of Amon, it was opened for the local citizens and became a new religious center for Theban region (Török 2005, 140-142, 151-152). Undoubtedly, this suggestion is very interesting to understand the possible significance of the Roman imperial cult temple for the urban environment of Thebes. However, it is doubtful because of strangeness of such a functional scheme for the military fortress (Карелин 2012a, 76)[16].

Now I would like to consider the peculiarities of the Luxor *principia*[17]. The Romans made a lot of changes to transform the chambers of the ancient Egyptian temple into the *principia*[18]. The main transformations were conducted in the chamber of the divine king. The Romans demolished eight pharaonic columns here, raised its floor level using the parts of them, blocked the door from this chamber to the offering vestibule and constructed a small apse instead.

In the main chamber of the temple there were paintings which were preserved very badly. However, because of sir John Gardner Wilkinson's watercolours[19] painted in the middle of the nineteenth century, scholars studied them a lot[20] and J. Deckers did their reconstruction (Deckers 1979, Abb. 34). On the southern wall the scene of *adlocutio* was depicted and on the northern, western and eastern walls possibly the *adventus* scene was represented.

Probably in front of the apse a baldachin was erected[21]. Two columns remained on both sides of the apse (**fig. 2**). U. Monneret de Villard found two more columns to the west of this chamber. He supposed that the baldachin had four columns and a cylindrical vault rested on them and on the wall[22]. On the other hand J. Deckers did not find any traces of the reinforcement of the chamber's floor in their probable places (Deckers 1979, 615-617). According to these facts one could suggest that there was a construction with only two columns and a cylindrical vault. However it is possible to suppose that the baldachin had four columns and a cylindrical vault of light material, for example of wood (Deckers 1979, 616; el-Saghir et al. 1986, 17), and this construction did not need any special reinforcement of the floor. For my reconstruction I chose the four-columned variant as the most probable (**figs. 3-5**).

Four stone bases in front of the hypostyle hall could support the statues which probably were tetrarchic as suggested by the French archaeolo-

[15] The presence of the *Legio III Diocletiana* in the Luxor fortress is widely known according to the *Notitia Dignitatum* (*ND. Pars Secunda. In partibus Orientis. XXXI*). It was suggested that the second legion – *Legio II Flavia Constantia* – could also be stationed here (Speidel and Pavkovic 1989). This suggestion is based on one Latin inscription from the Luxor temple (el-Saghir et al. 1986, 120, kat. N 50) which probably mentioned this legion and could be dated to the end of the III AD. However, M. Speidel and M. Pavkovic noted that this inscription also could be dated to the middle of the IV AD and this legion could be quartered here by Constantius II (1989, 154).

[16] In addition to the arguments in my article noted above I would like to mention that L. Török based his suggestion on the fact that the modern name "Luxor" came from Arabic "al-Uqsur" which is plural from "qasr" (2005, 141). In its turn "qasr" came from Latin "*castrum*". It is important that "al-Uqsur" could not mean two *castra* because in Arabic besides singular and plural nouns there is a dual noun and for the word "qasr" this grammar form is "qasrani" (I am grateful to I. Kulikova and L. Dreyer who offered this consideration). P. Lacau noted that in one Coptic source Luxor had the name of "three camps" (1934, 43 and note 2). In this case the question of where the third camp could be is still open and this Török's argumentation is not certain to consider the idea about the two separate fortresses. Also M. Reddé argued that the area of this fortress was too small to accommodate two legions (el-Saghir et al. 1986, 23-24).

[17] Detailed study of this *principia* and the Roman imperial cult temple: Monneret de Villard 1953; Deckers 1973, 1979; Kalavrezou-Maxeiner 1975; el-Saghir et al. 1986, 28-31.

[18] For the full description of all ancient temple's changes made by the Romans see: el-Saghir et al. 1986, 16-18.

[19] These watercolours (Wilkinson J.G. MS XXXI in the Griffith Institute at Oxford. P. 51-62) were published by U. Monneret de Villard (1953, 90-91, Pls. XXX-XXXII). Also about them see: Kalavrezou-Maxeiner 1975, 231-232, Pls. I-IV, Figs. 6-14.

[20] For their subject and iconography see: Monneret de Villard 1953; Deckers 1973, 1979; Kalavrezou-Maxeiner 1975; el-Saghir et al. 1986, 28-29; Elsner 1995, 173-176; Reddé 2004, 457-460.

[21] It is notable that the question about which object could stay under it is also debatable. U. Monneret de Villard supposed that a statue of the emperor or his Genius or an empty throne stood here (1953, 103). M. Reddé noted that a baldachin was unusual for *principia* chapels. He supposed one hypothetical analogy in the *principia* at Drah Souid, where probably was a baldachin above the altar. He argued that the statue would screen the paintings and supposed that an altar or an empty throne as a cult object could be placed here (el-Saghir et al. 1986, 29-30). Later he declined the idea of an altar and concentrated only on supposition about an empty throne (Reddé 2004, 457).

[22] Monneret de Villard 1953, 89, 102-103. He found traces of two U-shaped sockets cut in the masonry which probably were used to house the architrave. J. Deckers discovered broken bronze pieces in the radial slots between stones of the apse's arch which were probably used to anchor the vault (Deckers 1979, 617).



Fig. 2. View of the Roman imperial cult temple at Luxor (photo by D. Karelin, 2007)

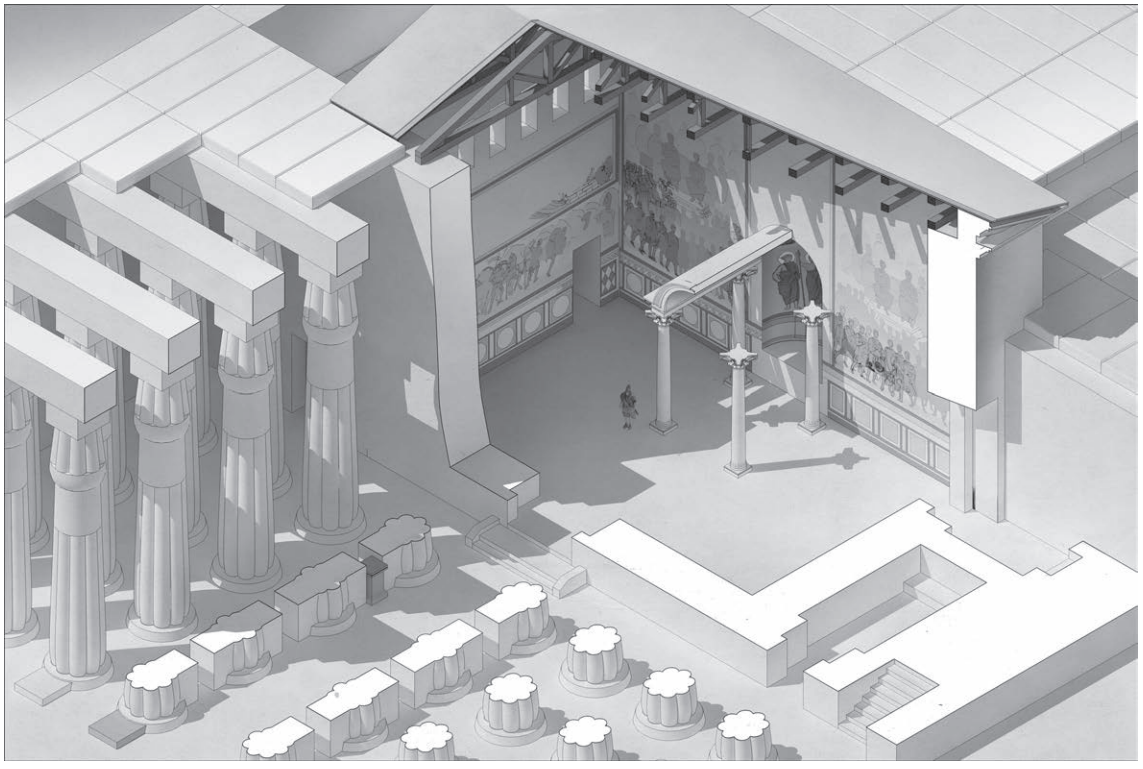


Fig. 3. Axonometric view of the Roman imperial cult temple at Luxor (Reconstruction made by D. Karelin, based on: Monneret de Villard 1953, fig. 1-2; Deckers 1979, Abb. 34; El-Saghir et al. 1986, Pl. 1)

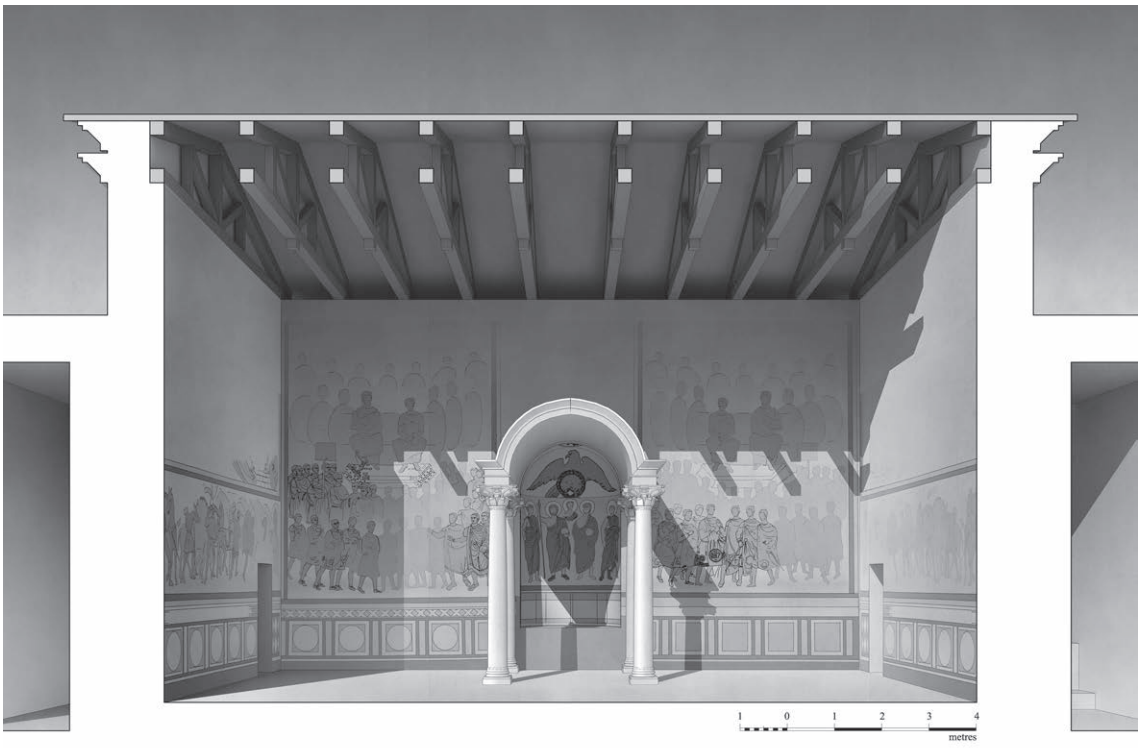


Fig. 4. Cross section of the Roman Imperial cult temple at Luxor (Reconstruction made by D. Karelin, based on: Monneret de Villard 1953, fig. 1-2; Deckers 1979, Abb. 34; El-Saghir et al. 1986, Pl. 1)

gists[23]. There are some questions about them, which cannot be answered with certainly. Were they standing or sitting? According to the bases dimensions[24] I think, they are more likely to be standing, because they would be too small for the court's space if they were sitting. Another question – was their style classical, pharaonic or mixed?

J.-C. Golvin drew a beautiful linear axonometric view of the fortress (El-Saghir et al. 1986, Pl. XX)[25]. There he supposed the roof of the imperial cult temple to be flat and at the level of the hypostyle hall roof. But he did not suggest a construction material. U. Monneret de Villard suggested a pitched wooden roof with no details of its height (Monneret de Villard 1953, 89). I think that a pitched wooden roof with the wall-plate set at the level of the hypostyle roof is a possibility (**fig. 5**). This point is controversial, but most probably the height could not be bigger.

The next important problem is the connection between the architecture of the Roman imperial cult temple at Luxor and the pharaonic one. It is possible that the location of the imperial cult temple on the main axis of Thebes inside the ancient Egyptian temple could be connected with the pharaonic cult of the divine kingship.

Usually one supposed that the Luxor temple had been abandoned at least for 50 years before building the Roman fortress. However many scholars argue this point[26]. Several theories suggested that the ancient cult of Amon still existed in the Luxor temple during the Diocletian's reign (Murnane 1985, 145-146; Bell 1985, 274; Török 2005, 140-141, 146-150; Klotz 2012, 376-379). There is also an evidence of the Roman army's presence at the Luxor temple since II AD[27] which means that "the installation of the legion under Diocletian was not as dramatic a

[23] El-Saghir et al. 1986. P. 16-17. Two central bases were of granite and possibly supported the Augusts' statues, and the other two were of reused blocks and could support the Caesars' ones. The French archaeologists compared this sculptural composition with Golden Gate at Split. It is remarkable that these statues were set on the axis of the tetrarchic enthroned figures on the southern wall paintings as it was mentioned by L. Török. In this case he supposed to correct the Deckers' reconstruction and put the Augusts who sat on the outer parts of the thrones to the central ones (Török 2005, 145, note 32).

[24] Approximately 1.5x1 m (el-Saghir et al. 1986, Pl. I).

[25] For the other beautiful watercolour perspective view of the fortress made by him see: Charron 2011, Fig. 10.

[26] For the discussion see: Klotz 2012, 376-379.

[27] Some inscriptions from II century AD give the information about the Roman military baths and station of the *Cohors II Thracum* and the construction of unknown buildings by *Cohors Augusta Equitata* (Klotz 2012, 378, notes 1013, 1014). About the Roman baths in Luxor see: Redon 2009, 415-417.

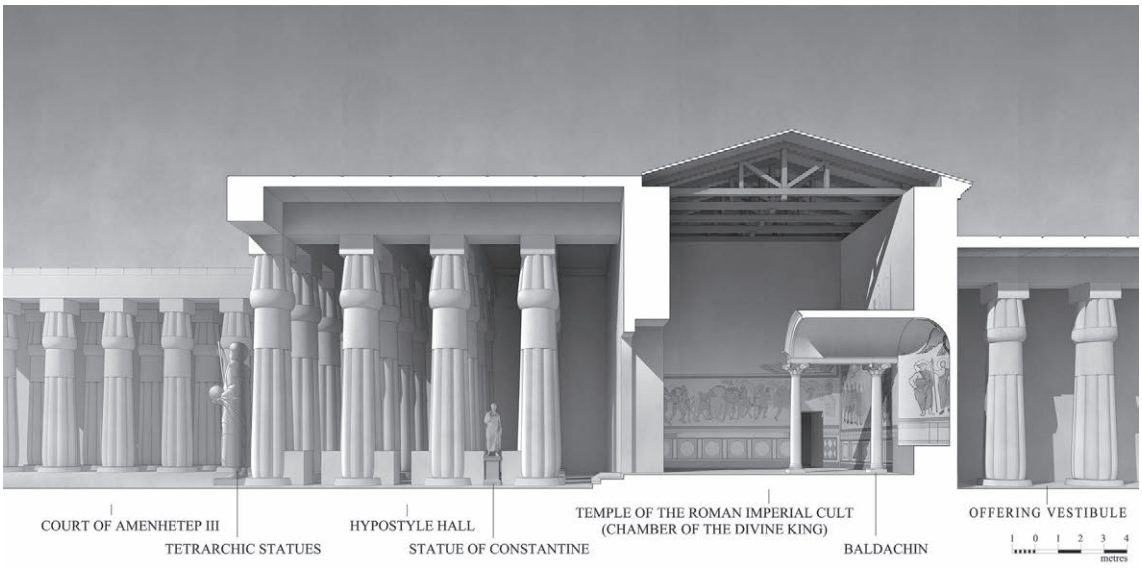


Fig. 5. Longitudinal section of the Roman Imperial cult temple at Luxor (Reconstruction made by D. Karelin, based on: Monneret de Villard 1953, fig. 1-2; Deckers 1979, Abb. 34; El-Saghir et al. 1986, Pl. 1)

change as most scholars have imagined" (Klotz 2012, 378). In addition one Christian source indicates the presence of some other pagan cults besides imperial one in the beginning of IV AD (El-Saghir et al. 1986, 21; Török 2005, 146-147) and there is a graffito which surgeon Ptollion invoked god Ammon in[28]. D. Klotz suggests that the absence of Greek and Roman graffiti in the barque sanctuary could support the idea that "the chapel remained sacrosanct into Late Antiquity" (Klotz 2012, 378).

Furthermore some scholars supposed that in the Luxor temple there had been a connection between the Roman imperial cult and the cult of the divine kingship (Bell 1985, 274; Török 2005, 148, 151-152)[29]. L. Bell fairly supposed that the Egyptian temple and especially the chamber of the divine king were dedicated to the cult of the pharaonic divine kingship (Bell 1985). The pharaohs of the XXIX and XXX dynasties, Alexander the Great, Argeadai and some Ptolemaic kings reconstructed and repaired the Theban temples. This tendency was the result of the attempt to make the connection between the power of the great pharaohs of the New Kingdom and the power of new rulers of Egypt (Ладынин 2004, 160; 2007; Ladynin 2014)[30]. It is possible that the presence of the divine kingship cult here or memories of it was the main reason to build the fortress with the temple of the Roman imperial cult in this place, because Roman emperors were the heirs of Egyptian kings.

There are some indirect facts supporting this point of view. In both cases the temple was dedicated to the cult of the divine ruler. Furthermore the chamber of the divine king could serve as a reception hall in the time of Amenhetep III (Bell 1985, 270-271) while I. Kalavrezou-Maxeiner supposed that Diocletian could use this chamber similarly (1975, 247-248). Also one of the ancient Egyptian reliefs in this chamber has a similar subject as the Roman painting. It could depict the king in the palanquin followed by three rows of soldiers and courtiers (Klotz 2012, 377, note 1005)[31].

Now let us look at the functional scheme of this *principia* which could support the suggestions described above. In the north-western corner of the ancient barque sanctuary there was a separate entrance which probably had been built by Amenhetep III. The Romans widened and covered it with an arch. It probably means that this part of the ancient temple was used after the fortress had been built (Murnane 1985, 146; Bell 1985, 274; Klotz 2012, 377, note 1007). It is also possible that the portal between the chamber of the divine king and the offering vestibule blocked by the Romans for creating the apse had

[28] L. Török paid attention to this graffito (2005, 147). For the graffito see: El-Saghir et al. 1986, 115, kat. N 37.

[29] There certainly was a general connection between the Roman imperial cult and the cult of the divine kingship in Egypt. On the one hand, ancient cults of the divine kingship in the Near East including Ptolemaic cults were the predecessors of the imperial cult. On the other hand, Roman emperors were the Egyptian pharaohs and had the same titularies only with some changes. For this wide problem see, for example: Dunand 1983; Dundas 1994; Hölbl 2000-2005; Dunand and Zivie-Coche 2004, 198-205, 247-252.

[30] I am very grateful to Ivan Ladynin for sending me the text of his unpublished article.

[31] For the description of the reliefs see: PM II, 320; Bell 1985, 269.

been constructed only in the time of Alexander the Great. W. Murnane supposed that originally in the Amenhetep's temple the chamber of the divine king was separated from the offering vestibule, and the latter was separated from the barque sanctuary which was also separated from the next chamber. It means that the Romans who possibly blocked these portals again, restored the original planning (Murnane 1985, 145-146). Furthermore D. Klotz supposes that the transformation of the two chapels adjacent to the barque sanctuary from the east was nothing more than the creation of the individual "hypostyle hall" for the southern part of the temple which was separated from the *principia* (Klotz 2012, 377).

In spite of these facts one should pay attention to the problem of the exact functional interpretation of the Luxor *principia*. On the one hand it probably was the *principia* with the Roman imperial cult temple only for the fortress. On the other hand it could be the major temple dedicated to the tetrarchs as gods for the whole city and Egypt[32]. In addition, as it was mentioned, there is a version by I. Kalavrezou-Maxeiner who supposed this monument to be a reception hall of Diocletian.

However the place would probably be chosen only because of the location of the fortress to control the river. Some Roman legionary fortresses in Egypt in the Nile valley were built close to the river[33]. In any case the location of the fortress with the Roman imperial cult temple was not random.

I think some architectural features also support the theory about the connection between the Roman imperial cult and the ancient pharaonic cult. Four tetrarchic statues in front of the hypostyle hall were set in the ancient Egyptian manner[34]. They stood in front of the entrance like the statues of Ramesses II[35] in front of the pylon or in front of the colonnade in his forecourt. The statue of Caesar Galerius and three statues of Constantine, one of which was erected in 324 AD probably stood in the hypostyle hall, between the columns of the two central rows (Lacau 1934, 36; Deckers 1979, 607-608, notes 19-20)[36]. On the one hand, these statues inside the hall were set like the other statues of Ramesses II in his court – between the columns. On the other hand, they were possibly set like the statues in some late Roman *principia* if we accept the idea that the hypostyle hall played the role of the basilica[37].

It is most important that all these statues, both tetrarchic and pharaonic, were the parts of one ancient architectural program which was used by tetrarchs. Firstly a visitor saw the statues of Ramesses II in front of the pylon and in his forecourt. Then the visitor saw the tetrarchic statues in the court of Amenhetep III. The presence of these statues transformed the court, originally dedicated to this pharaoh, to the space dedicated to the tetrarchs as heirs of Egyptian kings.

Now let us pay attention to the hypothetical presence of a baldachin in the Roman imperial cult temple. This architectural element possibly appeared for the first time in Ancient Egypt where it stood over the heb-sed throne and statues of pharaohs and over gods (Arnold 1975; Arnold 2003, 44). Furthermore baldachins including the ones with cylindrical vaults had a similar function in ancient Rome from the middle of the II century AD as rich numismatic evidence show (Alföldy 1935, 128, Taf. 14 (1-3); Smith 1956, Figs. 100-101, 107-110, 113-120). It is possible that the Roman baldachin originated from the Egyptian one (Smith 1956, 120-24, 152-165; Arnold 1999, 312). It is interesting that such a baldachin could appear inside the Egyptian example of the Roman imperial cult temple in the *principia*[38].

[32] For this conception of L. Török see above.

[33] For example, Babylon and Nag-el Hagar. Also small auxiliary fortresses along the Nile's right bank according to *Notitia Dignitatum* (van Berchem 1952, 59-71).

[34] I do not know any example of monumental emperors' statues in the *principia* in front of the basilica's entrance. However, such a position of large pharaonic statues was typical for ancient Egyptian architecture. Besides statues of Ramesses II mentioned below were, for example, statues in front of Aby Simbel temple's facade or Osirides pillars in front of columns.

[35] The same fact was mentioned by L. Török (2005, 151). Some of these statues originally belonged to Amenhetep III and probably stood in his court, but were usurped by Ramesses II and moved to his forecourt: O'Connor and Cline 2004, 67-68.

[36] The base of the statue dated to 324 AD still stays *in situ*.

[37] The emperors' statues mainly were placed inside the basilica (see for example: Sarnowski 1989, Reddé 2004, 454-457), that is why U. Monneret de Villard compared Luxor *principia* to *Lambaesis* one (1953, 100-101).

[38] It is also remarkable that there was a combination of a baldachin and an apse, which was uncommon for a pagan temple, but typical for the Christian architecture. I discussed the question about the connection of the architecture of Luxor imperial cult temple and Early Christian architecture in: Карелин 2012b. Generally architectural historians suppose that the Christians chose the plan of public unreligious basilica for their temples because they did not want to use any peculiarities of pagan architecture (Ward-Perkins, 1954; Krautheimer 1986, 41). However some examples of pagan basilican temples existed. For such examples and the discussion about the connection between their architecture and the Christian one see, for example: Suzawa 2008, 55-91.

As we see, the above mentioned architectural features agree with the theories about the connection of the Roman imperial cult and the ancient Egyptian cult of the divine kingship in the Luxor fortress.

As a result I may suppose that the architects who built the monumental Luxor fortress with the imperial cult temple inside took, on the one hand, some features from the civil temples of this cult. The so called "Kalybe structures" could be the prototypes for the late Roman *principia*, because they would be very famous monuments in the Late Antique Near East. Both of them had similar architectural features including their importance for the urban environment. Some *principia* (as at Luxor and *Palmyra*) were the architectural dominants for their cities. This feature was not typical for the earlier *principia*[39].

On the other hand, the Roman architects could use some principles of the ancient Egyptian architecture to connect the Roman imperial cult with the cult of the divine pharaonic kingship in Luxor. Furthermore this monument could be the architectural dominant for Roman Thebes for the glorification of the Roman emperors.

Bibliography

Карелин, Д. 2012а. Сакральная архитектура римских крепостей в Египте: Храмы и капеллы, посвященные культу императора и покровителю крепости. In: Швидковский, Д. О. (ред.). Исследования по истории архитектуры и градостроительства. Вып. 3. Москва. 57-81.

Карелин, Д. 2012б. Храм культа римского императора и покровителя крепости в Луксоре и некоторые черты раннехристианской архитектуры. In: Наука, образование и экспериментальное проектирование. Материалы международной научно-практической конференции 9-13 апреля 2012 г. Москва. 24-29.

Ладынин, И.А. 2007. Строительная программа Аргеадов в Египте в контексте храмового строительства XXIX-XXX династий. In: Петербургские египтологические чтения – 2006. Материалы научной конференции (Труды Государственного Эрмитажа, XXXV). Санкт-Петербург. 86-100.

Ладынин, И.А. 2004. Основные этапы царского культа Птолемеев в контексте общей эволюции египетского эллинизма. In: *Фролов, Э.Д*. (ред.). Мнемон. Исследования и публикации по истории античного мира. Вып. 3. Санкт-Петербург. 145-184.

Alföldy, A. 1935. Insignien und Tracht der römischen Kaiser. – Mitteilungen des Deutschen Archäologischen Instituts, Römische Abteilung 50, 3-158.

Arnold, D. 2003. The Encyclopedia of Ancient Egyptian Architecture. Cairo.

Arnold, D. 1999. Temples of the Last Pharaohs. Oxford.

Arnold, D. 1975. Baldachin. In: Helck, W. / Otto, E. (Hrsg.). Lexikon der Ägyptologie. Bd. I. Wiesbaden. Kol. 607-608.

Badawi, A. 1947. Notes architecturales. – Annales du Service des Antiquités de l'Égypte 46, 357-371.

Bell, L. 1997. The New Kingdom "Divine" Temple: the Example of Luxor. In: Shafer, B.E. (ed.). Temples of Ancient Egypt. Ithaca. 127-184.

Bell, L. 1985. Luxor Temple and the Cult of the Royal Ka. – Journal of Near Eastern Studies 44 (4), 251-294.

van Berchem, D. 1952. L'armée de Dioclétien et la réforme constantinienne. Paris.

Blagg, T. F. C. 2000. The Architecture of the Legionary Principia. In: Brewer, R. J. (ed.). Roman Fortresses and Their Legions. London. 139-147.

Brenk, B. 2010. The Apse, the Image and the Icon: an Historical Perspectives of the Apse as a Space for Images. Wiesbaden.

Brun, J.-P. / Reddé, M. 2003. Al-Zarqâ' (Maximianon). In: Cuvigny, H. (ed.). La route de Myos Hormos. L'armée romaine dans le désert Oriental d'Égypte. Vol. 1. Le Caire. 100-126.

Carrié, J.-M. 1974. Les Castra Dionysiados et l'évolution de l'architecture militaire romaine tardive. – Mélanges de l'École française de Rome. Antiquité 86 (2), 819-850.

Charron, A. 2011. L'Égypte de Jean-Claude Golvin ou un petit dessin vaut mieux qu'un long discours. In: Charron, A. / Coulon, G. / Genot, A. / Golvin, J.-C. / Ben Hassen, H. / Heijmans, M, / Jacobi, D. / Toutain, L. / Vergnieux, R. Jean-Claude Golvin: un architecte au cœur de l'histoire. Paris. 60-87.

O'Connor, D. / Cline, E. 2004. Amenhotep III. Perspectives on His Reign. Ann Arbor.

Cummings, L.C. 1909. The Tychaion at Iś-Śanamên. – American Journal of Archaeology 13 (4), 417-428.

Deckers, J. D. 1979. Die Wandmalerei im Kaiserkultraum von Luxor. – Jahrbuch des Deutschen Archäologischen Instituts 94, 600-652.

Deckers, J. D. 1973. Die Wandmalerei des tetrarchischen Lagerheiligtums im Ammon-Tempel von Luxor. – Römische Quartalschrift 68, 1-34.

von Domaszewski, A. 1889. Die Principia des römischen Lagers. – Neue Heidelberger Jahrbücher 9, 141-163.

Dunand, F. 1983. Culte royal et culte imperial en Égypte. Continuités et ruptures. In: Das römisch-byzantinische Ägypten. Aktes des internationalen Symposions 26.-30. September 1978 in Trier. Mainz am Rhein. 47-56.

Dunand, F. / Zivie-Coche, C. 2004. Gods and Men in Egypt: 3000 BCE to 395 CE (translated from the French by D. Lorton). Ithaca and London.

Dundas, G. 1994. Pharaoh, Basileus and Imperator: The Roman Imperial Cult in Egypt (PhD Diss). Los Angeles.

Elsner, J. 1995. Art and the Roman Viewer: the Transformation of Art from the Pagan World to Christianity. Cambridge.

Felmann, R. 1979. Der Diokletianspalast von Split im Rahmen der

[39] The examples of the earlier *castra*, in which *principia* did not play major role in the urban environment were the fort in *Londinium* and *Castra Praetoria* in Rome.

spätrömischen Militärarchitectur. – Antike Welt 10 (2), 47-55.

Felmann, R. 1976. Le "Camp de Dioclétien" à Palmyre et l'architecture militaire du Bas-Empire. In: Ducrey, P. / Bérard, C. / Dunant, C. / Paschoud, P. (eds.). Mélanges d'histoire ancienne et d'archéologie offerts à Paul Collart. Lausanne. 173-191.

Gawlikowski, M. 1984. Palmyre VIII. Les *principia* de Diocletien. "Temple des Enseignes". Varsovie.

Grossmann, P. 2003. Zu dem angeblichen befestigten Kloster über der Südmauer von al-Kāb. – Bulletin de la Société archéologique d'Alexandria 47, 113–125.

Hill, S. 1975. The Praetorium at Musmiye. – Dumbarton Oaks Papers 29, 347-349.

Hölbl, G. 2000-2005. Altägypten im römischen Reich. Der römische Pharao und seine Tempel. Bde. I-III. Mainz.

Johnson, A. 1983. Roman Forts of the 1st and 2nd Centuries AD in Britain and the German Provinces. London.

Kalavrezou-Maxeiner, I. 1975. The Imperial Chamber at Luxor. – Dumbarton Oaks Papers 29, 225-251.

Klotz, D. 2012. Caesar in the City of Amun. Egyptian Temple Construction and Theology in Roman Thebes. Turnhout.

Krautheimer, R. 1986. Early Christian and Byzantine Architecture. 4th ed. London.

Lacau, P. 1934. Inscriptions latines du temple de Luxor. – Annales du Service des Antiquités de l'Égypte 34, 17-46.

Ladynin, I. 2014. The Argeadai Building Program in Egypt in the Framework of Dynasties' XXIX-XXX Temple Building. In: Alexander the Great and Egypt: History, Art, Tradition. Papers of the Workshop, University of Wroclaw (Poland) with the Helmut Schmidt University (Hamburg). Wiesbaden. 221-240.

Mackensen, M. 2009. The Tetrarchic Fort at Nag el-Hagar in the Province of Thebaïs: Preliminary Report (2005-08). – Journal of Roman Archaeology 22, 286-312.

Monneret de Villard, U. 1953. The Temple of Imperial Cult at Luxor. – Archaeologia 95, 85-105.

Murnane, W. 1985. False Doors and Cult Practices Inside Luxor Temple. In: Posener-Kriéger, P. (ed.). Mélanges Gamal Eddin Mokhtar. Vol. II. Le Caire. 135-148.

Peacock, D.P.S. / Maxfield, V.A. 1997. Mons Claudianus. Survey and excavations. Vol. 1: Topography, quarries. Cairo.

PM II = Porter, B. / Moss, R. L. B. 1972. Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs and Paintings. Vol. II: Theban Temples. Oxford.

Reddé, M. 2004. Réflexions critiques sur les chapelles militaires (*aedes principiorum*). – Journal of Roman Archaeology 17, 442-462.

Reddé, M. 2003a. Qusûr al-Banât. In: Cuvigny, H. (ed.). La route de Myos Hormos. L'armée romaine dans le désert Oriental d'Égypte. Vol. 1. Le Caire. 73-77.

Reddé, M. 2003b. Les fortins du désert Orientale d'Égypte et l'architecture militaire romaine. In: Cuvigny, H. (ed.). La route de Myos Hormos. L'armée romaine dans le désert Oriental d'Égypte. Vol. 1. Le Caire. 235-262.

Reddé, M. 1995. Dioclétien et les fortifications militaires de l'Antiquité tardive. Quelques considérations de méthode. – Antiquité Tardive 3, 91-124.

Reddé, M. / Brun, J.-P. 2011. L'*aedes* de Didymoi. In: Cuvigny, H. (ed.). Didymoi. Une garnison romaine dans le désert Oriental d'Égypte. Praesidia du désert de Bérénice. Vol. I: Les fouilles et matériel. Le Caire. 47-51.

Redon, B. 2009. L'armée et les bains en Égypte hellénistique et romaine. – Bulletin de l'Institut français d'archéologie orientale 109, 407-450.

El-Saghir, M. / Golvin, J-C. / Reddé, M. / El-Sayed, H. / Wagner, G. 1986. Le camp romain de Louqsor. Le Caire.

Sarnowski, T. 1989. Zur Statuenausstattung römischer Stabsgebäude. Neue Funde aus den *Principia* des legionslagers Novae. – Bonner Jahrbücher 189, 97-120.

Schwartz, J. 1969. Qasr-Qarun/Dionysias, 1950. Le Caire.

Segal, A. 2013. Temples and Sanctuaries in the Roman East: Religious Architecture in Syria, Iudaea/Palaestina and Provincia Arabia. Oxford / Oakville.

Segal, A. 2008. Religious Architecture in the Roman Near East: Temples of the Basalt Lands (Trachon and Hauran). In: Kaizer, T. (ed.). The Variety of Local Religious Life in the Near East. Leiden – Boston. 97-132.

Segal, A. 2001. The Kalybe Structures: Temples for the Imperial Cult in Hauran and Trachon – An Historical-Architectural Analysis. – Assaph-Studies in Art History 6, 91-118.

Segal, A. 1998. The Temple at Musmiyeh in Relation to the Religious Architecture in Roman Palestine. – Assaph-Studies in Art History 4, 109-130.

Sidebotham, S. 1994. Preliminary Report on the 1990-1991 Seasons of Fieldwork at 'Abu Sha'ar (Red Sea Coast). – Journal of the American Research Center in Egypt 31, 133-158.

Sidebotham, S. / Riley, J. / Hamroush, H. / Barakat, A. 1989. Fieldwork on the Red Sea Coast: the 1987 Season. – Journal of the American Research Center in Egypt 26, 127-166.

Smith, E. B. 1956. Architectural Symbolism in Ancient Rome and the Middle Ages. Princeton.

Speidel, M.P. / Pavkovic, M.F. 1989. Legion II Flavia Constantia at Luxor. – American Journal of Philology 110 (1), 151-154.

Suzawa, Y. 2008. The Genesis of Early Christian Art. Syncretic Juxtaposition in the Roman World (British Archaeological Reports International Series 1892). Oxford.

Török, L. 2005. Transfiguration of Hellenism. Aspects of Late Antique Art in Egypt AD 250-700. Leiden – Boston.

Valbelle, D. / Carrez-Maratray, J.-Y. 2000. Le camp romain du Bas-Empire à Tell el-Herr. Paris.

Ward-Perkins, J.B. 1954. Constantine and the Origins of the Christian Basilica. – Papers of the British School at Rome 22, 69-90.

Yegül, F. K. 1982. A Study in Architectural Iconography: Kaisersaal and the Imperial Cult. – The Art Bulletin 64 (1), 7-31.

Dmitry Karelin PhD in Art History
Assistant Professor, chair of Architectural Planning of Public Buildings
Moscow Architectural Institute (State academy)
11 Rozhdestvenska St.
RU-107031 Moscow
dmitry.a.karelin@gmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Tetrarchic Fort at Nag'al-Hagar (Upper Egypt) – Excavations in 2005 to 2012

Regina FRANKE

The Tetrarchic fort at Nag'al-Hagar is situated on the east bank of the Nile, about 30 km north of Aswan and 45 km north of the southern frontier of the Late Roman province of *Thebaïs* in Upper Egypt, which ran near *Philae* and *Syene*. The fort is surrounded by the modern village of Nag'al-Hagar and its adjacent palm gardens. The fort's defences can be traced by the line of debris covering walls and towers. In some places the defences are still preserved up to a height of one and a half meters.

The ruins of Nag'al-Hagar are mentioned in some early travel accounts; but the site did not attract any scientific interest, until one of the villagers discovered an antique *saqiya* (an irrigation system based on a well with water wheel). This discovery was followed by the excavation of the western part of the Late Roman fort, directed by the Supreme Council of Antiquities of Egypt in 1984 to 1989. The most important result of these excavations is the discovery of a palace building, covering near all of the southwestern quarter of the fort (Wareth / Zignani 1992; Mustafa / Jaritz 1985).

The current excavations, starting with a survey in 2005, are a cooperation between the Supreme Council of Antiquities of Egypt, the Swiss Institute of Architectural and Archaeological Research on Ancient Egypt, represented by C. von Pilgrim, and the University of Munich, Institute of Prehistory and Archaeology of the Roman Provinces, represented by M. Mackensen[1]. These excavations concentrate on the remaining eastern half of the fort, documenting the rear part of the defences and the interior buildings; with a special focus on the soldier barracks and the headquarters building. Moreover, the project's aim is to establish a reliable chronological framework of the site, from the time of the military garrison to the later civilian settlement and pottery production centre. Based on numismatic and ceramic evidence, especially the imported fine wares, that is mainly the African Red Slip ware imported from Tunisia, the construction date of the fort can be established around 300 AD or a little later (Mackensen / Franke 2010, 84; Mackensen / El-Bialy 2010, 249-250; Mackensen 2009, 297-300; Mackensen 2006a, 170-179; Mackensen 2006b, 219-224).

The outline of the fort's walls is square (**fig. 1**); they enclose an interior the size of which is about 2 ha (480 pM = 16x30 units of measurement). Its front with the main gate looked west over the Nile and presumably a landing stage for ships. In constructing the fort walls the builders made a curious distinction between the building materials used for different parts of the walls. The main gate and its adjoining walls and towers of the western front were built with huge quadrangular stone blocks, re-using material from a dismantled temple. The main gate even had a façade flanked by half-columns. The gate towers and the intermediate towers are of projecting U-shaped type, the corner towers are square, which are characteristic features of Late Roman fortifications[2]. Walls and towers of very similar size and shape belong to the Late Roman fortress of *Thebas*/ Luxor (El-Saghir et al. 1986, pl. 1; Golvin / Reddé 1986). In contrast, the rear part of the defences was entirely built of mudbrick. Since the beginning of the 19th century these mudbricks were systemati-

[1] From 2005 to 2008 the excavations were directed by M. Mackensen, from 2009 onwards by the author. For the kind permission to publish this short summary of the results I am grateful to M. Mackensen as head of the project.

[2] For a fuller description of the defences see El-Bialy / Mackensen 2007, 44-45; Mackensen 2009, 301-304; Mackensen / El-Bialy 2010, 245-246.

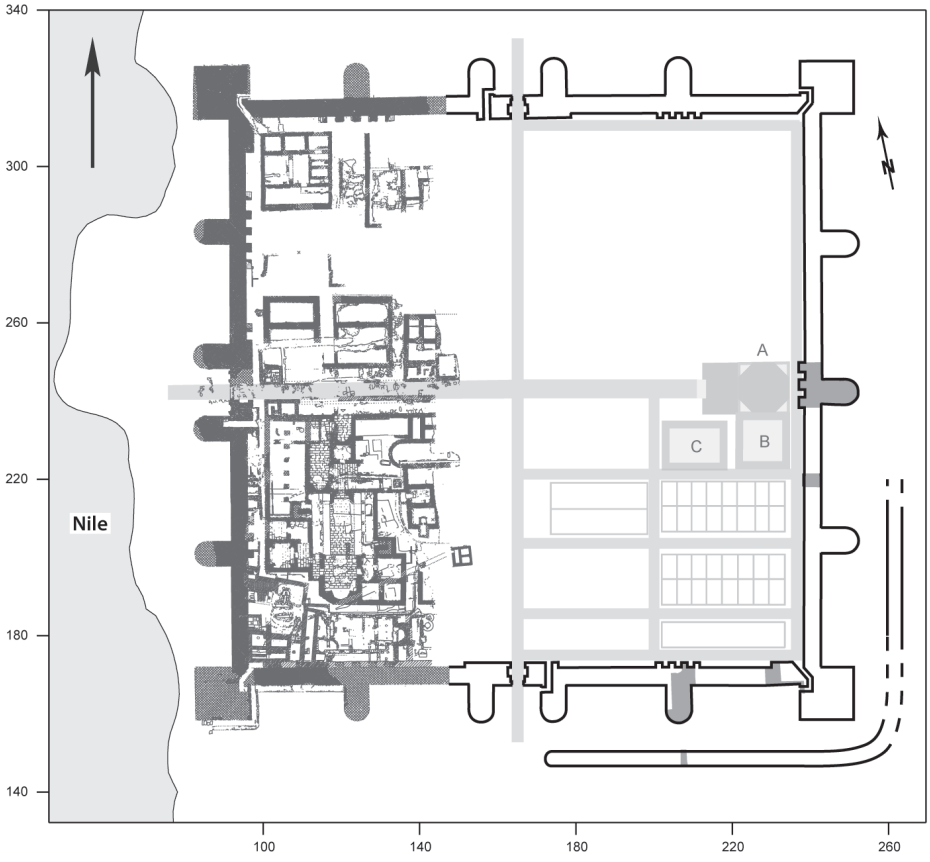


Fig. 1. Nag'al-Hagar. Schematic plan of the Late Roman fort. Excavations 1984-89 in the W half and reconstruction of interior buildings with headquarters and barracks in the SE quarter. Scale 1 : 2000

cally robbed by *sebakhin*; this practice is mainly responsible for the severely threatened condition of the defences and the interior buildings.

The walls of the fort were surrounded by a ditch, which was detected by geomagnetic survey in 2006 by J. Fassbinder (in: Mackensen 2007, 41-42). A section outside the southern defences shows the *fossa fastigata* in profile, 3 m wide and 1.5 m deep (Mackensen 2010, 246, pl. IIa; Mackensen 2009, 302 fig. 9). On top of the southern counter-scarp a small stone wall was built, probably for protection against the continuous erosion of sand. The defences were provided with three gates at the western front and the sides to the north and south; in the central axis of the eastern curtain wall there stood an intermediate tower.

The first of the interior buildings to be excavated between 1984 and 1989 was an impressive palace-complex (*palatium*) in the southwestern quarter of the fort (Mackensen 2006a, 166-170, fig. 4-5; Wareth / Zignani 1992, 197-199, fig. 3, pls. 30b-31b). The whole complex covers an area of 55 by 35 m. Admission was gained through a sequence of official and in two cases apsidal rooms, the entrances at right angles to one another, before turning right and reaching the main reception hall or *aula* across a central courtyard with porticoes, all paved with large rectangular limestone slabs (**fig. 2**). On both sides of the reception hall there is a group of four smaller rooms that could have been used as living quarters and dining rooms. This impressive palace-complex, although built and adorned on an obviously smaller scale than its imperial prototypes, must certainly be called exceptional within an otherwise decidedly military context.

Very similar is the sequence of various apsidal halls and rooms of different size leading from the entrance to the central courtyard with an audience hall (*aula*) in the *palatium* of Galerius at the fortified Imperial residence at *Felix Romuliana*/Gamzigrad (von Bülow 2011; Brandl / Vasić 2007, 40-43, fig. 10, 69-72; Srejović 1983, 37-43, 196). This palace is situated in the northwestern corner of the fortified complex; its entrance lies in view of visitors arriving at the east gate. In *Felix Romuliana* one had to pass through three long halls while changing direction several times before turning left again and, by crossing an open courtyard, finally reaching the imposing *aula* or reception hall. In Gamzigrad, across a second peristyle, there are also groups of three and four smaller rooms. In comparison, the palace at



Fig. 2. Nag'al-Hagar. The palace in the SW quarter of the Late Roman fort, seen from the N

Nag'al-Hagar is much less imposing with respect to size and decoration, but the existence of a palace in a Late Roman fort of this size is entirely unexpected and fairly unusual. It raises important questions about the function of the fort itself.

When the excavations were renewed by Mackensen in 2006 they concentrated on the remaining eastern half of the fort. Although here the mudbrick foundations of the interior buildings are in a severely damaged condition, it is now possible to offer a reconstruction of the buildings within the southeastern quarter of the fort (**fig. 4**). One of the buildings, with a rectangular outline, east-to-west orientation and a size of about 14 by 32 m, was completely uncovered. With its characteristic layout of a double row of similar-sized rooms, eight rooms in a row and each room about 3 m wide and 5 m long, this building can be identified as a double barracks for soldiers[3]. Parts of another such double barracks have been excavated west of it; this building has the same width, but is shorter by 6 m or the equivalent of two compartments. In another trench were found the walls of a third building, although its identification as another double barracks must remain uncertain, because of its very bad state of preservation. According to the rectangular layout of the streets, an arrangement of four double and two single barracks in the southeastern quarter of the fort seems probable. In that case between 300 and 400 soldiers might have been accommodated there. This calculation depends, of course, on the amount of personal space each soldier was allowed (Mackensen 2009, 307-309; Mackensen / Franke 2010, 90-93).

North of the excavated barracks, the headquarters building faced the main Western gate in the centre of the rear part of the fort, near the eastern enclosure wall and separated from it by the *via sagularis*. In four campaigns since 2008, its size and interior layout have largely been established (**fig. 4**). This building complex was designed in a particularly impressive architectural style, to emphasize its important function within the fort. The central part (building A) had a width of about 13 m and a length of 22 m. Its walls were built on a 2 m wide and c. 0.60 m deep stone foundation. The construction set on this foundation was of massive brick walls, and an elevated floor, probably of cut limestone, of which only parts of the brick foundation, set into a thick layer of sand, remained. From these architectural details it is clear that the *principia* were built in a particularly massive style, with high walls and an elevated roof, thus standing out among all the other buildings in the rear half of the fort.

The *via praetoria* ran from the main gate directly up to the entrance into the *principia*. It ended at an even layer of bricks, 5 m wide and 1.80 m deep, once the foundation for stairs with 4 to 5 steps of big sandstone blocks, of which only one corner of the lowest step was found *in situ*. The level of the entrance was c. 0.50 m above the level of the street; it

[3] For a full description and discussion of the barrack buildings see Mackensen 2009, 304-309; Mackensen / Franke 2010, 85-93.

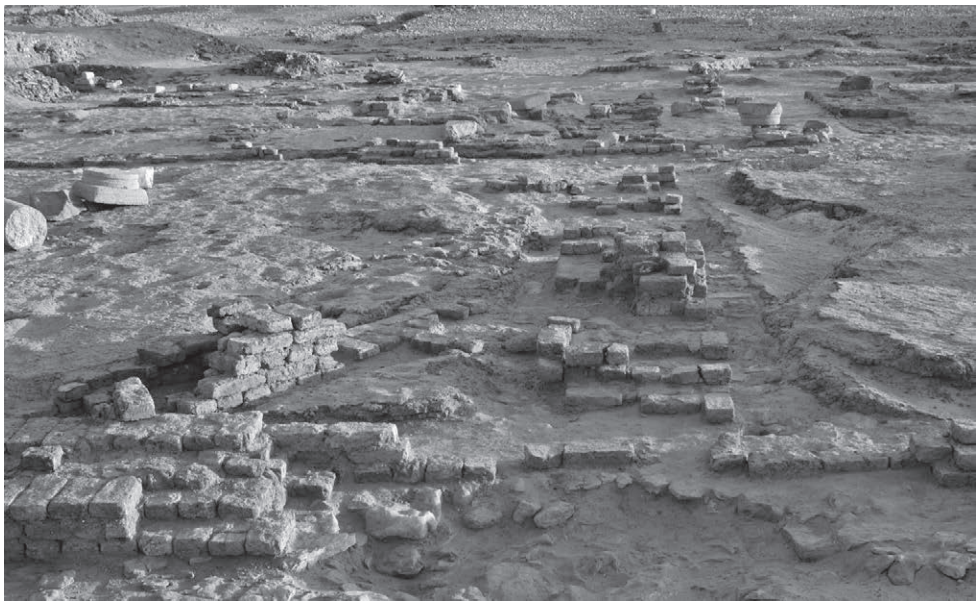


Fig. 3. Nag'al-Hagar. Headquarters building, view from the N. Octagonal room (left) and anteroom (right) in the foreground, with the adjoining office building behind



Fig. 4. Nag'al-Hagar. Plan of the *principia* with adjacent buildings (*officia*) and one double barracks to the S. Scale 1 : 400

first led into an anteroom or hall, with an inner size of 10.60 m by 7.85 m. This entrance hall then led into an inner room of 9.90 m by 10.60 m. The central inner room was not intended to be rectangular or square in shape, for its four corners were cut off by four walls, set at an angle of 45° to the sides of the room, thus creating an octagonal room with eight equally sized walls (**fig. 3**). The massively built walls probably supported a high vaulted roof. Such a construction must have been conspicuous from every quarter of the fort, but especially so from the front gate, with the main street leading directly up to the entrance. South of the *principia* there were two rectangular buildings B and C, separated by a 2.70 m wide passage. Both contained probably *officia* and *tabularia* for the administrative staff.

A comparison for the general layout of the *principia* is found in the late Roman fort at *Dionysias*/Qasr Qarun in the west of the Fayyum (Schwartz 1969, 76 fig. 48b, plan 2; Mackensen 2003, 730 fig. 2.2). It was garrisoned by the *ala V Praelectorum* (*Not. Dig. Or.* 28.34). Its name, *Dionysias*, is mentioned on an *ostracon* dated to AD 306 thus providing a *t.a.q*. for its construction (Mackensen 2009, 293). The main street, flanked by porticoes, leads from the main gate directly to the headquarters building and to a staircase leading up to a vestibule or anteroom; this is open at the front and may have served as a podium for the military commander addressing an audience when necessary. Behind it lies the *aedes signorum*, the regimental shrine, which, in the case of *Dionysias*, is an apsidal room. On its right hand side there is a somewhat larger hall (reception hall) and on the left side some *officia* and the living quarters of the *praefectus*, the *praetorium*[4]. Similar is also the situation at the Late Roman fort at 'Abu Sha'ar, where the *principia* facing the main Western gate was approached by a colonnaded street. Here the main apsidal hall (*aedes*) was reached through a smaller entrance room[5].

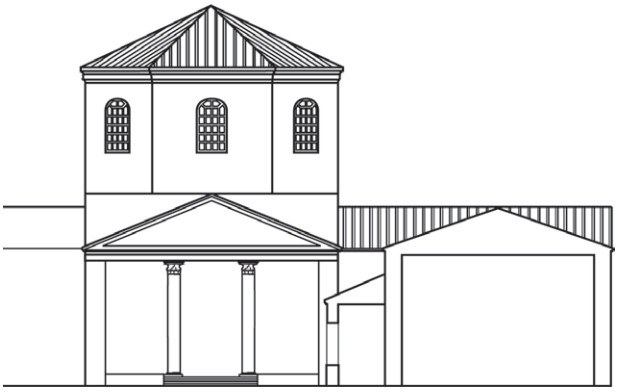


Fig. 5. Nag'al-Hagar. Reconstruction of the *principia* with its entrance in front, the octagonal structure behind and the adjacent office buildings. Scale c. 1 : 300

While the general layout of the *principia* at Nag'al-Hagar is similar to other headquarters buildings of Late Roman forts in Egypt, especially to that at *Dionysias*, the octagonal shape of the *aedes* at Nag'al-Hagar is unparalleled. In a military context, such an octagonal room must be considered very unusual. In the Tetrarchic period, octagonal rooms are more regularly found in imperial palaces[6] or, in imitation, later also in *villa* architecture[7]. An explanation might be found – probably not by considering the function of the octagonal room within the *principia* as an *aedes*. Instead, the reason for its unusual shape can be found rather in connection with the palace complex in the southwestern quarter of the fort. One must consider the appearance of a raised octagonal structure at the far end of the main axis and the main street of the fort, leading up to the *principia*. Viewed from the main street, a reconstruction of the *principia* can be proposed (**fig. 5**): with the vestibule in the foreground with an open or a half-open front, and the square outer wall of the main room reaching only to the height of the vestibule, with the raised structure of the octagon towering above[8].

[4] Schwartz 1969, 17-22 fig. 8, 24 fig. 12, 75-76 fig. 48a.b, 78-79 fig. 49a.b, plan 2; for the functional interpretation of the individual rooms see Mackensen 2003, 731.

[5] Sidebotham 1994, 133-158, esp. 135 fig. 2, 136-141; for the plan of 'Abu Sha'ar see also Mackensen 2003, 730 fig. 2.3.

[6] At the palace of Galerius in *Thessalonica* there is an octagon with an entrance hall; its architectural decoration points out its role as a ceremonial room: Wulf-Rheidt in: Brandl / Vasić 2007, 63-64; Mayer 2002, 44-46 supports an early date for the octagon as belonging to the first building phase of Galerius' palace, while others see it as a later addition by Licinius or Constantine: Kuhoff 2001, 728-729 with cited literature. – At the residence of Galerius at *Felix Romuliana*/Gamzigrad there is a smaller octagonal room attached to the apsidal reception hall: Srejović 1983, 37-43, 196; Vasić in: Brandl / Vasić 2007, 40-43 fig. 10; Wulf-Rheidt in: ibid., 69-72; von Bülow 2011, 158-159 fig. 5a.b.

[7] E.g. the villa of Desenzano (Italy): Milano 1990, cat. 4d.2, 260-262, 517-520; Desenzano 1994. – The villa of Löffelbach (Austria): Modrijan 1964; Marko 2011, 285-291. – For further examples, see Balmelle 2001, 168-69 fig. 65; 173; Scagliarini Corlaita 1995, 837-873.

[8] For valuable advice and helpful suggestions on the reconstruction I am very grateful to Franz Alto Bauer (Ludwig-Maximilians-University, Munich).

The emphasis of the fort's defences clearly concentrated on the Nile front, regarding the use of quality building materials and the elaborate architecture of the main gate. The Nile provides the main traffic route, for passengers as well as for goods. A visitor, arriving by boat, first saw the massive walls and projecting towers of the fort's western front, the impressive colonnaded façade of the main gate, and then, as the focal point along the central axis not the palace-building, but the *principia* with its raised octagon towering above the adjacent office wings. This effect may have been modeled on similar arrangements around imperial palaces: in Diocletian's palace in Split, for example, a similar impression is produced by placing the raised vestibule of the palace at the end of a colonnaded street leading up from the main gate, creating an impressive focal point for the visitor (Wulf-Rheidt in: Brandl / Vasić 2007, 65 fig. 6b).

Mackensen (2009, 296-297) pointed out that the construction of a palace in the fort of Nag'al-Hagar must have been prompted by an unusual situation and the temporary presence of a high-ranking Roman official. In the preliminary report on the 1984-89 excavations Zignani (Wareth / Zignani 1992, 209-210) suggested, that the fort and the palace at Nag'al-Hagar were built for the emperor Diocletian during his first voyage through Upper Egypt in summer AD 298. During this journey up the Nile the emperor decided to evacuate and withdraw the Roman troops from the region south of the First Cataract. Four years later, Diocletian came again to Upper Egypt, during a military campaign against the Blemmyes (Mackensen 2009, 296-297; Mackensen 2006a, 167-168). By analyzing the dating evidence of the coins and the fine wares Mackensen was able to argue for a construction date of the fort around AD 300. On this basis the temporary presence of Diocletian and his accompanying élite troops (*comitatus*) at Nag'al-Hagar seems possible (Mackensen / Franke 2010, 84, 93; Mackensen 2009, 297-300). Later the palace was probably placed at the disposal of the commanding general of the frontier troops in the *Thebaïs*, that is the *praeses* or later the *dux* who would use it for the reception of important embassies from autochthonous tribes from beyond the southern border. From here, such *legationes* could be accompanied by a special escort to the imperial residence in Constantinople (Mackensen 2009, 296-297).

With its palace and its octagonal *aedes*, the Tetrarchic fort at Nag'al-Hagar may seem very unusual, but it is not unique. If one is looking for other Late Roman forts with features inspired by palatial architecture, there is a similar situation in a Late Roman fort in the northwestern provinces. *Caelius Mons*/Kellmünz is a Tetrarchic frontier fort in the province of *Raetia II*. In the early 4th century an apsidal hall, 26 m long and 14 m wide, was built parallel to the east front of the fort. This hall was freestanding and large enough to have served as an *aula*, an apsidal assembly and reception hall (Mackensen 1999, 223-228; Mackensen 1995, 99-106). Again, the best parallel for this is found in the *aula* of the residential palace of Galerius in *Felix Romuliana*/Gamzigrad, which is of almost the same size and shape (Mackensen 1999, 226-227, fig. 7.19; Mackensen 1995, 104-105, fig. 64). Mackensen explained the function of this *aula* in the fort of Kellmünz by the temporary presence of high-ranking officials or dignitaries of the civil and military administration. If the *aula* was at the disposal of the commanding general of the Raetian frontier troops, the *dux*, it would have been used for the reception of important Germanic embassies. From there, Alamannic *legationes* could have been accompanied by a special escort to the imperial residence in *Mediolanum* (Mackensen 1999, 227-228; Mackensen 1995, 105-106).

In the Late Roman fort at Nag'al-Hagar the presence of a palace and other elements inspired by imperial palatial architecture point out a special role for this fort going beyond purely military or strategic considerations; at least they indicate the presence of the imperial influence as far as the southernmost frontier in Egypt in the Tetrarchic period.

Bibliography

Balmelle, C. 2001. Les demeures aristocratiques d'Aquitaine. Bordeaux / Paris.

Brandl, U. / Vasić, M. (eds.) 2007. Roms Erbe auf dem Balkan. Spätantike Kaiservillen und Stadtanlagen in Serbien. Antike Welt Sonderband Mainz am Rhein.

von Bülow, G. 2011. Romuliana-Gamzigrad – Ort der Erinnerung oder Herrschaftsort? In: von Bülow, G. / Zabehlicky, H. (eds.). Bruckneudorf und Gamzigrad. Spätantike Paläste und Großvillen im Donau-Balkan-Raum. Akten des Internationalen Kolloquiums in Bruckneudorf vom 15. bis 18. Oktober 2008 (= Kolloquien zur Vor- und Frühgeschichte der Römisch-Germanischen Kommission Frankfurt a. M., Bd. 15/Sonderschriften des Österreichischen Archäologischen Instituts Wien, Bd. 45). Bonn. 153-165.

Desenzano 1994. Studi sulla villa romana di Desenzano 1. Milano.

El-Bialy, M. / Mackensen, M. 2007. Report on the second season of the Egyptian-Swiss joint mission at the late Roman fort at Nag el-Hagar (Upper Egypt). – Annales du Service des Antiquités de l'Égypte 81, 39-51.

El-Saghir, M. / Golvin, J.-C. / Reddé, M. / Hegazy, el-S. / Wagner, G. 1986. Le camp Romain de Louqsor (avec une étude des graffites gréco-romains du temple d'Amon). Cairo.

Franke, R. 2012. Demonstration kaiserlicher Macht am Nil. Das spätrömische Kastell Nag'al-Hagar bei Kom Ombo in Oberägypten. – Antike Welt 5, 57-65.

Golvin, J.-C. / Reddé, M. 1986. L'enceinte du camp militaire romain de Louqsor. In: Studien zu den Militärgrenzen Roms III. 13. Internationaler Limeskongreß Aalen 1983. Stuttgart. 594-599.

Kuhoff, W. 2001. Diokletian und die Epoche der Tetrarchie. Frankfurt am Main.

Mackensen, M. 2009. The Tetrarchic fort at Nag al-Hagar in the province of Thebaïs: preliminary report (2005-8). – Journal of Roman Archaeology 22, 286-311.

Mackensen, M. 2006a. The Late Roman fort at Nag el-Hagar near Kom Ombo in the Province of Thebaïs (Upper Egypt). Report on the first season of the Egyptian-Swiss Joint Mission. – Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo 63, 167-68.

Mackensen, M. 2006b. Late Roman African red slip ware from the frontier region in the province of Thebaïs (Upper Egypt). In: Wilson, R.J.A. (ed.). Romanitas. Essays on Roman archaeology in honour of Sheppard Frere on the occasion of his ninetieth birthday. Oxford. 211-229.

Mackensen, M. 2003. Das diokletianische Kastell Magdolum/ Tell el-Herr am Ostrand des Nildeltas und andere spätrömische Kastelle in Ägypten. – Journal of Roman Archaeology 16, 725-33.

Mackensen, M. 1999. Late Roman fortifications and building programmes in the province of Raetia: the evidence of recent excavations and some new reflections. In: Creighton, J. D. / Wilson, R. J. A. (eds.). Roman Germany. Studies in cultural interaction. Journal of Roman Archaeology Supplementary Series 32. Portsmouth. 199-244.

Mackensen, M. 1995. Das spätrömische Grenzkastell Caelius Mons-Kellmünz. Führer zu archäologischen Denkmälern in Bayern: Schwaben 3. Stuttgart.

Mackensen, M. / El-Bialy, M. 2010. Fourth report of the Egyptian-Swiss joint mission at the Late Roman fort at Nağ'al-Hağar near Kom Ombo (Upper Egypt). – Annales du Service des Antiquités de l'Égypte 84, 243-58.

Mackensen, M. / Franke, R. 2010. Eine Mannschaftsunterkunft im tetrarchischen Kastell Nag al-Hagar bei Kom Ombo (Oberägypten). In: Ebnöther, C. / Schatzmann, R. (eds.). Oleum non perdidit. Festschrift für Stefanie Martin-Kilcher zu ihrem 65. Geburtstag. Antiqua 47, 81-94.

Marko, P. 2011. Die villa Löffelbach – Polygonale Bauformen in spätantiken Villen und Palästen. In: von Bülow, G. / Zabehlicky, H. (eds.). Bruckneudorf und Gamzigrad. Spätantike Paläste und Großvillen im Donau-Balkan-Raum. Akten des Internationalen Kolloquiums in Bruckneudorf vom 15. bis 18. Oktober 2008 (= Kolloquien zur Vor- und Frühgeschichte der Römisch-Germanischen Kommission Frankfurt a. M., Bd. 15/Sonderschriften des Österreichischen Archäologischen Instituts Wien, Bd. 45). Bonn. 285-291.

Mayer, E. 2002. Rom ist dort, wo der Kaiser ist. Untersuchungen zu den Staatsdenkmälern des dezentralisierten Reiches von Diocletian bis zu Theodosius II. Monographien des Römisch-Germanischen Zentralmuseums 53.

Milano 1990. Milano capitale dell'Impero Romano 286–402 d.c. Milano, Palazzo Reale, 24 gennaio – 22 aprile 1990. Milano.

Modrijan, W. 1964. Der römische Landsitz von Löffelbach. Graz.

Mustafa, M. ed-D. / Jaritz, H. 1985. A Roman fortress at Nag' el-Hagar. First preliminary report. – Annales du Service des Antiquités de l'Égypte 70, 21-31.

Scagliarini Corlaita, D. 1995. Gli ambienti poligonali nell'architettura residenziale tardoantica. – Corsi di cultura sull'arte ravennate e bizantina 42, 837-873.

Schwartz, J. 1969. Qaṣr-Qārūn/Dionysias 1950. Fouilles Franco-Suisses Rapports II. Cairo.

Sidebotham, S. E. 1994. Preliminary Report on the 1990-1991 Seasons of Fieldwork at 'Abu Sha'ar (Red Sea Coast). – Journal of the American Research Center in Egypt 31, 133-58.

Srejović, D. (ed.) 1983. Gamzigrad. An Imperial Palace of the Late Classical Times. Belgrade.

Wareth, U.A. / Zignani, P. 1992. Nag al-Hagar, a Fortress with a Palace of the Late Roman Empire. Second preliminary report. – Bulletin de l'Institut Français d'Archéologie Orientale 92, 209-10.

Dr. Regina Franke
Institut für Vor- und Frühgeschichtliche Archäologie
und Provinzialrömische Archäologie
der Ludwig-Maximilians-Universität München
Geschwister-Scholl-Platz 1
DE-80539 München
regina.franke@vfpa.fak12.uni-muenchen.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

La Carisa and the Conquest of *Asturia Transmontana* (Hispania) by Publius Carisius

Jorge CAMINO MAYOR / Esperanza MARTÍN HERNÁNDEZ

"Eminentissimum Vindium montem, quo maria prius Oceani quam arma Romana ascensura esse crediderant."
Flor. II.33.49

The Cantabrian and Asturian Wars

Early in the third decade of the first century BC, Rome planned to conquer and incorporate the Cantabrian region, located in the north of *Hispania*, into the possessions of the Empire. This operation was solved by war, which would last until the next decade.

Two centuries after the conquest, the Romans wanted to complete the control over the entire territory of the Iberian Peninsula, the motivation of this territorial annexation being mainly economic, because it provided access to large gold reserves in the north western quadrant, essential to face the restoration of the economic system based on the gold standard, established in 23 BC, and other primary sources such as iron ore seams and other metals belonging to the Cantabrian region.

The *Bellum Cantabricum* was one of the largest military campaigns of the Principate of Augustus, attended by a large contingent of seven legions after the end of the civil war that ended with the Second Triumvirate. The theater of operations was affected by two contiguous but very different areas: one, the high plains of the edge of the plateau, lying between 700 and 800 m altitude, and the other, the Cantabrian Mountains, a long orographical chain flanked on the north by slopes ending at the Cantabrian Sea. This barrier joins the Eastern Pyrenees known as *Mons Vindius* by the Romans and was the natural frontier between the Asturian *Augustani*, located in the South, and *Transmontani*, in the North. The development of the war resulted in two fronts which correspond to the two ethnic groups involved: the *bellum Asturicum* and the *bellum Cantabricum.*

In addition to classical sources, differently interpreted (Schulten 1943; Schmitthenner 1962; Syme 1970), archaeological research has provided discovery of, firstly in the Cantabrian area and then in the Astur, several campaigns and temporary camps, roads and combat operations. Now we have a broad perspective of the military conquest.

The Theater of War of La Carisa

Currently, one of the most expressive sites of *Bellum Asturicum* is in a place called La Carisa, which is located on the ridge of the Cantabrian Mountains, roughly in the centre of the old *Conventus Asturicensis* and next to a small hill which links lands either side. A small area within these powerful and inhospitable mountains reveals a two Roman camps system, along with a strategic route (**fig. 1, 3**). These have been identified and studied in recent years (Camino / Viniegra 2011).

One of these camps, called Curriel.los (Tuñón y Quirós 1858; Camino et al. 2007), occupies a hill and several plateau areas that rise up to 1727 m on a long ridge located on the north side of the Cantabrian Mountains, about 5 km from its axis peaks. This site is prominently situated in narrow valleys and has a panoramic view which on a clear day reaches the Bay of Gijón, far more than 50 km in line of sight.

The most obvious areas, represented by the construction of a spectacular defensive system (**fig.**

2/1), are distributed in the upper part of the site and the western slope of the Cantabrian Mountains, forming in essence a series of three concentric fences and a large triangular annex. The multiplication and distribution of the defensive lines causes at the same time the creation of numerous enclosures to host the troops.

The top of the hill was surrounded by a 4 m wide stone platform, overlying in a bank slopes that could have served as a base to an earth *agger* and a palisade. It includes a small oval enclosure of about 1000 m^2. Its rock surface was smoothed to host a bonfire in its centre. From here, two paths were created that lead to the entire facility, so it can be interpreted as a place designed to accommodate the garrison guards.

This first enclosure was surrounded by two *valla* in the western half, the central *vallum* is provided with a *fossa quadruplex,* and the external one is provided with a *duplex*. Both of them bind in an eastern *agger* with four ditches. The holes and stone wedges found during excavations confirm the abundance of wood elements, which completed these two lines of defence, and probably the same happens on the rest of the fortifications of the hill. We have to mention the palisade in front of the *aggeres*, the *cippi* heading the counterscarps, the two lines of *cervi* in the slope of the second *agger* and possibly *acutissimi valli*. Both central *aggeres* represent 4 m wide marching roads, with 2 m width of pavement. The two *intervalla* between the three concentric barriers generate trapezoidal stripes with slight slope reaching about 5000 and 3000 square meters respectively.

In the figures, various enclosures that compose Curriel.los can be seen. The analysis of space under a military perspective (Ramos Oliver / Jiménez Moyano 2008) can offer a strategic idea of the place. In the southwest another two *valla* were built, running down the slope for 200 m to converge leaving a spring inside and closing an area of about one hectare. Both of them are identical and canonical, consisting of a *fossa duplex*, a *contrafossa,* and an *agger*.

The South Hill has a *fossa duplex* on the west side and covers an area of one hectare. To the north, facing the enemy, a *brachium* of 500 m consists of a *fossa* and an *agger*, cut into the hillside in front of the enclosures. On the eastern side four terraces are staggered, upgraded with various defences, earthworks and drainage, extending more than one hectare. Underneath is a pond which could have completed the water supply.

The massive collapse of the two *aggeres* reveals that the camp was destroyed after being abandoned – this was the moment when the barracks could also have been burnt. The absence of significant materials indicates that the soldiers themselves were probably the authors of the destruction, to prevent its reuse by the enemy. The juxtaposition of the defences and stratification respectively shows the progressive growth of facilities and several episodes of occupation.

Only one entry is verified in the camp, following the line of the mountain ridge. Few gateways were created in the concentric *valla* with different elements: stockades, a *titulum*, some barracks and maybe a tower. Both of them flank the *via principalis* in the upper part of the first enclosure. The archaeological surveys proved that we are not talking about sun-dried brick walls and wooden framings, but that the barracks were built with wood and clay, with stone socle and probably covered with vegetable material. Inside one of them, a burned one, some large vessels appeared, some of which containing hazelnuts and other nuts and seeds, two sharpening stones and a striker. In this place the Carisius' *quinarius* was found (**fig. 1/5**).

Excavations and metal detector surveys have provided a good collection of *militaria*. Among the weapons there are spearheads, heads and pins of *pila*, butts, a sling projectile and various parts of catapult such as a trigger, a crossbow arm and others in study. There are also several tools, such as hoes, lost during the construction of the *aggeres*, an axe, a goad, a *dolabra*, a chisel, a punch and numerous iron slags, that testify to the use of a forge. There were many tent pegs, mainly presenting a ring, nails and shoe tacks (**fig. 4**). A batch of coins was also recovered. Their importance will be discussed below.

The total habitable area is approximately 4.5 hectares that could accommodate a legion, though precariously (Richardson 2003, 303-305). A large contingent was necessary to protect the nearly 2000 m of active defences that surrounded the camp.

The second camp is called L.lagüezos (**fig. 1/2**), which was detected in an aerial survey by F. Didierjean and Á. Morillo (Inst. Ausonius) in 2010. This military enclosure is also on the axis of the ridge, 5 miles to the south of Curriel.los, on a hill of 1675 m above sea level, in the middle point between both sides.

It is unquestionably a strategic place, close to the *via Carisa* and with a wide domain of its tour of the southern foothills, in addition to its visual connection with Curriel.los camp. The hill was surrounded by a single *vallum* formed by a stone *ag-*

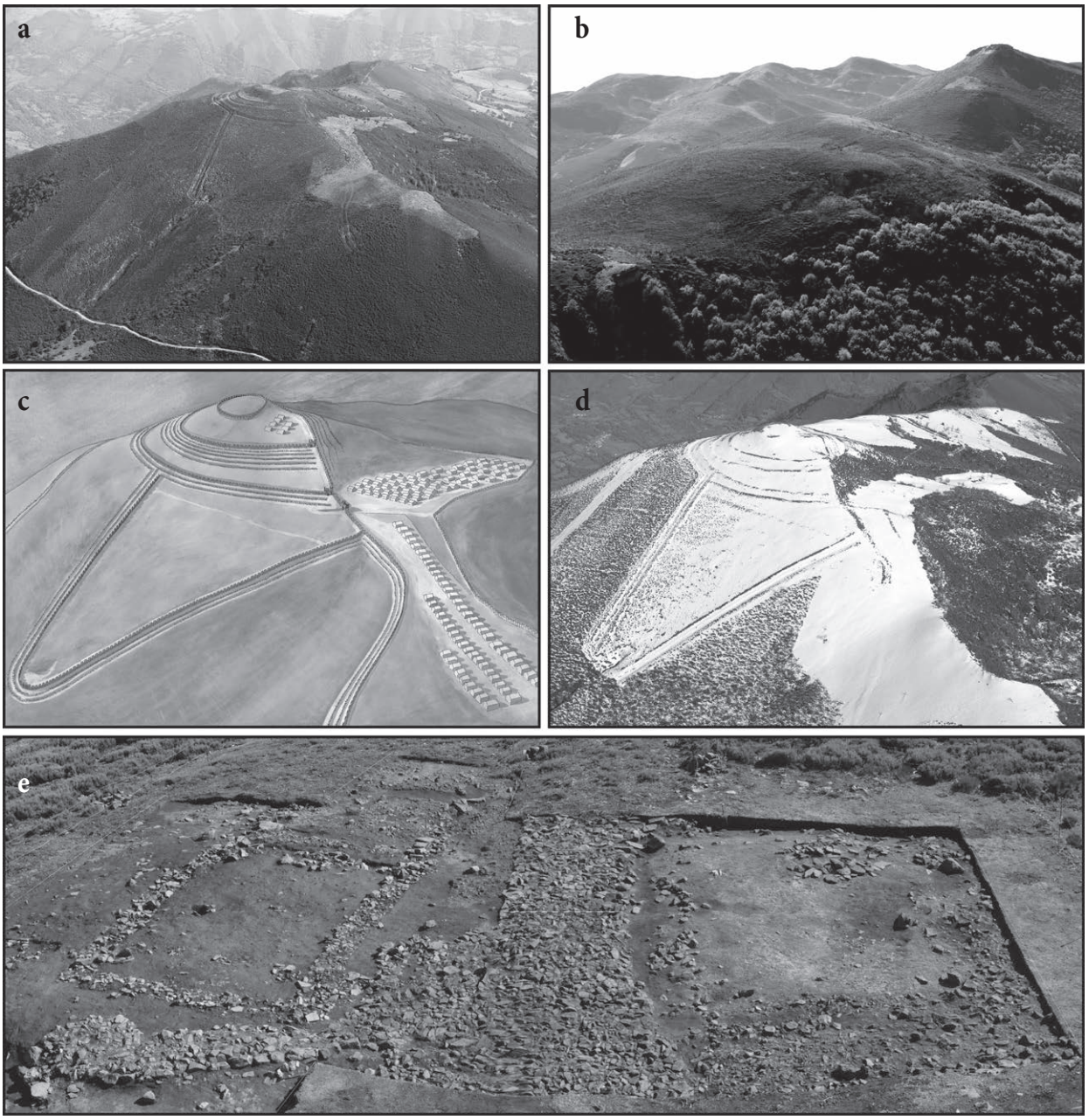


Fig. 1. a aerial view of Curriel.los camp from South; **b** L.lagüezos camp; **c** artistic interpretation of Curriel.los camp (drawing by G. Meana); **d** Curriel.los camp in the winter; **e** general view of the barracks

ger and a small *fossa*, poorly preserved in its eastern half. In recent times an old mountain cottage has been erected in this area which is enclosed by a sub-rectangular area of about 4 hectares – 40 000 square meters – and convex slope, where the east side has a very steep slope, and there is also a spring.

But the slope diminishes the habitability of this enclosure, and for this reason, it seems hard to believe that it contained a high number of cohorts. Metal detection has provided several tent pegs and maybe a part of a crossbow of the same type found in Curriel.los, a knife and a republican coin (**fig. 4**, **8**).

The identification of *via Carisa* was carried out in recent times and in a rather erratic way. Connected with the Romanisation of *Asturia Transmontana* as one of its main communication arteries, it was linked to an origin at the headquarters of *Legio*. Many important archaeological remains close to that axis were added to show, as best evidence, its territorial impact. It is clearly in the main corridor of central Asturias (Camino / Viniegra 2011).

The existence of the L.lagüezos and Curriel.los camps at that altitude and in that bleak environment can only be understood by its proximity to a communication route. From the south slope, the path

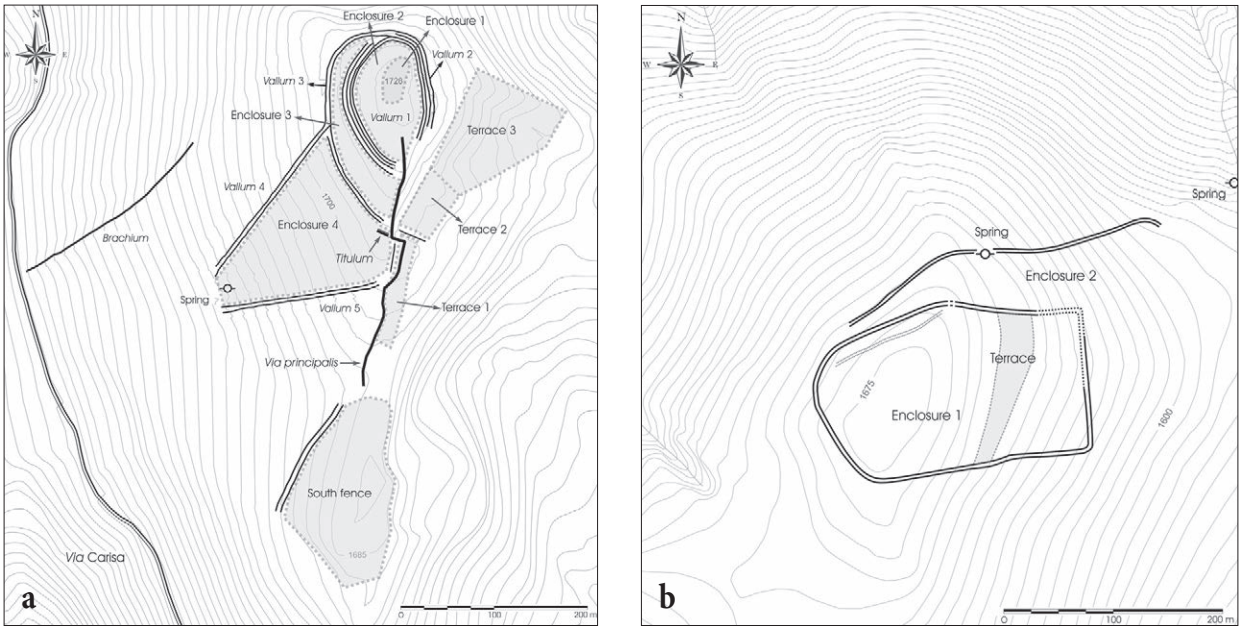


Fig. 2. a Curriel.los camp; **b** L.lagüezos camp. Maps of the defenses

running almost horizontally, leads to the remote Pendilla valley, about one thousand meters above sea level. The Roman *via* was constructed as leveled as possible, avoiding valleys and low and high points. In the mountain pass, the road overcomes the eastern slope by zigzag systems (**fig. 3/1**). In these circumstances, we assumed that it had a strategic reason due to the disproportionate elevation of the road above the mountain pass and its continuation for several miles along the edge of a peak of over 2000 meters in altitude. The real cause seems to be geotechnical, as this route tried to move away from several areas of geological instability that generated periodic mass displacements. In fact, in one of them, called La Moena, in ancient times this caused a correction of the layout and finally, the closing of the *via* (**fig. 3/2**, center of the photograph).

Despite the poor conservation of the platform, a width of 4 and 5 m can be confirmed in several points. The most interesting is probably the search of a horizontal layout, which allows a low rate of slope, less than 5% and avoiding 10%.

Even for being a high mountain road, these properties facilitated rapid circulation undoubtedly adapted to wheeled vehicles. The destinations of this pathway are to the south. The *via* is channeled through the Bernesga valley in the destination of León, where *legio VI Victrix* was housed after the Cantabrian wars and after *legio VII Gemina*. To the north, after descending from the mountains and passing through another place called La Carisa, Gijón bay is reached, where the *Noegga oppidum* lies, with an early Roman settlement and an Augustean altar erected by C. Calpurnius Piso in AD 9. So the track, oriented south-north, joined the edge of the plateau, where the winter camps which participated in the war were housed, with one of the best and safest harbours of the Cantabrian Sea.

The place named Carisa, recorded in a document of the eleventh century, says that the road name is derived from *Publius Carisius*, the Lusitanian *legatus Augusti pro praetore* who led the war against the Asturians.

Chronology

The monetary finds (**fig. 4/1**) allow us to define a probable relation with the *Bellum Asturicum* (Gil Sendino / García-Bellido 2006), regardless of other military objects themselves. The coins correspond to the following issues:

Camp of Curriel.los: 1 – *denarius* of Julius Caesar, elephant series. He began his coinage in Cisalpine Gaul in 50/49 BC, but continued during the Pompeian wars in *Hispania*; 2 – *as* of Pompey with bust of Janus, probably coined in *Corduba* in 46-45 BC; 3 – *as* from *Arausio*. Busts of Octavian and Agrippa, the first uncrowned, which dates the coin probably in 30/29 BC; 4 – *as* from *Celsa* with bust of Augustus, in the Ebro valley, around 27 BC; 5 – *as* of *Publius Carisius* issued in *Augusta Emerita* in 23 BC; 6 – *quinarius* of Publius Carisius from *Augusta Emerita* between 25-22 BC; 7 – halved coin, illegible. Camp of L.lagüezos: 8 – *denarius* of L. Calpurnius Frugi, from 90-89 BC.

Until we have new evidence or other findings confirming reoccupation, we can close the chronology of the camps in Cantabrian war times in the context of hostilities. The precise dating of Curriel. los camp and, therefore, of the entire military deployment of La Carisa during the government of Publius Carisius and its tight correlation with *Bellum Asturicum*, developed between the years 26-22 BC, is a privileged and rare circumstance in the archaeological world.

In reality, Curriel.los camp was occupied for several campaigns, although investigations could only conclude the existence of two separate cycles by Carisius in 23 BC. Probably, the barracks stage corresponds to the second war because of Carisius' *quinarius*, rather than to a later stage.

La Carisa in the *Bellum Asturicum*

However, it is essential to try to understand the role, which La Carisa played in the war theater. The chronological inferences refer to a contemporaneity between the two camps and the *via*. A priority question that should be noted is that the whole operation was constrained by the subarctic climate regime.

According to data from the sources, the advance of troops towards the Cantabrian Mountains could be undertaken from the year 26 BC. It is unquestionable that the deployment was focused on the *via* construction, essential infrastructure for the movement and logistics of the Roman army.

Probably, it was this first stage of penetration in *Transmontana* region which could cause the reaction of the *Astures*, who went in an alliance that brought together a large number of forces against the Roman army in the spring of 25 BC – assembled three legions in *Astura* – Esla River, immediately before the start of a new campaign of invasion. The heroic reaction of Carisius averted a possible disaster and removed all the indigenous population to *Lancia* – Villasabariego, León. This was the main event of the war, which resulted in the rapid disruption of the troops of the confederation, making the completion of the campaign easier, with the arrival to the coast throughout the year and, therefore, the official celebration of the triumph in 25 BC.

After that, the main objective, which was the construction of the Roman road crossing *Asturia Transmontana* to reach the coast, was fulfilled and

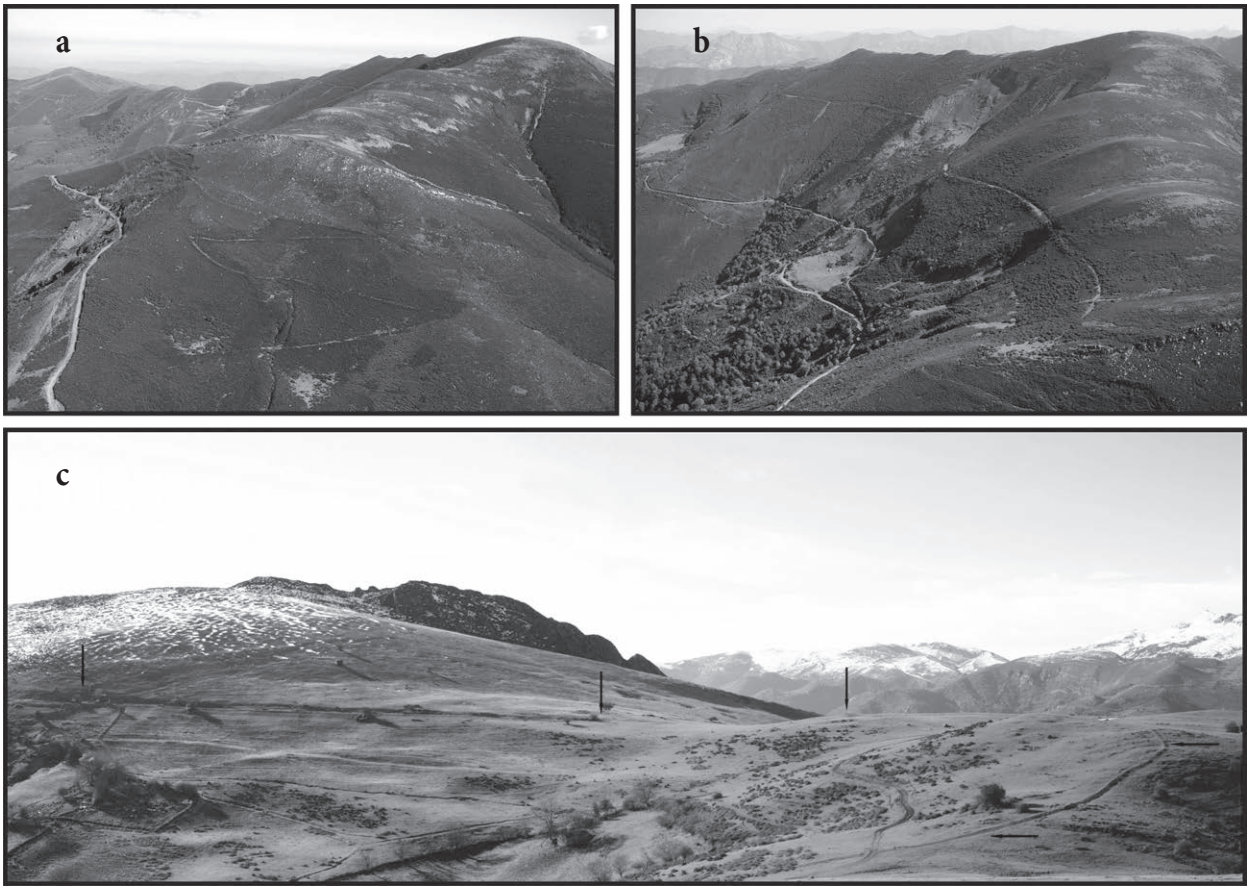


Fig. 3. a-b part of Carisa *via* at 1800 m of altitude, in the Cantabrian Mountains, between the camps of L.lagüezos and Curriel.los; **c** La Mesa *via* with an access to Mouro camps. Among them, a prehistoric mound

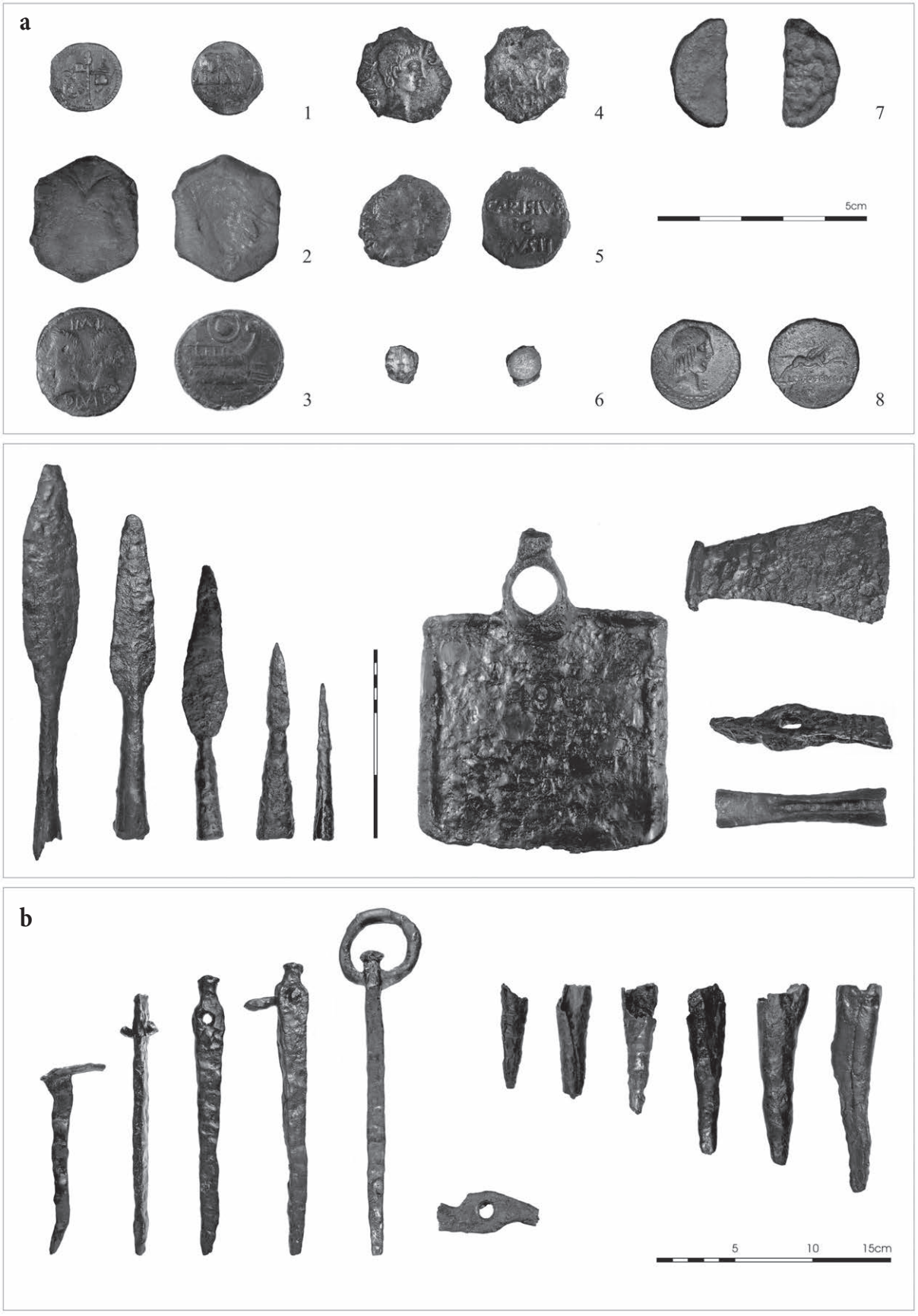


Fig. 4. Selection of coins and *militaria* from La Carisa camps. **a 1** *denarius* of Julius Caesar; **2** *as* of Pompey; **3** *as* from *Arausio*; **4** *as* from *Celsa;* **5** *as* of Publius Carisius; **6** *quinarius* of Publius Carisius; **7** halved coin, illegible; **8** *denarius* of L. Calpurnius Frugi; **b** set of spears, *pila*, hoe, *dolabra* and goad; **c** tent pegs, catapult trigger and butt spikes

thereafter the only thing needed was to consolidate positions, occupying the territory and promoting pacts with Asturian population.

Calculations indicate that the Carisa route, 170 km in length which required the removal of 500 000 m^3 of land, could have been built by a legion of men within two years. The situation in the camps on top of the mountains provided a strategic dominance that allowed troops monitoring and coverage of the tracks.

However, the atypical layout of the Curriel.los camp (the result of progressive growth) contrasts to the camps of wars (**fig. 5/1**). The *as* of Carisius of 23 BC, which appeared in an expanded *vallum*, is the *terminus post quem* of refortification which must be related to the Asturian revolt against Roman rule in 22 BC. The growth of defence, the fortification of the water supply and the concentration of troops in one location, reflect a delicate war situation, which may well be related to the unknown Carisius' camp. According to Dio Cassius (*Historiae* 54.5.1-3), the camp was besieged in the course of events by the Asturians. *Celsa*'s currency in the Ebro Valley could have been brought by the Army of Tarragona who came to the aid of the troops of Carisius.

Geostrategy of the Cantabrian Wars (fig. 5)

Although La Carisa is the only well documented camp of the war against the ástures, there are two other cases that reproduce the same pattern of mountain camps associated with roads that cross the mountains. Another Roman *via* about 30 km to the west runs through a range of hills known as La Mesa, 1780 m in altitude. The *via Legio – Asturica Augusta* leads to the mouth of the River Nalón, where *Flavionavia* (Ptolemy II.6.5) was settled. Two adjacent camps, about 10 hectares in total and located at 1000 m altitude (Didierjean et al. 2014, Martín Hernández forthcoming.), confirm the involvement of the Roman army. Further west, on the border between Asturias and Galicia, another route from *Asturica* entered Cantabrian lands. Another two camps have been recently recognised at about 1200 meters, one rectangular with rounded corners covering 5 ha, while the other is elliptical and covers one ha (Menéndez et al. 2011). On the other camps to be confirmed, it seems that this route was divided into two branches that went to the estuaries of Navia and Eo. These camps have been formed by standardised *agger fossaque* completed with wooden elements. It remains to be confirmed if both routes were laid during the war or afterwards.

But it is in the Cantabrian area where investigators have found a greater number of camps and evidence of diverse acts of war, according to the archaeological resources. Although some of these camps are associated with sieges of indigenous villages, situated at the edge of the Plateau to stop progress towards the coast – camps of La Loma in Santibanez, La Muela and El Castillejo (Peralta 2004) – most of them are *castra aestiva* of various types and are aligned toward the North by the ridge between Pas and Besaya, leading to *Portus Blendium* – Suances and *Portus Victoriae* – Santander: El Cincho (García 2003), Cildá, El Cantón, La Espina del Gallego and El Campo de las Cercas (Peralta 1999; 2001a; 2001b; 2003). A variant of the route ran through Peña Cutral with the camp of La Poza, where *Iuliobriga* City was formed (Cepeda 2004).

Archaeological evidence emphasizes that the Roman state devised a common strategic plan. It consisted of a series of lines of south-north operations from the Duero Basin, reaching the Cantabrian coast through the high passes of the Cantabrian Mountains and long chain of hills leading to the centre of the northern lands. The support of this strategy was based on the construction of communication roads which were constructed at high altitudes for military reasons in the Cantabrian land, employing techniques to avoid the steep sides and roughness of its valleys. Summer campaigns based on winter quartering were conducted in *castra aestiva* located in the mountains. Several parallel lines of advance contributed to the division of indigenous resistance and protected the flanks. This operational design was completed, as indicated by Florus (*Epit*. II.33.49) and Orosius (*Adv*. *Pag*. VI.21.4), with the landing of the army to cover logistical needs and to foster a distinctive front pincer that enveloped the enemy. But the layout of these perpendicular roads to the coast could only materialize after other major arteries had reached the North of the Plateau. As an example of this, the *viae* from *Tarraco* through the valley of the Ebro and *Burdigala* up to *Segisamo* were used when the columns of Augustus (Florus II, 33.46) left the area, *Legio VI Victrix* headquarters and *Asturica – Legio X Gemina* headquarters, facilitated the large concentration of troops and supplies from Tarragona complex and Gallia. Facts related to military enterprises undertaken by Statilius Taurus (Dio Cassius 51.20.5), and Calvisius Sabinus and Sextus Apuleius (*Fasti Triumphales* quoted by Schulten 1943, 133-134) in the North during the years 29-27 BC, on the eve of the opening of the temple of Janus and the presence of *Augustus*, have to do with the preparation of the fight, which explains the reference to *vaccei* and through these

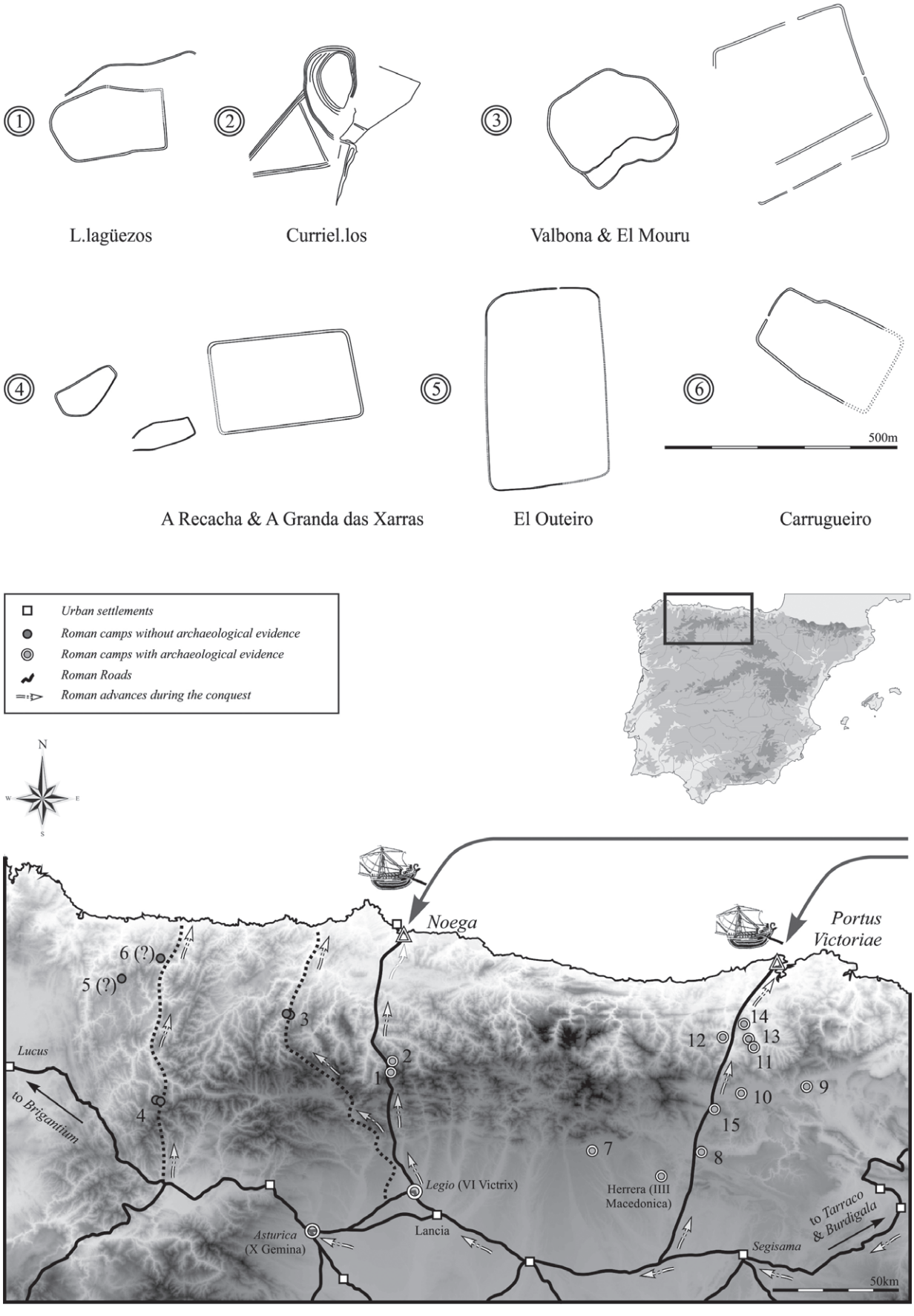


Fig. 5. Map of the state of knowledge of the Cantabrian wars, which reflects the strategy of conquest followed by Rome. From left to right, Roman lines of advance of La Caella, La Mesa, La Carisa and El Escudo

lands pass the main roads. In fact, the association between military campaigns and road constructions was constant in Hispania during the Republican period (Blázquez 2002), which was continued in the Cantabrian wars and after them (Schulten 1943). In contrast, the construction of well-formed and intricate mountain paths had to have the guidance of the indigenous population.

This model enabled coordinated arrival at the coast in just two campaigns and political proclamation of victory. For the organization of archaeological remains, its location and recording, it seems that the insights of La Carisa between Asturias and the Sierra del Escudo among Cantabrians were the main axes of the conquest of the northern lands during the years 26-25 BC. The strategic importance of these pathways is emphasized with construction of *clausurae* defences in La Mesa, La Carisa and probably El Escudo against the Islamic invasion of the Iberian Peninsula during the early eighth century AD (Camino et al. 2010).

Bibliography

Blázquez Martínez, J. M. 2002. Las calzadas. Arterias de la guerra en la Hispania romana republicana. In: Morillo, A. (ed.). Arqueología militar romana en Hispania (= Anejos de Gladius 5, CSIC). Madrid. 493-501.

Camino, J. / Viniegra, Y. 2011. La vía Carisa y la jerarquización del territorio en Asturia transmontana. Arqueología, sociedad, territorio y paisaje. In: Buento, P. et al. (eds.). Estudios sobre prehistoria reciente, protohistoria y transición al mundo romano en Homenaje a María Dolores Fernández-Posse (= Bibliotheca Praehistorica Hispana 28, CSIC). Madrid. 375-396.

Camino, J. / Viniegra, Y. / Estrada, R. 2010. En las postrimeras montañas contra el sol poniente: Las clausuras de la Cordillera Cantábrica a finales del Reino visigodo contra la invasión islámica. In: Ruiz de la Peña, J. I. / Camino, J. (eds.). La Carisa y La Mesa. Causas políticas y militares del origen del Reino de Asturias. Oviedo: Asociación de Amigos de La Carisa. 3-29.

Camino, J. / Viniegra, Y. / Estrada, R. / Ramos, F. / Jiménez, F. 2007. El campamento y la vía de La Carisa. Reflexiones arqueológicas y militares. In: Fernández-Tresguerres, J. (ed.). Astures y romanos: nuevas perspectivas. Oviedo. 61-93.

Cepeda Ocampo, J. J. 2004. Peña Cutral (Cantabria). La vía y los campamentos romanos. – Kobie (Serie Anejos) 6, 1, 391-400.

Diderjean, F. / Morrillo, Á. / Petit-Aupert, C. 2014. Traces de guerres, traces de paix armée: l'apport de quatre campagnes de prospection aérienne dans le nord de l'Espagne (2007-2010). In: F. Cadiou & M. Navarro Caballero (Eds.). Conflits et sociétés en Hispanie à l'époque de la conquête romaine (III^{e}-I^{er} siècles av. J.-C.), 25-27 novembre 2010, Bordeaux. 149-179.

García Alonso, M. 2003. El campamento romano de 'El Cincho' (La Población de Yuso). Resultados arqueológicos de la campaña del año 2002. – Sautuola 11, 109-139.

Gil Sendino, F. / García-Bellido, M. P. 2006. Hallazgos monetarios en el yacimiento de La Carisa (Oviedo). In: García-Bellido, M^{a}. P. (ed.). Los campamentos romanos en Hispania (27 a.C.-192 d.C.), el abastecimiento de moneda. Vol. 2 (= Anejos de Gladius 9, CSIC). Madrid. 447-451.

Martín Hernández, E. forthcoming. El Mouro. Castrametación en la vía de La Mesa (Belmonte de Miranda/Grao, Asturias). In: I Encuentro Arqueológico "Las Guerras-Ástur-Cántabras" 2014. Gijón.

Menéndez, A. / González, D. / Álvarez, V. / Jiménez, J. I. 2011. Nuevas evidencias de la presencia militar romana en el extremo occidental de la Cordillera Cantábrica. – Gallaecia 30, 145-165.

Morillo, Á. 2011. The Roman occupation of the north of Hispania: war, military deployment and cultural integration. In: G. Moosbauer & R. Wiegels (eds.), Fines Imperii- Imperium sine fine?. Römische Okkupations- und Grenzpolitik im frühen Principat, Osnabrücker Forschungen zu Altertum und Antike-Rezeption 14, Rahden/Westf., 11-26.

Peralta Labrador, E. 2004. Cuestiones histórico-arqueológicas sobre el *Bellum Cantabricum* y el desembarco en la costa cántabra. – Sautuola 10, 85-130.

Peralta Labrador, E. 2003. Los cántabros antes de Roma (= Bibliotheca Archaeologica Hispana 5, Real Academia de la Historia). Madrid.

Peralta Labrador, E. 2001a. Die augusteische Belagerung von La Espina del Gallego (Kantabrien, Spanien). – Germania 79, 21-42.

Peralta Labrador, E. 2001b. Los *castra aestiva* del *Bellum Cantabricum*: novedades arqueológicas. In: I Congreso Internacional de Historia Antigua. La Península Ibérica hace 2000 años. Valladolid. 173-182.

Peralta Labrador, E. 1999. Los castros cántabros y los campamentos romanos de Toranzo y de Iguña. Prospecciones y sondeos (1996-97). In: Las Guerras Cántabras. Santander: Fundación Marcelino Botín. 203-276.

Ramos Oliver, F. / Jiménez Moyano, F. 2008. La batalla del monte Curriechos. – Revista de Historia Militar 103, 207-229.

Richardson, A. 2003. Space and manpower in Roman camps. – Oxford Journal of Archaeology 22, 303-313.

Schulten, A. 1943. Los cántabros y astures y su guerra con Roma. Madrid.

Schmitthenner, W. 1962. Augustus spanischer Feldzug und der Kampf un den Prinzipat. – Historia 11, 29-85.

Syme, R. 1970. The conquest of north-west Spain. Legio VII Gemina. León. 78-107.

Tuñón y Quirós, E. G. 1858. Memoria sobre la guerra que los romanos hicieron en Asturias. Oviedo.

Jorge Camino Mayor
Archaeologist,
Consejería del Principado de Asturias
ES-33003 Oviedo, Asturias
jorge.caminomayor@asturias.org

Esperanza Martín Hernández
Archaeologist,
Dolabra Arqueológica
30, San Antonio
ES-33430 Candás, Asturias
dolabra@gmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Limitless Empire: The Public Commemoration of Soldiers' Origins

Brian TURNER

For more than a quarter century scholars have shown concern for how the Romans viewed and presented the geography of their world. The lack of surviving evidence – especially illustrated maps – from antiquity has dominated modern discussion concerning the worldview of the Romans[1]. However conscious the Romans may have been about illustrated maps, there is no shortage of geographic references incorporated into any number of ancient texts, monuments and inscriptions. Richard Talbert has repeatedly called for a "fresh appraisal" of sources that do exist and that may illuminate how the Romans imagined and understood the geography of their world and empire[2]. My presentation in Bulgaria examined the geographic data included on the so-called Roman funerary altar at Adamclisi. That work has since been published in the *American Journal of Philology* (Turner 2013) and so I present only a very short summary of the argument in this contribution. In an effort to advance the thought-provoking discussion engendered at the Congress in Ruse, I have here added brief and preliminary comments on the geographic data included on two other items of evidence: [1] the roster of the *VII Claudia* Legion from *Viminacium*, an inscription commemorating the discharge of Roman legionaries in 195 C.E., and [2] the geographic data found on the publication of discharge notices (diplomas) in the city of Rome itself[3]. The three examples share a similar concern not only with the commemoration of those who served the state, but also – and significantly – with the public display of the geography of the Roman Empire.

The so-called funerary altar at Adamclisi was located some 250 meters to the northeast of the *Tropaeum Traiani,* the well-known monument celebrating Trajan's victory over the Dacians. According to its very fragmented dedication, the altar was constructed to honor the memory of those soldiers who had died fighting for Rome (*CIL* III 14214):

… MEMORIAM FORTIS[simorum
… qui …] PRO REP MORTE OCCVBV[erunt …

Unfortunately the rest of the dedication is so badly preserved that it is next to impossible to decipher the precise date of the altar, although sometime during the reign of Domitian is the growing consensus (Stefan 2005, 442-444; Turner 2013). The names and abbreviated origins of all those who died appear in clearly defined columns around the entire altar. Of the nearly 3800 names that were once inscribed on the altar (see Cichorius 1904, 28 for the calculation), fewer than 150 remain. The list of names and origins appearing immediately below the surviving dedication reads as follows:

L VALERIVS SACER VIEN
L GAVILLIVS PRIMVS AGRþ
L VALERIVS LVNARIS IVVAV
C OCTAVIVS SECVND FORIVL
SEX …IVS CLEMEN CEMÆ
L IVL..... LOLLIVS AGRI
T FLAVIVS FAVSTVS NICI
C VALERIVS SECVND CELE
C BILLIVS ……..CAT DERT
L FLAVIVS CL…….S V
C IVLIVS GRAC…… ….
C CADARIC ALLIVS ….
L CASSIVS GERMA.. ..ND
C VITELLIVS SERANV….ES
M IVLIVS ANNIV… ..RI
L VALERIVS PRIM... ....

Two other surviving fragments illustrate the relatively careful organization of the inscription. One example lists the names of a variety of officers including *signiferi* and *imaginiferi*; unfortu-

[1] See most recently Brodersen 2012.
[2] See especially Talbert 2010, 269 and Talbert 2008, 24.
[3] Boris Rankov suggested the former, Elizabeth Greene the latter.

nately neither the officers' names nor origins have survived (*ILS* 9107). In another larger fragment, a list of soldiers' names is divided up by the heading *COH II BAT*, an abbreviation for an auxiliary cohort of Batavians (*CIL* III 14214, and see the photo and drawing in Dorutiu 1961, 358). The inscribed list of names was therefore organized by rank and unit.

Of the thousands of abbreviated origins that may have once decorated the altar, only sixty have survived; although even many of these appear in varying degrees of readability. Some are so ill-preserved that any interpretation is impossible, as is the case with *Lucius Flavius Cl…s*, from *V…*, listed in the sample above. Modern scholars, starting with Mommsen in the *Corpus Inscriptionum Latinarum,* have been fairly consistent in their interpretations of most of the other abbreviations[4]. *AGRþ* and *AGRI*, both of which appear in the sample above, and *AGR*, another variant found on the altar, are all supposed to refer to *Colonia Claudia Ara Agrippinensium* (*BAtlas* 11 G2). In fact, nearly one-quarter of the soldiers (fourteen of sixty) whose origins have survived originated from modern Cologne, Germany. As the brief sample above illustrates, many of the soldiers appear to have come from Italy and the Alpine provinces, for example the soldiers from *FO(rum) IVL(ii)* (*BAtlas* 19 F3), *CEME(nelum)* (*BAtlas* 16 D2), and *DERT(ona)* (*BAtlas* 39 D4). Another fragment suggests that a soldier came from Rome itself (*ROMA*). Other fragments confirm soldiers from throughout the Rhine and Danube regions, including *Raetia*, *Noricum*, *Gallia Narbonensis*, and other locations in *Germania Inferior*.

Although the majority of the soldiers whose origins survive came from the Rhine and Danube provinces (Dorutiu 1961, 350) many of them also originated from nearly every corner of the empire. The altar preserves evidence of soldiers from *CLVNI(a)* (*BAtlas* 25 B4) in Spain, *BRIT(annia)*, and even the far side of the Mediterranean, if *AFER* can be interpreted as Africa. Mommsen (*CIL* III 14214) even suggested that a number of the soldiers came from Asia Minor. The sample above, for example, may just confirm soldiers from *Nicaea* (*NICI*) (*BAtlas* 52 F4), *Isinda* (*..ND*) (*BAtlas* 65 D3) and *Caesarea* (*..ES*) (perhaps *BAtlas* 64 A3).

Even if the interpretations are incorrect – and that is certainly a possibility in such fragmented cases as *Isinda* and *Caesarea* – the ability of viewers to imagine the Roman world still exists. In short, because of the inclusion of the soldiers' origins, the altar at Adamclisi, long viewed primarily as a war memorial for those who had died in the service of the state (see most recently Cooley 2012), can be re-imagined as a sort of map upon which the peoples and places of the Roman empire were inscribed for posterity (Turner 2013).

The surviving fragments of the so-called Roster of the *VII Claudia* Legion list the names of nearly 250 soldiers who were stationed at *Viminacium* and honorably discharged in 195 C.E.[5]. Like the altar at Adamclisi the names were organized into clearly defined columns which were then subdivided by military unit (in this case by individual cohort). The section recording the eighteen soldiers discharged from the Third Cohort is complete and offers a clear example of the arrangement of data throughout the remaining roster:

COH III	
T AVR T---AL	RAT
P AEL VALENS OP	RAT
T AVR SINNA DD	RAT
M AVR METROD SIG	NIC
M AVR DINES	TRIM
C VAL VALENS	RAT
C VAL VALENS DD	R
M LIC LONGINVS	R
M AVR GERMAN	SC
M AVR VALENS	R
P AEL VITALIS	R
M AVR DOLENS DD	R
L MINIC VERISSIM DD	R
M AVR DAIZO	SC
M AVR TIMOTHEVS	NIC
C VAL FILISCVS	NIC
M IVL VALENS	TR
P AEL VITALIS EQ POL C	

The *praenomina* and *nomina* are regularly abbreviated throughout the inscription (*T(itus) AUR(elius)*, *P(ublius) AEL(ius)*, etc.), while the cognomina usually, though not always, appear in full (*SINNA* versus *METROD(orus)*, etc.). Officers and those soldiers granted military honors are marked with an abbreviation of their rank (*OP(tio)*, *SIG(nifer)*, etc.) or award (*D(onis) D(onatus)*). Finally, like the altar at Adamclisi, the roster includes an abbreviated origin of each commemorated soldier.

Although the abbreviated origins for more than 170 individuals have survived, because of repetition there are less than three dozen unique formulations on the extant roster. By far the most common are *R* (43 examples), *SC* (39), and *RAT* (31). Modern scholars have not always interpreted

[4] Dorutiu (1961), in an attempt to decipher the specific legion commemorated on the altar, also considered the soldiers' origins.

[5] The principle fragments are collected in *CIL* III 14507, to which should be added the additional fragment examined in Mirković (2004). All of the fragments are collated online at the Epigraphische Datenbank Heidelberg (HD032316).

these abbreviations consistently. The edited version of the inscription appearing in the *Corpus Inscriptionum Latinarum* (III 14507), for example, determined that those soldiers in the Third Cohort whose origins were abbreviated either *R* or *RAT* all came from *Ratiaria* (*BAtlas* 21 E6). In a portion of the inscription listing the discharged soldiers from the Eighth Cohort, the same edition suggest that a single *R* no longer referred to *Ratiaria*, but rather to *Remesiana* (*BAtlas* 21 E6). Mirković (2004, 216-220) chose not to decipher the abbreviated *R* in her publication of the inscription, although she did conclude in her analysis that it "probably [referred to] the Remesiana region" (213). The version of the inscription presented online at the *Epigraphische Datenbank Heidelberg* (HD032316), meanwhile, understands R as an abbreviated form of *Remesiana* throughout the entire inscription[6].

Despite such discrepancies, scholars have consistently interpreted many of the other abbreviations, including: *AM(pelum)* (*BAtlas* 21 F3), *NIC(opolis)*, though which one is unclear, perhaps *Nicopolis ad Istrum* in *Moesia Inferior* (*BAtlas* 22 C5), *ROM(ula)* (*BAtlas* 22 B4), *SAL(ona)* (*BAtlas* 20 D6), *SAR(mizegetusa)* (*BAtlas* 21 E4), *SC(upi)* (*BAtlas* 49 D1), *SIR(mium)* (*BAtlas* 21 B5), and even *C(astris)* for those born illegitimately to serving soldiers. If these interpretations are correct, then the vast majority of the discharged soldiers were recruited from the Balkan region. Nevertheless, there are perhaps four outliers, all from Asia Minor: *T. Claudius Successus* from *PERG(amum)* (*BAtlas* 56 E3), an unknown soldier from *ANC(yra)* (*BAtlas* 63 B1), and perhaps even a soldier named … *Isidorus*(?) from *CYB(istra)* (*BAtlas* 66 E1)[7], or one named ... *Domitianus* from *NICO(media)* (*BAtlas* 52 F3)[8]. Admittedly, the *Viminacium* roster does not display the same variety of abbreviated origins as the altar at Adamclisi, but it does still illustrate a similar tendency to include geographic data on monuments commemorating Rome's soldiers.

The inclusion of origins on the roster no doubt helped to distinguish one soldier from another. In the Third Cohort, for example, *Gaius Valerius Valens* is differentiated from the decorated *Gaius Valerius Valens* because the former was from *RAT(iaria)* while the latter was from *R(emesiana?)*. But such distinction must have meant little to those viewers who had not met either individual. The inclusion of the origins, on the other hand, allowed a viewer who was otherwise unconnected to a specific individual, perhaps a newly recruited soldier, an inhabitant of the *canabae*, or even an enemy on a diplomatic venture, to recognize at least a part of the Roman Empire.

As Talbert (2013, 163-170) has recently suggested, Roman military diplomas – those bronze tablets that commemorated the rights and privileges accorded to an honorably discharged soldier – are yet another under-appreciated category of evidence that offer some glimpse, however modest, of a distinctly Roman vision of geography and the broader *orbis terrarum*. As an illustration of the standardized nature of the information inscribed on these credentials, Talbert draws specific attention to a recently published military diploma which commemorated the discharge of a soldier from the army stationed in Britain, a certain *Longinus*, on 9 December 132 (see Eck et al. 2010 for the original publication). As was typical of such diplomas, this version included the following geographic information: [1] the names of all the auxiliary units from which soldiers were discharged on a particular day (these units frequently had geographic elements in their names, such as *I Augusta Gallorum, I Celtiberorum,* or *I Thracum*); [2] the province in which these units were stationed (in this particular case, *Britannia*); [3] the *origo* of the specific soldier whose discharge the diploma commemorated (here *Longinus*' origin was abbreviated as *MOMS*, the expansion of which is uncertain, although Talbert (2013, 167) prefers *Mopsou(h)estia* in *Cilicia*); and finally, [4] the specific location in Rome where a copy of the diploma could be found. This particular diploma concludes with the following: *Descriptum et recognitum ex tabula aenea quae fixa est Romae in muro post templum divi Aug(usti) ad Minervam*. Roman diplomas, then, contained an array of geographic information with no doubt varying levels of meaning for the recipient.

Talbert's concern is principally for the worldview and identity of the owners of these documents and not the viewers who might have seen the postings of the discharges in Rome. He concludes that

"[t]he location in Rome where the discharge was publicly displayed – *in muro post templum divi Aug(usti) ad Minervam* – has obvious potential value for the topography of the city, and scholars have long taken note of the information. These references may be set aside for the present purposes, except to underline the point that each diploma forges an explicit link with the city of Rome itself as the place where ultimate authority resides – a hazy vision of distant power for most recipients of diplomas, who were not discharged anywhere near Rome, and in all likelihood had never served there nor even visited there" (165).

[6] Accessed 4 September 2014.

[7] Mirković (2004, 212) suggests Cybera.

[8] Mirković (2004, 218), CIL III 14507 suggests *Nicopolis*.

It is worth considering whether the viewers in Rome of such postings, and indeed the postings themselves, ought to be examined more carefully. If the inclusion of a specific location in the city of Rome on a soldier's diploma personally connected that soldier to the capital of the empire, as Talbert suggests, then the publication of that same document – filled with geographic references – in the city of Rome itself should also serve as an illustration to the mostly civilian viewers in Rome of the geographic extent of the Roman Empire. Whatever their ultimate format, the possibility that these publically displayed issues contained various bits of personal and geographic data is an intriguing consideration, and one that calls for careful contemplation of the publication notices in our extant diplomas.

Despite being produced about a century apart, the funerary altar at Adamclisi, and the roster of veterans from *Viminacium* share important similarities. Both monuments consider unit and rank in their organization and both include abbreviated origins of each and every commemorated soldier. Similar data also appears on the personal diplomas received by discharged soldiers throughout the empire. Although we can only conjecture the form of the discharges which were publically displayed in Rome, it is worth considering the extent to which they may have reproduced the model found in the other two commemorative inscriptions. While the consistency with which this model appears to have been followed certainly suggests a sort of "bureaucratic habit,"[9] effort ought to be made to consider the impact such commemorative monuments could have had on their viewers.

Those who had the opportunity to view these monuments may have marveled at the individualization of Rome's warriors, but it is unlikely that the list of specific names would have had much meaning. The abbreviated origins, even if they could not be properly interpreted, allowed the viewer who had no personal connection to any individual soldier to imagine the geography of the Roman Empire. Such monuments, whatever their primary motive, should therefore be read as a class of evidence illustrating a distinctly Roman way of viewing and commemorating their empire. The variety of abbreviations, and even the occasional debate about their interpretation, only serve(d) to increase the grandeur of the Romans and their limitless empire.

Bibliography

BAtlas = Talbert, R. Barrington Atlas of the Greek and Roman World. Princeton, 2000.

Brodersen, K. 2012. Cartography. In: Dueck, D. (ed.). Geography in Classical Antiquity. Cambridge. 99-110.

Cichorius, C. 1904. Die römischen Denkmäler in der Dobrudscha. Berlin.

Cooley, A. 2012. Commemorating the War Dead of the Roman World. In: Low, P. / Oliver, G. L. / Rhodes, P. J. (eds.). Proceedings of the British Academy 160: Cultures of Commemoration. War Memorials, Ancient and Modern. Oxford. 61-86.

Dorutiu, E. 1961. Some Observations on the Military Funeral Altar of Adamclisi. – Dacia 5, 345-363.

Eck, W. / Holder, P. / Pangerl, A. 2010. Diploma for the Army of Britain in 132 and Hadrian's Return to Rome from the East. – Zeitschrift für Papyrologie und Epigraphik 174, 189-200.

Mirković, M. 2004. The Roster of the VII Claudia Legion. – Zeitschrift für Papyrologie und Epigraphik 146, 211-220.

Stefan, A. S. 2009. Tropaeum Domitiani à Adamclissi (Mésie Inférieure). In: Marangio, C. / Laudizi, G. (eds.). Palaia philia: studi di topografia antica in onore di Giovanni Uggeri. Galatina. 613-634.

Stefan, A. S. 2005. Les guerres daciques de Domitien et de Trajan: Architecture militaire, topographie, images et histoire. Rome.

Talbert, R. 2013. Worldview Reflected in Roman Military Diplomas. In: Geus, K. / Rathmann, M. (eds.). Vermessung der Oikumene – Mapping the Oecumene. Berlin. 163-170.

Talbert, R. 2010. The Roman Worldview: Beyond Recovery? In: Raaflaub, K. / Talbert, R. (eds.). Geography and Ethnography: Perceptions of the World in Pre-Modern Societies. Oxford. 252-272.

Talbert, R. 2008. Greek and Roman Mapping: Twenty-First Century Perspectives. In: Talbert, R. / Unger, R. (eds.). Cartography in Antiquity and the Middle Ages: Fresh Perspectives, New Methods. Boston. 9-28.

Turner, B. 2013. War Losses and Worldview: Re-Viewing the Roman Funerary Altar at Adamclisi. – American Journal of Philology 134.2, 277-304.

Brian Turner
Assistant Professor
Portland State University
Department of History
P.O. Box 751
USA-97207 0751 Portland, Oregon
brian.turner@pdx.edu

[9] Boris Rankov made this point during the question period at the Congress.

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Dalmatians in the Roman Imperial Fleet

Dino DEMICHELI

Introduction

The epigraphic heritage of the Roman navy is abundant and every scholar who was writing about it in general, said something of sailors' origin[1]. It is well known that the rows of Roman imperial fleet were filled by the peregrines, so in the navy we could find numerous individuals from the peregrine communities that had no Roman citizenship.

At the end of Roman republic Octavian reorganized the navy in order to secure the state. For that purpose he acquired the special type of vessels called the *liburnae* which were very easy to navigate and also recruited seamen from all the Mediterranean. One of the most valuable recruitment areas was the southern part of the *Illyricum*, known as *Dalmatia*. The autochthonous people in Dalmatia who lived close to the sea, especially the Liburni, after whom *liburna* had its name[2], were very famous for their naval skills. After the battle of *Actium* in 31 BC[3] Augustus made the fleet so powerful that in next few hundred years there was no some other fleet which could harm its strength. In Italy he settled the bigger part of his naval troops and for that purpose he built the harbors in *Ravenna* and *Misenum*. The importance of these Italian fleets increased rapidly during the Civil war between Galba, Otho, Vitellius and Vespasian.

For the Augustan and early Julio-Claudian period we do not have epigraphic records, so we will provide the data from the middle of the 1st until the 3rd century.

Writing about Dalmatians in the Roman navy, we should not avoid the passage from Tacitus who said that in the year 69 legions I and II *Adiutrices* mostly consisted of the Dalmatian and Pannonian sailors of the Misenate and Ravennate fleets[4]. As we can see from the epigraphic sources, a few decades later, the percentage of the Dalmatians in the Roman navy remained high and the only thing that has changed was the habit of declaring their origin.

Analysis of the Inscriptions

The target group of inscriptions can be dated from the second part of the 1st to the beginning of the 3rd century CE. Within these almost 200 years there are some epigraphic features which are helpful for dating the inscriptions. For instance, from the 2nd century on, the onomastic habit started to change and during the recruitment into the navy the peregrine sailors got a new Roman name in the form of *tria nomina* (later *duo nomina*) instead of their original single name. Mark for the origin became the specific expression *natione Dalmata / Delmata* and in many cases it was the only designation of their origin which otherwise could not be discerned just by their names.

There are several criteria to determine the Dalmatian origin of the sailors, mostly based on

[1] General works: Starr 1975; Casson 1971; Reddé 1986; Spaul 2002. There are also several valuable articles about the sailors in Misene and Ravennate fleets that originated from Dalmatia and Pannonia (Forni 1992a; Domić Kunić 1996a and 1996b), but since then there are some more inscriptions to be included in order to widen this picture.

[2] On the origin of the name *liburna*: Veg. *Ep*. 4, 33: *Liburnia namque Dalmatiae pars est Iadertinae subiacens civitati, cuius exemplo nunc naves bellicae fabricantur et appelantur Liburnae*. About the *liburnae* in historical sources, see Panciera 2006a and 2006b.

[3] It should be noted that one of the most important generals at the battle of *Actium* in 31 BC was L. Tarius Rufus, who probably commanded the Liburnian fleet. From Vegetius (*Epit*. 4, 33) we know that the Liburni in that battle played very important role in favor of Octavian. It is presumed that L. Tarius Rufus was of Liburnian origin, but since in this paper are listed only the inscriptions related to the Imperial period, we will not include this individual here. On his achievements, cf. Alföldy 1968, 100-107.

[4] Tac. *Hist*. 3, 12. …*magna pars Dalmatae Pannoniique erant, quae provinciae Vespasiano tenebantur*…

the names typical for Dalmatia and on the mentioning of of the *origin*. We divided them into six groups and among them some are more reliable than the others:

Group 1: Single name + patronymic (**Cat. nos. 1-11**)

In this group there are 11 sailors and their monuments are dated to the second half of the 1st century because the sailors then still were retaining or could retain their original names. It matches with the same name pattern in military diplomas of the auxiliary units and sailors[5]. Speaking only for the navy, this onomastic habit is attested in the second half of the 1st century.

Group 2: Roman *praenomen* and *nomen gentile* + original single name (with or without filiation) (**Cat. nos. 12-15**)

In this group there are sailors with a *cognomen* that is supposed to be their proper name before joining the navy. This onomastic habit occurs at the end of the 1st century, which is confirmed with the diploma of *L. Bennius Beuza*, who was discharged in AD 100 (**no. 14**). It is the earliest extant diploma mentioning a recipient with the *tria nomina* and in the same period peregrine names among sailors disappear from the funerary inscriptions (Sallomies 1996, 168-169).

Group 3: Roman *tria nomina* + phrase *qui et* + single name + patronymic (**Cat. nos. 16-19**)

On four inscriptions there is a special expression *qui et* which stands between their new, Roman name, and their original, peregrine single name. This phenomenon is well attested mostly among the peregrines on the inscriptions, but not so often with the patronymic[6]. All of the sailors with such a pattern were deceased and we believe that with this onomastic construction they wanted to emphasize their real name probably because they never reconciled with an ordinary Roman name they were given at the time of the recruitment. We presume that this onomastic pattern could be confined chronologically up to the first several decades of 2nd century and represents some kind of intermediate step between the system with the peregrine name and the full Roman name[7].

Group 4: Roman name (*duo* or *tria nomina*) + phrase *natione Dalmata / Delmata* (**Cat. nos. 20-53**)

The expression *natione Dalmata / Delmata* should not be regarded to denote a person from the people of *Delmatae*, because it does not mean the ethnic, but the administrative affiliation to the province of *Dalmatia*. It seems that the designation of origin in the form *natione Dalmati(cus)* was also used unless in the case of **no. 20** it was a stonecutter's mistake. However, it is very possible that among this number of sailors we could expect many ethnic *Delmatae*, but in the moment when they ordered the carving of the monument, it was probably enough to have only the information about their Dalmatian origin. After all, the only thing that was matter is that belonging to this province was something that discerned Dalmatians from the crew from some other province. Contrary to the sailors, the soldiers from the auxiliary troops had a different epigraphic habit of expressing the origin. Namely, they always put their real ethnic origin, e. g. *Delmata*, *Daesitiatus*, *Maezeus*, *Docleas*, *Daversus* and so on.

Group 5: Real Dalmatian ethnics (**Cat. nos. 54-56**)

There are seven inscriptions that bring us a real Dalmatian ethnic, but four of the inscriptions are in other category, and all of them commemorate sailors from the people of *Dalmatae* (**nos. 15, 16, 18, 19**). Three other inscriptions mention the sailors originated from ethnic groups which were settled on the territory of *Dalmatia*. One sailor was a *Liburnus* from *Varvaria* (**no. 54**) the second was a *Delmata* (**no. 55**) and the third was a *Ditio*[8] (**no. 56**). The Liburnus was also enrolled in the voting tribe *Claudia*, and it is not sure if he was recruited in the fleet as a peregrine or as a citizen.

Group 6: Other reasons (**Cat. nos. 57-64**)

In this group of inscriptions, there are several reasons why we determined the persons as Dalmatians. A sailor named *Aurelius Dalmatius* (**no. 57**) is listed here because of his *cognomen* that de-

[5] On diplomas: *Plator Veneti* f. (CIL XVI 14); *Nerva Laidi* f. (CIL XVI 11, here cat. no. 5), but he was discharged in AD 70 as a soldier of *legio II Adiutrix*, and we think he was a sailor until AD 68/69, before joining the legion. On that diploma, see Demicheli 2012, 52-53.

[6] Besides these, in the Misene fleet: CIL VI 3165; CIL X 3377, 3406, 3590, 3593, 3618, 3622.

[7] Duje Rendić-Miočević assumed that this name (*signum*) was one of the aspects of the *interpretatio Romana* of the autochthonous inhabitants in the process of acquiring the citizenship (Rendić-Miočević 1989a, 529, n. 17). Kajanto thought that the Latin part of this onomastic formula was an *agnomen* and it was an individual name in the function of the second *cognomen* in order to identify the soldier more accurate (Kajanto 1967, 6, 24).

[8] The inscription mentions that this sailor was *natione Ditio*, which, in our opinion, is not to be explained in the same way as the expression *natione Dalmata / Delmata*.

rives from the name of the province of *Dalmatia*. In the late antique period the *cognomen Dalmatius* (known also as a single name) is a common name and it is not always a reliable proof for Dalmatian origin but we think that in this period (end of the 2nd – beginning of the 3rd century AD) this name was connected with the origin. A veteran of the Ravennate fleet, *Sextus Baebius Bai f.* (**no. 58**) is listed here because of his father's name, *Baius*. Although that name is not confirmed on any other inscription, there is the name *Baia* attested in *Dalmatia* and it is designated as an Illyrian name (Alföldy 1969, 161, *s. v.* Baia)[9]. For the same reason, i. e. the patronymic, *C. Marcius Maximus*, *Volsonis f.* (**no. 59**) is also included in this catalogue, but here the situation is clearer, because the names in *Vols-* are well attested in the coastal part of *Dalmatia*, and his voting tribe is *Sergia* in which were enrolled some Dalmatian cities like *Iader* or *Varvaria*. A centurion *D. Plarentius Gratus* (**no. 60**) is included because of his *gentilicium Plarentius*. This name probably derived from *Plares* (*Plarens*), a name characteristic for south-eastern Dalmatia (Alföldy 1969, 267, *s. v. Plares*, *Plarens*)[10]. **Cat. no. 61** mentions two veterans of the legion II *Adiutrix*, *T. Plotius Rufinus* from *Aequum*, a colony in *Dalmatia*, and his heir *M. Plaetorius Valens*[11]. We think that they were ex-sailors of the Ravennate fleet who were enrolled in the legion during the turbulent events in AD 68-69 and spent the rest of their career as legionaries[12]. *L. Sextilius Rufus*, a veteran of the Misene fleet, and his wife *Papiria Helpis* (**no. 62**) died in the area of *Salona*, where they were commemorated by their children. Because of the fact that this inscription is found on the territory of *Salona*, but also because of the names *Sextilius* and *Papirius*, which are well attested among Salonitan families, we presume that this sailor originated from *Dalmatia*. A sailor *Vibius Varro* (**no. 63**) is included here because of his *cognomen Varro*, which is very well attested as autochthonous name in Dalmatia, however it is also a common Latin name (Alföldy 1969, 321-322, *s. v. Varro*). Presuming he was a peregrine sailor of the Ravennate fleet, the *cognomen Varro* would probably be his original single name. A young man *Principius* (**no. 64**) was a sailor of the Ravennate fleet whose funerary verse inscription was erected by his family in Dalmatia.

Q. Marcius Turbo and *L. Artorius Castus*

The extraordinary careers of two Dalmatian equestrians – *Q. Marcius Turbo* and *L. Artorius Castus* – are too complex to be described in this paper, so we will comment only on the naval part of their careers. The first one, *Q. Marcius Turbo*[13] (**no. 65**), who was born in the colony of *Epidaurum* in *Dalmatia*, held the commander's position (*praefectus classis praetoriae*) in the Misene fleet during the last years of Trajan's reign. According to *Historia Augusta*, he was a friend of Hadrian who then as a legate then led the campaign against the Parthians[14]. In these times Turbo reached some of the highlights in his career, transferring all the Trajan's army and supplies during the Parthian campaign, and especially suffocating the Jewish outbreak in Egypt of AD 115-117[15]. He was even more famous later, as a prefect of the Praetorian camp in Rome, a position which he kept for almost 20 years[16].

According to the inscription found in Podstrana (*Pituntium*) in *Dalmatia*[17], *L. Artorius Castus* (**no. 66**) was on duty as commander in charge (*praepositus classis*) of the Misene fleet. Of his commandment we know nothing further so far, but he was obviously more famous for the achievements in his subsequent career steps, especially in *Britannia* and *Dalmatia*.

Conclusion

According to all these epigraphic criteria, there are 78 individuals of Dalmatian origin attested in 66 inscriptions. Thirty four of them have the expression

[9] Cf. the family name *Baiula*, attested only in Dalmatia, OPEL I, 109, *s. v. Baiula.*

[10] The name *Plarentius* is attested only here and in cat. no. 41.

[11] *Nomen gentile Plaetorius* derived from the name *Plaetor*, which is confirmed as autochthonous name in *Dalmatia* and *Venetia* (Alföldy 1969, 109-110, s. v. *Plaetorius*, *Pletorius*). See also cat. no. 54.

[12] The legion II *Adiutrix* later left Italy and went to *Britannia* (via *Germania Inferior*) where it resided in AD 71-86 (Farnum 2005, 16), so these ex-sailors probably went to *Britannia* with the rest of the legion *II Adiutrix* and after their discharge decided to return to *Ravenna* where at least one of them died. Because of the abbreviation *D*(*is*) *M*(*anibus*), which is in use in this form from the end of 1st century, it seems not possible that these two Dalmatians were discharged immediately after the civil war in AD 68-70 (as *Nerva*, *Laidi f.*, cat. no. 5, discharged as legionary of *legio II Adiutrix* in AD 71).

[13] AE 1950, 225

[14] *Hist. Aug.*, *v. Hadr*. IV 2.

[15] *Hist. Aug.*, *v. Hadr*. V 8. On the Jewish outbreak, see Gilliam 1956, 362.

[16] Alföldy 1979, 233-235; Syme 1980, 74; Absil 1995, 173; Piso 2004, 273.

[17] CIL III 1919; CIL III 8513; CIL III 12813 = ILS 2770.

natione Delmata / Dalmata, 12 sailors gave their real ethnic origin (*Dalmata*, *Maezeus*, *Liburnus*, *Daesitiatus*, *Scirto*, *Ditio*) or the *origo* (*Aequum*, *Epidaurum, castrum Plana*), 19 have a proper Dalmatian name, and 10 persons are the commemorators who were in some kinship with the deceased who either have a Dalmatian name or are somehow related to *Dalmatia* (**nos. 21, 36, 41, 42, 49, 52, 53, 54, 61**), and the monuments of 3 persons are here due to the fact that their monuments were erected in *Dalmatia* (**nos. 62, 64, 66**).

As for the positions and ranks in the Roman navy that Dalmatians held, the majority of them were ordinary sailors (48 out of 78). Besides two fleet commanders mentioned above, among the active soldiers there were 4 centurions (**nos. 3, 4, 40, 60**), 2 arm keepers (**nos. 29, 53**), 2 *trierarchae* (**nos. 36, 59**), 3 *optiones* (**nos. 10, 17, 48**), 2 *scribae* (**nos. 44, 56**), one was *faber navalis* (**no. 6**), and one *duplicarius* (**no. 57**). We find 11 veterans, and among them one was a centurion (**no. 7**), 2 *suboptiones* (**nos. 23, 38**), one *scriba* (**no. 50**), and one *vestiarius* (**no. 58**). One ex-sailor was discharged as a legionary (**no. 5**), and there are also several other legionaries who once might have been sailors, but they are not part of this discussion[18]. The major part of the monuments collected are tombstones (58 out of 66), and there are also four diplomas, one altar and one honorific inscription.

The inscriptions of Dalmatian sailors are mostly found in Italy (59 out of 66), i. e. in the vicinity of the place where they served. Four were found in Dalmatia (**nos. 3, 7, 62, 66**), one each in Lower Pannonia (**no. 15**), Syria (**no. 65**) and Sardinia (**no. 48**).

According to the inscription analysis, one can see that Dalmatians served mostly in the Ravennate fleet, since there are 41 inscriptions (53 sailors mentioned) that can be related to this fleet, while there are 25 inscriptions (25 sailors mentioned) related to the Misene fleet. It is not unexpected, concerning the fact that the Ravennate fleet was made mainly for the protection of the Adriatic coast, but also for the coast of Achaia, Propontis, Pontus, Crete and Cyprus, and that the Misene fleet was created to protect the Tyrrhenian Sea[19], but also the coasts of Gallia, Hispania, Africa and Egypt[20]. Since the province of *Dalmatia* had littoral part on the Adriatic, we can expect many Dalmatians in the Ravennate fleet, as we can expect in the Misene fleet sailors from all parts of Mediterranean, especially Egyptians, which is epigraphically attested[21].

Out of the entire number of all the sailors in the Ravennate fleet that expressed their origin, the Dalmatians are represented with 35-40%. For the Misene fleet the number is much smaller (around 9%)[22], but it should be noticed that this fleet was as twice bigger as the Ravennate fleet.

With this paper we wanted to give all relevant data in order to recognize as much Dalmatians in the Roman imperial fleets as possible. Besides already known inscriptions connected with the Dalmatian population, we added to this list 17 new inscriptions due to various criteria[23]. These criteria are based on the expressions of the origin (**nos. 14, 20, 33, 40, 45,**

[18] Mainz (*Mogontiacum*), CIL XIII 6928, Forni 1992b, 425: *Q. Attius Q. f. Tro*(*mentina*) *Rufus Aequ*(*o*), *mil. leg. I Adi.*; CIL XIII 6830, Forni 1992b, 425: [*D*]*idius*(*?*)[*- f.*] *Trom*(*entina*) [*Cle*]*mens*(*?*) [*Ae*]*q*[*u*]*o, mil.* [*le*]*g. I Adi.*; CIL XIII 6831, Forni 1992b, 425: *M. Marius M. f. Tro*(*mentina*) *Vegetus Aeq*(*uo*), *mil. leg. I Adi.*; CIL XIII 6833, Forni 1992b, 425: *C. Vibius C. f. Trom*(*entina*) *Severus Aequo*, *mil*(*es*) *leg. I Adi.*; Chester (*Deva*), RIB 487, Forni 1992b, 425: *L. Annius L. f. Tro*(*mentina*) *Marcel*(*l*)*u*[*s Aequo?*]; RIB 486, Forni 1992b, 425: *Sex. Epidius L. f. Tr*[*o*(*mentina*)] [*Pu*]*dens Aequ*[*o*]...; Budapest (*Aquincum*), AE 1965, 43: *M. Baeb*[*idio? -*] *fil. Tromentina* [---]*oni Aequo ex* [*Dalm*(*atia*) *armorum*] *custodi vet*(*erano*) *l*[*eg. II Adi.]*.

[19] *Sueton. Aug.* 49, 1: *Ex militaribus copiis legiones et auxilia provinciatim distribuit, classem Miseni et alteram Ravennae ad tutelam Superi et Inferi maris conlocavit*; Veget. *Ep*. 4, 31: *Nam Misenatium classis Galliam Hispanias Mauretaniam Afrcam Aegyptum Sardiniam atque Siciliam habebat in proximo. Classis autem Ravennatium Epiros Macedoniam Achaiam Propontidem Pontum Orientem Cretam Cyprum petere directa navigatione consueverat*. Besides *Ravenna* and *Misenum*, there were several harbors on the Adriatic for the Ravennate fleet (on them: Cambi 1980, 29-32; Reddé 1986, 223-227; Domić Kunić 1996b, 44; Zaninović 2002, 72-77, Kurilić 2012), and on the Tyrrhenian Sea for the Misene fleet (on them: Starr 19752, 11-29; Reddé 1986, 171-227; Domić Kunić 1996b, 44).

[20] Sirago 1984, 96; Domić Kunić 1996b, 45.

[21] Parma 2002, 325-326.

[22] The percentage is based on the calculations given by Parma 2002, 326, where it is stated that there are more than 400 inscriptions (288 of Misenate, 131 of Ravennate fleet) on which we can confirm the ethnic origin of the sailors.

[23] There are some more inscriptions that could belong to the Dalmatians serving in the Roman imperial fleets, but because of the lack of indications they could not be part of this discussion: *Salona*, CIL III 2036; 2107. Probably an epitaph in Greek (CIL III 14695) mentioning Φλάνιος Ζήνων, ἠμέριτος στόλου Μεισηνῶν, βιολόγος, might have belonged to a sailor of Salonitan origin, since the inscription was found in *Salona*. But it is doubtful if he even was a sailor (Zaninović 2002, 73). On the possible naval career and Liburnian origin of the person mentioned in ILJug 930 (Murter, *Colentum*), see Kurilić 2012, 119. There are also the *cognomina* or *supernomina Classicus* and *Classicianus* confirmed on inscriptions from *Dalmatia*, which might be an allusion to an ex naval career. On that issue see Rendić-Miočević 1989b, 836-839.

48), onomastic analysis (**nos. 6, 9, 10, 12, 13, 63**) and some indirect indicators, like *cursus honorum* among the equestrians (**nos. 65, 66**), connection between the find spot and the text of the tombstone with the origin of the deceased (**nos. 62, 64**), and the historical facts concerning the recruitment of the legions I and II *Adiutrices* (**no. 61**). Through this analysis we tried to submit as much indicators for the Dalmatian origin as we could and thus to approach to the more accurate number of representation of the Dalmatian population in the Roman imperial fleets.

Catalogue of inscriptions[24]

Group 1: Single name + filiation (with or without expression *filius*)

1. Caorla (*Portus Liquentiae*). Lit.: CIL V 1956; Domić Kunić 1996a, 109, no. 37 a, b.

***Bato Laedionis f(ilius)**, de liburna; **Paius Verzonis f(ilius)**, de liburna*

2. *Aquileia*. Lit.: Not. d. sc. 1925, 24; Domić Kunić 1996a, 107, no. 28; Lettich 2003, 83, no. 87; Panciera 2006b, 1347-1348, no. 7.

***Daza Panetis f(ilius)**, de trireme*

3. *Apsorus*. Lit.: ILJug 2956; Cambi 1980, 151-154; Domić Kunić 1996a, 109, no. 38.

***Liccaeus Vei f(ilius)**, centurio*

4. *Aquileia*. Lit.: Brusin 1970, 569, no. 7; Domić Kunić 1996a, 104, no. 3: Panciera 2006b, 1348, no. 8.

***Liccaeus Verzonis f(ilius)**, centurio*

5. *Herculaneum*. Lit.: CIL X 1402; CIL XVI 11; ILS 1989; Domić Kunić 1996b, 64, no. 20; Demicheli 2012, 52-53.

***Nerva Laidi f(ilius) Desidiatus**, mil. leg. II Adiutricis*

6. *Ravenna*, San Severo. Lit.: Gabričević 1968, 286.

***Plator Appi f(ilius)**, faber navalis*

7. *Salona*. Lit.: CIL XVI 14; Domić Kunić 1996a, 108, no. 34; Demicheli 2012, 49-51.

***Plator Veneti f(ilius)**, veteranus, centurio, Maezeius*

8. Brindisi (*Brundisium*). Lit.: CIL IX 42; Domić Kunić 1996b, 63, no. 15.

***Scaeva Liccai**, miles*

9. *Brundisium*. Lit.: AE 1990, 205.

***Verzo Themi f(ilius)**, de liburna*

10. Pozzuoli (*Puteoli*). Lit.: AE 1974, 261.

***[---]us Dabali f(ilius)**, [opti]o? de liburna*

11. *Ravenna*. Lit.: CIL XI 111; Domić Kunić 1996a, 107, no. 27; Zaninović 2007, 240, no. 14.

***Murcius Zanatis f(ilius)**, de liburna*

Group 2: Roman *praenomen* and *nomen gentile* + original single name (with or without filiation)

12. *Ravenna*. Lit.: CIL XI 35.

***C(aius) Aureliu(s) Turus**, heres substitutus*

13. Montegrotto. Lit.: Ghislanzioni 1931, 12.

***L(ucius) Baebius Pladomenus**, de classe*

14. Voghenza. Lit.: AE 1989, 315; Roxan 1994: RMD 142.

***L(ucius) Bennius Liccai f(ilius) Beuza Delmata**, veteranus, gregalis*

15. Ilače, *Pannonia Inferior*. Lit.: CIL XVI 100; Domić Kunić 1996a, 104-105, no. 7.

***C(aius) Valerius Annaei f(ilius) Dasius, Scirto ex Dalmatia**, veteranus, armorum custos*

Group 3: Roman *tria nomina* + *qui et* + original single name + filiation

16. *Roma*. Lit.: AE 1912, 184; Bodel 1992, 82-84; AE 1992, 101; Domić Kunić 1996b, 63, no. 6.

***M(arcus) Baebius Celer qui et Bato Dazantis f(ilius) Delmata**, mil(es) ex cl(asse) pr(aetoria) Mis(enensi)*

17. *Misenum*. Lit.: CIL X 3468 = 2715; Domić Kunić 1996b, 62, no. 1; Zaninović 2007², 237, no. 5.

***L(ucius) Iallius Valens qui et Licca Bardi f(ilius)**, optio*

18. *Neapolis* Lit.: CIL X 3618; ILS 2901; Domić Kunić 1996b, 63, no. 8; Zaninović 2007², 238, no. 13.

***C(aius) Ravonius Celer qui et Bato Scenobarbi, natione Dalmata**, manipularis*

19. *Puteoli*. Lit.: CIL X 3666; Domić Kunić 1996b, 63, no. 10; Zaninović 2007², 238, no. 10.

***L(ucius) Virridius Celer qui et Temans [---] filius, Delmata**, miles*

Group 4: Roman name (*duo* or *tria nomina*) + expression *natione Dalmata / Delmata*

20. Most probably Italy, unknown find-place. Lit.: Aubert et al. 1988, 92.

***D(ecimus) Annius Rufus natione Dalmati(cus)**, miles*

21. *Roma*. Lit.: CIL VI 3149; Domić Kunić 1996a, 105, no. 9; Zaninović 2007, 237, no. 4;

***Antonius nat(ione) Delm(ata)**, miles; **M(arcus) Dasumius Licinianus**, heres*

22. *Misenum*. Lit.: CIL X 3540 = 2764; Domić Kunić 1996b, 63, no. 9; Zaninović 2007, 237, no. 7.

***M(arcus) Aurelius Fuscus natione Delmata**, manipularis*

23. *Ravenna*. Lit.: CIL XI 349; Domić Kunić 1996a, 108, no. 32; Zaninović 2007, 240, no. 16.

***M(arcus) Aurel(ius) Macedo, natione Delmata**, veteranus, ex suboptione*

24. *Misenum*. Lit.: CIL X 3545; Domić Kunić 1996b, 63, no. 11; Zaninović 2007, 238, no. 8.

***Aurelius Varus natione Dalmata,** de trireme*

25. *Ravenna*. Lit.: CIL XI 44; Domić Kunić 1996a, 107, no. 22; Zaninović 2007, 238, no. 1.

***M(arcus) Barbius Fronto natione Delmata,** de trireme*

26. *Ravenna*. Lit.: CIL XI 6736; Domić Kunić 1996a, 105, no. 11.

***C(aius) Braecius Verus, natione Delmata,** de trireme*

27. *Neapolis*. Lit.: CIL X 3570 = 2780; Domić Kunić 1996b, 64, no. 21; Zaninović 2007, 238, no. 12.

***Cornelius Priscus, natione Dalmata**, veteranus*

28. *Ravenna*. Lit.: CIL XI 53; Domić Kunić 1996a, 107, no. 1; Zaninović 2007, 238, no. 2.

***C(aius) Dasimius Titianus natione Delmata,** de trireme*

29. *Ravenna*, Lit.: CIL XI 54; Domić Kunić 1996a, 104, no. 6; Zaninović 2007, 239, no. 3.

***L(ucius) Dasimius Valens, natione Delmata**, armor(um) cust(os)*

30. Civitavecchia (*Centumcellae*). Lit.: CIL XI 3530; Domić Kunić 1996a, 10-106, no. 13.

[24] The inscriptions are given mostly in abbreviated form, emphasizing only the information related to the topic. Also, the names are given in the nominative case, although some of them on the inscriptions are written in the genitive or dative.

Dasumius [Pap?]us, n(atione) Dalmata, *mil(es) clas(sis) prae(toriae) Raven(natium)*

31. *Roma*. Lit.: CIL VI 3108; Domić Kunić 1996b, 62, no. 4; Zaninović 2007, 237, no. 1.

M(arcus) Domitius Nepos n(atione) Dalmat(a)*, mil(es) cl(assis) pr(aetoriae) Mis(enatium)*

32. Carrara (*Luna*). Lit.: CIL XI 6965; Domić Kunić 1996a, 105, no. 10.

M(arcus) Epidius Celer, natione Dalmata*, mi(les) cl(assis) pr(aetoriae) Ra(vennatium)*

33. Italy, unknown find spot. Lit.: AE 1949, 206.

C(aius) Gentius Valens nation(e) Dalm(ata), *miles ex classe praetoria Misenensi*

34. *Ravenna*. Lit.: CIL XI 68; Domić Kunić 1996a, 107, no. 23; Zaninović 2007, 239, no. 5.

T(itus) Iunius Verecundus nat(ione) Del(mata)*, de trireme*

35. *Ravenna*. Lit.: CIL XI 69; Domić Kunić 1996a, 106, no. 20; Zaninović 2007, 239, no. 4.

Lae[c]anius Larg[us] nati(one) Dalmata*, miles*

36. *Ravenna*. Lit.: CIL XI 71; Domić Kunić 1996a, 104, no. 5; Zaninović 2007, 239, no. 6.

L(ucius) Licinius Maximus natione Dalmat(a)*, tr(ierarcha) class(is) pr(aetoriae) Ravenn(atium);* ***P(ublius) Aelius Quintus,*** *frater*

37. *Neapolis*. Lit.: ILS 2838; Domić Kunić 1996b, 62, no. 5; Zaninović 2007, 238, no. 15.

C(aius) Lysius Tertullus natione Dalmat(a)*, miles classis pr(aetoriae) Misenatium*

38. *Ravenna*. Lit.: CIL XI 76; Domić Kunić 1996a, 108, no. 31; Zaninović 2007, 239, no. 7.

C(aius) Marcius Iustus nat(ione) Delm(ata) castri Planae*, vet(eranus) ex {ad}optione*

39. *Baiae*. Lit.: CIL X 3642 = 2794; Domić Kunić 1996b, 63, no. 7; Zaninović 2007, 238, no. 11.

[Mis]aucius [V]alens na[t(ione)] Delmat(a), *mil(es) class(is) pr(aetoriae) Mis(enatium)*

40. *Misenum*. Lit.: AE 1979, 160.

L(ucius) Oculatius Celer nation(e) Dalmat(a)*, centurio ex classe pr(aetoria) Misenensi*

41. *Neapolis*. Lit.: CIL X 3486 = 2805; Domić Kunić 1996a, 105, no. 8; Zaninović 2007, 237, no.6.

Q(uintus) Panentius Quintianus n(atione) Del(mata) *mil(es) Cl(assis) pr(aetoriae) Ra(vennatium);* ***M(arcus) Plarentius Syrio*** *subher(es)*

42. *Ravenna*. Lit.: CIL XI 85; Domić Kunić 1996a, 106, no. 19; Zaninović 2007, 239, no. 8.

A(ulo) Papi[ri]o Vernaculo, n(atione) Delm(ata)*, Ro(mana) civitate d(onatus);* ***Didius Saturninus*** *f(rater) et heres de trireme*

43. *Roma*. Lit.: CIL VI 3126; Domić Kunić 1996b, 62, no. 3; Zaninović 2007, 237, no. 3.

P(ublius) Plotius Celer n(atione) Dalmata*, mil(es) cl(assis) pr(aetoriae) Mis(enatium)*

44. *Ravenna*. Lit.: AE 1980, 487.

C(aius) Seius Victor, natione Delmat(a), *scrib(a)*

45. *Ravenna*. Lit.: CIL XI 98; Domić Kunić 1996a, 108, no. 30; Zaninović 2007², 239, no. 11.

A(ulus) Taronius Verus nati(one) Delmata *vet(eranus)*

46. *Ravenna*. Lit.: CIL XI 100; Domić Kunić 1996a, 106, no. 16; Zaninović 2007², 239-240, no. 13.

M(arcus) Titius Apulus nat(ione Del(mata)*, de trireme*

47. *Carales*. Lit.: Not. d. Sc. 1886, 104, no. 1.

L(ucius) Turranius Celer nat(ione Dalm(ata)*, mil(es) ex cl(asse) pr(aetoria) Mis(eniensi)*

48. *Puteoli*. Lit.: CIL X 3475; Domić Kunić 1996b, 62, no. 2; Zaninović 2007, 238, no. 9.

C(aius) Valerius Finitus nation(e) Dal(mata)*, optio ex clas(se) pr(aetoria) Misen(atium)*

49. *Ravenna*. Lit.: CIL XI 343; Domić Kunić 1996a, 106, no. 14 a, b, c.

M(arcus) Val(erius) Satur(ninus); M(arcus) Sestius Pude(ns) n(atione) Dal(mata); M(arcus) Val(erius) Capito *fra(ter) h(eres)*

50. *Ravenna*. Lit.: CIL XI 108; Domić Kunić 1996a, 108, no. 33; Zaninović 2007, 239, no. 12.

T(itus) Veturius Florus n(atione) Delmata*, veteranus, scriba*

51. Forli (*Forum Livi*). Lit.: CIL XI 601; Domić Kunić 1996a, 105, no. 12; Zaninović 2007, 240, no. 17.

[---]ius C[atul?]linus nat(ione) Dal(mata)

52. *Ravenna*. Lit.: CIL XI 118; Domić Kunić 1996a, 106, no. 15; Zaninović 2007², 240, no. 15.

[---]cur[---]vius [---] nat(ione) Del(mata)*, de trireme;* ***[Das?] imius [----]ius****, her(es)*

53. *Ravenna*. Lit.: CIL XI 89; Domić Kunić 1996a, 106, no. 18 a, b; Zaninović 2007², 239, no. 9.

[----] n(atione) Del(mata), *de quadrireme;* ***Q(uintus) Plaetorius Bassus*** *arm(orum) cust(os) her(es)*

Group 5: Other Dalmatian ethnics

54. *Ravenna*. Lit.: CIL XI 104; Domić Kunić 1996a, 104, no. 4.

M(arcus) Valerius M(arci) f(ilius) Claud(ia) Colonus Liburn(us) Varvar(ia) *scriba cl(assis) pr(aetoriae) Raven(natium)*

55. *Ravenna*. Lit.: CIL XI 90; Domić Kunić 1996a, 106, 17; Zaninović 2007, 239, no. 10.

M(arcus) Pompeius Seneca, Del(mata)*, de trireme*

56. *Tergeste*. Lit.: CIL V 541; Domić Kunić 1996a, 109, no. 36.

T(itus) Dom[i]tius Gracilis na(tione) Ditio*, de quadrireme;* ***L(ucius) Plaetorius Bassus*** *et* ***L(ucius) Murranius Super****, heredes*

Group 6: Other reasons

57. *Capua*. Lit.: CIL X 3882; Domić Kunić 1996b, 65, no. 26; Zaninović 2007, 238, no. 14.

Aurelius Dalmatius *mil(es) dupl(icarius) clas(s)is pr(a)et(oriae) Misen(a)t(ium)*

58. *Aquileia*. Lit.: CIL V 774; Domić Kunić 1996a, 109, no. 39.

Sex(tus) Baebius Bai f(ilius) *vet(eranus) ex classe, vestiarius*

59. *Neapolis*. Lit.: CIL X 3361; Domić Kunić 1996b, 64, no. 23.

C(aius) Marcius Volson(is) f(ilius) Serg(ia) Maximus *tr(ierarcha)*

60. *Ostia*. Lit.: CIL VI 3125; Domić Kunić 1996b, 65, no. 24; Zaninović 2007, 237, no. 2.

D(ecimus) Plarentius Grat(us)*, (centurio) cl(assis) pr(aetoriae) Mis(enatium)*

61. *Ravenna*. Lit.: CIL XI 23.

T(itus) Plotius Tromentina Rufinus Aequo *vet(eranus) leg(ionis) II Adiut(ricis) P(iae) F(idelis);* ***M(arcus) Plaetorius Valens*** *vet(eranus) h(eres)*

62. Split. Lit.: CIL III 2051.

L(ucius) Sextilius Rufus*, vet(eranus) ex class(e) praetoria Misenatium*

63. *Roma*. Lit.: CIL VI 3161.

[Vi]bius Varro *[mil(es) cl(assis)] pr(aetoriae) Ra(vennatium)*

64. Runići, Travnik. Lit: CIL III 8385; CLE 587; Rendić-Miočević 1987, XXXI, 124-125; Arena / Bitto 2006, 1031.

Ultima clauserunt Parcarum stamina filo / ***Principii*** *miserandi diem, / quem, gloria nisi, / avus adque pater puerum / dedere*

*<p>raeclara / **militia** patruoque suo iun/xere fovendum, / cum primum pulchra lanu/gine sumeret annos, / ſpectantes magnum patri/ae columenque futurum, / heu miseri, gloriari sibi / laetamque senectam. / crudele(m) luctum domui / **Ravenna remisit**, / hoc miseros titulo pro/prium signasse dolorem*

Q. Marcius Turbo and L. Artorius Castus

65. Kuros (*Cyrrhus*). Lit.: Frézouls 1953; AE 1955, 255. PIR² M 249.

***[Q(uintus) Marcius] C(ai) f(ilius) Tro(mentina) Fronto Turbo Publicius Severus domo Epidauro** p(rimus) p(ilus), bis praef(ectus) vehic(ulorum), trib(unus) coh(ortis) VII vigil(um), trib(unus) eq(uitum) sin[g(ularium)] Aug(usti), trib(unus) pr[ae]t(orianorum), proc(urator) ludi magni, **praef(ectus) class[is] pr(aetoriae) Misenensis**; P(ublius) Va[le]rius P(ubli) f(ilius) Qui[r(ina) Va]lens*

66. Stobreč (*Epetium*). Lit.: CIL III 1919; CIL III 8513; CIL III 12813; Medini 1980, 363-444.

***L(ucius) Artori[us Ca]stus**, centurio leg(ionis) III Gallicae, item [centurio le]g(ionis) VI Ferratae, item centurio leg(ionis) II Adi[utr(icis), i]tem centurio leg(ionis) V M[a]c(edonicae), item p(rimus) p(ilus) eiusdem, **praepositus classis Misenatium**, [pr]aef<e>(ctus) leg(ionis) VI Victricis, du<x> legg(ionum) [duaru]m Britan(n)ic{imi}arum adversus Arme[nio]s, proc(urator) centenari<us> provinciae Li[burniae iure] gladi(i)*

Bibliography

Absil, M. 1995. La carrière antérieure (principalement militaire) des préfets du prétoire pendant les deux premières siècles de l'Empire. In: Le Bohec, Y. (ed.). La hiérarchie (Rangordnung) de l'armée romaine sous le Haut-Empire. Paris. 167-174.

AE = L'Année épigraphique. Paris.

Alföldy, G. 1979. Marcius Turbo, Septicius Clarus und die Historia Augusta. – Zeitschrift für Papyrologie und Epigraphik 36, 233-253.

Alföldy, G. 1969. Die Personennamen in der römischen Provinz Dalmatia. Heidelberg.

Alföldy, G. 1968. Senatoren in der römischen Provinz Dalmatia. – Epigraphische Studien 8, 99-144.

Arena, M. / Bitto, I. 2006. Il motivo della morte in terra straniera nei CLE bücheleriani. – L'Africa romana XVI/2, 1021-1042.

Bodel, J. 1992. Thirteen Latin funerary inscriptions at Harvard University. – American Journal of Archaeology 96/1, 71-100.

Brusin, G. 1970. Epigrafi aquilesi di soldati specialmente della marina militare. In: Adriatica praehistorica et antiqua – miscellanea Gregorio Novak dicata. Zagreb. 563-572.

*Cambi, N.*1980. Stela pomorskog centuriona Likeja u Osoru. – Pomorstvo Lošinja i Cresa, Otočki ljetopis Cres-Lošinj 3, 151-155.

Casson, L. 1971. Ships and seamanship in the ancient world. New Jersey.

CIL = Corpus inscriptionum Latinarum. Berlin.

Demicheli, D. 2012. Salonitani extra fines Dalmatiae (I), Svjedoci podrijetlom iz Salone na vojničkim diplomama. – Tusculum 5, 47-57.

Domić Kunić, A. 1996a. Classis praetoria Ravennatium with special reflection on sailors that origin from Dalmatia and Pannonia. – Živa antika 46, 95-110.

Domić Kunić, A. 1996b. Classis praetoria Misenatium s posebnim obzirom na mornare podrijetlom iz Dalmacije i Panonije. – Vjesnik Arheološkog muzeja u Zagrebu 28/29, 39-72.

Farnum, J. H. 2005. The positioning of the Roman imperial legions (= BAR International series 1458). Oxford.

Forni, G. 1992a. Dalmatia e flotta romana di Ravenna. In: Esercito e marina di Roma antica. Raccolta di contributi da G. Forni (= Mavors 5). Stuttgart. 317-323.

Forni, G. 1992b. I diplomi militari dei classiari delle flotte pretorie (inclusi quelli dei Classiari-legionari). In: Esercito e marina di Roma antica. Raccolta di contributi da G. Forni (= Mavors 5). Stuttgart. 419-451.

Frézouls, E. 1953. Inscription de Cyrrhus relative à Q. Marcius Turbo. – Syria 30/3-4, 246-278.

Gabričević, B. 1968. L'ascia sui monumenti di classe. – Atti CISAC, 283-288.

Ghislanzoni, E. 1931. Montegrotto, scoperte di edifici romani e di una iscrizione funeraria. – Notizie degli scavi 7, 9-13.

Gilliam, F. 1956. The veterans and praefectus castrorum of the II Traiana in A. D. 157. – American Journal of Philology 77/4, 359-375.

Hist. Aug. = Scriptores Historiae Augustae. Historia Augusta, with translation and commentary by Daniel Nečas Hraste. Zagreb, 1994.

ILJug = Inscriptiones Latinae quae in Iugoslavia repertae et editae sunt. Ljubljana, 1963-1986.

ILS = Dessau, H. (ed.). Inscriptiones Latinae selectae. Berlin, 1892-1916.

Kajanto, I. 1967. Supernomina. A study in Latin epigraphy (= Commentationes humanarum litterarum 36/2). Helsinki.

Kurilić, A. 2012. Roman naval bases at the Eastern Adriatic. – Histria antiqua 21, 113-122.

Lettich, G. 2003. Itinerari epigrafici aquilesi. Guida alle epigrafi esposte nel Museo Archeologico Nazionale di Aquileia. Trieste.

Medini, J. 1980. Provincia Liburnia. – Diadora 9, 363-453.

OPEL = Onomasticon provinciarum Europae Latinarum. Budapest-Wien.

Panciera, S. 2006a. Liburna (navis). In: Epigrafi, epigrafia, epigrafisti. Scritti vari editi e inediti (1956-2005) con note complementari e indici (= Vetera. Ricerche di storia epigrafia e antichità 16). Roma. 1257-1262.

Panciera, S. 2006b. Liburna. Rassegna delle fonti, caratteristiche della nave, accezioni del termine. In: Epigrafi, epigrafia, epigrafisti. Scritti vari editi e inediti (1956-2005) con note complementari e indici (= Vetera. Ricerche di storia epigrafia e antichità 16). Roma. 1243-1256.

Piso, I. 2004. Der Prätorianerpräfekt Q. Marcius Turbo und seine Söhne. – Zeitschrift für Papyrologie und Epigraphik 150, 270-280.

Reddé, M. 1986. Mare nostrum. Les infrastructures le dispositif et l'histoire de la marine militaire sous l'empire romain. Paris.

Rendić-Miočević, D. 1989a. Uz jedan novi izvor o kultu ilirskog boga Medaura. In: Iliri i antički svijet. Split. 523-530.

Rendić-Miočević, D. 1989b. Novi epigrafski prilozi ilirskoj onomastici s teritorije Delmata. In: Iliri i antički svijet. Split. 835-842.

Rendić-Miočević, D. 1987. Carmina epigraphica. Split.

RIB = Roman inscriptions of Britain. London.

Sallomies, O. 1996. Observations on some names of sailors serving in the fleets at Misenum and Ravenna. – Arctos 30, 167-186.

Spaul, J. 2002, Classes imperii Romani. An epigraphic examination of the men of the Imperial Roman navy. Andover.

Starr, C. G. 1975. The Roman Imperial Navy: 31 B.C. – A.D. 324. Westport, Connecticut.

Syme, R. 1980. Guard prefects of Trajan and Hadrian. – The Journal of Roman studies 70, 64-80.

Tac. = Tacit (P. Cornelius Tacitus). Historiae, with translation and commentary by Josip Miklić. Zagreb, 1987.

Vegetius = Flavius Vegetius Renatus. Epitome rei militaris, with translation and commentary by T. S. Brnardić. Zagreb, 2002.

Zaninović, M. 2007. Ilirsko pleme Delmati. Šibenik.

Zaninović, M. 2002. Mornarička postaja u Saloni i ispostava u Phariji. In: Zbornik Tomislava Marasovića. Split. 67-79.

Dino Demicheli, PhD
University of Zagreb
Faculty of Humanities and Social Sciences
Department of Archaeology
I. Lučića 3
HR-10000 Zagreb
ddemiche@ffzg.hr

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Roman Military Inscriptions from *Siscia*: An Overview

Ivan RADMAN-LIVAJA / Vlatka VUKELIĆ

The inscriptions left by soldiers who served in Siscia and by veterans who settled there, as well as the inscriptions commissioned by the soldiers who served elsewhere but originated from that city may not be exceptionally numerous, especially considering the size and importance of that large Pannonian town, but this epigraphic record is nevertheless far from insignificant.

While literary sources and archaeological finds certainly give an insight into the military history of Siscia, there are still many gaps left, some of which can be filled thanks to epigraphy. In recent years, several publications have dealt in more or less detail with the presence of the Roman army in Siscia (Radman-Livaja 2004; Radman-Livaja 2010, cf. the bibliographical references). Understandably, epigraphic finds have been discussed in those overviews, but the focus was not on the epigraphic record which, in our opinion, deserves a more thorough presentation. This paper might therefore be considered as a preliminary step before the publication of a comprehensive catalogue of inscriptions.

The Roman military inscriptions related to Siscia can be broadly divided into three different categories, as pointed out above:

- the epigraphic record of active soldiers stationed in Siscia, consisting mostly of votive inscriptions, but also of funerary inscriptions, as well as of some graffiti incised on military equipment
- inscriptions, mostly funerary, left by the veterans who retired to Siscia after their military career
- inscriptions from all over the Empire related to the soldiers and veterans originating from Siscia

Each of these categories has its importance as far as the military and social history of the Roman Empire in general – and the city of Siscia in particular – are concerned, but they pertain to different aspects of those segments of historical research, despite many common points.

Particularly, inscriptions left by active soldiers can give us an important insight about the army units stationed in Siscia, while this does not need to be the case with veterans' inscriptions since a veteran's tombstone cannot be considered as a reliable evidence for the presence of his former unit in the vicinity of his last residence. The inscriptions left by veterans tell us more in terms of social history: a town which attracts veterans wishing to start a new life and a new career has presumably something to offer as far as economic prospects and life standards are concerned. Obviously, there is nothing odd about veterans settling in their former garrison place, but as far as Siscia is concerned, we lack much epigraphic data about the veterans settling there after having served in that city. It is actually quite likely for a former *beneficiarius* like *Marcus Aurelius Glabrio*, but nothing points with certainty to an active duty stay in Siscia as far as other veterans are concerned. The sailor *Marcus Minicius Saturninus* must have spent his career in Italy, according to his funerary inscription, and we may presume that he settled in Siscia after his retirement, perhaps returning to his homeland. The Cilician *Sapia* likely did not return home after his service: his retirement took place in *Moesia Superior* and we can presume that he settled afterwards in the city where his diploma has been found, i.e. Siscia. We can only conjecture why: was it because of a local wife or because of friends or relatives already settled there? He might perhaps have been acquainted with the town since his military days? However, there is no proof that his cohort was ever garrisoned in Siscia, even for a very short period of time. Nevertheless, could the *cohors I Antiochensium* have spent few years in Pannonia in

the early Flavian period, after coming from the East and before being transferred to Moesia? Wagner and Kraft did not exclude that possibility, but the idea was rejected by other scholars (Wagner 1938, 86-87; Kraft 1951, 166; Mócsy 1962, 621; Beneš 1978, 16; Spaul 2000, 424; Lőrincz 2001, 46). The available epigraphic record does not give any data for the *cohors I Antiochensium* before the Flavian period and since it certainly was in Moesia by AD 75 (RMD 2), its hypothetic garrisoning in Pannonia, if it ever took place, must have been very short, unless we presume that the unit was founded much earlier. Nonetheless, this claim cannot be substantiated with any serious argument for the time being. Actually, *Sapia* might have been among the first recruits of that cohort and since he left the army in AD 100, he likely spent his entire career in Moesia.

Literary sources emphasize the importance of the Siscia garrison in the Augustan period, and there are few doubts about its importance for most of the Julio-Claudian period, but the epigraphic record is not of much help for the early 1st century AD. Siscia almost certainly kept its garrison even after Bato's insurrection was suppressed, and the IX legion *Hispana* probably formed the mainstay of the garrison until AD 42 or 45 at the latest, but this is not recorded on inscriptions (Šašel 1974, 734; Radman-Livaja 2010, 190, cf. the corresponding bibliographical references). While some of the graffiti found on the military equipment could be dated to the Julio-Claudian period, no army units are explicitly mentioned. The helmet found in the Sava river near Sisak likely belonged to a soldier garrisoned in Siscia at that time, but there is not much to be said about the unit in which *Varro* and his centurion *Luccius* served. The nomen *Luccius* is far from being frequent, with most cases encountered in Italy and *Gallia Narbonensis* (Schulze 1904, 424; Solin / Salomies 1994, 107; Lőrincz 2000, 34). The cognomen or single name *Varro* is admitedly more common, but outside of Italy mostly among the indigenous population of Dalmatia, far less in other provinces (Krahe 1929, 123; Mayer 1957, 354; Kajanto 1965, 69, 118, 264; Alföldy 1969, 321-322; Mócsy 1983, 301; Solin / Salomies 1994, 418; Lőrincz 2002, 148). This helmet could have belonged to a legionary, i. e. a Roman citizen, but it could have just as likely been used by an auxiliary soldier. The fragmented curb bits found in the Kupa river can be ascribed with far more certainty to a



Fig. 1. CIL III 10854, Archaeological Museum in Zagreb, photograph by I. Krajcar

Roman citizen, *Veturius Vivus*. His *nomen gentile*, *Vet(t)urius*, while not widespread, is nevertheless a well known name, more particularly common among Italians (Schulze 1904, 259, 380, 411, 428, 432, 448; Solin / Salomies 1994, 206; Lőrincz 2002, 164). His cognomen, *Vivus*, is however seldom encountered, being particularly rare outside of Italy (Kajanto 1965, 274; Solin / Salomies 1994, 425). It is quite likely that the man in question was an Italian, presumably a legionary horseman, perhaps even a commanding officer of an auxiliary unit,[1] but we

[1] At least two *Veturii* are known to have been equestrian officers during the Julio-Claudian period, *L. Veturius Homuncio* and *Q. Veturius Pexsus*, cf. ME V, 85, 86; Demougin 1992, 170, 327.



Fig. 2. CIL III 10839, Archaeological Museum in Zagreb, photograph by I. Radman-Livaja

have no clues whatsoever about the exact identity of his unit. Since the chronological frame of such bits is quite large, i.e. they were in use at least till the end of the 2nd century AD, if not longer, one cannot date the Sisak specimen to the Julio-Claudian period with certainty.

The soldiers from two Pannonian legions are mentioned on Siscia's funerary inscriptions, namely the centurion *Tiberius Claudius Pontius*, of the *legio XV Apollinaris* (1st century AD) and the *corniculariusCaius Sempronius Severus,* of the *legio XIV Gemina* (late 2nd – first half of the 3rd century AD). Since both of them died while on active duty, their burial in Siscia could imply that they were stationed there at the time of their death.

The dating of *Tiberius Claudius Pontius*' funerary inscription to the 1st century AD is quite likely but since the monument has been lost, it is rather difficult to conjecture about a more precise dating. Considering the young age of the deceased officer, he most probably had an affluent background which gave him the opportunity to start his military career as an officer, although not of equestrian rank. His name points to a peregrine background of the family which must have earned the Roman citizenship under Claudius or, less likely, under Nero. Presumably, it was his father who received the citizenship during the rule of Claudius and took therefore the emperor's *praenomen* and *gentilicium*. *Pontius*, probably as the eldest son, was given the same *praenomen*. The funerary stone could consequently not have been erected much before the mid-1st century AD, and certainly not before AD 41. It is admittedly rather unlikely that *Tiberius Claudius Pontius* became a Roman citizen and officer at the very beginning of Claudius' reign and passed away soon thereafter. We can therefore assume that his death occurred somewhat later, perhaps already during Claudius' reign but rather towards its end, more likely in Nero's time or during the Flavian period. However, since there is no way to date the monument by its typological and stylistic characteristics, we have to rely on the 19th century transcription of the inscription and remain cautious about a narrower chronological frame. Despite Mócsy's claim, it is far from being certain that the young man was of Pannonian origin, perhaps even a native of Siscia. It is however not impossible, as it would certainly provide a good reason why he was buried there at a time when his legion must already have been garrisoned in *Carnuntum* or campaigning in the East (Wheeler 2000, 271-282; Mosser 2003, 15-28, 138-157). Although this monument might represent a clue about the garrisoning place of the *XV Apollinaris* before its transfer to *Carnuntum* in the early Claudian period, i.e. somewhere between AD 39 and 49, it can hardly be considered as conclusive proof. Undeniably, this legion might have spent some time in Siscia: it is rather likely for the Augustan period, not impossible as far as the early Tiberian period is concerned but quite conjectural for the early Claudian period (cf. Radman-Livaja 2012, 162-165, 169-170 and the corresponding bibliography). The last assumption would truly provide a plausible story for *Pontius*'s short military career: the son of a prominent and well-off local family, he enlisted as an officer while the *XV Apollinaris* was stationed in his home town, presumably Siscia. However he met his death before the legion left for *Carnuntum*. The story is nevertheless rather far-fetched and would imply that it all happened before the mid-1st century AD at the latest. We would therefore be more inclined to believe that *Tiberius Claudius Pontius*, as a native of Siscia, was buried there after meeting his death somewhere else during the second half of the 1st century AD. Another possibility would be that the young centurion had no family ties whatsoever in Siscia but died

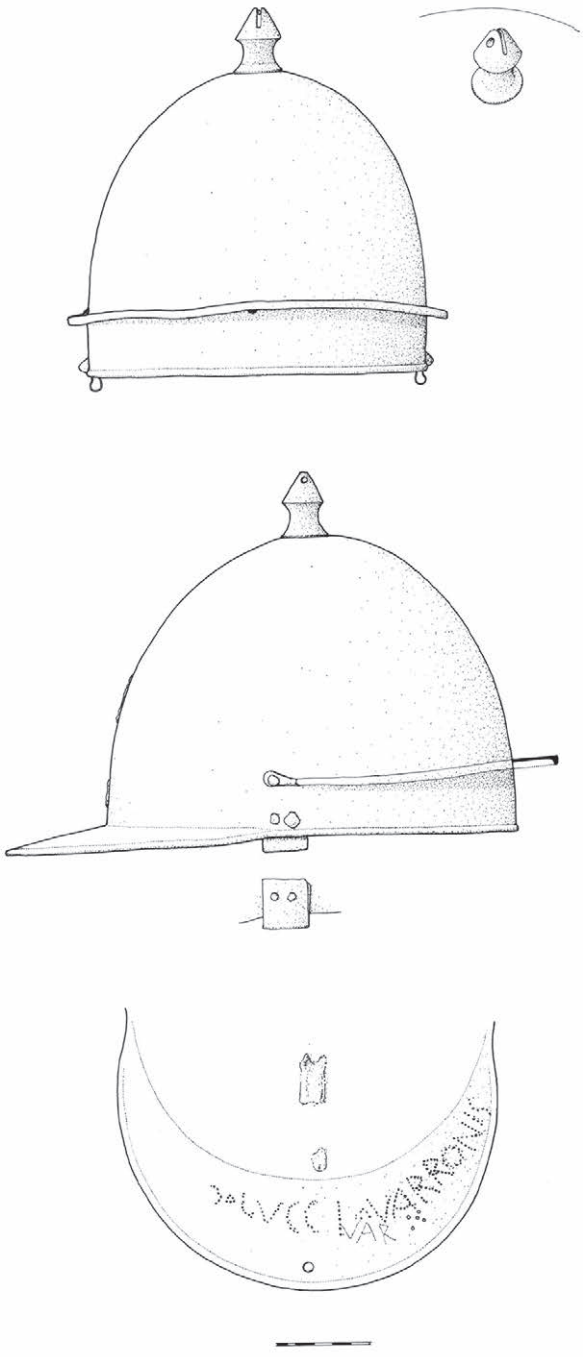


Fig. 3. Haguenau type helmet, Archaeological Museum in Zagreb, drawing by M. Galić

there during an official mission, also in the second half of the 1st century AD.

Being a *cornicularius*, *Caius Sempronius Severus* could have been in Siscia on a detached assignment, since nothing points to a presence of his legion in Siscia during the late 2nd or 3rd century AD. At that time, the permanent camp of the *XIV Gemina* was *Carnuntum*, although it was regularly on campaign in distant areas, most notably in the East (Franke 2000, 201-202). As a matter of fact, he could as well

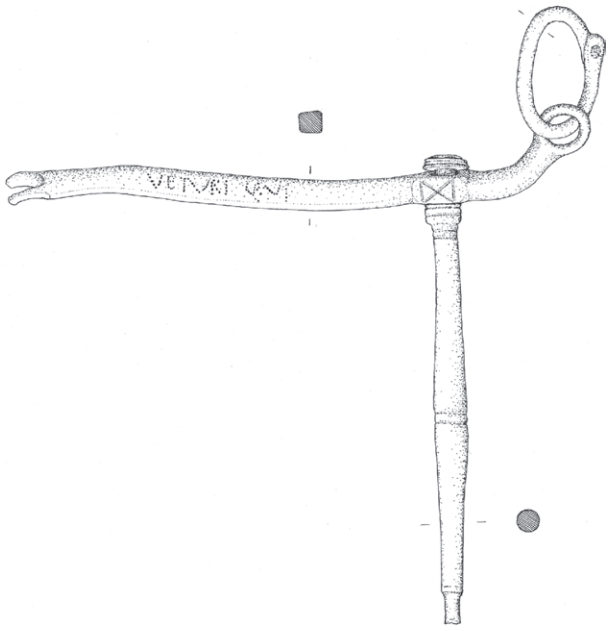


Fig. 4. Curb bits, Archaeological Museum in Zagreb, drawing by M. Galić

have been buried in Siscia because of purely personal, i.e. family reasons.

Siscia presumably preserved a diminished military garrison after the departure of the legionaries, consisting almost certainly of auxiliary units, but we do not know precisely which units those were. From *Mucius Hegetor*'s tombstone we suppose that the *cohors XXXII voluntariorum civium Romanorum* was stationed in the city for some time during the 1st century AD. It was perhaps present in Siscia already during the stay of the legion, presumably the IX, and it could have remained in the city until Vespasian's time, when it was transferred to Upper Germania (Radman-Livaja 2012, 171).

It would seem that from approximately the end of the 1st century AD no permanent garrison of any substance was stationed in the city for quite a long time. In the lack of evidence on the existence of a garrison in the post-Flavian period, it seems that the military presence was limited to the *beneficiarii*, as evidenced by the rather rich epigraphic record (Nelis-Clément 2000, 49-50, 52, 124, 162, 183-186, 194-196, 255), and a squadron of riverine navy, which was in all likelihood stationed in the city over a longer period of time, even though Siscia's importance as a navy base was considerably diminished from the moment the centre of gravity of the operations shifted to the Danube (cf. Radman-Livaja 2012, 180, and the corresponding bibliography). One must admit however that the presence of naval personnel has not been corroborated with epigraphic finds. As

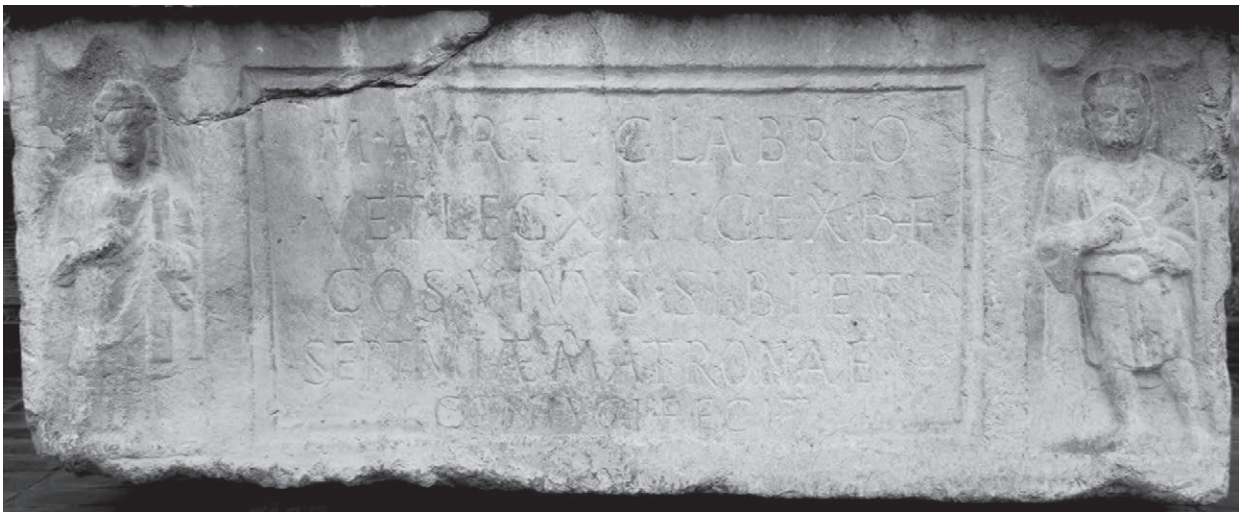


Fig. 5. CIL III 3970, Archaeological Museum in Zagreb, photograph by I. Krajcar

already pointed out, the epigraphic record certainly confirms the presence of *beneficiarii* in the 2nd and 3rd century AD, but there is almost no data about other active duty soldiers in that period, with the exception of the cornicularius *Caius Sempronius Severus*.

Nevertheless, it is not excluded that occasional legionary vexillations were also sometimes accommodated in the city, perhaps during Domitian's wars on the Danube or during the Marcomannic wars (Radman-Livaja 2010, 194-195).

Siscia must have gained considerably in importance during Gallienus' reign, after that emperor established a mint in the city, in all probability in 262. At this moment at the latest, the garrisoning of troops in Siscia became again a necessity, unless they had already been present in the city in the first place. Taking into consideration that the *Notitia Dignitatum* mentions *cohors III Alpinorum* as part of the city garrison, there is no doubt that the army was permanently stationed at Siscia in the 4th century AD but we presume that a garrison must have been in the city from the moment the mint was established, in order to provide security to this institution of immense strategic significance (Radman-Livaja 2010, 198). Nonetheless, the epigraphic record for that period is still lacking.

The last category of inscriptions covered by this overview is obviously not very informative as far as Siscia's garrison is concerned, but it certainly gives an interesting insight both in the interest held by Siscia's natives in a military career and in the extent of Romanisation. As shown by the inscriptions, the inhabitants of Siscia and its vicinity were joining the army already before the Flavian period, serving both in the legions and the auxiliary units, and by the Severan period their presence in the Praetorian Guard was definitely not uncommon.

A thorough study of these inscriptions would certainly be useful but the limited scope of this paper does not allow us to go into more details. Thus, we consider this short overview to be just an introduction to this subject since it is our aim to write a more comprehensive study with an extensive bibliography, hopefully to be published soon.

List of Soldiers and Veterans

Serving soldiers

- CIL III 10853; Mócsy 1959, 57/1; Mosser 2003, 261, Kat. 188 – *Ti(berius) Claudius Pontius, centurio legionis XV Apollinaris*
- CIL III 10854; Brunšmid 1908/1909, VHAD 10, 154, cat. 346; AIJ 567; Mócsy 1959, 57/3; **Fig. 1** – *M(arcus) Mucius Hegetor, medicus cohortis XXXII voluntariorum*
- CIL III 10855 (=3972); Brunšmid 1908/1909, VHAD 10, 158, cat. 350; AIJ 568; Barkóczi 1964, 29/48 – *C(aius) Sempro(nius) Severus, cornicularius legionis XIIII Geminae*
- CIL III 3942; AIJ 527; Mócsy 1959, 57/12; CBI 308 – *Q(uintus) Iulius Moderatus beneficiarius procuratoris*
- CIL III 3957; Barkóczi 1964, 29/10; CBI 302 – *Aurel(ius) Quint(illus ?) beneficiarius consularis*
- CIL III 10843; Barkóczi 1964, 29/43; CBI 303 – *C(aius) Apul(ius) Sabinus, M(arcus) I<u>n(ius) Dexter, beneficiarii consularis*
- CIL III 3955; Barkóczi 1964, 29/9; CBI 304 – *L(ucius) Virilius Pupus, beneficiarius consularis*
- CIL III 3948; Barkóczi 1964, 29/5; CBI 305 – *T(itus) Flavius Candidus beneficiarius consularis*

• CIL III 15180; Brunšmid 1898, VHAD 3, 193-194, fig. 93; AE 1901, 234; Barkóczi 1964, 29/58; CBI 306 – *L(ucius) Dom<i>tius Constitutus, miles legionis X Geminae, beneficiarius consularis*

• CIL III 3947; Barkóczi 1964, 29/4; CBI 307 – *Ti(berius) Cl[a]ud(ius) [– - –]atu[s], [b(ene)-f(iciarius)] proc(uratoris)*

• CIL III 10842; Brunšmid 1906/1907, VHAD 9, 97-98, cat. 211; AIJ 537; Barkóczi 1964, 29/42; CBI 309 – *C(aius) Veratius Hispanus, T(itus) Fl(avius) Cam[p]ester, b(ene)f(iciarii) pr[– - –]*

• CIL III 3949; Brunšmid 1906/1907, VHAD 9, 95, cat. 207; AIJ 533; Barkóczi 1964, 29/6; CBI 310 – *C(aius) Iulius Flav(us), beneficiarius consularis*

• CIL III 15181; Brunšmid 1901, VHAD 5, 122-124, fig. 8; Brunšmid 1906/1907, VHAD 9, 131-132, cat. 265; AIJ 552; Barkóczi 1964, 29/60; CBI 311 – *M(arcus) Aur(elius) D[iog]ene[s], (miles) legionis XIIII G(eminae) [[Sever(ianae)]], beneficiarius consularis*

• CIL III 10839 (= 3950); Ljubić 1879, VHAD 1, 66; Brunšmid 1906/1907, VHAD 9, 95-96, cat. 208; AIJ 534; Barkóczi 1964, 29/39; CBI 312; **Fig. 2** – *C(aius) Livius Moderatus, beneficiarius consularis*

• Hoffiller 1937, 30-31; MacMullen 1960, 35, nr. 33; Radman-Livaja 2004, 68-71, cat. 126; **Fig. 3** – *(centuria) Lucci(i) Varronis* (Haguenau type helmet)

• Radman-Livaja 2004, 102, cat. 388; **Fig. 4** – *Veturi(i) Vivi* (curb bits)

• Radman-Livaja 2012 (forthcoming) – *(centuria) Marci P[ ]* (mattock)

Veterans

• CIL III 3971; Mócsy 1959, 57/2 – *M(arcus) Minicius Saturninus, veteranus ex optione Classis Praetoriae Ravennatis*

• CIL XVI 46; Mócsy 1959, 57/4 – *Sapia Sarmosi f(ilius), domo Anazarbo, ex pedite cohortis I Antiochensium*

• CIL XVI 103; Mócsy 1959 57/23 – *[– - –]tus Sarabae f(ilius)*

• CIL III 3970; Brunšmid 1908/1909, VHAD 10, 151-152, cat. 343; AIJ 566; Barkóczi 1964, 29/17; CBI 313; **Fig. 5** – *M(arcus) Aurel(ius) Glabrio, veteranus legionis XIIII Geminae, ex beneficiario consularis*

Soldiers and veterans native to Siscia

• CIL VI 3180; Mócsy 1959, 57/5; Dobó 1975, 116 – *Aelius Lucius, eques singularis Augusti*

• CIL III 14214[9]; Mócsy 1959, 57/7; Dobó 1975, 192 – *C. ? Art(orius) Saturninus, ex decurione, veteranus cohortis I Lusitanorum*

• CIL VIII 9761; Mócsy 1959, 57/9; Dobó 1975, 180 – *P(ublius) Crescentinius Saturninus, miles legionis XI Claudiae* (*X Geminae* in the older bibliography)

• CIL VI 2689; Mócsy 1959, 57/20; Dobó 1975, 63 – *C(aius) Valerius C. f. Fl. Spectatus, miles cohortis VIII praetoriae*

• EE IV 903; CIL VI 32680; Barkóczi 1964, 29/68; Dobó 1975, 61 – *M(arcus) Aurelius Dasius, miles cohortis V praetoriae piae vindicis*

• CIL VI 2644; Barkóczi 1964, 29/69; Dobó 1975, 62 – *Sex(tus) Iulius Sex. F. Augurinus, beneficiarius praefecti praetorio cohortis VII praetoriae*

• CIL VI 2689; Dobó 1975, 63 – *C(aius) Valerius C. f. Spectatus, miles cohortis VIII praetoriae*

• EE IV 891; CIL VI 37184 (32523); Barkóczi 1964, 29/70; Dobó 1975, 63a – *T(itus) Flavius T. f. Provincialis* (praetorian soldier)

• CIL VI 32533 (2385); Dobó 1975, 63b – *[– - –] – lus* (praetorian soldier)

• CIL VI 32536; Barkóczi 1964, 29/71; Dobó 1975, 63c – *[- – -]nati Pr[oc]uleia(nus), L(ucius) Septimius Lucanus* (praetorian soldiers)

• EE IV 894; CIL VI 32624; Barkóczi 1964, 29/72; Dobó 1975, 63d – *M(arcus) Aurelius M. f. Valentinus, M(arcus) Aurelius M. f. Firm[u]s* (praetorian soldiers)

• CIL VI 32627; Barkóczi 1964, 29/73; Dobó 1975, 63e – *evocatus M(arcus) Aurelius Verus, M(arcus) Aurelius Licinius* (praetorian soldiers)

• CIL VI 32628; Barkóczi 1964, 29/74; Dobó 1975, 63f – *L(ucius) Marius L. f. Candidus, M(arcus) Aurelius M. f. Nero* (praetorian soldiers)

• CIL VI 32640; Barkóczi 1964, 29/75; Dobó 1975, 63g – *Aurelius M. f. Tato* (praetorian soldier)

• CIL VI 2388; Barkóczi 1964, 29/76; Dobó 1975, 63h – *[– - - -]i Restitut[us]* (praetorian soldier)

• CIL XIII 8035; Barkóczi 1964, 29/65; Dobó 1975, 157 – *C(aius) Publicius C. f. Priscilianus, primipilus legionis Minerviae [Alexandrianae] piae felicis*

• CIL VIII 2586; Barkóczi 1964, 29/77; Dobó 1975, 165 – *T(itus) Aelius Victorinus beneficiarius consularis (miles legionis III Augustae)*

• AE 1964, 14; Dobó 1975, 161 – *[Val]entinus, Glauc[us ?], [Marc]ellin(us) (milites legionis II Parthicae ?)*

• AE 1965, 35; Dobó 1975, 189 – *Ael(ius) Propi(n)cus, librarius [co(n)]s(ularis), [… mil]es leg(ionis) X[III G(eminae)]*

• CIL VI 32914; Dobó 1975, 190 – *[– - –] – nian[u]s* (soldier of an unknown unit)

• AE 1909, 235 = 1938 n. 13; Dobó 1975, 219 – *milites vexillationis cohortium Pannoniae superioris, cives Sisciani et Varciani et Latobici*

• ILJ 3117 – *L(ucius) Valerius L. f. Verecundus, veteranus legionis XV Apollinaris*

Bibliography

AE = Année épigraphique

AIJ = Antike Inschriften aus Jugoslavien, Heft I, Noricum und Pannonia Superior. Bearbeitet von Viktor Hoffiller und Baldwin Saria. Zagreb 1938.

CBI = Corpus der griechischen und lateinischen Beneficiarier-Inschriften des römischen Reiches. Stuttgart 1990.

CIL = Corpus inscriptionum Latinarum

ILJ = Šašel, J. / Šašel, A. (eds.). Inscriptiones Latinae quae in Iugoslavia inter annos MCMXL et MCMLX repertae et editae sunt (= Situla 5) [n. 1–451]. Ljubljana 1963; Inscriptiones Latinae quae in Iugoslavia inter annos MCMLX et MCMLXX repertae et editae sunt (= Situla 19) [n. 452–1222]. Ljubljana, 1978; Inscriptiones Latinae quae in Iugoslavia inter annos MCMII et MCMXL repertae et editae sunt (= Situla 25) [n. 1223–3128]. Ljubljana 1986.

ME = Devijver, H. Prosopographia militiarum equestrium quae fuerunt ab Augusto ad Gallienum, Leuven, 1976-1980.

RMD = Roxan, M. M. Roman Military Diplomas 1954-1977. London 1978.

Alföldy, G. 1969. Die Personnamen in der römischen Provinz Dalmatia. Heidelberg.

Barkóczi, L. 1964. The Population of Pannonia from Marcus Aurelius to Diocletian. – Acta Archaeologica Academiae Scientiarum Hungaricae 16, 257-356.

Beneš, J. 1978. Auxilia Romana in Moesia atque in Dacia. Prague.

Brunšmid, J. 1908/1909. Kameni spomenici hrvatskoga narodnoga muzeja u Zagrebu. – Vjesnik Hrvatskog arheološkog društva 10, 149-222.

Brunšmid, J. 1906/1907. Kameni spomenici hrvatskoga narodnoga muzeja u Zagrebu. – Vjesnik Hrvatskog arheološkog društva 9, 82-184.

Brunšmid, J. 1901. Arheološke bilješke iz Dalmacije i Panonije IV. – Vjesnik Hrvatskog arheološkog društva 5, 87-168.

Brunšmid, J. 1898. Arheološke bilješke iz Dalmacije i Panonije II. – Vjesnik Hrvatskog arheološkog društva 3, 150-205.

Demougin, S. 1992. Prosopographie des chevaliers romains Julio-claudiens (= Collection de l'Ecole française de Rome 153). Rome.

Dobó, A. 1975. Inscriptiones extra fines Pannoniae Daciaeque repertae ad res earundem provinciarum pertinentes, editio quarta aucta et emendata. Budapest.

Franke, T. 2000. Legio XIV Gemina. In: Le Bohec, Y. / Wolff, C. (eds.). Les légions de Rome sous le Haut-Empire. Lyon. 191-202.

Hoffiller, V. 1937. Nove rimske vojničke kacige. – Časopis za zgodovino in narodnopisje, "Kovačičev Zbornik", Letnik 32, snopič 1-4, 29-32.

Kajanto, I. 1965. The Latin Cognomina. Rome.

Kraft, K. 1951. Zur Rekrutierung der Alen und Kohorten an Rhein und Donau. Bern.

Krahe, H. 1929. Lexikon altillyrischen Personennamen. Heidelberg.

Lőrincz, B. 2002. Onomasticon provinciarum Europae Latinarum, Vol. IV: QVADRATIA – ZVRES. Wien.

Lőrincz, B. 2001. Die römischen Hilfstruppen in Pannonien während der Prinzipatszeit. Wien.

Lőrincz, B. 2000. Onomasticon provinciarum Europae Latinarum, Vol. III: LABAREVS – PYTHEA. Wien.

MacMullen, R. 1960. Inscriptions on Arms and the Supply of Arms in the Roman Empire. – American Journal of Archaeology 64/1, 23-40.

Mayer, A. 1957. Die Sprache der alten Illyrier, Band I: Einleitung, Wörterbuch der illyrischen Sprachreste (= Schriften der Balkankommission, Linguistische Abteilung XV). Wien.

Mócsy, A. 1983. Nomenclator provinciarum Europae Latinarum et Galliae Cisalpinae (= Dissertationes Pannonicae III, 1). Budapest.

Mócsy, A. 1962. Pannonia. In: Realencyclopädie der classischen Altertumswissenschaft, Supplementband IX, 516-776.

Mócsy, A. 1959. Die Bevölkerung von Pannonien bis zu den Markomannenkriegen. Budapest.

Mosser, M. 2003. Die Steindenkmäler der legio XV Apollinaris. Wien.

Nélis-Clément, J. 2000. Les beneficiarii: militaires et administrateurs au service de l'Empire (I^{er} s. a. C. – VI^{e} s. p. C.). Bordeaux.

Radman-Livaja, I. 2012. The Roman Army. In: Migotti, B. (ed.). The Archaeology of Roman Southern Pannonia, The State of Research and Selected Problems in the Croatian Part of the Roman Province of Pannonia (= BAR International Series 2393). Oxford. 159-189.

Radman-Livaja, I. 2010. Siscia as a Roman Military Stronghold. In: Radman-Livaja, I. (ed.). Finds of the Roman Military Equipment in Croatia. Exhibition catalogue. Zagreb. 179-201.

Radman-Livaja, I. 2004. Militaria Sisciensia, Nalazi rimske vojne opreme iz Siska u fundusu Arheološkog muzeja u Zagrebu, Katalozi i monografije Arheološkog muzeja u Zagrebu I. Zagreb.

Radman-Livaja. I. forthcoming. An Inscribed Roman Mattock from Siscia. – Vjesnik Arheološkog muzeja u Zagrebu 45.

Schulze, W. 1904. Zur Geschichte lateinischer Eigennamen (= Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen, Phil.-hist. Klasse, 5, 5).

Solin, H. / Salomies, O. 1994. Repertorium nominum gentilium et cognominum Latinorum, Editio nova addendis corrigendisque augmentata. Hildesheim / Zürich / New York.

Spaul, J. E. H. 2000. Cohors^{2} (= BAR International Series 841). Oxford.

Šašel, J. 1974. Siscia. In: Realencyclopädie der classischen Altertumswissenschaft, Supplementband XIV, 702-741.

Wagner, W. 1938. Die Dislokation der römischen Auxiliarformationen in den Provinzen Noricum, Pannonien, Moesien und Dakien von Augustus bis Gallienus. Berlin.

Wheeler, E. L. 2000. Legio XV Apollinaris, From Carnuntum to Satala and Beyond. In: Le Bohec, Y. / Wolff, C. (eds.). Les légions de Rome sous le Haut-Empire. Lyon. 259-308.

Ivan Radman-Livaja, PhD
Archaeological Museum in Zagreb
HR-Zagreb
iradman@amz.hr

Vlatka Vukelić, PhD
University of Zagreb
HR-Zagreb
vlatka.vukelic@sk.htnet.hr

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Auxiliary Units in Moesia Superior and Dacia. A Review and an Update[1]

Florian MATEI-POPESCU

The publication of the newly discovered Roman military diplomas allow us now to determine in a more accurate way the deployment pattern of the auxiliary units, both in Moesia superior and then in Dacia and, thereafter, in Dacia superior and Porolissensis[2].

The auxiliary units of Moesia inferior already stationed at the north of the Danube, a military buffer zone of the province, formed the army of the Dacia inferior province. Since this aspect is already discussed in my published book on the Roman army in Moesia inferior and also in a joint article (with C. C. Petolescu) (Matei-Popescu 2010; Petolescu / Matei-Popescu 2008), it should not be taken into consideration here.

Moreover, it is also now possible to see the important impact of the making of the Dacia province and Trajan's Parthian war on the distribution of the military units on the Roman frontier, from Pannonia (and not only, also from Britannia and Germania inferior) to the Black Sea and further to the East[3]. It will be therefore the task of this paper to have an overview on the deployment of the auxiliary units in the Moesia superior and Dacia from Domitian to Hadrian, when the system was settled.

Moesia Superior

With little exceptions, the auxiliary units of Moesia superior were the same auxiliary units already stationed in the area in the time of Vespasian (**table I**) (Matei-Popescu 2010-2011). When the bigger Moesia province was divided by Domitian in around 86, ten cohorts previously attested in Moesia appeared in Moesia superior. Beside these cohorts, the *ala Claudia nova* is also attested in Moesia superior. Comparing this situation with the one from Moesia inferior, where at least nine *alae* and eighteen up to twenty cohorts are attested it seems that this number is too small (Matei-Popescu 2010, 239-242).

It was Domitian's task to strengthen the defence of this limes sector. By the end of his reign, two cavalry units from Syria (*II Pannoniorum* and *praetoria singularium*), five cohorts from Pannonia (*III Brittonum*, *II Hispanorum*, *I Montanorum c. R.*, *VI Thracum* and *VII Breucorum*) and one, probably from Macedonia (*II Gallorum Macedonica*), were added. The explicit evidence of the imperial constitution from 97 that enlisted 19 cohorts[4] allows considering that all the cohorts enlisted on the constitutions around 100-101[5], with the exception of two cohorts (*II Britannorum milliaria civium Romanorum pia fidelis* and *I Vindelicorum*

[1] This work was possible with the financial support of the Sectoral Operational Programme for Human Resources Development 2007-2013, co-financed by the European Social Fund, under the project number POSDRU/89/1.5/S/61104 with the title "Social sciences and humanities in the context of global development – development and implementation of postdoctoral research".

I am very much indebted to Ovidiu Ţentea for numerous discussions on various issues regarding the army of Dacia in the first decades of the Roman rule.

[2] Statistics: Moesia – 8 *constitutiones*, 16 diplomas; Moesia superior – 33 *constitutiones*, 51 diplomas; Moesia inferior – 47 *constitutiones*, 71 diplomas; Dacian provinces – 55 *constitutiones*, 77 diplomas; see Eck / Pangerl 2009, 577-583; Eck / Pangerl 2011a, 231-233.

[3] For the auxiliary units during the reigns of Trajan and Hadrian see Holder 2003 and Holder 2006.

[4] Eck / Pangerl 2005b, 231-234, # 2: [*equitibus et peditibus*] *qui milita*[*nt in alis tribus et cohortibus d*]*ecem et nove*[*m quae ...*].

[5] May 8, 100 (CIL XVI 46; Eck / Pangerl 2008a, 326-329, # 2); 100 (Eck / Pangerl 2008a, 338-345, # 3-5; Eck / Pangerl 2009, 562-566, # 18); May 16, 101 (RMD III 143; Eck / Pangerl 2008a, 329-337, # 2);

Table I. The units attested in Moesia in Flavian time

Previous attestation	The units	Further attestation
Germania inferior	ala I Asturum	Moesia inferior
Germania superior	ala Claudia nova	Moesia superior
raised by Vespasian	ala I Vespasiana Dardanorum	Moesia inferior
?	ala Gallorum Flaviana ?	Moesia inferior
Moesia	ala II Gallorum	Cappadocia
Pannonia	ala II (Hispanorum et) Aravacorum	Moesia inferior
Pannonia	ala I Pannoniorum	Moesia inferior
Syria ?	cohors I Antiochensium	Moesia superior
raised by Vespasian	cohors I Flavia Bessorum	Moesia superior
raised by Vespasian	cohors II Flavia Bessorum	Moesia inferior
Dalmatia	cohors I Bracaraugustanorum	Moesia inferior
raised by Vespasian	cohors II Flavia Brittonum	Moesia inferior
Moesia	cohors I Cantabrorum	?
Thracia?	cohors II Chalcidenorum	Moesia inferior
Moesia	cohors (I) Cilicum	Moesia superior
Moesia	cohors I Cisipadensium	Moesia superior
raised by Vespasian	cohors I Flavia Commagenorum	Moesia inferior
raised by Vespasian	cohors II Flavia Commagenorum	Moesia superior
Moesia	cohors I Cretum	Moesia superior
Germania inferior/superior	cohors III Gallorum	Moesia inferior
Moesia	cohors IIII Gallorum	Moesia inferior
?	cohors V Gallorum	Moesia superior
Syria	cohors VII Gallorum	Moesia inferior
?	cohors VIII Gallorum	?
?	cohors IIII Hispanorum	Moesia superior ?/ Dacia superior
Germania superior	cohors V Hispanorum	Moesia superior
?	cohors II Lucensium	Moesia inferior
?	cohors I Lusitanorum	Moesia superior
Cyrene	cohors I Lusitanorum Cyrenaica	Moesia inferior
Moesia	cohors II Mattiacorum	Moesia inferior
raised by Vespasian	cohors I Flavia Numidarum	Moesia inferior
raised by Vespasian	cohors II Flavia Numidarum	Moesia inferior
Syria	cohors I Raetorum	Moesia inferior
Moesia	cohors I Sugambrorum veterana	Moesia inferior
?	cohors I Sugambrorum tironum	Moesia inferior
Moesia	cohors Tyriorum	Moesia inferior
Syria	cohors I Thracum Syriaca	Moesia superior
Dalmatia	cohors (I) Ubiorum	Moesia inferior

civium Romanorum milliaria pia fidelis, both appearing on Germania inferior's constitution from February 20, 98[6]), stayed in Moesia superior as late as the end of the reign of Domitian. During Trajan's *bellum Dacicum* other units were deployed on the field, especially from Britannia (*I Alpinorum* and *pedites singulares Britanniciani – ala I Hispanorum Campagonum* must be also added, attested in

[6] RMD IV 216; Matei-Popescu / Ţentea 2006b. For the important part played by the army in Germania inferior in the time of Domitian (especially during the Saturninus' uprising) and in the events that brought Trajan to the imperial power see Holder 1999; Eck 2007, 33-52 and Eck 2012, 73-83.

Table II. The units attested in Moesia superior, Domitian – Trajan

Previous attestation	The units	Further attestation
Moesia	ala Claudia nova	Dacia
Syria	ala II Pannoniorum	Moesia superior
Syria	ala (Flavia) praetoria singularium	Moesia superior
Britannia	ala Hispanorum Campagonum	Pannonia inferior
Moesia	cohors I Antiochensium	Moesia superior
Moesia	cohors I Cilicum	Moesia superior
Moesia	cohors I Cisipadensium	Moesia superior
Moesia	cohors I Cretum	Moesia superior
Moesia ?	Cohors V Gallorum	Moesia superior
Moesia	cohors V Hispanorum	Moesia superior
Moesia	cohors I Lusitanorum	Moesia superior
raised by Vespasian	cohors I Flavia Hispanorum milliaria	Moesia superior
raised by Vespasian	cohors II Flavia Commagenorum	Moesia superior
Noricum, Pannonia	cohors I Montanorum	Moesia superior
Pannonia	cohors I Brittonum milliaria	Moesia superior
Pannonia	cohors I Britannica milliaria c. R.	Moesia superior
Pannonia	cohors III Brittonum veterana	Moesia superior
Pannonia	cohors VII Breucorum c. R.	Moesia superior
Pannonia	cohors II Hispanorum (scutata Cyrenaica)	Moesia superior
Pannonia	cohors VIII Raetorum	Moesia superior
Pannonia	cohors VI Thracum	Moesia superior
Germania inferior	cohors II Brittonum milliaria c. R. p. f.	Moesia superior
Germania inferior	cohors I Hispanorum p. f.	Moesia superior
Germania inferior	cohors I Pannoniorum veterana p. f.	Moesia superior
Germania inferior	cohors I Vindelicorum c. R. p. f.	Moesia superior
Britannia	cohors I Alpinorum	Moesia superior
Britannia	cohors III Nerviana Pacensis milliaria Brittonum	Moesia superior
Britannia	pedites singulares Britanniciani	Moesia superior
Pontus et Bithynia	cohors III Campestris	Moesia superior
Pontus et Bithynia	cohors IV Cypria	Moesia superior
Macedonia?	cohors II Gallorum Macedonica	Moesia superior
?	cohors IIII Raetorum	Moesia superior
?	cohors I Thracum c. R.	Moesia superior

Moesia superior for the very first time in 112 (Eck / Pangerl 2008a, 355-363, # 8-9), but which could have been brought from Britain after 98[7]), Germania inferior (cohorts: *I Hispanorum p. f.*, *I Pannoniorum veterana p. f.* – attested there in 101[8]), Pontus et Bithynia (cohorts: *III Campestris* and *IV Cypria* (AE 1993, 1429 = 1995, 1425; IGR I 895; Speidel / French 1985; French 2004, # 122) – the strange numerals are still to be explain[9]) and neighbouring province of Pannonia (cohorts: *I Brittonum milliaria*, *I Britannica milliaria* and *VIII Raetorum*), probably direct on Dacian territory, but they were enlisted among the units of Moesia superior (**table II**) (Matei-Popescu

[7] AE 2004, 858 (= AE 2003, 1033 a-b).

[8] RGZM 9.

[9] For *III Campestris*, M. P. Speidel (1976, 343) thinks that "it seems to have been part of a composite series of units so that perhaps there never existed any other *Campestres* units". Nevertheless, if we admit that on the inscription from *Amastris*, AE 1993, 1429 = 1995, 1425, one should read *cohors Camp*(*estris*) and not *cohors Camp*(*anorum*/*ana*), proposed by Speidel 1995, 123-127, # 1, and, on the inscriptions from Kerch (*Pantikapaion*) and *Sinope*, it always appears *cohors Cypria*, it becomes obvious that the missing of numeral is not random and probably means something (the same for a *cohors Thracum* attested in the *Pantikapaion* also).

2006-2007, 31-39; Matei-Popescu / Ţentea 2006a)[10].

Regarding other regiments, attested neither in Moesia before Domitian's reign, nor in Pannonia at the middle of the 80's, I am not in the position to identify their garrisoned province before their deployment to Moesia superior. It is the case of the cohorts: *I Flavia Bessorum*, *II Flavia Commagenorum*, *I Flavia Hispanorum milliaria*, *IIII Raetorum* and *I Thracum c. R.* All of them are not directly attested elsewhere before their appearance among the auxiliary units of this province. However, some indirect evidence could be brought into discussion. For the units with the name *Flavia*, created probably Vespasian, one can assume that they were directly deployed in the province of Moesia. Later on, the *I Flavia Commagenorum* and *II Flavia Bessorum* cohorts are attested in Moesia inferior, whilst in Moesia superior there attested the *II Flavia Commagenorum* and *I Flavia Bessorum* cohorts. This suggests that they were settled in the area already during the reign of Vespasian. The same should be the case of the *I Flavia Hispanorum milliaria* cohort, recruited in also during the reign of Vespasian. Unfortunately, for the *IIII Raetorum* and *I Thracum c. R.* cohorts not even indirect evidence can be brought into discussion. It seems that these units not attested on the territory of Moesia before Domitian's reign, were in fact deployed in this area also by Domitian himself.

At the end of the *bellum Dacicum*, almost the entire garrison of the newly created Dacia province was built upon the units from Moesia superior. The remaining units of the province were used thereafter in *expeditio Parthica*, as the imperial constitution from 115 shows (**table III**) (Eck / Pangerl 2005a; Eck / Pangerl 2008a, 363-370, # 10)[11].

After the administrative reforms undertaken by Hadrian, on the territory of Moesia superior two *alae* and ten cohorts are attested all away through the second century AD[12]. New units would be raised only by Marcus Aurelius in the context of the Marcomannic wars, such as the two following pairs of cohorts *I* and *II Aurelia nova milliaria*, *I* and *II Aurelia Dardanorum*, all deployed in the mining areas of the province (**table IV**) (Dušanić 1977; Dušanić 2000). In the same context, the *III Campestris* cohort appeared by 179 in Dacia superior (Piso / Benea 1984)[13].

[10] Dacia was not a province after 102, yet the units from Pannonia could have been enlisted on the Pannonian diplomas as being in expedition. Nevertheless, that was not the case, they were enlisted among the units of Moesia superior. This could lead us at the conclusion, that a part of Dacian territory was from the legal point a view already part of the Moesia superior province. Which were the spheres of competence of the Upper Moesian governor and the ones of that Longinus (Cassius Dio, 58, 12, 1: (Δεκέβαλος) ... Λογγῖνον δέ τινα στρατοπέδου ἐξηγούμενον ... προσκαλεσάμενος; 58, 8, 7: (Τραϊανός) ... καὶ τὸ στρατόπεδον ἐν Ζερμιζεγεθούσῃ καταλιπών, τήν τε ἄλλην χώραν φρουραῖς διαλαβών; see also Exc. UG 49: ... Λογγῖνον τὸν τοῦ Τραϊανοῦ στρατιάρχην...), are still very difficult to define. This Longinus in charge of commanding the Roman army from Dacian soil, or only of the camp from *Sarmizegetusa* (what Cassius Dio ment by στρατόπεδον is still a matter of discussion, nevertheless it occurs to me that he uses the word as equivalent to *castra*, see fo example, 59, 9, 2: αὐτὸς (scil. Ἁδριανός) πάντα ἁπλῶς, οὐ τὰ κοινὰ τῶν στρατοπέδων, ὅπλα λέγω καὶ μηχανὰς καὶ τάφρους καὶ περιβόλους καὶ χαρακώματα, ἀλλὰ καὶ..., καὶ ἐφορῶν καὶ ἐξετάζων, was identified with Cn. Pinarius Aemilius Cicatricula Pompeius Longinus, *vir consularis* and former governor of Moesia superior and Pannonia (Piso 1993, 1-4). Piso 2008, 297-299, thinks that the regiments in question were still at the south of the Danube, but why to transfer units from Pannonia at the south of Danube when the war was carried on at the north of the Danube? It is therefore possible to envisage another explanation (only if Longinus is indeed Cn. Pinarius Cicatricula Pompeius Longinus, and not only the commander of the *vexillatio* which occupied the camp of *Sarmizegetusa*): only a part of the former Decebal kingdom belonged to Moesia superior (probably the southern one) and Longinus was the commander of the Roman army stationed on the reduced territory of the new Decebal kingdom, as a result of the peace treaty. How large was that army is still an unsolved problem (in the area of the former royal residence at *Sarmizegetusa*, at least three vexillations of the legions *IIII Flavia Felix*, IDR III/3, 269a-c, *II Adiutrix p. f.*, IDR III/3, 268, and *VI Ferrata*, IDR III/3, 270, are attested). During Trajan's Dacian wars there were many autonomous commands like Longinus' one, since C. Iulius Quadratus Bassus is attested as: στρατηλάτης γενόμενος Δακικοῦ πολέμου, AE 1934, 176 = IDRE II 381; Piso 1993, 23-29, # 4.

[11] Soldiers from the following units, if not the entire units – at least the units which are thereafter in Moesia superior attested, were sent into expedition: *ala praetoria singularium* (Syria) and *cohortes I Thracum Syriaca* (Moesia inferior), *I Montanorum* (probably a part remained in the East, since a *cohors I Montanorum* is attested in Syria Palaestina and another *I Montanorum* is again attested in Moesia superior), *I Cilicum* (Moesia inferior), *I Cisipadensium* (Thracia), *III Augusta Nerviana* Brittonum (probably anihilated by the Parthians), *IIII Raetorum*, *V Hispanorum*, *VII Breucorum* (Pannonia inferior) and *Flavia* (probably anihilated by the Parthians). In the same time four cohorts remained in Moesia superior: *I Lusitanorum*, *I Flavia Bessorum* (transferred to Macedonia by 120), *I Antiochensium* and *III Brittonum veterana*.

[12] The imperial constitutions: July 1(?), 126 (Eck / Pangerl 2006b, 102-104, # 4; Weiß 2008, 280-286, # 5), parallel constitution (RMD V 366); September 9, 132/133 (RMD IV 247); January 20, 151 (RGZM 31; Eck / Pangerl 2008a, 372-376, # 12); March 5, 153 (Eck / Pangerl 2008a, 377-380, no. 13); April 23, 157 (RGZM 37; RMD V 418; 419; Weiß 2008, 286-290, # 6 – see also the table with all the diplomas issued after this constitution in Eck / Pangerl 2008a, 384-386); January/February 160 (CIL XVI 111; RGZM 40; see also Weiß 2008, 290-291, no. 7); February 8, 161 (RMD I 55).

[13] RMD II 123. It is possible that from Hadrian until the reorganization of the Dacian provinces during the reign of Marcus Aurelius, the auxiliary fort of *Drobeta* was under the control of the governor of Moesia superior, see the entire discussion by Piso / Benea 1984, 288-291.

Table III. The units attested in Moesia superior after *bellum Dacicum*

Previous attestation	The units	Further attestation
Britannia	ala I Hispanorum Campagonum	Pannonia inferior – Dacia superior
Moesia superior	ala praetoria singularium	115 *in exped.* – Syria
Moesia superior	cohors I Antiochensium	Moesia superior
Moesia superior	cohors I Lusitanorum	Moesia superior
Dacia, 109, 110	cohors I Pannoniorum veterana	Moesia superior
Moesia superior	cohors III Brittonum veterana	Moesia superior
Moesia superior	cohors I Cilicum	115 *in exped.* – Moesia inferior
Moesia superior	cohors I Thracum Syriaca	115 *in exped.* – Moesia inferior
Moesia superior	cohors I Cisipadensium	115 *in exped.* – Thracia
Moesia superior	cohors IIII Raetorum	115 *in exped.* – Cappadocia
Moesia superior	cohors VII Breucorum	115 *in exped.* – 116, 117 Cyprus – Pannonia inferior
Dacia, 109, 110	cohors I Montanorum	115 *in exped.* – Moesia superior – a part of the unit the later *cohors I Montanorum* Syria
Moesia superior	V Hispanorum	115 *in exped.* – Moesia superior
Moesia superior	cohors I Flavia Bessorum	Macedonia, 120
Moesia superior	cohors III Augusta Nerviana Pacensis Brittonum	115 *in exped.* – vanished
Moesia superior	cohors Flavia	115 *in exped.* – vanished
Moesia superior	cohors II Dacorum	126 *in exped.* ? – Britannia ? *cohors I Aelia Dacorum* ?

Table IV. The units attested in Moesia superior, Hadrian – Marcus Aurelius

Previous attestation	The units	Further attestation
Dacia, 109, 110	ala Claudia nova miscellanea	Moesia superior
Moesia inferior	ala Gallorum Flaviana	Moesia superior
Dacia, 109, 110	cohors I Cretum sag.	Moesia superior
Dacia superior	cohors II Gallorum Macedonica	Moesia superior
Moesia superior	cohors V Hispanorum	Moesia superior
Moesia superior	cohors V Gallorum et Pannoniorum	Moesia superior
Moesia superior – *in exped.* 115	cohors I Montanorum	Moesia superior
Moesia superior	cohors I Antiochensium sag.	Moesia superior
Dacia, 109, 110 – Dacia superior, 124	cohors III Campestris	Dacia superior, 179 – Dacia Porolissensis, Severan
Moesia superior	cohors I Lusitanorum	Moesia superior
Moesia superior	cohors III Brittonum veterana	Moesia superior
Moesia superior	cohors I Pannoniorum veterana	Moesia superior
newly raised	cohors I Aurelia Dardanorum	Moesia superior
newly raised	cohors II Aurelia Dardanorum	Moesia superior
newly raised	cohors I Aurelia nova	Moesia superior
newly raised	cohors II Aurelia nova	Moesia superior

A special discussion deserves the *cohors II Dacorum*, which appears only on a constitution for Moesia superior from 126, but probably sent into an expedition, and no imperial name is recorded and it is not attested elsewhere (Eck / Pangerl 2006b, 102-104; Weiß 2008, 280-286). The lack of the imperial name could lead us to the conclusion that it was probably raised by Domitian after 89, possible as a consequence of the peace treaty between the emperor and Decebalus. It would not be the first example of the units raised from a client king royal regiments submitted to the Romans. The numeral is

a clear indication that at least two units were raised, probably both labelled as *Flavia Domitiana*. This unit could have also been the core of the later unit *I Aelia Dacorum milliaria* from Britain[14].

Dacia

The first garrison of the Dacia province was mainly composed of the auxiliary units of Moesia superior deployed on the field since Trajan's first Dacian expedition[15]. To these four *alae* were added, three from Pannonia (*Augusta Ituraeorum*, *I civium Romanorum* and *I Britannica/Brittonum c. R.*) and one from Moesia inferior (*I Pannoniorum*). When exactly they were deployed in Dacia, it is impossible to tell. They were probably involved in the Dacian second expedition. Some cohorts were also added (*IIII Hispanorum*, attested in Moesia in Vespasianic time and attested only in Dacia and not at all in Moesia superior, was probably also part of this latter province garrison, although it is not attested by the imperial constitutions): *I Augusta Ituraeorum* and *II Gallorum Pannonica*, probably from Pannonia, *I Ituraeorum milliaria* from Cappadocia, where it would returned in the Hadrianic time, *V Lingonum* from Britain and *I Cannanefatium* and *I Thracum sag.* from unknown provinces (**table V**)[16].

This was about to change at the beginning of Hadrian's reign, when two new provinces are attested: Dacia superior, the core of the former larger Dacia province and Dacia inferior, in the South-East part of Dacia[17]. To these two, another province was added, probably a little bit later, in the North-Western part, namely Dacia Porolissensis (Piso 2005, 143-150)[18].

Dacia Superior

The auxiliary units attested in Dacia superior are the units already stationed in Dacia province in the time of Trajan[19]. To these, two *alae* from Pannonia Superior were added, *I Batavorum milliaria* and *I Gallorum et Bosporanorum*. They were transferred in the context of the war carried out on the Dacian territory at the end of Trajan's reign. In the same context, a large vexillatio, if not the entire unit, of the *ala Ulpia contariorum milliaria* also from Pannonia superior took part in the military operations, since members of this unit received a special grant on April 5, 121 (Eck / Pangerl 2008b)[20]. *Ala Hispanorum* attested in 119 among the auxiliary units of Dacia superior was transferred to Dacia inferior. From Dacia inferior the *cohors I Ubiorum* was transferred to Dacia superior, but it seems that the unit probably continued to have been accommodated in the Odorheiul Secuiesc Roman fort and only the frontier was change (Eck / MacDonald / Pangerl 2001, 40; Matei-Popescu 2010, 235-236, # 42). In the same time, *ala Hispanorum Campagonum* attested in 112 in Moesia superior and thereafter in 114-119 in Pannonia superior was attested in Dacia superior after 120, being accommodated in the Micia Roman fort (**table VI**).

A problem is still the identification of the *V Gallorum* cohorts, at least three attested in the Lower Danube area in Trajan and in the early Hadrianic time: *V Gallorum* in Pannonia inferior, transferred thereafter probably to Britain, *V Gallorum Dacica* attested now by an imperial constitution of 124 for the Dacia superior and *V Gallorum et Pannoniorum*, the unit previously attested in Moesia superior only as *V Gallorum*. It is impossible to tell in this mo-

[14] See also Holder 1998, 255-257, who considers that the *I Aelia Dacorum milliaria* cohort was initially recruited as a *numerus Dacorum*; Weiß 2008, 284-285, argues that the unit from Moesia superior was sent into a military expedition in Britain, in 122, being the core of the latter unit, *I Aelia Dacorum milliaria*.

[15] For the preliminaries of the organization of the new province see Piso 2008 with the entire bibliography and discussion.

[16] For the auxiliary units in Dacia see Petolescu 2002; Ţentea / Matei-Popescu 2004. The imperial constitutions: August 11, 106, in fact 110 (CIL XVI 160 = IDR I 1; RMD V 343); October 14, 109 (RMD III 148); February 17, 110 (CIL XVI 57 = IDR I 2; RMD IV 220; Eck / Pangerl 2011a, # 1); July 2, 110 (CIL XVI 163 = IDR I 3); 113-114 (RMD IV 225); May 3-4, 114 (RMD IV 226 = RGZM 16).

[17] First attestation November 19, 119, only Dacia superior, RMD V 351. Dacia inferior is directly attested on July 17, 122, RGZM 20 = RMD V 361. For the administrative reorganization at the beginning of the reign of Hadrian see Petolescu 1985, 50-55 and Piso 2005, 23-31.

[18] First attestation April 14, 123, RGZM 22.

[19] The imperial constitutions: November 12, 119 (RMD V 351); June 29, 120 (AE 2007, 1762); April 14, 123 (RGZM 22); November 24, 124 (Eck / Pangerl 2010a, 247-255, # 1); 136-138 (RMD V 384); 142 (Eck / Pangerl 2012); February 23, 144 (CIL XVI 90 = IDR I 14); December 13, 157 (CIL XVI 107 = IDR I 15); July 8, 158 (CIL XVI 108 = IDR I 16); April 1, 179 (RMD II 123). See also RMD I 17 = IDR I 5; RMD I 6, June 29, 120 and RMD I 27 = IDR I 8; IDR I 9, January 31 or February 12, 126, copied after special constitutions (only citizenship) issued for the *Palmyreni sagittarii ex Syria.*

[20] RMD V 357; RMD I 19, another copy issued after the same constitution.

Table V. The units attested in Dacia

Previous attestation	The units	Further attestation
Moesia superior	ala Claudia nova	Moesia superior
Moesia inferior	ala I Pannoniorum	Moesia inferior – *ala I Gallorum et Pannoniorum*
Moesia superior	ala II Pannoniorum	Dacia Porolissensis – *ala II Gallorum et Pannoniorum*
Pannonia	ala I Augusta Ituraeorum	Pannonia inferior
Pannonia	ala I civium Romanorum	Pannonia inferior
Pannonia	ala I Britannica / Brittonum	Dacia Porolissensis
Moesia superior	cohors I Alpinorum	Dacia superior
Moesia superior	cohors I Britannica milliaria c. R. p. f.	Dacia Porolissensis
Moesia superior	cohors II Britannorum milliaria c. R. p. f.	Dacia Porolissensis
Moesia superior	cohors I Ulpia Brittonum milliaria torq.	Dacia Porolissensis
Moesia superior	cohors III Campestris	Dacia superior, 124 – Moesia superior, 132/133
?	cohors I Cannanefatium	Dacia Porolissensis
Moesia superior	cohors I Cretum sag.	Moesia superior
Moesia superior	cohors II Flavia Commagenorum	Dacia superior
Moesia superior	cohors IIII Cypria	Dacia superior
Moesia superior	cohors II Gallorum Macedonica	Dacia superior – Dacia Porolissensis, 123 – Moesia superior, 133
?	cohors II Gallorum Pannonica	Dacia superior
Moesia superior	cohors V Gallorum (et Pannoniorum)	Dacia superior – Dacica
Moesia superior	cohors I Hispanorum p. f.	Dacia Porolissensis
Moesia superior	cohors I Flavia Ulpia Hispanorum milliaria	Dacia Porolissensis
Moesia superior	cohors II Hispanorum (scutata Cyrenaica)	Dacia Porolissensis
Moesia – Moesia superior ?	cohors IIII Hispanorum	Dacia Porolissensis
Cappadocia	cohors I Ituraeorum milliaria	Cappadocia, 135?
Pannonia, 102	cohors I Augusta Ituraeorum	Dacia superior
?	cohors V Lingonum	Dacia Porolissensis
Moesia superior	cohors I Montanorum	Moesia superior, 115 *in exped.*, 133
Moesia superior	cohors VIII Raetorum	Dacia superior
?	cohors I Thracum sag.	Dacia superior
Moesia superior	cohors I Thracum c. R.	Pannonia superior, 126?
Moesia superior	cohors VI Thracum equitata	Dacia Porolissensis
Moesia superior	cohors I Vindelicorum milliaria c. R. p. f.	Dacia superior
Moesia superior	pedites singulares Britanniciani	Dacia superior

ment wherefrom *V Gallorum Dacica* was brought to Dacia superior. It is possible that the unit attested in Moesia superior to have been the core of the latter attested units: *V Gallorum Dacica* and *V Gallorum et Pannoniorum*. In the context of the Trajan's Dacian expedition it is possible that only a part of the cohort have been sent north of Danube. After the war, both parts of the same cohort were brought up to strength using new recruits from Pannonia, in the case of *V Gallorum et Pannoniorum*, and from other parts of Empire for the units which received also the *agnomen Dacica*.

A special discussion deserve the *Palmyreni sagittarii ex Syria*, attested in 120 and in 126, by two special imperial constitutions granting only the *civitas Romana* without the *conubium*[21]. They were sent to Dacia in the context of the war against the Sarmatians at the beginning of the reign of Hadrian. Thereafter, they were probably the core of the later attested *numeri Palmyrenorum*, both in Dacia supe-

[21] CIL XVI 68 = IDR I 6; RMD I 27 = IDR I 8; RMD I 28 = IDR I 9.

Table VI. The units attested in Dacia superior

Previous attestation	The units	Further attestation
Pannonia superior, 116	ala I Batavorum milliaria	Dacia superior
Pannonia inferior, 119	ala I Hispanorum Campagonum	Dacia superior
Moesia inferior	ala (I) Hispanorum	Dacia inferior, 129
Pannonia superior	ala Gallorum et Bosporanorum	Dacia superior
Dacia	ala I Augusta Ituraeorum	Pannonia inferior, 126
Pannonia superior, 116	ala I Ulpia contariorum milliaria	Pannonia superior, 126
Dacia	cohors I Alpinorum	Dacia superior
Dacia	cohors I Britannica milliaria	Dacia Porolissensis, 123
Dacia	cohors II Brittonum / Britannorum milliaria c. R. p. f.	Dacia Porolissensis
newly raised	cohors I Aurelia Brittonum milliaria	Noricum, after 201
Dacia	cohors II Flavia Commagenorum	Dacia superior
Dacia	III Campestris c. R.	Moesia superior, 132/133 – Dacia superior, 179 – Dacia Porolissensis, Severan
Dacia	cohors IIII Cypria	Moesia superior, 126 – Pontus et Bithynia ?
?	cohors III Delmatarum	Dacia superior
Dacia ?	cohors IIII Hispanorum	Dacia superior
Dacia	cohors II Gallorum Pannonica	Dacia superior
?	cohors V Gallorum (et Pannoniorum) Dacica	Dacia superior
Dacia	cohors I Augusta Ituraeorum	Dacia superior
Dacia	cohors VIII Raetorum	Dacia superior
Dacia	cohors I Thracum sag.	Dacia superior
Dacia inferior	cohors I Ubiorum	Dacia superior
Dacia	cohors I Vindelicorum c. R. p. f.	Dacia superior
?	cohors I sagittariorum	Dacia superior, after 166
Dacia	pedites singulares Britanniciani	Dacia superior
Dacia inferior ?	vexillatio equitum Illyricorum / ala numeri Illyricorum	Dacia superior / Dacia inferior ?
Numidia	*vexillarii Africae et Mauretaniae Caesarensis qui sunt cum Mauris gentilibus*, 146, 152, 158	Dacia superior, Dacia Porolissensis, Dacia inferior – *numeri Maurorum*
Syria	Palmyreni sagittarii ex Syria	Dacia superior, Dacia Porolissensis – *numeri Palmyrenorum*
Germania inferior	numerus exploratorum Germanicianorum	Dacia superior

rior and in Dacia Porolissensis (Nemeth 1997, 102-103, # 1; Petolescu 2002, 138-144, # 75-77; Țentea 2011a; 2011b, 66-78).

Another military presence was the one of the *numeri Maurorum* in all of the three Dacian provinces. Their core should be found in the *vexillarii Africae et Mauretaniae Caesarensis qui sunt cum Mauris gentilibus in Dacia superiore*, attested by three imperial constitutions from 146, 152 and 158. In fact, the grant was made only to *vexillarii*, former members of various auxiliary regiments from the two provinces (unpublished, information W. Eck; AE 2007, 1763; CIL XVI 108 = IDR I 16; Nemeth 1997, 103-105, # 2; Petolescu 2002, 134-138, # 69-74). The *Mauri gentiles* formed thereafter smaller *numeri* settled in all three Dacian provinces.

Both the Palmyrenes and the Mauri were settled in important strongholds of the provinces, like *Tibiscum*, *Micia*, *Porolissum*, Răcari, or in the area of the gold mines from *Ampelum* (*numerus Maurorum Hisp.* – but this *numerus* seems to have been sent from the area of the Hispanic provinces and in other chronological context) (Petolescu 2002, 137-138; Țentea 2009, 372). They were labelled after their stationed places. If for the Palmyrenes the crises around the years 117-118 should be the explanation for their deployments on the Dacian soil, for the Mauri no valid explanation was until now envisaged. A possible war in the time of Antoninus Pius was taken into consideration, but the lack of the evidence does not allow us to speculate even further into this direction.

About the *numerus exploratorum Germanicianorum*, attested in the area of Orăştioara de Sus only by inscriptions and probably recruited from different units of the army from Germania inferior (since one of its soldiers was recruited from Cologne[22]), there are no information regarding the moment and the context of its arrival in Dacia superior (Nemeth 1997, 105-106, # 4; Petolescu 2002, 131, # 66). Nevertheless, an earlier arrival, in the context of Trajan's Dacian war could not be completely ruled out of the discussion. Its settlement in the nearby of the *Sarmizegetusa regia*, the seat of the last king of the Dacians, has a meaning only in an earlier context. Another possible explanation, would take into consideration this *numerus* together with *pedites singulares Britanniciani* / *numerus singularium Britannicianorum*, stationed in Cigmău area, guarded a shortcut route to the Dacian goldmines, probably used also before the Romans (Ţentea 2009). Nevertheless, both explanations allow us to firmly assert the presence of the *numerus exploratorum Germanicianorum* among the units in Dacia also during the reign of Trajan.

Dacia Porolissensis

The army of the Dacia Porolissensis province was composed only of auxiliary units, most of them already accommodated in the north-western Dacian Roman forts from the time of Trajan[23]. To these two Pannonia *alae* were added, namely *ala Siliana* and *ala I Tungrorum Frontoniana*, which were accommodated in the forts of Gilău and Ilişua, togheter with three cohorts: *II Augusta Nerviana Pacensis milliaria Brittonum* (Buciumi), *I Batavorum milliaria c. R.* (Romita) and *I Aelia gaesatorum milliaria* (Bologa). It seems now that there are at least two *gaesati* units with the same names, since *cohors I Aelia gaesatorum* appeared in Dacia Porolissensis in 123 and a homonymous unit is attested in Pannonia superior in 126. The first is thereafter attested in Dacia Porolissensis, while the latter seems to be the one which appeared with a different name on the constitutions for the auxiliary units from Pannonia inferior, namely *cohors I Aelia sagittariorum milliaria* (Nemeth 2004, 640-641). When and why these units were transferred from the Pannonian provinces is still a matter of discussion. It seems that around 123-124 they were already in Dacia Porolissensis, being probably transferred sometime after 118 (**table VII**).

Conclusions

The auxiliary units system from Moesia superior was inherited from the former province of Moesia to which important additions were made both by Domitian or Trajan. The auxiliary units from Moesia superior became the core of the military force of the newly created Dacia province, to which Pannonian units were added (the three attested Dacian legions: *IIII Flavia Felix*, *XIII Gemina* and *I Adiutrix* were previously part of the armies of Moesia superior and Pannonia[24]). Later on, the Moesia superior, together with Pannonia inferior, provided an important number of units for *expeditio Parthica*. Some units from Dacia were also sent in this expedition. In Pannonia inferior, other units are attested deployed there in order to replace the units sent into the Parthian expedition (for example *ala I Flavia Gaetulorum* from Moesia inferior and *ala I Hispanorum Campagonum* from Moesia superior, both to replace *ala I Flavia Augusta Britannica milliaria*). It seems that the auxiliary units of these three provinces, Moesia Superior, Dacia and Pannonia, later on Pannonia superior and inferior, acted together as an almost integrated task force, especially during the military expeditions. This is fully attested during the war from 117-118 against the Sarmatians, but also later on during the military expeditions from the reign of Marcus Aurelius. From the strategic point of view, Dacia province was only a northern and eastern prolongation of the Moesia superior and Pannonia provinces.

Another important moment was Hadrian's decision to make three separate Dacian provinces, as a consequence of the wars from 118-119 and the new agreements with the Sarmatians, both the Iazyges and the Rhoxolani (Petolescu 1985, 50-51). If for the Dacia inferior province the situation is pretty clear, since almost entire army was built using the auxiliary units of Moesia inferior already into place from the time of Trajan (with two additions: *numerus Illyricorum* and *numerus burgariorum et*

[22] IDR III/3, 263: *Iulius Secundus, expl*(*orator*) *domo Agrip*(*pinensi*).

[23] The imperial constitutions: April 14, 123 (RGZM 22); August 10, 123 (RMD I 21 = IDR I 7; RMD I 22 = IDR I 7 A); other constitution from the same day, Eck / Pangerl 2011b; 128 (Ciongradi / Bota / Voişian 2009); 130/ 131 (RMD V 378); July 2, 133 (RMD I 35 = IDR I 11); September 24, 151 (RMD V 404); 143-153 (Ciongradi / Zăgrean 2011); September 27, 154? (CIL XVI 110 = IDR I 17; RMD I 47); July 21, 164 (RMD I 64 = IDR I 18; CIL XVI 185 = IDR I 19; RMD I 63 = IDR I 20; IDR I 21 = RMD I 66; 22 = RMD I 65/ II 115; RMD II 116; 117; RMD IV 287; 289?; AE 2007, 1764).

[24] For the legions attested in the Dacian provinces see Piso 2005, 401-428, with the entire bibliography.

Table VII. The units attested in Dacia Porolissensis

Previous attestation	The units	Further attestation
Dacia	ala I Brittonum c. R.	Pannonia inferior, 123
Dacia	ala II (Gallorum et) Pannoniorum	Dacia Porolissensis
Pannonia inferior	ala Siliana armillata bis torquata c. R.	Dacia Porolissensis
Pannonia inferior	ala I Tungrorum Frontoniana	Dacia Porolissensis
Pannonia superior	cohors I Batavorum milliaria c. R. p. f.	Dacia Porolissensis
Dacia superior	cohors I Britannica milliaria c. R. p. f.	Dacia Porolissensis
Dacia superior	cohors II Brittonum / Britannorum milliaria c. R. p. f.	Dacia Porolissensis
Pannonia inferior	cohors II Augusta Nerviana Pacensis milliaria Brittonum	Dacia Porolissensis
Dacia	cohors I Ulpia Brittonum torquata milliaria c. R.	Dacia Porolissensis
Dacia	cohors I Cannanefatium	Dacia Porolissensis
Pannonia superior, or newly raised?	cohors I Aelia Gaesatorum milliaria	Dacia Porolissensis – Pannonia superior 126, or different?
Dacia superior	cohors II Gallorum Macedonica	Moesia superior, 132/133
Dacia	cohors I Hispanorum p. f.	Dacia Porolissensis
Dacia	cohors I Flavia Ulpia Hispanorum milliaria	Dacia Porolissensis
Dacia	cohors II Hispanorum (scutata Cyrenaica)	Dacia Porolissensis
Dacia	cohors V Lingonum	Dacia Porolissensis
Dacia	cohors VI Thracum	Dacia Porolissensis

veredariorum), the situation in Dacia superior and Dacia Porolissensis suffered many changes. Two legions were removed from the area and from that moment on, until the reign of Marcus Aurelius, only one legion defended both Dacia superior and Dacia Porolissensis, *legio XIII Gemina* from *Apulum* (Piso 2005, 422-427) – the Dacia inferior was under the surveillance of the three legions of Moesia inferior from *Novae*, *Durostorum* and *Troesmis*. This led to important changes both in the structure and in the settlements of the auxiliary units in these two provinces. Unfortunately, many of these changes remain unknown to us, with some exceptions, especially the units transferred from the Pannonian provinces to Dacia Porolissenis, or the sending of the *ala I Augusta Ituraeorum*, attested in Dacia superior in 124, to Pannonia inferior in 126. Why it was needed to bring in the same time units from Pannonian provinces, but also to send other units from Dacian provinces to the Pannonian provinces is probably a matter of fighting style and specialization of different units. Some units were needed for specific tasks, or some units fitted perfect into a specific geographic area.

The military system set up by Hadrian lasted, with minor changes, especially during the reign of Marcus Aurelius, in the context of the Marcomannic wars, but also in the Severan period, until the abandonment of the Dacian province during the reign of Aurelian.

Bibliography

CIL XVI – *Nesselhauf, H.* Corpus inscriptionum Latinarum. XVI. Diplomata militaria ex constitutionibus imperatorum de civitate et conubio militum veteranorumque expressa. Berlin. 1936-1955.

IDR – Inscriptiones Daciae Romanae.

IDRE – *Petolescu, C. C.* Inscriptions externes concernant l'histoire de la Dacie. Bucharest. 1996-2000.

RGZM – *Pferdehirt, B.* Römische Militärdiplome und Entlassungsurkunden in der Sammlung des Römisch-Germanischen Zentralmuseums (Kataloge vor- und frühgeschichtlicher Altertümer, Bd. 37, 1-2). Mainz. 2004.

RMD – *Roxan, M. M. / Holder, P. A.* Roman Military Diplomas I-V. London. 1978-2006.

Ciongradi, C. / Bota, E. / Voişian, V. 2009. Eine Konstitution für die Hilfstruppen von Dacia Porolissensis aus dem Jahr 128 n. Chr. – Zeitschrift für Papyrologie und Epigraphik 170, 207-214.

Ciongradi, C. / Zăgrean, R. 2011. Ein Militärdiplom aus Gherla für die Truppen von Dacia Porolissensis. – Zeitschrift für Papyrologie und Epigraphik 179, 295-298.

Dana, D. / Matei-Popescu, Fl. 2009. Soldats d'origine dace dans les diplômes militaires. – Chiron 39, 209-256.

Dušanić, S. 2000. Army and Mining in Moesia superior. In: Alföldy, G. / Dobson, B. / Eck, W. (eds.). Kaiser, Heer und

Gesellschaft in der Römischen Kaiserzeit. Gedenkschrift für Eric Birley. Stuttgart. 343-363.

Dušanić, S. 1977. Mounted Cohorts in Moesia Superior. In: Fitz, J. (ed.). Limes. Akten des 11. Internationalen Limeskongresses (Székesfehérvár, 30. 8 – 6. 9. 1976). Budapest. 237-247.

Eck, W. 2012. Bürokratie und Politik in der römischen Kaiserzeit. Administrative Routine und politische Reflexe in Bürgerrechtskonstitutionen der römischen Kaiser. Wiesbaden.

Eck, W. 2007. La romanisation de la Germanie. Paris.

Eck, W. / Pangerl, A. 2012. Ein Konstitution für die Truppen von Dacia superior aus dem Jahr 142 mit der Sonderformel für Kinder von Auxiliaren. – Zeitschrift für Papyrologie und Epigraphik 181, 173-182.

Eck, W. / Pangerl, A. 2011a. Diplome für das Heer in Dakien. – Zeitschrift für Papyrologie und Epigraphik 176, 221-233.

Eck, W. / Pangerl, A. 2011b. Drei Konstitutionen im Jahr 123 für Truppen von Dacia Porolissensis unter dem Präsidialprokurator Livius Gratus. – Zeitschrift für Papyrologie und Epigraphik 176, 234-242.

Eck, W. / Pangerl, A. 2008a. Moesia und seine Truppe. Neue Diplome für Moesia und Moesia superior. – Chiron 38, 317-387.

Eck, W. / Pangerl, A. 2008b. Vater, Mutter, Schwestern, Brüder ...3. Akt. – Zeitschrift für Papyrologie und Epigraphik 166, 276-284.

Eck, W. / Pangerl, A. 2006a. Syria unter Domitian und Hadrian: Neue Diplome für die Auxiliartruppen der Provinz. – Chiron 36, 205-247.

Eck, W. / Pangerl, A. 2006b. Neue Diplome für die Auxiliartruppen in den mösischen Provinzen von Vespasian bis Hadrian. – Dacia, N. S. 50, 93-104.

Eck, W. / Pangerl, A. 2005a. Traians Heer im Partherkrieg. Zu einem neuen Diplom aus dem Jahr 115. – Chiron 35, 49-67.

Eck, W. / Pangerl, A. 2005b. Neue Konsuldaten in neuen Diplomen. – Zeitschrift für Papyrologie und Epigraphik 152, 229-262.

French, D. H. 2004. The inscriptions from Sinope, Bonn (Inschriften griechischer Städte Kleinasiens 64).

Holder, P. 2006. Auxiliary Deployment in the Reign of Trajan. – Dacia, N. S. 50, 141-174.

Holder, P. 2003. Auxiliary Deployment in the Reign of Hadrian. In: Wilkes, J. J. (ed.). Documenting the Roman Army. Essays in the Honour of Margaret Roxan (= Bulletin of the Institute of Classical Studies Supplement 81. London. 101-145.

Holder, P. A. 1999. Exercitus pius fidelis: the army of Germania inferior in AD 89. – Zeitschrift für Papyrologie und Epigraphik 128, 237-250.

Holder, P. A. 1998. Auxiliary units entitled Aelia. – Zeitschrift für Papyrologie und Epigraphik 122, 253-262.

Matei-Popescu, Fl. 2010/2011. The Roman Auxiliary Units of Moesia. – Il Mar Nero 8, 207-230.

Matei-Popescu, Fl. 2010. The Roman Army in Moesia Inferior (= Center for Roman Military Studies series 7). Bucharest.

Matei-Popescu, Fl. 2006-2007. The Auxiliary Units from Moesia Superior in Domitian's Time and the Problem of CIL XVI 41. – Ephemeris Napocensis 16-17, 31-48.

Matei-Popescu, Fl. / Ţentea, O. 2006a. The Participation of the Auxiliary Troops from Moesia superior in Trajan's Dacian Wars. – Dacia, N. S. 50, 127-140.

Matei-Popescu, Fl. / Ţentea, O. 2006b. Trupele auxiliare din Germania Inferior şi expediţiile dacice ale împăratului Traian. In: Benea, D. (ed.). Daci şi romani. 1900 de ani de la integrarea Daciei în Imperiul Roman. Timişoara. 47-56 (BHAUT VII).

Nemeth, E. 2004. Cohors I Aelia Gaesatorum Milliaria. Die Identität einer römischen Hilfstruppe. In: Găzdac, C. / Roman, C.A. / Ruscu, L. / Ciongradi, C. / Ardevan, R. (eds.). Orbis Antiquus Studia in Honorem Ioannis Pisonis. Biblioteca Musei Napocensis 21. Cluj-Napoca. 639-642.

Nemeth, E. 1997. Die Numeri im römischen Heer Dakiens. – Ephemeris Napocensis 7, 101-116.

Petolescu, C. C. 2002. Auxilia Daciae. Contribuţie la istoria militară a Daciei romane. Bucharest.

Petolescu, C. C. 1985. L'organisation de la Dacie sous Trajan et Hadrien. – Dacia, N. S. 29, 45-55.

Petolescu, C. C. / Matei-Popescu, Fl. 2008. The Presence of the Roman Army from Moesia Inferior at the North of Danube and the Making of the Dacia Inferior Province. In: Piso, I. (ed.). Die römischen Provinzen. Begriff und Gründung (Colloquium Cluj-Napoca, 28. September-1. Oktober 2006. Cluj-Napoca. 357-367.

Piso, I. 2008. Les débuts de la province de Dacie. In: Piso, I. (ed.) Die römischen Provinzen. Begriff und Gründung (Colloquium Cluj-Napoca, 28. September-1. Oktober 2006). Cluj-Napoca. 297-331.

Piso, I. 1993. Fasti provinciae Daciae. I. Die senatorische Amtsträger. Bonn.

Piso, I. / Benea, D. 1984. Das Militärdiplom von Drobeta. – Zeitschrift für Papyrologie und Epigraphik 56, 263-295.

Speidel, M. P. 1995. Kampanische Kohorte und Legionsreiter. Zwei Soldatengrabsteine aus Amastris. In: Frei-Stolba, R. / Speidel, M. (eds.). Römische Inschriften – Neufunde, Neulesungen und Neuinterpretationen. Festschrift für Hans Lieb zum 65. Geburtstag dargebracht von seinen Freunden und Kollegen. Basel-Berlin (Arbeiten zur römischen Epigraphik und Altertumskunde 2). 123-132.

Speidel, M. P. 1976. Citizen cohorts in the Roman imperial army. New data on the cohorts Apula, Campana, and III Campestris. – Transactions of the American Philological Association 106, 339-348 (= Roman Army Studies, I, Amsterdam, 1984, 91-100).

Speidel, M. P. / French, D. H. 1985. Bithynian troops in the kingdom of the Bosporus. – Epigraphica Anatolica 5, 97-102 (= Roman Army Studies, II, Amsterdam, 1992, 173-179).

Ţentea, O. 2011a. Some remarks on Palmyreni sagittarii. On the first records of Palmyrenes within the Roman army. In: Piso, I. / Rusu-Bolindeţ, V. et alii (eds.). Scripta classica. Radu Ardevan sexagenario dedicata. Cluj-Napoca. 371-377.

Ţentea, O. 2011b. Ex Oriente ad Danubium. The Syrian auxiliary units on the Danubian frontier of the Roman Empire. – Center for Roman Military Studies series 6, Bucharest.

Ţentea, O. 2009. On the defence of aurariae Dacicae. In:

Ţentea, O. / Opriş, I. C. (eds.). Near and Beyond the Roman Frontiers. Proceedings of a Colloquium held in Târgovişte, 16-17 October 2008, Center for the Roman Military Studies series 5. Bucharest. 371-381.

Ţentea, O. / Matei-Popescu, Fl. 2004. Alae et Cohortes Daciae et Moesiae. A review and update of J. Spaul`s Ala and Cohors. – Acta Musei Napocensis 39-40/I, 259-296.

Weiß, P. 2008. Militärdiplome für Moesia (Moesia, Moesia superior, Moesia inferior). – Chiron 38, 267-316.

Weiß, P. 2006. Die Auxilien des syrischen Heeres von Domitian bis Antoninus Pius. Eine Zwischenbilanz nach den neuen Militärdiplome. – Chiron 36, 259-298.

Dr. Florian Matei-Popescu
"Vasile Pârvan" Institute of Archaeology
RO-Bucharest
florian.matei@gmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Origin of *cohors IX Maurorum* and the Severan Frontier of Mesopotamia

Kai JUNTUNEN

The names of the Roman auxiliary units can provide us with useful information about the Roman military dispositions on the frontiers of the Empire. At the most basic level, the names inform us about the ratio between cavalry and infantry, as well as the existence of archers or other specialist troops in a given area, all of which helps us to determine the regional strategic demands. On occasion, these names can also reveal even more details about the frontiers, such as the size of the garrison and part of the ethnic composition of the troops in a particular province, when more direct evidence is lacking. In a poorly documented region such as the Severan province of Mesopotamia, a unit with a very high numeral and a peculiar ethnic name – such as *cohors IX Maurorum* – may just hold the key to understanding the basic essentials of the original frontier construction and the tactical deployment of troops.

Auxiliary Units with High Numerals

Auxiliary units containing a numeral nine or higher are quite rare. In addition to the volunteer cohorts, only five are known from the Severan or pre-Severan era (i.e. *cohors IX Batavorum*, *cohors IX Maurorum*, *cohors XI Gallorum*, *cohors XII Palaestinorum* and *cohors XX Palmyrenorum*). A reasonable explanation for the high numerals of some of these cohorts has been provided by Kennedy (1983, 214-216), who in a simple and logical model suggested that the numerals of *cohors XX Palmyrenorum* and *cohors XII Palaestinorum* indicated that they were the 20th and 12th cohorts of the provinces where they were recruited, respectively the provinces of Syria and Syria Palaestina. This hypothesis has since gained credence from the discovered military diplomas of 88 CE (*AE* 2006: 1836; *AE* 2006: 1836; *AE* 2006: 1841; *CIL* XVI 35 and *RMD* 3; *RMD* 329; *RMD* 330) and 153 CE (*AE* 2006: 1841), which confirm that the garrison of Syria contained 19 or 20 cohorts in total from the late first until the mid-second century at least, while the auxiliary garrison of Syria Palaestina, in a similar fashion, is known to have contained 11 or 12 cohorts since its creation after the Bar-Kochba war, as confirmed by the diplomas of 136/137 CE (*RMD* 160), 139 CE (*CIL* XVI 87), 142 CE (*RGZM* 29) and 160 CE (*AE* 2005: 1730; *RGZM* 41; *RMD* 173). Both of these cohorts have left evidence of their existence from the Severan period onwards only; the 20th cohort is known to have been in Dura-Europos by 208 CE (*P. Dura* 56), while the 12th cohort was seemingly based at Qatna by the Khabur River, approximately 100 km north of the river's confluence with the Euphrates (Edwell 2007, 79, 164), by 232 CE (*P. Dura* 30). In the light of the available evidence, it would seem rather certain that both of these cohorts were recruited during the Severan Era or at the end of the Antonine Era at the latest.

This recruitment pattern would seem to provide a quite attractive solution for the third unit with a very high numeral known to have been in the East in the early third century. This unit, *cohors IX Maurorum*, is known only from the two inscriptions from Hatra (*AE* 1958: 239, *AE* 1983: 935), both datable to the reign of Gordian III (238-244). The possibility that the numeral of this unit refers to a full series of nine cohorts of Moors seems highly unlikely, as we have no evidence at all that the cohorts *III-VIII Maurorum* would ever have existed, while the existence of *cohors II Maurorum* is based on a single reference (*CIL* VIII 18528) to a vexillation of 126 men of that particular unit in Numidia around 208 CE. On the other hand, there is plenty of evidence of *cohors milliaria Maurorum*, as this cohort seems to have preferred to call itself, from Pannonia Inferior (Spaul 2000, 468-469), where it

is also attested on diplomas dated to 192 CE (*RMD* 446, *RMD* 447). Still, this unit is not in the habit of using the numeral, but instead seems usually to define itself as a *cohors milliaria*, which would appear to indicate that it belonged to a different recruitment pattern than the ninth cohort.

The idea that the numeral of the *IX Maurorum* refers to the size of the auxiliary garrison of the province where it was recruited or constituted is not entirely new. For example, Spaul (2000, 470) has suggested that it could have been the ninth unit raised in North Africa, but none of the provinces along the North African coastline seems to have a garrison size that would fit a ninth unit as clearly as Syria and Syria Palaestina have for the 20th and 12th cohorts. With discharge diplomas showing that Mauretania Tingitana had a garrison of 11 cohorts at least until the mid-second century (*RMD* 53) and Mauretania Caesariensis had 10 cohorts in the beginning of the second century (*CIL* XVI 56), to which at least *cohors II Sardorum* was added by 128/138 CE (*AE* 1975: 953) and *cohors I Aelia singularium* possibly around the Great Mauretanian war of Antoninus Pius (c. 146-152 CE), if not earlier (Benseddik 1982, 64; Speidel 1978, 64-65), it would seem highly unlikely that either of these provinces could have had their garrisons decreased to eight cohorts (thus making room for the ninth cohort) during the latter half of the second century, even when possible losses are taken into account. Neither is the province of Africa easily acceptable as a place of recruitment, as that province held a garrison of 9 cohorts in the reign of Hadrian (*AE* 2005: 1715; *RMD* 368), and if the numeral and the ethnic identity of the unit refer to the place of original recruitment, then the unit should have been called *cohors IX Afrorum*. Thus, an alternative explanation should be sought.

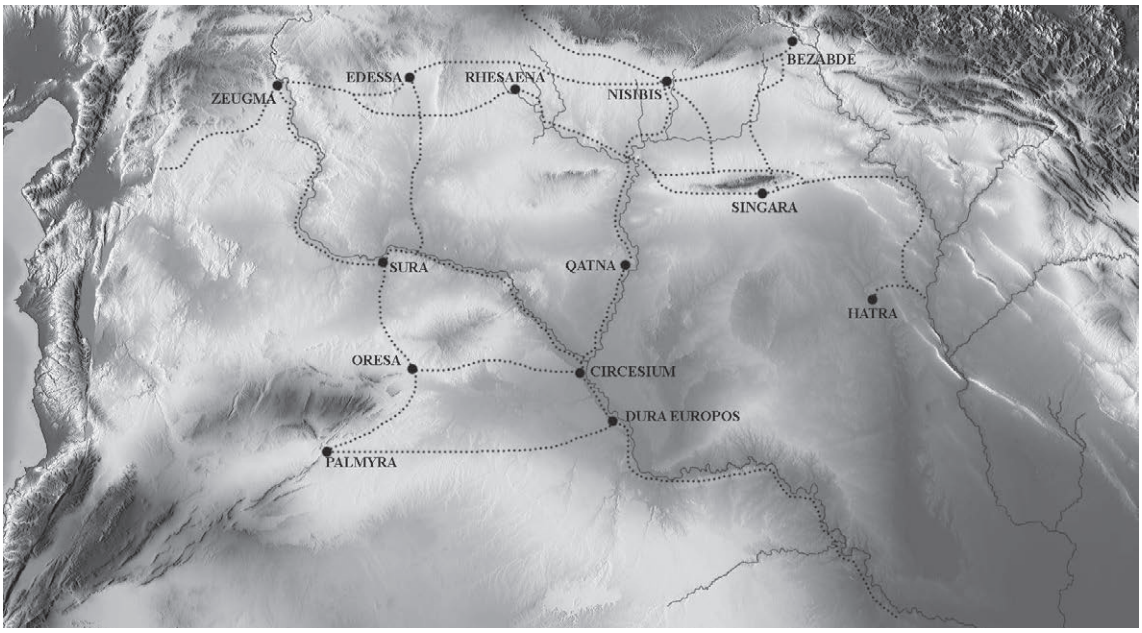
A closer examination of the other late units with high numerals suggests that the numeral and the ethnic identity do not necessarily refer to the same thing, namely the place of recruitment, but instead may indicate two different aspects related to the units' origin. For example, *cohors XX Palmyrenorum* means the 20th cohort of Syria, specifically recruited from the Palmyrenians, instead of the 20th cohort recruited in Syria in general, in which case the unit's name should have been *cohors XX Syrorum*. Thus, the numerals of these units seem to refer to the size of the auxiliary garrison in the province of original constitution, while the ethnic name refers to the ethnic background of the first cadre of recruits. This brings forth the question of who the original recruits were and whether the answer to this question could explain the issue of a *ninth cohort of Moors* recruited seemingly outside of Mauretania.

Palmyrenians and Moors in the East

Before the creation of the 20th cohort, the Palmyrenians had so far provided only irregular troops to the Empire. These *numeri Palmyrenorum* are well attested in Dacia, Numidia and Egypt (Southern 1989, 89-92), but in addition, another group of Palmyrenian archers is known from Dura-Europos, recording its activities as early as 168 and 171 CE (Rostovtzeff / Brown / Welles 1939, 83-84 [# 845-846]; Pollard 2000, 144). The official status of these early archers in Dura is uncertain and it is equally possible that they served in the Roman army as *numeri* or as allied militia (*symmachiarii*) from Palmyra (Gilliam 1959, 26-27). As *cohors XX Palmyrenorum* is known to have been based at Dura-Europos a little later (208 CE), the connection between these early troops and the later cohort is attractive, and it may well have been that the pre-existing unit was later incorporated into the Roman army as a regular cohort, possibly in 192 CE or even earlier (Gilliam 1959, 26; Kennedy 1994, 90-96).

The case is quite similar with the Moors, of whom different types of units are known since the mid-second century (Speidel 1975, 208-221). The Moors had begun to be used in the Roman army on a wider scale already in the Dacian and Parthian wars of Trajan, when Moorish tribesmen participated in these conflicts under their own chieftain Lusius Quietus. After the Mauretanian war of Antoninus Pius, the Roman military diplomas confirm the existence of irregular Moorish troops in Dacia Superior by 152 CE (*AE* 2007: 1763), and during the Parthian war of Lucius Verus in the 160s, Lucian of Samosata (*Hist. conscr.* 31) defines the Moors as the elite troops in the vanguard of the Roman advance toward Seleucia. Again, during the civil war between Septimius Severus and Pescennius Niger, Moorish troops could be found among the troops of Niger (Herodian 3.3.4-5), which shows that some *numeri Maurorum* were stationed in the East already in the late second century.

The possibility that men serving in the *numeri* could have been acceptable for service in the regular units or eligible for a higher distinction, such as citizenship, is not without precedent. Many of the Palmyreni had received citizenship as extraordinary grants in the 120s (*CIL* XVI 68; *RMD* 17, *RMD* 27, *RMD* 28, *RMD* 237, *RMD* 355), and by 161 CE some Moorish tribesmen in Moesia Superior seemed to have earned it too, as suggested by fragmentary di-



Ancient Routes and Roman Roads of Mesopotamia (adapted from Isaac 1990, 498-499)

plomas (*CIL* XVI 114). The changing position of the Moors and the Palmyreni could also be seen as a part of the larger development in the second century, when the concept of the civic standing of the nominally external nations (*gentes*) was changing.

As our evidence of the *ninth Maurorum* comes solely from the East, and as the two other Severan units with high numerals also come from the East, we should ponder whether this recruitment pattern was an Eastern phenomenon, as such a pattern had already existed there previously, as seen from the *ala VII Phrygum*, which received its numeral in the early second century, most likely for being the seventh *ala* in the province of Syria (Kennedy 1997, 301-304). It would seem unlikely to be a coincidence that the two nations – the Mauri and Palmyreni – who had so far provided mainly irregular troops, now both provided a regular cohort with a high numeral and seemingly of *milliaria* strength, as both units were commanded by tribunes (Kennedy 1994, 91). It is also rather interesting to note that during the civil war of 193-194 CE, the Severan troops conducting the siege of Neapolis in Palaestina seem to have included troops composed of both the Mauri and the Palmyreni (Speidel 1975, 213-215), while Pescennius Niger is said to have brigaded Mauri spearmen with Eastern archers (Herodian 3.3.4).

The lack of other similarly titled units elsewhere in the Empire also strongly supports the idea of a uniform recruitment pattern. But if the ninth cohort was raised in the East, to which province could the numeral refer? Clearly the old provinces of Syria and Syria Palaestina are unsuitable, as notified earlier, as is also Cappadocia with its fourteen or more cohorts (Bennett 2002, 306; Mitford 1980, 1187-1188**;** Speidel 2009, 600-620). One possibility could be the province of Arabia, but its precise garrison strength is still unknown, while the only diploma (*AE* 2004: 1925) discovered so far names only six cohorts. Although several other units have been postulated to have been present in Arabia (Bowersock 1983, 107; Speidel 1977, 708-712), it remains uncertain when these arrived and how many were stationed in the province simultaneously. One could possibly also argue for either of the new Syrian provinces (i.e. Syria Coele and Syria Phoenice), but if the ninth cohort was created roughly at the same time as the 20th cohort, then the best candidate would seem to be the very province which has provided our sole evidence of the unit's existence.

The Military Organization of Roman Mesopotamia

It is true that we have very limited evidence for the early third-century garrison for the province of Mesopotamia, but certain aspects speak on behalf of the limited deployment of auxiliary infantry in this province. If used with caution, such documents as the late fourth-century *Notitia Dignitatum* can be used to decipher some general principles of Roman troop deployments. For example, in this document the garrison under the *Dux Palaestinae* (*Not. Dig. Or.* 34) consisted of a single legion, thirteen *equites* units, six *alae*, and eleven cohorts. This is not far

in relative proportion from the second-century garrison of Syria Palaestina, which consisted of two legions, three *alae* and twelve cohorts. In a similar fashion, the *Dux Armeniae* is reported (*Not. Dig. Or*. 38) to have had three legions, two *equites* units, 11 *alae* and ten cohorts under his command, while the second-century garrison of Cappadocia consisted of two legions, five *alae* and fourteen cohorts. Clearly, even when the differences in unit strength between the second- and fourth-century cohorts and the changed military emphasis on cavalry are taken into consideration, there still seem to be certain similarities between the relative proportions of different unit types in each province.

In other words, those regions which were in need of auxiliary infantry in the second century still seem to have a relatively large proportion of auxiliary infantry in the fourth century. Thus, it is quite interesting to note that in the Notitia, the joint garrison of the provinces of Osrhoene and Mesopotamia (*Not. Dig. Or*. 35-36), as they were organized in the late fourth century, consisted of four legions (the fourth unnamed legion being the one located at Apatna), nineteen *equites* units, nine *alae* and *only* four cohorts (assuming that the undefined *prima Gaetulorum* was the similarly titled cohort in Syria during the second century). This would seem to give some justification to the assumption that the Early Severan garrison of Mesopotamia relied greatly on heavy legionary infantry and auxiliary cavalry, while the auxiliary infantry played only a limited role in the protection of the province.

This image is further emphasized when the climatic and strategic factors are taken into account. Unlike the provinces along the Rhine or Danube Rivers, which were practically open to large-scale enemy incursions at multiple points, the Roman province of Mesopotamia could be invaded by the Parthians and later the Sassanids by only two or three routes, as large armies would have been forced to remain near water reservoirs in the desert regions. The first one went along the Euphrates River, but the protection of this route would have been the responsibility of the province of Syria Coele with its two legions (or large vexillations of them) recently relocated at Sura and Oresa (Kennedy 1987, 62) covering the threat. The second main route followed the Tigris River, and the invading force could have either continued along the desert road after Hatra to Singara or crossed the river further upstream near modern Mosul. In either case, the legion (*I Parthica*) stationed at Singara (Kennedy 1987, 60; Isaac 1990, 42, 360) would have covered the threat.

The location of the second legion (*III Parthica*) in Mesopotamia at this time is uncertain. It may have been first stationed at Nisibis (Kennedy 1987, 61), which was a Roman military base in the late Antonine era. From here the legion would have provided further security for the river crossing at Bezabde and for the route leading to/from Armenia. Alternatively, the legion could also have been located at Rhesaena (Isaac 1990, 360; Wolff 2000, 251) since its constitution and when the earlier procuratorial province of Osrhoene had most of its military functions transferred under the new prefecture of Mesopotamia, the legion would have become part of the new province. If not earlier, then at least by the time the Sassanids rose to power in Persia, the legion was most likely located at Rhesaena. By then, the very survival of Armenia depended of its alliance with Rome, which reduced the possibility of an invasion from Armenia (via Bezabde) and the need to keep large quantities of troops guarding that sector of the frontier. From Rhesaena the legion would have instead provided further security for the road following the Khabur River, in case the enemy would have been able to pass Dura and avert the approaching legions from Syria Coele, while at the same time keeping an eye on the client-kingdom of Osrhoene.

At least on a theoretical level, Roman Mesopotamia should have been relatively easy to defend, with the Taurus Mountains covering the north, the client-kingdoms of Armenia and Adiabene protecting the eastern flank, and the desert and the client-kingdom of Hatra providing security in the south. With a long desert frontier, the use of auxiliary infantry in the new province would have been limited to advanced outposts such as Hatra, river-crossings or strategic water-reservoirs along the desert roads. The two legions (*I* and *III Parthicae*) would have taken care of the larger inland population centres (Pollard 2000, 58-59), while cavalry would have been deployed within easy reach of either of the potential invasion routes along the desert roads to counter major invasions and simultaneously countering minor raids by the local *scenitae* Arabs. Even though the above reconstruction of strategic deployment is only hypothetical, it does provide us at least with a theoretical model of the Roman military deployment in Mesopotamia during the Severan era.

Conclusion

If the ninth cohort had a similar background as *cohors XX Palmyrenorum*, then the new unit may have been created around the nucleus of a pre-existing numerus of Moors, possibly the very one used by

Pescennius Niger in 193. As the irregular units were usually posted on the outskirts of the frontier or, in some cases, even beyond the official borders, in remote outposts (such as Dura-Europos), it is quite likely that the Moors who were stationed in the Eastern provinces were used in a similar fashion during the late Antonine Era. If the Moors and the Palmyrenians had even more in common, it could be postulated that the *numerus Maurorum* in question may have been garrisoned in one of the other remote outposts, such as Nisibis, which was occupied by Roman troops ever since the conclusion of the Parthian war of Lucius Verus (Angeli Bertinelli 1976, 30; Kennedy 1987, 58; Pollard 2000, 58), and later transferred to Hatra to assist the Roman ally against the Sassanid threat (Gawlikowski 1994, 47; Maricq 1957, 288-296; Pollard 2000, 59). Thus, the new *cohors Maurorum* could have had its roots in Mesopotamia already before the actual province was created by Septimius Severus.

Bibliography

Angeli Bertinelli, M. G. 1976. I Romani oltre l'Eufrate nel II secolo d.C. In: Temporini, H. / Haase, W. (eds.). Aufstieg und Niedergang der Römischen Welt 2.9, 3-45.

Bennett, J. 2002. The Cappadocian frontier: from the Julio-Claudians to Hadrian. In: Freeman, P. / Bennett, J. / Fiema, Z. T. / Hoffmann, B. (eds.). Limes 18. Proceedings of the 18th International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000). Oxford. 301-312.

Benseddik, N. 1982. Les troupes auxiliaires de l'armée romaine en Mauretanie Cesarienne sous le Haut-Empire. Alger.

Bowersock, G. W. 1983. Roman Arabia. Cambridge – London.

Edwell, P. M. 2007. Between Rome and Persia. The Middles Euphrates, Mesopotamia and Palmyra under Roman Control. London – New York.

Gawlikowski, M. 1994. A Fortress in Mesopotamia. In: Dąbrowa, E. (ed.). The Roman and Byzantine Army in the East. Proceedings of a colloquium held at the Jagiellonian University, Kraków in September 1992. Kraków. 47-56.

Gilliam, J. F. 1959. The Roman Army in Dura. In: Welles, C. B. / Fink, R. O. / Gilliam, J. F. (eds.). The Excavations at Dura-Europos, Final Report V. Part 1. The Parchments & Papyri. New Haven. 22-27.

Isaac, B. 1990. The Limits of Empire: The Roman Army in the East. Oxford.

Kennedy, D. 1997. Ala Phrygum and Ala VII Phrygum. – Zeitschrift für Papyrologie und Epigraphik 118, 300-304.

Kennedy, D. 1994. The cohors XX Palmyrenorum at Dura Europos. In: Dąbrowa, E. (ed.), The Roman and Byzantine Army in the East. Proceedings of a colloquium held at the Jagiellonian University, Kraków in September 1992. Kraków. 89-98.

Kennedy, D. 1987. The Garrisoning of Mesopotamia in the Late Antonine and Early Severan Period. – Antichthon 21, 57-66.

Kennedy, D. 1983. Cohors XX Palmyrenorum: An Alternative Explanation of the Numeral. – Zeitschrift für Papyrologie und Epigraphik 53, 214-216.

Maricq, A. 1957. Les dernières années de Hatra: L'alliance Romaine. – Syria 34, 288-305.

Mitford, T. B. 1980. Cappadocia and Armenia Minor: Historical Setting of the Limes. In: Temporini, H. (ed.). Aufstieg und Niedergang der Römischen Welt 2.7, 1169-1228.

Pollard, N. 2000. Soldiers, Cities, & Civilians in Roman Syria, Ann Arbor.

Rostovtzeff, M. I. / Brown, F. E. / Welles, C. B. 1939. Excavations at Dura-Europos conducted by Yale University and the French Academy of Inscriptions and Letters. Preliminary report of the seventh and eighth seasons of work 1933-34 and 1934-35. New Haven.

Southern, P. 1989. The Numeri of the Roman Imperial Army. – Britannia 20, 81-140.

Spaul, J. 2000. Cohors 2: The Evidence for and a Short History of the Auxiliary Infantry Units of the Imperial Roman Army. Oxford.

Speidel, M. A. 2009. The development of the Roman forces in northeastern Anatolia. New evidence for the history of the *exercitus Cappadocicus*. In: Speidel, M. A. (ed.). Heer und Herrschaft im römischen Reich der Hohen Kaiserzeit. Stuttgart. 595-631.

Speidel, M. P. 1978. Guards of the Roman Armies. An Essay on the Singulares of the Provinces. Bonn.

Speidel, M. P. 1977. The Roman Army in Arabia. In: Temporini, H. / Haase, W. (eds.). Aufstieg und Niedergang der Römischen Welt 2.8, 687-730.

Speidel, M. P. 1975. The Rise of Ethnic Units in the Roman Imperial Army. In: Temporini, H. (ed.). Aufstieg und Niedergang der Römischen Welt 2.3, 202-231.

Wolff, C. 2000. Legio III Parthica. In: Le Bohec, Y. / Wolff, C. (eds.). Les Légions de Rome sous le Haut-Empire, tome 1. Lyon. 251-252.

Kai Juntunen, MA
Department of World Cultures
POBox 24 (Unioninkatu 40)
FIN-00014 University of Helsinki
kai.juntunen@helsinki.fi

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Eusebius's *Onomasticon* and the Transfer of the *X Fretensis* from Jerusalem to *Aila*

Walter WARD

In 1989, Israel Roll published an inscription from the fort at Yotvata in the Wadi Arabah forty km north of ancient *Aila* (modern Aqaba, Jordan), which contained a peculiar feature. The inscription attested to the establishment of a castellum at Yotvata by the *praeses* Priscus sometime between 293 and 305, but the name of his province had been erased (Roll 1989, 241 with correction by Eck 1992). At the time that Roll published the Yotvata inscription, the scholarly orthodoxy held that Diocletian had enlarged the province of Palaestina by transferring southern Jordan, the Negev, and the Sinai from the province of Arabia. This theory was based on Timothy Barnes's understanding of Eusebius's *Onomasticon*, which described Petra as a city in both Arabia and Palaestina (Barnes 1982, 214-215)[1]. Barnes believed that both references were correct when Eusebius wrote them, therefore, the *Onomasticon* attested to the transfer of these regions to Palaestina, and this transfer could then be used to date the *Onomasticon* to the turn of the fourth century. Because the *Onomasticon* states that the *X Fretensis* Legion was based at *Aila*, scholars have since assumed that the *X Fretensis* Legion was stationed *Aila* as a result of these provincial changes, possibly because Diocletian wished to prevent governors, in this case the governor of Arabia, from possessing too much military power[2]. Recent research, however, calls into question the dating of the composition of the *Onomasticon*, the nature of the provincial changes at the beginning of the fourth century, and correspondingly, when the *X Fretensis* legion was stationed at *Aila* (Ward 2012).

The transfer of the *X Fretensis* legion from Jerusalem to *Aila* cannot be understood without reference to the provincial transformations in the southern Levant in the late third and early fourth century. Though the Yotvata inscription published by Roll was unable to confirm the expansion of the province of Palaestina, several more recent finds indicate that there was an enlarged Palaestina province during the reign of Diocletian. In Caesarea, three inscriptions have been discovered which mention the dedications of Aufidius Priscus, a *praeses* of Palaestina between 293-305, to Constantius and Galerius (Burrell 1993, 290-291, 293-4; Eck 2006, 336)[3]. Since the *praeses* of the Yotvata inscription was also named Priscus, it has been assumed that these were the same figures and that the Yotvata inscription confirms the actions of a *praeses* of Palaestina in the Wadi Arabah. An even more recent inscription from Udhruh, just east of *Petra*, attests to the actions of another known *praeses* of Palaestina, Aelius Flavianus, operating in southern Jordan probably between 303 and 305 (Kennedy / Falahat 2008, 159)[4]. Since two governors of Palaestina are credited with the construction of two separate military garrisons in territories previously belonging to Arabia, this appears to be conclusive proof of the enlargement of Palaestina during the Tetrarchy.

[1] Also see Barnes 2008, 66 #40.

[2] For example, Tsafrir 1986, 80-86; Roll 2007, 121. Gichon 2002, 198 argues that the transfer was to ensure that Palaestina, a richer agricultural region than Arabia, would provide the legion's upkeep.

[3] Now see also Corpus Inscriptionum Iudaeae/Palaestinae II 1268, 1271, 1272.

[4] ... *Kastra* [sic] *leg(ionis) VI Ferr(atae) f(idelis) c(onstantis) ex fundamentis / restitute insistentibus Aur(elio) Heraclida v(iro) p(erfectissimo) duci* [sic] *et / Ael(io) Flaviano v(iro) c(larissimo) praeside provinciae curante / Aur(elio) Muciano praef[ecto] eiusdem legeonis* [sic].

However, this alone does not prove that Eusebius's *Onomasticon* should be dated to the Tetrarchy, since there is evidence of two additional provincial changes in the region. The first, the creation of the so-called province of *Nea Arabia*, has been the most controversial[5]. *Nea Arabia* appears in P. Oxy. 3574, dated 314-318, and possibly in the Verona list, but the geographical parameters are largely unknown[6]. P. Oxy. 3574 describes the petition author Aurelios Malchus son of Ionathes as originating "from the confines of Eleutheropolis of New Arabia" (ἀπὸ ὁρίων Ἐλευθεροπόλεως τῆς Νέας Ἀραβείας). *Eleutheropolis* likely is the famous city of the same name, indicating that portions of southern Palaestina had been transferred to a New Arabia province. The boundaries of this province are unknown, perhaps including *Gaza* in addition to *Eleutheropolis*, though *Gaza* may have remained in Palaestina. That some towns and cities of this region were administered together at a later date is revealed in the Nessana Papyri, where six towns from Third Palestine (*Nessana*, *Mampsis*, *Oboda*, *Birosaba*, *Elusa*, and *Malaatha*) and three from First Palestine (*Chermoula*, *Birsamis*, and *Sobila*) provided payments for an unknown expense (P. Ness. 39). Another inscription long connected to the Beersheva Edict also lists locations in First and Third Palestine together (Di Segni 2004). These two much later texts could be residual evidence of the province of *Nea Arabia*. Recently, Sipilä suggested that *Nea Arabia* was created by Licinius, and later merged into Palaestina by Constantine after his conquest of the east (Sipilä 2009, 163-166). This seems to explain both the evidence of *Nea Arabia* and the list of bishops who attended the Nicene council in 325, in which both *Eleutheropolis* and *Aila* were included amongst the bishops of Palaestina[7].

Therefore, there was not just one time period in which *Petra* could have been transferred from Palaestina to Arabia or vice-versa, explaining the confusion of terminology about *Petra* in the *Onomasticon*. In addition to the Diocletianic transfer at the turn of the fourth century, Petra and southern Jordan may have been transferred to a *Nea Arabia* province under Licinius, and then transferred back to Palaestina by Constantine. The *Onomasticon*, therefore, could be dated to the 320s based on the locations of Petra in the changing imperial provincial structure.

Furthermore, several recent scholars have rejected Barnes's dating of the *Onomasticon*. Evidence from the *Onomasticon* suggests a date from the 320s (Louth 1990, 118-120; Taylor 2003, 3-4; Carriker 2003, 39; Grafton / Williams 2006, 221). For example, Eusebius dedicated it to Paulinus, the bishop of Tyre, who retired just prior to the Council of Nicaea and died in 330 (Eusebius, *Onomasticon* 2.4; Wolf 1964, 73-4; Taylor 2003, 4). Jerome's translation of the *Onomasticon* notes that Eusebius wrote the original after the composition of all ten books of his History of the Church. This did not occur until a revision following Licinius's defeat in 324 when Eusebius cast Licinius into the role of persecutor to further Constantine's propaganda machine (Jerome, *Onomasticon*, 3; Louth 1990, 118-120). Burgess suggests that this revision occurred in 325-326 (Burgess 1997)[8].

Dating the *Onomasticon* to 325-326 presents many advantages. First, it explains the references to *Petra* as being in both Palaestina and Arabia, which would have occurred as a result of the creation and dissolution of *Nea Arabia*. Second, it clarifies the dedication of the *Onomasticon* and Jerome's statement about its composition. Finally, this date clarifies why Eusebius does not mention Constantine's constructions at Jerusalem and Bethlehem – Helena began her pilgrimage in 326, and so the structures had not yet been built.

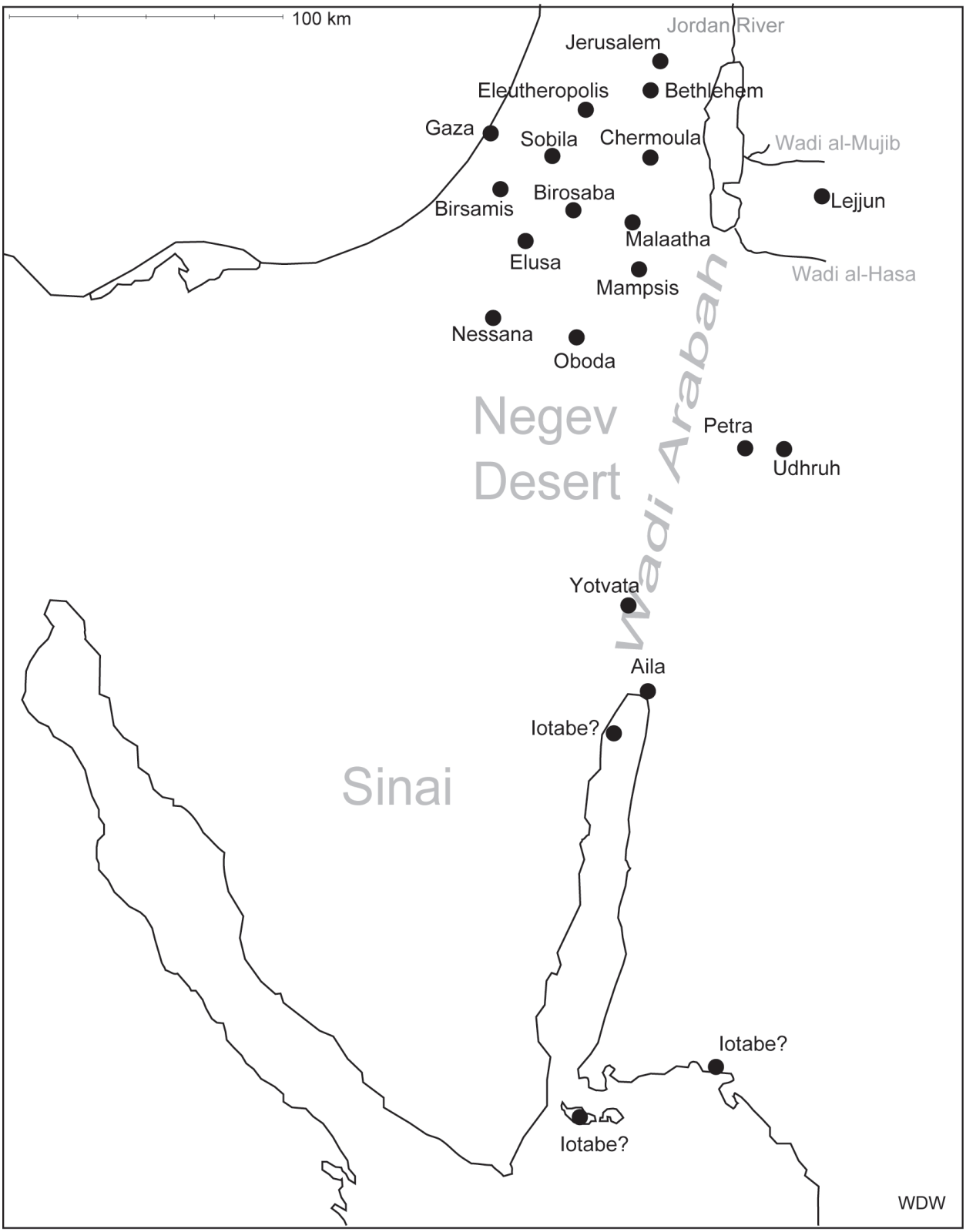
Since the *Onomasticon* cannot be conclusively dated to the late third century and it is the only source which describes the whereabouts of the *X Fretensis* legion at the turn of the fourth century, the old notion that Diocletian transferred it to *Aila* should be questioned. As the archaeological excavations at Roman and early Islamic *Aila*/Ayla produced no evidence about the legion, there is no conclusive evidence for the transfer of the legion to *Aila*. Even determining the legion's location throughout the third century is difficult. Vexillations of the *X Fretensis* have been attested along the Danube and in Gaul prior to the fourth century. How long they remained there is unknown (Dabrowa 2000, 321). The last time the legion is attested in Jerusalem is in the 250s (Meshorer 1989, 114, # 169). It may even have located at *Neapolis*

[5] See, for example, Mayerson 1983, 1986; Bowersock 1984; Sipilä 2004, 331-336.

[6] *Laterculus Veronensis* 1.8–13, *Arabia item Arabia Augusta Libanensis Palestina Fenice Syria Coele*. On the date of the Verona List, see Ward 2012, 292.

[7] See Ward 2012, 292-295, 298-299.

[8] Barnes 2008, 66, #40 accepts Burgess's criticisms, but still seems to deny the later date of composition.


100 km
Jordan River
Jerusalem
Eleutheropolis
Bethlehem
Gaza
Sobila
Chermoula
Wadi al-Mujib
Birsamis
Birosaba
Lejjun
Malaatha
Elusa
Wadi al-Hasa
Mampsis
Nessana
Oboda
Negev
Desert
Wadi Arabah
Petra
Udhruh
Yotvata
Aila
Iotabe?
Sinai
Iotabe?
Iotabe?
WDW

for a short period before moving to *Aila* (Ben Dor 1952, 251-252).

A circumstantial case can be made supporting the standard orthodoxy that the *X Fretensis* Legion was based at *Aila* in the late third century. As Parker has noted in several papers and books, the Arabian border (*Limes Arabicus*) was substantially militarized during the Tetrarchy, with two excavated legionary bases – at Udhruh and el-Lejjūn – securely dated to this period. Parker argues that during the Tetrarchy legionary fortress were located at approximately equal distances between the Red and Black seas, with auxiliary forces in between (Parker 1986, 135-143; 2000, 125-134; 2006; Kennedy / Falahat 2008; Parker 2009, 147-149)[9]. Therefore, a fortress at *Aila* was necessary to buttress the system in the south, just as *I Pontica* at *Trapezus* anchored the north (CIL 3.6746; *Notitia Dignitatum*, *Oriens* 38.16). Furthermore, the Roman road from Jerusalem to Petra and *Aila* was substantially upgraded during the Tetrarchy, as attested by several Tetrarchic period (and later) milestones from the Wadi Arabah (Avner 1995; Roll 2007, 125-127)[10]. These arguments suggest that a legionary base at *Aila* fulfilled an important strategic role.

However, a counter argument can be made that the legion was not stationed at *Aila* until the reign of Licinius or Constantine. Chief evidence includes the redating of the *Onomasticon* to the 320s and a Latin inscription that was discovered during the excavations of early Islamic Ayla. This inscription is extremely fragmentary, but should be dated between 317 and 326. One possible interpretation narrows the inscription to the period between 324 and 326 (AE 1989, 750; MacAdam 1989, esp. 169)[11]. If this reading of the inscription is correct, then it might be related to the construction of the legionary base at *Aila* since most Latin inscriptions in the region are military in nature[12].

The *X Fretensis* may have been transferred to *Aila* to replace the *VI Ferrata* when it was moved from Udhruh. According to a papyrus dated to August 16, 324, a soldier of the *VI Ferrata* was stationed in Egypt (P Oxy. 63.4359, Οὐαλέριος Πρίσκος, στρατιώτης λεγεῶνος ἕκτης Σιδηρᾶς τῶν ὑπὸ Οὐαλεριανὸν πραιπόσιτον διακειμένων ἐν Συήνῃ τῆς Θηβαΐδος). As Licinius was not decisively defeated until September of 324, we should assume that the legion was moved from Udhruh to Egypt by Licinius, perhaps as part of the reorganization of the southern Levant (Barnes 1981, 76-77; 2011, 106). The removal of the *VI Ferrata* left only one legion in Palaestina in the *Notitia Dignitatum*, which probably accounts for the fact that Palaestina possessed twice the number of auxiliary units as other provinces (Parker 1986, 142).

If the *X Fretensis* legion was intended to replace the *VI Ferrata*, then why was the legionary base moved from Udhruh down to *Aila*? The most likely scenario would include two reasons. First, beginning at the turn of the fourth century, *Aila* became a prominent port for trade along the Red Sea (Parker 1998, 388-389; Ward 2007; 2008, 151-153; Decker 2010, 207-209). In addition to providing the first conclusive evidence of the whereabouts of the *X Fretensis*, Eusebius's *Onomasticon* also provides the first indication that *Aila* was an important Red Sea port (Eusebius, *Onomasticon* 6). Second, trade routes between the Arabia Peninsula and the Mediterranean appear to have shifted away from *Petra*, which Udhruh guards, in the late third or early fourth century down towards *Aila*[13]. While these two reasons are connected to each other, the second highlights the importance of security in the region. When the Muslim armies attacked *Gaza* in 633/4, they must have crossed the Wadi Arabah near *Aila* (Theophanes, *Chronographia* AM 6124 (de Boor 335-336); Mayerson 1964, 177-178). One could argue that the movement of a legion from Udhruh to *Aila* demonstrates the increasing commercial traffic at *Aila* compared to *Petra*.

Regardless of when the legion was first stationed at *Aila*, it is unknown how long the legion remained there. Soldiers from the legion fought during Julian's war against the Persians in 363 (Ammianus Marcellinus 18.9.3). The *Notitia Dignitatum* provides the last reference to the legion at *Aila* at the turn of the fifth century (*Notitium Dignitatum*, *Oriens* 24.30). By the mid-fifth century, the southern portion of Arabia appears relatively undefended, as represented by the actions of the Saracen leader Amorkesos who captured the custom's station at *Iotabe* (Fisher 2004, 52).

In conclusion, it is currently impossible to understand the legionary garrison of Palaestina without first working through the problems of

[9] Note, however, that *Aila*, Udhruh, and el-Lejjūn are approximately 100 km from each other, while el-Lejjūn lies around 150 km from *Bostra* which is about 200 km from *Danaba*.

[10] Note that the milestones range in date from 284-324, attesting to continued interest up to the time of Licinius in the region.

[11] *[---]nus semper [---]/[---]/[--no]biliss(imi) Caess(ares) Fl(auius) Con[stantius ? / ---]q(ue) iuss[erunt / --- de]dicau[it?]*

[12] For example, the inscriptions from Yotvata and Udhruh mentioned earlier in this paper.

[13] See Erickson-Gini 2007; 2010; Ward 2008, 199-217.

provincial change in the region from Diocletian to Constantine. The theories about these provincial changes are rooted in texts whose interpretation and dates are often obscure. As Israel Roll realized, clarity should be sought through the discovery of new inscriptions, such as the insights that are now available from the inscription from Udhruh. Until a legionary foundational inscription is discovered at *Aila*, there will be no conclusive proof for when the legion was transferred.

Bibliography

Avner, U. 1995. The Southern Arava – Roman Milestones. – Hadshot Arkheologiyot 104, 120-121.

Barnes, T. 2011. Constantine: dynasty, religion and power in the later Roman Empire. Chichester.

Barnes, T. 2008. Eusebius and Legio. – Scripta Classica Israelica 27, 59-66.

Barnes, T. 1982. The New Empire of Diocletian and Constantine. Cambridge, Mass.

Barnes, T. 1981. Constantine and Eusebius. Cambridge, Mass.

Ben Dor, S. 1952. Quelques remarques à propos d'une monnaie de Néapolis. – Revue Biblique 59, 251-252.

Bowersock, G.W. 1984. Naming a Province: More on New Arabia. – Zeitschrift für Papyrologie und Epigraphik 56, 221-222.

Burrell, B. 1993. Two inscribed columns from Caesarea Maritima. – Zeitschrift für Papyrologie und Epigraphik 99, 287-295.

Carriker, A. 2003. The Library of Eusebius of Caesarea. Leiden.

Dabrowa, E. 2000. Legio X Fretensis. In: Le Bohec, Y. (ed.). Les légions de Rome sous le Haut-Empire. Lyon. 317-325.

Decker, M. 2010. Settlement and Trade in the Red Sea in Late Antiquity: An Archaeological Perspective. – Ancient West and East 9, 193-220.

Di Segni, L. 2004. The Beersheba Tax Edict Reconsidered in the Light of a Newly Discovered Fragment. – Scripta Classica Israelica 23, 131-158.

Eck, W. 2006. Worte und Bilder. Das Herrschaftskonzept Diocletians im Spiegel öffentlicher Monumente. In: Boschung, D. / Eck, W. (eds.). Die Tetrarchie: Ein neues Regierungssystem und seine mediale Präsentation. Wiesbaden. 323-347.

Eck, W. 1992. Alam Costia constituerunt: zum Verständnis einer Militärinschrift aus dem südlichen Negev. – Klio 74, 395-400.

Erickson-Gini, T. 2010. Nabataean settlement and self-organized economy in the Central Negev: crisis and renewal. Oxford.

Erickson-Gini, T. 2007. The Nabataean-Roman Negev in the Third Century CE. In: Lewin, A. / Pellegrini, P. / Fiema, Z. / Janniard, S. (eds.). The late Roman Army in the Near East from Diocletian to the Arab Conquest: proceedings of a colloquium held at Potenza, Acerenza and Matera, Italy / May 2005). Oxford. 91-100.

Fisher, G. 2004. A New Perspective on Rome's Desert Frontier. – Bulletin of the American Schools of Oriental Research 336, 49-60.

Gichon, M. 2002. 45 Years of Research on the limes Palaestinae – the findings and their assessment in the light of the criticisms raised (C1st-C4th). In: Freeman, P. / Bennet, J. / Fiema, Z. / Hoffman, B. (eds.). Limes XVIII: Proceedings of the XVIIIth International Congress of Roman Frontier Studies held in Amnan, Jordan (September 2000). Oxford. 1.185-206.

Grafton, A. / Williams, M. 2006. Christianity and the Transformation of the Book: Origin, Eusebius, and the Library of Caesarea. Cambridge, Mass.

Kennedy, D. L. / Falahat, H. 2008. Castra Legionis VI Ferratae: a building inscription for the legionary fortress at Udruh near Petra. – Journal of Roman Archaeology 21, 151-169.

Louth, A. 1990. The Date of Eusebius' Historia Ecclesiastica. – Journal of Theological Studies 41, 111-123.

MacAdam, H. 1989. Fragments of a Latin Building Inscription from Aqaba, Jordan. – Zeitschrift für Papyrologie und Epigraphik 79, 163-172.

Mayerson, P. 1986. Nea Arabia (P. Oxy. 3574): An Addendum to ZPE 53. – Zeitschrift für Papyrologie und Epigraphik 64, 139-140.

Mayerson, P. 1983. P. Oxy. 3574: "Eleutheropolis of the New Arabia". – Zeitschrift für Papyrologie und Epigraphik 53, 251-258.

Meshorer, Y. 1989. The coinage of Aelia Capitolina. Jerusalem.

Parker, S. T. 2009. The Roman frontier in Southern Arabia: a synthesis of recent research. In: Hanson, W. S. (ed.). The army and frontiers of Rome: papers offered to David J. Breeze on the occasion of his sixty-fifth birthday and his retirement from Historic Scotland. Portsmouth, R.I. 142-152.

Parker, S. T. 2006. The Roman Frontier in Central Jordan: Final Report on the Limes Arabicus Project, 1980-1989. Washington.

Parker, S. T. 2000. Roman Legionary Fortresses in the East. In: Brewer, R. (ed.). Roman Fortresses and their Legions: Papers in Honour of George C. Boon. London. 121-138.

Parker, S. T. 1986. Romans and Saracens: A history of the Arabian Frontier. Winona Lake, IN.

Roll, I. 2007. Crossing the Negev in Late Roman Times: the administrative development of Palaestina Tertia Salutaris and of its imperial road network. In: Lewin: A. / Pellegrini, P. / Fiema, Z. / Janniard, S. (eds.). The late Roman Army in the Near East from Diocletian to the Arab Conquest: proceedings of a colloquium held at Potenza, Acerenza and Matera, Italy / May 2005). Oxford. 119-130.

Roll, I. 1989. A Latin Imperial Inscription from the Time of Diocletian found at Yotvata. – Israel Exploration Journal 39, 3-4, 239-260.

Sipilä, J. 2009. The Reorganisation of provincial territories in

light of the imperial decision-making process: Later Roman Arabia and Tres Palaestinae as case studies. Helsinki.

Sipilä, J. 2004. Roman Arabia and the provincial reorganizations of the fourth century. – Mediterraneo antico 7, 317-348.

Taylor, J. 2003. Introduction. In: The Onomasticon by Eusebius of Caesarea. Jerusalem. 1-8.

Tsafrir, Y. 1986. The Transfer of the Negev, Sinai and Southern Transjordan from "Arabia" to "Palaestina. – Israel Exploration Journal 36, 1-2, 77-86.

Ward, W. 2012. 'In the province recently called Palestine Salutaris': Provincial changes in Palestine and Arabia in the late third and fourth centuries C.E. – Zeitschrift für Papyrologie und Epigraphik 181, 289-302.

Ward, W. 2008. From Provincia Arabia to Palaestina Tertia: Geography, Religion and Transformation during Late Antiquity. Unpublished Dissertation, UCLA. Los Angeles.

Ward, W. 2007. Aila and Clysma: The Rise of Northern Ports in the Red Sea in Late Antiquity. In: Starkey, J. / Starkey, P. / Wilkinson, T. Natural Resources and Cultural Connections of the Red Sea. Oxford. 161-171

Wolf, C. 1964. Eusebius of Caesarea and the Onomasticon. – Biblical Archaeologist 27, 3, 65-96.

Walter D. Ward, Ph.D.
Department of History
University of Alabama at Birmingham
1530 3rd Avenue South (HHB 360D)
USA-35294 1152 Birmingham, AL
wdward@uab.edu

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Roman Army on the Eastern Frontiers in Greco-Roman, Jewish, and Christian Sources: A Comparative Study

Alexander KYRYCHENKO

As Wheeler (1996, 229) observes, "the proverbial lax discipline of the Eastern Roman army remains a standard interpretation in modern discussions of Roman campaigns in the East". Indeed, according to the Roman sources, the decadent environment of the Eastern towns corrupted the troops leading to their insubordination, military weakness, and abuse of the local population. For instance, Livy notes that the campaign of Cn. Manlius Vulso against the Galatians in 189 B.C.E. acquainted his soldiers with the pleasures of Asian cities and spoiled them with the luxuries of the opulent East. According to Livy, the army was corrupted with "every kind of license", disregarded military discipline, and carried the infection of the luxurious living back to Rome (Livy, 39.1.3-4; 6.5-9). Sallust writes that during the Eastern campaign of 87-86 B.C.E., L. Cornelius Sulla allowed the "pleasant and voluptuous" lands of the East to demoralize the spirit of the soldiers (Sallust, *Bell. Cat.* 11.6-7). Tacitus points out that when Cn. Domitius Corbulo took charge over the legions stationed in Syria in 58 C.E., he inherited the soldiers, who due to peaceful and easy living became lazy and incapable of a military duty. According to Tacitus, Corbulo encountered veterans to whom the rampart and the ditch were new and astonishing sights, who had never been on guard, did not have helmets or armor, and spent all their time in towns (Tacitus, *Ann.* 13.35). Describing the events of 69 C.E., Tacitus asserts that Syrian legions swore their allegiance to Vespasian because they were alarmed by the plan of Vitellius to transfer them from Syria, where they experienced an easy service, to the Rhine frontier, known for its harsh climate and severe hardship (Tacitus, *Hist.* 2.80-81). Fronto describes the soldiers of the Syrian legions as corrupted by luxury and leisure and brands them as mutinous, insolent, drunkards, untrained, wimps incapable of enduring any hardship, and cowards fleeing at the first sight of the enemy (Fronto, *Ad Ver. Imp*. 2.1.19; *Praef.* 12).

Wheeler (1996, 271) argues that the *topos* of the laxity of the Syrian legions so prevalent in the writings of the Roman authors expresses their Western prejudice against the East rather than reflects the factual state and efficiency of the Eastern troops. The perspective of the Eastern sources on the Roman army known to them confirms this assertion. The works of the Jewish prophetic literature, some of which were written after the sack of Jerusalem by Pompey in 63 B.C.E. and others after the destruction of Jerusalem by Titus in 70 C.E., present Roman military intervention as an unstoppable assault. For instance, Pesher Habakkuk emphasizes the power of the *Kittim* —their army is presented as numerous, swift, powerful, fearsome, and scornful of any military resistance. The comparison of this army with an eagle (*1QpHab* 3:8, 11-12), the symbol of the Roman legions, and the indication that the *Kittim* worship their standards (*1QpHab* 6:4), a practice of the Roman soldiers, strongly suggest that the army of the *Kittim* is the Roman army (cf. Josephus, *B.J.* 6.316). Psalms of Solomon provide another witness to the military strength of the Roman force deployed in the East. One of the psalms describes the capture of Jerusalem's temple by the soldiers of Pompey, who broke down its walls with a battering ram and trampled the altar with

their sandals (*Ps. Sol.* 2:1-2)[1]. Another compares an advancing Roman army to a hurricane and a raging fire sweeping through the desert (*Ps. Sol.* 8:1-2). A similar assessment of Roman military might is found in a wide range of Jewish literary sources encompassing a period from the mid-1st c. B.C.E. through the early 2nd c. C.E. Whether these writings address Pompey's conquest of Jerusalem (the Dead Sea Scrolls and Psalms of Solomon), the War of Varus of 4 B.C.E. (Assumption of Moses), or the Jewish War of 66-73 C.E. (Sibylline Oracles 4 and 5, 4 Ezra, 2 Baruch, Apocalypse of Abraham), or the Roman conquests in general (Sibylline Oracles 1-3), they emphasize the might and military skill of the Roman army. Moreover, certain witnesses clearly associate the Roman army invading Jerusalem with the Roman Empire itself – just as the Assyrian and Babylonian Empires in the past, now the Roman Empire poses as the agent of the divine retribution for the sins of the Jewish people (4 Ezra 11-12; 2 Bar. 36-40).

The Roman army in the works of Josephus is a disciplined invincible military machine. Speaking from personal experience acquired while accompanying the army during the Jewish campaign, Josephus emphasizes the skill, the might, and the valor of the Roman troops and highlights the military discipline of the soldiers as a primary source of their unbeatable strength. He observes that the Romans perform their drills daily and with the same diligence and vigor as required in battle: "Their exercises are bloodless battles, and their battles are bloody exercises" (*B.J.* 3.75). According to Josephus, the ensuing military skill and firmness of spirit of the Roman soldier overcomes any disorder, fear, or fatigue of combat (*B.J.* 2.577; 3.71-75, 101-107, 479; 5.310). Roman military principles of order, discipline, and restraint are contrasted to the barbaric passions evident in the behavior of the anti-Semitic allies and *auxilia*. Whereas the legionaries of Varus show judgment and restraint in punitive expeditions against the Jewish insurgents in 4 B.C.E., the troops of the Arab king, whose hatred for the deceased king Herod the Great translated into an indiscriminate persecution of the Jewish population, are expelled from the army for behavior unbecoming Roman allies (*B.J.* 2.69-70, 76). The disciplined restraint of Titus's legionaries during the siege of Jerusalem is juxtaposed to the avarice displayed by the Syrian and Arabian *auxilia*, who continued their hunt for gold in the entrails of their Jewish captives even under the threat of the capital punishment (*B.J.* 5.548-561).

The writings of Josephus present the Roman troops deployed in the East as the army that conquered the known world. In his speech at the escalation of the riot in Jerusalem in 66 C.E., king Agrippa II warns the Jewish insurgents that they would have to face the same invincible army that has created the empire and holds its numerous nations in submission (*B.J.* 2.345-404). Also, following the Jewish prophetic tradition, Josephus presents the Roman army as an instrument of punishing the transgressions of the Jewish people against God, without whose approval, he argues, the Roman Empire could not have acquired such power[2]. This close association of the army with the imperial power allows Josephus to employ the image of the army for a specific literary task of elevating the image of the *Flavii*. Writing as a client of the Flavian dynasty, Josephus coordinates his depiction of the army with his goal of praising the military acumen and the leadership qualities of his patrons, especially Titus. By highlighting the discipline, the skill and the heroic exploits of the soldiers, which resemble the valiant acts of the soldiers in Caesar's *Commentarii* and imitate the example of their commander in chief, Josephus emphasizes the Emperor's rapport with his troops, underscores his military genius and achievement, and buttresses his public image.

The Gospel of Luke, the first part of his two-volume work that also includes the book of Acts, also depicts the Roman army as unstoppable force that destroys Jerusalem (Luke 13:1-5; 19:41-44; 21:20-24; 23:27-31). Following the Jewish prophetic tradition, Luke presents the army as an instrument of the divine justice against the sins of the Jews, in this case, their rejection of Christ. However, the principal function of the Roman army in Luke-Acts has to do with Luke's employment of Roman soldiers and centurions in the role of prototypical gentile believers. In the story of the soldiers and John the Baptist (Luke 3:14), which is unique to the Gospel of Luke, the soldiers are among the first non-Jews who have shown a positive response to the gospel message. As these soldiers are likely Roman, they are the first

[1] According to Josephus (*A.J.* 14.60-62; *B.J.* 1.145-147), Pompey assaulted the northern wall of the temple with a battering ram. Josephus (*A.J.* 15.417) also records that the temple courts, except for the most outer one, were out of limits to Gentiles. Additionally, the psalmist likely refers to entering the Holy of Holies by Pompey; cf. Josephus, *A.J.* 14.72; *B.J.* 1.152.

[2] Divine support of the Roman supremacy is a recurrent theme in Josephus; cf. *B.J.* 3.293, 351, 404, 494; 4.297, 323, 366, 370; 5.2, 19, 39, 278, 343, 367-368, 378, 396; 6.38-39, 101, 110, 250, 371, 399, 401, 433; 7.32-34, 319.

personages in Luke's sequence of Roman military figures who exemplify the expected gentile response to the gospel[3]. The centurion at Capernaum in the story from Jesus's healing ministry (Luke 7:1-10) is the next such figure[4]. This centurion is presented as a benefactor of the local Jewish community, whose faith in Jesus surpassed the faith of the Jews[5]. As a person of exemplary piety and faith, the centurion serves as a prototype of a true non-Jewish believer in Christ. The next reference to a Roman centurion appears in the context of Jesus's crucifixion[6]. The proclamation of Jesus as righteous by the centurion at the cross (Luke 23:47) is unique to Luke[7]. Declaring Jesus as the righteous one of God, this centurion represents the gentiles who affirm what the unbelieving Jews refused to accept. The story of centurion Cornelius in Acts (10:1-11:18) is the account of the birth of the first gentile Christian church. The account presents the centurion as a God-fearer, who actively practices the acts of righteousness, and whose piety summons God's approval and results in acceptance of gentiles into Christian fellowship. In the story, the centurion exemplifies the principle, proclaimed in his house by apostle Peter: in every nation the one who fears God and practices righteousness is acceptable to God (Acts 10:35) and, therefore, poses as a model gentile believer. In the following narrative of Acts, the conversion of centurion Cornelius provides the rationale for accepting gentiles into the church and sanctions Christian missions to the non-Jewish population of the empire. The pious centurion himself is employed as a prototype of future gentile believers, anticipating the upcoming expansion of the gospel throughout the empire all the way to its capital in the rest of the book of Acts. Noteworthy, the Roman army is also the means that facilitates this expansion. The Jerusalem cohort quartered in the fortress Antonia rescues Paul, the missionary to gentiles, from being lynched by the infuriated Jewish mob (Acts 21:30-34). A formidable Roman military detachment shields Paul from the Jewish assassination plot and safely transfers him from Jerusalem to Caesarea (Acts 23:10). A Roman military unit under the command of centurion Julius accompanies Paul to Rome (Acts 27). During the voyage, the centurion treats Paul kindly (Acts 27:3) and even saves his life (Acts 27:42-43), thus ensuring the deliverance of the gospel messenger and his message to the imperial capital.

The non-literary evidence from the *limes* helps to understand Luke's choice of Roman military personnel, especially Roman centurions, for the role of principal representatives of the non-Jewish population of the empire in his narrative. On the frontier of the 1st c. C.E., the Roman military personnel entrusted with conducting the army's business, in the absence of the civilian apparatus inevitably became employed for administering the civilian functions (Rankov 1999). Hence, the majority of the Roman provinces were administered by the staff drawn from the Roman army. The records of civilian petitions on papyri from Egypt illustrate that centurions became a regular feature of the upholding the law and order throughout the countryside. The earliest known example of a civilian petition to a centurion is found in a papyrus of 31 C.E. from Oxyrhynchus (*P.Oxy.* 2234): a fisherman, who has been assaulted and robbed by several civilians and a soldier, petitions a centurion to investigate the matter and to force the accused to pay the penalty. This and other petitions show that the litigants asked centurions to judge the cases on their own initiative and make legal decisions (Alston 1995, 86-96). The cases presented to centurions covered a wide range of issues, including assault, theft, robbery, fraud, and various disputes. The evidence demonstrates that Roman centurions were involved in litigation in the local communities in Palestine (e.g., *P.Euphr.* 5) as they were in other parts of the empire, such as the German (cf. Dio 56.19) or British (Bowman / Thomas 1991) *limes*. Additionally, centurions, as wealthier members of the society, were able to provide not only legal but also financial assistance

[3] Luke does not specify the identity of the soldiers. Potentially, they could have been the soldiers of the Jewish temple guard or the soldiers of Herod Antipas, who ruled in Galilee and Perea until 39 C.E. However, the soldiers are treated separately from the crowds of the ethnic Jews (Luke 3:7, 10-11) and likely belong to the implied gentile audience (Luke 3:6). Furthermore, since at the time Judaea was under the direct rule of Rome, it was the Roman army that enforced order and engaged in administrative duties in the region.

[4] The centurion in question could have been a leader of a detachment of troops on a mission of upholding the order, collecting taxes, or any other of the tasks that could have been undertaken by the military stationed at the *limes*.

[5] The inscriptional evidence contains numerous examples of centurions-benefactors, e.g. *AE* 1978, 286; *ILS* 2081; 2544; 2666.

[6] The Passion Narrative itself reveals Luke's intention to tone down the involvement of the Roman soldiers in the sufferings and death of Jesus. While Mark (15:16-20) and Matthew (27:27-31) report that the Roman soldiers humiliate Jesus, Luke (23:6-12) transfers the scene of humiliation from the Roman praetorium to Herod's court, making Herod's soldiers responsible for it.

[7] The parallel accounts of Mark 15:39 and Matt 27:54 have the centurion declare Jesus "the son of God."

to their Jewish neighbors. A document from the Archive of Babatha (124 C.E.) speaks of an emergency loan made by a Roman centurion to a Jewish civilian (Lewis 1989, 41-46).

Thus, Roman military personnel were involved in day-to-day life and administration of the civilians and have been a vital part of the local administration of the *limes*. As the evidence shows, the Roman centurion was the Roman official who, unlike a remote prefect or procurator, was accessible locally and directly and possessed social status and power sufficient to provide the local population with effective assistance in wide range of problems. In a very real sense, for the civilian population of the *limes* the centurion was the Roman Empire. This is why Luke can use Roman centurions as prototypical figures in anticipation of the expansion of the gentile Christian mission from Palestine throughout the empire all the way to its capital.

To summarize, the *topos* of the laxity and military ineffectiveness of the Eastern Roman army, prevalent in the writings of the Roman authors, is not attested in the Eastern sources. Even though the tone of their presentation differs, the consulted witnesses portray the Roman army as a disciplined invincible military machine. For the Eastern writer the army on the Eastern *limes* of the empire represents the empire itself. This connection allows the writers such as Josephus and Luke to link Roman military with Rome in a way that advances their particular literary goals. Josephus uses the image of the army to buttress the public image of the emperor. In the works of Luke, Roman soldiers and especially centurions pose as prototypes of the wider gentile population of the Roman Empire receptive to Christian message.

Bibliography

Alston, R. 1995. Soldier and Society in Roman Egypt: A Social History. New York.

Bowman, A. / Thomas, J. 1991. A Military Strength Report from Vindolanda. – Journal of Roman Studies 81, 62-73.

Lewis, N. (ed.) 1989. The Documents from the Bar Kokhba Period in the Cave of Letters. Greek Payri. Jerusalem.

Rankov, B. 1999. The Governor's Men: The officium consularis in Provincial Administration. In: Goldsworthy, A. / Haynes, I. / Adams, C. (eds.). The Roman Army as a Community: Including Papers of a Conference Held at Birkbeck College, University of London, on 11-12 January 1997. Journal of Roman Archaeology Supplementary Series 34. Portsmouth.15-34.

Wheeler, E. 1996. The Laxity of Syrian legions. In: Kennedy, D. (ed.). The Roman Army in the East (= Journal of Roman Archaeology Supplementary Series 18). Ann Arbor. 229-276.

Alexander Kyrychenko, Ph.D.
Emory University
540 Asbury Circle
USA-30322 Atlanta, GA
akyrych@emory.edu

Veterans on the Frontiers

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

In Search of Veterans of the Roman Army on the Frontier: Material Culture Evidence

Tatiana IVLEVA

Introduction

Veterans of the Roman army were the subject of a number of papers published in the past proceedings of the LIMES congresses (cf. Aricescu 1977; Roxan 1997; Ployer 2009). The theme is not new for the Roman frontier studies either, considering the amount of interest this theme has accumulated in the past decades and still receives from scholars (cf. works of Raepsaet-Charlier 1978; Birley 1982/1983; Mann 1983; 2002; Visy 1997; Krolczyk 1999; Roxan 2000; James 2005; Lenz 2006; Meyer 2013).

The main focus of the aforementioned publications lay on the determination of where veterans settled upon their discharge and on pin-pointing the location of veteran settlements. The search has concentrated on "comparing the findspot of a diploma with the province where […] the recipient had concluded his term of service" (Derks / Roymans 2006, 121). Based on such calculations it has been concluded that 70 percent of the diploma recipients stayed in the province where they completed their service, some settling near military installations and some moving to cities and rural areas, while only around 10 percent of veterans returned to their home country (Derks / Roymans 2006, 121). Such research has greatly contributed to our knowledge of the soldiers' and their families' mobility within and outside the physical boundaries of the Roman Empire, although the aforementioned percentage is an average number for all known diplomas and does not show differences between the numbers of veterans who returned to certain provinces (Derks / Roymans 2006, 121-122). Moreover, the dichotomy between the low number of military diplomas that survived in the archaeological record and the actual unknown total number of citizenship certificates issued upon soldiers' discharge is significant in the way that it does not allow any statistical analysis to be made (Haynes 2001, 74).

The reliance on the epigraphic evidence, hence, provides constraints to our understanding of the veterans' mobility and pleads for searches in other spheres of evidence. Such a statement is of course a re-invention of the wheel, since such inventory of other types of evidence has been done by Roymans and Derks (2006), and Nicolay (2007) in relation to Batavians. The seal-boxes together with Roman military equipment and horse gear were effectively used by them in order to determine the levels of the return movement of the Batavian soldiers and resulted in the conclusion that the "returning figures [were] high" (Roymans / Derks 2006, 133), in contrast to the epigraphic evidence, where returning Batavians were under-represented.

The session held at the LIMES congress in Bulgaria, of which the present and the following papers were part, was an attempt to go beyond the idea that the archaeological evidence gives us only the possibility to trace veteran settlements, beyond epigraphic constraints and towards the reconstruction of personal mobility of returning veterans. It tended, therefore, to focus on material culture and aimed to provide a different perspective on how to find (a returning) veteran using as many different artefacts as possible and concentrating on different communities and time periods.

The starting point, which is expressed in the present introduction, is that many veterans were eager to return home and that the frequency did not depend on proximity to the province where one had served, although the levels of the return movements might have been not as high as for Batavians, Thracians and Pannonians, who "return home more frequently […] than soldiers levied from many oth-

er parts of the empire" (Derks / Roymans 2006, 121; 131). The veterans for whom there is no surviving record in the form of military diplomas or inscriptions merit greater attention, because those absent from the epigraphic evidence did not necessarily settle within the former province of service. It must, however, be stated at the outset that the papers here are not at all criticising the work of the previous scholars; they had a high value of showing the levels of mobility within and outside the military environment. It is nevertheless crucial to emphasise that the search for the epigraphically invisible veterans contributes to our knowledge of the movement of various people in the Roman Empire and draws a picture of the diversity in the individual responses and choices upon completion of military service. Furthermore, the challenge is not to limit the search for returning veterans to the artefacts that are expected to be useful in the quest, such as military equipment, horse gear and seal-boxes. Various other artefacts might prove helpful in determining the soldiers of various ethnic origins who packed their belongings and went home.

Dress Accessories as Evidence for the Returning Veterans

This introductory paper takes a first step in this endeavour and attempts to present the first objects in line, which can help in the search for the returning veterans. These are Roman dress accessories, which were widely worn by the population of the Empire from the first to the third centuries AD, namely brooches, known in Latin as fibulae.

Brooches served to hold together two pieces of a person's clothing, i.e., the outer garment to the tunic, and were positioned at the shoulder level. Because they functioned as cloths-fasteners, brooches were worn in basically every province of the Roman Empire by both males and females, although some of these jewellery items have strictly regionalised distributions (cf. regionalised brooch types in Pannonia and Noricum – Garbsch 1965; Rothe 2013; Germania Superior and Gallia Belgica – Capelle 1965; Böhme-Schönberger 1994; Rothe 2009).

Within the province of Roman Britain, there is evidence for the existence of regional brooches that were distinctive in their design, decoration and form in relation to local products in other parts of the Empire (Feachem 1951; Hunter 2010; Mackreth 2009; 2011; McIntosh 2011; esp. McIntosh 2013 on Wirral brooch as a regional type). The presence of the headloop, purpose-made for the attachment of a chain, is a typical British characteristic. British-made brooches are also distinguishable by their unusual decorative techniques and various forms, which appear to be unique to Britain (for a detailed description see Ivleva 2011a, 133 and for the images see Hattatt 2007, 301, 327, 329, 332, 350, 364). These types were manufactured in Roman Britain: moulds and the patterns for moulds for the production of various British brooch types have been found throughout Britain (Bayley / Butcher 2004, 27-31, 35-37). Moreover, these types appear to be relatively numerous in the province: on any given site the percentage of the brooches with typical British characteristics is over 70 (Bayley / Butcher 2004). Within other provinces of the Roman Empire they are, however, found in limited numbers: one or at most three percent of the total number of all brooches found on any given site (Ivleva 2011b, 15). Up to now 242 British-made brooches have been identified on 102 sites across Europe with the provenance of 19 brooches recorded as unknown (**fig. 1**)[1].

The question of how these objects reached their destinations in Continental Europe can be asked, taking into account two factors. First, brooches worn by provincials were regionally specific and there might have been no market for them outside the province of their manufacture. Second, brooches are rather personal items to secure two pieces of clothing. Being part of the personal possessions of individuals they might have travelled with their owners when they crossed the provincial borders.

Indeed the in-depth analysis of all 102 sites where these British-made brooches were recorded, the study of the sites' locations, history of settlements and the contexts in which objects have been found, combined with the analysis the epigraphic evidence available for each site, has shown that these British-made brooches were brought to the Continent as part of the personal possessions of individuals travelling from Britain (Ivleva 2011a, 2011b; 2012).

A significant group of British-made brooches found on 26 sites (table 1) with seven more sites in question (in grey on the table) seems to concentrate on the areas with a high percentage of civilians.

British-made brooches concentrate on sites inhabited by different tribal entities: Menapians, Nervians, Tungrians and Morinians in Gallia Belgica,

[1] In my preliminary publication (Ivleva 2011a) a typo occurred: the number of brooches and sites was recorded as 241 brooches found on 103 sites, instead of 242 brooches on 102 sites.



Fig.1. Distribution of British-made brooches

Table 1. Sites with British-made brooches and tribal areas

Tribal areas	Site name
Batavi	Nijmegen, Oosterhout-van Boetzelaerstraat, reg. Nijmegen, Tiel-Passewaaij, the Netherlands
Iazygi	Ečka, Serbia
Menapii	Destelbergen, Waasmunster, both in Belgium
Nervii	Blicquy, Hofstade, Schaerbeek, Velzeke, all in Belgium
Treveri	Dalheim, Luxembourg; Ahrweiler, Blankenheim, Möhn, Tholey, Trier, Waldorf, Wederath, all in Germany
Tungri	Heerlen, Maastricht, both in The Netherlands; Fallais, Flavion, Thuin, Tongeren, all in Belgium
Vangioni	Alzey, Bad Kreuznach, Flonheim, Worms, all in Germany
Morini	Étaples, France
Mattiaci	Frankfurt-Heddernheim, Mainz, Saalburg, Zugmantel, all in Germany

Batavians in Germania Inferior, and Vangiones in Germania Superior (**fig. 2**).

The units raised from the members of the civitates mentioned were posted in Britain in the late first through second centuries AD: *cohors I Menapiorum* served in Britain in the beginning of the second century, c. AD 120-135 (Jarrett 1994, 62; Spaul 2000, 185); *cohortes I*, *II*, *III*, *IIII* and *VI Nerviorum* also served in various places in Britain in the second century, but were mostly concentrated in the north-east and west of England, on Hadrian's Wall and the Antonine Wall (Jarrett 1994, 63-64; Spaul 2000, 217-224); *ala I Tungrorum, cohortes I* and *II Tungrorum* served in Britain during the late first through second centuries (Jarrett 1994, 39, 44, 48, 49; Spaul 2000, 225-230); *cohors I Morinorum* is attested on military diplomas issued for the army of Britain in AD 103, 122 and 178 (Spaul 2000, 186); *cohortes I*, *III* and *IX Batavorum* are attested on military diplomas, various inscriptions and on *Vindolanda* writing tablets as being part of the army of Britain (Jarrett 1994, 55-56; Spaul 2000, 209-216); *cohors I Vangionum* was present in Britain as early as the beginning of the second century and was posted on the forts on Hadrian's Wall and its outpost fort at Risingham (Jarrett 1994, 50; Spaul 2000, 250-251). The occurrence of the British-made brooches in these areas can be connected with returning veterans. After completing 25 years of service, some of the veterans preferred to return to their home region – we know of such returns being made through the evidence of military diplomas (cf. works of Derks / Roymans 2006; Nicolay 2007). The aforementioned Nervians, Treverans,

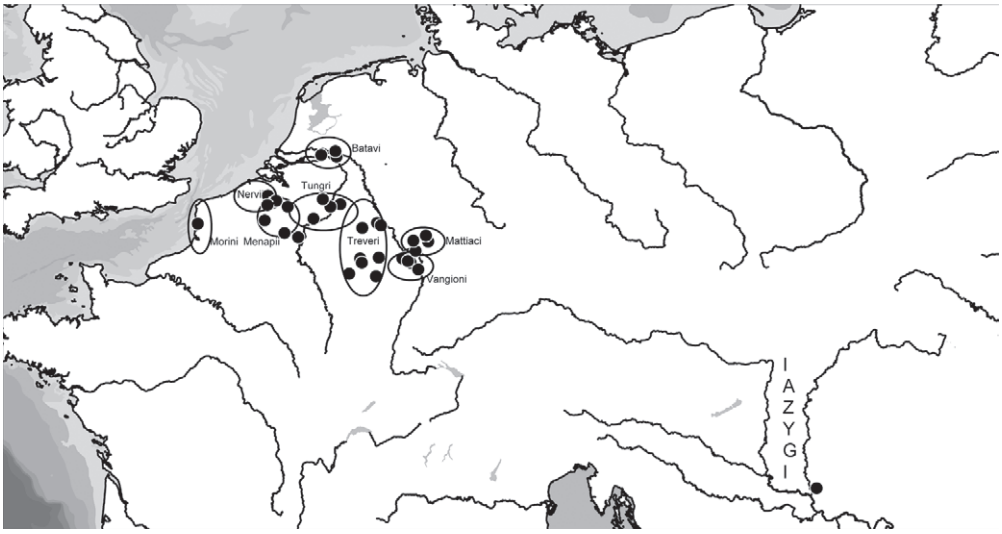


Fig. 2. Distribution of British-made brooches in tribal areas

Batavians, etc. preferred not to stay in the province that served them as home for 25 years and returned to their tribal lands on the Continent, bringing with them the personal accessories they had acquired during their time living in Britain.

The occurrence of British-made brooches on civilian sites in the lands of the Treverans can also be connected with returning veterans, yet Treveran cohorts are absent from military diplomas issued for Britain. However, three soldiers of Treveran origin are known to have been recruited into the auxiliary units stationed in this province (RIB 606, 2401, 08; 3185), two of which served in the same ala, suggesting that there may have been more members of this tribal entity recruited to serve in the very same unit.

A find from the 'German' cemetery in Barbaricum at Ečka, Serbia, is of particular significance. It is a disk-and-trumpet brooch, the type which is known to have flourished during the mid-second century (Vaday 2003, 391, n. 32). This Antonine period British-made brooch may have reached the Sarmatian Barbaricum as a result of the major military conflict known as the Marcomannic Wars, from AD 166-180. The tribal entity known as the Iazyges inhabited the region between the Danube and Tisza rivers. As a result of the wars a levy was imposed on the Iazyges: five thousand of them were sent to serve in Britain (Dio Cassius 71.16.2) and there are records of their service in the province, cf. *ala Sarmatarum* (RIB 594, 595) and *numerus equitum Sarmatarum* (RIB 583). It is therefore possible that the brooch was brought to the cemetery by one of the Iazyges, who could have been a returning veteran, who 25 years before that was sent to Britain as part of the levy. Having said this, it must be stated that other interpretations for the occurrence of this find are possible, ranging from the returning Pannonian veterans to the movement of the Roman army during the Marcomannic wars.

There is evidence for returning veterans who served in Britain but not in their own ethnic unit. The occurrence of late second-century British types in the areas inhabited by Mattiaci (Mainz, Zugmantel, Saalburg and Frankfurt-Heddernheim) can be connected with the transfer to Britain around AD 122 the *Legio VI Pia Fidelis*[2]. This legion was stationed at the legionary fortress at Xanten, Germany, prior to the relocation to Britain. From the epigraphic evidence it is known that, when the unit was stationed in Britain, it contained some recruits from Germania Superior: a legionary soldier "natione Mattiacorum" has been recorded on an inscription found in Castlecary, UK (RIB 2151). It is more than likely that he was not the only one.

Other Things "Veteran-ish"

While this is an introductory paper and does not offer any conclusive statements, it nevertheless proposes a repertoire of things that can provide us evidence for returning veterans for whom there is no surviving record in the form of military diplomas or inscriptions. The brief analysis of the distribution

[2] Saalburg and Zugmantel account both for 21 British-made brooches, out of which six are dated to late second – third centuries. The appearance of these six brooches cannot be connected with the presence of a British unit recorded on CIL XIII 11954a (cf. also Böhme 1970) because this unit is attested in the late first – early second century.

of British-made brooches presented here is indicative of how personal accessories can be useful tools in such a quest, although analysis was possible in combination with the epigraphic research.

Drawing on the evidence, which will be presented and discussed in much greater detail in the following papers, an inventory list for the veteran markers on civilian sites can be proposed:

1. Personal dress accessories: brooches with foreign affinities, belt buckles and finger-rings
2. Dress: introduction of new weaving patterns
3. Military equipment (cf. also Nicolay 2007): weaponry and horse gear
4. Military instruments: signalling horn
5. Writing equipment: seal-boxes, styli and inkpots (but cf. Colin Andrews in this volume and Andrews 2012)
6. Kitchen/cooking utensils: Samian ware with graffiti
7. Household appliances: keys

Objects not discussed in the following papers but of particular significance in the search of veterans are Roman surgical and cosmetic instruments (Annette Frölich, pers. comment; cf. also Frölich 2011). Personal grooming and hygiene is an unequivocal part of the Roman lifestyle, and soldiers were introduced to this aspect of body care through the usage of bathhouses as well as by the provision of medical treatment in the forts' hospitals. Both basic cosmetic and specialised medical sets have been found in southern Scandinavia, in Denmark in particular, suggesting that some personal hygiene ideas might have been introduced by the former soldiers upon their return (Annette Frölich, pers. comment).

It is notable that all these objects were portable and, to some extent, personal. Upon discharge, veterans might have taken them home, because they formed part of the daily activities of soldiers, who got used to them over a period of 25 years. Moreover, it must be stated once again that we should not focus on the objects proven to be useful in the quest for the veterans, since what has worked for one group might not work for another, as Colin Andrews' contribution shows, where he questions the orthodox view of seal-boxes as evidence for literacy.

Activities should not be excluded from the inventory list and they are also discussed in the following contributions. While serving in the Roman army soldiers were exposed to particular Roman norms and practices, absorbing them to some extent, and, upon return, such practices might have been (re)invented in the home societies:

1. Writing and literacy: invention of runic alphabet
2. Architecture and construction: adoption of particular construction techniques, introduction of new building material (stone) and new architectural elements (porticos and verandas)
3. Burial rite: Charon custom
4. Working as guards/local police
5. Rearranging of the military system: introduction of new units' division and skills
6. Trade

Another helping hand can come from the scientific techniques, such as isotope analysis and forensic ancestry assessment. Stable isotopes and DNA studies do not necessarily provide us with the evidence for the return, but they do provide indications of whether the person buried was of local or foreign descent, as Rob Collins points out in his contribution. Combined with the analysis of the artefacts found in the burial, they can hint at the possibility that the deceased might have been a veteran. At issue here is the low number of excavated military cemeteries and the preference for cremation over inhumation, although this is not valid for the Late Antiquity.

Now, that is about where this introductory paper should stop, but in closing I would like to finish with a rather disturbing note. While both lists of the markers and activities draw a connection between the novelties in the civilian (rural) societies and Roman army lifestyle, the connection might be overstretched to the point where it becomes highly tenuous. It can be a result of wishful thinking on our part, since there is a desire to demonstrate that veterans can be found through other means than the findspot of a military diploma. As Wouter Vos points out in his paper, we might as well pose the wrong questions to the wrong artefacts, although we should take into account that the archaeological record dictates the amount of information we can work with. Another significant point made by Thomas Grane in his contribution is the rarely discussed terminological issue. Who are these veterans? What made them join the Roman army and what were the consequences of the service for their lifestyle upon discharge? These points are presented here not to undermine the entire discussion but to highlight that we are dealing with a much more complex situation, which we should approach holistically rather than in our quest focusing on one group, one type of material or one level only.

Bibliography

Andrews, C. 2012. Roman seal-boxes in Britain. Oxford.

Aricescu, A. 1977. Les vétérans du limes scythique. In: Haupt, D. / Horn, H.G. (eds.). Studien zu den Militärgrenzen Roms II: vorträge des 10. Internationalen Limeskongresses in der Germania Inferior. Köln. 263-267.

Bayley, J. / Butcher, S. 2004. Roman brooches in Britain: a technological and typological study base on the Richborough collection. London.

Birley, E. 1982/83. Veterans of the Roman army in Britain and elsewhere. – Ancient Society 13/14, 265-276.

*Böhme, A. 1*970. Englische Fibeln aus den Kastellen Saalburg und Zugmantel. – Saalburg Jahrbuch 27, 5-20.

Böhme-Schönberger, A. 1994. Die Kragenfibel – eine treverische Fibelform? In: Dobiat, C. / Frey, O.-H. (eds.). Festschrift für Otto-Herman Frey zum 65. Geburtstag. Hitzeroth. 111-126.

Capelle, T. 1965. Zur germanischen Fibeltracht in taciteischer Zeit. – Nachrichten aus Niedersachsens Urgeschichte 34, 3-19.

Cassius Dio (Translated by E. Cary 1989). Roman history. Vol. 1-9. Bury St. Edmunds.

CIL = Corpus inscriptionum Latinarum

Derks, T. / Roymans, N. 2006. Returning auxiliary veterans: some methodological considerations. – Journal of Roman archaeology 16, 121-135.

Feachem, R. 1951. Dragonesque fibulae. – Antiquaries Journal 31, 32-44.

Frölich, A. 2011. Medical tools from the first millennium – a new recognition after reinterpretation of artifact material. – Arkæologi i Slesvig 61, 317-324.

Garbsch, J. 1965. Die norisch-pannonische Frauentracht im 1. und 2. Jahrhundert. München.

Hattatt, R. 2007. A visual catalogue of Richard Hattatt's ancient brooches. Oxford.

Haynes, I. 2001. The impact of auxiliary recruitment on provincial societies from Augustus to Caracalla. In: de Blois, L. (ed.). Administration, prosopography and appointment policies in the Roman Empire: proceedings of the first workshop of the international network 'Impact of Empire' (Roman Empire, 27 B.C. – A.D. 406), Leiden, June 28 – July 1, 2000. Amsterdam. 62-83.

Hunter, F. 2010. Changing objects in changing worlds: dragonesque brooches and beaded torcs. In: Worrell, S. / Egan, G. / Naylor, J. / Leahy, K. / Lewis, M. (eds.). A decade of discovery: proceedings of the Portable Antiquities Scheme conference 2007. Oxford. 91-108.

Ivleva, T. 2011a. British emigrants in the Roman Empire: complexities and symbols of ethnic identities. In: Mladenovič, D. / Russell, B. (eds.). TRAC 2010: Proceedings of the 20th Theoretical Roman Archaeology Conference, Oxford 2010. Oxford. 132-153.

Ivleva, T. 2011b. Brooches tell tales: British-made brooches in Germania Inferior and Superior as indicators of the presence of British emigrants. In: Huijben, K. / van de Liefvoort, S. J. A. G. / van der Weyden, T. J. S. M. (eds.). SOJA Bundel 2010: proceedings of Symposium Onderzoek Jonge Archeologne (Research symposium for young archaeologists) held on 19th March 2010, Nijmegen. Nijmegen. 51-56.

Ivleva, T. 2012. Britons abroad: the mobility of Britons and the circulation of British-made objects in the Roman Empire. Unpublished PhD thesis. Leiden.

James, S. 2005. Large scale recruitment of auxiliaries from Free Germany? In: Visy Zs. (ed.). LIMES XIX: proceedings of the XIXth International congress of Roman frontier studies, held in Pécs, Hungary, September 2003. Pécs. 273-281.

Jarrett, M. 1994. Non-legionary troops in Roman Britain: part one, the units. – Britannia 25, 35-77.

Krolczyk, K. 1999. Veteranen in den Donauprovinzen des Römischen Kaiserreiches (1 -3 Jh. n.Ch). – EOS 86, 165-170.

Lenz, K. 2006. Veteranen der römischen Armee im Siedlungsbild einer früh-und mittelkaiserzeitlichen Koloniestadt und deren Hinterland. – Germania 84, 61-91.

Mackreth, D. F. 2009. An unusual Romano-British brooch from Norfolk, with a note upon its probable affinities. – Britannia 40, 137-149.

Mackreth, D. F. 2011. Brooches in Late Iron age and Roman Britain. Oxford.

Mann, J. C. 1983. Legionary recruitment and veteran settlement during the Principate. London.

Mann J. C. 2002. The settlement of veterans discharged from auxiliary units stationed in Britain. – Britannia 33, 183-188.

McIntosh, F. 2011. Regional brooch-types in Roman Britain: evidence from northern England. – Archaeologia Aeliana 40, 155-182.

McIntosh, F. 2013. The Wirral brooch – a rural and regional brooch type. In: Grabherr, G. / Kainrath, B. / Schierl, T. (eds.). Relations abroad: brooches and other elements of dress as sources for reconstructing interregional movement and group boundaries from the Punic Wars to the decline of the Western Roman Empire. Proceedings of the International Conference from 27th – 29th April 2011 in Innsbruck (International Conference on Fibulas in the Roman Empire I). Innsbruck. 257-269.

Meyer, A. 2013. Epigraphic evidence for auxiliary veterans in Moesia: settlement and social ties. – Archaeological Institute of America, 114th annual meeting abstracts 36, 146-147.

Mirković, M. 2000. Military diplomas from Viminacium and the settlement of auxiliary veterans: city or countryside? In: Alföldy, G. / Dobson, B. / Eck, W. (eds.). Kaiser, Heer und Gesellschaft in der römischen Kaiserzeit. Stuttgart. 365-377.

Nicolay, J. A.W. 2007. Armed Batavians: use and significance of weaponry and horse gear from non-military contexts in the Rhine delta (50 BC to AD 450). Amsterdam.

Ployer, R. 2009. Veteranen im Hinterland von Carnuntum: das Gräberfeld von Mannersdorf am Leithagebirge und die Besiedlung des Leithagebietes in römischer Zeit. In: Morillo, A. / Hanel, N. / Martín, E. (eds.). LIMES XX: Estudios sobre la frontera romana: Roman frontier studies Madrid. 1437-1447.

Raepsaet-Charlier, M.T. 1978. Le lieu d'installation des vétérans auxiliaires romains d'après les diplômes militaires. – L'Antiquité Classique 47, 557-565.

RIB = Collingwood, R. G. / Wright, R. P. 1965-. Roman inscriptions of Britain. Oxford.

Rothe, U. 2009. Dress and cultural identity in Rhine-Moselle region of the Roman Empire. Oxford.

Rothe, U. 2013. Die norisch-pannonische Tracht – gab es sie wirklich? In: Grabherr, G. / Kainrath, B. / Schierl, T. (eds.). Relations abroad: brooches and other elements of dress as sources for reconstructing interregional movement and group boundaries from the Punic Wars to the decline of the Western Roman Empire. Proceedings of the International Conference from 27th – 29th April 2011 in Innsbruck (International Conference on Fibulas in the Roman Empire I). Innsbruck. 33-49.

Roxan, M. M. 1997. Settlement of veterans of the auxilia – a preliminary study. In: Groenman-van Waateringe, W. / van Beek, B. L. / Willems, W. J. H. / Wynia, S.L. (eds.). Roman frontier studies 1995. Oxbow. 483-493.

Roxan, M. M. 2000. Veteran settlement of the auxilia in Germania. In: Alföldy, G. / Dobson, B. / Eck, W. (eds.). Kaiser, Heer und Gesellschaft in der römischen Kaiserzeit. Stuttgart. 307-327.

Spaul, J. 2000. Cohors 2: the evidence for and a short history of the auxiliary infantry of the Imperial Roman army. Oxford.

Vaday, A. 2003. Cloisonné brooches in the Sarmatian Barbaricum in the Carpathian basin. – Acta Archaeologica Academiae Scientiarum Hungaricae 54, 315-421.

Visy, Z. 1997. Angaben zur Ansiedlung der Veteranen in Pannonia. – Aquileia Nostra 68, 225-234.

Dr. Tatiana Ivleva
Independent researcher
Schubertlaan 124
NL-2324EA Leiden
tatianaivl@hotmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Are Roman Seal-boxes Evidence for Letter Writing by Auxiliaries, Veterans (or Anyone Else)?

Colin ANDREWS

This paper is about Roman seal-boxes and specifically addresses the question of precisely how they were used. It has grown out of a six year research project into seal-boxes in Britain during which 871 seal-boxes were recorded and classified according to their shape and design using a new typology. Find spots were also recorded to allow their distribution to be analysed (Andrews 2012).

A wide range of sources were used, both traditional archaeological sources as well as examples found by metal detectorists, which were a very important component of this corpus.

Archaeological sources:
Published archaeological literature
Unpublished examples from ongoing/recent excavations
Museum collections
Metal detecting sources:
The Portable Antiquities Scheme database (PAS)
The Sites and Monuments record (SMR)
The UK Detector Finds Database (UKDFD)
Finds reported directly by metal detectorists
Private collections such as Richard Hattatt's

Analysis of distribution, especially for a small artefact is always problematic because of the difficulties and inconsistencies of data collection. A distribution map of seal-boxes recovered archaeologically may tell us more about where large scale excavations have taken place than give a true picture of seal-box distribution. There is also the difficulty that some sites have been subjected to more extensive excavation than others thus making it difficult to compare one site with another. There are also factors which inhibit metal detecting; urbanisation, scheduling of ancient monuments, ministry of defence land, etc. So it must be recognised that this corpus, albeit the largest to date, is still just an unknown proportion of an unknown total. It is also important to note that this research has been into seal-boxes found in Britain and the following discussion will be largely confined to the British material.

Seal-boxes consist of two main elements; a lid and base, both parts are cast. The base always has a series of small holes in it, either three or four arranged in a square or triangular pattern. There are also always two opposed side slots or notches, either in the lid or the base but sometimes both. These features are found on every seal-box so they must be crucial to how seal-boxes worked.

These artefacts have been given the modern name 'seal-boxes' because some have been found containing a residue of their original content and analysis has consistently shown this to have been beeswax. A famous example found at Wroxeter in 1914 contained a plug of this beeswax residue which retained an impression of string on its underside (Bushe-Fox 1916, 27-29). The presence of string and beeswax suggests very strongly that seal-boxes were used to contain wax seals. The important question is what these wax seals were used to seal. The theory has arisen that seal-boxes were used in association with wooden stylus tablets and this has become entirely accepted within the archaeological community, so much so, that seal-boxes are now routinely accepted as evidence for literacy.

This theory has been further finessed and restricted to letters written on two leafed stylus tablets or diptychs, because we know that a wide range of legal type documents were written on triptychs with the signatures and seals of witnesses occupying the middle tablet. The seals were in a counter sunk channel and were protected by being sandwiched between the first and third tablet tablet, so sealing them clearly did not involve seal-boxes. Derks and Roymans, who have carried out some extremely interesting research into seal-boxes in the Netherlands note the general concentration of seal-boxes found at military sites and also recorded a

significant number of seal-boxes from isolated rural sites. They suggest that this may have something to do with the number of auxiliaries recruited from the civitas Batavorum for service in the Roman army. They argue that these Batavian auxiliaries learned Latin while in the army and wrote letters home and that this accounts for the number of seal-boxes in rural farmstead sites. They cite the evidence from Vindolanda to support the idea that auxiliaries did regularly write home, especially to request articles of clothing (Derks / Roymans 2002, 100). It is this connection between stylus tablets and seal-boxes and therefore literacy and seal-boxes which I wish to challenge in this paper and suggest instead that seal-boxes were stitched to fabric or leather pouches and bags, containing small valuables, most commonly coins or other small valuables.

There are four basic areas of evidence. Firstly there is the distribution pattern. My study is the first that has tried to look at seal-boxes from an entire province and that is important. For example, if we look at the Northern frontier region seal-boxes appear to have a very 'military' distribution. However, when we look at the distribution of seal-boxes in Britain as whole the picture changes.

Site and Number of seal-boxes found:

1. London 79
2. Colchester 51
3. Wroxeter 42
4. Gt Walsingham 30
5. South Shields 24
6. Corbridge 25
7. Caerleon 21
8. St Albans 16
9. Chester 15
10. Silchester 15
11. Castleford 13
12. Gloucester 12
13. Cirencester 12
14. Carlisle 11

It can be seen that the distribution is geographically very wide, seal-boxes are found in a range of contexts; military and civilian; urban and rural. Interestingly, villas and large ritual centres did not yield many seal-boxes (for example, there are only three from Bath and none of these were found at the bath complex itself), neither are they common in funerary contexts.

When this research was begun, challenging the accepted theory about seal-box use was not part of the agenda; the initial focus of the research was simply on classification and distribution. However, when I noticed that a seal-box was found as part of the Snettisham Jewellers' hoard, doubts about the stylus tablet theory began to emerge. The hoard, found at Snettisham in Norfolk, was contained in a pottery jar and consisted of loose intaglios, denarii, and jeweller's scrap; the latest coin dates to 155, which gives us a *terminus post quem* for the deposition. The seal-box has a length of string emerging from its base, which suggests that it may have actually been in use at the time of deposition. The neck of the jar is only 4.4 cm in diameter, far too narrow to accommodate a stylus tablet. Several scraps of linen were also found and it was suggested by Catherine Johns who published the find that the seal-box may have been used to seal a cloth bag, perhaps containing the intaglios (Johns 1997, 46).

The most compelling archaeological evidence for this new theory about seal-box use is an example found at Trier actually being used to seal a leather pouch containing gold aurei. It was part of huge hoard of 2570 aurei stored inside a large copper alloy vessel, ranging in date from Nero to Septimius Severus. Some of the contents were scattered during the initial discovery, but those coins in the bottom of the container remained undisturbed. Some of them are still arranged in neat rolls and it can be seen how one group were contained within a purse or pouch. A seal-box was found in association with this group of coins and was clearly being used to seal the leather bag which contained them. Gilles who has been working on the find since its discovery in 1993 wrote:

'*When exposing the coins that were still in situ at the bottom of the pot one could see that the Aurei were placed in rolls in at least one leather bag which had obviously been closed with a seal-box. A second, presumably similarly sealed, small leather bag could have been removed just before the final deposition of the pot.'... 'The leather bag was held together by a fine string which also passed through the two side channels of the seal-box.*' (Gilles 1994)

Another seal-box was found in association with a small leather pouch of coins and other small valuables at Kalkreise in Germany. It is not absolutely certain that the seal-box was actually used to seal the pouch or whether it was inside it, but the likelihood is that it was being used in a similar way to the example from Trier. Kalkreise is thought to be the site of the massacre of the three legions led by Varus in AD 9 (Harnecker 2011, 14).

So here we have three strong pieces of archaeological evidence where a seal-box has been found in association with a purse or pouch containing small valuables. On the other side of the scale there is only one example of a stylus tablet said to have been found in association with a seal-box, now held in the Museum of Leiden, the Netherlands, but no-one who has examined this find is confident that the two artefacts really belong together.

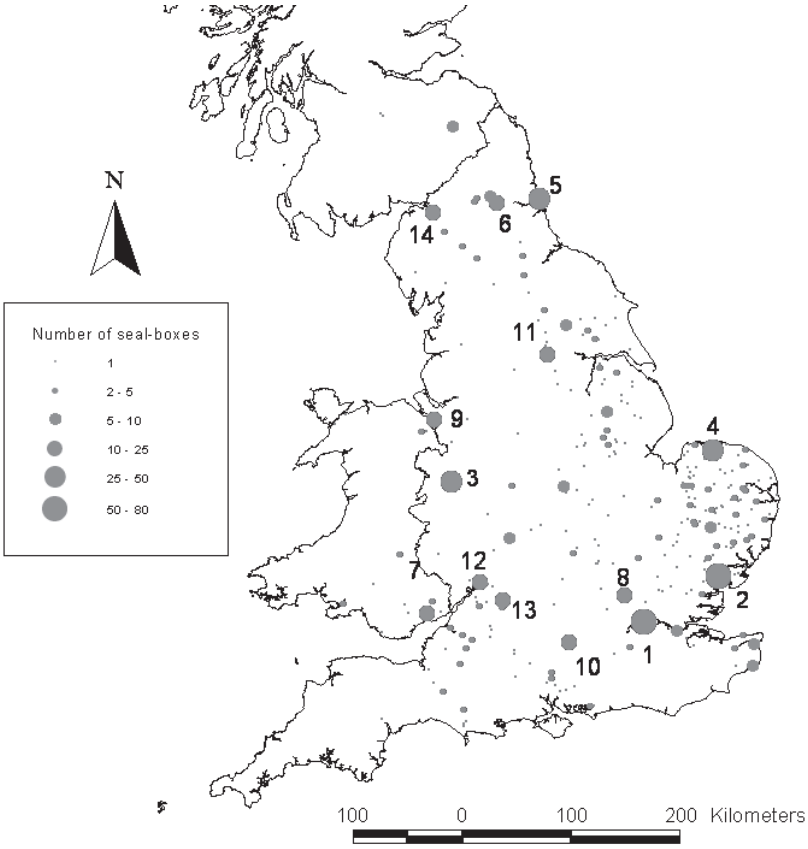


Fig. 1. Distribution of seal-boxes in Britain (Created by the author)

'*Ob diese Pillendose überhaupt zu dieser Holztafel gehört, ist uns zweifelhaft.*' 'Whether this pill box actually belongs to the wooden tablet seems doubtful to us.' (Devijver / Harrauer / Worp 1985, 19)

In order to try and gain some insight into using a seal-box to seal a stylus tablet some experiments were carried out which involved attempting to use a seal-box to seal stylus tablets and small pouches made from fabric and leather. There is no doubt that letters written on stylus tablets were often sealed and there is plenty of literary evidence to support this, but none of them mention seal-boxes. Plautus provides some good evidence in his 'Bacchides' (4.4.640 ff) written around 200 BC, two centuries before seal-boxes were being used.

Most surviving stylus tablets have triangular notches cut into them to accommodate a cord. The string would have to be as tight as possibly to stop it simply being slipped off. Of course if you apply the wax directly to the wooden surface it will stick, which is not the case if the wax seal is contained within a seal-box. It has been suggested that the holes in the base of a seal-box are to allow some wax to make contact with the wooden surface and create some adhesion. However, the amount of adhesion created is minimal and all the evidence suggests that the holes were for the passage of string.

Experiments were carried out with tying a seal-box to a stylus tablet using a method devised by Bushe-Fox (Bushe-Fox, 1916, 27-29), impressions were then impressions were then taken of the string. If we draw a triangle using the centres of the three holes in the Bushe-Fox seal-box as the three vertices, the result is an equilateral triangle, with each angle being within a degree or so of 60 degrees. If we then plot a triangle using the lines in the cake of wax as our guide an equilateral triangle is once again produced, so the geometry of the triangular impression on the underside of the plug of original Roman material matches the geometry of the holes in the base. This analysis was repeated after a seal-box had been tied to a stylus tablet in the manner described by Bushe-Fox.

The triangle obtained by using the three holes in the base as the vertices is an isosceles triangle with internal angles of 46, 67 and 67 degrees, but when a triangle is drawn using the impressions in the modelling clay the internal angles are 92, 44 and 44 degrees. This distension has been caused by pulling the two strings tight. When compared with the original Roman impression, the two were quite different and it was concluded that the string impression found by Bushe-Fox cannot have been created by the method of tying he envisaged.

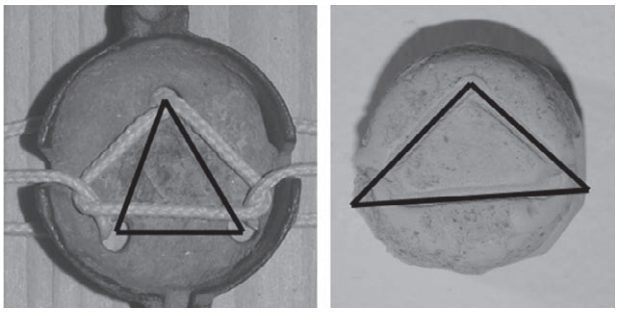


Fig. 2. The seal-box tied to a stylus tablet in the manner described by Bushe-Fox and the resulting impression of the string (Photograph by the author)

Attempts were then made to seal fabric and leather bags. Both presented real technical difficulties. When molten wax was dripped directly on to fabric it was quickly absorbed; this initial application had to be allowed to dry before a second application provided enough wax in which to make a seal impression. The main problem, however, with both fabric and leather was that the amount of flexibility meant that the seal, when hardened cracked and fragmented very easily. What was needed was an impervious platform between the wax and the fabric, a seal box proved to be perfect.

Firstly, an attempt was made to tie a seal-box to the bag in the manner already described, but once again the triangle of the impression did not match the geometry of the holes in the base. Stitching the seal-box to the fabric was then tried and this was the key to understanding the Roman string impression discovered by Bushe-Fox (**fig. 5**). This time the triangle achieved did match much more closely with the geometry of the base holes, with internal angles of approximately 50, 65 and 65 degrees compared with 46, 67 and 67 degrees for the triangle based upon the three base holes. Using this method the seal-box can remain attached to the pouch; a second piece of string is then wound around the purse through the seal-box using the side channels and then tied behind. The seal-box can then be filled with wax and the seal impression made. It is now impossible to open the bag without destroying the seal. This technique also makes sealing and resealing much easier.

Evidence from *Vindolanda*

Vindolanda letter II, 343

Octavius to his brother Candidus, greetings. The hundred pounds of sinew from Marinus – I will settle up. From the time when you wrote about this matter, he has not even mentioned it to me. I have several times written to you that I have bought about five thousand modii of ears of grain, on account of which I need cash. Unless you send me some cash, at least five hundred denarii, the result will be that I shall lose

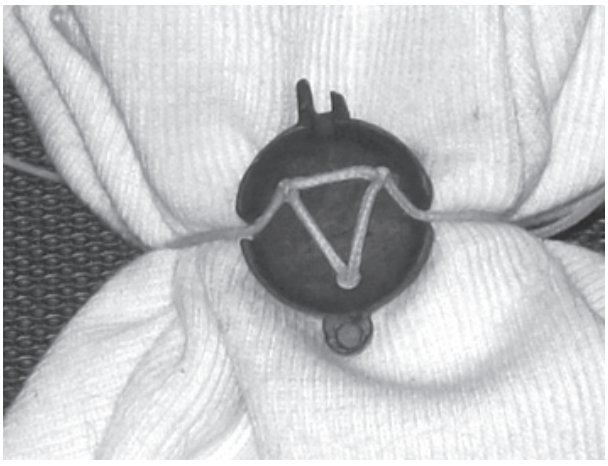


Fig. 3. The seal-box stitched to a fabric bag (Photograph by the author)

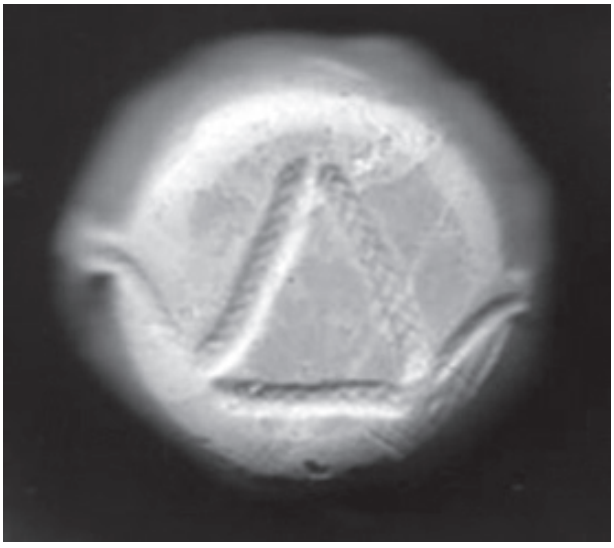


Fig. 4. The resulting seal impression (Photograph by the author)

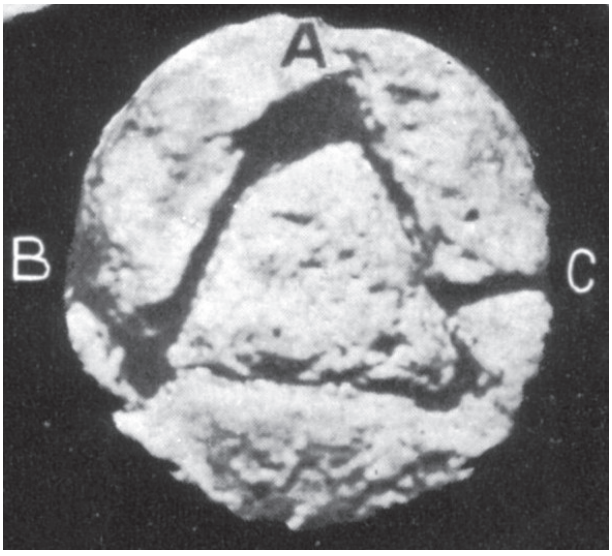


Fig. 5. The original impression found by Bushe-Fox (Bushe-Fox 1916, Pl. 19, fig. 1)

what I have laid out as a deposit, about three hundred denarii, and I shall be embarrassed. So, I ask you, send me some cash as soon as possible. (Tab. Vind. II, 343)

This letter from *Vindolanda* gives an insight into how often cash must have been transported throughout the province of Britain and throughout the empire as a whole. This is a chance survival from a fairly minor auxiliary fort at the very edge of the empire and begs the question; how many such similar transactions must there have been? In the letter a lot of transactions are alluded to; one in particular calls for cash to be sent, 500 denarii is a considerable sum. Think about how one might do this; you would need to find a reliable courier and they would probably prefer it if you sealed the bag before they set out to avoid any arguments later. Modern truck drivers still have their loads sealed for the same reason. The use of seal-boxes to seal such bags would explain their presence at such a large range of sites. Any site at which cash or perhaps small valuables were kept or traded might be expected to produce seal-boxes, which is perhaps why sites associated with trade and administration featured quite prominently in this study.

The remarkable corpus of writing tablets recovered from *Vindolanda* brings us to the final area of evidence. Personal letters on stylus tablets would appear to have been quite rare in the north and western provinces. One might also ask why anyone would want to seal a letter asking for socks or underpants and would the Roman army allow soldiers to dispatch sealed letter from the frontier zone, for security reasons? It is also commonly suggested that soldiers would give letters to colleagues going on leave to take home for them (Derks / Roymans 2002, 100). Wooden stylus tablets would seem particularly inappropriate for this because they are bulky, heavy and expensive (Meyer 2004, 1); carrying twenty or thirty would seem to be out of the question; a bronze seal-box tied to each one would also make them impossible to stack neatly and they are also comparatively heavy (Meyer 2004, 1). It would be much more likely that outside those areas where papyrus was common and inexpensive such private correspondence was written on the very thin and light leaf tablets with an ink pen and dispatched unsealed. Furthermore, the type of wood used for two stylus tablets from *Vindolanda* (# 117 and 113) was identified as either larch (*Larix*) or spruce (*Picea*), neither of which are native species; so these two stylus tablets were imported (Bowman / Thomas 1983, 29, 31; Hanson / Conolly 2002, 154). Bowman and Thomas also note that much of the *Vindolanda* material consists of letters coming from other locations and that these are also on the thin leaf type tablets, Bowman and Thomas sum up the position as follows:

'*It seems likely to us that these leaf tablets, cheap and fairly easy to make, functioned as the standard writing-material for letters and ephemeral documents in those parts of the Empire which were far removed from the source of papyrus; whilst the heavier, more expensive and more durable stylus tablets would be used, on the whole, for more important documents which might need to be kept for a longer time – wills, certificates, contracts and the like*' (Bowman / Thomas 1983, 35).

This seems to fit the available evidence much better than a suggestion that soldiers regularly wrote home on expensive wooden stylus tablets, which they then sealed by using a seal-box.

Ironically, even this new theory about seal-box use would still suggest that these artefacts remain to some extent evidence for a degree of adoption or emulation of Roman culture, as it suggests that seal-boxes were used by those who were involved in the monetary economy and may have been involved in trade. So how do we account for those seal-boxes found in rural areas in Britain? One area of Britain in which many seal-boxes were found in the countryside was Norfolk. Figure 1 illustrates how Norfolk yielded more seal-boxes than any other county; the vast majority were found by metal detectorists. There were 116 seal-boxes recorded from Norfolk, 79 from London, 69 from Essex and 57 from Suffolk. Of those 116 from Norfolk 106 were found by metal detectorists.

There are two basic ways of interpreting this data. One is that due to a number of factors, data collection is simply more successful in Norfolk and the rest of East Anglia than elsewhere. The clear additional implication of this argument is that there may not actually have been any more seal-boxes in use in these areas than elsewhere it is simply that more have been found and recorded. The other interpretation is to accept that there are factors which might account for a degree of inflation in the number of Norfolk finds but that these factors are not significant enough to skew the results so markedly. The additional implication of this argument if correct is that more seal-boxes were being used in Norfolk and East Anglia as a whole than in other areas.

Roman Norfolk was different from other parts of the province in several other ways. There is a disproportionately large number of small metallic finds found by metal detectorists, but some other classes of Roman finds are notably sparse. For examples villas are comparatively rare in the county

(Mattingly 2006, 384) as are mosaics, in both rural and urban contexts (Jones / Mattingly 1990, map 6/39). There is really only one urban centre, the *civitas Venta Icenorum* (Caistor St Edmund) and there is only one additional site mentioned on the Antonine itinerary, the *Villa Faustini*, now identified with Scole. There is only one stone inscription from *Venta Icenorum* (RIB 214) and no mosaics have yet been discovered. The Boudiccan revolt must also have had an important impact on the nature of the subsequently formed *civitas*. One result that most scholars are agreed upon is that following the rebellion large amounts of Icenian land would have been confiscated and either become part of the imperial patrimonium or perhaps ager publicus. Shepherd Frere has argued that there remain traces of a large scale limitatio or land survey which seems to have divided up almost all of Norfolk following the revolt (Frere 2000, 350-355). It is difficult to believe that the land which once belonged to the Iceni was not severely depopulated following the events of AD 60-61 and that people from outside, either from other native tribes or more likely veterans were not encouraged to settle on and bring this vast and potentially very fertile area back into production. So it is possible that the number of seal-boxes found in Norfolk is in some way connected with the presence of veterans, although the actual mechanism for this remains elusive.

Conclusion

The 2012 study of seal-boxes in Britain which has formed the basis for this paper (Andrews 2012) examined a range of evidence in order to determine what seal-boxes were used for. There is some compelling evidence which suggests that seal-boxes were not used to seal wooden stylus tablets but were actually used to seal small bags or pouches containing coins or other valuables. There are three clear examples of seal-boxes being found in association with small bags or pouches containing coins or small valuables. The distribution evidence suggests that seal-boxes are not associated with any particular type of site but have a very wide distribution, similar to that of coins. Experimental research showed that using a seal-box to seal a stylus tablet overly complicates an otherwise simple process and makes the procedure far more difficult and generally less successful. This research also showed that sealing a fabric or leather bag without a seal-box presented real difficulties and that in order to do so successfully a seal-box is essential. It would also appear from the evidence found at *Vindolanda* that stylus tablets were not commonly used for the writing of personal letters in the north-west provinces and that they were instead written on very thin leaf tablets using ink. It also emerged from the study as a whole that there is no evidence to link stylus tablets with seal-boxes and that no research has ever been carried out to try and find evidence for such a link.

Bibliography

Plautus. Bacchides. Trans. Henry Thomas Riley, 1913. In: The comedies of Plautus. Vol 1. London.

Andrews, C. J. 2012. Roman seal boxes in Britain (= British Archaeological Reports 567). Oxford.

Bowman, A. K. / Thomas, J. D. 1983. Vindolanda: the Latin writing-tablets. London.

Bushe-Fox, J. P. 1916. Third report on the excavations on the site of the roman town at Wroxeter, Shropshire. London.

Derks, T. / Roymans, N. 2002. Seal-boxes and the spread of Latin literacy in the Rhine delta. In: Coley, A.E. (ed.). Becoming Roman, Writing Latin? Literacy and Epigraphy in the Roman West. Portsmouth, Rhode Island. 87-134.

Devijver, H. / Harrauer, H. / Worp, K. A. 1985. Eine lateinische Holztafel in Leiden. – Oudheidkundige Mededelingen uit's Rijksmuseum van Oudheden te Leiden 65, 19-22.

Frere, S. S. 2000. A 'limitatio' of Icenian territory? – Britannia 31, 350.

Gilles, K. J. 1994. Der grosse römische Goldmünzenfund aus Trier. – Funde und Ausgrabungen im Bezirk Trier, 26, 9-24.

Harnecker, J. 2011. Katalog Kalkreise 5. – Varus-Kurier 13, 13-14.

Hanson, W. S. / Conolly, R. 2002. Language and literacy in Roman Britain: some archaeological considerations. In: Coley, A.E. (ed.). Becoming Roman, writing Latin? Literacy and epigraphy in the Roman West. Portsmouth, Rhode Island. 151-164.

Johns, C. 1997. The Snettisham Roman jeweller's hoard. London.

Jones, B. / Mattingly, D. 1990. An atlas of Roman Britain. Oxford.

Mattingly, D. 2006. An imperial possession: Britain in the Roman Empire. London.

Meyer, E. A. 2004. Legitimacy and law in the Roman World: Tabulae in Roman relief and practice. Cambridge.

Dr Colin Andrews
Lecturer in Classical Studies, The Open University
Room 223, Perry C Level 2
The Open University, Walton Hall,
UK-Milton Keynes, MK7 6AA
colin.andrews@virgin.net

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Identifying Discharged Soldiers in the Batavian Countryside (The Netherlands)

Wouter K. VOS

Introduction

The area of study for this paper is the Dutch Lower Rhine region, situated at the provincial border of Germania inferior (**fig. 1**). The inhabitants are known as the Batavians and their historical background is well-known, especially through Tacitus (Historiae I.59; IV.16; IV.20; IV.22; Germania 29). It is generally accepted that large numbers of Batavians were recruited for the Roman army and the Imperial body guard – probably around 6,000 soldiers at any one time during the first two centuries AD (Alfoldy 1968, 46 ff; Bellen 1981, 14-15, 39; Willems 1984, 229-230; Strobel 1987; Bloemers 1990, 80; Roymans 1996, 22). This recruitment must have had an enormous impact on the Dutch River Area.

Nevertheless, it appears that the demographic issues caused by the large number of recruits were surmountable for the rural communities in the Lower Rhine region. The practice of supplying soldiers most likely started gradually and developed into a long-standing tradition on which the communities relied. It is more difficult to establish the social consequences of the recruitments. Because the communities relied on the Roman army for income and a certain social position, it is likely that Batavian communities became dependent on the Roman Empire and were, therefore, vulnerable in economic terms.

Research[1] has shown that approximately 1,500 rural settlements were situated in the countryside, next to the civitas capital Ulpia Noviomagus, modern Nijmegen. The population of the entire civitas can be estimated at about 40,000 people (Vos 2009, 216-221)[2]. So in order to supply 6,000 Batavians for the Roman army, one can easily understand that the pressure on the families was very high. As a result of this in almost every family one or more members must have served in the army and indeed, we do have historical evidence of Batavian brothers or fathers and sons who served simultaneously and in the same regiment of the Roman military (Derks 2004, Table B).

The Batavians have been well studied, especially by Dutch archaeologists. One of the returning topics is the homecoming of the discharged soldiers to their native country (Derks / Roymans 2006; Van Driel-Murray 2008; 2012). There is little doubt about that, but one wonders how we can prove it and how we can identify the returning soldiers in the archaeological record. These are the main questions concerning the subject of this paper.

What can we expect when talking about veterans? The best evidence will of course be tombstones and military diplomas that mention the veterans 'in hard copy'. We do have enough evidence about the discharged Batavians in Rome and on other frontiers, but unfortunately not in the Lower Rhine area (Derks 2004, Table E; Roymans 2011, 142, fig. 1, 2). Therefore, we have to find alternative ways to prove that the discharged soldiers were there in their own civitas Batavorum in the Dutch Lower Rhine region. For these Batavian veterans there is some indirect evidence, which will be presented here on three levels: a general, a settlement-level and the level of the individual house.

Evidence for Veterans on a General Level

An important question to ask when we start our discussion is if these soldiers ever survived 25 years

[1] This formed part of my PhD study (Vos 2009); see also Willems 1984; Vossen 2003.
[2] For different numbers see Willems 1984, 234-237 and Vossen 2003.

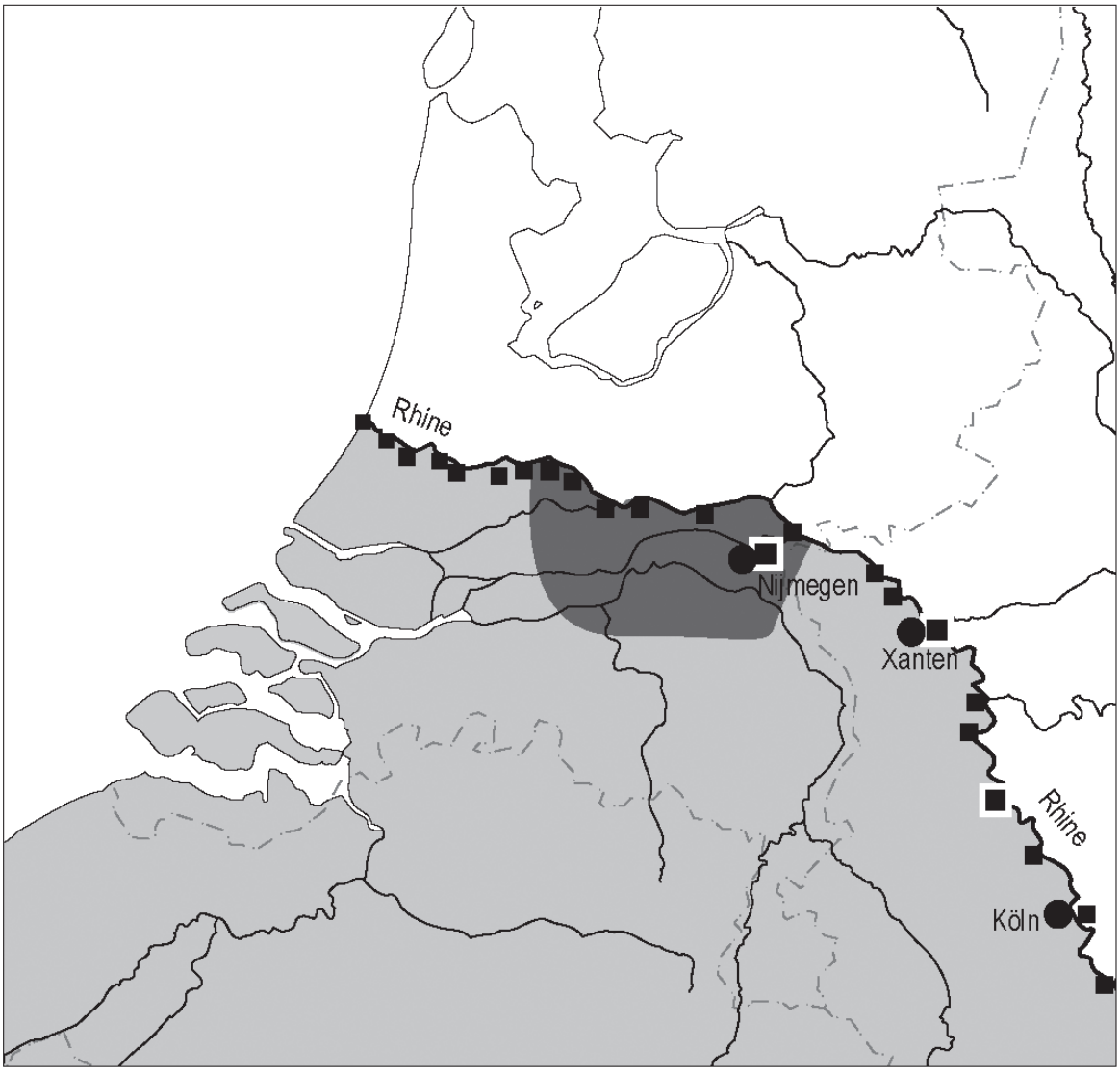


Fig. 1. The study area. Drawing by the author

of service in the military. It is almost impossible to quantify the exact number of veteran survivors and any calculation can be disputed. We can, however, use the combined information from Egyptian papyri and demographic models, and they allow an estimation of discharge of 120 veterans every year (Scheidel 1996, 117-122; Vos 2009, 220, 262; Van Driel-Murray 2012, 117-118). Some of these veterans stayed in the military vicus near their former unit (Nicolay 2007). Others returned home to the Lower Rhine region, but we do not know how many.

In theory, when half of these 120 veterans return to the countryside annually, it would take only 25 years before there would be at least one veteran in each of the 1,500 rural settlements. Of course the spreading of veterans was not equally divided over the 1,500 settlements, but it indicates that within one or two generations a discharged soldier in the countryside was not an exception at all (Vos 2009, 216-221). It became a very normal thing after a few decades: to serve the army and to have a discharged soldier in the neighborhood, and this would have resulted in longstanding family traditions of military service in Batavian society.

However, as said before, there is barely written evidence of these discharged Batavians in the countryside in the Netherlands. There is only one military diploma (Haalebos / Willems 1999, 255-259; Haalebos 2000) in the Lower Rhine area (Elst) mentioning a discharged Batavian (**fig. 2**), so we are sure that at least one (!) veteran must have returned home after leaving the army. Next to this Batavian discharged soldier there are a handful "non-Batavian" veterans known in the countryside of the Lower Rhine area like the "foreigner" Tiberius Julius

Probus from Houten, who originally came from Forum Iuli, present-day Frejus in France (Derks 2011 , 251). However, these are all exceptions and not very convincing proof for many veterans in the Dutch countryside. Batavian soldiers remain almost invisible in their homeland. This is explained by presuming that an explicit statement of their origin was not necessary among fellow Batavians, so only outside their homeland Batavians did reveal themselves as such (Derks 2004).

Settlements and Veteran-Indicators

The next available evidence in the search for the returning Batavian veterans is indirect and can be found on the level of the settlement. In comparison with settlements of the Late Iron Age one can easily see the differences with Roman sites. Most striking is the wide variety of Roman consumption goods that have been found during excavations, suggesting changing daily practices of every Batavian peasant family. The origin of this Roman material most likely indicates a connection with the Roman army. The question is: is it possible to specify extraordinary or remarkable objects between the regular settlement-finds that could point in the direction of veterans?

To answer this question we have to look at the material culture starting with Samian ware with graffiti. The custom to inscribe these vessels and plates with personal names is connected with the army. It is assumed that when these inscribed objects are found in rural settlements, they were taken home by the discharged soldiers after leaving the army. This was not always the case, however, as is shown by Samian ware found in the army camps with more than one graffito, indicating that pottery was reused.

Other objects not normally found within the rural settlements are seal-boxes, styli and inkpots. Seal-boxes were thought to have been used to seal writing-tablets (Derks / Roymans 2002), but Andrews (2012) has decisively proven that these objects have had some role in trade. The presence of styli and inkpots, however, definitely point to literacy and writing, a practice soldiers were taught during their military service. Literacy need not, however, have to be confined to soldiers and veterans only (Derks / Roymans 2002; Van Driel-Murray 2012).

More possible veteran-indicators can perhaps be keys suggesting the saving of personal belongings of value. They hint at a different lifestyle, perhaps adopted by veterans. Next to this, there are finger-rings, sometimes even golden examples, which can be linked to a grant of a Roman citizenship (Grane 2007, 93-94) although the connection is not always certain. Other possible veteran-finds are certain type of Late Roman fibulae and belts (Heeren 2009; Vos 2009; Van Driel-Murray 2012). When found in settlements or graves, they can be indicators of military presence and thereby perhaps of veterans. The objects seem to be part of military equipment, but they could also have been worn by civilians (Nicolay 2007).

What further remains is the most significant indicator and probably the most straightforward evidence for veterans: military equipment. Weaponry and horse gear have been found on many rural settlements in the Dutch river area. These finds are no indications for small military sites but research demonstrates that the equipment was brought home by discharged soldiers and was no longer used in a military but more in a civilian context (Nicolay 2007). They allow us a deviating interpretation as personal memorabilia of army-life.

Porticus Farmhouses

In addition to all these examples of material culture, we can also look for veterans by searching indicators within the changing appearance of farmhouses over time (Vos 2009). What supports this theory? The discussion is long and complex and starts with the assumption that the Batavian countryside is part of a so-called "non-villa-landscape" (Roymans



Fig. 2. Fragment of a military diploma from a rural settlement of Elst (AD 98). The diploma relates to a Batavian from the *ala Batavorum* who moved to the Batavian countryside after discharge. Photo: Museum Het Valkhof, Nijmegen

1996; 2011; Slofstra 2002). The average native house is a wooden longhouse with byre-section. This does not mean there are no luxurious stone houses in the countryside, but they are scarce in the Netherlands. In my opinion, these stone buildings are not the classical villas based on agricultural surplus, like those in Gaul, although they could have had the same physical appearance. Building material at these sites, especially around Nijmegen, frequently have stamps of military units, so it is clear that the building materials came to the countryside along military supply lines. One of the stone built settlements (Ewijk-Grote Aalst) also presents horse gear with an inscription from a Spanish regiment (Nicolay 2007, 168-171, fig. 5/4). This might be evidence for a veteran in the countryside; not a Batavian, however, but a Spanish horseman. Ultimately we can imagine that the owners of these stone built houses can most likely be characterized as discharged soldiers, likely officers or veterans with higher military ranks. They had the social networks to obtain building materials and the wealth to buy these goods, because after their discharge they were better off financially and were capable of building something more valuable than ordinary soldiers.

Furthermore, the average settlement with the wooden farmhouses has hardly changed since the Iron Age, or so it seems. If we look closer there are sometimes new, additional elements like the porticus or veranda (**fig. 3**). For decades archaeologists believed that these elements were influenced by villa-architecture, as an expression of the adoption of the native population to a Roman lifestyle (Slofstra 1991; Roymans 2004). The new construction styles and techniques were believed to be applied under (Gallo) Roman influences and borrowed from villa architecture. Stone construction is also often explained in villa-terms, even in the non-villa landscape of the Batavian civitas.

One can challenge these ideas and advocate that the Roman army camp was the frame of reference for these new types. In my opinion the veranda was influenced by military architecture, in particular the typical porticos in front of barrack blocks (Vos 2009, 237-251). The porticus was a common construction at the front of the soldier barracks, which the average Batavian would have encountered regularly. This roofed veranda offered welcome additional space to the small barracks. A large part of the social life of a soldier probably took place under the porticus. Subsequently, after 25 years of service and living under this type of veranda the discharged Batavian soldiers could have introduced the porticus and other building techniques that they had mastered to their rural homeland; for example, the use of wooden planks as a technique to establish posts and iron nails for affixing the roof or linking construction wood. This is all together 'new' in a rural setting and these techniques originating from the army camps were applied to traditional farmhouse construction. It can be seen as an indication of a strong military link between the Roman army and Batavian rural communities. Whatever the reconstruction form, these porticus farmhouses may also have looked different because the roof slope was much more gradual compared to average farms (**fig. 4**). Therefore in my opinion the porticus farmhouses resemble barracks in army camps rather than Roman-style villas even more than some archaeologists are willing to believe.

With this we have reached the stage of the individual house. This is a difficult level because during excavations there has not been much attention for veteran-indicators, nor were these being examined afterwards. Even the study of material culture has not been explored frequently. Despite all of this, it is possible to present some veteran-homes, for instance, at the rural settlements of Houten and Tiel (Groot et al. 2009; Heeren 2009; Vos 2009). Sometimes the earlier mentioned indicators are clustered together. Sometimes the houses differ slightly in appearance. What is clear instead is that the indicators are not always grouped together around a potential veteran-home but that the finds are dispersed all over the settlement.

Discussion

Some final comments and conclusions should be made concerning the indicators and what they could mean. At first we must ask ourselves whether all the farmsteads with veteran-indicators are to be considered as veteran-residences. Secondly, we must take into account the fact that perhaps we have chosen the wrong indicators for veterans. The rural communities might be so egalitarian that we are not able to pick out the discharged soldiers through differences in material culture. Moreover, if a porticus house is characteristic for veterans, then why do not all of the houses, where we have found so-called indicators for discharged soldiers, have a porticus? Furthermore, the porticus farmhouses only appear in a strict zone that concurs with the boundaries of the Batavian administrative district (Vos 2009, 250-251). This raises the questions of when a porticus house was the medium for veterans to express themselves, how was it used and presented by vet-

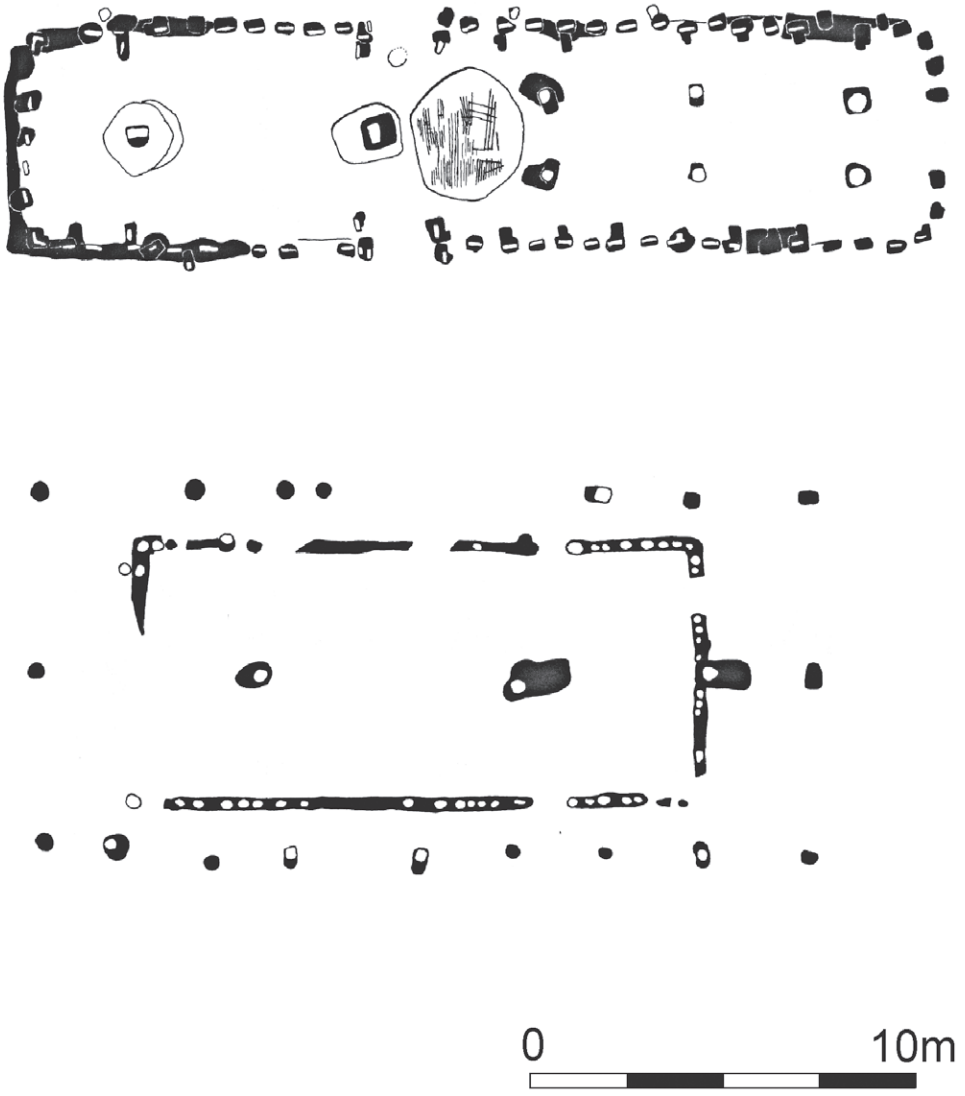


Fig. 3. Plans of a regular farmhouse with byre-section and a farmhouse with a porticus. Drawing by the author based on Vos 2009

erans inside and outside the Batavian civitas? There could have been other ways of showing their former military identity amidst others, for instance, in the display of militaria or through other means we cannot trace in the archaeological record.

This paper started with these questions: How can we prove the existence of discharged soldiers in the Batavian countryside and how can we identify the returning soldiers in the archaeological record? A quick-and-dirty answer should be that we cannot prove the existence of discharged soldiers in the countryside, except for the one Batavian horseman we know from the military diploma (Elst), and other two 'non-Batavian' veterans, based on a tombstone (Houten) and an inscription on horse gear (Ewijk).

Is each attempt to identify veterans then doomed to fail? In my opinion the conclusions are as follows. First, there is hardly any direct evidence for Batavian veterans in the Batavian countryside; nevertheless, on a general level it is thought to be sure that many ex-soldiers would have returned home every year. Second, at the settlement level there are several, although sometimes questionable, clues within the material culture and the changing house-display that probably hints at veterans in settlements. The house-level contributes if one combines (some of) the veteran-indicators.

To conclude, there are chances of success to identify the veterans and there are many discharged soldiers to be found by plotting the indicators in the Roman countryside. The assumption, however, that certain finds are connected directly or indirectly to veterans is of course a matter of interpretation. Solving the issue means that we have to start grouping the different indicators so that we can possibly recognize the veterans. In that way we might get a better understanding of the spreading and identification of the discharged soldiers.



Fig. 4. Reconstruction model of a so called "veteran house" with porticus. Drawing by Mikko Kriek, Amsterdam

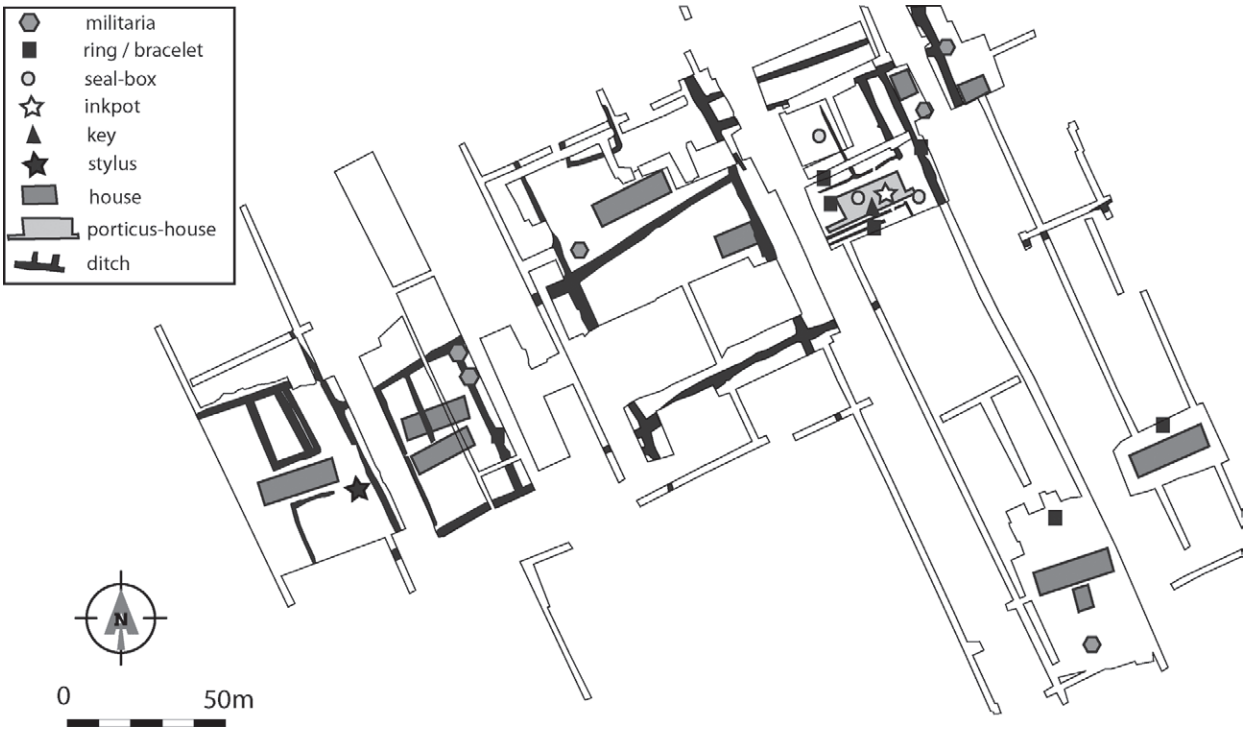


Fig. 5. Veteran indicators from the settlement Den Haag – Hoge Veld. Drawing by the author based on Siemons / Lanzing 2009

A hopeful last example underlines this approach. The Roman rural settlement Hoge Veld (Siemons / Lanzing 2009), near the present day city of the Hague in the Netherlands, shows a scatter of finds but also a beautifully clustered and extensive combination of many of the presented indicators (**fig. 5**). Although the example comes from outside the Batavian civitas, it is still in the Dutch countryside. We have to take the chances and opportunities to study several indicator-combinations thoroughly. There is really much to gain in future research, particularly because the house-level is the closest source of information in the quest for an individual veteran. This combination of veteran indicators at the house-level is the key for archaeological success in the future to identify discharged soldiers in the countryside.

Bibliography

Alfoldy, G. 1968. Die Hilfstruppen der römischen Provinz Germania inferior (=Epigraphische Studien 6). Düsseldorf.

Andrews, C. 2012. Roman Seal-Boxes in Britain. BAR British Series 567. Oxford.

Bellen, H. 1981. Die germanische Leibwache der römischen Kaiser des julisch-claudischen Hauses. Akademie der Wissenschaften und der Literatur, Mainz, Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse 1981/1. Wiesbaden.

Bloemers, J. H. F. 1990. Lower Germany: plura consilio quam vi. Proto-urban settlement developments and the integration of native society. In: Blagg, T. / Millett, M. (eds.). The Early Roman Empire in the West. Oxford. 72-86.

Derks, T. 2009. Ethnic identity in the Roman frontier. The epigraphy of Batavi and other Lower Rhine tribes. In: Derks, T. / Roymans, N. (eds.). Ethnic Constructs in Antiquity: the role of power and tradition. Amsterdam Archaeological Studies 13. Amsterdam. 239-282.

Derks, T. 2004. Beelden en zelfbeelden van Bataven. De epigrafische bronnen. In: Swinkels, L. J. F. (ed.). De Bataven. Verhalen van een verdwenen volk. Nijmegen. 38-69.

Derks, T. / Roymans, N. 2006. Returning auxiliary veterans in the Roman empire: some methodological considerations. – Journal of Roman Archaeology 19, 121-135.

Derks, T. / Roymans, N. 2002. Seal-boxes and the spread of Latin literacy in the Rhine delta. In: Cooley, A. E. (ed.). Becoming Roman, writing Latin? Literacy and epigraphy in the Roman West. – Journal of Roman Archaeology, Supplement Series 48, 87-134.

Grane, T. 2007. Southern Scandinavian Foederati and Auxiliarii? In: Grane, T. (ed.). Beyond the Roman Frontier: Roman Influences on the Northern Barbaricum. Analecta Romana Instituti Danici Supplementum 39. Rome. 83-104.

Groot, M. / Heeren, S. / Kooistra, L. I. / Vos, W.K. 2009. Surplus production for the market: the agrarian economy in the non-villa landscapes of Lower Germany. – Journal of Roman Archaeology 22, 231-252.

Haalebos, J. K. 2000. Traian und die Hilfstruppen am Niederrhein. Ein Militärdiplom des Jahres 98 n.Chr. aus Elst in der Over-Betuwe (Niederlande). – Saalburg Jahrbuch 50, 31-72.

Haalebos, J. K. / Willems, W. H. J. 1999. Recent research on the *limes* in the Netherlands. – Journal of Roman Archaeology 12, 247-262.

Heeren, S. 2009. Romanisering van rurale gemeenschappen in de civitas Batavorum. De casus Tiel-Passewaaij (=Nederlandse Archeologische Rapporten 36). Amersfoort.

Nicolay, J. A.W. 2007. Armed Batavians. Use and Significance of Weaponry and Horse Gear from non-military Contexts in the Rhine Delta (50 BC to AD 450) (=Amsterdam Archaeological Studies 11). Amsterdam.

Roymans, N. 2004. Ethnic identity and imperial power: the Batavians in the Early Roman Empire (=Amsterdam Archaeological Studies 10). Amsterdam.

Roymans, N. 2011. Ethnic recruitment, returning veterans and the diffusion of Roman culture among rural populations in the Rhineland frontier zone. In: Roymans, N. / Derks, T. (eds.). Villa Landscapes in the Roman North: economy, culture and lifestyles. Amsterdam Archaeological Studies 17. Amsterdam. 139-160.

Roymans, N. 1996. The sword or the plough. Regional dynamics in the Romanisation of Belgic Gaul and the Rhineland area. In: Roymans, N. (ed.). From the Sword to the Plough: three studies on the earliest Romanisation of Northern Gaul. Amsterdam Archaeological Studies 1. Amsterdam. 9-126.

Scheidel, W. 1996. Measuring Sex, Age and Death in the Roman Empire: Explorations in Ancient Demography (=Journal of Roman Archaeology, Supplement Series 21).

Siemons, H. A. R. / Lanzing, J. J. 2009. Bewoningssporen uit de Romeinse tijd in het Wateringse Veld. Haagse Oudheidkundige Publicaties 11. Den Haag.

Slofstra, J. 2002. Batavians and Romans on the Lower Rhine. The romanisation of a frontier area. – Archaeological Dialogues 9, 16-38, 55-57.

Slofstra, J. 1991. Changing settlement systems in the Meuse-Demer-Schelde area during the Early Roman period. In: Roymans, N. / Theuws, F. (eds.). Images of the Past: Studies on Ancient Societies in Northwestern Europe. Studies in Prae- en Protohistorie 7. Amsterdam. 131-199.

Strobel, K. 1987. Anmerkungen zur Geschichte der Bataverkohorten in der hohen Kaizerzeit. – Zeitschrift für Papyrologie und Epigraphik 70, 271-292.

Van Driel-Murray, C. 2012. Batavians on the Move: Emigrants, Immigrants and Returnees. In: Duggan, M. / McIntosh, F. / Rohl, D. J. (eds.). TRAC 2011: proceedings of the Twenty First Annual Theoretical Roman Archaeology Conference, University of Newcastle 14-17 April 2011. Oxford. 115-122.

Van Driel-Murray, C. 2008. Those who wait at home: the effect of recruitment on women in the Lower Rhine area. In: Brandl, U. (ed.). Frauen und römisches Militär. Beiträge eines runden Tisches in Xanten vom 7. Bis 9. Juli 2005. BAR International Series 1759. Oxford. 82-91.

Vos, W.K. 2009. Bataafs platteland. Het Romeinse nederzettingslandschap in het Nederlandse Kromme-Rijngebied. – Nederlandse Archeologische Rapporten 35. Amersfoort.

Vossen, I.M.J. 2003. The possibilities and limitations of demographic calculations in the Batavian area. In: Grünewald, Th. / Seibel, S. (eds.). Kontinuität und Diskontinuität: Germania inferior am Beginn und am Ende der römischen Herrschaft. RGA Band 35. Berlin / New York. 414-435.

Willems, W.J.H. 1984. Romans and Batavians: A regional study in the Dutch Eastern River Area, II. – Berichten Rijksdienst voor het Oudheidkundig Bodemonderzoek 34, 39-331.

Dr Wouter K. Vos
Vos Archeo
Van Ewijkweg 41
NL-6861 ZC Oosterbeek
+31 6 511 84 555
w.vos@hazenbergarcheologie.nl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Germanic Veterans of the Roman Army in Southern Scandinavia – Can We Identify Them?

Thomas GRANE

Introduction

It is well-known that the Romans used Germanic man-power in the army. We know this both from literary evidence and from stone-cut depictions like the monumental friezes on Trajan's and Marcus' columns. There are also grave stones commemorating soldiers and veterans of Germanic origin from the Roman army. Obviously, these Germanic veterans chose to stay and died within the Roman frontiers, but what about those veterans, who decided to pack their things and go home to their native tribes? Is it possible to identify them from the grave goods of Germanic graves or from Roman objects among settlement finds? How suited is the information available from literary and epigraphic sources to veterans within the Empire, when we study Germanic finds containing Roman objects? Will that information allow us to form valid hypotheses regarding homecoming Germanic veterans?

There are, however, a number of layers to the level of engagement with and dependence on the Roman army invested by Germanic warriors, which should be considered. One layer is constituted by veterans of a Roman military auxiliary unit. These soldiers joined a Roman unit and lost their independence until they were released from duty again. Other layers are constituted by allies or *foederati*, who acted on their own. This raises another question; can we separate the different layers in the archaeological remains?

This paper will address these questions investigating Germanic finds from southern Scandinavia.[1]

Can We Locate the Germanic Veteran?

Until now, little attention has been devoted to the question of Germanic veterans. Therefore, it is difficult to give any clear answers. In 1999, Peter S. Wells briefly discussed the question of Germanic warriors serving in the *auxilia* in his book, *The Barbarians Speak*. He argued that large groups of Germanic warriors must have passed the Roman frontier to enter the Roman auxiliary troops (Wells 1999, 13-14, 90-91, 229, 234). At the Limes congress in Pécs in 2003, Simon James commented on this statement, arguing that Germanic warriors certainly did join the Roman army over the centuries, although not in the numbers suggested by Wells (James 2005, 275-277).

Apart from these minor comments, which do not go into great detail, the question of veterans, or rather Germanic warriors in Roman service, often pops up in the discussion of Germanic élite graves. One prominent example is the magnificent grave from Mušov in the Czech Republic. The grave, which is dated to the middle of the second century AD, contains by far the richest and most spectacular grave goods from the Roman Iron Age, even though it was robbed already in Antiquity. Based on a large number of arrowheads, the excavators suggest a role of the deceased as the head of a Roman auxiliary unit of archers (Droberjar / Peška 2002, 111-115). Other examples are the rich graves from the so-called Haßleben-Leuna horizon, which are richly equipped élite graves from the central Germanic region. Here, particularly the presence of the crossbow *fibula* is seen as a link to the Roman army, where it was used to fasten the officer's cloak. A third example comes from Bavaria from the gravesite of Berching-Pollanten, where presumably an Alammanic auxiliary soldier went home to be buried with a relatively modest grave ensemble with a number of bronze objects including spurs and a repaired *umbo* (Fischer 1988, 99).

[1] Southern Scandinavia covers present-day Denmark, Southern Sweden and the islands of Öland and Gotland.

One problem with identifying Germanic veterans lies in the fact that we have not clearly defined the different layers of Germanic warriors, who interacted with the Roman army. The graves from Mušov and Haßleben-Leuna represent the absolute top of Germanic society. They are definitely different from the more modest appearance of the warrior from Berching-Pollanten, who may very well have been the leader of his village, but not a major player on the political arena.

Definitions of a Germanic Veteran

The general definition of a veteran is an old soldier. Obviously, a Germanic veteran is also an old soldier in some way, but what else defines the Germanic veteran? This is the first issue that should be addressed. Basically, I see three levels of interaction, which will be listed here:

1. The direct parallel to the Roman veteran is a Germanic warrior, who is discharged from the Roman army after serving his time with a Roman auxiliary unit. This meant that he was now a Roman citizen with all the advantages that entailed for him and his family. This should be considered the lowest level of interaction.

2. Another way for Germanic warriors to interact with the Roman army was as an ethnic unit, in certain periods known simply as a *numerus*, a unit. Such a unit consisted of a band of Germanic warriors led by their own commander. They could be commissioned to join the army for a particular campaign, or employed to harass other Germanic tribes. Occasionally, such units were garrisoned at the Roman frontier.

3. The highest level of interaction would be the engagement for a particular or general purpose of Germanic leaders, whether we call them chieftains, princes or kings, something that is another discussion entirely. The purpose could be to keep the peace in general, to wage war on neighbouring tribes or to participate in battle alongside the Roman army. This must be considered a diplomatic level.

It is important to notice here that there is a difference between the three levels regarding rank and social/political status as well as the length of attachment to the Roman army.

Who Returned to *Germania*?

Once we have established the levels of interaction, another question presents itself. Who returned home? This question mostly concerns level 1 and to some degree level 2. For level 3, this question is probably not so relevant, as the leaders of the Germanic societies would function from their base.

This question, however, only leads to more questions.

1. What social and political status would a retired veteran have in his home village, as he returns after perhaps several decades?

2. The *auxiliarius* had the lowest pay in the Roman army. How wealthy would a veteran of the *auxilia* be, when he was discharged after 20-25 years?

3. Depending on the answer to questions 1 and 2, would he be wealthy and important enough to secure a position in the top of society?

4. And lastly, how well could a Germanic warrior in Roman service be expected to preserve reasonable contacts to his home community?

These are all questions, which I will not even attempt to answer here. They are presented merely to illustrate that we will be dealing with a number of unknown factors, when we approach the questions concerning returning Germanic veterans and their significance.

The Material

Based on these definitions of military interaction, one could argue that only level 1 would lead to what could be described as ordinary veterans of the army. In the following, however, I will pursue indications of all three levels.

So, what kind of physical or intellectual indicators for veterans do we have in the southern Scandinavia? For this region it is futile to look for concrete evidence, but we do have a number of indications that could hint at contacts with relation to the questions at issue here.

For regions within the limits of the Empire there is some evidence or indications for veterans such as gravestones, military diplomas and use of Roman building materials such as tiles and bricks. There are also small finds like elements of military outfits, textiles, utensils pointing towards a degree of literacy or simply the use of Roman pottery such as *terra sigillata*. Mostly, these indicators are absent in the material from southern Scandinavia.

Instead, there is a limited and specific range of military equipment, Roman vessels primarily of bronze and glass, some evidence of literacy, Roman coins and an occasional terra sigillata bowl.

Military Equipment

The military equipment is mostly limited to swords and sword fittings. They appear primarily in the large weapon deposits in the bogs of eastern Jutland and Funen in Denmark, although a few swords are

found in graves. This type of find is found throughout the Roman Iron Age, but the most diverse Roman material comes from the sites of Thorsbjerg in northern Germany and Vimose on Funen. From Thorsbjerg we have several Roman helmets, pieces of mail armour, shield bosses and belt buckles. Among the finds from Vimose there is, for instance, an almost complete mail armour, a griffon's head and several types of gaming pieces. At other weapon deposit sites such as Illerup Ådal, Nydam and Ejsbøl, the Roman material is almost exclusively limited to sword blades and baldric fittings (Jørgensen et al. 2003, 406-409; Pauli Jensen forthcoming).

The Roman sword blade is difficult to use as an indicator, as it is found throughout *Barbaricum* in the entire period. As such, it should be disregarded, when it comes to indicators of veterans.

One piece of military equipment that is closely connected to the Roman army is the *pugio*. Outside the Roman frontier, only three examples have been found. One of these was found in a cremation grave at Hedegård in central Jutland (Madsen 1999, 74-83). The fact that it was found in a grave and not as a deposit is a strong indication that the deceased had dealings with the Roman army (Grane 2007, 85-88).

There are other finds that link to the Roman army in some way. From one of the weapon sacrifices at Illerup Ådal, we have an openwork baldric plate with an eagle and the inscription "*OPTIME MAXIME CON(serva)*". There are several parallels to this piece. One was found in the fort at Carlisle, UK. This plate was even made from the same die as the one from Illerup Ådal. From the fort at Zugmantel in the Taunus Mountains in the German state of Hessen, another plate was found along with strap fittings including the rest of the inscription which continues: "*NUMERUM OMNIUM MILITANTIUM*". Thus, the entire inscription more or less translates to: "Jupiter the best and greatest preserve all fighting men of the unit" (Stephenson 1999, 69-71).

From one of the deposits from Vimose Bog there are four more or less identical baldric fittings with a medallion in the centre. The centre of the medallion is an eagle standing on a globe with a wreath in the beak flanked by Roman standards. Next to the globe, the letters *I O M*, standing for *Iupiter Optimus Maximus*, are barely visible (Jørgensen et al. 2003, 409). From Vimose there is also an easily recognizable baldric of a *beneficiarius* (Pauli Jensen forthcoming).

Originally, all these baldric plates must have belonged to soldiers serving in the Roman army. The find contexts, however, make an understanding of their wider context difficult. As the weapon sacrifices are seen as the result of intra Germanic affairs, the plates most likely did not originate from active Roman soldiers. Quite likely, they were worn by veterans, although they could also have been war booty.

Roman Vessels

Not only in southern Scandinavia, but in most of *Germania*, Roman vessels, i.e. vessels produced somewhere within the Roman Empire, are an important part of the visual expression of power of the élite in the first four centuries AD. This type of object is mainly found in graves, whereas settlements in southern Scandinavia have produced next to no finds of Roman origin. It is important to note, however, that the presence of a Roman vessel in a grave is not in itself necessarily a sign that we are dealing with a former member of the élite. There are relatively poor graves, which contain just a Roman saucepan as the only object. Graves, which are richly furnished with objects made of precious metals, on the other hand, almost always include Roman vessels.

These vessels belong to the banquet sphere. There are drinking vessels of glass or silver and ladle and strainer sets, buckets and basins of bronze. Mostly, or in the richest graves at least, the vessels can be divided into a container for the liquid, a vessel to drink the liquid and a medium to transfer the liquid from the container to the drinking vessel. Often the Roman vessels are indiscriminately mixed with locally produced pottery vessels (Ekengren 2009, 209-217).

Is it possible to relate graves with Roman vessels to homecoming veterans? As we lack obvious indicators that link to the Roman army, this is very difficult. Furthermore, in at least half the rich graves, the deceased was a female, who definitely had not served in the Roman army. Clearly, Roman objects may change their significance, once that are used in a Germanic context, but for Roman objects in female graves to be linked with the army, they should be strong indicators like a *pugio* and not vessels linked with banquet sphere.

In an article from 2007, I presented a number of élite graves that could be construed as possible indicators of military-political or diplomatic contacts between the Romans and the Danish area (Grane 2007). I shall only briefly mention two of these graves here.

They are the founding graves of the power centre of Himlingøje on eastern Zealand (Lund

Hansen et al. 1995). Both were warriors that had been cremated. A Roman vessel had been used as the urn, and both graves had been marked by a barrow. The graves, dated to the middle of the second century AD, were richly equipped befitting a family, who were to dominate southern Scandinavia for the next couple of centuries. In one grave, the urn was a Roman saucepan, while the other was a *terra sigillata* bowl of the popular type Dragendorf 37. In both cases, I argued that we might see an indication of a relation to the Roman army (Grane 2007, 89-91). That these vessels had been chosen as urns indicates that they held a significant meaning either to the deceased or the bereaved. In the case of the saucepan, this type of vessel was linked to the Roman army, as it was standard Roman military equipment at this time. In the case of the *terra sigillata* bowl, the connection to the Romans is found in the fact that Roman pottery is not part of the ensemble of Roman vessels found in southern Scandinavia unlike certain other regions of the *Barbaricum*. Logically, the deceased got acquainted with it through the Romans.

If we continue with this hypothesis for the sake of the argument, how are these graves related to the question of homecoming veterans? It is of course difficult to say to which of the three levels they belong. Considering their social status in the community, it would make the most sense to place them in level 2 or 3. They were in a position to seize and hold power and to form relations to the Romans on a diplomatic level (Grane 2013, 39-42). This also relates to the wider question of how the Roman vessels arrived in southern Scandinavia. This is too complicated a question to deal more thoroughly with here, but one way that has been proposed is that the material mainly arrived with homecoming veterans rather than being a result of diplomatic relations. If it were only as easy, we would have an answer to our main question. Unfortunately, there are a number of factors that speak against this hypothesis. The distribution pattern of the Roman vessels is quite specific and there is a limited, but specific range of types of vessels, consisting mainly of the three types of vessels for the banquet mentioned above. If veterans were bringing the major part of the Roman objects home from a life inside the Roman Empire, one would expect much more variety. Another point, and this is important, is that élite centres such as the one at Himlingøje are not defined by the Roman imports alone, but just as much on local jewellery of gold and silver, something that is not considered by those favouring this hypothesis.

Payment?

Another indication of some kind of contact is constituted by some of the coin finds from southern Scandinavia. The majority of the Roman coins come from hoards, many of them much younger than the Roman Iron Age, but a few of the hoards come from contexts, which allow us to form some hypotheses regarding their origin. Just one example will be presented here. It is a hoard from an Iron Age settlement in northern Jutland, at the village of Ginderup. It was deposited in the end of the first century AD in the floor of a house and consisted of 31 *denarii* and one *aureus*. The youngest coin was from the reign of Vespasian, and the composition resembled hoards from *Pompeii* and the Flavian *castellum* of Ludvigshafen-Rheingönheim, which indicates that the hoard was composed early in the Flavian period. Precisely, at the time of Vespasian, we see a veritable boom in Roman vessels in Scandinavia (Bjerg 2005, 125-128; Lund Hansen 1987, 198). Possibly, the development in the AD 70s can be related to the hoard from Ginderup, but once again the question of homecoming veterans will be difficult to answer. In fact, the presence of that large a number of coins rather indicates some sort of payment related to a diplomatic agreement, a pay-off of sorts?

Intellectual Indicators?

An example of a so-called intellectual indicator is found in the textile remains of a number of graves from the sites of Tornebuskehøj, Tjørring and Hammerum in central Jutland. The graves were all dated to the first century AD. In these graves there are pieces of textile that are woven in "half Panama". This is a particular weaving technique, where threads woven across the main threads of the base cloth along the edge formed a slightly thicker band, usually in a different colour than the base cloth. The Romans used this weaving technique to create the *clavus* or band on Roman tunics and togas (Mannering 2012, 95-99). This type of weaving was completely foreign to the Germanic societies at this time. There is no doubt that the pieces of textile were locally produced, as the type of cloth used as the base differed from that which was used by the Romans. Therefore, there is no doubt that the pattern must have been inspired by Roman clothing. Did someone from the local community return to the village with a Roman tunic after some time in the Empire? Or did the Romans pass this area on the naval expedition under Augustus in AD 5?

Another form of intellectual indicator is the beginning of literacy in southern Scandinavia. This

area is where the earliest runic inscriptions are found. The Runic "alphabet", the Futhark is not a transcription of Latin, but it is clear that the inspiration to create a Germanic written language came from the South. The earliest inscriptions are owner's or maker's names on small objects. An imitation of the Roman use of maker's marks on, for instance, sword blades is seen on Germanic spearheads. Thus, the same runic name is found on spearheads from two different war booty sacrifices at Illerup Ådal and Vimose in Denmark. From the Thorsbjerg find, there is a shield boss with a Latin name and one with a runic name. This habit could certainly have been picked up by warriors serving in the Roman army (Imer 2007, 42-48).

A third example should be mentioned here, although the description "intellectual" may not actually apply. This concerns the import of animals. In the Roman Iron Age, new species like chickens and tame ducks and geese were introduced. Also the tame cat came to northern Europe with the Romans (Jensen 2003, 406-407). That these animals are yet another indication of the contacts between southern Scandinavia and the Roman Empire is certain, but whether they can be attributed to homecoming veterans is another matter.

Lastly, I shall return to the gravesite of Himlingøje. In the first half of the third century AD, a young man was inhumed with grave gifts appropriate to his status as a member of the leading family. This grave 1978-1 is particularly interesting due to the state of the anthropological material. It became clear during the excavation that the deceased had not been in one piece, when he was put in the grave. Although the bones of his body had been placed more or less correctly, some were upside down. Thus, for instance, the *fibulae* and *tibiae*, i.e. lower leg bones had been placed incorrectly with the upper parts at the feet, and the head had rolled down on the chest. For some reason, the body had been parted prior to the burial, possibly because it had to be transported over a greater distance. On top of the grave, the complete skeleton of an old dog was found. The remains of excrements showed that the dog had died on the grave. This dog was a Maremma sheep dog of Italian origin. A likely scenario is that the dog had been acquired from the Romans perhaps as a gift to the young prince. It is also a possibility that the young man brought it home from a stay in, or visit to, the Roman provinces (Grane 2007, 92). It has been suggested that this was a hunting dog, and that veterans could have brought back the idea of breading hunting dogs.[2] The fact that the skeleton has been identified as a sheep dog may rather indicate that it was used as a guard dog, though.

Concluding Remarks

The simple answer to the question posed in the title: "Can we identify Germanic veterans of the Roman army in the archaeological material of southern Scandinavia?", must be: Not with the present state of research. As it has now become apparent, no attempts were given to answer the question. Instead, the main question generated a number of other questions, which will hopefully be addressed in the future. I have tried to underline the important fact that we need to first identify, which level of military contact, we are dealing with. As stated above, we cannot just assume that most of the Roman objects came back with veterans, as it is necessary to include all the facts. Nor can we just assume that the most powerful Germanic king from Mušov served as the commander of merely a cohort. On the other hand, he may have served for a time in his youth. This is not unknown. Just think of Arminius, who had served as a Roman officer. When it comes to Germanic warriors serving in the Roman army, far too little is known about the actual circumstances. Germanic allies may have sent contingencies of warriors to serve for limited periods of time rather than the 25 to 30 years that was the norm for the auxiliaries.

I have presented a few examples, which indicate that something was going on. Particularly the baldric plates from the bog finds must signify some connection to the Roman army and they must have belonged to Roman soldiers at some point, but if these soldiers were Germanic is impossible to know. Also the textiles present a strong indication of contacts. Whether these contacts represent veterans or passing Romans, however, is impossible to say.

The two warriors laid to rest in the Roman vessels from Himlingøje could have made a career in the Roman army, but would they have had sufficient funds and contacts to establish themselves as masters on eastern Zealand?

The overall conclusion to this matter must remain that more work should be done before we can get any satisfying answers to the question whether we can identify Germanic veterans of the Roman army in the archaeological material of southern Scandinavia.

[2] Contribution to the discussion by Ortolf Harl at the congress in Ruse.

Bibliography

Bjerg, L.M.H. 2005. Ginderupfundet – det største fund af romerske denarer i Thy. – Nordisk Numismatisk Unions Medlemsblad, Nr. 4, August 2005, 125-129.

Droberjar, E. / Peška, J. 2002. Die Waffen. In: Peška, J. / Tejral, J. (eds.). Das Germanische Königsgrab von Mušov in Mähren Teil 1 (= Römisch-Germanisches Zentralmuseum Monographien 55, 1). Mainz. 97-125.

Ekengren, F. 2009. Ritualization – Hybridization – Fragmentation. The Mutability of Roman Vessels in Germania Magna AD 1-400 (= Acta Archaeologica Lundensia, Series in Prima 4°, No. 28). Lund.

Fischer, T. 1988. Römer und Bajuwaren an der Donau. Regensburg.

Grane, T. 2013. Roman Imports in Scandinavia: Purpose and Meaning? In: Wells, P.S. (ed.). Rome Beyond Its Frontiers: Imports, Attitudes, and Practices (= Journal of Roman Archaeology, Supplementary Series 94). Portsmouth. 29-44.

Grane, T. 2007. South Scandinavian foederati and auxiliarii? In: Grane, T. (ed.). Beyond the Roman Frontier: Roman Influences on the Northern Barbaricum (= Analecta Romana Instituti Danici, Supplementum 39). Roma. 83-104.

Imer, L. M. 2007. Greek and Latin Inscriptions in the Northern Barbaricum. In: Grane, T. (ed.). Beyond the Roman Frontier: Roman Influences on the Northern Barbaricum (= Analecta Romana Instituti Danici, Supplementum 39). Roma. 31-60.

James, S. 2005: Large-scale Recruitment of Auxiliaries from Free Germany? In: Visy, Z. (ed.). Limes XIX. Proceedings of the XIXth International Congress of Roman Frontier Studies, Pécs, Hungary, September 2003. Pécs. 273-279.

Jensen, J. 2003. Danmarks Oldtid. Ældre Jernalder 500 f.Kr.-400 e.Kr. Copenhagen.

Jørgensen, L. / Storgaard, B. / Gebauer Thomsen, L. (eds.) 2003. The Spoils of Victory. The North in the Shadow of the Roman Empire. Copenhagen.

Lund Hansen, U. 1987: Römischer Import im Norden (= Nordiske Fortidsminder serie B 10). Copenhagen.

Lund Hansen, U. / Alexandersen, V. / Beckmann, B. / Bollingberg, H. J. / Dalsgaard, K. / Schou Jørgensen, M. / Kromann, A. / Mannering, U. / Nørnberg, P. / Jansen Sellevold, B. / Stilborg, O. / Stoklund, M. / Sørensen, I. / Hatting, T. / Jørgensen, G. / Balslev Jørgensen, J. / Malmros, C. / Rahbek, U. / Robinson, D. / Tauber, H. 1995. Himlingøje – Seeland – Europa (= Nordiske Fortidsminder serie B 13). Copenhagen.

Madsen, O. 1999: Hedegård – a Rich Village and Cemetery Complex of the Early Iron Age on the Skjern River. An Interim Report. – Journal of Danish Archaeology 13, 1996-97, 57-93.

Mannering, U. 2012. Dragt og design i romersk jernalder på Herningegnen. – Midtjyske Fortællinger 2011, 87-102.

Pauli Jensen, X. (forthcoming). Why are the South Scandinavian weapon deposits relevant for limes research? An update of research progress. In: Bidwell, P. / Hodgson, N. (eds.). Proceedings of the 21st International Congress of Roman Frontier Studies in Newcastle 2009 (British Archaeological Reports, International Series).

Stephenson, I. P. 1999. Roman Infantry Equipment. The Later Empire. Stroud.

Wells, P. S. 1999. The Barbarians Speak: How the Conquered Peoples Shaped Roman Europe. Princeton.

Thomas Grane, Ph.D.
University of Copenhagen
Wilkensvej 24A, 4.th.
DK-2000 Frederiksberg
tgrane@hum.ku.dk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Les militaires originaires d'Italie à *Troesmis*. Notes prosopographiques[1]

Lucreţiu MIHAILESCU-BÎRLIBA / Iulia DUMITRACHE

Troesmis, cité située dans la partie nord-est de la Mésie Inférieure (voir la carte de la fin de cet article), a été le siège de Ve légion *Macedonica* et les soldats qui ont peuplé le camp et les environnements proviennent de diverses régions de l'Empire[2]. Notre recherche essayera de systématiser l'information sur les cités ou les régions d'origine des militaires provenant d'Italie et d'identifier les moments et les raisons de leurs recrutements[3].

Une inscription du règne d'Hadrien évoque Tuccius Aelianus, édile des *canabae* (*ISM* V 154). Le nom Tuccius est fréquent en Latium et Campanie[4], en Samnium[5], Picenum[6], mais également à Rome[7] et en Afrique[8]. Un L. Tuccius L. f. Campanus est attesté en Noricum[9]. L'inscription ne mentionne pas s'il est vétéran, comme le fait dans le cas du *magister* C. Valerius Pudens, mais le gentilice d'Aelianus indique une origine italienne. Il est probable que notre Tuccius Aelianus, édile dans les *canabae* de la Ve légion *Macedonica*, est originaire d'Italie. Comment est-il arrivé à *Troesmis*? S'il n'est pas vétéran, il a fait partie des Italiens qui ont accompagné les soldats de la légion, originaires, surtout à la fin du Ier siècle et au début du IIe, de cette région.

Un autre texte atteste le *praefectus castrorum* Tib. Veturius Mauretanus, fils de Tiberius, de la tribu Aemilia, originaire de *Fundi* (Latium) (*ISM* V 143). L'inscription est érigée par l'*ordo Troesmensium*, appartenant à l'habitat civil auprès des *canabae*. Un autre Veturius enrôlé dans la Ve légion *Macedonica* est C. Veturius Verus, mort en service à *Sacidava* (Scorpan 1977, 160-162 = *AE* 1977, 478). F. Matei-Popescu pense que le soldat est originaire de *Sacidava*, puisque son père lui fait ériger la stèle funéraire dans cette cité, mais que son père provient d'Italie, comme Tib. Veturius Mauretanus (Matei-Popescu 2010, 69). La datation proposée par S. Conrad (peu après 150 ; Conrad 2004, 202) rend possible l'interprétation de F. Matei-Popescu. Des autres Veturii on rencontre à *Capidava*. Veturius Tertius, *magister vici*, fait ériger un autel pour Jupiter, Junon et Cérès (*ISM* V 56) et une stèle funéraire pour sa femme et pour sa mère (*ISM* V 34). On peut supposer une origine italienne de Veturius Tertius, voir que le culte de Cérès était plus répandu en Italie (Spaeth 1996, 97-102). Toujours à *Capidava*, deux autres Veturiae, appartenant probablement à la même famille, sont mentionnées dans une inscription funéraire (*ISM* V 35). Enfin, à Barboşi, en *Barbaricum*, sur la rive gauche du Danube, une inscription mentionne un certain Veturius, *medicus* de la Ière légion *Italica* (*ISM* V 299).

Pour T. Rascanius Fortunatus, *medicus*, originaire de *Faventia*, ses affranchis font ériger une pierre

[1] Cette contribution a été réalisée dans le cadre du projet CNCS IDEI 217/2011, code 0550, financé par le Conseil National pour la Recherche Scientifique de Roumanie (CNCS). Nous remercions le CNCS pour son support financier.

[2] Sur *Troesmis*, voir surtout Doruţiu-Boilă 1974, 89-94; Simion et al. 1977-1978, 151-288 ; Matei-Popescu 2010, 47-48.

[3] Sur ces problèmes concernant la Ve légion *Macedonica*, voir encore Mihailescu-Bîrliba 2012, 159 sqq ; Mihailescu-Bîrliba / Dumitrache 2012, surtout 135-137.

[4] *CIL* X 3776, 6400 ; XIV 250, 251, 256, 426-428, 1686, 1687, 4569, 4573, 4595 ; *AE* 2002, 295 etc.

[5] *CIL* IX 4968.

[6] *CIL* IX 5673.

[7] *CIL* VI 240, 555, 681, 1911, 4404, 7876, 7877 etc.

[8] *CIL* VIII 1331, 4094, 4098, 4099, 4911 etc.

[9] *CIL* III 4868.

funéraire à *Troesmis* (*ISM* V 193). D. Aparaschivei le considère un médecin civil, même s'il n'exclut pas son appartenance à la légion (Aparaschivei 2010, 144-145) ; nous pensons que, même s'il ne rappelle pas le nom de la légion, il fait partie de cette unité militaire, puisque l'épitaphe a été trouvée dans un camp de légion. Nous ne connaissons pas si Rascanius Fortunatus a pratiqué sa profession dans le milieu civile de *Troesmis*; mail il semble qu'il a exercé ses qualités de médecin dans le milieu militaire.

Un enfant dont le nom n'est pas conservé sur la pierre (il n'y a que le surnom, Claudianus) est attesté comme ayant son *origo* à *Planina*, en Picenum (*ISM* V 198). Nous analysons ce texte en essayant d'apprendre qui est son père. Est-ce qu'il est possible que celui-ci était un militaire de la légion? La réponse c'est oui, il est possible. Deux chevaliers originaires de Picenum (*Forum Picenum*), inscrits dans la même tribu que Claudianus, ont servi en tant que *tribuni militum* dans la V^e^ légion *Macedonica* : L. Volcacius Primus (*CIL* IX 5363) et C. Nonius Flaccus (*AE* 1975, 353), tous les deux dans des textes datant du I^er^ siècle.

P. Valerius Clemens et L. Cominius Valens, vétérans de la V^e^ légion *Macedonica* et *magistri* des *canabae*, accompagnés par l'édile L. Valerius Crispus, vouent un autel pour Jupiter le très bon et grand (*ISM* V 156). L'inscription date, selon la mention du texte, du règne d'Antonin le Pieux. Nous ne connaissons pas d'autres détails sur les deux Valerii (Clemens et Crispus). Nous pouvons pourtant observer que la *gens* Valeria est mentionnée dans l'élite des *canabae* sous Hadrien et sous Antonin. Sont P. Valerius Clemens, L. Valerius Crispus ou C. Valerius Pudens (vétéran et *magister* des *canabae* sous Hadrien ; *ISM* V 154) apparentés? Nous ne le savons, non plus, mais ce qui nous pouvons affirmer avec certitude c'est que les Valerii sont très bien représentés parmi les soldats et les vétérans de Mésie Inférieure, et *Troesmis* n'en fait pas exception[10]. L'inscription monumentale de 134 atteste 28 Valerii (parmi eux un Valens, *ex imaginifero*, et un Clemens ; *ISM* V 137). L'identité des noms ne signifie pas qu'il s'agit des mêmes personnes. En ce qui concerne L. Cominius Valens, on sait que la *gens* Cominia est notamment attestée à Rome[11], mais avant tout dans les *regio I*, *regio IX* et *regio X*. Les Lucii Cominii sont mentionnés surtout dans les *regio I*[12] et *regio X*[13]. On retrouve le nom Cominius également dans les provinces danubiennes : les Cominii constituaient une des familles de notables à *Ulpia Traiana Sarmizegetusa*[14]. En plus, un des légats de la V^e^ légion *Macedonica* sous Antonin, Cominius Secundus, est rappelé à *Troesmis* (*ISM* V 141). Il devient plus tard gouverneur de la Pannonie Inférieure (147-150)[15]. Est-ce que notre Valens est un parent de Cominius Secundus? Il est difficile de dire. Ce qui nous semble plus sûr c'est que L. Cominius Valens, vétéran de la *legio V Macedonica*, était originaire d'une famille italienne, probablement d'une des régions mentionnées ci-dessus.

L'inscription monumentale de 134 représente, en fait, un liste des soldats libérés après avoir effectué leur service militaire commencé en 108-109 (*Annio et Atilio consulibus et Palma et Tullo consulibus* ; *ISM* V 137). Nous ne citerons plus la source, car tous les militaires que nous allons mentionner sont attestés dans cette inscription. Il s'agit de soldats libérés et des *reliqui veterani*, groupés par cohortes. L'origine des soldats n'est pas mentionnée, comme dans la liste des soldats libérés en 195 de la VII^e^ légion *Claudia*, liste conservée à *Viminacium* (*IMS* II 53).

Selon nous, d'autres militaires mentionnés dans l'inscription monumentale de 134 ont une origine italienne : les Aemilii, Atisius Valens, Aufidius Iulianus, Baebius Severus, Caenius [---], Caesius [---], Caesonius Niger, Catonius Secundus, Mem(m)ius Valens, Memmius Capito, Naevius Pudens, Nonius Saturninus, Numitorius Severus, Pescennius I[---], Papirius Mes[---], Sempronius Rufus, Sempronius Valens. À ceux-ci s'ajoute Grattius Italicus, dont le surnom suggère une telle origine. Prenons alors chaque référence, afin d'expliquer notre choix.

Aemilii

Deux Aemilii sont mentionnés dans la liste : un dont le surnom n'est plus conservé et un Aemilius Geminus. Peut-être ils faisaient partie de la même branche de la famille, sinon ils étaient apparentés. Il y a plusieurs Aemilii militaires en Mésie Inférieure. C. Aemilius Donatus, *centurio* de la XI^e^ légion *Claudia*, voue un autel à Diane à *Montana* (*AE* 1987, 871). Un M. Aemilius Optatus apparaît dans

[10] Sur le nom de Valerius, nom qui se retrouve surtout dans le milieu militaire, voir Dana 2011, 56-57.
[11] *CIL* VI 158, 200, 1056, 1057, 2375, 7588, 7757, 7758, 26601 etc.
[12] *CIL* IX 1896, 2325, 2336 ; X 2319, 4090, 4293, 5643, 5920 ; XIV 4091-32 ; *AE* 1999, 448.
[13] *CIL* V 1173, 1174, 1840, 3440.
[14] *IDR* III/2, 19, 107, 108, 371, 419, 549.
[15] *CIL* XIV 3599 = *ILS* 1061 ; *ISM* III, 114. Voir aussi Fitz 1966, 14-15.

une liste des vétérans (probablement de la flotte) à *Noviodunum* (*ISM* V 270). Même si le premier éditeur du texte croit qu'il s'agit d'un autel voué à une divinité (Barnea 1975, 257-258), la liste des noms et la particule *veteran(us)* nous font penser à la variante exposée ci-dessus. Enfin, L. Aemilius Severus, centurion de la XIII[e] légion *Gemina*, est commémoré par sa femme et par ses fils à *Tropaeum Traiani* (*CIL* III 14214-8). Enfin, des Aemilii sont attestés encore à *Ulmetum* (*ISM* V 81), à Nedan (*ILBulg* 435), à Lâžene (*ILBulg* 438), à *Novae* (*IGLNovae* 137) et à Pavlikeni (*ILBulg* 426). Le gentilice a été adopté même par les thraces, un certain Aemilius B[---]rozis étant commémoré à Gauren (*ILBulg* 127). Même si Aemilius est un nom rencontré surtout en Italie[16], il a été porté par des gens qui n'ont pas leur *origo* dans cette zone (voir le cas très clair de Gauren). Voir que les recrutements des italiens ont eu lieu dans la première partie du stationnement de la légion à *Troesmis*, nous sommes enclin de considérer ces Aemilii ayant une origine italienne.

Atisius Valens

Les Atisii sont attestés surtout en Italie (*regio X*)[17] et en Gaule[18]. Il est pourtant difficile de dire d'où provenait ce soldat. Nous sommes enclins à croire qu'il s'agit de l'Italie.

Aufidius Iulianus

Il y a plusieurs Aufidii mentionnés en Mésie Inférieure. C. Aufidius Seneca, militaire ou vétéran de la V[e] légion *Macedonica*, fait ériger une pierre funéraire pour sa femme à *Tomi* (*ISM* II 458). Un Aufidius Aquila est attesté à *Noviodunum* (*ISM* V 278). Aufidia Avita, femme du vétéran Ulpius Latinus (toujours de la V[e] légion *Maceonica*) apparaît dans deux inscriptions à *Istros* (*ISM* I 276-277). Enfin, un [Au]fidius Helius, originaire d'*Amurion* (Asie), fait ériger un autel pour lui-même à Topologu (*ISM* V 234). Est-ce notre Aufidius provient du même endroit? Des sous-unités de la légion ont stationné au début de la guerre de Trajan contre les Parthes en Orient, mais il est vraiment difficile de dire. D'un autre côté, les surnoms latins des Aufidii ne signifient pas qu'ils sont forcément de l'Italie. R. Curcă et N. Zugravu ont montré que beaucoup de gens originaires de l'Orient, sont en fait, au moins du point de vue onomastique, romanisés (Curcă / Zugravu 2005, 313-329). Le *cognomen* italien d'Aufidius Seneca et son appartenance à la même légion que notre Aufidius Iulianus nous fait penser à une origine italienne de celui-ci.

Baebius Severus

Un L. Baebius [---], né à *Nicopolis*, est rappelé dans un texte à Bregare, avec son frère L. Baebius Clemens (*ILBulg* 147). À *Novae*, un texte mentionne le centurion Baebius Urvinianus (*IGLNovae* 57b)[19]. Un autre Baebius (ou le même?) est attesté en tant que centurion dans le même camp (*IGLNovae* 141). Un C. Baebius est commémoré à *Sexaginta Prista*, tandis que Q. Baebius Proculus, vétéran de la XIII[e] légion *Gemina*, est mort à *Tomi* (*ISM* II 296). Sous Claude, un primipile de la V[e] légion *Macedonica*, C. Baebius Atticus, est honoré à *Iulium Carnicum* (*regio X*), d'où il est probablement originaire (*CIL* V 1838, 1839). Toujours à *Iulium Carnicum* (*CIL* V 1837), est mentionné un M. Baebius Urbinianus (parent du centurion de *Novae*). Il est, par conséquent, presque sûr que les Baebii de *Novae* étaient recrutés de l'Italie. À *Capua* (*regio I*), A. Baebius [---], *armillis* de la même légion, est attesté avec ses affranchis (*CIL* X 3833). Il est donc possible que notre Baebius Severus soit recruté de l'Italie au début du II[e] siècle, c'est-à-dire en 108-109.

Caenius[---]

Les Caenii sont mentionnés surtout en Italie et en Sicile[20]. Nous pensons que notre Caenius a été recruté de la même région.

Caesius [---]

En Mésie Inférieure, des Caesii sont attestés à Cataloi (*ISM* V 244) et à *Capidava* (*ISM* V 51). Un M. Caesius Verus, originaire de *Pollentia*, centurion de la V[e] légion *Macedonica*, apparaît sur une inscription en Cappadoce (*Comana Pontica*), probablement pendant l'expédition de Lucius Verus contre les Parthes (*AE* 1990, 896)[21]. C. Caesius Maximus est rappelé à Rome en tant que *frumentarius* de la I[ère] légion (*AE* 1958, 183). Nous croyons que notre Caesius a été également recruté de l'Italie.

[16] *CIL* I 2670, 2788, 2814 ; IV 3456, 3775, 3790 ; V 106, 530, 864 ; IX 5560, 5564, 6073 et encore beaucoup d'autres exemples.
[17] Par exemple, *CIL* V 3406, 3499, 3500 ; *AE* 1995, 291.
[18] Par exemple, *CIL* XII 1654, 2200, 2203, 5685, 2 a-b, 3 a-b, 4 b-h ; *AE* 1968, 296b.
[19] Voir aussi Sarnowski 1993, 205-219 ; sur Urvinianus, voir Kajanto 1965, 159.
[20] Par exemple, *CIL* X 3034, 3339, 3412-3414 ; *IA* 938 ; *AE* 1997, 738.
[21] Voir aussi Mitford 1988, 176-178 ; Strobel 1988, 43-46 ; Matei-Popescu 2010, 60.

Caesonius Niger

Les Caesonii sont notamment attestés dans la *regio I*[22] et à Rome[23]. Voir cette densité des noms, nous pensons que Caesonius Niger a été, lui-aussi, recruté de l'Italie.

Catonius Secundus

Sex. Catonius Terminalis, militaire ou vétéran de la V^e^ légion *Macedonica*, est mentionné à *Tomi* (*ISM* II 466). L'inscription a été datée par F. Matei-Popescu, selon le nominatif de son nom (dans le début du texte), de la première moitié du II^e^ siècle. En plus, le surnom Terminalis a une origine italienne (Matei-Popescu 2010, 74). Toujours à *Tomi*, il y a deux autres Catonii, affranchis, peut-être d'un membre de la famille de Sex. Catonius Terminalis (*ISM* II 297). Une Catonia Ingenua, femme d'un centurion de la I^ère^ légion *Italica*, apparaît dans une inscription de *Novae* (*AE* 1999, 1335). Nous pensons que notre Catonius Secundus est originaire d'Italie.

Memmii

Deux Memmii sont évoqués dans l'inscription monumentale de 134 : Mem(m)ius Valens et Memmius Capito. L. Memmius Aquila, vétéran de la légion, est rappelé dans un texte à *Transmarisca* (*AE* 2004, 1265). Un L. Memmius Valens (portant les noms d'un des militaires de *Troesmis*) est décurion dans le municipe de *Tropaeum Traiani* (*CIL* III 14214[4]). Pourtant, il est difficile de l'identifier avec le militaire libéré en 134. Les Memmii sont surtout attestés en Italie et à Rome[24], ce qui nous fait plaider pour une possible origine italienne de nos personnages.

Naevius Pudens

Naevius Probus, un vétéran qui ne spécifie pas l'unité sous laquelle il a servi, voue un autel à Diana et à Silvanus (*ILBulg* 207). Pourtant, il est impossible de dire s'il est apparenté à notre Naevius Pudens. Les Naevii sont très nombreux en Italie et à Rome. Nous supposons que Naevius Pudens est originaire d'Italie[25].

Nonius Saturninus

C. Nonius Flaccus, ancien tribun militaire de la légion sous Vespasien, est originaire de *Firmum Picenum*, en Italie (*AE* 1975, 353 = *AE* 2005, 452). Nonius Firmanis est un évergète de la même cité (*CIL* IX 5376). Rien nous dit que Nonius Saturninus est un descendant de ces Nonii. Voir pourtant les occurrences assez nombreuses des Nonii en Italie et à Rome[26], nous sommes enclin à considérer Nonius Saturninus originaire de cette région.

Numitorius Severus

Les Numitorii ont en Italie et à Rome les plus nombreuses occurrences[27]. Notre Numitorius Severus doit être originaire d'une cité de l'Italie.

Papirius Mes[---]

Même si les Papirii sont surtout attestés en Italie et à Rome[28], les présences en Mésie Inférieure d'un certain Papirius Celer, membre d'un collège des Pontobithyniens à *Tomi* (*ISM* II 129), ainsi que d'un médecin d'une vexillation, Papirius Olymphycus à *Tyras* (dont le nom indique toujours une origine d'une province hellénophone ; *AE* 1995, 1350), nous imposent de rester réservés sur l'origine de Papirius Mes[---]. D'un autre côté, il ne faut pas exclure une origine italienne du personnage.

Pescennius I[---]

Comme dans les cas précédent, ce nom a les occurrences les plus nombreuses en Italie et à Rome[29]. Nous plaidons pour une possible origine italienne.

Sempronii

Deux Sempronii sont attestés dans l'inscription monumentale de *Troesmis* datant de 134 : Sempronius Rufus et Sempronius Valens. Il y a une Sempronia, qui porte le surnom de Rufina, à *Tomi* (*ISM* II 302). Sa mère, Catilia Respecta, est originaire de *Ratiaria*,

[22] Par exemple, *CIL* IV 10232b ; V 2581, 2828, 2854, 2901, 3164, 3902, 5976, 6199, 6535, 8825.

[23] Par exemple, *CIL* VI 315, 1363, 1682, 4913, 5574.

[24] Par exemple: *CIL* IV 3340, 3406 ; V 2834, 2992, 5609, 7632, 9353 ; VI 45, 409, 538, 1460, 1742, 6713 ; X 1233, 2726, 3472.

[25] Par exemple: *CIL* IV 475, 1478, 1607 ; V 420, 480, 1052, 1312, 3672, 4700, 4906, 8505 ; VI 996, 1468-1470 ; X 8056, 56a-b, 97a-b, 149a-b etc.

[26] Par exemple: *CIL* IV 1711, 2197, 3376, 8719, 9056 ; V 961, 998, 4262, 4263, 4300, 4315, 7436 ; VI 14214, 14478, 15011, 17158, 17168, 21606 ; IX 446, 797, 1903 etc.

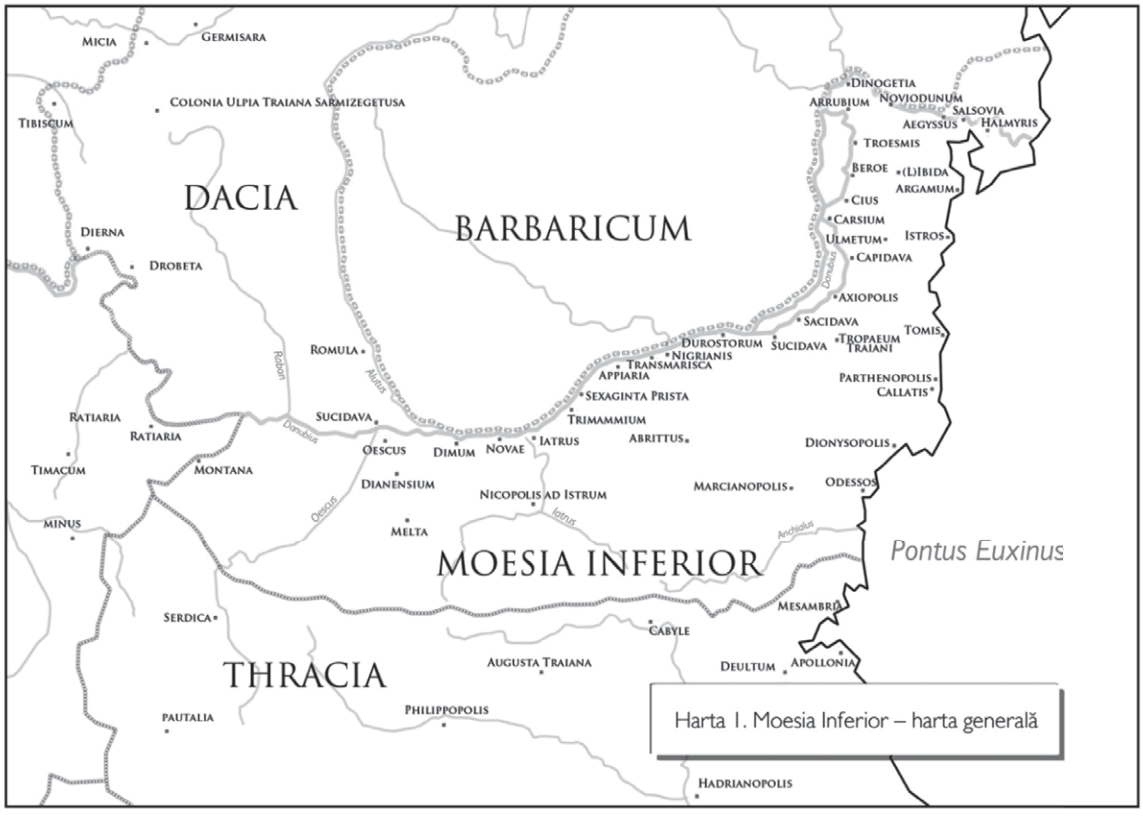
[27] Par exemple: *CIL* IV 2943, 334022, 33480, 3340151, 8452 ; VI 6659, 7810, 7811, 13548, 17834, 23136 ; IX 5646, 6382 ; X 824, 1403, 5620, 6264 ; XIV 3178, 3626 etc.

[28] Par exemple: *CIL* V 209, 211, 546, 2253, 3372, 4232, 6411, 8131 ; VI 1317, 1480, 1481, 1900, 9219, 9792 ; IX 550, 2479, 3924 ; X 1876, 2673 ; XI 253, 1417, 1728, 2138-2140.

[29] Par exemple: *CIL* VI 2407, 3577, 5683, 8329, 11167, 23965, 24732, 32480 ; IX 551, 1879, 2691, 4861 ; X 2838, 3917, 4975 ; XI 2379, 3614, 6126, 6758, 6871, 6597, 6961 etc.

Annexe. Les militaires originaires (ou probablement originaires) d'Italie à *Troesmis*

N°	**Nom**	**Rang ou statut**	**Datation**	**Source**
1	Aemilius [---]	vétéran, libéré en 134	134	*ISM* V 137
2	Aufidius Iulianus	*reliquus veteranus*	134	*ISM* V 137
3	Atisius Valens	vétéran, libéré en 134	134	*ISM* V 137
4	Aemilius Geminus	vétéran, libéré en 134	134	*ISM* V 137
5	Baebius Severus	vétéran, libéré en 134	134	*ISM* V 137
6	Caenius [---]	vétéran, libéré en 134	134	*ISM* V 137
7	Caesius [---]	vétéran, libéré en 134	134	*ISM* V 137
8	Caesonius Niger	vétéran, libéré en 134	134	*ISM* V 137
9	Catonius Secundus	vétéran, libéré en 134	134	*ISM* V 137
10	Grattius Italicus	*reliquus veteranus*	134	*ISM* V 137
11	Memmius Valens	vétéran, libéré en 134	134	*ISM* V 137
12	Memmius Capito	vétéran, libéré en 134	134	*ISM* V 137
13	Naevius Pudens	vétéran, libéré en 134	134	*ISM* V 137
14	Nonius Saturninus	vétéran, libéré en 134	134	*ISM* V 137
15	Numitorius Severus	vétéran, libéré en 134	134	*ISM* V 137
16	Papirius Mes[---]	vétéran, libéré en 134	134	*ISM* V 137
17	Pescennius I[---]	vétéran, libéré en 134	134	*ISM* V 137
18	Sempronius Rufus	vétéran, libéré en 134	134	*ISM* V 137
19	Sempronius Valens	vétéran, libéré en 134, *ex architecto*	134	*ISM* V 137
20	Tuccius Aelianus	vétéran (incertain)	règne d'Hadrien	*ISM* V 154
21	L. Cominius Valens	vétéran	règne d'Antonin	*ISM* V 156
22	Tib. Veturius Mauretanus	*praef. Castrorum*	environ 150	*ISM* V 143
23	T. Rascanius Fortunatus	*medicus* (de la légion?)	II^e^ siècle	*ISM* V 193
24	Père d'un anonyme enfant	?	II^e^ siècle	*ISM* V 198



Carte de la Mésie Inférieure

mais pourtant il est presqu'impossible de savoir si elle a été la femme de Sempronius Rufinus. De l'autre côté, les Sempronii sont mentionnés le plus souvent en Italie et à Rome, comme dans les cas précédents[30]. Comme il a été recruté en 108/109 et comme les recrutements en Italie étaient encore pratiqués, nous plaidons pour l'origine italienne des Sempronii.

Sauf les premiers deux et le dernier des textes concernant les militaires de la légion provenant d'Italie, les autres inscriptions ne contiennent pas des détails qui rendront possible une datation précise. De toute façon, il semble que les recrutements des militaires originaires de l'Italie ont eu lieu avant et/ou peu après l'installation de la légion à *Troesmis*.

Bibliographie

AE = L'Année Épigraphique, Paris.

Aparaschivei, D. 2010. Being a Physician in Moesia Inferior. – Dacia, Revue d'archéologie et d'histoire ancienne. Nouvelle Série 54, 141-156.

Barnea, Al. 1975. Contributions épigraphiques à l'histoire de la ville de Noviodunum. – Dacia, Revue d'archéologie et d'histoire ancienne. Nouvelle Série 19, 255-261.

CIL = Corpus Inscriptionum Latinarum, Berlin.

Conrad, S. 2004. Die Grabstelen aus Moesia Inferior. Untersuchungen zu Chronologie, Typologie und Ikonographie. Leipzig.

Curcă, R.-G. / Zugravu, N. 2005. « Orientaux » dans la Dobroudja romaine. Une approche onomastique. Dans : Cojocaru, V. (éd.). Ethnic contacts and cultural exchanges North and West of the Black Sea coast from the Greek colonization to the Ottoman Empire. Iaşi. 313-329.

Dana, D. 2011. L'impact de l'onomastique latine sur les onomastiques indigènes dans l'espace thrace. Dans : Dondin-Payre, M. (éd.). Les noms des personnes dans l'Empire romain. Transformations, adaptation, évolution. Bordeaux. 37-87.

Doruţiu-Boilă, E. 1974. Precizări topografice despre unele inscripţii dobrogene. – Studii şi Cercetări de Istorie Veche 15, 89-94.

Fitz, J. 1966. Die Laufbahn der Statthalter in der römischen Provinz Moesia Inferior. Weimar.

IA = Inscriptiones Aquileiae. Udine.

IDR = Inscriptiones Daciae Romanae. Bucarest.

IGLNovae = Inscriptions grecques et latines de Novae. Bordeaux.

ILS = Inscriptiones Latinae selectae. Berlin.

ILBulg = Inscriptiones Latinae in Bulgaria repertae. Sofia.

IMS = Inscriptions de la Mésie Supérieure. Belgrade.

ISM = Inscriptiones Scythiae Minoris. Bucarest.

Kajanto, I. 1965. The Latin Cognomina. Helsinki.

Matei-Popescu, F. 2010. The Roman Army in Moesia Inferior. Bucarest.

Mihailescu-Bîrliba, L. 2012. Epigraphik, Mobilität und die Politik der Rekrutierung in der römischen Armee. Der Fall der Soldaten und Veteranen in Moesia Inferior. Dans : Rollinger, R. / Schwinghammer, G. / Truschnegg, B. / Schnegg, K. (éds.). Altertum und Gegenwart. 125 Jahre Alte Geschichte in Innsbruck: Vorträge der Ringvorlesung Innsbruck 2010. Innsbruck. 159-185.

Mihailescu-Bîrliba, L. / Dumitrache, I. 2012. La colonisation dans le milieu civil et le milieu militaire de Troesmis. Iaşi.

Mitford, T. B. 1988. Further Inscriptions from the Cappadocian Limes. – Zeitschrift für Papyrologie und Epigraphik 71, 167-178.

Sarnowski, T. 1993. Nova Ordinatio im römischen Heer des 3. Jh. und eine neue Primus Pilus-Weihung aus Novae in Niedermoesien. – Zeitschrift für Papyrologie und Epigraphik 95, 197-203.

Scorpan, C. 1977. Stele funerare inedite de la Sacidava. – Pontica 8, 158-178.

Simion, G. et al. 1977-1978. Săpăturile de salvare de la Troesmis – 1977. Raport preliminar. – Peuce 8, 153-290.

Spaeth, B. S. 1996. The Roman Goddess Ceres. Austin.

Strobel, K. 1988. Ein weiteres Zeugnis zur Rangordnung im römischen Legionscenturionat der Kaiserzeit. – Epigraphica Anatolica 18, 43-46.

Prof. Dr. Lucreţiu Mihailescu-Bîrliba
Université « Alexandru Ioan Cuza » de Iaşi
11 boul. Carol I
RO-700506 Iaşi
blucretiu@yahoo.com

Iulia Dumitrache PhD
Université « Alexandru Ioan Cuza » de Iaşi
11 boul. Carol I
RO-700506 Iaşi
iuliadrim@yahoo.com

[30] Par exemple: *CIL* IV 1429 ; V 225, 339, 935, 3032, 3472 ; VI 1513, 1851, 2474, 2485, 3627, 5020, 5470 ; IX 1309, 217 5; X 2945, 2946, 3043, 3623, 3624.

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

After the Auxiliaries: Identifying Veterans in 4th Century *Britannia*

Rob COLLINS

Introduction

The identification of veterans in the historical and archaeological record is well attested in Roman military studies (Ivleva 2012; Roxan 2000; Roymans 2004). However, it is notable that the majority of these studies focus on veterans of the early empire, with little attention given to veterans of the Dominate. Given the reforms of Diocletian, Constantine, and subsequent emperors – notably the separation of the field armies of the comitatenses and the frontier armies of the limitanei and the legal obligation of the sons of soldiers/veterans to enrol in military service – this lack of modern scholarly attention is surprising. This paper provides an overview of textual evidence for veterans of the late Roman army and seeks to identify their presence using the archaeological evidence from the 4th century diocese of Britannia.

Textual Evidence

The law codes compiled in the 5th and 6th century by Theodosius II and Justinian, respectively, are clear on the benefits of service owed to veterans and the conditions upon which a serving soldier can be honourably discharged into veteran. By AD 311, a soldier of the field armies was required to serve 20 years for honourable discharge (*honesta missio*) and 24 years to receive full veteran privileges, while a soldier of the *limitanei* was extended these conditions in 325 (*Codex Theodosianus* 7.20.4). Upon discharge, the veteran received immunity from curial duties, and market, transport, and poll taxes (*Codex Theodosianus* 7.20.2; 7.20.4). Further, through much of the 4th century, he was given a cash grant to set up a business or allocated a plot of land, two oxen, and 100 modii of various cereals (*Codex Theodosianus* 7.20.3), though Valentinian later abolished the option of a cash grant and reduced the cereal payment to 50 modii (Codex Theodosianus 7.20.8).

Source material makes it clear that discharge certificates (*epistolae*, *testimonia* / *testimoniales*) certifying honourable discharge (*honesta missio*) were still issued through the 4th century (*Codex Theodosianus* 7.20.4; 7.1.7; 7.20.12), though these have not generally survived, in contrast to diplomas from the early Roman empire. The contribution that diplomas make to the study of veterans is undeniable, and the lack of such evidence is lamentable not just for the insight provided for veterans, but for recruitment, unit distribution, and other aspects of the late Roman military. In addition, the practice of commissioning inscriptions disappears through much of the empire by the later 3rd century, and so this valuable corpus of information is also lost in the West, though to a lesser extent in the East.

A conspicuous example of the importance of the veteran community in the 4th century has been related by Ammianus Marcellinus (XVI.2.1-2): in 356, the town of *Augustunum* (Autun) was successfully defended against the depredations of barbarian raiders due to the "watchfulness of the veterans who hurried together for its aid." Unfortunately, Ammianus has little else to say in regard to veterans, besides anecdotally noting their presence.

On the whole, documentary sources and inscriptions indicate that veterans cluster in cities, particularly those situated near frontiers or that served as garrison-towns. Those veterans that retired in small towns and rural villages, while less numerous and concentrated than their urban commilitones, were often more locally prominent residents. Perhaps the most common choice upon retirement, however, was to settle near their place of posting (MacMullen 1963, 103-109).

Archaeological Evidence

The limitations of textual evidence noted, we are left asking how veterans can be identified in the archaeological record. Traditionally, the identification of veterans has relied on the testimony of inscriptions or diplomas, with the presence of military equipment in towns and in the countryside serving as proxy evidence for veteran presence. This still remains the best method of identifying possible veteran presence today, though it is perhaps more deeply appreciated how military equipment, if not the soldiers themselves, could be distributed away from military installations. Regardless of the reasons for such distributions, the soldiers' kit of the 1st-3rd centuries is more likely to be found than kit of the 4th century or later. Much of the armour of the early empire, with its numerous fittings and fixtures, is more likely to be found than the predominant ring mail of the 4th century (Cool 2010a, 2).

Rather than the mere presence of military equipment, the so-called soldier- or veteran-burials of the late antique period, often furnished with objects, provide firmer ground for the presence of an individual with military links. Such burials are found from the 4th century across Europe, primarily in the frontier zones though not exclusively so (Swift 2000, 3-4, 7). The equipment buried with individuals is usually a developed/heavy crossbow brooch and/or belt set, sometimes also accompanied by weaponry. The association with military service from such burials is undeniable, though identification of status as a veteran relies upon determining the age of the individual from osteological evidence. Further interesting information can also be gleaned from stable-isotope analysis of the teeth, which can indicate if the individual was raised locally or further afield; this does not verify whether an individual is a veteran, but can contribute to interpretations of military deployment and/or recruitment, or migration.

Where such burials are uncommon, as in Britain, the presence of crossbow brooches and late imperial metalwork such as belt fittings and spurs provide the best proxy evidence of a military presence, if not specifically that of veterans.

Veterans in 4th Century Britain

Britain has very few inscriptions dating to the 4th century, and this small handful does not provide any evidence for veterans. However, furnished burials of the 4th and early 5th centuries similar to those found on the continent have been found. There are individual burials known, for example at Normangate Field, Castor, Mundford (Norfolk), and each cemetery at London, as well as larger cemeteries (Philpott 1991, 139).

Of the latter category, the cemetery at Lankhills outside Winchester in southern England is the best known and has more burials bearing crossbow brooches than all other sites in Britain combined. A number of individuals buried with late imperial metalwork have been excavated over the course of two distinct investigations (Clarke 1979; Booth et al. 2010). When initially found, the crossbow brooches and belt fittings suggested to Clarke that these individuals were not native Britons, but foreign soldiers or mercenaries. Subsequent analysis of the remains of the early excavation as well as the new evidence provided by the more recent excavations has validated this belief in the case of some individuals. For example, the adult buried in Grave 1846 had a poorly preserved skeleton, but was buried with a gilded crossbow brooch inscribed along the bow, and which was worn and had a long life. It has been suggested that the brooch was made in the Panonnia/Noricum area of the Danube, and the individual that bore it may also have originated from the Danube some decades previously (Cool 2010b, 281-282).

Outside of Catterick, a Roman fort and town in the northern frontier zone of Britain, is the cemetery of Scorton. Four individuals were excavated in this cemetery with crossbow brooches, replicating the burial rite seen at Lankhills and other sites across the empire (Speed, forthcoming). Grave 5, for example, contained a probable male 25-35 years old, buried in a wooden coffin with a type 3/4b crossbow brooch, belt buckle, and group of coins placed at the foot of the coffin, suggesting a deposition of about AD 360. What is significant about Scorton, however, is that it is thus far an exception for the northern frontier of Britain. While furnished burials bearing late imperial metalwork and weaponry are relatively commonplace along the frontier zones of continental Europe, no other burials of this type are known in the northern British frontier, though there is the possibility that such burials may have also been found around the legionary fortress and provincial capital at York on the basis of antiquarian discoveries of crossbow brooches from outside the Roman walls of the town. Unfortunately, there is no further information about specific findspots or even confirmation that the finds were from burials. Along the Wall corridor, unfurnished inhumation seems to be the more standard burial rite, as seen outside the southwestern gate at South Shields

(Bidwell / Speak 1994, 143-144), and burials are sometimes associated with stone slabs forming a partial or complete cist as recently discovered at Birdoswald and Maryport (Haynes / Wilmott forthcoming A and B). The exception along the Wall is the burial at Shorden Brae, just outside the town of Corbridge. Here, a 4th century burial found outside a 2nd century mausoleum contained a type 3/4c crossbow brooch (Gillam / Daniels 1961, 56-58). It is notable that Catterick and York were not only military installations, but were associated with an extramural town, while Corbridge was a town with a military compound in the 4th century.

Crossbow Brooches

While unfurnished burials can be difficult to interpret, the association of military equipment with furnished graves in Britain suggests that a brief consideration of crossbow brooches can provide some indication of the presence of soldiers or maybe even veterans. Crossbow brooches evolved from the light crossbow form of the 3rd century, and over the course of the 4th century went from being just another type of brooch worn by soldiers to a more elaborately decorated object that was affiliated with military and civil servants (**fig. 1**). A number of studies have considered the typology and distribution of the heavy crossbow brooch, notably Keller (1971), Pröttel (1988), and Swift (2000). These three scholars have reaffirmed the military association of crossbow brooches, and on this basis a case study was made of their distribution in Britain. Notably, Swift (2000, 79) observed clusters of crossbows with the same decorative motifs recurring along distinct sectors of the frontiers, with some outliers suggesting outposting or retiring of soldiers from these sectors.

A dataset of crossbow brooches drawn from the Portable Antiquities Scheme (143 brooches), Swift (2000; 69 brooches), and Collins (2010; 74 brooches) provided a total of 286 brooches for consideration. Initial mapping of the distribution (**fig. 2**) indicates that these brooches can be found across Britain south of Hadrian's Wall, though to a lesser extent in the south west of England and Wales. However, when the distribution is represented by the number of brooches found per site (**fig. 3**), it is clear that the majority of crossbow brooches are found in the north of the England and in the southeast. That is to say that the vast majority can be associated with the northern frontier and the Saxon Shore and its hinterland, or other military sites further afield, such as the Welsh forts. Nearly all the sites or findspots of crossbow brooches between the northern frontier and Saxon Shore are single finds. Multiple occurrences on a single site are all at military sites (e.g. Richborough, South Shields) or cemeteries (e.g. Lankshills, Scorton). The forts at Richborough and South Shields were both important ports for their frontiers, and both of these have the most crossbow brooches for each frontier respectively. London also has a number of crossbow brooches, but as the diocesan capital, full of civil servants and soldiers, this is not surprising. Furthermore, the near total absence of crossbow brooches from north of Hadrian's Wall further underscores this association with Roman military sites. Yet, it is the cemetery sites at Lankhills and Scorton that stand out as the most significant sites. This illustrates the fact that the discovery of a single cemetery with a number of furnished graves in any part of Britannia will distort the distribution and any numeric analysis.

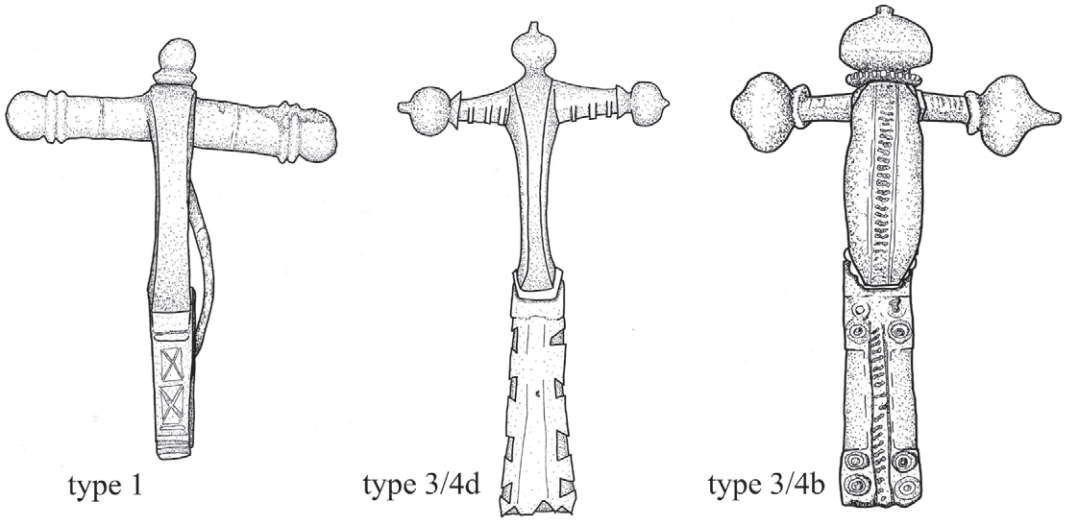


Fig. 1. Examples of some of the forms of crossbow brooch found in late Roman Britain (© R Collins)

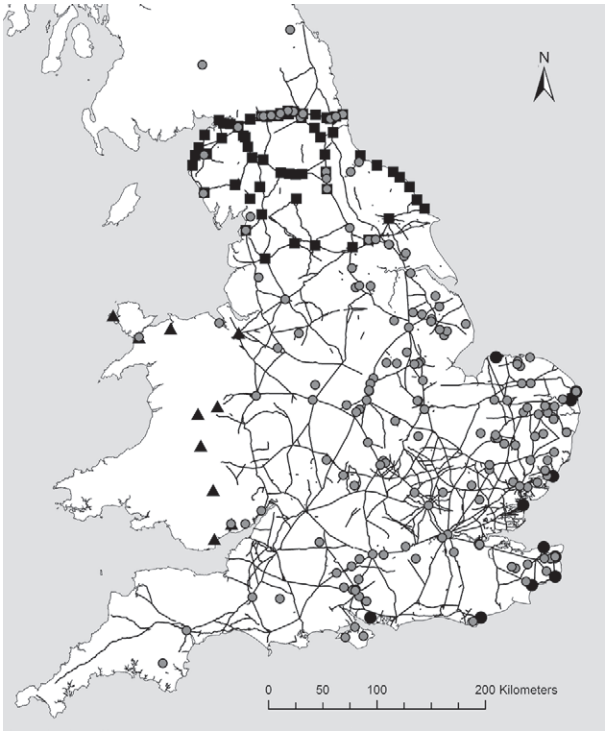


Fig. 2. The distribution of crossbow brooches (grey circles) compared to the military distribution and road network of 4th century *Britannia*. Black squares indicate forts under the command of the *dux Britanniarum*, black circles forts under the command of the *comes litoris Saxonici*, and black triangles forts occupied in later 4th century Wales (© R Collins)

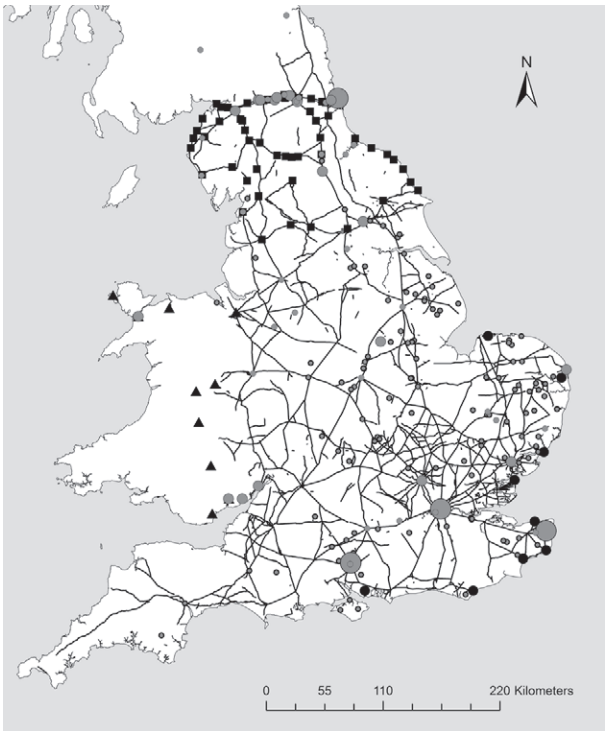


Fig. 3. The distribution of crossbow brooches by frequency, with the black symbols the same as in Figure 2. The smallest circle represents a single find, the middle circle represents 2-9 brooches, and the largest circle represents 10+ brooches (© R Collins)

The distribution, however, also masks important aspects that need to be considered in any study making use of crossbow brooches. These brooches are assigned to a type based on the work of Keller (1971), Pröttel (1988), and Swift (2000), but the British examples do not always fit neatly into the typologies that can be more confidently employed with continental material. There is evidence for the British production of such brooches, and the variability in the execution and forms of crossbows in Britain contrasts with the greater degree of uniformity seen in continental assemblages (Swift 2000, 29, 32; Collins 2010, 65). Even within Britain, there is considerable variation in the relative proportions of the subtypes of crossbow brooches. Along Hadrian's Wall, for example, the early type 1 forms are dominant rather than the type 3/4, more typical in other frontiers (Collins 2010, 66).

Discussion

Such differences in the uniformity, typology and associated dating, and distribution all indicate that crossbow brooches can offer some insight into the links between provincial soldiers and the field armies and state fabricae where many of these brooches were made. Uniformity and strong adherence to established typologies indicate centralized production and subsequent distribution. Locations where brooches that were made in fabricae were found suggest a location strongly linked into the central imperial network of military supply. In contrast, much of Britain evinces evidence for localized production and imitation or variation on continental forms, suggesting that Britain, particularly in the northern frontier, was further removed from the central imperial network seen on the continent. This relationship can also be tied into our understanding of veterans in 4th century Britain, further suggesting that many of the soldiers in Britannia were primarily drawn from within the diocese, and not imported from further afield.

The smaller number of continentally-made crossbow brooches may indicate the transfer of soldiers and their retirement (or death) in Britain. At least a small handful of individuals buried in the cemetery at Lankhillls seem to be soldiers or veterans from the continent, affirmed both by stable isotope analysis and their equipment. Another suggestive example comes from the Quarry Farm villa site, just south of the lower Tees. Here, a gold type

6ii crossbow brooch was found associated with a dog burial, probably dating to the early 5th century (Willis and Carne 2013). The brooch was broken, and had likely been used to pin the shroud over the dog upon burial. This type of brooch is that seen on the Stilicho diptych and one associated with the highest echelons of Roman society. Its presence in the southern fringe of the northern frontier indicates someone of great power in the late Roman world, but whether this person was a former officer or civil servant is uncertain. That said, the presence of the brooch on a villa estate and reused as a shroud pin for a favoured pet does at least suggest the owner was retired from state service, making this a positive example of a veteran in late Roman Britain.

The burials from Lankhills and Scorton, and the crossbow brooches from York and Quarry Farm offer tentative hints for the presence of veterans in late Roman Britain, but the fact remains that identifying veterans in the archaeological record is a difficult process, most easily accomplished with written sources. Perhaps more striking is the association of such furnished burials with towns in Britain, suggesting that this form of burial was not practiced in direct association with the military, but where a military presence was less dominant or mixed with other populations. Despite the difficulties, the importance of veterans to local communities and the contribution that they can make to understanding the Roman military require us as scholars to continue the quest.

Bibliography

Ammianus Marcellinus 1963. The Surviving Books of the History. Transl. by J. C. Rolfe. Cambridge.

Bidwell, P. / Speak, S. 1994. Excavations at South Shields Roman Fort, vol. 1. Newcastle.

Booth, P. / Simmonds, A. / Boyle, A. / Clough, S. / Cool, H. / Poore, D. 2010. The Late Roman Cemetery at Lankhills, Winchester: Excavations 2000-2005. Oxford.

Clarke, G. 1979. The Roman Cemetery at Lankhills. Oxford.

Codex Theodosianus 1969. The Theodosian Code and Novels and the Sirmondian Constitutions. Transl. by C. Pharr. New York.

Collins, R. 2010. Brooch use in the frontier from the 4th–5th Centuries. In: Collins, R. / Allason-Jones, L. (eds.). Finds from the Frontier: Material Culture in the 4th-5th centuries. York. 64-77.

Collins, R. / Allason-Jones, L. (eds.) 2010. Finds from the Frontier: Material Culture in the 4th-5th Centuries. York.

Cool, H. 2010a. A Different Life. In: Collins, R. / Allason-Jones, L. (eds.). Finds from the Frontier: Material Culture in the 4th-5th centuries. York. 1-9.

Cool, H. 2010b. Objects of Glass, Shale, Bone, and Metal (except Nails). In: Booth, P. / Simmonds, A. / Boyle, A. / Clough, S. / Cool, H. / Poore, D. The Late Roman Cemetery at Lankhills, Winchester: Excavations 2000-2005. Oxford. 267-309.

Gillam, J. P. / Daniels, C. M. 1961. The Roman Mausoleum at Shorden Brae, Beaufront, Corbridge, Northumberland. – Archaeologia Aeliana, 4th series, 39, 37-61.

Haynes, I. / Wilmott, T. forthcoming A. The Birdoswald Cemetery Mitigation.

Haynes, I. / Wilmott, T. forthcoming B. Excavations at Maryport, Cumbria.

Ivleva, T. A. 2012. Britons Abroad: The Mobility of Britons and the Circulation of British-made objects in the Roman Empire. PhD. thesis, University of Leiden.

Keller, E. 1971. Die Spätrömische Grabfunde in Südbayern. München.

MacMullen, R. 1963. Soldier and Civilian in the Later Roman Empire. Cambridge.

Philpott, R. 1991. Burial Practices in Roman Britain: A Survey of Grave Treatment and Furnishing, AD 43-410. Oxford.

Pröttel, P. 1988. Zur Chronologie der Zwiebelknopffibeln. – Jahrbuch des Römisch-Germanischen Zentralmuseum Mainz 35, 347-372.

Roxan, M. M. 2000. Veteran Settlement of the Auxilia in Germania. In: Alföldy, G. / Dobson, B. / Birley, E. / Eck, W. (eds.). Kaiser, Heer und Gesellschaft in der römischen Kaiserzeit: Gedenkschrift für Eric Birley. Stuttgart. 307-326.

Roymans, N. 2004. Ethnic Identity and Imperial Power: The Batavians in the Early Roman Empire. Amsterdam.

Speed, G. forthcoming. Excavations at Hollow Banks Quarry, Scorton, North Yorkshire: The Romano-British and Anglian Cemeteries.

Swift, E. 2000. Regionality in Dress Accessories in the Late Roman West. Montagnac.

Willis, S. / Carne, P. 2013. A Roman Villa at the Edge of Empire: Excavations at Ingleby Barwick, Stockton-on-Tees, 2003-4. York.

Dr Rob Collins
Portable Antiquities Scheme
UK-Newcastle University
robert.collins@ncl.ac.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Charon Custom and Other Novelties Introduced in the Southern Scandinavian Region – the Result of Returning Veterans?

Mads Drevs DYHRFJELD-JOHNSEN

The main topic of this paper is the presence of the Charon custom in a small group of inhumation graves from Southern Scandinavia, followed by a short discussion of whether the appearance of this burial ritual can be connected with returning veterans. Furthermore, other innovations, such as the appearance and use of signaling horns within Germanic armies as a result of knowledge of Roman military instruments, are discussed. The principal study area is Zealand in the eastern part of Denmark.

Distribution of the Charon Custom

At the outset it should be stated that the original custom of placing coins in the mouth of the dead, as payment to the ferryman Charon to obtain passage to the Realm of the Dead, has never been found on Zealand. Instead, 17 graves from the early third to the early fourth century AD from 11 sites have yielded evidence for a slightly altered version of the custom, where the deceased has had a substitute for a coin placed in the mouth as part of the burial ritual.

It is important to stress that only graves, where the Charon's payment certainly or in all probability was placed in the mouth, have been incorporated in this paper[1].

The latest definite occurrence of the custom comes from the princely grave called Ellekilde, west of present-day Copenhagen. In 2007 Kroppedal Museum carried out an excavation prior to a housing development project. This resulted in the discovery of a burial ground consisting of 30 inhumation graves dated to between c. AD 250 and 400. Most of the graves were situated in a circular layout around a larger burial (# 34), respecting a certain



Fig. 1. The distribution of Charon graves. 1 Brøndsager, 2 Engbjerg, 3 Kong Svends Park, 4 Ellekilde, 5 Højbakkegård, 6 Greve, 7 Bakkegård Øst, 8 Kærup Nord, 9 Himlingøje, 10 Hastrup, 11 Brandelev. The symbol of the last site differs from the others, as the precise location within Nestelsø parish is unknown.

[1] Thus, two recently found female graves with possible Charon custom: one from Maglebjerg in southern Zealand with a piece of amber as proposed payment and one from Ølsemaglevej in eastern Zealand with a gold S-shaped clasp as proposed payment (Borby Hansen 2011, 126, 142f.; Madsen 2011, 7, 13) have been omitted. The main reason is the lack of preserved bone to support the theory of the presumed payment being placed in the mouth of the deceased.



Fig. 2. The two Roman circus cups from Ellekilde grave 34. Photo: Line Thorup, Kroppedal Museum



Fig. 3. The dissolved glass shard in the lower jaw of the Ellekilde man. Photo: Rune Iversen, Kroppedal Museum

distance to it, indicating that this grave had originally been covered by a mound with a diameter of c. 15 m (Iversen 2011, 73f.).

The large central grave was a chamber grave, which was excavated by former curator Rune Iversen and the author of this paper. The grave contained the well preserved skeleton of a c. 174 cm tall male, aged 35-40 years, buried with a rich and varied grave assemblage consisting of, for example, a golden finger ring (Andersson type 12 variant a), a silver fibula with settings of semiprecious stone and blue glass (Mackeprang type X), two exquisite Roman painted so called circus cups (Eggers type 209) with marine motifs such as ships and dolphins, 61 black and white glass gaming pieces, and a bronze ladle and strainer (Eggers type 161) placed with the small circus cup inside a hemmoor bucket (Eggers type 58) (Iversen 2011, 83, 85f., 91).

Because several examples of rich graves dated to the Late Roman Iron Age are known, where special objects like glass shards were placed in the mouth of the dead, special attention was paid to excavating the area around the man's skull and jaws. This resulted in the discovery of a small dissolved glass shard within the lower jaw (Dyhrfjeld-Johnsen 2011, 133). Using a glass shard as payment is known from seven graves in the region west of Copenhagen: the one grave from Ellekilde, one from Kong Svends Park, one from Højbakkegård and finally in four graves from the Engbjerg burial ground (Boye 2002, 205; 2009, 274ff.; Dyhrfjeld-Johnsen 2011, 148f.). The latter is situated c. 3 km from the Ellekilde site.

The Charon custom occurs mostly in the richest graves of the Late Roman Iron Age in the Danish area, e.g. Himlingøje grave 1894-1 and 1949-2 (Lund Hansen et al. 1995, 105 f., 149 ff., 374 ff., 439; Lund Hansen / Rindel 2008, 111). This is also the case with the rich, princely graves at Hassleben-Leuna (Werner 1973, 10). The introduction of this custom can therefore be connected with the elite. However, while some of the Danish Charon graves are richly equipped with golden finger rings, elaborate jewellery and Roman imports, others have more modest burial goods such as a few pottery vessels, a small selection of glass beads and a bone comb.

There seems to be a certain degree of variation when it comes to Charon graves: men and women of all ages as well as children are represented (cf. a c. 9-12 months old child from the Kærup Nord burial ground (Mailund Christensen 2011, 24f.) and a c. 50 year old man from the aforementioned Engbjerg burial ground (Boye 2002, 208). A degree of variation can also be seen in the type of payment: gold clippings, gold finger rings, a gold disc, a piece of amber or glass shards, all of which have been found in the Charon graves. The use of glass shards is mainly seen in the region west of Copenhagen, whereas gold as payment is mainly found in the graves further south on Zealand.

There are, however, a number of problems relating to the distribution of the burials where Charon custom was practiced. First is that the actual number of graves where Charon's payment was identified might be larger, as the small glass shards and gold clippings could have been missed in the earlier excavations, especially if the excavators were not paying special attention to the possibility of this custom. For instance, gold clippings used as Charon's payment found in two graves from Bakkegård Øst on eastern Zealand are each of a length of only a couple of millimeters (Sørensen / Tornbjerg 2008, 26, 36). Furthermore, the glass shards might have been poorly preserved – as was the case in the Ellekilde grave.

Second issue is the prevalence of inhumation burials on Zealand. In other parts of Denmark,

however, cremation was widespread. In cremation graves a small glass shard or gold clipping might not have survived the fire. Even if it did, it would be difficult to determine, whether this can be interpreted as the Charon's payment or, in terms of the glass shard, as a fragment of a whole vessel, perhaps placed as a symbol of the complete vessel.

Finally, in terms of the types of payment it is of great importance to state that the substitution of a coin is not necessarily due to a lack of coins at the time of the burial. In the two graves, the female grave 1949-2 from Himlingøje and the young man's grave from Brøndsager, gold clipping had been placed in the mouths of the deceased, while a reworked coin was suspended as a pendant in a necklace (Dyhrfjeld-Johnsen 2011, 139f.; Dyhrfjeld-Johnsen forthcoming). It is notable that the combination of coin pendants and Charon custom is also known from Hassleben, where the deceased woman in the princely grave 8 had three aurei reworked into pendants and a fourth aureus was placed in the mouth (Schulz 1933, 7).

Charon Custom and Military Equipment

In this section we turn our attention to the possibility that knowledge of the Charon custom was brought back to southern Scandinavia and northern Germany by returning veterans. Joachim Werner has suggested that the Charon custom in the aforementioned rich graves of Hassleben-Leuna are the result of returning veterans (Werner 1973, 26) and other scholars have followed his lead (cf. Ekengren 2009, 183). To test this hypothesis, a few graves will be discussed here, especially the ones where Charon's payment is found combined with military equipment.

First is one of the richest graves from Denmark from the Late Roman Iron Age, the so called Himlingøje grave # 1894-1. There a 20-35 year old man was buried with Roman imports such as two painted circus cups (Eggers type 209), a gold 'kolben' armring, a golden snake-headed finger ring (Beckmann type 39b), a gold spiral finger ring, which was placed in the mouth, and two bone war-arrowheads (Lund Hansen 1987, 412; Lund Hansen et al. 1995, 149f., 439; Lund Hansen / Rindel 2008, 123f.). The presence of the war-arrowheads could indicate that this man was a warrior.

Second example is the aforementioned Ellekilde grave. Anthropological investigations indicate that this deceased male suffered a violent death: he had an arrow wound in his skull, with several other head traumas from a sword or an axe. Finally, he had an injury on his left shin bone inflicted from below, indicating that he was probably mounted on a horse, when this happened (Iversen 2011, 84f.; Bennike 2011, 191ff.). All these injuries can be seen as an indication that the man from Ellekilde was a warrior, who died in a battle. Similar to the man from Himlingøje grave 1894-1, the Ellekilde man was not buried with a full set of weapons, but instead, what has been presumed to be a signaling horn[2] was placed on his upper right arm, probably to symbolize high military rank (Iversen 2011, 100).

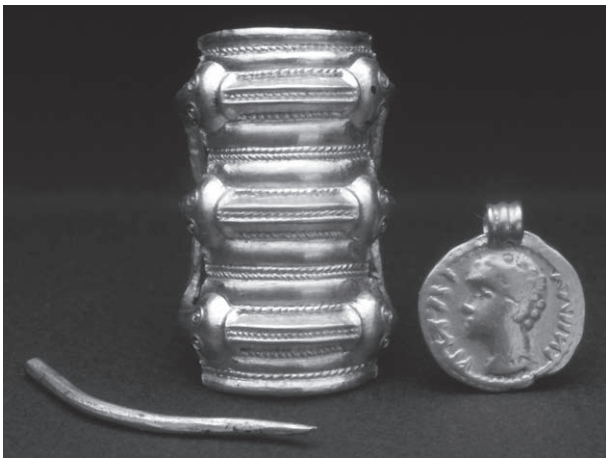


Fig. 4. Combination of a coin pendant and gold clipping used as Charon's payment in Brøndsager grave 2000. Photo: Jesper Weng, Kroppedal Museum

The combination of Charon custom and military equipment in burials is also known from other contemporary graves from outside Zealand. At Hågerup on the island of Funen, west of Zealand, the burial assemblage of the deceased in a richly furnished grave consisted of among other things a piece of gold clipping and a denarius – the only example of the use of a coin as Charon's payment in southern Scandinavia – both placed in the mouth; and possibly a sword (Lund Hansen 1987, 426). In grave # 54 at Simris in south-eastern Scania a warrior had been buried with full military equipment and a piece of amber in his mouth (Stjernquist 1955, 20ff.; 1996, 200f.). In Oppland in southern Norway a man was buried with full military equipment and a silver disc in the mouth (Herteig 1955, 58; Bemmann 2005, 28). Lastly, in the Häven grave # 2/1967 in Mecklenburg a deceased man had three bronze arrowheads, a set of bronze spurs and a gold finger ring placed in the mouth (Werner 1973, 11).

[2] The function of the horn will be discussed later in this article.

One could speculate whether the aforementioned combination of military equipment and Charon's payment is the archaeological expression of veterans returning from service in the Roman army. Upon discharge they brought home new ideas like the practice of paying to gain access to the Realm of the Dead. Other novelties might include the knowledge of writing, resulting in the creation of the Runic alphabet. The runes are found on several objects, which probably belonged to the elite. For instance, runes were found etched on an elaborate silver rosette fibula (Mackeprang type IV) in the aforementioned Himlingøje grave # 1949-2; it is notable that a string of beads and the coin pendant were attached to this brooch. This grave is therefore of particular interest, since it incorporates two novelties adopted from the Roman Empire: the Charon custom and the art of writing – apart from a number of Roman vessels.

However, there is not enough evidence to support the hypothesis that the burials with Charon's payment and military equipment belonged to the deceased warriors, who had indeed served in the Roman army. Neither Roman military equipment nor Roman military diplomas are found in these graves or, in terms of the diplomas, anywhere else in southern Scandinavia for that matter. In contrast, the Charon graves without weapons also contain Roman drinking vessels and gaming pieces, but so do other rich graves, where there is no evidence for Charon's payment. Summing up, there is no distinct difference in grave goods between the burials where only Charon custom was practiced and the burials where the custom was combined with placement of military equipment. Furthermore, the array of grave goods found in the burials with both Charon's payment and military equipment are similar to what is known from graves containing imports or weaponry but without the presence of the Charon custom. All in all, there is no evidence that the burials with military equipment and the Charon custom were the last resting places of Roman army veterans.

Customs Spreading through Elite Networks

Concerning the regions where the graves with both Charon's payment and military equipment are found, it has been suggested, amongst other by Ulla Lund Hansen (Lund Hansen et al. 1995, 186, 211, 389), that these areas had contacts with Zealand in general and with the region around Himlingøje more specifically. These contacts are indicated by the occurrence of a certain type of golden snake-headed finger ring (Beckmann type 39c), fibulae and pottery of presumed Zealandic origin (Schach-Dörges 1970, 128; Lund Hansen 1987, 176). Lund Hansen has effectively shown that the presence of type 39c snake-headed gold finger rings in the counties of Oppland and Buskerud in the southern and south-eastern part of Norway indicates the alliances to the Himlingøje dynasty (Lund Hansen et al. 1995, 186, 211).

Of particular interest is the fact that the Ellekilde type of gold finger ring is not known elsewhere on Zealand. Instead it is represented in stray finds in Jutland and in graves in southern Norway, for instance, in the two counties: Oppland and Buskerud (Andersson 1993, 140f.). This neatly ties in with Lund Hansen's observation about the presence of the snake-headed finger rings in the same counties in southern Norway, which might be related to the possible contacts with Zealand. The Ellekilde type of finger ring occurs, for instance, in a period C1 (AD 150/160-250/260) grave containing imports and weapons from Nordsveen in county Oppland (Andersson 1993, 140) and in a period C3 (AD 310/320-375) grave, known as Kongshaugen, containing weapons at Veien in county Buskerud (Andersson 1993, 141). The latter grave furthermore contained bronze fittings from a horn, not identical but fairly similar to the Ellekilde specimen (Dyhrfjeld-Johnsen 2011, 139).

Another close parallel to the Ellekilde horn is known from the Sætrang grave, situated in county Buskerud, only four kilometers east of the aforementioned Veien grave (Gustafson 2006, 105). The elaborate Sætrang grave is dated to c. AD 375 and is a double burial chamber, containing the remains of a male and a female buried within one room; worth noting is the fact that the man was accompanied by an array of weaponry (Slomann 1959, 17ff.). That the occurrence of the horn in this burial can be connected with the contacts with Denmark has been suggested already in 1959 by Slomann, who stated that the fittings for the drinking horn might be of Danish origin (Slomann 1959, 38f.). Therefore, the occurrence of Ellekilde finger ring and the similar type of horns with bronze fittings might actually indicate elite contacts with southern Norway from other regions of Zealand than Himlingøje, as suggested by Lund Hansen (Dyhrfjeld-Johnsen 2011, 139 contra Lund Hansen et al. 1995, 186, 211).

Based on these observations it can be proposed that the knowledge of the Charon custom could have spread through these elite networks in southern Scandinavia and northern Germany, and

not through the Roman army veterans returning home. Having said this, one should not rule out the possibility that the important innovations such as the creation of the runes and the invention of a new burial tradition can be connected with some Germanic auxiliaries serving in the Roman army, especially if we take into account the following. The Roman practices and norms were recreated within the elite society of southern Scandinavia forming a new narrative: putting a coin in the mouth of a deceased as payment for Charon was substituted with glass shards, amber or gold in the same way the Latin alphabet was reworked into the Runic script.

Signaling Horns as Possible Indicators of Returning Veterans

The analysis of the major weapon depositions found in bogs in southern Scandinavia has indicated that the Germanic armies of the third and fourth centuries had a much greater complexity and hierarchy compared to the earlier ones (Carnap-Bornheim / Ilkjær 1996a, 483). A new army structure had emerged, which bore resemblance to the Roman auxilia: cavalry, infantry and archery units were introduced. The explanation for this development is seen in the presence of returning veterans, who had brought home knowledge of Roman military structure (Pauli Jensen / Jørgensen / Lund Hansen 2003, 325).

Other influences from the Roman military can also be detected in the usage of horns by the Germanic warriors. On the basis of three finds, Jørgen Ilkjær suggests (Ilkjær 2002) that the Germanic warriors had some knowledge of the Roman signaling instruments: a fragmented hollow, wooden tube from the bog sacrifice at Nydam and two similar wooden horns found in wells dated to the Early Germanic Iron Age (AD 375-520) near Herning in central Jutland, are indications of this. The implementation of the horns to signal within the Germanic armies can be connected with the returning veterans, who had acquired this knowledge during service in the Roman army (Ilkjær 2002, 27f., 31).

The horn buried with the Ellekilde man was already mentioned and now it is time to discuss its function. Only a few fragments of the actual bovine horn have survived. However, an array of bronze fittings was well preserved: an upper rim, a centrally placed ring, and an end fitting alongside two strap end fittings. The rim fitting has a diameter of c. 10 cm, and the end fitting is a round hollow bronze tube with four bronze rings attached on its exterior side (**fig. 5**).

Similar types of bronze fittings are known from a number of other sites such as the large bog weapon sacrifices at Illerup Ådal and Nydam, and they are found in a variety of other contexts such as graves and as single finds from bogs. Traditionally, these fittings have been interpreted as originating from drinking horns (e.g. Slomann 1959, 16, 25; Carnap-Bornheim / Ilkjær 1996a, 173, 385; Abegg-Wigg 2006, 106; 2008, 284) or, as in the case of Nydam, even as being part of a quiver (Engelhardt

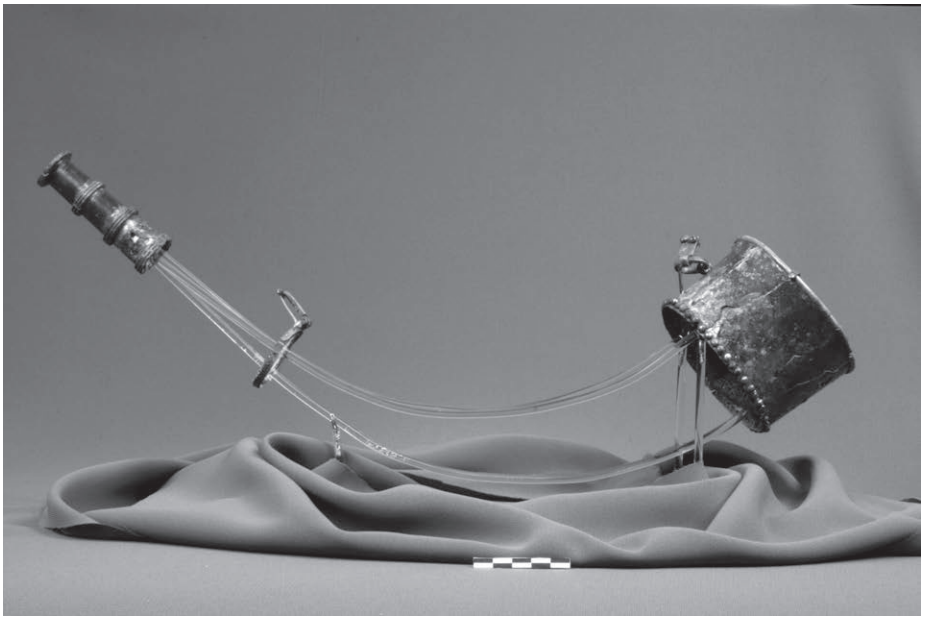


Fig. 5. Reconstruction of the position of the bronze fittings from the signaling horn from Ellekilde grave 34. Photo: Line Thorup, Kroppedal Museum

1865, 31f., Pl. 13, fig. 64). However, several scholars have questioned this interpretation (Rau 2010; Dyhrfjeld-Johnsen 2011; Iversen 2011).

Andreas Rau has a comprehensive discussion of the distribution and function of this type of horn in his major work on personal equipment from the Nydam bog (Rau 2010). He convincingly argues that contrary to the pair of horns with closed off ends, usually found in graves dated to the Early Roman Iron Age (AD 1-150/160), the horns with rim fittings and hollow end fittings are mainly dated to the Late Roman Iron Age (AD 150/160-375) and the Early Germanic Iron Age (AD 375-520). Such horns are mainly found as single specimens in the variety of contexts. Furthermore, in the cases where the tube-shaped end fitting is present, these are characterized by having an open end (Rau 2010, 439). Rau points to the stray find from Stenstugan in Södermanland, eastern Sweden, to signify its importance for the understanding of the horn's function. There the tube-shaped end fitting had a piece of the animal horn preserved within. This was perforated, making it impossible to use this horn for drinking purposes. Instead a function as a signaling horn can be suggested, which can be further supported by the fact that the rings attached to the exterior side of the end fitting acted as a grip to hold onto, when blowing the horn (Rau 2010, 440).

Apart from the Ellekilde grave, single horns with metal fittings are found in a few graves: for instance in the two aforementioned graves from Veien and Sætrang in southern Norway, and in a chamber grave # 7 at Neudorf-Bornstein in Slesvig. In the latter grave only a silver rim fitting with a diameter of c. 9 cm was preserved. It was found on the lower part of the body of the deceased, and was originally interpreted to have been the remains of a drinking horn (Abegg-Wigg 2006, 106; Abegg-Wigg 2008, 284). This grave is dated to phase C2 (the 2nd half of the 3rd century AD) and contained golden rings, glass gaming pieces and imported Roman drinking vessels (Abegg-Wigg 2008, 279, 282 & 288ff.). It should be noted that the deceased in another grave (# 4) from the same burial ground at Neudorf-Bornstein had a gold finger ring placed in the mouth as Charon's payment (Abegg-Wigg 2008, 284).

Rau argues that both horns from Ellekilde and Neudorf-Bornstein grave # 7 should be interpreted as signaling horns. He further underlines this by drawing the attention to the fact that in both graves the horns are placed in different locations in contrast to elaborate feasting and drinking equipment (Rau 2010, 440). The placement of the horns apart from the drinking vessels is possibly seen elsewhere and another example can be drawn here. In the aforementioned double chamber grave from Sætrang, the excavation report from 1834 describes that while the main chamber contained the remains of the deceased, a second smaller chamber contained all the wood, clay and glass vessels. However, among these finds the horn, actually the bronze end fitting, was not recorded (Slomann 1959, 15f.). Considering this, one wonders whether the bronze end fitting was actually found in the main chamber along with the other personal belongings. This further suggests that it was a signaling rather than a drinking horn, since if it was one, it should have been placed alongside the drinking implements in the smaller chamber. However, since the position of the end fitting was not recorded, this suggestion is fairly speculative.

This means that the wooden horns were not the only type of signaling instruments used in Scandinavia and northern Germany at this point in time. The occurrence of animal horns with metal fittings can also be connected with the knowledge of Roman army signaling system, possibly obtained through the service of Germanic auxiliaries in the Roman army. It is worth noting that the Roman instrument called a *bucina* is described as being made of bovine horn and decorated with silver (Meucci 1989, 86). In the similar way the bronze rim fitting on the Ellekilde horn was originally fitted to the animal horn with a number of small silver rivets found embedded in the bronze fitting. Moreover, the rim fitting from Neudorf-Bornstein grave # 7 was also made of silver.

As a final point, the Roman *bucina* had a real tactical importance on the battlefield particularly amongst the cavalry (Meucci 1989, 89). This is noteworthy since as mentioned earlier on in the paper, the traumas of the Ellekilde man indicate that he was a rider, as was the deceased man in grave # 7 from Neudorf-Bornstein. The latter was equipped with both spurs and a golden neckring with a pear-shaped clasp of a type usually dedicated to mounted officers of a certain rank in the Germanic armies (Abegg-Wigg 2008, 282f.; Carnap-Bornheim / Ilkjær 1996a, 355). Hence, in both cases we are dealing with mounted warriors with a certain military rank that were buried with signaling horns. In this connection, it should be noted that similar bronze fittings from a horn were found in Illerup Ådal, from find concentration 85/85. The fittings had two runic inscriptions on them and were located within the area that also contained among other artefacts an extensive amount of fittings for horse

equipment, a spur and fragments of a golden neck-ring with a pear-shaped clasp (Carnap-Bornheim / Ilkjær 1996a, 160ff, 385; Carnap-Bornheim / Ilkjær 1996b, 153ff.). The horns with metal fittings in the graves of the two males and in the area of the find concentration 85/85 from Illerup Ådal can therefore mark the presence of Germanic equestrian *bucinatores*. What brings strength to this suggestion is the fact that the Ellekilde man was buried according to a local variation of the Roman Charon custom.

Concluding Remarks

This paper has been dealing with a number of innovations, occurring in southern Scandinavia and northern Germany in the Late Roman Iron Age, moulded out of a Roman model. The adoption of a slightly altered version of the Charon custom with a substitute for a coin, in a small group of mainly rich inhumations, cannot in itself be seen as an indicator of Germanic veterans having served in the Roman army. However, it is not possible to dismiss the theory of the burial custom being introduced to southern Scandinavia by a small group of returning veterans. We just cannot pinpoint it in any of the Charon graves by looking at the grave goods, as they do not contain a different array of goods than other rich graves of the period.

The proposed elite networks seen through, for example, the distribution of certain types of gold finger rings can be seen as an alternative theory concerning the spread of the custom within southern Scandinavia and northern Germany. The sheer scale of innovations such as the changes in the military system, the adoption of the use of signaling horns, the Charon custom and the creation of the Runic alphabet points towards a direct contact with the Roman world. A contact, which, among other ways, could have happened through Germanic auxiliary troops, even though no direct evidence, such as military diplomas, is found to support the theory.

Bibliography

Abegg-Wigg, A. 2008. Zu den Grabinventaren aus den „Fürstengrabern" von Neudorf-Bornstein. In: Abegg-Wigg, A./ Rau, A. (eds.). Aktuelle Forschungen zu Kriegsbeuteopfern und Fürstengräbern im Barbaricum. Neumünster. 279-297.

Abegg-Wigg, A. 2006. Gold im Jenseits – Die germanischen „Fürstengraber" von Neudorf-Bornstein. In: Radtke, C. (ed.). Magischer Glanz. Gold aus archäologischen Sammlungen Norddeutschlands. Schleswig. 104-109.

Andersson, K. 1993. Romertida guldsmide i Norden. Bind I. Katalog. Uppsala.

Bemmann, J. 2005. Zur Münz- und Münzersatzbeigabe in Gräbern der Römischen Kaiserzeit und Völkerwanderungszeit des mittel- und nordeuropäischen Barbaricums. – Studien zur Sachsenforschung 15, 1-62.

Bennike, P. 2011. Fyrsteskelettet fra Ellekilde – antropologiske studier. – Aarbøger for nordisk Oldkyndighed og Historie 2009, 185-196.

Borby Hansen, B. 2011. Kvinden fra Maglebjerg. En rig grav fra yngre romersk jernalder ved Næstved. – Aarbøger for nordisk Oldkyndighed og Historie 2008, 123-194.

Boye, L. 2009. Catalogue of the Burial Sites. In: Boye, L. / Lund Hansen, U. (eds.). Wealth and Prestige: an analysis of Rich Graves from Late Roman Iron Age on Eastern Zealand, Denmark. Taastrup. 263-368.

Boye, L. 2002. Glasskår i munden – en upåagtet gravskik i yngre romersk jernalder. In: Pind, J./ Nørgård Jørgensen, A./ Jørgensen, L./ Storgård, B./ Rindel, P.O./ Ilkjær, J. (eds.). Drik - og du vil leve skønt. Festskrift til Ulla Lund Hansen på 60-årsdagen 18. august 2002. Copenhagen. 203-209.

Carnap-Bornheim, C. / Ilkjær, J. 1996a. Illerup Ådal 5. Die Practausrüstungen. Textband. Højbjerg.

Carnap-Bornheim, C. / Ilkjær, J. 1996b. Illerup Ådal 6. Die Practausrüstungen. Katalog, Fundlisten und Literatur. Højbjerg.

Dyhrfjeld-Johnsen, M. D. 2011. Charon-skik og alternative brug af romerske mønter. – Aarbøger for nordisk Oldkyndighed og Historie 2009, 133-154.

Dyhrfjeld-Johnsen, M. D. forthcoming. Multifunctional coins – a study of Roman coins from the Zealandic isles in eastern Denmark. In: Bidwell, P. (ed.). Limes XXI: Proceedings of the XXIst International Congress of Roman Frontier Studies held in Newcastle Upon Tyne, England (August 2009). Newcastle.

Ekengren, F. 2009. Ritualization – Hybridization – Fragmentation. The mutability of Roman vessels in Germania Magna AD 1-400. Lund.

Engelhardt, C. 1865. Nydam Mosefund. 1859-1863. Copenhagen.

Gustafson, L. 2006. Veien. – Reallexicon der Germanischen Altertumskunde, 105-107.

Herteig, A.E. 1955. Gilefunnene på Østre Toten. – Viking 19, 49-72.

Ilkjær, J. 2002. Saxo, Vegetius und ein Holzstück aus Nydam. In: Pind, J. / Nørgård Jørgensen, A. / Jørgensen, L. / Storgård, B. / Rindel, P. O. / Ilkjær, J. (eds.). Drik – og du vil leve skønt. Festskrift til Ulla Lund Hansen på 60-årsdagen 18. august 2002. Copenhagen. 27-32.

Iversen, R. 2011. Ellekilde – en gravplads fra yngre romersk jernalder med fyrstegrav og cirkusbægre. – Aarbøger for nordisk Oldkyndighed og Historie 2009, 69-120.

Lund Hansen, U. 1987. Römischer Import im Norden. Copenhagen.

Lund Hansen, U. / Rindel, P. O. 2008. Charons-objekter. Kosmologi og kulturlandskab i Øresundsregionen i yngre romersk jernalder. In: Carlie, A. (ed.). Öresund – Barriär eller Bro? Kulturella kontakter och Samhällsutveckling i Skåne och på Själland under Järnålderen. Lund. 111-148.

Lund Hansen, U. / Alexandersen, V. / Beckmann, B. / Bollingberg, H. J. / Dalsgaard, K. / Jørgensen, M.S. / Kromann, A. / Mannering, U. / Nørnberg, P. / Sellevold, B.J. / Stilborg, O. / Stoklund, M. / Sørensen, I. 1995. Himlingøje – Seeland – Europa. Eine Gräberfeld der jüngeren römischen Kaiserzeit auf Seeland, seine Bedeutung und internationalen Beziehungen. Copenhagen.

Madsen, M. 2011. Rigt udstyret kvindegrav fra Ølsemagle. Glas, guld og meget mere fra yngre romersk jernalder. – Årbog for Køge Museum, 7-18.

Mailund Christensen, L. 2011. Kærup Nord – en gravplads fra yngre romersk jernalder ved Ringsted. – Aarbøger for nordisk Oldkyndighed og Historie 2009, 19-68.

Meucci, R. 1989. Roman Military Instruments and the Lituus. – The Galpin Society Journal 42, 85-97.

Pauli Jensen, X. / Jørgensen, L. / Lund Hansen, U. 2003. The Germanic Army. Warriors, soldiers and officers. In: Jørgensen, L. / Storgaard, B. / Gebauer Thomsen, L. (eds.). The Spoils of Victory: the North in the Shadow of the Roman Empire. Copenhagen. 310-328.

Rau, A. 2010. Nydam Mose , Bd. 1. Die personengebundenen Gegenstände. Grabungen 1989-1999. Højbjerg.

Schach-Dörges, H. 1970. Die Bodenfunde des 3. bis 6. Jahrhunderts nach Chr. zwischen unterer Elbe und Oder. Neumünster.

Schulz, W. 1933. Das Fürstengrab und das Grabfeld von Hassleben. – Römisch-Germanische Forschungen 7, 1-52.

Slomann, W. 1959. Sætrangfunnet: hjemlig tradisjon og fremmede innslag. Oslo.

Stjernquist, B. 1996. Graves as a reflection of tradition and change in the Roman Iron Age. In: dell'Orto, L. F. (ed.). Roman Reflections in Scandinavia. Rome. 199-201.

Stjernquist, B. 1955. Simris: on cultural connections of Scania in the Roman Iron Age. Lund.

Sørensen, A. C. / Tornbjerg, S. Å. 2008. Gravpladsen ved Bakkegård i Ølsemagle. – Årbog for Køge Museum 2008, 7-52.

Werner, J. 1973. Bemerkungen zur mitteldeutschen Skelettgräbergruppe Hassleben-Leuna. In: Beumann, H. (Hrsg.). Festschrift für Walter Schlesinger. – Mitteldeutsche Forschungen 74 (I), 1-30.

Mads Drevs Dyhrfjeld-Johnsen MA
Curator, Archaeology
Kroppedal Museum
Kroppedals Allé 3
DK-2630 Taastrup
mads.johnsen@kroppedal.dk

Families and Dependents of Soldiers

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

"Family" Meals? Who Ate with Whom and Where in Roman Military Bases?

Penelope M. ALLISON / Martin STERRY

Introduction

Over the last decade or so there has been growing interest across the humanities and social sciences in foodways, in the social significance of differentiated consumption behaviours, and in gendered social space (e.g. Atkins / Bowler 2001; Miller 2001, 3; Zukin 2001, esp. 433-435; Bird / Sokolofski 2005; Avieli 2009; Graeber 2011). Cooking, eating and drinking are central socio-cultural activities, whose distinguishing characteristics provide important insights into social behaviour and cultural identity. As Marijke van der Veen has stated, the 'daily routine of food consumption reflects and recreates social and symbolic codes of society' (van der Veen 2003, 415; see also Bourdieu 1990, 250-52). Status and gender hierarchies surrounding the preparation and consumption of food and drink, and their spatial relationships, are also signposts for socio-spatial organisation at both household and community levels (Delphy 2001). More specifically, cooking, eating and drinking are core activities around which social interactions and social space are often structured.

More contextualised investigations of specific social interactions surrounding these practices and the relationships associated with these activities, their hierarchies and spatial organisation, can assist in developing better understandings of social connectedness and disconnectedness in Roman military communities. Most studies of foodways in the Roman military sphere have been more concerned with food supply and storage, and less so with its preparation and consumption (e.g. Southern 2007, 111-115, 217-225). As Lyndsay Allason-Jones pointed out, though, '[a] soldier's life does not consist solely of his uniform but involves his whole way of life: what he eats, [but also] how he eats it...' (Allason-Jones 2001, 24).

Maureen Carroll has indeed discussed the food preparation and consumption practices of soldiers and emphasised the importance of the social relationships associated with these foodways (2005). She highlighted epigraphical evidence for the close bonds that existed between fellow soldiers, as well as archaeological evidence for hearths within barrack buildings, to support the long-held perspective (see von Petrikovits 1975, 97-98) that soldiers 'prepared, cooked and consumed' food together with their contubernia while on duty. She argued that the absence of evidence for more structured or formal provision for food preparation and consumption – e.g. lack of evidence for cooking and kitchen-related tasks among the documented duties of immunes, or lack of evidence for centralised kitchens in the archaeological remains of military bases, supported the perception that soldiers normally cooked for each other and ate in their quarters (Carroll 2005, 364). She also argued that new recruits would have needed to become familiar with Roman-style foodways and that, as food preparation and cooking 'were likely to have been the domain of women in the family', these recruits would have had to learn to cook for themselves in the army (Carroll 2005, 365). Carroll also argued that, when off duty, soldiers could take meals with their families in *vici* and *canabae* outside the fort or fortress. At the same time, she noted the evidence for taverns inside the legionary fortress at *Vindonissa*, the special camp dinners that took place on festive occasions, and that officers, cavalry troops and soldiers also had personal servants to assist with kitchen duties (Carroll 2005, 366-368).

Material Evidence for Foodways in Roman Military Sites

At many levels Carroll's arguments are logical, reasonable and supported by related written and structural evidence, presenting a picture of the camaraderie of soldiers eating and drinking together within their sub-units, and alluding to family, or household, meals in officers' residences or outside the fort. However, this picture does not accommodate the growing evidence that families of ordinary soldiers, as well as those of officers, could live with them within the fort walls. It also pays inadequate attention to the distribution of artefacts associated with these foodways inside military bases.

For example, what is the actual evidence, particularly during the early empire, that it was the daily practice for soldiers to cook and eat together with their comrads? Can the epigraphical evidence for close bonds between fellow soldiers indeed be used to downplay other potential cooking and eating arrangements? Could women and families living inside the walls have provided essential food and drink facilities for the combatant members of their families, or indeed for other combatants? Also, what do we actually know about how food was prepared, cooked and eaten by officers and officers' households, or by other non-combatant personnel inside these bases? And where did the camp dinners take place? How can we test the assumption that, while on duty, ordinary soldiers cooked and ate together rather than with other family members or in other situations – such as in public taverns or mess areas (see Speidel 1989)? Can more detailed analyses of the material culture and its distribution around these military bases potentially provide better understandings of these social interactions around food, and their impact on the organisation of these communities?

To begin to address these questions, this paper discusses how approaches to the distribution patterns of artefacts associated with cooking, eating and drinking might be used to develop better understandings of how, where and under what conditions food was prepared and consumed within these military contexts. It focuses particularly on artefacts associated with the storage, preparation, serving and the consumption of food and drink, excavated from two early imperial sites in Germany – the fortress of *Vetera* I, and the fort at Ellingen.

While these two military bases are not necessarily ideal, given the nature of their excavation, they are useful for testing this approach. Thus, this paper attempts to take further approaches to artefact distribution to better understand the place and roles of non-service personnel and especially soldiers' families, inside Roman military bases (see Allison 2008; 2011; 2013). It focuses on the more prolific, but at the same time less securely provenanced, artefacts related to the preparation and consumption of food and drink, particularly ceramics, whose distribution patterns at *Vetera* I were touched on at the XIXth Limes Congress (Allison 2005, 836-837). As a preliminary investigation, this paper examines how the types of material culture associated with food preparation and consumption, their associations, and their distributions within military bases can be analysed towards answering such questions.

Analythical Approaches

The ceramic assemblages from these two military bases, *Vetera* I and Ellingen, are typically complex, with numerous different fabrics, forms, sizes, and capacities. An extremely useful technique for analysing these types to assess associations between different provenances and types of multivariate assemblages is correspondence analysis (e.g. Cool / Baxter 1999; Pitts 2010). This type of analysis creates two scatter graphs: one of samples or rows (i.e. provenances, locations, trenches, assemblages, etc); and one of species or columns (i.e. types of pottery, animal bones, small finds, or anything else related to food preparation and food consumption that can be counted in a standardized and consistent manner). For example, each of the 520 trenches excavated at *Vetera* I can be treated as a separate assemblage or sample, so correspondence analysis can be used to assess whether there are any associations between the twenty-eight different ceramic classes (types of amphora, utilitarian wares, Arretine terra sigillata, South Gaulish terra sigillata, etc.), and relevant glass and metal vessels.

Vetera I

Figure 1a shows the complete plot with the 520 trenches excavated at *Vetera* I and the different fabric types recorded. To interpret this graph, it should be noted that the axis values are unimportant. Instead the plot should be read relative to the origin, or centre, of the graph which represents 'the average profile, so locations away from this represent departures from the average [assemblage]' (Shennan 1997, 321). Here South Gaulish terra sigillata, both relief-decorated and undecorated, are closely associated and have a looser association non-ceramic vessels (glass and bronze). Utilitarian wares, including mortaria and amphorae, appear on the opposite side of the origin and are closely associated together.

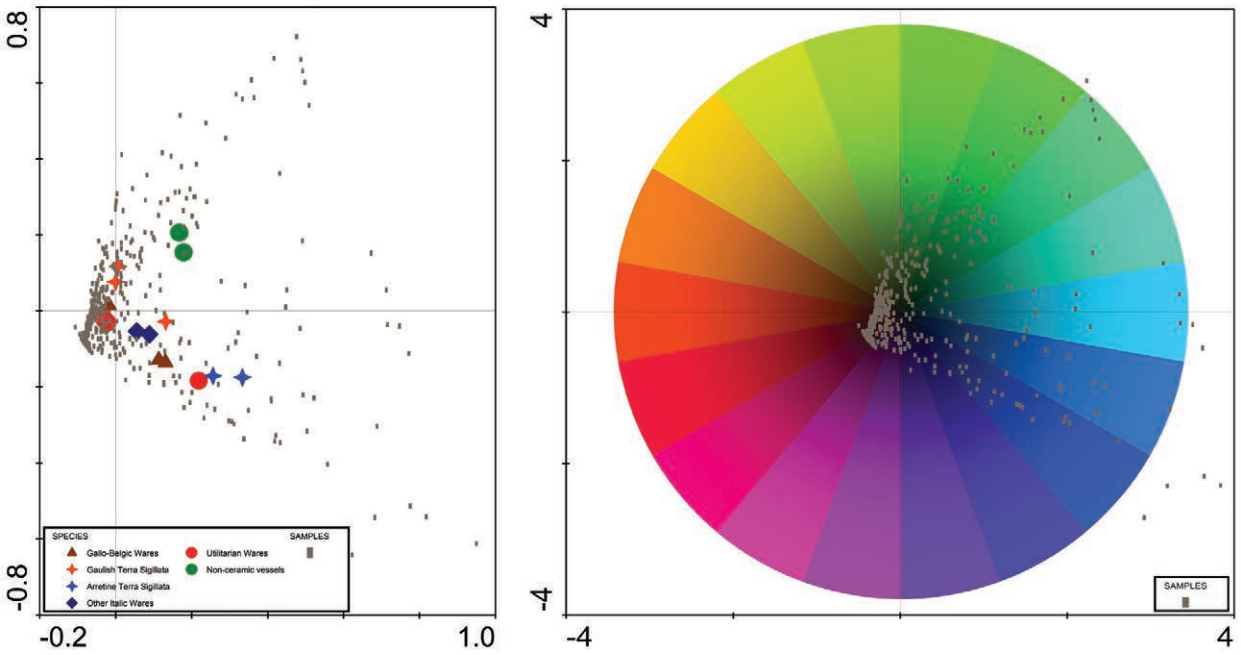


Fig. 1. Correspondence analysis of: a) trenches and ceramic fabric type; and b) trenches plotted against a colour spectrum, from *Vetera* I

Italian imports of Arretine terra sigillata and other Italic wares (i.e. thin-walled wares and Pompeian Redware) all appear in the bottom right of the graph. This highlights that these vessels are not randomly distributed across the fortress, but that they do have some spatial structure that is recoverable statistically. However, as with all multivariate techniques, these spatial patterns are difficult to interpret. They indicate that patterns exist among these data, but not where they are located within the fortress.

To analyse the results of this correspondence analysis spatially, their values have been encoded into a GIS-type environment and a colour scheme has been generated, based on a colour spectrum so that each sample (i.e. trench) is assigned a colour, based on its direction and distance from the centre of the correspondence graph (i.e. polar coordinates) (**fig. 1b**). In essence if two trenches have similar colours they have similar assemblages and associations. A point close to the origin (i.e. with a more or less average assemblage) will be black, those more closely associated with Arretine ware will be light blue; non-ceramic vessels and South Gaulish terra sigillata are yellows and greens, and utilitarian wares are reds and pinks. To make the image more comprehensible these colours can be interpolated from the locations of the trenches to give a colour to each area of the fortress (**fig. 2**). Thus we can suggest what parts of the fortress tended towards different types of food-related activities and identify a clear spatial structure within the data. For example, the central *principia*, and southeast area of the one of the legates' palaces, to the west of the *principia*, tend towards more utilitarian wares, as does one of the building in the central market area (i.e. pinks and purples). The so-called tribunes' residences, the three courtyard buildings in the northwest area, have assemblages with concentrations of Italian and Belgic wares (blues and browns), and Building Z, the supposed *valetudinarium*, in the bottom left, has high quantities of South Gaulish wares, glass and bronze (i.e. greens). The buildings along the eastern part of the *via principalis* tend towards more Italian wares (blues).

This form of analysis can be repeated to consider the distribution of the different forms of food-related vessels at *Vetera* I. The exact forms are not as important as the general pattern which shows a predominant distinction between storage forms – amphorae and pots – in the top left of the graph (**fig. 3**), and tablewares – bowls, cups, platters, etc. – in the bottom right, with food-preparation forms closely clustered in between. The few outliers at the right of the graph seem to be predominantly associated with glass vessels. Again, when the spatial distribution of these forms is considered clear patterns arise. In the distribution map, the strong yellows to pinks in the buildings to the west of the *via principalis* suggest their association with food storage and preparation, while the blues of the buildings

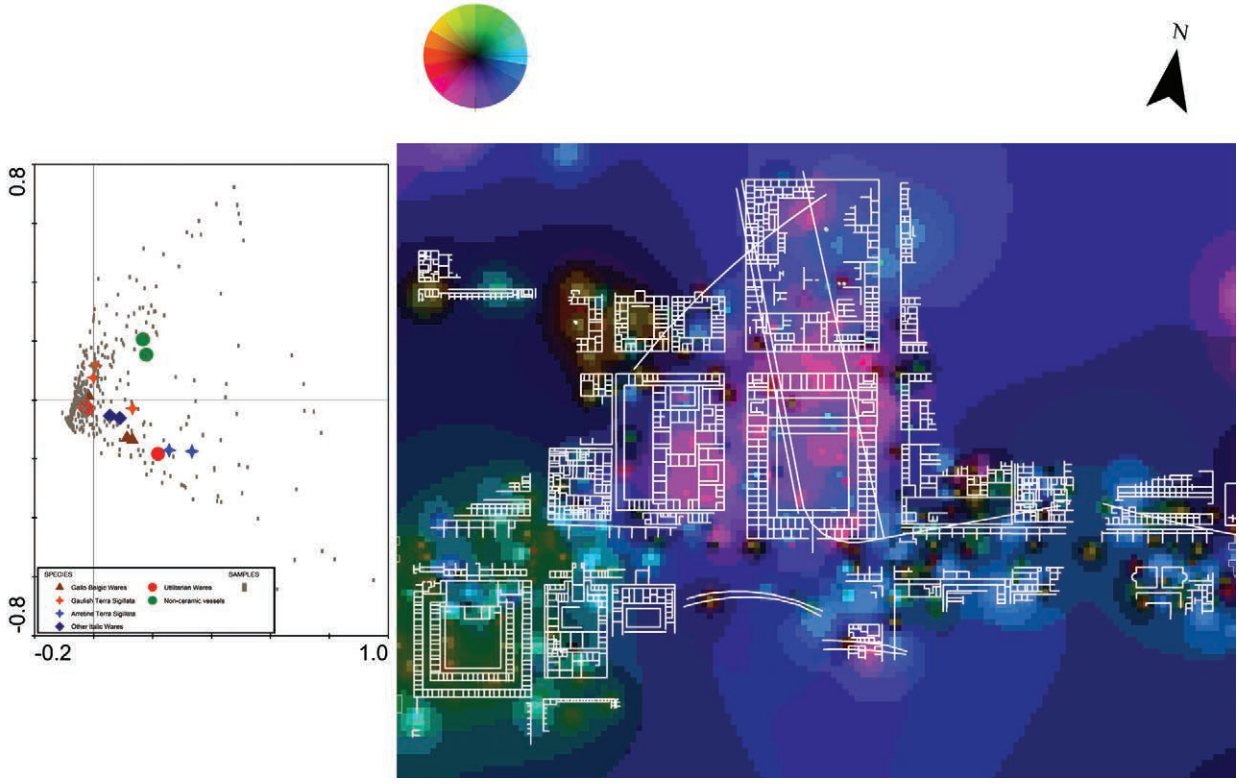


Fig. 2. Correspondence analysis of trenches and ceramic fabric types at *Vetera* I as: a) a graph; and b) an interpolated plot encoded with the colour spectrum

along the eastern *via principalis* are more closely linked to tablewares. The predominantly greens of the tribunes' residences in the northwest, and legate's palace to the east of the *principia* demonstrate a different assemblage that suggests a different utilisation of these forms from the rest of the fortress. This implies a spatial, and perhaps social, division between these basic food-related activities that requires further investigation. Unfortunately, less of the barracks buildings at *Vetera* I have been excavated compared with other central administrative buildings, officers' residences and the street areas, although it is notable, that what has been excavated of the barracks to the west have a relative lack of evidence for tablewares. Some of these distribution patterns, though, particularly in the *principia* may well be affected by remains from earlier forts underlying this area. These artefact distribution analyses are therefore only partial and demonstrate a process rather than particular results.

Ellingen

The fort at Ellingen provides an interesting comparison. Here artefacts can be provenanced by building rather than by trench. Considering the vessel fabrics, as with *Vetera* I, there are clear associations between different types – South and East Gaulish terra sigillata is all towards the bottom right of the graph (**fig. 4**) while the utilitarian and handmade wares are both towards the upper left. Relief-decorated and undecorated Rheinzabern terra sigillata are both slightly towards the bottom left area along with other[?] imitation terra sigillata which also occurs towards the top right. Presenting these analyses spatially demonstrates an interesting patterning. The northern buildings (Buildings C and D) and Area G have broadly similar assemblages that tend towards utilitarian and locally produced finewares, the main barracks (Building B) also tends to follow this trend, but its very dark colour shows that it is closer to the origin and hence has a more average assemblage for the fort. The buildings in the south-east – possibly officers' quarters – with their blues seem quite distinct from the rest of the fort and are more closely associated with the South and East Gaulish terra sigillatas. This analysis implies a distinction in the use of different types of ceramic in different parts of the fort, whether the result of restricted access or consumer choice. An analysis of the vessel forms in the fort at Ellingen was also undertaken but the lack of a clear pattern in the correspondence analysis makes the distribution difficult to interpret, although similar assemblages appear in adjacent buildings (**fig. 5**).

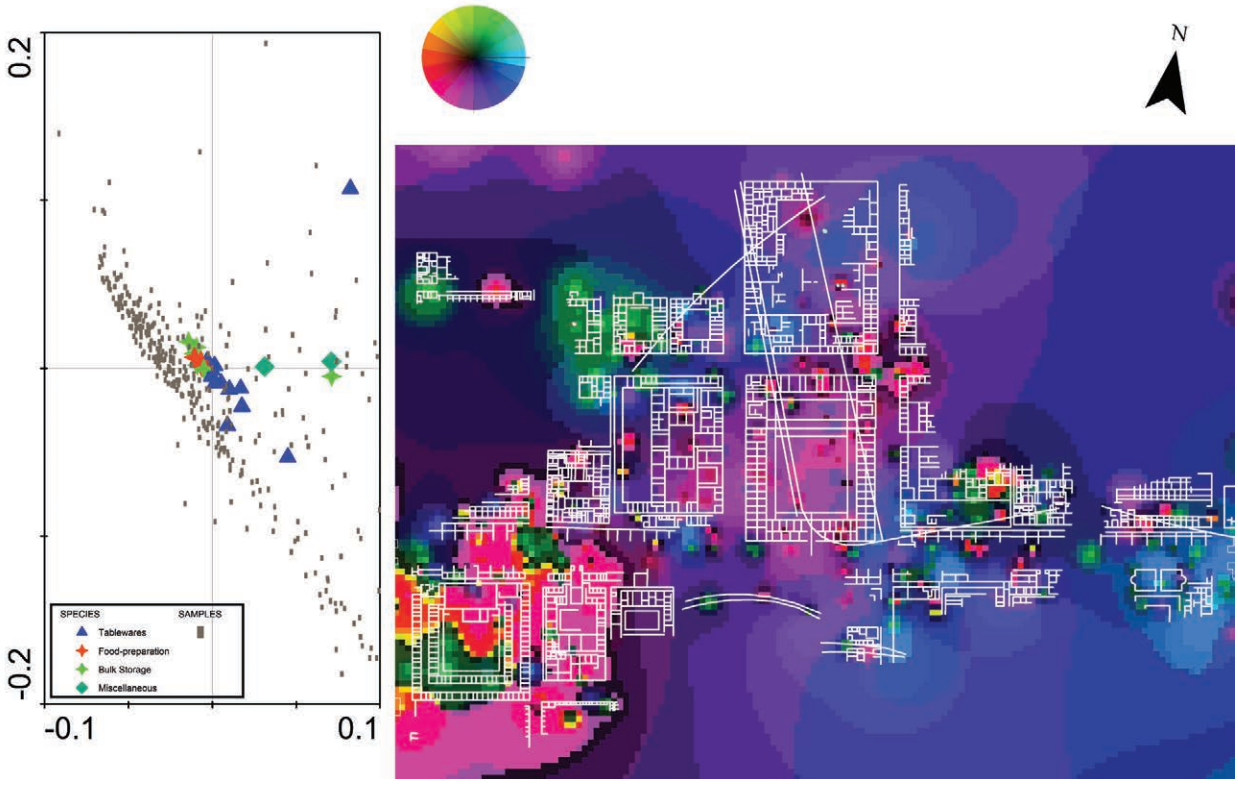


Fig. 3. Correspondence analysis of trenches and food-related vessel forms at *Vetera* I as: a) a graph; and b) an interpolated plot encoded with the colour spectrum

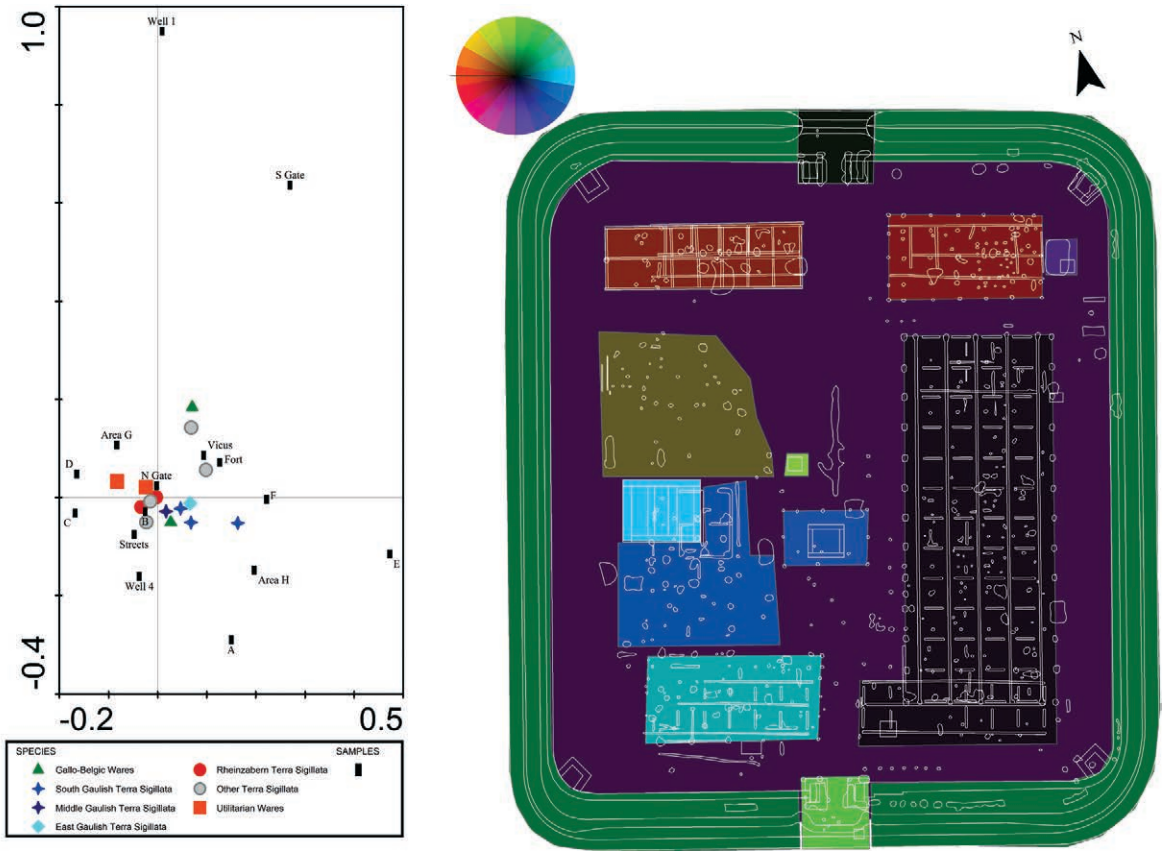


Fig. 4. Correspondence analysis of buildings and ceramic fabric types from the fort at Ellingen as: a) a graph; and b) a chloropleth map encoded with the colour spectrum

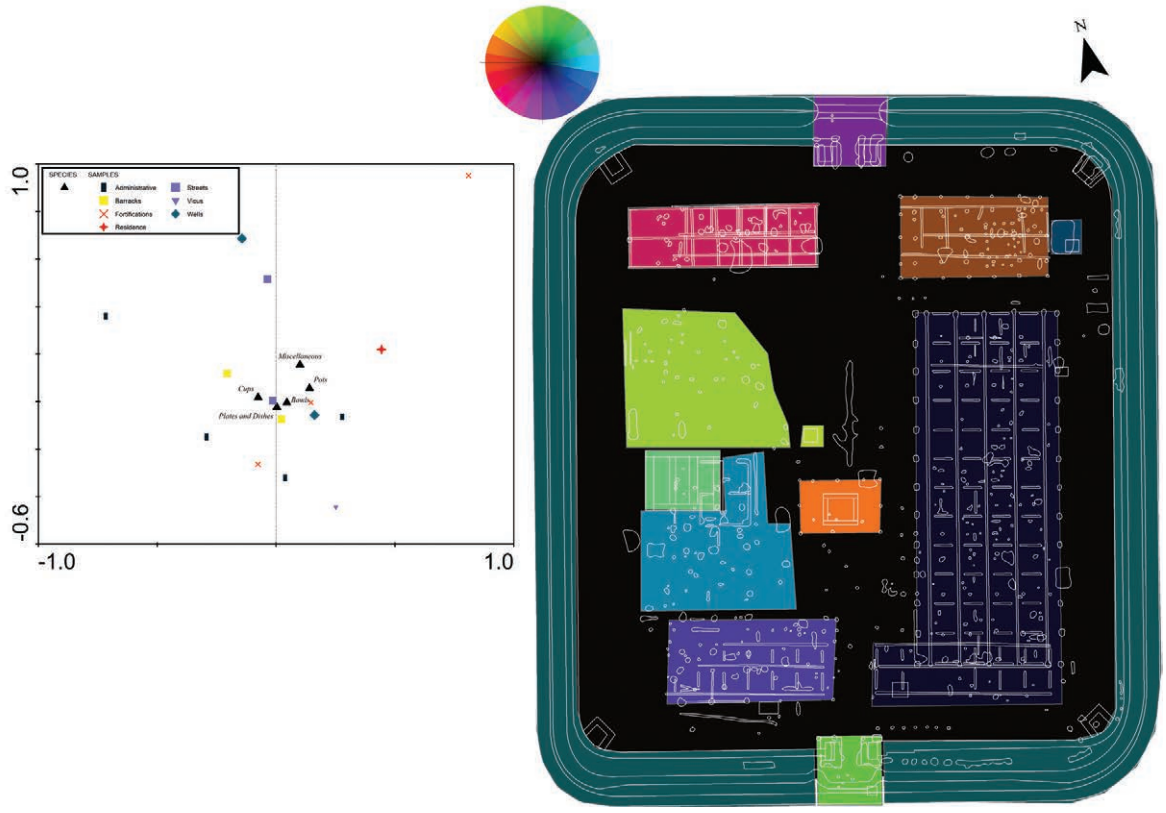


Fig. 5. Correspondence analysis of buildings and food-related vessel forms in the fort at Ellingen as: a) a graph; and b) a chloropleth map encoded with the colour spectrum

This paper presents analyses that are still very much a work in progress. Further interrogation of these datasets and more precise analyses of the fabrics and different forms used for specific cooking, eating, and drinking activities can potentially allow patterns to emerge that relate to the socio-spatial arrangements for these activities. From these examples it is demonstrable that there are distinctions among the assemblages associated with foodways that can be related to different uses of local and imported wares and perhaps different areas for food preparation. At *Vetera* I it would appear that storage, food production and consumption were indeed spatially distinct activities. Also at both *Vetera* I and Ellingen we can observe that officers and their households seem to have made use of different types of ceramics and to have undertaken food-related activities separately. Another important point to note is that no amphorae were recorded at Ellingen, suggesting different and possibly very local food sources, and food-preparation practices.

Family Meals and Gendered Foodways

Carroll suggested that new recruits would have missed their family meals when they went into the Roman army. But what is this suggestion based on? Keith Bradley (1998, esp. 46) and Hanner Sigismund Nielsen (1998, esp. 58) both argued that, in the Roman civilian world, and essentially in urban Roman Italy, there was little or no concept of a 'family meal', in the modern sense of a daily gathering of the household where the events of the day would be discussed and children would be educated in table manners. If women, families and other non-combatant personnel were indeed members of the communities, living inside the walls of Roman military bases, how can we begin to understand the roles they played in the daily cooking and eating practices of Roman soldiers?

In the centre of the Roman Empire, in the civilian world, food preparation and cooking were carried out by both male and female servants. While there is evidence for professional male chefs in élite urban households, women seem to have more usually been responsible for cooking in rural domestic contexts, at least in Italy. While, it might seem 'common sense' to assume that cooking, in the male-dominated military sphere, was in male hands (see von Petrikovits 1975, 97), the complex gendering of food-preparation activities in civilian contexts, across the Roman world, may

have spilled over into the military sphere. For example, it may be correct to assume that legionary soldiers ate within their contubernia (see Carroll 2005, esp. 366-368), and that officers' household staff, male and female, prepared their meals in their residences. However, the distribution patterns at *Vetera* I may indicate more communal forms of cooking and eating. In auxiliary forts, as at Ellingen, the women living there may have carried out a similar wide range of domestic tasks as in rural contexts, including cooking and preparing food. Indeed life within Roman military bases, where soldiers often lived for up to twenty-five years, might have been much more like 'life at home' than is generally assumed.

At this point, though, these are merely assumptions. The combination of the above analyses, and Allison's previous analyses of gendered space in military bases, might throw further light on these practices. Thus, this paper presents many questions and not so many answers, and analyses that are very much in their initial stages. Nevertheless, these types of analyses, which can be used to examine broad patterns across large artefact assemblages, have the potential to compensate for the vagaries of the depositional processes at such sites and to change our perspectives on how soldiers, and officers, prepared and ate their meals, and how women and families were involved in these practices.

Bibliography

Allason-Jones, L. 2001. Material culture and identity. In: James, S. / Millet, M. (eds.). Britons and Romans: Advancing an Archaeological Agenda. York. 19-25.

Allison, P. M. 2013. People and spaces in Roman military bases. Cambridge.

Allison, P. M. 2011. Soldiers' Families in the Early Roman Empire. In: Rawson, B. (ed.). Family and Household in Ancient Greece and Rome: A Companion. Oxford. 161-182.

Allison, P. M. 2008. Measuring women's influence on Roman military life: using GIS on published excavation reports from the German frontier. In: Allison, P. M. (ed.). Dealing with legacy data, Internet Archaeology 24 <intarch.ac.uk/journal/issue24/allison_index.html>.

Allison, P. M. 2005. Mapping artefacts and activities within Roman military forts. In: Visy, Z. (ed.). Limes XIX: Proceedings of the XIXth International Congress of Roman Frontier Studies, Pécs, Hungary, 2003. Pécs. 833-846.

Atkins, P. / Bowler, I. 2001. Food in society: Economy, culture, geography. London.

Avieli, N. 2009. At Christmas we don't like pork. – Journal of Material Culture 14, 219-241.

Bird, S. R. / Sokolofski, L. K. 2005. Gendered socio-spatial practices in public eating and drinking establishments in the Midwest United States. – Gender, place and culture 12 (Jun.), 213-230.

Bourdieu, P. 1990. The logic of practice. Cambridge.

Bradley, K. 1998. The Roman family at dinner. In: Nielsen, I. / Sigismund Nielsen, H. (eds.). Meals in a social context. Aarhus. 36-55.

Carroll, M. 2005. The preparation and consumption of food as a contributing factor towards communal identity in the Roman army. In: Visy, Z. (ed.). Limes XIX: Proceedings of the XIXth International Congress of Roman Frontier Studies, Pécs, Hungary, 2003. Pécs. 363-372.

Cool, H. E. M. / Baxter, M. J. 2002. Exploring Romano-British finds assemblages. – Oxford Journal of Archaeology 21, 4, 365-380.

Delphy, C. 2001. Sharing the same table: consumption and the family. In: Miller, D. (ed.). Consumption: Critical concepts in the social sciences. Vol IV. London / New York. 271-285.

Graeber, D. 2011. Consumption. – Current Anthropology 52, 4, 489-511.

Miller, D. (ed.) 2001. Consumption: critical concepts in the social sciences. London / New York.

Pitts, M. 2010. Artefact suites and social practice: an integrated approach to Roman provincial finds assemblages. – FACTA: a journal of material culture studies 4, 125-52.

Shennan, S. 1997. Quantifying Archaeology. Second Edition. Edinburgh.

Sigismund Nielsen, H. 1998. Roman children at meal times. In: Nielsen, I. / Sigismund Nielsen, H. (eds.). Meals in a social context. Aarhus. 56-66.

Southern, P. 2007. The Roman Army: A social institutional history. Oxford.

Speidel, M. P. 1989. The soldiers' servants. – Ancient Society 20, 239-248.

van der Veen, M. 2003. When is food a luxury? – World Archaeology 34, 3, 405-27.

von Petrikovits, H. 1975. Die Innenbauten römischer Legionslager während der Prinzipatzeit. Abhandlungen der Rheinisch-Westfälischen Akademie der Wissenschaften Band 56. Opladen.

Zukin, S. 2001. Gentrification and cuisine. In: Miller, D. (ed.). Consumption: Critical concepts in the social sciences. Vol. III. London / New York. 418-439.

Dr. Penelope M. Allison, FSA, FAHA
School of Archaeology and Ancient History
University of Leicester
University Road
UK-Leicester LE1 7RH
pma9@leicester.ac.uk

Dr. Martin Sterry
School of Archaeology and Ancient History
University of Leicester
University Road
UK-Leicester LE1 7RH
mjs66@le.ac.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Roman Military Pay and Soldiers' Families: The Household Contribution to Subsistence

Elizabeth M. GREENE

Introduction

The pay of auxiliary soldiers has been much debated over the years. It has been asked if they lived in some poverty (Forni 1953, 33; cf. Phang 2001, 183), but suggested by many that the life of a Roman soldier was relatively comfortable with his needs well taken care of (Alston 1994, 122-3). However, if he had a family, this conclusion may be different and the question of pay is especially important when considering the dependents of soldiers, both their presence and role in a military society. Despite M.P. Speidel's statement forty years ago that soldiers "could afford not only a wife but a concubine as well" (1973, 146-147), a sentiment supported by Alston (1994, 117), the means of this support has not been investigated in any depth. It is stated more often now that it would have been difficult for a soldier to support himself together with a family on an auxiliary soldier's pay, a sentiment found especially in arguments against the common presence of wives and families in the military sphere (cf. Phang 2001, 181-182 for discussion of past debates). Phang (2001, 185-187) sees a correlation between pay increases and rising marriage rates among soldiers, and also suggests that soldiers married later in life when they were more financially secure, only after promotions to higher ranks and subsequent pay increases. However, when starting a family practical matters such as whether or not one can afford children are not considered often in any historical time and place.

This paper only peripherally addresses the question of military pay; it focuses instead on the alternative forms of household income that a soldier and his family might have had while they were part of the military community. We need not only consider the *stipendium* of the soldier when assessing the livelihood of a military family, particularly of a soldier in the auxiliary rank and file on the lowest pay scale. The wife, children and extended family quite likely played an important role in the subsistence of the household in many cases. Supplementary income and household subsistence is all the more important taking into account the lengths of time that the Roman army spent without any pay rises: well over a century separated Caesar's pay increase and Domitian's raise given in AD 84 and then again over one hundred years would pass between Domitian and Septimius Severus' reforms in AD 197. It is true, however, that deductions decreased through the second century with governmental contributions rising, effectively leaving more pay in the pocket of the soldiers (Speidel 1992, 105). Perhaps more important for this consideration of daily subsistence is the evidence indicating that soldiers did not actually receive very much cash-in-hand, particularly true in the first century, since a great deal of their wages were taken up by deducted expenses from supplies furnished by the army (Alston 1994, 117). It is in these cases especially that one should expect some alternative form of cash entering a military household on a somewhat regular basis.

This situation suggests that soldiers had secondary forms of income to support themselves, and especially so if they chose to form a family during service, which we now see was common enough (Allison 2013; Greene forthcoming). Understanding subsistence is especially important if we are now to move away from simply proving the presence of women and families in military communities, to investigating the role of these individuals within military settlements. Surely the household income of a soldier was not solely reliant on his military pay, particularly if we deem this decent, yet insufficient to support a family. This contribution briefly ad-

dresses alternative options open to soldiers, which is relatively clear, but focuses particularly on the potential for work by women and children within the military community. Understanding social roles is especially important considering that Roman soldiers, in certain times and places, spent much of their time in mundane daily activities rather than out on a battlefield (Davies 1974). A great part of life in the military was spent in the camp and it is here where the social roles of non-combatants are most important to our understanding of life in the Roman army.

A Historical Perspective

In modern armies of Europe and the American West household subsistence depended enormously on the income and work contribution made by wives and family members (Hacker 1981; Greene 2012). The presence of women in modern military environments has been described as "vital" and that "armies could not have functioned as well, perhaps could not have functioned at all, without the service of women" (Hacker 1981, 644). The armies of Europe between the 14th to 19th centuries and the Roman army offer no indication that women were in any way involved in combat; therefore, in both cases women associated were part of the community rather than the fighting force. Women were a part of the day-to-day operation of subsistence in the military community.

Anyone who has read Dio Cassius' description of Varus' army in Germany in 9 AD will recognize the themes in modern European descriptions of a military on the march. In the Netherlands in 1622 it was recorded that "such a long tail on such a small body never was seen… Such a small army with so many carts, baggage, horses, nags, suttlers, lackeys, women, children and a rabble which numbered far more than the Army itself" (Parker 1972, 176; originally from C.A. Campan, 1622, Bergues sur le Soom assiégée). Sixteen hundred years earlier, Dio describes the same types and extensive numbers of non-combatants trailing the army, including women and children in various roles. That a strict separation of military and "civilian" was never sought by the Roman army is implied by the very proximity of Roman forts and their extramural settlements and the number of military structures that are found outside the fort. This tangle of military and non-military people could never sustain strict separation in temporary camps or while on the march. We should not seek such separation in permanent camps either, though naturally there was a greater level of organization there. These lines were blurred in all military environments because the Roman army comprised a variety of individuals who all played a crucial role in supporting a military unit.

In the records left by armies of the past six-hundred years women are found in roles as traders and sellers of a variety of goods, cleaners, laundresses, spinning and sewing workers, mid-wives, nurses and prostitutes (Hacker 1981). These are all vital positions that would have been necessary for any military, the Roman army in no less need for such occupations. It is true, however, that the status of women that accompanied modern militaries varied greatly, from prostitutes to servants to legal and de facto wives, reminding us that any treatment of women and the Roman army must also take into account several axes of identity together. This may be problematic, however, since markers of gender and class may not always be readily apparent in the archaeological record. Lastly, it should be noted that the work performed by women for modern soldiers did not differ greatly from their roles in a purely civilian context. Therefore, we need not necessarily consider the Roman army as such a vastly different entity from civilian society. It is often suggested that social roles may be inverted dramatically in the military environment. The classic and well-used example visible in the material record is the "Housewife kit" of the 20th century British army, which allowed men to do their own sewing and mending in a predominantly male environment (James 2006, 34). But in reality it was only in the modern armies of the 19th and 20th centuries that would have actually required such a kit, with the absence of women in the camp resulting from post-Crimean military reorganization.

The Roman Army and Household Subsistence

In light of data from historical periods one can postulate the day-to-day work of a non-elite military wife and her potential role in the household economy by looking first to the greater amount of data available for working women elsewhere in Roman society, outside the military sphere. It is tempting to look specifically to female-dominated occupations such as midwifery and wet-nursing, jobs that Evans identified as ones that remained open to freeborn women as many occupations were given over to slave labour through the Republican period in Italy (Evans 1991, 143). However probable that such labour existed in the military sphere, there is no direct evidence showing that such tasks were performed.

Nonetheless, as elsewhere, the military social structure also had its expected hierarchy that included elite women, female slaves and everyone in between. We may consider the frequency of evidence for wet-nurses elsewhere pointing to the likelihood that this was also a profession for women in military communities. There is plenty of evidence that the practice was used commonly in the provinces, such as the stele of a nutrix (child's wet nurse) named Severina in the Römisch-Germanisches Museum in Köln (inv. 122,1) (Sparreboom 2009, 21-3).

Women were also commonly in the business of selling goods such as food items, vegetables and bread, several examples of which come from Ostia (e.g. Museo Ostiense inv. 134, inv. 198; cf. Kampen 1981) and Pompeii (for discussion: Allason-Jones 1996, 67-75). Boosting rations would have been necessary in the military community, particularly in light of the marriage ban for serving soldiers which makes certain that the Roman government was not in the business of supporting dependents. Necessity would also lie in the constant need for cloth working for new clothing and repairs, and all that goes with such production, another occupation that Evans identified as one that continued to be held by free-born women (Evans 1991, 143). Some daily needs of soldiers were taken care of by professionals within the unit structure, but surely not everything was accomplished in this way and these services seem not to have catered to any needs of dependants.

The evidence for family contributions that specifically helped sustain Roman soldiers is sparse but telling. Papyrus documents make it clear that soldiers received some goods of equipment, clothing, and shoes from family members such as parents, especially in the second century when local recruitment may have been the norm in certain areas of the empire and soldiers' extended families could have been relatively nearby. Without the deductions for such goods coming from one's *stipendium*, a second-century soldier's pay would stretch a bit further and more realistically support dependents (Phang 2001, 188-9). Such help from parents seems age-old and is the obvious consideration of support in addition to a regular salary. But this still does not address the mounting evidence for families present in the military environment already in some number in the first century AD when the military was more actively on the move. How did the household survive at a time when scholars agree that auxiliary foot soldiers would have been somewhat poor?

Within the military sphere specifically, we have evidence to support the economic role of women in a few cases. The writing tablets from *Vindonissa* suggest not only that women worked within the military community, but that this may have occurred within the fort itself. A tablet records a female innkeeper working inside the walls, but her status as part of a soldier's family, individual entrepreneur, or otherwise is unknown (Speidel 1996, # 44, 186-7). This case recalls the female skeleton found under the floor of an inn at Housesteads, likely a barmaid or innkeeper. The *Vindolanda* tablets also document women below the highest social ranks (Greene 2013b). Though the tablets between prefects' wives are most commonly cited (Tab.Vindol. 291-292), there are other women that are probably doing work within the camp. A woman named Paterna brings goods to Lepidina the wife of the prefect Cerialis (Tab.Vindol. 294) and Valatta asks permission from the prefect for an unknown activity (Tab.Vindol. 257). Though frustratingly incomplete, a picture emerges of women's activity within the camp, not of sheltered lives happening behind closed doors. These women may have been slaves or women working within the prefect's household, but their activity within the military community is clear. Moreover, within an isolated community such as were some military settlements, one could imagine a lower class wife of a soldier working for a more elite household. The strict military hierarchy would support such activity and give ample opportunity for supplemental income.

Penelope Allison has suggested a commercial role for women from evidence clustering around gates, streets and public areas within German forts (Allison 2006 and 2013). The assignment of an economic role for these individuals perhaps meant entering the fort in the daytime to sell goods or perform tasks; however, entertainment activities such as eating and drinking may have required habitation within the fort. The tablet recording a female inn-keeper at *Vindonissa* seems to point in this direction. There would have been a constant need for making and mending clothing, cleaning, and supplying provisions not on the official military dole, all of which could be easily performed by women or children and would provide extra income for a soldier and his family. Cottage industries surely sprang up within the vici and canabae of the forts, both likely organized and staffed by members of soldiers' families looking for extra income for the household.

There also appears to be a prominent religious role for women in military families. Wives of soldiers appear serving as priestesses, though typically

only individuals of higher social status. An example from Nîmes (CIL 12.3175, 12.3368; now in Musée Archéologique) illustrates a military wife of the highest status – Licinia Flavilla, the wife of a tribune and a local magistrate – serving as a priestess for a local cult. At the same time, evidence from lower status contexts also suggests a similar religious role. A Greek inscription from Corbridge records Diodora, a priestess of the cult of Hercules of Tyre (RIB 1129), and plenty of statuettes of priestesses, usually shown as veiled women, exist in military contexts (e.g. Allason-Jones 2011). There is no certainty that these women were part of soldiers' families, but there is some indication therefore that such a role was common in a military context.

In particular, women that were more certainly part of military households may have stood as the member in charge of household religious activities. The prominent role of women in household religion generally is indicated by female dedications found on altars to various aspects of the emperor. Altars are known from both Risingham and Maryport (RIB 1211 from Risingham to the Fortune of the emperor by Aelia Proculina; RIB 845 from Maryport to the valour of the emperor by Diana Hermione), possibly dedicated by women associated with officers performing part of their official public duty. The dedicator at Maryport, Diana Hermione, also made a dedication to Juno (RIB 813), while again at Risingham, Aelia Timo dedicated an altar to Diana (RIB 1209). At Carvoran, a mother and daughter, possibly the family of the prefect, made a dedication to "the Goddesses the nymphs" (RIB 1789, Vettia Mansueta and Claudia Turianilla; cf. Allason-Jones 2005, 148). The impression that women sometimes fulfilled a good part of the religious duty of the entire household is indicated by an altar dedicated by Tranquila Severa to the "mother of the gods" at Carrawburgh, "on behalf of herself and her family" (RIB 1539). These women were clearly part of the religious life at military sites, which may have constituted an official role within military households, though admittedly not one that would result in pay. Two dedications by women to Jupiter Dolichenus indicate that the lives of extended families were militarized as much as that of the soldier himself. The daughter of Sabinus at Great Chesters (RIB 1726) and Magunna at Birrens (RIB 2099) both sponsored dedications to this typically military cult, though Allason-Jones argued they could be linked to emperor veneration, which would make them similar to the dedications from Risingham and Maryport discussed above (Allason-Jones 2011).

We surely see alternative forms of income being made by the soldiers themselves and it does not seem too far a stretch to extend this practice to other members of a military household. Tacitus describes the soldiers from Syria as "sleek profiteers" (Tac. *Ann*. 13.35) and that soldiers who engaged in selling had no immunity from the stated laws of the province (Tac. *Ann*. 13.51). Apuleius paints a rather negative picture of soldiers in the Metamorphoses, when a legionary soldier commandeers the Ass, alleging to need it for his prefect. In the Gospel of Luke (3.14) soldiers are represented in acts of extortion. Whether these examples are stereotypes being reinforced in literature or actual scenarios, they suggest that the small amount of power held by individual soldiers was used in creative ways and that there was certainly some necessity to bolster one's military income. Within this framework of necessity, surely the wife and children of a soldier would partake in the local economy providing in whatever way they could to the household.

Conclusion

Women living in military settlements associated with the soldiers of the garrison, especially those connected to the rank-and-file and others below the officer classes, must have worked and helped provide for their family. Certainly there were jobs being done in military settlements for which we have no clear evidence how and by whom they were performed. Perhaps the missing evidence should be assigned to the wives and extended families of soldiers whose material record is also frustratingly absent. Elsewhere in Roman society there is clear precedent that plenty of women worked and performed such tasks, indicating that it would be short sighted not to consider the role of women and children in the business of sustaining a military household. In many respects military communities are not very different from their purely civilian counterparts and we no longer need to look for alternative scenarios, for instance in assigning typically female gendered tasks to male soldiers. Surely there were exceptions, and there is no reason why a soldier would not or could not mend his own clothing (Allason-Jones 1995, 28), but this sort of variation should be expected in any sector of society. When thinking about the social life of a Roman military base we must include all facets of the population and move beyond thinking about their presence alone, but extend our investigations further to what their individual role was in their social context.

Bibliography

Allason-Jones, L. 2011. Priests and Priestesses in Roman Britain. In: Richardson, J. H. / Santangelo, F. (eds.). Priests and State in the Roman World. Stuttgart. 429-444.

Allason-Jones, L. 2005. Women in Roman Britain. Second edition.York.

Allason-Jones, L. 1996. The Actress and the Bishop: Evidence for working women in Roman Britain. In: Devonshire, A. / Wood, B. (eds.). Women in Industry and Technology from Prehistory to the Present Day. London. 67-75.

Allason-Jones, L. 1995. Sexing Small Finds. In: Rush, P. (ed.). Theoretical Roman Archaeology: Second Conference Proceedings. Avebury. 22-32.

Allison, P. M. 2013. People and Spaces in Roman Military Bases. Cambridge.

Allison, P. M. 2006. Mapping for Gender. Interpreting Artefact Distribution inside 1st- and 2nd-century A.D. Forts in Roman Germany. – Archaeological Dialogues 13 (1), 1-20.

Alston, R. 1994. Roman Military Pay from Caesar to Diocletian. – Journal of Roman Studies 84, 113-123.

Davies, R.W. 1974. The Daily Life of the Roman Soldier. – Aufstieg und Niedergang der römischen Welt 2, 1, 299-338.

Evans, J. K. 1991. War, Women and Children in Ancient Rome. London.

Forni, G. 1953. Il reclutamento delle legioni da Augusto a Diocleziano. Rome.

Greene, E. M. 2013a. Before Hadrian's Wall: Early Military Communities on the Roman Frontier in Britain. In: Collins, R. / Symonds, M. F. A. (eds.). Breaking Down Boundaries: Hadrian's Wall in the 21st Century, Journal of Roman Archaeology, 17-32.

Greene, E. M. 2013b. Female Networks in the Military Communities of the Roman West: A view from the Vindolanda tablets. In: Hemelrijk, E. / Woolf, G. (eds.). Women and the Roman City in the Latin West. Leiden. 369-390.

Greene, E. M. 2012. Sulpicia Lepidina and Elizabeth Custer: A Cross-cultural Analogy for the Social Roles of Women on a Military Frontier. In: Duggan, M. / McIntosh, F. / Rohl, D. (eds.). Theoretical Roman Archaeology Conference 2011. Oxford. 105-114.

Greene, E. M. forthcoming. The Families of Roman Auxiliary Soldiers in Military Diplomas. In: Bidwell, P. (ed.). Proceedings of the XXI International Limes Congress 2009. Oxford.

Hacker, B. C. 1981. Women and Military Institutions in Early Modern Europe: A Reconnaissance. – Signs 6, 4, 643-671.

James, S. T. 2006. Engendering Change in Our Understanding of the Structure of Roman Military Communities. – Archaeological Dialogues 13 (1), 31-36.

Kampen, N. 1981. Image and Status: Roman Working Women in Ostia. Berlin.

Parker, G. 1972. The Army of Flanders and the Spanish Road 1567-1659. Cambridge.

Phang, S. E. 2001. The Marriage of Roman Soldiers (13 BC – AD 235): Law and Family in the Imperial Army. Leiden.

Sparreboom, A. 2009. Wet-nursing in the Roman Empire: Indifference, Efficiency and Affection. VU University Amsterdam Thesis M.Phil.

Speidel, M. A. 1996. Die römischen Schreibtafeln von Vindonissa: Lateinische Texte des militärischen Alltags und ihre geschichtliche Bedeutung. Brugg.

Speidel, M. A. 1992. Roman Army Pay Scales. – Journal of Roman Studies 82, 87-106.

Speidel, M. P. 1973. The Pay of the auxilia. – Journal of Roman Studies 63, 141-7.

Elizabeth M. Greene, Ph.D.
Assistant Professor of Roman Archaeology
The University of Western Ontario
Department of Classical Studies
Lawson Building, Room 3209
1151 Richmond Street
CA-London, Ontario N6A 5B8
egreene2@uwo.ca

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Commemorating Military and Civilian Families on the Danube Limes

Maureen CARROLL

Introduction

'The Roman family' has developed since the late 1980s as a distinct research theme in ancient social history. Following the initiative of Beryl Rawson in studying the Roman family, six 'Roman Family Conferences' have since taken place. Edited volumes have emerged from these conferences that deal with various aspects of the family, such as marriage, children, divorce, social structure and household composition, but with a focus on Rome and Italy and a general bias towards textual sources (Rawson 1986; 1991; Rawson / Weaver 1997; George 2005; Dasen / Späth 2010)[1]. More recently, an entire conference devoted to the family in Greek and Roman Antiquity took place in 2009 in Gothenburg, its aim being to contextualise and refine approaches to this topic in the twenty-first century (Harlow / Larsson Lovén 2012). By 2012, sufficient research on the ancient family had been conducted to enable the publication of an extensive companion volume, the title of which refers to 'families' rather than 'the family' and to the 'Greek and Roman worlds' rather than 'Greece and Rome' (Rawson 2012). These plurals in the title reflect the diversity of family types and practices in the societies discussed as well as the regional and chronological diversity covered and the development of new approaches and themes.

In the end, however, all these studies focus on the civilian family, rather than on the families and dependents of Roman soldiers stationed along the frontiers and on secondment in provincial towns. The advances in the theoretical methodologies apparent in this research on civilian families, however, can be applied fruitfully to study military communities and the social relationships formed through military and civilian interaction. Important examinations of archaeological and historical evidence, such as those by Speidel (1989) on soldiers' servants, by Speidel (1996) on the tablets from *Vindonissa* and their implications, by van Driel-Murray (2008) on recruitment and women in the Lower Rhine area, and Allison (2006) on mapping for gender in forts in Roman Germany, show some of the methods and materials used to explore the multi-dimensional experience of 'family life' on the frontiers and in the provinces.

My study focuses on civilian and military families and extended households living on the Danube frontier by examining the copious epigraphic and pictorial evidence from the cemeteries outside settlements and forts to gain information on communities and the social relationships formed through military and civilian interaction. Danubian funerary monuments are eloquent in highlighting the importance of children and their role in replicating ethnic and gender values of families in the region. This body of evidence also sheds light on non-kin relations and the dislocation and physical and social mobility of families and households on the Danube. Examples are drawn from sites south of the Danube bend such as *Ulcisia Castra*/Szentendre, *Aquincum*/Budapest, and *Intercisa*/Dunaújváros/Dunapentele, as well as from sites further west in the hinterland

[1] The 2005 volume branched out to include the Roman provinces. The sixth Roman Family Conference took place in Rome in 2012, the papers of which are to be published. Other studies include those by Wiedemann 1989; Bradley 1991; Dixon 1992.

of the *limes* such as *Gorsium*/Tác and *Savaria*/Szombathely.

Roman-style Commemoration on the Danube

The first exposure of the indigenous population on the Danube to Roman funerary commemoration came with the arrival of the Roman army who remembered their dead by erecting stone monuments with Latin epitaphs. These highlighted, in very compact form, names, origins, rank and sometimes relationships to other comrades in arms. In this way, the military marked the different and distinctive identity of the Roman soldier from the local and non-Roman civilian (Hope 1997, 255). A plethora of inscribed gravestones from the late 1st and early 2nd c. AD survive.

The civilian population soon followed suit by commemorating their dead with stone monuments, and by adopting this Roman form of memory preservation they were able to compete in this very Roman form of public display. Erected around AD 100, the *stele* of Adnamata, daughter of Carveicio, from *Intercisa*, for example, is adorned with a wreath in the upper panel (*AE* 1906, 114; *RIU* 1147; Schober 1923, # 113; Nagy 2007, 33, # 16)[2]. This formula had been particularly popular with soldiers of the 2nd legion stationed in *Aquincum* since AD 89; fine examples are the early 2nd c. *stelae* of Gaius Valerius Macer from *Verona* (*AE* 1990, 813; Topál 1993, 11, pl. 6, grave 7) and of Titus Plotius Pamphilus from *Celeia* (*AE* 1936, 163; Németh 1999, 31, # 66). We might also compare the monument of the 14-year-old Sabina (Schober 1923, # 214; Nagy 2007, 41-42, # 29) who was commemorated in *Aquincum* by her parents in the first half of the 2nd c. with that of a cavalry soldier (*CIL* III 3407; Schober 1923, # 259; Nagy 2007, 39, # 25). Both stones are adorned with a funerary portrait in a rectangular niche. An arched niche surrounds the portraits of the 30-year old Veriuga from *Intercisa* (*RIU* 1262; Nagy 2007, 39, # 24) and that of the cavalry soldier Ulpius Enubicus from the same site, both of whom died in the early 2nd c. (*RIU* 1264; Nagy 2007, 38-39, # 23). Veriuga is depicted in the ethnic costume that we know from other Roman funerary portraits in this territory of the Celtic Eravisci (Lang 1919; Fitz 1957; Garbsch 1965; 1985; Facsády 2001; Carroll 2013b, 567, fig. 13.4). She also holds a spindle and distaff, both of these being symbolic objects highlighting marital and familial values rooted in Roman society (Larsson Lovén 2007; Cottica 2007; Carroll 2013a). The Roman funerary monument proved to be a particularly good forum for expressing ethnic affiliations, cultural context and gendered behaviour; it also allowed personal relationships to be advertised and preserved, as the following demonstrates.

Families of Soldiers and Army Veterans

Until Septimius Severus removed the ban on marriage for serving soldiers, they could not have legitimate wives or children (Campbell 1978; Phang 2001). Scheidel (2011) refers to this situation as a 'non-recognition' of marriage, rather than a 'ban'. This did not mean, however, that soldiers did not have common-law wives or sire children, nor did it mean that soldiers had no other family members near their garrisons. On the Danube, as elsewhere, active soldiers who had been recruited locally set up Roman funerary monuments to commemorate parents and siblings. Vibius Saturnus, *duplicarius* of the *Ala I Thracum*, for example, erected a *stele* near *Gorsium* in the early 2nd c. for his father Vibianus, who was the son of a local non-citizen man named Deivo, and for his locally-born mother Atezissa and his brother Valentinus (*CIL* III 15154; *AE* 2004, 1133; *RIU* 1398; Schober 1923, # 261; Nagy 2007, 58, # 50) (**fig. 1**). Each of the deceased is depicted with a funerary portrait. Atezissa wears a wrapped headdress and a long-sleeved tunic and pinafore held on the shoulders by large fibulae, the traditional attire of the Eraviscan women; the men, however, dress as Romans and wear the tunic and *sagum* or military cloak[3].

Once soldiers were honourably discharged and began to settle down with family and dependents on the frontier, the first Roman-style funerary monuments commemorating these relationships begin to appear. The early 2nd c. gravestone of Tiberius Claudius Satto, a 60-year-old veteran of the 10th legion, for example, is a tall, slim *stele* with an epitaph in a frame on the bottom half and a wreath in the upper half, very much like earlier and contemporary memorials for serving soldiers (*CIL* III 15162; Schober 1923, # 109; Németh 1999, 22, # 40). The text, however, reveals a family connection; this man was from *Cambodunum* and his wife set up the monument in *Aquincum* to commemorate him. Veterans also set up commemorative monuments for themselves and their families while they were

[2] For further examples, see: *RIU* 917; Maróti 2003, 15, # 9; and *CIL* III 3381; Schober 1923, # 125; Nagy 2007, 34, # 17.

[3] For the role of dress in expressing ethnic, gender and group identity in self-representation, see Rothe 2009; Carroll 2013b.



Fig. 1. Grave stele of Vibianus, Atezissa and Valentinus from *Gorsium*, set up by Vibius Saturnus, *duplicarius* of the *Ala I Thracum*, early 2nd c. AD. Photo: M. Carroll

still alive. Marcus Aurelius Romanus, a veteran of the 10th legion from Antioch, commissioned a stone for himself, his wife Ateria Sabina, his son Marcus Aurelius Romanianus, and his daughter (?) Aurelia Valeria in *Savaria* between AD 170-220 (*CIL* III 10920; *RIU* 130; Schober 1923, # 72).

It has become clear that the Roman *familia* is much better characterised as a household of differently related individuals, rather than the traditional nuclear family of parents and children (Martin 1996; Carroll 2006, 180-186). Mother, father, aunts, uncles, cousins, slaves, freedmen and others might well live together or at least have very close familial bonds in life and in death. This is no less relevant for



Fig. 2. Grave stele of Mira and Marcus Attius Rufus, veteran of the 2nd legion *Adiutrix*, from *Ulcisia Castra*, AD 130-190. Photo: M. Carroll

the *familia* on the frontier, where it is evident that veteran families included not only blood relatives, but also other dependents and associates. Lucius Naevius Rufus from Milan, and veteran of the 15th legion *Apollinaris*, for example, had settled after active service in the Claudian colony at *Savaria* where he died at 75 in the latter part of the 1st c. AD (*RIU* 145). He and his wife Naevia Lucida are commemorated by his freedman Lucius Naevius Silvanus, indicating that the *familia* comprised also others with whom personal, social and proprietary bonds existed. In fact, freedmen, in particular, play an important role in commemorating not only themselves and their bonds in the *familia*, but also their patron (Carroll 2011). The burial community of the *familia* might also include friends; Masuia and Namio from *Ulcisia Castra*, for example, include their *amicus* Belicus as a co-recipient of their funerary monument (*RIU* 911; Maróti 2003, 11, # 5).

These monuments refer only in their texts to veterans, wives, and sons and daughters, but from the mid-2nd c. we begin to see the emergence of monuments adorned with portraits of family members. Mira, daughter of Crescens, is commemorated in *Ulcisia Castra* by her husband, Marcus Attius Rufus, a veteran of the 2nd legion *Adiutrix*; their young son appears with them (*RIU* 913; Maróti 2003, 20, # 14; Boatwright 2005, 309, fig. 10.7) (**fig. 2**). Although Crescens was probably garrisoned as a soldier in *Aquincum*, the couple must have settled at *Ulcisia Castra* after he was discharged, and here they died at some point between AD 130 and 190. He chose to have his wife shown in the female costume of the Eravisci, indicating that she was of local origin. For himself, on the other hand, he opted for the depic-

tion of the toga, the badge of Roman male citizenship (Christ 1997; Davies 2005).

At *Aquincum*, Aelia Catta commissioned a *stele* to remember her dead husband, Claudius Secundus, and her son, Secundinius, in the second quarter of the 2nd c. (*Tituli Aquincenses* 2010, # 590). The husband was a veteran of the 2nd legion who had been seconded as *beneficiarius* to the senior tribune (*tribunus laticlavius*)[4]. Husband and wife stand in their portrait with their son between them, thereby appearing as the 'classic' nuclear family, although this cannot be taken as an indication that their *familia* was not, in actual fact, larger. Even if the majority of the **dedicants** of Pannonian funerary monuments were parents, the **range** of family members and others named in the inscriptions and portrayed in portraits suggests that familial communities in life and in death were more complex. Saller and Shaw (1984) and Boatwright (2005) argued that the epigraphic evidence for Pannonia confirms the dominance of the nuclear family. More accurately, however, the inscriptions and portraits reveal and visualise multi-generational and extended families organised around a nuclear core[5].

The Importance of Family and Children

One of the most striking aspects of Roman funerary monuments on the Danube is the depiction of large families. These can be found on a number of Pannonian grave *stelae*; the fact that many of the women in these family scenes wear ethnic dress demonstrates that we are seeing an important phenomenon amongst the indigenous population in the region. Here we might cite a *stele* in the first half of the 2nd c. from *Aquincum* that names three women and a little girl with native names (Batta, Ressora, Sisiuna and Verbugia) and shows them all in the full regalia of indigenous dress (*CIL* III 3593, 10544; Schober 1923, # 161; Garbsch 1965, # 106, pl. 12). Familial relationships such as daughter, aunt and niece are highlighted here. An indigenous family, to whom two freedmen set up a *stele* in *Intercisa* around the mid-2nd c., included Demiuncus, son of Coucus, and Angulata, daughter of Campio, both of them apparently living to the age of 100; another sister and a further freedwoman are also named in the inscription (*RIU* 1224; Schober 1923, # 263; Nagy 2007, 54-55, # 46; Boatwright 2005, 298, fig. 10.3). Two women in indigenous dress and a man wearing a *paenula* are depicted.

A group of four individuals are named on a tall *stele* with portraits from *Aquincum* dating to the first three decades of the 2nd c. Valeria Severa, the freedwoman of Valerius Crispus who died at the age of 30, and her free-born daughter Valeria Sibulla, a 5-year-old, are shown in the top row; Flavius Ingenuus and Valeria Aquila are named as heirs, the latter possibly a blood relative or another freedwoman of Crispus (Facsády 2008, 169, fig. 7) (**Fig. 3**). These may be the two figures on the bottom register. Valeria Severa is shown holding a spindle and distaff. These spinning instruments conspicuously displayed on her person send the message that she was adept at working in wool and an industrious wife, or at least she wanted to be seen in this light. Rather than reflect reality in absolute terms, however, funerary portraits such as these might construct ideals (Carroll 2013a). On the Roman frontiers where actively serving soldiers may not have been able to legally marry their local 'wives' until the ban on marriage was revoked in the late 2nd c. and where foreigners without *conubium* could not have valid Roman marriage, women in such relationships in military and frontier communities had to overcome being outsiders in a physical and legal sense. The desire of women in this context to appear as legitimate wives and even Roman *matronae*, at least in death, is understandable.

Furthermore, the special importance of children and the strong bond with them in Danubian families is clear in a whole range of 2nd- and 3rd-century gravestones (Boatwright 2005; Mander 2012). Even the very youngest children still in swaddling clothes, and therefore younger than 40-60 days, can be depicted on Pannonian monuments; this is a rare motif in funerary art anywhere in the Roman empire (Carroll 2013a). A charming portrait of a mother and her swaddled infant is preserved on the grave *stele* of a 21-year-old woman named Flavia Aiulo from *Aquincum* who is clothed in Eraviscan costume (*CIL* III 14352; Boatwright 2005, 313; Carroll 2012, 141, pl. 22; Mander 2013, 97, fig. 81). She was commemorated around AD 100 by her brother and cousin, but there is no mention of the infant or a husband, unless they might have been named on the now missing part of the stone. Another Eraviscan woman named Antistia Firma from neighbouring Budapest also is portrayed as a mother with a swaddled infant on her gravestone (*CIL* III 10539). The inscription names the dedi-

[4] Ott 1995, 27-35.

[5] For recent discussions of the evidence for the nuclear family, see Mander 2013, 65-66.

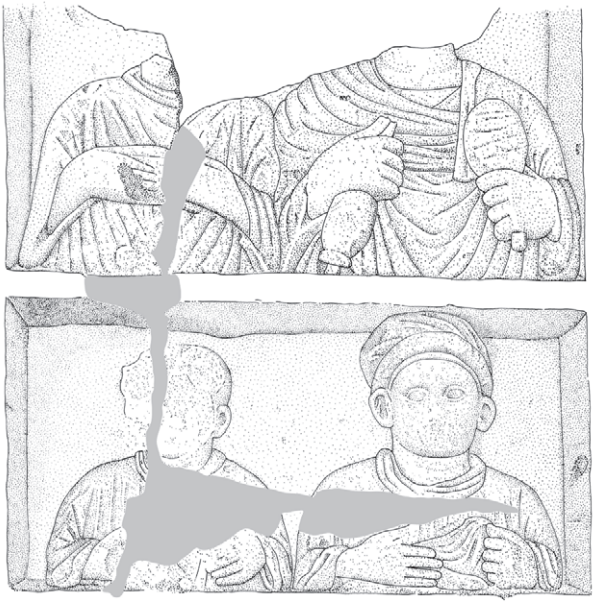


Fig. 3. Grave *stele* of the freedwoman Valeria Severa, her daughter and heirs, from *Aquincum*, early 2nd c. AD. Drawing: I. Deluis

cator and her husband, stating that Antistia Firma died at 25[6].

On a family gravestone from *Intercisa*, several generations of an indigenous family are depicted, with husbands and wives in physical contact, but the closest and most tender contact here is between one woman and her child sitting on her lap (Barkóczi 1954, # 172; Nagy 2007, 56, # 49) (**fig. 4**). This mother rests one of her hands on her son's head, and the little boy wraps his tiny fingers around her other hand. As the inscription on this monument has not survived, we cannot be sure whether either of the two men had served as soldiers, but one wears the *sagum*, suggesting that he might have had this connection with the army. His family connections, however, are clearly local. Also at *Intercisa*, the indigenous parents Ianuarius and Otiouna together and while alive commemorated their two dead children, Otiouna who died at 12 and Regilia, dead at 4 years of age; all four are depicted in portraits (*RIU* 1251; Boatwright 2005, 300, fig. 10.4).

The popularity of family scenes with children amongst the indigenous population had a profound impact also on military families, especially after soldier marriages were recognised under Septimius Severus and recruitment in the army involved tapping into increasingly sedentary military families for fresh manpower. Soldiers often



Fig. 4. Grave stele of an indigenous family from *Intercisa*, late 2nd/early 3rd c. Detail of one of the women with her child. Photo: F. and O. Harl, www.ubi-erat-lupa.org (Bilddatenbank zu antiken Steindenkmälern)

tended to be 'home-grown' recruits by then, and the local popularity of family portraits is reflected in their memorials too. In addition, the legitimacy for wives and children that had been lacking until the Severan army reform of AD 197 may have prompted soldiers to rectify any earlier ambiguities about marriage and celebrate their now legitimate marital unions and offspring in a high-impact and visible way. In fact, the family memorials of serving or retired soldiers from this point on represent a real floruit of the depiction and commemoration of the large and extended *familia*, and the majority of gravestones depicting large families, in fact, come from *Aquincum* and *Intercisa* where strong military contingents were located.

[6] For further examples of mother and infant from Pannonia, but also across the empire, see Carroll 2014.

In this context, the imagery of the mother with her swaddled infant that we have seen in indigenous funerary monuments is repeated on a *stele* from *Intercisa* (Barkóczi 1954, # 60). The mother wears Eraviscan dress, and the child is wrapped in swaddling clothes or a blanket. They are flanked by two men dressed in the military *sagum* indicating that they are soldiers; one of them almost certainly is the husband. The scene, therefore, commemorates not only mother and baby, but also marriage and family structures in frontier society in a military context.

The fragmentary funerary *stele* depicting three men, a woman and three small children from *Aquincum* illustrated in **fig. 5** is fairly typical of the multi-figural family scenes of the period (in this case, early 3rd c.). At *Ulcisia Castra*, Nonius Ianuarius, a veteran of the 2nd legion, stressed the importance of his marriage, family and children, by appearing with three children on the family's gravestone of the mid-3rd c.; he and his wife protectively embrace them (*RIU* 916; Maróti, 2003, 27, # 21). We cannot be certain if he and his dependents were local in origin, but the family of Aurelius Maximus in *Aquincum* certainly was. This legionary veteran, his wife, and his mother were given a monument by his daughter and son-in-law around AD 220-260 (*AE* 1909, 146; *RIU* 719; Schober 1923, # 221; Mander 2013, 108, fig. 93). The women all wear indigenous costume and large wing fibulae, giving their ethnic origin away. Both Aurelius Maximus and his son-in-law served in the same legion. The extended family or household is truly celebrated here.

Even families who were not indigenous to the area adopted the custom of displaying an extended family with more than one child, making use of local sculptors who were adept at carving such scenes. Syrian troops of the *cohors miliaria Hemesenorum* stationed at *Intercisa* from the late 2nd – mid-3rd c. belong to those incoming groups who adopted indigenous Danubian commemorative formulae in format and content (Fitz 1972; Mócsy 1974, 227-230). This unit did not recruit locally, but was replenished repeatedly with troops from the province in which it was raised, almost certainly because these soldiers were archers not readily available elsewhere (Cheesman 1914). Germanius Valens, a soldier in this unit, for example, highlights his wife Aurelia Baracha, two daughters and his mother Immosta on his family's funerary monument in the first half of the 3rd c. (*AE* 1906, 107; *RIU* 1161; Schober 1923, # 198; Nagy 2007, 135, # 146; Scheiber 1983, 36-39; Boatwright 2005, 311, fig. 10.8; Mander 2013, 105, fig. 90). The two daughters of 4 and 2 years of age, both named Aurelia Germanilla probably because one died and was replaced by another daughter), are differentiated slightly in size, suggesting that the stone might have been made to order for them[7].



Fig. 5. Gravestone of a large family in *Aquincum*, early 3rd c. Photo: M. Carroll

Another Syrian family stationed at *Intercisa*, that of Aelius Munatius from *Samosata*, a soldier in the *cohors miliaria Hemesenorum*, set up the most remarkable gravestone of all (*AE* 1906, 110; *RIU* 1153; Boatwright 2005, 287-289, 313, fig. 10.1; Mander 2013, 98, fig. 82). The husband and wife are shown with three small children in front of them, which is not unusual here, but what is remarkable is the depiction of Aurelia Cansauna demonstrably breastfeeding the fourth child, an infant in swaddling clothes! There are no parallels in Pannonia, and only a few marble sarcophagi in Rome depict a child being breastfed (usually by the wet-nurse), but none is this explicit or draws attention to the naked breast so clearly[8]. I have found but one parallel, and that is from *Palmyra* (Budde / Nicholls 1967, # 139, pl. 46). On this 2nd-c. *loculus* slab from a Palmyrene tomb in the Fitzwilliam Museum, a mother lifts her garment and literally points at her bared breast while the child in her arm lays a tiny hand on it. Given the Syrian origin of Aelius

[7] Boatwright 2005, 303, rightly highlights the fact that even if many of the Pannonian stones were prefabricated, the frequent presence of multiple figures and many children indicate the prevalent desire to commemorate the family.

[8] See, for example, the reliefs on the sarcophagus of M. Cornelius Statius: Huskinson 1996, 22, # 1.23, pl. 2.1; Amedick 1991, 140, # 114, pl. 52-53; Carroll 2012, 141-142, fig. 5.

Munatius, perhaps the inspiration for the pose of his (Syrian?) wife is eastern and to be sought in that funerary context[9].

The Family as a Unit in Death

Many, if not most, funerary monuments around the Roman world were erected on someone's death, but memorials could also be commissioned and erected in anticipation of death (Carroll 2006, 86-90, 102-105). In these cases, we can recognise whom the owner of the cemetery plot and monument considered to be members of the burial community and which individuals were to be included in the *familia* for eternity. The gravestones from the Claudian colony of *Savaria* rely almost entirely on inscribed texts, rather than portraits, to convey information about the deceased, and these inscriptions illustrate the practice of familial ante-mortem commemoration particularly well. In the middle of the 2nd c., Quintus Valerius Restitutus, while alive, set up a *stele* for himself, his wife Billiena Donata, his son Valerius Ingenuus, a soldier of the fourteenth legion *Gemina*, and his daughter Valeria Restituta. But only one of this group, the daughter, appears to have already died (at the age of 20); the spaces for the carving of the age at death of the wife and son are blank, indicating that their inclusion for burial was planned for the future (*CIL* III 14066; *RIU* 67; Schober, 1923, # 71). For some reason these details were never completed. Similar blanks can be found on the monument of Gaius Sempronius Marcellinus from *Savaria*, who commissioned it in the second half of the 2nd c. for himself and a variety of other family members, including two sons who died at 21 and 25, and two brothers, one of whom died at 30, as well as his wife (*RIU* 64; Schober 1923, # 139). The age details of the wife and one brother are left blank. The family burial community of Lucius Caesius Tuendus and Petronia Crispina is equally complex and extended (*AE* 1988, 935). This couple, who died at 50 and 45 respectively, were commemorated by various relatives whose ages at death are left blank: they include the man's brother and the couple's two sons and a daughter.

Marcia Marcellina, a mother who had lost four children ranging in age from 22 to 33, erected a monument in the first decades of the 2nd c. for them, her sister-in-law(?) who died at 70, and a 12-year-old boy whose relationship to the family is unclear (*CIL* III 4208; *RIU* 93; Nagy 2007, 36-37, # 21). Marcia Marcellina clearly planned to be buried here herself and she included another daughter who had not yet died; their ages are blank. Again, at *Savaria*, Iulia Priscilla, mother of two, dedicated a stone in the first half of the 3rd c. to her dead husband and she included her two boys, Decrianus and Martinus, neither of whom had yet died and for whom spaces for age at death were left (*AE* 1982, 802; *RIU* 54; Mander 2013, 120, fig. 108).

Conclusion

This study has shown how Roman funerary commemoration at various sites on the middle Danube conveys important information on civilian and military families and extended households. Danubian funerary monuments are informative also on the significance of children and their role in replicating ethnic and gender values of families. The depiction of large family groups and children among the indigenous population is a notable phenomenon, and the popularity of such scenes had a profound impact also on military families, especially after marriages were recognised in the late 2nd c. and soldiers could celebrate their legitimate marital unions and offspring in a visible way. Inscriptions and funerary portraits reveal that the *familia* in death could encompass mother, father, children, aunts, uncles, sisters and brothers, among others; they visualise multi-generational and extended families organised around a nuclear core. As such, these memorials represent a good, if incomplete, reflection of the personal and social bonds maintained in family life in this region.

Bibliography

Allison, P. M. 2006. Mapping for gender. Interpreting artefact distribution inside 1st and 2nd century A.D. forts in Roman Germany. – Archaeological Dialogues 13, 1-20.

Amedick, R. 1991. Vita privata auf Sarkophagen. Die Sarkophage mit Darstellungen aus dem Menschenleben. Berlin.

Barkóczi, L. 1954. Intercisa I: (Dunapentele-Sztálinváros). Geschichte der Stadt in der Römerzeit. Budapest.

Boatwright, M. T. 2005. Children and parents on the tombstones of Roman Pannonia. In: George, M. (ed.). The Roman family in the Empire: Rome, Italy, and beyond. Oxford. 287-318.

Bradley, K. R. 1991. Discovering the Roman family. New York.

[9] Closer to 'home', the motif of the breast-feeding mother goddess or divine nurse is also common on Pannonian votive reliefs from *Poetovio*/Ptuj in the late 2nd and 3rd c., but it is questionable whether these provided the inspiration for the depiction of Aurelia Cansauna. See Šašel-Kos 1999; Wigand 1915.

Budde, L. / Nicholls, R. V. 1967. Catalogue of the Greek and Roman sculpture in the Fitzwilliam Museum. Cambridge.

Campbell, B. 1978. The marriage of soldiers under the Empire. – Journal of Roman Studies 68, 153-166.

Carroll, M. 2014. Mother and infant in Roman funerary commemoration. In: Carroll, M. / Graham, E.-J. (eds.). Infant health and death in Roman Italy and beyond. Portsmouth, R.I. 159-178.

Carroll, M. 2013a. 'The insignia of women'. Dress, gender and identity on the Roman funerary monument of Regina from Arbeia. – The Archaeological Journal 169, 281-311.

Carroll, M. 2013b. Ethnicity and gender in Roman funerary commemoration: Case studies from the empire's frontiers. In: Tarlow, S. / Nilsson Stutz, L. (eds.). The Oxford Handbook of the Archaeology of Death and Burial. Oxford. 559-580.

Carroll, M. 2012. The Roman child clothed in death. In: Carroll, M. / Wild, J. P. (eds.). Dressing the dead in Classical Antiquity. Stroud. 134-147.

Carroll, M. 2011. 'The mourning was very good'. Liberation and liberality in Roman funerary commemoration. In: Hope, V. / Huskinson, J. (eds.). Memory and Mourning. Studies on Roman Death. Oxford. 126-149.

Carroll, M. 2006. Spirits of the dead. Roman funerary commemoration in Western Europe. Oxford.

Cheesman, G. L. 1914. The auxilia of the imperial Roman army. Oxford.

Christ, A. T. 1997. The masculine ideal of 'The race that wears the toga'. – Art Journal 56, 24-30.

Cottica, D. 2007. Spinning in the Roman world: from everyday craft to metaphor of destiny. In: Gillis, C. / Nosch, M.-L. B. (eds.). Ancient textiles. Production, craft and society. Oxford. 220-228.

Dasen, V. / Späth, T. (eds.) 2010. Children, memory and family identity in Roman culture. Oxford.

Davies, G. 2005. What made the Roman toga virilis? In: Cleland, L. / Harlow, M. / Llewellyn-Jones, L. (eds.). The clothed body in the ancient world. Oxford. 121-130.

Dixon, S. 1992. The Roman family. Baltimore.

Facsády, A. R. 2008. Glass distaff from Aquincum: Symbol or tool? – Anodos. Studies of the Ancient World 8, 165-174

Facsády, A. R. 2001. La parure et le costume traditionnels. In: Facsády, A. R. (ed.). Romains de Hongrie. I^{er}-V^{e} siecles après J.-C. Lyon. 42-48.

Fitz, J. 1972. Les syriens à Intercisa. Bruxelles.

Fitz, J. 1957. Az Eraviszkusz női viselet (The costume of Eraviscan women). – Archaeológiai Értesítö 84, 133-154.

Garbsch, J. 1985. Die norisch-pannonische Tracht. In: Temporini, H. / Haase, W. (eds.). Aufstieg und Niedergang in der Römischen Welt II.12.3. Berlin. 546-577.

Garbsch, J. 1965. Die norisch-pannonische Tracht. Munich.

George, M. (ed.) 2005. The Roman Family in the Empire. Rome, Italy, and Beyond. Oxford.

Harlow, M. / Larsson Lovén, L. (eds.) 2012. Families in the Imperial and Late Antique Roman world. London.

Hope, V. 1997. Words and pictures: The interpretation of Romano-British tombstones. – Britannia 28, 245-258.

Huebner, S. R. 2012. Household composition in the ancient Mediterranean. What do we really know? In: Rawson, G. (ed.). Families in the Greek and Roman worlds. Oxford. 73-91.

Huskinson, J. 1996. Roman children's sarcophagi. Their decoration and social significance. Oxford.

Lang, M. 1919. Die pannonische Frauentracht. – Österreichische Jahreshefte 19, 209-260.

Larsson Lovén, L. 2007. Wool work as a gender symbol in Ancient Rome. Roman textiles and ancient sources. In: Gilles, C. / Nosch, M.-L. B. (eds.). Ancient textiles. Production, craft and society. Oxford. 229-238.

Mander, J. 2013. Portraits of children on Roman funerary monuments. Cambridge.

Mander, J. 2012. The representation of physical contact on Roman tombstones. In: Harlow, M. / Larsson Lovén, L. (eds.). Families in the Imperial and Late Antique Roman world. London. 64-84.

Maróti, E. 2003. Die römischen Steindenkmäler von Szentendre, Ulcisia Castra. Szentendre.

Martin, D. B. 1996. The construction of the ancient family: Methodological considerations. – Journal of Roman Studies 86, 40-60.

Mócsy, A. 1974. Pannonia and Upper Moesia. A history of the Middle Danube provinces of the Roman Empire. London.

Nagy, M. 2007. Lapidárium. Budapest.

Németh, N. 1999. Vezetö az Aquincumi Múzeum. Budapest.

Ott, J. 1995. Die Beneficiarier. Stuttgart.

Phang, S. E. 2001. The marriage of Roman soldiers (13 BC – AD 235): Law and family in the Imperial army. Leiden.

Rawson, B. (ed.) 2012. Families in the Greek and Roman worlds. Oxford.

Rawson, B. (ed.) 1991. Marriage, divorce, and children in Ancient Rome. Oxford.

Rawson, B. (ed.) 1986. The family in Ancient Rome: new perspectives. London.

Rawson, B. / Weaver, P. (eds.) 1997. The Roman family in Italy: status, sentiment, space. Oxford.

Rothe, U. 2009. Dress and cultural identity in the Rhine-Moselle region of the Roman Empire (BAR International Series 2038). Oxford.

Saller, R. / Shaw, B. 1984. Tombstones and Roman family relations in the Principate: civilians, soldiers and slaves. – Journal of Roman Studies 74, 124-256.

Šašel-Kos, M. 1999. Pre-Roman divinities of the Eastern Alps and Adriatic. Ljubljana.

Scheiber, A. 1983. Jewish inscriptions in Hungary. Budapest.

Scheidel, W. 2011. Marriage, families and survival: Demographic aspects. In: Erdkamp, P. (ed.). A companion to the Roman army. Oxford. 417-434.

Schober, A. 1923. Die römischen Grabsteine aus Noricum und Pannonien. Wien.

Speidel, M. A. 1996. Die römischen Schreibtafeln von Vindonissa: Lateinische Texte des militärischen Alltags und ihre geschichtliche Bedeutung. Brugg.

Speidel, M. P. 1989. The soldiers' servants. – Ancient Society 20, 239-247.

Tituli Aquincenses 2010 = Kovács, P. / Szabó, A. (eds.). Tituli Aquincenses II. Tituli sepulcrales et alii Budapestini reperti. Budapest.

Topál, J. 1993. Roman cemeteries of Aquincum, Pannonia: The Western cemetery (Bécsi Road). Budapest.

Van Driel-Murray, C. 2008. Those who wait at home: the effect of recruitment on women in the Lower Rhine area. In: Brandl, U. (ed.). Frauen und römisches Militär. Beiträge eines Runden Tisches in Xanten vom 7. bis 9. Juli 2005 (BAR International Series 1759). Oxford. 82-91.

Wiedemann, T. 1989. Adults and Children in the Roman Empire. London.

Wigand, K. 1915. Die Nutrices Augustae von Poetovio. – Jahreshefte des Österreichischen Archäologischen Institutes 18, 188-218.

Professor Maureen Carroll, FSA
Professor of Roman Archaeology
Department of Archaeology
University of Sheffield
Northgate House
West Street
UK-Sheffield S14ET
p.m.carroll@sheffield.ac.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Elite Societies on Display within Military Zones: The Meagre Beginnings of a Leading Municipal Class in *Brigetio*

Niels BARGFELDT

Introduction

In the past, the administrative running of settlements in the vicinity of legionary fortresses, that is the *canabae legionis* and the close by civil town, has mainly been treated through the perspective of legislation set in the scene of the imperial policy on towns. This article argues for an approach taking the individuals in these settlements as the outset for further research and not our cumulative knowledge of the rules of the empire. The material presented here is mainly drawn from the inscribed stone monuments from *Brigetio* in Pannonia, and the article reconsiders the 2nd century pre-*municipium* era of the site[1].

The debate on how to categorise and understand the administrative relationship between fortress, *canabae* and civil town has been ongoing, albeit from time to time dormant, for over a century. Amongst the most cited on the theme are esteemed scholars as A. Mócsy (1953), F. Vittinghoff (1971), D. J. P. Mason (1987; 1988) and I. Piso (1991). With varying opinions on different aspects, the researchers offer a fairly nuanced picture on the changes through time and on the differences from region to region. Trying to summarize their research here will make little sense, especially as one of the main problems related to the subject is that this picture too often has been scaled down to the simple statement that the people living in the *canabae* had no claim to the land, as it was owned by the legion, and therefore no people of any importance could or would choose to live there.

Considering the legionary sites individually from all over the empire it is clear that it is not as simple as that, and a number of differences are apparent when reading through excavation reports from the individual legionary sites – even though the presence of the legion is a defining factor. Indeed, archaeological explorations are changing our view on *canabae*, their role and the people who lived in them, as it has already been pointed out by P. Franzen (2009) at an earlier Limes Congress.

The Same, Yet Different

There are numerous ways in which *canabae* differed from each other. This is not only apparent in the development through time or the difference between the eastern frontier garrisons and the north-western ones. For one thing, some of the *canabae* also housed the *praetorium* of the provincial governor, whereas others did not. This adds a social class to provincial capitals like *Eboracum*, *Mogontiacum*, *Carnuntum* and *Aquincum* that most likely would have been far less felt in other garrison settlements. This, furthermore, would have changed the incentive for other individuals to settle in the given areas. For instance, the presence of wealthier houses opposite the *praetorium* in *Aquincum* underlines the magnetic influence of the imperial elite (Póczy 1986, 406-407).

At a site like *Carnuntum* we even have the presence of the emperor and his entourage, when Marcus Aurelius for a period of time makes a personal appearance at the front. Approximately at the same time the *decurio* of the *municipium* of *Carnuntum*, Zmaragdus, a man originally from Syria, funds

[1] This article presents some initial thoughts formed on the basis of ongoing work in my PhD study dealing with the well-off and influential individuals of the civil population in the vicinity of legionary fortresses, not just in *Brigetio* but along the north-western frontier as well.

money for the building of the amphitheatre just east of the legionary fortress (Obermayer 1967, 69-70; Stiglitz et al. 1977, 664; Jobst 1983, 101-102; Ertl et al. 2006, 315). It is easy to imagine that this man's personal ambition could have been fuelled by the presence of the absolute imperial elite. Of course, individual cases are always speculative, but funding money for public buildings were always a way of profiling yourself in the Roman mindset – especially to a man versed in the euergetism of the east.

The presence of a *praetorium* or not is just one example of how *canabae* could differ. Other important issues are for instance topography and distance to other major sites.

The bulk of the epigraphic material holding evidence for civic offices in the *canabae* and civil towns are from the Danube garrisons and above all from *Apulum* in Dacia. The amount of local officials to be found among the inscriptions from *Apulum*, published by I. Piso (2001), is simply staggering compared to most other legionary site. Nevertheless, when the subject is treated, the evidence has often been pieced together because of the scarcity of information from most sites. This gives a decent framework to work from, but with the risk of presenting a too coherent and strict picture that does not allow for differences – not only from region to region, but also from site to site. In the case of *Brigetio* it is clear that settlement(s) and society is very different from the neighbouring legionary sites *Carnuntum* and *Aquincum*.

Brigetio

The site of *Brigetio* initially housed auxiliary troops, but these were replaced by a legionary fortress towards the end of the 1st century. The fortress with the *canabae* lay to the east under the present day oil refinery at Szőny, whereas the civil town was situated to the west closer to today's Komárom. As at other garrison sites it is hard to tell if the grave areas between the two settlements merged into one (**fig. 1**). When Pannonia was reorganised into two provinces during the first decade of the 2nd century *Brigetio* became part of Pannonia Superior but changed hands to the governor of Pannonia Inferior at another reorganisation in the early 3rd century (Barkóczi / Mócsy 1976, 89).

Brigetio was honoured with the status of *municipium* shortly before 205 (Barkóczi / Soproni 1981, # 773), and just like many cities in the Pannonia provinces it flourished in the first half of that century. Therefore, it is no coincidence that the bulk of our evidence on civic life is from this period. It gives rich testimony especially to the *decuriones* and the *augustales* of the *municipium*.

As the *canabae* most likely was situated within the area nominally controlled by the military, the *municipium* is usually understood as the civil town to the west (Piso 2010). Nevertheless, most of the inscriptions mentioned here were found in or at least closer to the *canabae* area, though often reused. This indicates that at least some of them originally were commissioned to be set up in or at the *canabae*. Whether this is significant is unclear due to the provenance of individual pieces, many of which were located more than a century ago, and due to the overall excavation and exploration history of *Brigetio*. For one thing, planned excavation is a relative novelty for the civil settlement (Borhy 2004; 2011).

Though there are some peculiarities as to the find record of inscribed stone from *Brigetio*, such as the construction of the oil refinery in the fortress/*canabae* area, the subsequent bombing of the installation by the RAF in 1944 and the rebuilding in the shadow of the Soviet Union (Barkóczi / Mócsy 1976, 89; Borhy 2004, 231), most of the problems regarding the find record are shared by other sites on the Rhine and the Danube.

Civic Participants And Topography

Around 20 *decuriones* are known from *Brigetio* through inscriptions (Appendix). Most of these inscriptions are from grave contexts, primarily gravestones and sarcophagi, but a few are also to be found on dedications to gods and public buildings. As some of the inscriptions are too fragmented to certify whether we are dealing with a *decurio* or an *augustalis* (10, 12, 14), an absolute number cannot be given. By far the bulk of the known *decuriones* are from the *municipium* era.

Among the few *decuriones* inscriptions that were found in the intended spot is a gravestone found in Budapest mentioning a *decurio* from the *municipium* of *Brigetio* (11). Another is a commission by the *decurio* T. Florius Vitalis to his deceased father, a legionary veteran, and to his mother (2). This stone was found in the grave area between the two settlements, but considerably closer to the *canabae*.

The problem of linking epigraphy and topography runs deeper than simply locating the initially intended spot, because what is linked to the find spot is the actual stone and not the individual commissioning the stone.

An example from *Brigetio* that underlines this is the case of Domitius Titus, who commissioned a cult

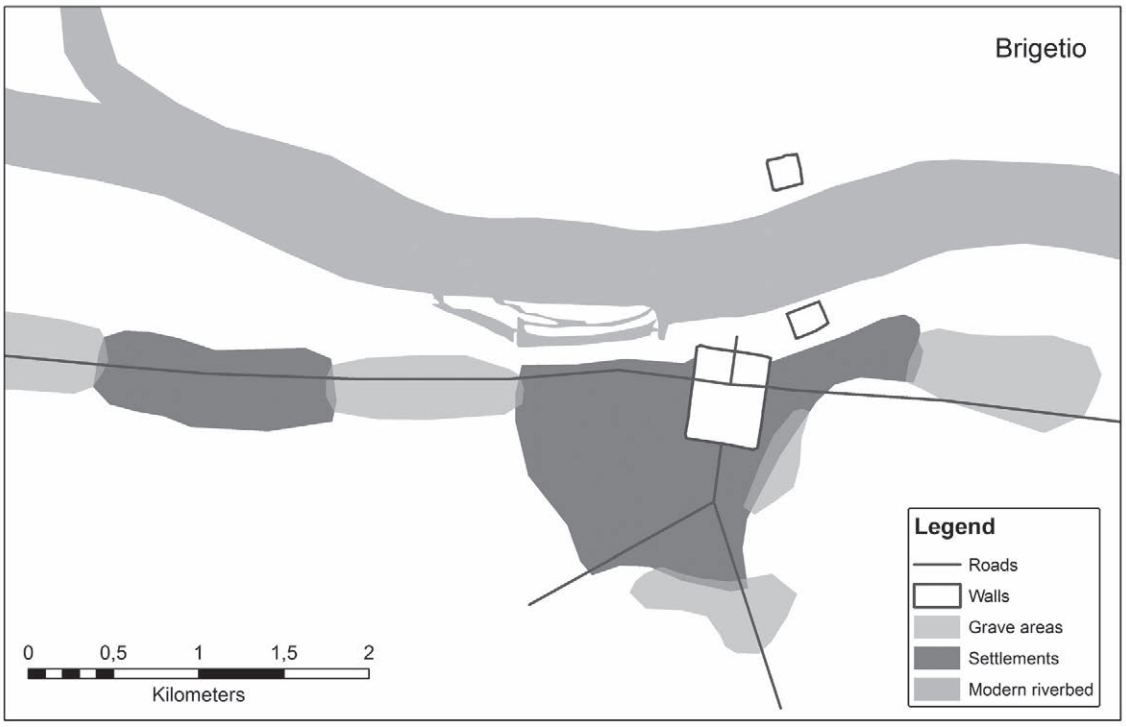


Fig. 1. Schematic map of *Brigetio* (N. Bargfeldt)

image for Jupiter Optimus Maximus Dolichenus in the *Dolichenum* south of the fortress. Being a *decurio* from *Seleucia Zeugma* one might guess that he is connected with the eastern traders, *suri negotiatores,* well known from this period (Hörig / Schwertheim 1987, # 239). This is, however, exactly a guess, even if the link to the spread of the Dolichenus cult makes it a likely one (Nash-Williams 1952, 73). In reality we have little way of knowing just why and for how long he was in *Brigetio*.

The problem of linking the epigraphic record and the individuals in the inscriptions with the find spot, and hence the *canabae*, makes it too convenient to claim that influential individuals did not live in the *canabae*.

It is worth stressing that the issues with linking individuals and place are not unique to the *canabae*. But for the *canabae* we for some reason find it hard to accept that wealthy and influential men might choose to live on land they did not necessarily own, thus robbing the *canabae* townscape of an influential group of people.

One prominent group of individuals easily envisioned in both civil town and *canabae* are the veterans. The epigraphic record of the veterans from 2nd century *Brigetio* shares the same pattern as the *decuriones* and the *augustales*. Nevertheless, they give a wealth of information important to this subject as they reveal hints to the personal incentive behind settling close to the fortress after discharge from the legion.

Veterans could very likely be men of means if they had not squandered their money away (Wierschowski 1984, 89). They might be considered financially independent from the legion, but there is every reason to suppose that the veterans, who chose to stay close to the legion, were socially and in terms of world view dependent on their old legion. A number of them would also have created a life for themselves at the place with families both in our sense of the word and in the Roman *familia*. Here the already mentioned commission by T. Florius Vitalis (2) serves as an excellent example.

Another incentive for the veterans to live the remainder of their lives in *Brigetio* in the 2nd century is that they were *honestiores* (Ausbüttel 1998, 54) and essentially at the top of the food chain in this growing community – a position they would find harder to claim at already established *municipia* or *coloniae*. In general veterans are thought to have mostly kept out of public office, at least in matured towns (Wierschowski 1984, 95; Wesch-Klein 2007, 447-448). The incentive to play a part in community is of course closely linked to how people chose to orchestrate their own image. Hence written text on stone is often closely linked to imagery, something that is quite apparent on many graves throughout the Empire (Carroll 2006, 57).

Precious few of the known *decuriones* can be linked to the pre-*municipium* era (1, 15, 18); of these two are legionary veterans. One is L. Valerius Rufus of the Palatina tribe known from a grave stele to him and his wife, Anima (1). Apart from being a *decurio* he is also mentioned as holding the offices of *quaestor* and *magister*. The stele type shows a wreath in the main decorative scene – similar stele types seem to be in vogue amongst the soldiers and veterans in *Brigetio*. Though this stele is richly ornamented and neatly executed it is no more ostentatious than, for instance, a stele commissioned by a veteran with no connection to a civic office (Barkóczi / Mócsy 1976, # 539; LUPA, 3101). In many ways L. Valerius Rufus is a regular veteran, but it is clear from his civilian offices, that he took a liking to or felt called to civil administration upon his discharge. The other veteran is mentioned on an altar that he erected to Mercury (15). This man, who held the rank of *signifer* in the legion, also served as a *magister*.

Apart from the two veterans another pre-*municipium decurio* is known from a late 2nd century altar (18). This man, M. Septimius Valentinus, does not mention any affiliation with the legion and is therefore most probably a civilian.

One further inscription should be mentioned in this context (6). It regards a *duumvir quinquennalis* of Brigetio, and as there is no mention of the *municipium* it is tempting to date the inscription to the pre-*municipium* era. The main scene portraying a family has, however, been dated on stylistic grounds by L. Barkóczi to the first half of the 3rd century. This might allow us to squeeze it in prior to the granting of *municipium* rights, but the inscription mentioning the *decurio* belongs to a later re-cutting of the inscription field (Barkóczi 1965, 248).

Affecting Society

Even if we choose to see the *municipium* in *Brigetio* as only the civil town and the *decuriones* nominally referring to this (Piso 2010, 76-7) it can hardly be doubted that some of their enterprises, at least the private ones, took place in the *canabae*. From what little evidence we have from *Brigetio* itself there is every reason to suppose that *decuriones* just as likely lived in the *canabae* – something that is also viable for the pre-*municipium* era. Adding to this, in the formation of civil administration veterans played an important role. It could still be argued that the 2nd century *canabae* was a "Quasi-Gemeinde" not really complying with the rules (Vittinghoff 1971, 308), but it was still very much a "Gemeinde".

I do not argue, however, that the situation as it is seen in *Brigetio* is the same at all other sites – quite the contrary. For instance, in *Aquincum* the situation is somewhat different, exemplified by the same man being a member of both a *municipium* council and a *canabae* council[2]. The differences are not only due to topographical issues, legislative quirks and major historical events, but they also depend on people playing an active role in shaping and reshaping the community.

The creation of a local administration, complying with the rules or not, would in turn also have involved contact and co-operation with legionary commanding officers and governors and their staffs. Hence the formation and running of civil administration would also have relied on their personal sentiments and aspirations.

With a new reading, not in terms of the inscribed text as such, but of the personal background for the text, it is my opinion that we can reach an even more nuanced picture and a better understanding of the relationship between different groups in the legionary garrison areas – a picture that is less constricted by our knowledge of fixed imperial rules.

Appendix: *Decuriones* in *Brigetio*

1. Lucius Valerius Rufus
Type: Grave stele
Find place: Brigetio. West of fortress reused in late antique grave. 1927
Date: 120 – 150
References: LUPA, 3489; Mócsy 1953, 184; Barkóczi / Mócsy 1976, # 596; Borhy 2006, # 54

2. Titus Florius Vitalis
Type: Grave stele
Find place: Brigetio. Balaton utca 5-7. 1993
Date: 205 – 250
References: LUPA, 3041; Borhy 2006, # 107

3. Marcus Aurelius Antiochianus
Type: Sarcophagus
Find place: Brigetio. In the park of the Gyürky estate
Date: 205 – 250
References: LUPA, 3430; Barkóczi / Mócsy 1976, # 521; Borhy 2006, # 71

4. Marcus Aurelius Polideucus
Type: Sarcophagus
Find place: Brigetio
Date: 205 – 250
References: LUPA, 3440; Barkóczi / Mócsy 1976, # 533; Borhy 2006, # 4

5. Gaius Valerius Serontinus
Type: Grave inscription

[2] Marcus Foviacius Verus Iunior known from two altars (LUPA, 10322 and 10323). A possible father of this man Marcus Foviacius Verus is also known from two altars (LUPA, 10324 and 10717).

Find place: Brigetio. West of fortress reused in late antique grave. 1963
Date: 205 – 250
References: LUPA, 3494; Barkóczi / Mócsy 1976, # 601; Borhy 2006, # 5

6. Marcus Lucianus
Type: Grave stele
Find place: Brigetio. 650 m south of the fortress reused in late antique grave. Late 1950's
Date: 150 – 250 (second inscription mentioned here is probably later)
References: LUPA, 773; Barkóczi 1965, grave 4; Barkóczi / Mócsy 1976, # 567; Borhy 2006, # 27

7. Publius Aelius Traianus
Type: Sarcophagus
Find place: Brigetio. Szőny
Date: 205 – 250
References: LUPA, 3482; Barkóczi / Mócsy 1976, # 588

8. Caius Vindonius & Margus
Type: Sarcophagus
Find place: Brigetio. Szőny. Before 1873
Date: 205 – 250
References: LUPA, 3496; Barkóczi / Mócsy 1976, # 603

9. Annius Sperantius
Type: Sarcophagus
Find place: Brigetio. Szőny. 1814
Date: 250
References: LUPA, 3497; Barkóczi / Mócsy 1976, # 604; Nagy 2007, # 169

10. Claudius Avedius
Type: Sarcophagus
Find place: Gorsium. Székesfehérvár, reused
Date: 205 – 250
References: LUPA, 10076; Fitz et al. 2001, # 1508

11. Titus Flavius Crispinus
Type: Sarcophagus
Find place: Aquincum. Obuda, Filatorigát. 1882
Date: 205 – 250
References: LUPA, 2997

12. Aurelius Anthiochianus
Type: Grave inscription
Find place: Tata. In front of the castle, not *in situ*
Date: 205 – 250
References: LUPA, 3258; Barkóczi / Soproni 1981, # 693

13. Decurio
Type: Grave inscription
Find place: Kisigmánd. Reused
Date: 205 – 250
References: LUPA, 10085; Mócsy 1953, 184; Barkóczi / Soproni 1981, # 651; Borhy 2006, # 38

14. Marcius
Type: Grave inscription
Find place: Brigetio. South of the fortress. 1962
Date: 205 – 250
References: LUPA, 12946; Barkóczi / Mócsy 1976, # 568; Borhy 2006, # 77

15. Marcus Valerius Marinus
Type: Altar
Find place: Brigetio. Szőny
Date: 120 – 205
References: LUPA, 4753; Mócsy 1953, 184; 1959, 245; Barkóczi / Mócsy 1976, # 442

16. Caius Marcius Verus
Type: Altar
Find place: Brigetio. Szőny
Date: 205 – 250
References: LUPA, 12628; Barkóczi / Mócsy 1976, # 415

17. Caesonius Tertius
Type: Dedication slap
Find place: Győr. Originally from Brigetio?
Date: 205 – 250
References: EDH, HD017524; Barkóczi / Mócsy 1972, # 245

18. Marcus Septimius Valentinus
Type: Altar
Find place: Brigetio. Szőny
Date: 193 – 205
References: LUPA, 10086; Barkóczi / Soproni 1981, # 654

19. Lucius Veratius Iulianus
Type: Building inscription
Find place: Brigetio. Ady Endre utca 73. 1990
Date: 222 – 235
References: LUPA, 12783; Borhy 2006, # 192

20. Decurio
Type: Building inscription
Find place: Brigetio. Reused in late Roman grave in the Dolichenum
Date: 205 – 250
References: EDH, HD011509; Tóth 1971; Barkóczi / Mócsy 1976, # 504

Abbreviations:
EDH – Epigraphische Datenbank Heidelberg: http://edh-www.adw.uni-heidelberg.de
LUPA – Ubi Erat Lupa: http://www.ubi-erat-lupa.org

Bibliography

Ausbüttel, F. M. 1998. Die Verwaltung des römischen Kaiserreiches. Von der Herrschaft des Augustus bis zum Niedergang des Weströmischen Reiches. Darmstadt.

Barkóczi, L. 1965. New Data on the History of Late Roman Brigetio. – Acta antiqua Academiae scientiarum hungaricae 13, 215-257.

Barkóczi, L. / Mócsy, A. 1972. Die römischen Inschriften Ungarns 1. Amsterdam.

Barkóczi, L. / Mócsy, A. 1976. Die römischen Inschriften Ungarns 2. Amsterdam.

Barkóczi, L. / Soproni, S. 1981. Die römischen Inschriften Ungarns 3. Bonn – Budapest.

Borhy, L. 2004. Brigetio. Ergebnisse der 1992-1998 durchgeführten Ausgrabungen (Munizipium, Legionslager, Canabae, Gräberfelder). In: Kos, M. S. / Scherrer, P. (eds.). Pannonia II. The Autonomous Towns of Noricum and Pannonia – Die autonomen Städte in Noricum und Pannonien (Situla 42). Ljublijana. 231-251.

Borhy, L. 2006. Vezetö Komárom város római kori köemlékei-

hez. Acta Archaeologica Brigetionensia I.5. Komárom.

Borhy, L. 2011. Everyday-life on the Pannonian Limes: Houses and Their Inner Decoration in Roman Brigetio (Komárom/ Szőny, Hungary). – Histria Antiqua 20, 47-62.

Carroll, M. 2006. Spirits of the Dead. Roman Funerary Commemoration in Western Europe. Oxford.

Ertl, R. F. / Humer, F. / Prascsaits, F. X. / Windholz, E. (eds.). 2006. Carnuntum. Metropole am Rande des römischen Imperiums. Bad Deutsch-Altenburg.

Fitz, J. / Mócsy, A. / Soproni, S. 2001. Die römischen Inschriften Ungarns 6. Bonn –Budapest.

Franzen, P. 2009. The Nijmegen *Canabae Legionis* (71-102/105 AD). Military and Civilian Life on the Frontier. In: Morillo, A. / Hanel, N. / Martín, E. (eds.). Limes XX. 20th International Congress of Roman Frontier Studies. León, 2006. Madrid. 1271-1283.

Hörig, M. / Schwertheim, E. 1987. Corpus cultus Iovis Dolicheni. Leiden.

Jobst, W. 1983. Provinzhauptstadt Carnuntum. Österreichs größte archäologische Landschaft. Wien.

Mason, D. J. P. 1987. The Canabae Legionis. – Britannia 18, 143-168.

Mason, D. J. P. 1988. 'Prata Legionis' in Britain. – Britannia 19, 163-189.

Mócsy, A. 1953. Das Territorium Legionis und Die Canabae in Pannonien. – Acta archaeologica Academiae Scientiarum Hungaricae 3, 179-200.

Nagy, M. 2007. Lapidarium. A Magyar Nemzeti Múzeum régészeti kiállításának vezetője: Római Kőtár. Budapest.

Nash-Williams, V. E. 1952. Iuppiter Dolichenus. – Greece and Rome 21.62, 72-77.

Obermayer, A. 1967. Römerstadt Carnuntum. Ruinen/ Grabungen/Funde. Wien.

Piso, I. 1991. Die Inschriften vom Pfaffenberg und der Bereich Canabae legionis. – Tyche 6, 131-169.

Piso, I. 2001. Inscriptions D'Apulum. Inscriptions de la Dacie Romaine III, 5. 1-2. Paris.

Piso, I. 2010. Das Forum von Brigetio. – Acta Classica Universitatis Scientiarum Dereceniensis XLVI, 71 -77.

Póczy, K. 1986. Die Militärstadt von Aquincum im 2. und 3. Jahrhundert. In: Studien zu den Militärgrenzen Roms III. 13. Internationale Limeskongreß Aalen 1983. Stuttgart. 404-408.

Stiglitz, H. / Kandler, M. / Jobst, W. 1977. Carnuntum. – Aufstieg und Niedergang der römischen Welt II, 6, 583-730.

Tóth, I. 1971. Eine Tempelbauinschrift eines ritterlichen Decurios Aus Brigetio. – Acta Classica Universitatis Scientiarum Dereceniensis VII, 91 -93.

Vittinghoff, F. 1971. Die rechtliche Stellung der *canabae legionis* und Herkunftsangabe *castris*. – Chiron 1, 299-318.

Wesch-Klein, G. 2007. Recruits and Veterans. In: Erdkamp, P. (ed.). A companion to the Roman Army. Oxford. 435-450.

Wierschowski, L. 1984. Heer und Wirtschaft. Das römische Heer der Prinzipatszeit als Wirtschaftsfaktor. Bonn.

Niels Bargfeldt PhD student
Department of Culture and Society –
Section for Classical Archaeology
Jens Chr.Skous Vej 5
Building 1461, 325
DK-8000 Aarhus C
niels@bargfeldt.dk

Civil Settlements, Roads, and Trade

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Military *Vici* in Roman Spain[1]

Ángel MORILLO / Javier SALIDO DOMÍNGUEZ

Hispania was the frontier line for the Roman state for two centuries, from 218 to 19 BC, when the conquest of the northern regions of the Iberian Peninsula ended. The number of documented Roman military settlements from this period has increased in recent years, as those were mainly marching camps located in areas where the conflict between Rome and indigenous tribes, or between several Roman armies was more hostile, such as in the Sorian high plain or the Cantabrian mountain range (Morillo 2003, 73; , 2009; 2009b, forthcoming; 2011). There are some references to camp-followers (*lixae*) who accompanied the Roman army from that period (Sommer 1984, 15). One of the most famous of these references is that of Appian from 134 AD that mentions civilians gathering around the troops established in *Tarraco*, which caused *P. Cornelius Scipio Aemilianus* to intervene and expel these camp-followers (*Iber*. 85). The villages close to the Roman camps that housed these peoples were the predecessors of the *canabae* and *vici* of the Principate. However, there is still no archaeological evidence of these settlements, undoubtedly due to the perishable nature of those buildings and the fact that the military authorities only approved of them under special circumstances.

The demands of the expanding Empire made necessary the permanent stationing of Roman legions and auxiliary troops. Hispania constitutes one of the most ancient examples of this phenomenon. The end of the Cantabrian Wars (29-19 BC) and the departure of most troops that had battled during the conflict towards the northern frontiers of the Empire set the stage for a new kind of relation between the Roman army and Hispania. This new policy was framed within the State created by Augustus, which he was to apply later on in the northern frontier areas of the Empire in a more decided fashion. Between 19 and 15 BC, troops in Hispania were reduced to three legions. Legions *VI Victrix* and *X Gemina* were stationed in the territory of the *Astures* tribes, while *IIII Macedonica* was based on the southern frontier of Cantabria. These legions constituted a protective line of permanent military settlements to the south of the Cantabrian Range and east of the Mountains of León, otherwise known as the *limes* without frontier (Morillo 2002, 77-81; 2009). The deployment of the Hispanic army in this region was also directly connected to the exploitation of gold resources until the end of Nero's reign and, to a lesser extent, throughout the Empire period. The legionary fortress of Legion *VII Gemina* at León and several auxiliary forts founded in the Flavian period remained in the area until the 4th century AD.

Coinciding with the beginning of the permanent stationing of the Roman units during the Principate, there are records of the first villages outside the forts. Sommer (1984, 9-11) talks about these settlements, pointing out that these would be established each time a new fort was built. *Canabae* and *vici* became an indispensable part of the garrisons during the Late Empire, providing the soldiers with food and other goods and services. Traders, merchants, craftsmen, tavern keepers, musicians, prostitutes, actresses, physicians, priests, soothsayers, along with the soldiers' wives, concubines, children, veterans, servants and slaves all lived in those settlements (Sommer 1984, 31-34). Still, there are considerable problems with the definition and connotations of this term.

[1] This work is part of the research project entitled *Campamentos y territorios militares en Hispania*. It was commissioned by the Ministerio de Ciencia e Innovación (I+D HAR2011-24095), and has been coordinated by Prof. A. Morillo since 1st January 2012.

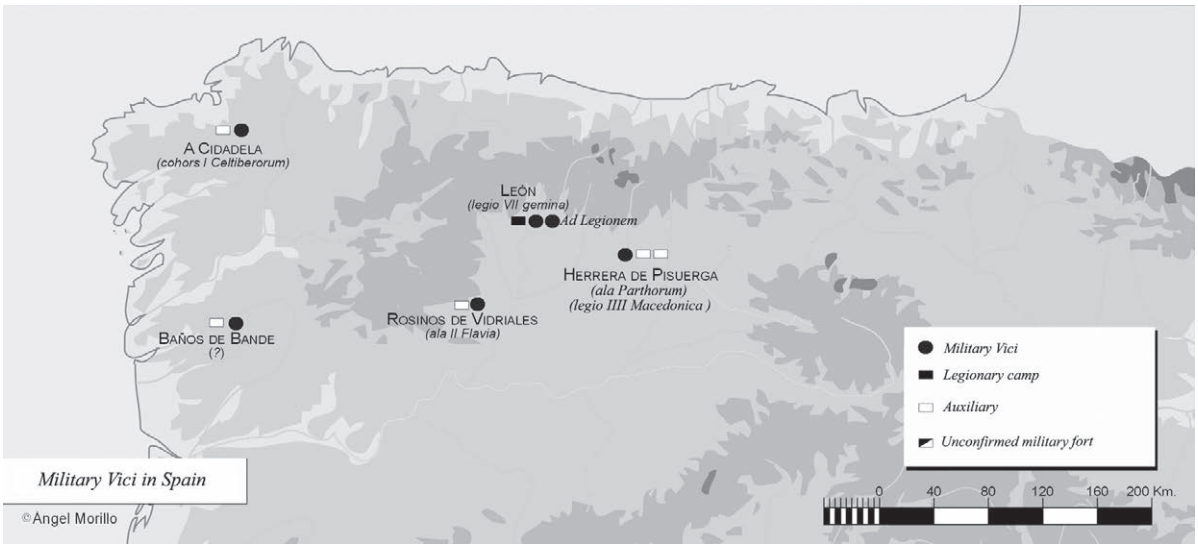


Fig. 1. The distribution map of Roman military *vici* in Spain

This paper is an approach to Roman military *vici* in Spain[2] (**fig. 1**). Relatively little has been written on this topic so far due to smaller numbers of camps and Roman forts from the Early Empire period in Hispania. We know of less than a dozen military cantonments with permanent structures in Spain from that period. On the other hand, unlike region like Dacia, where references to these types of settlements are mainly epigraphic (Ciobanu 1998), there are no inscriptions mentioning *canabae* or military *vici* in Hispania. Since historians and archaeologists were mostly interested in the military troops and their fortresses, hardly anything is known about the *canabae* and *vici*. The need to identify and define the fortresses and camps from the Early Empire period in Spain from an archaeological point of view caused the focus of the studies to shift to the defense system, interior structures and the detrimental areas outside of the walls, much more difficult to typify and identify due to the diversity of the urban planning. Similarly, very few archaeological remains are left of those establishments. In addition, the national and regional legislation regarding archaeological heritage created in 1985 has been centered on the protection of the old town parts that coincide with the old military camps, as in the case of the city of León. Consequently, the peripheral areas have often been left unprotected, and the remains were never documented or preserved. This lack of archaeological data about the military *vici* is evident in recent works regarding secondary agglomerations (Pérez Losada 2002).

Palao (2009) has been the only one recently dealing with this subject from a mainly epigraphic perspective, including some archaeological evidence[3]. Likewise, the latest research has provided us with further archaeological insight into the military *vici.* However, we are still lagging behind extensive research done on the subject in Great Britain or Southern Germany, to point out only a few examples[4]. As we mentioned before, this is one of the principal gaps in the archaeological study of sites such as

[2] There is still a lot of confusion between the terms *canabae* and *vicus*. The former, derived from the Greek word Κάναβος (frame, timber works) usually refers to camps with barrack huts, cabins and stands, undoubtedly pointing to its original features. This term was only associated with legionary fortresses. Agglomerations of buildings around auxiliary forts were called vici. However, there were also civilian agglomerations established next to the legionary camps referred to as *vicus* (*Mogontiacum*, *Argentorate*, *Vindonissa*) in the literary and epigraphic sources, which is why there needs to be a clear distinction between the two terms. According to Berard, *vicus* was the more common of the two terms, denoting civilian agglomerations established under the protection of both legionary camps as well as the auxiliary forts. The term *canabae*, on the other hand, is not used in all cases. Furthermore, it is not documented in any of the classical texts and only appears in epigraphic evidence, which is why it might have been a part of the colloquial language of the soldiers. The term itself appears to have mostly been used in the Danubian provinces. On the other hand, its use cannot be verified until the middle of the second century AD (Berard 1993). To learn more about this terminology issue, see Vitinghoff 1970; 1971; Sommer 1984, 3-4; Poulter 1989.

[3] We should also mention the publications of Vega Avelaira (1998; 2007), who deals with this question in general terms but doesn't discuss these types of settlements in Spain in particular.

[4] Hanel (2007, 227) gives us a brief overview of the recent research done on the military *vici* and *canabae*.



Fig. 2. Herrera de Pisuerga. Roman camp of IIII Macedonica (1) and military *vicus* (2)

León, despite significant progress made in the recent decades (Morillo / García Marcos 2009, 401).

Military *Vici* in the Augustan and Julio-Claudian Period

The most significant evidence of the Augustan period in Hispania comes from a civilian agglomeration established around the *Legio IIII Macedonica* camp in Herrera de Pisuerga dating back between 20 BC and AD 39 (Morillo et al. 2006, 316). In reality, these are only isolated remains of certain settlements located some 500 meters southeast of the legionary camp, on the other side of a small river called Burejo (**fig. 2**). The area known as Pradillo de la Fuente de los Caños was partially excavated by García y Bellido in 1960 (García y Bellido et al. 1962, 33-44), revealing certain unidentified structures. Pérez' 1994 excavation in the neighboring area of Camino de las Ánimas revealed same-type structures that clearly formed a part of the same construction as the ones mentioned above (Pérez González 1998, 544-545, fig. 4). This small exploration showed constructions from three different phases. In the area closest to the river, we find the remains of two big structures separated by a narrow passage. The remains of stone foundations are the only thing left of the walls. These are thought to once have been a part of a military settlement situated outside the legionary camp, serving as a dumping site in the Tiberian period, from which many materials come (Morillo et al. 2006, 317, fig. 83 and 330; 2006b, 337, fig. 89). Both the topographic location of these structures as well as the fact that they date to the Augustan period indicate that they are remains of the military *vicus* linked to the *Legio IIII* camp, although the research done so far does not permit us to establish its aspect or basic urban characteristics. A *tessera hospitalis* was also found in this area, dating from AD 14 (**fig. 3**).

The second construction phase includes sandstone walls, elevations of adobe and wood, mortar and pebble floors and white plaster walls. This set belongs to a domestic structure dating from the mid-first century AD., associated to the *vicus* of a Roman fort of *ala Parthorum*, who settled at Herrera de Pisuerga after 39 AD when *Legio IIII Macedonica* left the camp (Morillo *et alii* 2006, 318 and 329-330, fig. 83). Other structures in the same area as described by García y Bellido are associated with the same construction phase (García y Bellido et al. 1962, 33-42). The civilian settlement remains in the same area, despite the break in the military unity sometime in the last third of the first century AD. The third construction phase in which the previous structures were modified dates back to the third and the fourth century.

The most significant research has undoubtedly been done on the Roman camps in León. Urban

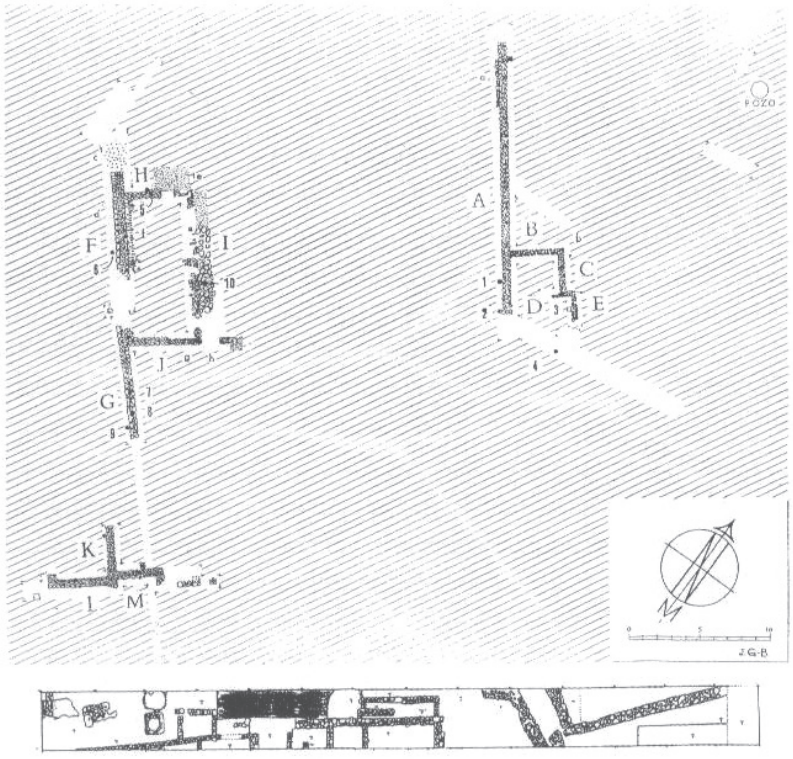


Fig. 3. Archaeological remains of the military *vicus* of Herrera de Pisuerga. Excavations of García y Bellido (1960) and Pérez González (1994) (García y Bellido et al. 1962; Pérez González 1998)

archaeology is increasingly uncovering more and more remains of the military *vicus*[5] mostly associated with a legionary fortress built in the Flavian period (León III). However, structures associated with the two preceding camps have recently been identified. The oldest one of these camps (León I) was established by the *Legio VI Victrix* in the Augustan period (Morillo / García Marcos 2006, 231). Even though the superposition of the posterior structures complicates the identification of the remains, excavations done by Miguel Hernández and García Marcos allowed for the discovery of certain structures associated with the Augustan camp in the western area outside the city (Casa Pallarés, Edificio Botines, Pilotos Regueral street, # 4), less than 100 meters from the place where the *porta principalis dextra* would later be found. The topography of this entire area, corresponding to the mountain slope where the camp is situated, has changed substantially from the beginning of the first century AD due to underground flooding, which caused the accumulation of 5-meter depth, creating a complete stratigraphic sequence. The oldest phase reveals a fairly well-preserved timber floor. Timber uprights were set in foundation trenches or individual postholes, or into sleeper beams cut into the subsoil. The timber framed-walls were erected with woven wattle plastered with daub. They were based on the well-known models of timber military architecture. This construction dates back to the beginning of the Roman presence in León to AD 15, and was eventually destroyed in a fire (Morillo / García Marcos 2006, 249-250). All of these structures are very similar to the internal constructions in the contemporary legionary fortress (Morillo / García Marcos 2006, 231; 2009, 391-392). Various trenches corresponding to walls of the same type were found some 100 meters outside of the city, north of the Augustan defense lines (Carreras street # 7).

At the beginning of Tiberius' reign (*ca.* 15 AD), the first *Legio VI Victrix* camp would be dismantled and rebuilt in the same place as the other more solid structures. The ground level increased by about 0.5 and 1 meter. The *vicus* must have been left in the same place they were in the previous period, as is confirmed by the remains found in the western area

[5] The term *canabae* has traditionally been used to describe the civilian agglomeration outside of the *Legio VI Victrix* and *Legio VII Gemina* camp walls in León. However, the progress made by the research we described earlier on and the lack of epigraphic evidence that would justify the use of this term in the case of the León settlement suggests we should use the term military *vicus* instead.

outside of the city, next to the *porta principalis dextra*. However, this area was susceptible to the accumulation of water and was quite unsanitary due to a high water table level and the presence of seasonal river channels (Morillo 2012, 224 and 228), which meant continuous high of the ground level and to clean the terrain. One meter above the dismantled Augustan constructions in Casa Pallarés, a new structure with stone masonry walls was constructed, believed to be a part of a warehouse that existed until the beginning of the Flavian period (Morillo / García Marcos 2006, 249).

Even though the archaeological evidence is still scarce, we were able to confirm the occupation of the other two areas outside the camp that would eventually develop even more, since they did not face problems of underground flooding, which posed a challenge in the western areas. The southern area offered the best topographic conditions, with the first one of the *canabae* sites established at the edge of the elevation where the legionary fortress was located. There is also reference to certain domestic and artisanal constructions, notably a metallurgy workshop located next to the *porta praetoria* (Plegarias 5 c/v Ramiro III street) (Campomanes 1998-1999), and a pavement space under the current Plaza Mayor, lying near the southern gate of the camp (Morillo 2012, 241). This space is believed to have once been a military parade ground (*campus*) (Campomanes *et alii* 2000, 21), very common in other legionary forts such as Chester (Mason 1987, 151) and Caerleon (Evans 2006, 509), and perhaps Mirabeau (Goguey / Reddé 1995, 25) and *Vindonissa* (Trumm 2011, 9). Nonetheless, scarce archaeological evidence allows us to speculate that this was a market plaza of the military *vicus*. These public arenas were also found in the British and Germanic settlements such as Zugmantel, Heddernheim, Saalburg II, Ladenburg, Birdoswald, Caer Gai, Newstead and Maryport (Sommer 1991; 2006, 104 and 117-118).

Also outside the city, southeast of the military fortress (La Palomera area), there is a rectangular construction 35 meters long and 12 meters wide, surrounded by walls of *opus caementicium* framed by timber beams and mortar pavement. Determining its function remains a problem, even if all signs point to it being used as a water reservoir, undoubtedly in relation to the construction of the second *Legio VI* camp (León II). Later on, part of the construction was done with limestone, all of which was finally sealed by a tip. The structure was out of order in 30 AD (Morillo 2012, 232).

For the moment, there is no data regarding the civilian agglomerations that most certainly existed outside of the walls of other Augustan legionary camps such as Astorga or Julio-Claudian camps such as Rosinos de Vidriales (Morillo 2002, 80-84).

Civilian Agglomerations in the Flavian and Later Period Camps: The Military *Vici* of León

At the beginning of the Flavian period, the *exercitus Hispanicus* was reduced to one legion, the *VII Gemina* in the legionary fortress of León, and different forts occupied by its auxiliary units. In spite of this reduction in troops and military establishments, there are many references to civilian settlements associated with these camps mainly because of the stabilization of the garrisons and a greater strength of the structures observed from that period onward.

Regarding the period of the auxiliary forts, we have to mention the second phase of the military *vicus* established in Herrera de Pisuerga, which is connected to *ala Parthorum* and remained the garrison in that place from 60 or 70 AD to the beginning of the second century AD (Morillo et al. 2006, 322 and 329-330, fig. 83). A military *vicus* was situated in the Cidadela fort (Sobrado dos Monxes, A Coruña), fort of *cohors I Celtiberorum* from the early second to the late 3rd century, next to the neighboring village of Insua, some 300 meters west of the walls, along with the road starting at the *porta principalis sinistra* (Caamaño / Fernández Rodríguez 2002, 223).

There was a civilian settlement at *Aquis Querquennae* (Baños de Bande, Ourense), more specifically, in a place called A Cidade, in the southeast area of the camp, next to the prolongation of *via principalis* and some 30 meters from its walls. The 1983 excavations revealed the foundations of various walls belonging to a domestic structure, as well as pavement remains. The entire place, just like the neighboring fort, dates back to the Flavian period (Rodríguez Colmenero 2006, 130-132; Pérez Losada 2002, 187-188).

Finally, the location of the civilian settlement connected to the *ala II Flavia* fort, identifiable with the *mansio Petavonium* (Ptol. *Geog*. II, 6, 34), was determined through archaeological prospections. The settlement would have been situated to the east of the walls, close to the road that continues onto *via principalis sinistra*. Apart from different materials and construction remains, various building inscriptions regarding the construction of two temples and a *balneum* signed by prefects of the auxiliary unit were also found at the site. This set-

tlement dates back to the Flavian period (Carretero Vaquero, Romero Carnicero 2000; Carretero Vaquero 2006, 193-194).

However, the *vicus* that has provided us with most evidence to date is the one that appears next to the Flavian legionary fortress of *Legio VII Gemina* in León. Inscriptions about the civilian population that lived there are most abundant, which has been the focus of the research on settlements traditionally known as the legionary "*canabae*" (García Martínez / 1999; Palao 2006; 2009). Despite confirming the existence of an important and heterogeneous group of civilians in the vicinity of the military camp, these inscriptions don't tell us much about the juridical category of the settlement, which probably never became a *municipium*. The only evidence pointing in the opposite direction is a tombstone where a *lictor* (AE 1967, 225) is mentioned, which is not enough to argue that the settlement was indeed a *municipium* (Palao 2009, 277).

On the other hand, as we have mentioned earlier (Morillo 2008; 2012, 241-242), archaeological remains are much less abundant than the inscriptions. What we can determine from the evidence gathered thus far is that the main part of the *vicus* was located south of the legionary camp, beyond the earlier settlement dating from the Julio-Claudian period connected to the *Legio VI Victrix*, on the hillside descending to the south –an area with a more favorable topography and the best natural springs (Morillo 2008, 388-390). In that same area, due to its favorable location, there was a medieval district of San Martín, whose actual urban topography has a semicircular shape, perhaps preserving a part of the aspect of the military *vicus* (Morillo 2008, 390) (**fig. 4**).

The scarce systematic research done in this area (Plaza Mayor, Plegarias 5 c/v Ramiro III street) confirms the presence of isolated walls (northwest-southeast and northeast-southwest), which would indicate the aspect of the civilian settlement's urban layout that coincides with the southwestern direction of the *via praetoria* going out from the fortified camp. This would be the main route that linked *Legio* with *balneum*. In the Plaza Mayor area, the Roman structures were associated with the homogenous level of flattened gravel, which could have been a street.

The topography also conditioned the location of another important element associated with this civilian settlement. We are talking about the military amphitheatre. Various types of bonding were used for its construction (*opus vittatum* and *opus quadratum*), along with *opus caementicium*, even though the entire superstructure of the stands as well as the upper floor were made of timber. Its measures were close to 90 meters in height and 50 meters wide. The amphitheater was built in an area slightly sloped to the southwest, cutting off the western hillside. Because of this location, the walls on the eastern side exposed to big pressures of the building had to be reinforced a couple of times so they would not collapse. The construction was probably started at the end of the 1st century AD, shortly after the arrival of the *Legio VII*, and the building itself remained in place until the end of the third century, as was the case with other constructions inside the camp. During the excavations in this area, the archaeologists discovered evidence indicating that certain places of the *arena* included structures from the Late Antiquity period whose function remains unknown (García Marcos 2002, 202; Vidal 2005, 55-66; Durán Cabello et al. 2009, 22-24).

In the light of recent epigraphic evidence, we have hypothesized the existence of a shrine dedicated to the nymphs and associated with a sacred spring in the lower part of the hill where the civilian settlement was located and in the plaza next to a Roman road leading to Gaul from the camp's southern gate (Morillo 2008, 389-392). The same type of structures has been mentioned in *Deva* (Chester) and *Argentorate* (Strasburg) (Mason 1987; Kern 1998, 206; Vega Avelaira 2007, 89-90).

The excavations done outside the city, on the western hill-slope where the camp was located, found waste and dumping sites in this area, probably a result of the high water table levels. Various types of structures were built in these areas (Morillo / García Marcos 2009, 397; Morillo 2012, 242). The excavations also confirmed that the arrival of the *Legio VII* coincided with the important ground restoration work where the ground level increased about 2 meters. The area was occupied by buildings whose function remains unknown, but whose existence was confirmed in the research conducted by Edificio Botines and Juan de la Enzina Secondary School. In the area closest to *porta principalis dextra* (street Pilotos Regueral # 4 c/v plaza San Marcelo # 2), the archaeologists found what might have been a gravel road, 20 cm thick, coming out of the camp to the west (San Roman / Campomanes 2010).

A similar phenomenon, including huge dumping sites, has been discovered on the opposite side of *via principalis*. In this eastern area, a few meters



Fig. 4. Roman military *vicus* of *VII Gemina* at León. Southern side

from the *porta principalis sinistra*, a rich waste site was uncovered (Fernández Freile, 2003). Its location is no coincidence given the natural depression of the ground in this area, which contributes to waste collection and topographic homogenization of the camp ground level (Morillo 2012, 241-242). The elevation of ground level must have been indispensable for the actual construction of the monumental camp gates in the Flavian-Trajanean period (Morillo / García Marcos 2005; 2006, 237-238), which required an artificial terracing in order to create a climbing ramp from the foot of the hill, some 4-5 meters below, on the lower river terrace in Torío.

Also in this eastern area, a bit further from the camp's defense lines, we find household structures. The one that stands out in particular is a part of a thermal domestic structure of reduced dimensions found in the San Lorenzo area, dating back to 73/74 AD and the reign of Septimius Severus (Vidal / García Marcos 1996, 149).

Judging by what we have just discussed, there is still very little to be said about the civilian settlement that developed outside the walls of the *VII Gemina* legionary camp in León. The scarcity of written records does not allow us to confirm the existence of military planning before the *vicus* or, on the other hand, determine whether the urbanization was irregular or organic in its nature, executed without any planning. The lack of data on the funerary structures from the Early Empire period, such as tombstones and sepulchral monuments that were destroyed in order to build a wall in the Late Empire period at the end of the third century, makes it impossible to outline the outside limits of the civilian settlement or determine whether a definite border existed, as was customary. This issue represents one of the most important research gaps in the archaeology of León.

The archaeological evidence confirms the existence of at least three different living areas around the camp. The most important of these seems to be the one located on the southern side since this is the area that offers the best topographic conditions without the kind of slopes found between the camp and the first *vicus* constructions. The terrain in this area slightly slopes towards the edge of the hill, making for a superb living space that has been inhabited by the settlers throughout history despite the fact that it is located outside the camp walls. It would be impossible to determine if the southern side had trenches or, as was the case in camps such as Housesteads (Sommer 1984), the military administration decided not to dig them. Unlike the Rottweil and Köngen forts (Sommer 1991, 472), where the constructions are almost connected to the camp, in the case of León, there seems to have been a security strip without any buildings, as was, by all accounts, customary (Poulter 1989, 72). The first constructions appear some 30 to 40 meters from the camp walls. The only building close to the walls is the amphitheater.

The steep slopes (4-5 meters) to the east and west make the neighboring areas much less adequate for living, notably due to humidity and stagnant waters. Such conditions have repeatedly caused an intentional process of terracing during the first century AD, which is why these areas were less occupied than others even though there was some construction present. The northern side, on

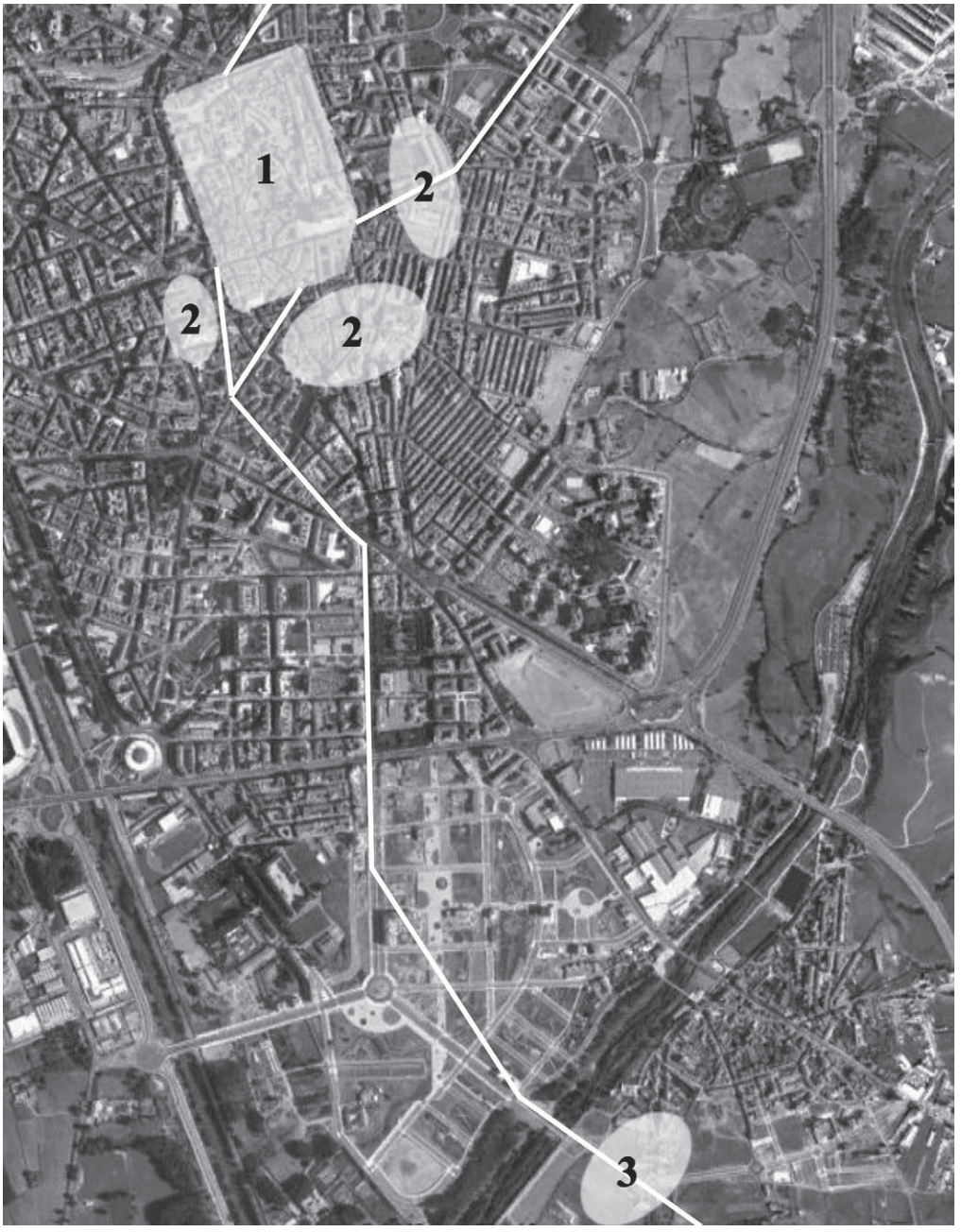
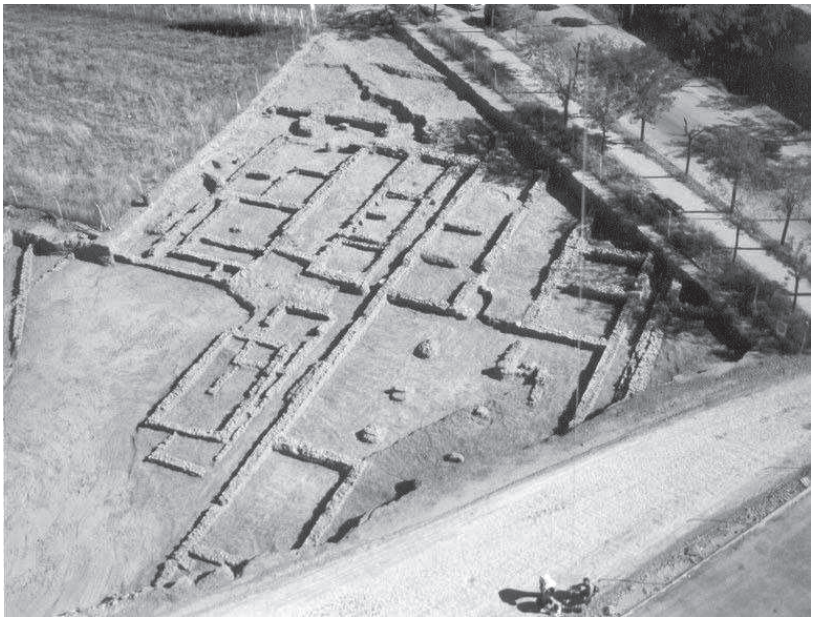


Fig. 5. Roman legionary camp of *VII Gemina* at León (1) with civilian settlement (2) and the road network. Military *vicus* of Puente Castro (3)

the other hand, seems to have been uninhabited altogether.

The structures in those areas are of mixed classification according to Sommer, as they combine street-, tangential- and ring-type elements that remind of camp settlements such as Zugmantel (Sommer 1997) or the Bad Deutsch-Altenburg complex (*Carnuntum*). Still, we need to wait for further findings in order to confirm this.

Unlike the amphitheater and small domestic baths in the San Lorenzo area, we were unable to reconstruct the urban plan and the entire floor of the domestic or artisanal constructions. Consequently, we cannot confirm that there used to be extended strip-houses with narrow façades, typical of the military *vici* on the northern borders of the Empire. The only thing we can conclude based on the walls and foundations of the buildings is that the perimeter of the settlement was adapted to the main exit roads of the camp – the one that went from the *porta praetoria* in the northeast-southwest direction in line with the topography of the area, as well as the extensions of *via principalis* to the east and west.



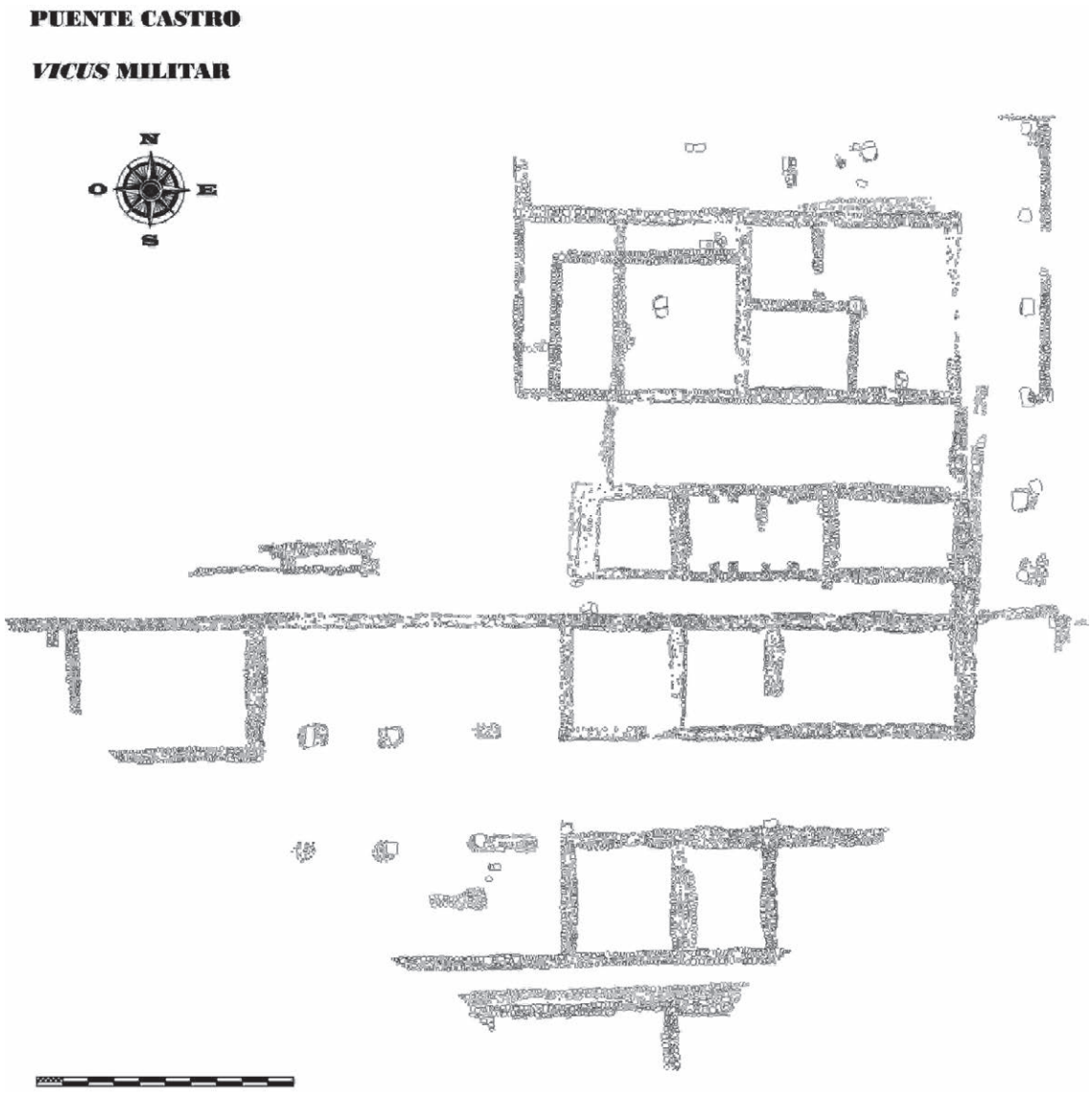


Fig. 6. Roman Military *vicus* of Puente Castro (León). Excavations of Álvarez Ordás (Morillo / Salido)

One of the most important breakthroughs in recent years has been the discovery of a second military *vicus*, unknown until now, some 2 km from the southern side of the legionary fortress in León. In fact, remains of an important agglomeration were found on the left riverbank of Torío, probably a newer settlement that developed in the shadow of the legionary camp (**fig. 5**). The presence of the two military *vici* connected to the same camp can also be seen in other legionary settlements such as *Argentorate* (Strasbourg), *Vindonissa* (Windish), *Carnuntum* (Bad Deutsch-Altenburg) and *Lambaesis* (Lambesa) (Berard 1993, 60-71). The Puente Castro *vicus* has the same characteristics as the settlements on the northern borders of the Empire. The remains discovered in 2000-2001 clearly display an orthogonal form. During the excavations, the archaeologists found a part of the street going in the northwest-southeast direction (Álvarez Ordas et al. 2000-2001). This street perfectly coincides with the direction of the number 1 road in Antonine Itinerary – *De Italia in Hispanias* – that runs southeast from *Legio* toward Gaul. The remains of a bridge over the Torío and a natural ford, which must have been used at first, were also found nearby. Some of the constructions found in the area were clearly rectangular houses, one of which, interestingly enough, included a house with an inner court surrounded by rooms (Morillo 2012, 244) (**fig. 6**). Numerous surgical instruments were found in one of those rooms, leading one to believe that this used to be a medical house, as was the case in *Argentorate* (Strasbourg) (Kern 1998, 205).

V. García Marcos' 2011 excavations of a much bigger area that are still being studied confirm the existence of parallel and perpendicular streets, forming a perfectly defined urban grid with various square *domus* and strip-houses, artisanal facilities, etc. All this tells us that a street-type agglomeration structured around a Roman road once stood here (Sommer 1997).

These buildings would be a part of a rather important hub in terms of its population, possibly a *vicus* known as *Ad Legionem VII Geminam* (Teja 1990; 2005; Loewinsohn 1999, 11-12; Fernández Ochoa / Morillo 2005, 164). This center was established on an important communication network and closely linked to the neighboring *Legio* camp and its adjacent *vicus*, probably housing the civilian population that was not legally dependent on the military authorities, outside of the territory directly assigned to the legion, that some sources refer to as *leuga* (see Piso 1991; Sommer 2004). The hub is believed to date back to the mid-1st century AD up until 270 AD, when a violent destruction occurred, as the discovery of numerous materials and a cache of *antoniniani* coins indicates.

Final Remarks

The investigation of the military *vici* in Spain lags behind research done in other regions. A small number of military settlements from the Early Empire and the priority interest of the archaeologists to define the characteristics of those settlements at the expense of the adjacent civilian agglomerations explain this state of affairs. However, more and more data is uncovered on the urban definition of those settlements. The oldest ones must have been established at the same time as the Augustan legionary camps in León and Herrera de Pisuerga. Still, the most studied are those from the post-Flavian period due to the greater strength of their structures. The excavations in the legionary fortress of León, along with the scattered data on the civilian settlements adjacent to the auxiliary forts such as Cidadela, Rosinos de Vidriales, Herrera de Pisuerga or Bande, have provided us with most evidence of the existence of a large *vicus* close to the *porta praetoria* and next to the two extensions of *via principalis*. Its urban planning seems to have been structured around the legionary camp's exit roads, but most of its features remain unknown. The biggest breakthrough has been the discovery of a second *vicus*, known as *Ad Legionem* in written sources, located some 2 km from the camp in León, in Puente Castro. What we have found out so far about its urban planning points to an agglomeration structured around a road link with Gaul, similar to the ones that existed in other camps in the northern regions of the Empire.

Bibliography

Álvarez Ordás, J. C. / Rodríguez González, P. / Martínez Murciego, N. 2000-2001. Instrumental médico procedente de la excavación del yacimiento de época romana de la carretera del cementerio. Puente Castro. León. Una aproximación.- Lancia 4, 141-158.

Bérard, F. 1993. *Vikani*, *kanabenses*, *consistenses*: remarques sur l'organisation des agglomerations militaires romaines. In: Calbi, A. / Donati, A. / Poma, G. (eds.). L'epigrafia del villaggio. Epigrafia e Antichita 12. Faenza, 61-90.

Caamaño, J. M. / Fernández Rodríguez, C. 2002. Novedades sobre el campamento romano de Cidadela (Sobrado dos Monxes, A Coruña). In: Morillo, A. (coord.). Arqueología Militar Romana en Hispania, Anejos de Gladius 5. Madrid, 213-226.

Campomanes, E. 1998-1999. Hallazgo de un complejo meta-lúrgico romano en la ciudad de León. Excavación en la calle Plegarias con vuelta a la calle Ramiro III en la ciudad de León.- Lancia 3, 269-279.

Campomanes, E. / Rodríguez Gonzá Lez, P. / Muñoz Villarejo, F. 2000. Excavaciones arqueológicas en la Plaza Mayor de León.- Promonumenta 4, 19-23.

Carretero Vaquero, S. 2006. Petavonium (Rosinos de Vidriales, Zamora). Introducción histórica y arqueológica. In: García-Bellido, Mª P. (coord.). Los campamentos romanos en Hispania (27 a. C.-192 d. C.). El abastecimiento de moneda, Anejos de Gladius 9. Madrid, 170-104.

Carretero Vaquero, S. / Romero Carnicero, M. V. 2000. Petauonium: un núcleo surgido al abrigo del ejército romano. Actas da Mesa Redonda Emergência e desenvolvimento das cidades romanas no norte da Península ibérica. Porto, 157-171.

Ciobanu, R. 1998. Canabae, vici et castella en Dacie romaine. – Caesarodunum. Bulletin de l'Institut d'études latines et du Centre de recherches A. Piganiol 32, 349-363.

Davies, J. L. 1990. Military vici: recent research and its significance. In: Burnham, B. C. / Davies, J. L. (eds.). Conquest, coexistence and change: recent work in Roman Wales. Trivium (Lampeter, Wales) 25, 65-74.

Durán Cabello, R. / Fernández Ochoa, C. / Morillo, A. 2009. Amphitheatres in Hispania: recent investigations. In: Wilmott, T. (ed.). Roman Amphitheatres y Spectacula: a 21st century perspective (Papers from an international conference), BAR International Series 1946. Oxford, 15-27.

Evans, E. 2006. The Caerleon Cannabae. Excavations in the civil settlement 1984-90. London.

Fernández Freile, B. E. 2003. La época romana en León. Aspectos arqueollógicos. Estudio arqueológico de un vertedero romano situado en la calle Maestro Copin c/v San Salvador del Nido en la ciudad de León. León.

Fernández Ochoa, C. / Morillo, A. 2005. Ciudades y aglomeraciones secundarias en el norte y noroeste de Hispania en época julio-claudia. In: Colloque L'Aquitaine et l'Hispania septentrionale à l'èpoque julio-claudienne. Organisation et explotation des espaces provinciaux. Colloque Aquitania, Aquitania. Supplement 13,157-167.

García Marcos, V. 2002. Novedades acerca de los campamentos romanos de León. In: Morillo, A. (coord.). Arqueología militar romana en Hispania, Anejos de Gladius. Madrid, 167-211.

García Martínez, S. M. 1999. La base campamental de la Legio VII y sus canabae en León. Análisis epigráfico. León.

García y Bellido, A. / Fernández de Avilés, A. / Balil, A. / Vigil, M. 1962. Herrera de Pisuerga, Excavaciones Arqueológica en España 2. Madrid.

Goguey, R. / Reddé, M. 1995. Le camp légionnaire de Mirabeau. Römisch-Germanisches Zentralmuseum – Forschungsinstitut für Archäologie 36, Mainz.

Hanel, N. 2007. Military Camps, Canabae, and Vici. The Archaeological Evidence. In: Erdkamp, P. (ed.). A Companion to Roman Britain. Oxford, 395-416.

Kern, E. 1998. Le uicus des Canabae. La problématique du faubourg de Strasbourg-Koenigshoffen. In: Bedon, R. (ed.). Suburbia. Les faubourgs en Gaule romaine et en regions voisines, Caesarodunum 33, 201-215.

Loewinsohn, E. 1999. La A1 entre Lancia y Ad Legio VII.- El miliario extravagante 71, 11-12.

Mason, D. P. J. 1987. Chester: the cannabae legionis.- Britannia 18, 143-168.

Morillo, A. 2012. Investigación científica y arqueología urbana en la ciudad de León. In: Beltrán, J. / Rodríguez, O. (eds.). Hispaniae urbes. Investigaciones arqueológicas en ciudades históricas. Sevilla, 211-256.

Morillo, A. 2011. The Roman occupation of the north of Hispania: war, military deployment and cultural integration. In: Moosbauer, G. / Wiegels, R. (eds.). Fines Imperii- Imperium sine fine?. Römische Okkupations- und Grenzpolitik im frühen Principat, Osnabrücker Forschungen zu Altertum und Antike-Rezeption 14. Rahden/Westf., 2011, 11-26.

Morillo, A. 2009. The Augustean Spanish experience: the origin of limes system?. In: Morillo, A., Hanel, N. / Martín, E. (eds.). XX Congreso Internacional de Estudios sobre la Frontera Romana (León, 2006), Anejos de Gladius 13. Madrid, 239-252.

Morillo, A. 2009b. The Cantabrian Wars (26-25 BC campaigns). Contesting old interpretations. In Limes XXI. XXI International Congress on Roman Frontier Studies, Newcastle (forthcoming).

Morillo, A. 2008. Cultos militares y espacios sagrados en el campamento de la legio VII gemina en León. Gerion 26, 2, 379-405.

Morillo, A. 2006. Roman Army and urban development in the northwest Spain: Asturica Augusta and Legio VII Gemina. In: Abad, L. / Keay, S. / Ramallo, S. (eds.). Early Roman Towns in Hispania Tarraconense (IInd. C. B. C.-Ist C. A.D.), Journal of Roman Archaeology Supplementary series 62. Portsmouth (Rhode Island), 197-211.

Morillo, A. 2003. Conquista y defensa del territorio en la Hispania republicana: los establecimientos militares temporales. In: Morillo, A. / Cadiou, F. / Hourcade, D. (eds.). Defensa y territorio en Hispania de los Escipiones a Augusto. Espacios urbanos y rurales, municipales y provinciales. Madrid, 41-80.

Morillo, A. 2002. Conquista y estrategia: el ejército romano durante el periodo augusteo y julio-claudio en la región septentrional de la península ibérica. In: Morillo, A. (coord.). Arqueología Militar Romana en Hispania, Anejos de Gladius 5. Madrid 2002, 67-93.

Morillo, A. 2000. La legio IIII Macedonica en la península ibérica. El campamento de Herrera de Pisuerga (Palencia). In: Le Bohec, Y. / Wolff, C. (eds.). Les legions de Rome sous le Haut-Empire, II. Lyon, 609-624.

Morillo, A. / García Marcos, V. 2009. The Roman camps at León. State of the research and new approaches. In: Morillo, A. / Hanel, N. / Martín, E. (eds.). Limes 20. Estudios sobre la Frontera Romana/ Roman Frontier Studies, Anejos de Gladius 13. Madrid, 389-405.

Morillo, A. / García Marcos, V. 2006. Legio (León). Introducción histórica y arqueológica. In García-Bellido Mª P. (coord.), Los campamentos romanos en Hispania (27 a. C.-192 d. C.). El abastecimiento de moneda, Anejos de Gladius 9, Madrid, 225-243.

Morillo, A. / García Marcos, V. 2005. The defensive system of the legionary fortress of *VII gemina* at León (Spain). The *porta principalis sinistra*. In: Visy, Z. (ed.). Limes 19. Proceedings of the 19th International Congress of Roman Frontier Studies. Pécs, 2005, 569-583.

Morillo, A. / Pérez González, C. / Illarregui, E. 2006. Herrera de Pisuerga (Palencia). Introducción histórica y arqueológica. Los asentamientos militares. In: García-Bellido, Mª P. (coord.). Los campamentos romanos en Hispania (27 a. C.-192 d. C.). El abas-

tecimiento de moneda, Anejos de Gladius 9. Madrid, 305-323.

Morillo, A. / Pérez González, C. / Illarregui, E. 2006b. Herrera de Pisuerga (Palencia). Cronologías estratigráficas. In: García-Bellido, Mª P. (coord.). Los campamentos romanos en Hispania (27 a. C.-192 d. C.). El abastecimiento de moneda, Anejos de Gladius 9. Madrid, 324-337.

Palao Vicente, J. J. 2009. Asentamientos civiles en los campamentos hispanos durante el Alto Imperio. Morillo, A. / Hanel, N. / Martín, E. (eds.). Limes 20. Estudios sobre la Frontera Romana/Roman Frontier Studies, Anejos de Gladius 13. Madrid, 525-540.

Palao Vicente, J. J. 2006. Legio VII Gemina (Pia) Felix. Estudio de una legión romana, Estudios Históricos y Geográficos 136. Salamanca.

Pérez González, C. 1998. Pisoraca (Herrera de Pisuerga): urbanismo militar y civil de época romana. In: Rodríguez Colmenero, A. (ed.). Congreso Internacional sobre los orígenes de la ciudad en el Noroeste hispánico (1996). Lugo, 535-558.

Pérez Losada, F. 2002. Entre cidade e aldea. Estudio arqueohistórico dos "aglomerados secundarios" romanos en Galicia, Brigantium 13. La Coruña.

Petrikovits, H. V. 1981. Die Canabae legionis. In: 150 Jahre Deutsches Archäologisches Institut, 1829-1979. Festveranstaltungen und internationales Kolloquium 17. – 22. April 1979 in Berlin. Mainz, 163-175.

Piso, I. 1991. Die Inschriften vom Pfaffenberg und der Bereich der Canabae legionis.- Tyche 6, 131-169.

Poulter, A. 1989. Gli insediamenti presso i campi militari: "canabae" e "vici". In: Wacher, J. (ed.). Il mondo di Roma imperial. Vita urbana e rurale II. Bari, 69-106.

Rodríguez Colmenero, A. 2006. Conjuntos arqueológico-estratigráficos definidores del urbanismo del campamento. In: Rodríguez Colmenero, A. / Ferrer Sierra, S. (eds.). Excavaciones arqueológicas en Aquis Querquennis. Actuaciones en el campamento romano (1975-2003), Anejos de Larouco 4. Lugo, 41-140.

Romero Carnicero, M. V. / Carretero Vaquero, S. 2006. Rosinos de Vidriales Camp, Fort and Vicus. In: Morillo, A. / Aurrecoechea, J. (eds.). The Roman Army in Hispania. An Archaeological Guide. León, 347-356.

San Román Fernández, F. / Campomanes Alvaredo, E. 2010. Informe preliminar de la excavación arqueológica en el solar de la c/ Pilotos Regueral, 4 y Pz. San Marcelo, 2 de la ciudad de León. León.

Sommer, C. S. 2006. Military vici in Roman Britain revisited. In: Wilson, R. J. A. (ed.). Romanitas: essays on Roman archaeology in honour of Sheppard Frere on the occasion of his ninetieth birthday. Oxford, 95-145.

Sommer, C. S. 2004. Intra Leugam, Canabae, Kastellvici und der Obergermaenisch-Raetische Limes. In: Ruscu, L. / Ciongrandi, C. / Ardevan, R. (eds.). Orbis antiquus, Studia in honorem Ioannis Pisonis, Cluj-Napoca, 312-321.

Sommer, C. S. 1997. Kastellvicus und Kastell- Mödell für die Canabae legionis?.- Jahresbericht der Gesellschaft Pro Vindonissa 1997, 41-52.

Sommer, C. S. 1991. Life beyond the ditches: housing and planning of the military vici in upper Germany and Raetia. In: Maxfield, V. A. / Dobson, M. J. (eds.). Roman Frontiers Studies 1989. Proceedings of the 15th International Congress of Roman Frontiers Studies. Canterbury, 472-476.

Sommer, C. S. 1989. The inner and outer relation of the military vicus to its fort. In: Van Driel-Murray, C. (ed.). Roman military equipment: the sources of evidence. Proceedings of the fifth Roman Military Equipment Conference (Nijmegen, 1987), BAR International Series 476. Oxford, 25-29.

Sommer, C. S. 1984. The military vici in Roman Britain: aspects of their origins, their location and layout, administration, function, and end, BAR British Series, 129. Oxford.

Teja, R. 2005. Ad Legionem consistentibus: las canabae de la Legio VII en una Epístola de San Cipriano de Cartago. Pérez González, C. / Illarregui, E. (coords.). Arqueología militar romana en Europa. Segovia, 305-307.

Teja, R. 1990. La carta 67 de San Cipriano a las comunidades cristianas de León-Astorga y Mérida: algunos problemas y soluciones.- Cristianismo y aculturación en tiempos del Imperio Romano, Antigüedad y Cristianismo 7, 115-124.

Trumm, J. 2011. Vindonissa-Stand der Erforschung II. Der zivile Komplex.- Jahresbericht der Gesellschaft Pro Vindonissa 2011, 3-22.

Vega Avelaira, T. 2007. Los campamentos permanentes del ejército romano como semilla de núcleos civiles: el desarrollo de los vici militares.- Larouco 4, 73-98.

Vega Avelaira, T. 1998. Las aglomeraciones civiles (vici y kanabae) en los campamentos romanos: aspectos urbanísticos. In: Rodríguez Colmenero, A. (coord.). Actas Congreso Internacional. Los orígenes de la ciudad en el Noroeste hispánico. Lugo, 1265-1290.

Vidal, J. 2005. Notas sobre el anfiteatro romano de León.- Astorica 24, 55-66.

Vidal, J. / García Marcos, V. 1996. Novedades sobre el origen del asentamiento romano de León y la legio VII gemina. In: Fernández Ochoa, C. (coord.). Coloquio Internacional de Arqueología: los finisterres atlánticos en la antigüedad (época prerromana y romana). Gijón, 147-156.

Vittinghoff, F. 1971. Die rechtliche Stellung der canabae legionis und die Herkunftsangabe castris.- Chiron 1, 299-318.

Vittinghoff, F. 1970. Die Entstehung von städischen Germeinwesen in der Nachsbarschaft römischer Legionslager. Ein vergleich Leóns mit den Entwickklungslinien im Imperium Romanum. In: Legio VII Gemina. León, 339-352.

Ángel Morillo Cerdán
Dpto. Ciencias y Técnicas Historiográficas y Arqueología
Facultad de Geografía e Historia
Universidad Complutense
Avda. Profesor Aranguren s/n
ES-28040 Madrid
amorillo@ghis.ucm.es

Javier Salido Domínguez
Escuela Española de Historia y Arqueología en Roma-CSIC
pjaviers@hotmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Beginnings: New Data on the Earliest Settlement Phases at the *Aquincum* Civil Town[1]

Orsolya LÁNG

Introduction

The earliest settlement phases and/or a possible indigenous predecessor of the *Aquincum* Civil Town in Pannonia Inferior have been long debated among scholars. Over the past 120 years, there have been theories promulgated that the town was preceded by a military fort or a *vicus* (?) that developed along the main North-South road of the settlement, i.e. what was later to become the *limes* road. However, these theories and references concerning the early phases of town development were based either on old theories, or "excavation results" that have never been published or have appeared only partially in preliminary reports. Thus, locating these early features or identifying the finds that came from them remained an impossible task.

Surprisingly, revaluating old excavation-documentations and find materials from the North-Eastern zone of the *Aquincum* Civil Town revealed some still unknown, "early" archaeological features and finds. This work enabled us to create a periodization for this part of the town. The aim of this paper is to examine these phases, features and finds and decide whether – for the first time in the research history of *Aquincum* – it will be possible to delineate the ground plan for the earliest settlement phase and speak about some kind of structured settlement-concept in the area of what was later to become the *Aquincum* Civil Town.

Research History on the Earliest Settlement Phases of *Aquincum*

The more than 120 years of archaeological excavations at the *Aquincum* Civil Town have brought to light less than half of the ancient town (Zsidi 2002, 8; **fig. 1**) Research is still going on in other parts of the settlement[2]. The first excavator to define the area and character of the settlement was Bálint Kuzsinszky, who identified the western part as a military fort while in his opinion the *vicus* surrounding the fort may have lain in the eastern part[3].

Since the 1960s, scholars have accepted that the antecedent of the Civil Town was a two-period Roman *vicus* inhabited mainly by craftsmen living in semi-subterranean pit houses with other sunken features and no trace of an indigenous character (Nagy 1971, 59-81; **fig. 2)**

Klára Póczy (and earlier Lajos Nagy as well) added to this picture by describing the early occupation as a Romanized rustic settlement, owing its existence to the legionary fortress (Nagy 1942, 372; Póczy 1970, 189, 191; 1986, 121). According to K. Póczy, this "Handwerkersdorf" must have included pit houses and workshops (Póczy / Hajnóczi 1971, 27).

Melinda Kaba in turn suggested that the later Civil Town was built over a Celtic-Eraviscan predecessor, based on a pit containing "indigenous material" excavated from below the southern part of the Great Bath (Kaba 1963, 289, footnote 73).

[1] The manuscript was finished in 2012.

[2] The area of the settlement enclosed by walls is circa 35-38 ha. For the ground plan of the town: Zsidi 2002, 41.

[3] Kuzsinszky 1890, 77-81, fig. 1. His hypothesis was probably based on the fact that the remains of the town's Western defences were still visible on ground surface in the 19th c., while those on the Eastern side of the early town were already buried deep beneath the ground due to the steeply sloping nature of the area. He later withdrew this idea.



Fig. 1. Plan of the *Aquincum* Civil Town (drawing by K. Kolozsvári)

Erzsébet Márity, in her summary of the building history of the Civil Town, described the early settlement as having its main features stretching along the *cardo* (later the *limes* road) and she even hypothesized that this may have been a "village-like settlement with Latin-culture"[4].

A completely different view was proposed by P. Zsidi in the early 1990s. She suggested that the town had had a military antecedent (fort?) based on her own excavations results from the end of the 20th century. She thought that the settlement evolved as a civilian *vicus* only after the fort ceased its military function[5].

Nevertheless, given these conflicting ideas, the mostly unpublished excavations (or only preliminary reports), the isolated, small areas that were uncovered and the paucity of maps only new hypothesis have emerged but no reliable results have yet been produced concerning its function, extent or the settlement structure[6].

[4] Márity 1992, 65; Márity, "Colonia Septimia Aquincum (Aquincum Civil Town)". Unpublished book or paper in the bequest of E. Márity. BTM RA H.1927-2006, 6.

[5] Zsidi 2002, 34-35; 2004, 189. Recently, K. Póczy hypothesized the presence of an auxiliary fort here: Póczy 2004, 58, 109.

[6] On the latest summary of the research history of the early phase and legal status of the settlement: Póczy 2003, 125.

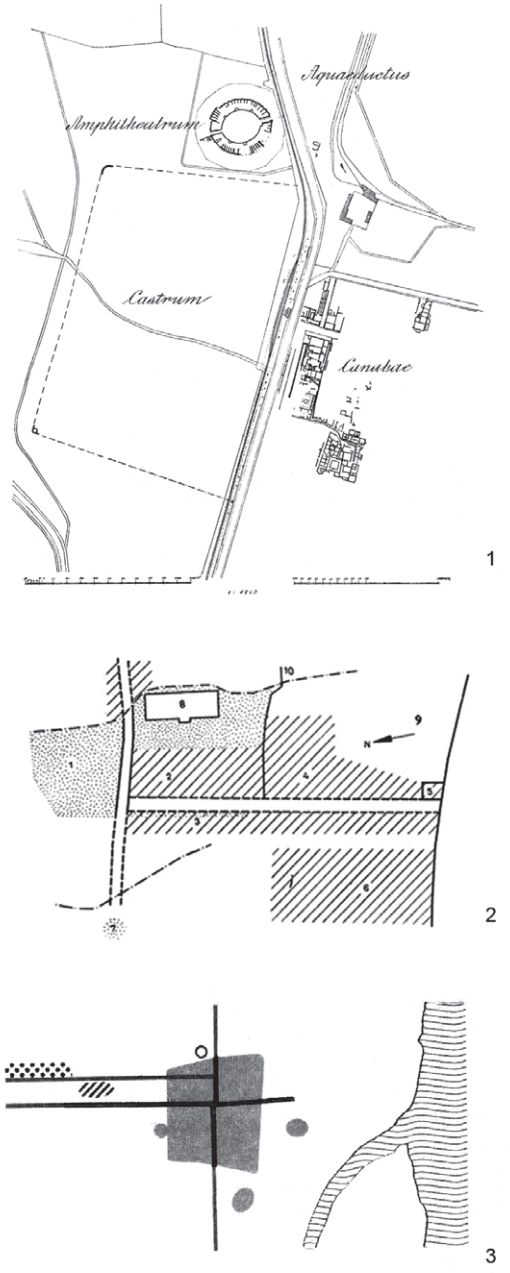


Fig. 2. Hypotheses about the earliest settlement phases of *Aquincum*: **a**, suggestion by B. Kuzsinszky (after Kuzsinszky 1890, fig. 1); **b**, T. Nagy's plan of the *vicus* (after Nagy 1971, Abb. 1); **c**, P. Zsidi's suggested military use (Zsidi 2004, fig. 14a)

The North – Eastern Zone: Prelude and Method

The only place where possible early phases of the town are available for study lies in a relatively contiguous area in the North-Eastern zone of the settlement. Several excavations were carried out here in the past, but for different reasons (the growing number of investment-led excavations have driven archaeologists away from this site over the past decades) only the preliminary results have been published. Thus, separation of building periods or evaluation of the finds have not been carried out (**fig. 3**).

The North-Eastern zone of the Civil Town is bordered by Road "A" (the continuation of the *cardo*, Road "C") on the West and the *decumanus* running down to the river (Road "D") on the South. Its Northern border may have been the East-West Roman road running below a modern street, or it may also have stretched to the Northern town wall[7]. Its Eastern border is hard to identify because the modern North-South running street runs along here while there is also a housing estate standing here below which only small-scale excavations were carried out at the beginning of the 20th century[8]. This zone has traditionally been associated with industrial and commercial activities related to the busy road that ran through here and the remains of the strip buildings visible on the surface (Zsidi 2002, 77-78).

The first excavation – the one that is important in terms of the early phase of Roman habitation (pit features and layers) – was carried out by T. Nagy in the Western and Central parts of Building # I (the so-called *basilica*) in 1961-62. Only he has so far distinguished and also published building phases and functions in the North-Eastern zone of the town (Nagy 1964a, 9-54; 1964, 301-302). In the following years, several – partly overlapping – excavations were carried out within the Eastern wing of Building # I. These excavations also revealed early layers and pits: J. Szilágyi worked here in 1966-67 (Szilágyi 1967, 32-33; 1968, 23) and K. Póczy in 1972 – the latter work was related to the construction of the new entrance building and pay office (Póczy / Hajnóczi 1973, 34-35). This excavation was later continued by P. Zsidi in 1990 (Póczy / Zsidi 1992, # 47/14, 2. 32).

A new control excavation connected to the reconstruction of this part of the archaeological park was carried out at the beginning of the 1990s when E. Márity again led excavations in the Eastern wing of Building # I in two seasons, 1991-1992 (Márity 1993, 34; 1994, 34; 1996, 36) and the Northern part of Building # XXVI where she also found Roman features from the early occupation in 1993 (Márity

[7] Street "D1": Kuzsinszky 1891, 125; Zsidi 2002, 64 (with incorrect reference).

[8] Nagy 1942, 376. Later research were mainly related to the earthworks of public utilities here (South-Eastern part of the Civil Town): Németh 1973, 115-120.

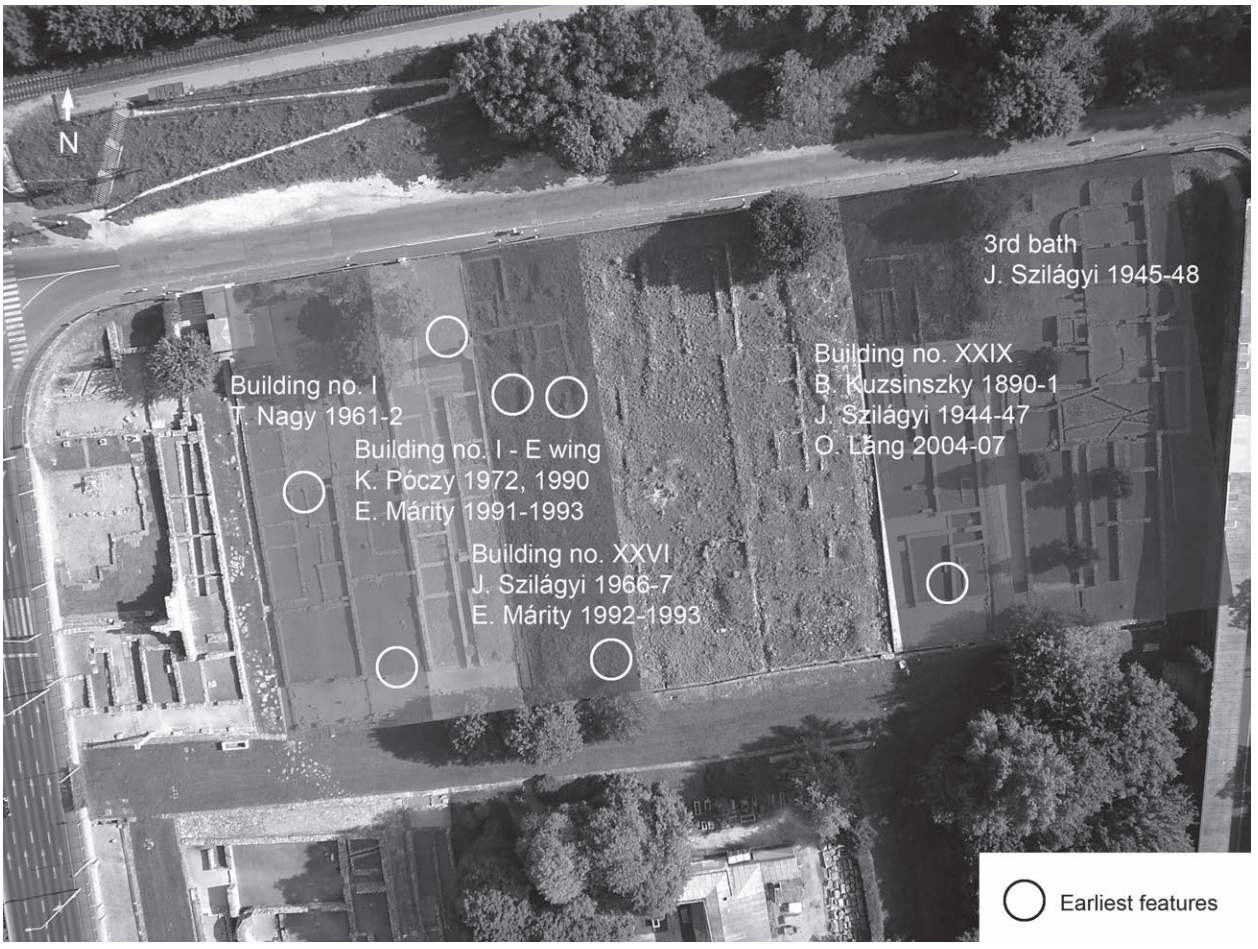


Fig. 3. Aerial photo of the North-Eastern zone with location of the excavations and the Roman archaeological features from the early occupation (photo: G. Rákóczi, O. Láng)

1996, 36). East of Building # I, only the Northern and Southern ends of Building # XXVI were excavated in 1966-67 by J. Szilágyi (Szilágyi 1967, 32-33; 1968, 23).

The next building where an early layer and early finds were found in this area is Building # XXIX. It was first studied by B. Kuzsinszky, who unearthed the Northern part of the house in 1890-91 (Kuzsinszky 1891, 134-140). This was continued some 50 years later by J. Szilágyi (1944-1947) although he concentrated on the Southern part of the house (Szilágyi 1950, 312-317). The next research was carried out here from 2004 onwards in order to conserve the ruins. Excavations were started in the southernmost rooms and continued towards the North in 2006 and 2007 (T. Láng 2005, 68-80; 2007, 117-128; 2008, 71-80).

In spite of the relatively incomplete picture we have of this settlement zone and the several times re-excavated areas, it seemed useful to try and evaluate the unpublished or only partially published data (in preliminary reports) from known excavations[9]. Because of the different standards of evaluation were used to document the excavations[10], it was necessary to transform all this data within a single integrated system. In this case it seemed most appropriate to use the Harris matrix system. All archaeological features described in the diaries were numbered, employing the entire handwritten and typed documentation. These features were placed afterwards into a matrix based on the site drawings and photos. This method permitted the creation of an "internal", relative chronology for each excavation so they could be compared to each other and

[9] The first attempt to re-evaluate old excavation documentation took place when the find material from the 1965 excavation of the *Aquincum macellum* was connected to field observations: Láng 2001 and T. Láng 2003, 165-204.

[10] Most of the excavations listed above were documented using a traditional layer-description method. More recent research carried out in Building # XXIX were documented using the Harris matrix system.

Phases	Periodization of K. Póczy	K. Póczy . *Peacock house 1.*	P. Zsidi *Peacock house 2.*	E. Márity *Building XXVI "Diana sanctuary"*	T. Nagy *Building I (Basilica)*	J. Szilágyi *Buildings XXVI-XXVII "Diana sanctuary"*	O. Láng *Building XXIX*
1. pits	-	-	-	1.		-	-
2. (pits, houses)	-	-	-	2.	1. (Prebasilical I)	1.	1.
3. (adobe walls)	*"clay-brick ensemble"*	1.	1.	3.	2. (Prebasilical II)	2.	2.
4. (first stone buildings)	-	2.	2., 3.	4.	3. (Basilica I)	3.	3.
5. ("wall-pushing")	*"limestone system"*	3.	4.	5.	4. (Basilica II)	4.	4.
6.	*"ashlar, strongly built wall, after Marcus Aurelius"*	4.	5.	6.	-	-	5.
7.	*"moulded walls, macellum-period"*	5.	6.	7.	-	-	6.
8.	*"4th c., stone-in- clay walls"*	6.	7.	8	-	-	7.

Fig. 4a. Relative chronological sequence of the building phases of each excavations (O. Láng)

	Periodization of K. Póczy	***Terra sigillata***	***Amphora***	***coin***	***Pannoni-an stamped pottery***	***oil-lamps***	**Individual finds, special contexts: *filling of the horse-shoe shaped construction***	**Individual finds, special contexts: *gem***	**Individual finds, special contexts: *terracotte statuette***	**Individual finds, special contexts: *glass cup***	**Individual finds, special contexts: *rigid heddle***	∑
1.	-	-	*middle of 1st – first quarter of 2nd c.?*	-	-	-	-	-	-	-	-	last quarter – end of 1st c.
2.	-	*end of 1st – beginning of 2nd c.*	*first quarter – middle of 2nd c.*	-	*end of 1st – beginning of 2nd c.*	-	*end of 1st c.*	-	-	-	-	end of 1st – beginning of 2nd c.?
3.	*"clay-brick ensemble"= first decades of 2nd c.*	*first decade – middle of 2nd c.*	*middle – end of 2nd c.*	*first decade – middle of 2nd c.*	*end of 1st – beginning of 2nd c.*	*beginning of 2nd c.*	-	*beginning of 2nd c.*	*first decades of 2nd c.*	*end of 1st – beginning of 2nd c.*	-	beginning – middle of 2nd c.?
4.	-	*middle – last third of 2nd c.*	*third quarter of 2nd – 3rd c.*	-	cannot be valuated!	*beginning – third quarter of 2nd c.*	-	-	-	-	-	middle – third quarter of 2nd c.
5.	*"limestone system"=second half of 2nd c.*	*last third of 2nd – beginning of 3rd c.*	*turn of 2nd – 3rd and 3rd c.*	*middle – second half of 2nd c.*	cannot be valuated!	-	-	-	-	-	*middle – end of 2nd c.*	last third of 2nd – beginning of 3rd c.
6.	*"ashlar, strongly built wall, after Marcus Aurelius"=3rd c.*	*beginning – first half of 3rd c.*	*3rd c.*	*first third of 3rd c.*	cannot be valuated!	*from the 2nd c.*	-	-	-	-	-	beginning – first half of 3rd c.
7.	*"moulded walls, macellum-period"=middle of 3rd c.?*	*after first half of 3rd c.?*	*3rd c.*	*first third of 3rd c.*	cannot be valuated!	-	-	-	-	-	-	first half of 3rd c.?
8.	*"4th c., stone-in-clay walls"=end of 3rd c.?*	*after first half of 3rd c.?*	*3rd c.*	-	cannot be valuated!	-	-	-	-	-	-	end of 3rd – beginning of 4th c.?

Fig. 4b. Absolute chronological sequence of the building phases with the dating material (O. Láng)



Fig. 5. Archaeological features connected to Phase 1 in the North-Eastern zone (drawing by O. Láng)

finally set up in a kind of "concordance table", that is, the relative chronological sequence of the North-Eastern quarter itself. The find material could afterwards be connected to the identified building phases to help create absolute dates for the phases (**fig. 4**). However, some problems had to be faced during this work. One is that certain buildings were not excavated in a regular manner (from North to South or East to West), some areas were excavated twice, while other areas remained untouched. The diaries of the various excavators sometimes contained conflicting data about the same feature. The other major problem was the usability of the find material because if an archaeological feature was described inaccurately in the first place, finds coming from it became suspect from the point of view of dating and would only be used in artefact counts or providing information on the function of the features. For this reason only part of the total find material could be used for dating building phases.

Despite these problems, converting the various excavation-documentation into an integrated system proved successful in the case of the North-Eastern zone as well: for the first time in the research history of the Civil Town, the earliest Roman building phases could be reconstructed, dated and even some information on the settlement structure and function could be gathered[11].

The North–Eastern Zone: Phase 1 (fig. 5)

Based on the detailed study (Láng 2012) of the documentation connected to the earliest horizon in this part of the settlement, the earliest features were dug into the yellow, clayey-sandy layer. The excavation results from T. Nagy work at Building # I, this layer sloped steeply to the East (the Danube River) while it rose slightly from North to South (towards Road "D")[12]. A small, sandy elevation was observed below Building # XXVI[13], which also reflect the presence of occasional sand-dunes in the area. However, this sub-soil layer was only reached in a few of the excavations. Thus, features do not yet really display any kind of patterning and unfortunately no pavements associated with them have been observed. Features seem to concentrate in the North and along an East-West oriented stripe, even though this could also be an artefact of the lack of further excavations.

Features included an East-West oriented, V-shaped ditch running parallel to Road "D", a segment of which was identified below the central part of later Building # I. This was possibly a drainage ditch and not a "soaking pit for a tannery" as T.

[11] The complete evaluation of the find material of these buildings, re-excavated several times – where available – has just recently been completed within the framework of the author's PhD dissertation: Láng 2012.

[12] Based on the levelling data from trenches # 1 and 2: Nagy 1964a, 14-16.

[13] Based on the levelling data from the 1993 excavation drawings of E. Márity.

Nagy had previously suggested[14]. Possible waste pits or pitfalls can be observed after a large hiatus in the North (below the Western wing of Building # I and Building # XXVI). Three large, aligned and sunken features from what were probably dwellings followed to the North: two rectangular, semi-sunken pit house (?) and a large, horse-shoe shaped construction comprising a ditch and several post holes. The latter could either have been a dwelling or been some kind of out-building[15]. North of the "zone of the pit houses" some post holes, pits and an imprint of a wooden beam were also brought to light.

The Eastern part of the area (Building # XXIX) may have been a marshy, meadow area at that time, so no building activity was observed here.

Thus, the earliest observable period in the *Aquincum* Civil Town is represented by a few, semi-subterranean pit houses, timber pile constructions, pits and a possible drainage channel. These features do not show any patterning as yet, however, the East-West oriented ditch may be associated with the East-West running main road ("D") and the pit houses already appear in stripe.

The absolute dating of this phase is based on the few, revaluated finds from the excavations of Building # I and XXVI-XXVII.

Considering the finds related to the above listed features, there are only a few datable pieces because deep excavation trenches were not established and the documentation was not properly carried out (see above).

Amphorae were represented by a Dr. 2-4 (middle of 1st – first quarter of 2nd c. AD), a Rhodian (end of 1st c. AD)[16] found below the eastern wing of Building # I and a single Schörgendorfer 558-type shard (middle of 1st – first half of 2nd c.) discovered in Building # XXVI-XXVII (Láng 2012).

Regarding Samian ware, even though no fragments could securely be assigned to this phase, the presence of North-Italian fragments (belonging to groups A and B) dated to the reign of Domitian – Trajan and Drag. 37 type shards of La Graufesenque (also lying within the Domitianic – Traianic period) in layers related to the following phase (Gabler 2013) point towards the beginning of the settlement around the last quarter of the 1st c. AD, which would correspond well with the previous dating of both T. Nagy (so-called "Prebasilical period I", between the reigns of Vespasian and Domitian) and that of K. Póczy (end of 1st c. AD) (Nagy 1964a, 47; Póczy 1986, 121). This occupation phase seems to have ended around the end of the 1st c. AD[17].

The North-Eastern Zone: Phase 2 (fig. 6)

The next phase is characterized by a much denser system of pit features sunk into the soggy, blackish-clayey soil that seems to appear at different depths but nearly everywhere in the North-Eastern zone (the Western wing of Building # I, Northern part of Building # XXVI and Building # XXIX)[18]. This layer also sloped towards the Danube; an intentional, single-episode filling or landscaping (levelling?) event can be hypothesized because of the homogenous, compact nature of this layer and the fact that all Phase 1 features were filled with this soil, creating most likely[19] a new level in this area. The landscape may have looked rather mixed in the zone in Phase 2. The Western part – lying significantly higher – was basically dry, while the Eastern part (Building # XXIX) was a meadow-like, soggy place even in this period[20].

This period is also characterized by sunken archaeological features with various functions located along in a stripe (from North to South) including: bigger and smaller parts of pavements, an imprint of a wooden beam, and circular pits (waste pits?) to the North. A well and a pavement fragment bounded by two clay walls (a building?) can also be attributed to this phase. Numerous round pits filled with clay bricks, imprints of beams and postholes appear below the Northern end of the Eastern wing of Building # I. Two rectangular semi-subterranean pit houses can also be attributed to this phase in the East. A stone built oven was even inserted into one of their Eastern walls. The exterior of the possibly clay-walls of the house – reinforced by posts- were plastered. The two buildings were placed close and

[14] On the ditch in detail: Láng 2012.

[15] For the interpretation: Láng 2011, 143-156.

[16] About these two pieces: Láng 2011, 151.

[17] Apart from the above-mentioned objects, fragments of grey and pale local coarse ware (wheel-thrown but also some hand-made) and animal bones can be attributed to this phase.

[18] For the levelling data in each building, see Láng 2012.

[19] A similar solution – though slightly later, in the first half of the 2nd c. – can be observed in the early fossae of the town wall (particularly the Northern town wall) whose fill may also have been placed there deliberately in a single episode. Recently: Zsidi 2004, 189.

[20] Based on pollen analyses: unpublished report of Zs. Medzihradszky in the documentation of Building # XXIX.



Fig. 6. Archaeological features connected to Phase 2 in the North-Eastern zone (drawing by O. Láng)

parallel to each other, in a North-South direction. To the East, the small, North-South oriented street running between the later Buildings # XXVII and XXVIII was already in use in this phase with its early layer attributed to this time.

The structure of this settlement-horizon (also mainly composed of pit features) is somewhat better known. Possibly after some intentional landscaping activity, a new level was created for the settlement with larger empty areas to the South, towards the East-West Road (see pavements) and a small building (?) with clay walls. Pit features became much denser to the North and the area that had previously (Phase 1) been occupied by rectangular pit houses, used as dwellings, retained its function. Two other houses were sunk here in Phase 2. Important data on the settlement structure comes from the appearance of a small, North-South oriented street to the East (between Buildings # XXVII and XXVIII) as well as a segment of wall.

Industrial activity can be suspected in Phase 2, based on features discovered by E. Márity below the Eastern part of Building # I including waste pits, a well and even some industrial features ("furnace"?) may have been located in this zone (Póczy 1970, 182).

Perhaps due to the soil-conditions (soggy area) described above, the Eastern edge of the North-Eastern zone may have lain on the periphery of the settlement (landfill?): many animal bones and the nearly complete absence of pottery finds below Building # XXIX suggest this function here[21].

The finds from this settlement phase were much more numerous and come from an increased number of archaeological features[22]. Datable dating material comprised *terra sigillata* fragments from the Phase 2 layer below the Eastern wing of Building # I and included North – Italian group B fragments (Consp. 39/43) and South Gaulish pieces (mainly Drag. 37 – type pieces from Bannassac and La Graufesenque). These can be dated to the end of the 1st – beginning of the 2nd c. AD[23]. A much wider spectrum of *amphorae* types can be observed among the shards from this phase encompassing Rhodian, Aquincum 78, Dr. 6B, Dr. 2-4, 7-11 and Schörgendorfer 558 types which could be identified in the blackish layer below the Eastern wing of Building # I and XXIX. Their presence supports the early presence of Aegean wine, North Italian olive and Istrian olive oil in *Aquincum* and mainly date between the first quarter – middle of 2nd c. AD[24]. Pannonian stamped pottery fragments also ap-

[21] T. Láng 2005, 75. Something similar was experienced close to the Northern town wall: T. Láng 2005a, 225-227; 2006, 51-59.
[22] For the list of finds and dating info for this phase, see Láng 2012.
[23] I am grateful to Dénes Gabler for his help in identifying the fragments.
[24] I am grateful for the help of Piroska Hárshegyi for identifying the pieces.

peared in pit fills and layers connected to this horizon, among which Lágymányos group IIIR-type (end of 1st – beginning of 2nd c.) could be identified[25]. The fill of the horse-shoe shaped construction also belonging to Phase 2 included a glass spoon-bowl and amphorae fragments types Dr. 2-4 and Rhodian which also provide an end of 1st c. AD data to the end of Phase 2. Based on the above listed finds, and also corresponding to T. Nagy's periodization ("Prebasilical I") Phase 2 may be datable to between the end of the 1st – beginning of the 2nd c. AD, that is to say, this site was a village-like, two-phase settlement with each phase lasting for 10-20 years.

The *Aquincum Vicus*: Possible Layouts

Considering the location of the features and the building phases described above, two possible solutions emerge for the form and extension of the early settlement (Láng 2012; **fig. 7**).

1. Segments of V-shaped ditches were unearthed in the earliest layers at several places in the Civil Town. These ditch segments may mark the edges of the settlement, even though *vici* "fortified" with ditches are very rare in *Pannonia*, but common in the Western provinces (Kovács 1999, 37, 156; for the case of *Vindobona* (2nd c.) – Müller et al. 2011, 47). Accordingly, the Northern border of the *Aquincum vicus* may have been the East-West oriented early ditch discovered below the later Northern defences of the town by P. Zsidi (recently in Zsidi 2002, 34). The fill of this ditch was the very same "homogeneous, blackish clay" that also filled Phase 1 features.

The Southern edge of the settlement may be marked by another East-West oriented ditch, parts of which were excavated below the Southern part of the later *macellum* and the House of Victorinus, running parallel with "E" street[26]. The Western continuation of the ditch is still not known. T. Nagy's old idea concerning the borders of the *vicus* can be re-interpreted in this context: he thought that the early settlement did not extend South of street "E" (namely South of the *macellum*) as only 1st century AD finds were found in layers (in the zone of the building of the *Collegium Centonariorum* and the so-called Painter's house). No 1st century AD features were discovered[27].

More problematic is the identification of the Western and Eastern borders of the settlement, partly because the Western part of the town – apart from a few small areas – is to all extents and purposes unexcavated. However, the earliest cemetery of the town, the so-called "Aranyhegyi Stream" cemetery, lies slightly to the North of the main East-West road but parallel to it (its exact extent is unknown). This cemetery should mark the border of the *vicus* on the West[28]. Such a topographical layout for a cemetery (i.e. located on the town's periphery beyond the borders of the settlement) is typical for *vici*[29]. The small pottery workshop discovered below the so-called Military Depot (along the Aranyhegyi Stream) may also mark the edge of the settlement: this workshop was active between the Flavian era up to the first decade of the 2nd century AD. Its connection to the settlement was already noted by K. Póczy (Nagy 1942a, 629-630; Póczy / Zsidi 1992a, 39-40).

The Eastern town edge is also uncertain because there have been few excavations here as well. The area once sloped steeply so that Roman period layers now lie deep below the present surface. The presence of buildings of the old Gas Factory and the housing estate located there also throw up obstacles to further research[30]. However, the absence of archaeological features and finds related to the early phase below Building # XXIX suggest that this area was peripheral when the settlement was a *vicus* (Phases 1 and 2) only expanding in this direction when urbanization got underway (Phase 3) (Láng 2012).

2. A segment of a V-shaped ditch filled with the same blackish, clayey material discovered below the Western part of the Southern defences of the later town (Zsidi 1990, 147-152, fig. 12 / 2) con-

[25] The shards were dated by Alexandra Nagy, whom I would like to express my thanks.

[26] Madarassy 1991, 33 and excavation documentation by M. Kaba in 1960 (BTM RA ltsz.: 353-77). It has been identified as a drainage channel inside the town by P. Zsidi: Zsidi 1990, footnote 15.

[27] For the same reason, it is unlikely that the segment of an early ditch (?) found below the Southern defences of the later town and considered part of some military installations, actually marked the Southern edge of the settlement: Zsidi 2004, 189.

[28] The relation of the cemetery – in use between the Flavian era and the middle of the 2nd c. AD – to the *vicus* was also considered by K. Póczy: Póczy / Zsidi 1992a, 39; Zsidi 2002, 36. Recent research indicates later use of the cemetery as well: Lassányi 2005, 81-90; Lassányi / Bechtold 2006, 73-78.

[29] Rorison 2001, 45: the topographical situation is very similar to that of the *vici* in Yutz, Florange – Daspich – Ebange (*Gallia*).

[30] The nearness of the Eastern edge of the settlement is further indicated by the fact that there were only a very few features and largely refuse pit (animal bones and only a few pottery shards) in the black, clayey layer below Building # XXIX. The activity of water springs is also very intensive here.

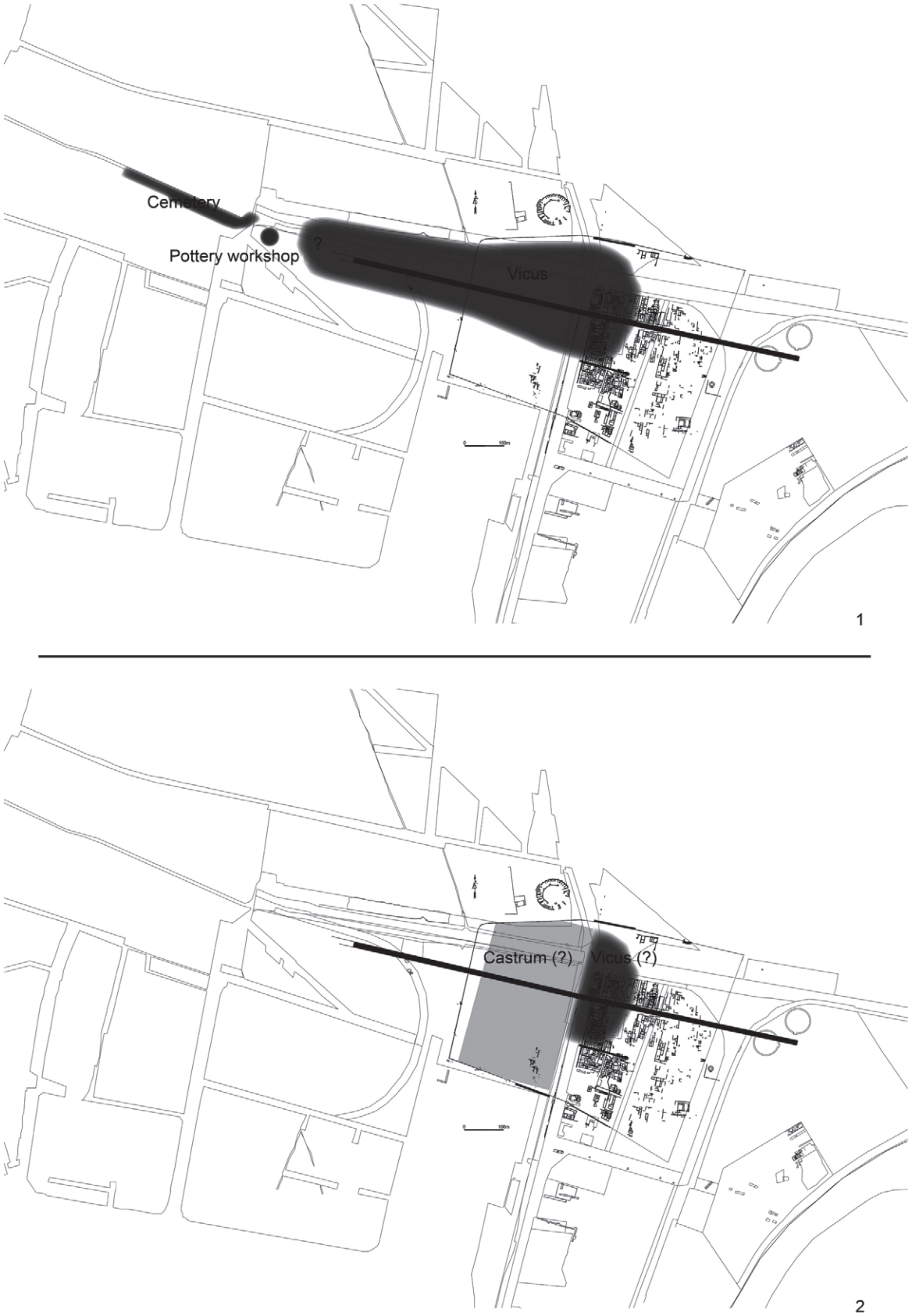


Fig. 7. Possible solutions (1 and 2) for the layout of the early *Aquincum* settlement phase (drawing by K. Kolozsvári)

tradicts the theory described above. This raises further questions concerning the form and edges of the *vicus*. P. Zsidi suggests that the early ditch segments both below the Northern and Southern defences indicate that the area had a military use in this phase (see above) possibly lasting until the first decade of the 2nd century AD. It may be of interest in this regard that B. Kuzsinszky described the Western side as a fort and the Eastern side as its *canabae* in his very first interpretation of the site, even though this hypothesis did not make reference to the at that time virtually unknown early settlement[31].

Rethinking the latter idea, the question arises whether there actually was a fort on the Western side with civilians connected to the army (family and veterans) settled in the Eastern side, that is, the *vicus militaris*? In this case, the Northern, Eastern and Southern edges of the *vicus* would be the same as in the first case, while the incipient town may have been bordered by the fort itself to the West. The cemetery by the Aranyhegyi Stream may have lain outside the fort, close to its Western wall. Supporting P. Zsidi's suggestion of a military presence, is it possible that the Southern ditch segment excavated by her was really part of the defensive system of the early fort? The military character of the Western settlement side is further confirmed by the presence of another early fort by the Filatori gát lying along the same North-South road that crossed the Civil Town (Zsidi, in print). These two features nicely fit the alignment system. The distance between them is approximately 0.5 *leuga* (1.1 km)[32].

However, the ideas described above are still only theoretical. More excavation work would be needed – especially on the Western side – to answer this question.

The *Aquincum Vicus*: Interpretation

Considering the two above-mentioned possibilities, the first seems more plausible, not only because no *militaria* or archaeological features related to military use have been found so far anywhere in the area of the *Aquincum* Civil Town, but also because the main East-West road (later Road "D"), coming from the Solymár valley and reaching the Danube River at this ford and harbour point must have been important since prehistoric times[33]. This busy road crossed a North-South running terrace and was lined on both sides by dry, flood-free areas to the East, approximately up to the zone of later Building # XXIX[34]. This is where the first core of the settlement may have been formed in the North-Eastern quarter of the later town. The Western extension of this terrace – given the lack of excavation data – is not yet known. Several small sand-dunes and hollows segmented the steeply sloping area running towards the river.

For the above-mentioned reasons, both geographical location and strategic position played important roles in the formation of the settlement[35], although these favourable conditions were not exploited in previous periods (by the Celtic and previous Prehistoric populations). The North-South oriented Road "C" that later was to become so important was still of minor importance in this phase[36].

Based on detailed examination of the finds from the North-Eastern zone (Láng 2012) – also supported by results from earlier research[37] – the following conclusion can be drawn. The first traces of Roman occupation (Phase 1) can be found in the Western, higher part of the North-Eastern zone and can be dated to the last quarter of the 1st century AD. The pit houses, refuse pits and ditches lining the main East-West road were dug into a thin brownish soil

[31] See footnote 2.

[32] This distance is measured between the early ditch on the Southern edge of the Western part of the Civil Town and the supposed Northern edge of the Filatorigát construction. For the reconstruction of the layout of the alignment system: Zsidi 2007, 62-65.

[33] The significance of the East-West running road connected to the foundation of settlement was also suggested by T. Nagy: Nagy 1971, 66. For the location of the ford: Zsidi 2007, 67. The proximity of rivers and the connection to a main road (or road-network) both could have been important factors in the location of *vici*: Rorison 2001, 19-20. K. Póczy assigned Road "D" to the reign of Domitian: Póczy 2004, 108.

Strip buildings of as yet unknown date have recently been noted along this East-West running road, West of the Western gate of the town using geophysical methods. Their presence also strengthens the first hypothesis about the existence of an elongated *vicus*. The survey was carried out by the ÖAI and directed by Dr. S. (Groh in 2011 Groh et al. in print).

[34] The later town was mainly built on an elevated, sandy area. The North-Eastern quarter sloped steeply towards the Danube River. Thus, the highest area may have been the zone of the forum. Kérdő / Schweitzer 2010, 54-55, fig. 16.

[35] For its strategic position and geographical location: Nagy 1942, 372; Kovács 1997-1998, 289; Zsidi 2004, 188.

[36] Road "C" was long considered the main road for the early settlement: Márity 1992, 65.

[37] The first traces were dated to the reign of Vespasian: Nagy 1964a, 48. Late Flavian period development was supposed by: Gabler 1977, 147, fn. 23. Domitian date was favoured by: Nagy 1942, 372.

layer that covers the sandy subsoil. Some twenty (?) years later (Phase 2), the so far only sporadically placed dwellings and other features began to display some kind of regularity. A village-like settlement began to develop[38] paired with marked landscaping activity as well. A blackish, clayey layer lay on the surface here, eliminating the sunken features from the previous phase and also filling-in the hollows between the sand dunes. This landscaping also transformed the slope running towards the river. Thus, a larger area was created in the zone of later Building # I (*basilica*) that was suitable for dwellings. The settlement began to expand to the East as well, even though floods frequently hit the area, demonstrated by the thin sandy layers discovered during the excavations of Building # XXIX (see above)[39]. More features can now be associated with this phase (pit houses, gravel pavements, pits with various functions) all dug into this blackish, clayey layer. Based on the archaeological features and finds discovered so far, this North-Eastern zone had a civilian function and a military use for the area cannot be demonstrated (Zsidi 2002, 34).

Accordingly, its legal status was as a *vicus* belonging to the *civitas Eraviscorum*. Administratively, it must have been subordinated to the *civitas* at the Víziváros[40]. However – as was also described earlier by K. Póczy and L. Nagy – it did not develop from an indigenous settlement (Nagy 1942, 372; 1964a, 48; 1971, 59; 1973, 125). Recent research on the find material from the earliest phases of North-Eastern zone strengthened previous observations that the finds connected to these phases speak clearly to a Romanized lifestyle (presence of *terra sigillata*, incense burners, oil lamps, glass spoons etc.) even though the semi-subterranean houses do display some Late Iron Age influences[41].

The civil character of the early settlement and its suggested edges (see above) raises another possibility concerning the affiliation of the *vicus*. Connecting the previous theories of L. Nagy, K. Póczy and D. Gabler it is probable that the settlement – whose territory was torn out of the *civitas Eraviscorum* – owed its existence to the legionary fortress (Gabler 1977, 147, footnote 23; Kovács 1997/1998, 289; Póczy 2004, 85, 107). The connection between the early *Aquincum* settlement and the legionary fortress is partly confirmed by the founding date[42] (last quarter of the 1st century AD) and partly the fact that the distance between the supposed Northern border of the 1st century AD fortress and the probable Southern edge of the *vicus* (along the "E" road) is 1 *leuga* (2.2 km), which corresponds closely to the average distances between fortresses and civil settlements in Pannonia, even though this distance might vary due to geographical conditions[43]. The reason for this distance is that a large area was provided for the growing settlement beforehand (Kovács 1999, 111). The inhabitants of the early *Aquincum* settlement may have comprised a group of Roman citizens, veterans and their families as well as merchants taking advantage of the busy East-West road and the nearby harbour. Indigenous settlers may also have come from surrounding villages looking for a better life[44].

Several analogies can be cited concerning the form of the *Aquincum vicus*. It is enough to mention the structure of the Civil Town of *Vindobona* (Kronberger 2009, 56-59; Müller et al. 2011, 30, 36, 42), but the situation is also similar for *vici* in *Germania*, where the ground plan of settlements did not change, even during the later Roman period (*Municipium Arae Flaviae*) (Sommer 1999, Abb. 1). Bliesbruch in *Gallia* may also be mentioned since the proccess of gradual development of the elongated plots in the western (commercial- and craftsmen's) quarter along the main road can be observed (Petit 2001, 39, fig. 6; Rorison 2001, 209, fig. 41).

[38] See also E. Márity's idea of the "village-like" settlement: *supra* p. 532.

[39] The results of the excavation carried out West of this zone (*forum*) by K. Póczy, may complement these observations. She identified semi-subterranean pit houses and workshops here: Póczy 1970, 182; 2004, 108, 155-156.

[40] Kovács 1997-1998, 289; Zsidi 2002, 33. Earlier, Nagy T. considered the antecedent of the *Aquincum* Civil Town to be the *civitas* centre: Nagy 1973, 125.

[41] The situation is similar at the auxiliary *vici*: Kovács 1999, 147 ff.

[42] Apart from the dating finds, data from other Pannonian *vici* also attest that they also formed at this time, for example at *Vindobona*: Müller et al. 2011, 35.

[43] Mócsy 1953, 195: *Vindobona* – 1.7 km, *Brigetio* – 2.5 km, *Carnuntum* – 2.5 km. The situation is similar for example in *Numidia* as well (*vicus Verecundia* – fortress of *Lambaesis*): Kovács 1999, 111 and 117; Recent research describes the distance as 1 *leuga* for *Vindobona*: Müller et al. 2011, 31.

[44] Concerning *vicus* society: Nagy 1973, 132; Kovács 1997/1998, 289. Data from the dead buried in the Aranyhegyi Stream cemetery also provide information: veterans of the *legio II Adiutrix*, *legio X Gemina*, *legio XXII Primigenia* and citizens from Cologne were buried here (Zsidi 2002, 113-114). The presence of Celtic inhabitants in the Albertfalva *vicus* can also be explained by economic forces: Beszédes 2011, 63.

In the *vicus* of Malain (*Gallia*) the settlement has an elongated form (mainly with workshops), oriented to the main road (Rorison 2001, 135). Recent geophysical surveys have revealed a similarly, elongated early settlement structure for the Civil Town of *Carnuntum*[45].

Anyway, the form, legal status and edges of the two-phase *vicus* developed with the settlement keeping its village-like appearance until the beginning of Trajan's reign as data from following phases exhibit changes in connection to the fact that *Aquincum* became the capital of the province and urbanization began after AD 106. The first street-network was laid out as the first permanent buildings and the aqueduct were constructed[46].

Summary

The earliest settlement phases at the *Aquincum* Civil Town have always been debated. Several hypotheses have been published about possible civilian antecedents (*vicus*), an indigenous village or a military use. However, because the find materials from previous excavations were not published or only in preliminary form, none of these ideas could be demonstrated. A few years ago the revaluation of the excavation materials from a contiguous area in the North-Eastern zone of the settlement allowed us to distinguish phases in this area, thus, identifying the earliest settlement horizon. According to this research, a two-phase, civilian *vicus* can be reconstructed with semi-subterranean houses placed in rows (?), a horseshoe-shaped feature and refuse pits located along the East-West road. Only a few data are available concerning the function of the "buildings", however, earlier research predicted the presence of a glass furnace for example. No *militaria* or any military features have been identified so far, supporting the hypothesis that this site was a purely civilian settlement.

The detailed study of the find material that could be dated (mainly *terra sigillata*, amphorae and Pannonian stamped pottery) showed that Phase 1 could have started around the last quarter of the 1st c. AD and lasted until the end of the century, while Phase 2 ended around the beginning/first decades of the 2nd c. AD, a time which already marked the debut of urbanization at the settlement and also overlap with the division of the province and *Aquincum* becoming the capital of *Pannonia Inferior* in AD 106.

Based on the location of the features, two possibilities emerge for the layout of the settlement. It could have either been an elongated "Straßensiedlung"[47] type settlement sitting along the main East-West road coming from the Buda hills and leading down to the Danube River or it may also be possible that a military fort occupied the Western part of the later town with the Eastern area constituting its *vicus*. The analogous *vici*, the structure of the early settlement and the character of the finds rather speak for the first version. The present work also supported previous research that suggested this site was a civil settlement closely connected to the foundation of the legionary fortress and inhabited by indigenous people, as well as merchants, veterans and Roman citizens.

Bibliography

Beszédes, J. 2011. Ausgrabungsergebnisse von der römischen Lager und der Siedlung in Albertfalva. – Budapest Régiségei 44, 58-74.

Gabler, D. 2013/14. Terra Sigillata im nördlichen Teil der Zivilstadt von Aquincum. In: Die Zivilstädte von Aquincum und Carnuntum. In: Groh S. (ed.). Forschungen zur Urbanistik und Handelsgeschichte. Zentraleuropäische Archäologie. In print.

Gabler, D. 1977. A dunai limes I-II. századi történetének néhány kérdése / Some Remarks on the History of the Danubian Limes of the First and Second Century. – Archaeológiai Értesítő 104, 145-175.

Groh, S. / Láng, O. / Sedlmyer, H. / Zsidi, P. in print. Neues zur Urbanistik der Zivilstädte von Aquincum – Budapest und Carnuntum – Petronell. – Acta Archaeologica Academiae Scientiarum Hungaricae.

Kaba, M. 1963. Römerzeitliche Gebäudereste beim Király-Bad. Budapest Régiségei 20, 259-298.

Kérdő, K. / Schweitzer, F. 2010. Aquincum. Ókori táj – ókori város / Aquincum. Ancient landscape – ancient town. Budapest.

Kovács, P. 1999. Vicus és castellum kapcsolata az alsópannoniai limes mentén / Relation between vicus and castellum along the Lower Pannonian limes (=Studia Classica I).

Kovács, P. 1997/1998. Civitas Eraviscorum. – Antaeus 24, 278-295.

Kronberger, M. 2009. Vindobona, das Römische Wien. Wien.

Kuzsinszky, B. 1891. Az aquincumi amphiteatrum. Függelékül: két lakóház. Az 1890 és részben a 1891-ki papföldi ásatások / The Aquincum amphitheater. Appendix: two dwelling houses. The Papföld excavations in 1890 and partly in 1891. – Budapest Régiségei 3, 81-139.

[45] Groh et al. in print.
[46] Summary: Zsidi 2002, 35-36.
[47] The type has been recently termed "linear-ribbon" in Anglo-Saxon terminology: Rorison 2001, 33.

Kuzsinszky, *B.* 1890. Az aquincumi ásatások 1882-84 és 1889 / Excavations in Aquincum in 1882-84 and 1889. – Budapest Régiségei 2, 75-160.

Lassányi, *G.* 2005. Excavations in the cemetery on the Aranyhegyi stream. – Aquincumi Füzetek 11, 81-90.

Lassányi, G. / Bechtold, E. 2006. Recent excavations in the cemetery along the Aranyhegyi stream. Aquincumi Füzetek 12, 73-78.

Láng, *O.* 2012. Urban problems in the Civil Town of Aquincum. The so-called "Northern band". ELTE Faculty of Arts, PhD School of History Science, Archaeological PhD Program. Budapest. Unpublished PhD dissertation.

Láng, *O.* 2011. Indigenous sanctuary in the northeastern zone of the Aquincum Civil Town – was it ever there at all? In: I. Lazar (ed.). Akten des 4. Internationalen Symposiums über römische Städte in Noricum und Pannonien. Koper. 143-156.

Láng, *O.* 2001. Az aquincumi macellum: ásatási anyagfeldolgozás és építészeti analógiák (az 1965.évi ástás anyaga) / The Aquincum macellum: evaluation of the excavation material and architectural analogies. ELTE Faculty of Arts, Institute of Archaeological Science. Supervisors: Dr. Borhy László egy.doc., Dr. Gabler Dénes egy.doc. Budapest. Unpublished MA thesis.

Madarassy, *O.* 1991. # 64/10. – Régészeti Füzetek 43, 33.

Márity, *E.* 1996. # 49/9. – Régészeti Füzetek 47, 36.

Márity, *E.* 1994. # 50/2. – Régészeti Füzetek 46, 34.

Márity, *E.* 1993. # 49/6. – Régészeti Füzetek 45, 34.

Márity, *E.* 1992. Chronological problems and special features in the structure of the civilian city of Aquincum. – Communicationes Archaologicae Hungariae, 65–73.

Mócsy, *A.* 1953. Das territorium legionis und die canabae in Pannonien. – Acta Archaeologica Academiae Scientiarum Hungaricae 3, 179-200.

Müller, *M. / Mader, I. / Chinelli, R.* (eds.) 2011. Entlang des Rennwegs. Die römische Zivilsiedlung von Vindobona.Wien.

Nagy, *T.* 1973. Római kor / Roman Period. In: Gerevich L.(ed.). Budapest története I. / History of Budapest I. Budapest.

Nagy, *T.* 1971. Der Vicus und das Municipium von Aquincum. – Acta Archaeologica Academiae Scientiarum Hungaricae 23, 59-81.

Nagy, *T.* 1964. III. ker. Aquincumi polgárváros területe. Basilica / The area of the Aquincum Civil Town. Basilica. – Budapest Régiségei 21, 295-336.

Nagy, *T.* 1964a. Perióduskutatások az aquincumi polgárváros területén / Erforschung der Perioden im Zentral – Gebiete der Zivilstadt von Aquincum. – Budapest Régiségei 21, 9-54.

Nagy, *L.*1942. Topográfia, polgárváros / Topography, Civil Town. In: Alföldi, A. / Nagy, L. / László, Gy. (eds.). Budapest története I.-II. Budapest. 366-385.

Nagy, *L.*1942a. Agyagművesség / Ceramics. In: Alföldi, A. / Nagy, L. / László, Gy. (eds.). Budapest története I.-II. Budapest. 627-650.

Németh, *M.* 1973. Újonnan összeállított falfestmény Aquincumból / Neu zusammengestelltes Wandgemälde aus Aquincum. – Budapest Régiségei 23, 115-120.

Petit, *J.-P.* 2001. Architecture et urbanisme dans une agglomération secondaire de la Gaule Belgique au Haut – Empire: Bliesbruch. In: Altekamp, S. / Schäfer, A. (eds.). The impact of Rome on Settlements in the North Western and Danube Provinces (=BAR International Series 921). Oxford. 37-56.

Póczy, *K.* 2004. Aquincum, Budapest római kori történelmi városmagja / Aquincum, the historical core of Budapest. Budapest.

Póczy, *K.* 2003. Veränderung des Rechtsstatus der Siedlung. In: Zsidi, P. (ed.). Forschungen in Aquincum 1969-2002. Budapest. 125-126.

Póczy, *K.* 1986. Die Zivilstadt (municipum, später colonia). In: Polenz, H. (ed.). Das Römische Budapest. Münster. 121-130.

Póczy, *K.*1970. Anwendung neuerer Ausgrabungsergebnisse bei der Ruinenkonservierung in der Bürgerstadt Aquincum. – Acta Technica Academiae Scientiarum Hungaricae 67, 177-194.

Póczy, *K.* / *Hajnóczi, Gy.* 1973. # 63. – Régészeti Füzetek 26, 34-35.

Póczy, *K.* / *Hajnóczi, Gy.* 1971. # 35. – Régészeti Füzetek 24, 26-27.

Póczy, *K.* / *Zsidi*, *P.* 1992. # 47/14, 2. – Régészeti Füzetek 44, 32.

Póczy, *K.* / *Zsidi*, *P.* 1992a. Römische Keramik in Aquincum. Budapest.

Rorison, *M.* 2001. Vici in Roman Gaul (= BAR International Series 933). Oxford.

Sommer, *S. C.* 1999. Vom Kastell zum municipium – zur Struktur von Arae Flaviae. In: Hazel, N. / Schucany, C. (eds.). Colonia – Municipium – Vicus. Struktur und Entwicklung städtischer Siedlungen in Noricum, Räetien und Obergermanien (= BAR International Series 783). Oxford. 59-64.

Szilágyi, *J.* 1968. # 29. – Régészeti Füzetek 21, 23.

Szilágyi, *J.* 1967. # 38. – Régészeti Füzetek 20, 32-33.

Szilágyi, *J.* 1950. Jelentés a Fővárosi Ókortörténeti (Aquincumi) Múzeum kutatásairól és szerzeményeiről az 1945-1948. évek folyamán / Rapport sur les recherches et les nouvelles acquisitions du Musée Municipal d'Histoire Antique (Aquincum) de 1945 à 1948. – Budapest Régiségei 15, 305-331.

T. Láng, *O.* 2008. "Strip house with an atrium – residence wing": authentication excavation in the northeastern part of the Aquincum Civil Town III. – Aquincumi Füzetek 14, 71-80.

T. Láng, *O.* 2007. "Strip house with an atrium residence wing": authentication excavation in the northeastern part of the Aquincum Civil Town. – Aquincumi Füzetek 13, 117-128.

T. Láng, *O.* 2006. Buildings and parts of a road by the northern town wall of the Aquincum Civil Town. – Aquincumi Füzetek 12, 51-59.

T. Láng, *O.* 2005. The "Peristyle house": authenticating excavation in the Northeast part of the Aquincum Civil Town. – Aquincumi Füzetek 11, 68-80.

T. Láng, *O.* 2005a. 16. Budapest, III.Pók u. Hrsz: 23229/1. – Aquincumi Füzetek 11, 225-227.

T. Láng, *O.* 2003. Reconsidering the Aquincum macellum: analogies and origines. – Acta Archaeologica Academiae Scientiarum Hungaricae 54, 165-204.

Zsidi, *P.* in print. Roman period military complex in the area of Aquincum, during the time of the construction of the limes – Budapest Régiségei.

Zsidi, *P.* 2007. A Duna szerepe Aquincum topográfiájában / Die Rolle der Donau in der Topographie von Aquincum. – Budapest Régiségei 41, 45-84.

Zsidi, *P.* 2004. Aquincum topográfiája / The topography of Aquincum. – Specimina Nova 18, 167-226.

Zsidi, *P.* 2002. Aquincum polgárvárosa / The Aquincum Civil Town. Budapest.

Zsidi, *P.* 1990. Aquincum polgárvárosának városfala és védművei az újabb kutatások tükrében / Stadtmauer und Verteidigunssystem der Zivilstadt von Aquincum im Spiegel der Neuesten Forschungsergebnisse. – Communicationes Archaeologicae Hungariae, 143-169.

Dr. Orsolya Láng
BTM Aquincumi Múzeuma
Záhony u.4
H-1031 Budapest
lang.orsolya@mail.iif.hu

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Recent Excavations on the Amphitheatre of *Viminacium* (Upper Moesia)

Snežana NIKOLIĆ / Ivan BOGDANOVIĆ

* This paper is the result of the following project: Viminacium, Roman city and military legion camp – research of material and non-material culture of the inhabitants by using modern technologies or remote detection, geophysics, GIS, digitalisation and 3D visualisation (# III 47018), founded by the Ministry of Education and Science of the Republic of Serbia.

Introduction

Viminacium is located in Eastern Serbia. It is situated on the right bank of the Mlava River, close to its confluence with the Danube River (**fig. 1**). Based on archaeological excavations, the areas of the legionary fortress and of the civil settlement were defined (**fig. 2**)[1]. At first, a military camp was built. Here the legion *VII Claudia* was stationed from the third quarter of the 1st century AD (Mirković 1968, 25-26; 2003, 40-42; Tončinić 2011, 14). Next to the camp, a settlement developed and became the capital of the province of *Moesia Superior* and later of *Moesia Prima*.

This paper provides an overview of the results of recent excavations on the *Viminacium* amphitheatre. The presence of the amphitheatre is very important because this is the first one ever to be excavated in the territory of modern Serbia. The amphitheatre deserves special attention because it plays an important role in understanding the appearance and urbanization of *Viminacium*.

Viminacium Amphitheatre – Location and Excavations

The *Viminacium* amphitheatre is located in the north-eastern corner of the surface defined as the city area, 50-60 m away from the north-western corner of the legionary fortress (**fig. 2**). The site appears to have been chosen because the natural slope could easily be enlarged and remodelled by digging out the arena, in order to use the soil as the base for the *cavea*.

Before archaeological excavations the site was noted as a large pit measured approximately 65 x 60 m and 7 m deep. The first small-scale excavations at this location took place in the year 1882, when M. Valtrović detected only traces of a wooden construction, parts of the walls and city rampart (Валтровић 1884). Apart from that, it was not possible to grasp the purpose of this part of the settlement.

Modern investigations started with geophysical survey. In the course of 2003 the first ground penetrating radar survey was done (**fig. 3a**). A magnetic survey was conducted in the following years (**fig. 3b**). According to geophysical data, it was possible to define the outline of an elliptical building similar to the shape of an amphitheatre. The internal elliptical anomaly could be explained as the arena wall. Main entrances were also determined. To the north-west and south-east of the building, city ramparts were detected.

Systematic archaeological excavations began at the end of 2007 and they are still in progress. Based on the layout of the amphitheatre masonry walls, post-holes and beam-slots, it was possible to assume that the excavated parts of the amphitheatre include: the arena, the arena wall, main entrances, chambers that flanked the main entrances, recesses on the short axis of the building and traces of the timber-framed seating. Along the amphitheatre segments of the northern and the eastern city ramparts were excavated.

According to the archaeological data, it can be assumed that the amphitheatre was built in the first

[1] For an understanding of the history and of the appearance of *Viminacium* see Поповић 1968; Mirković 1968, 56-73; Mrđić 2009.

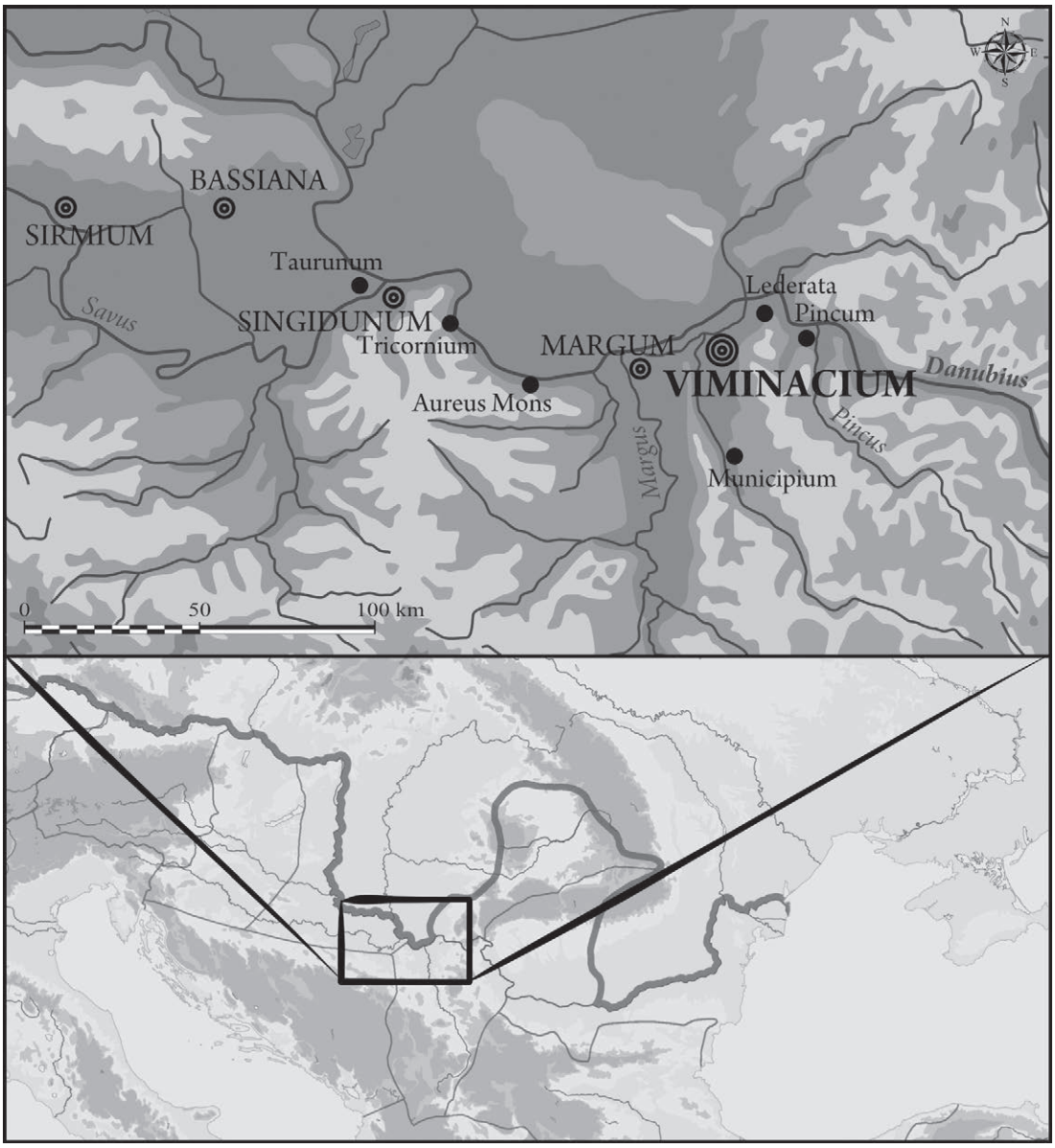


Fig. 1. Location of *Viminacium*

quarter of the 2nd century AD, and that it was used until the turn of the 3rd and 4th centuries AD. So far, it was possible to distinguish the primary wooden structure that was later replaced by a stone-wooden amphitheatre (Nikolić / Bogdanović 2012).

Wooden Amphitheatre

During the excavations the first wooden amphitheatre was partly detected. The structural evidence for this timber-built phase comprised post-holes and beam-slots detected at both ends of the longer axis of the building and in the north-eastern part of the excavated surface (**fig. 4**). Also, there is a possibility that some pits with traces of timber construction, which were detected within the southern and south-western parts, belong to the wooden amphitheatre.

According to the distribution of archaeological features, it was possible to hypothesize that the arena of the wooden amphitheatre was c. 60 m long. The width of the arena could not be determined. The level of the arena was not detected, but it can be assumed based on the elevation of the pavement within the eastern entrance. It seems that arena was partly sunken to the natural slope. We can assume that arena was surrounded by a timber arena wall, although there was no evidence of it.

Two rows of pits set on the eastern and the western end of the longer axis represent the main entrances. These pits were used as the foundation for posts supporting the sides of the entrances. According to the layout of pits and traces of wooden poles, the eastern entrance was 10.90 m long. The width of

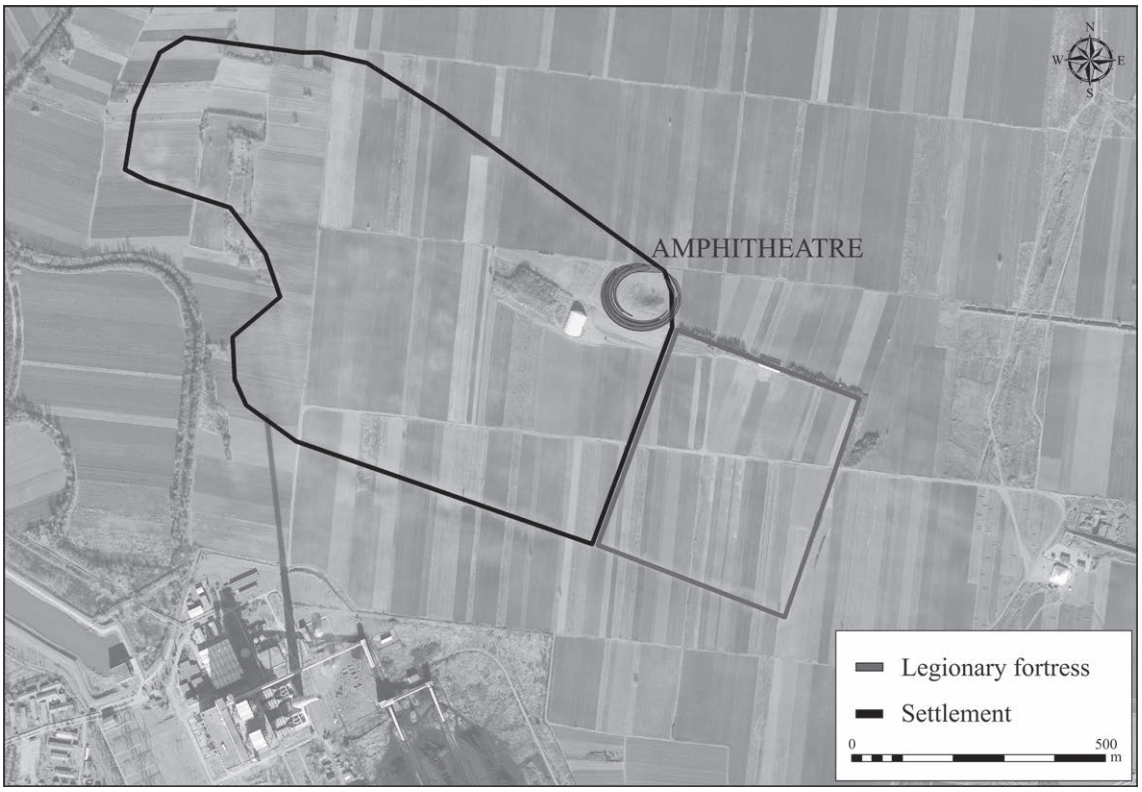


Fig. 2. Location of the amphitheatre in an aerial photo of *Viminacium* (taken in 2007)

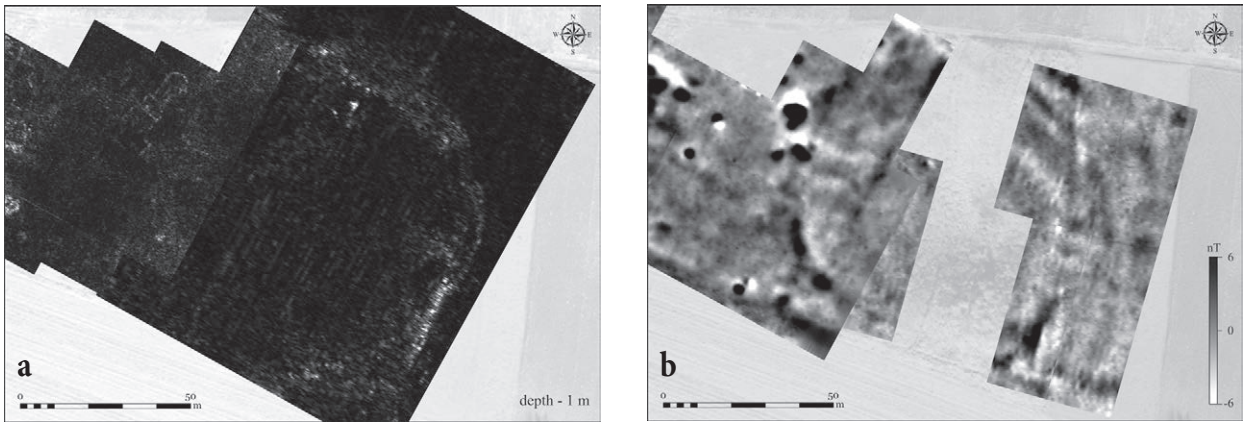


Fig. 3. a Ground penetrating radar survey data of the *Viminacium* amphitheatre; **b** Magnetic survey data of the *Viminacium* amphitheatre

this entrance on the outer side was around 4.30 m, while it was not possible to determine its width on the arena side. The pavement in the central part of the entrance made of finely crushed red baked clay, broken stones and bricks, probably belonged to the wooden phase. The length of the western entrance passage was 10.90 m, while its width was 3.35 m at the inner arena gate and 3.95 m at the outer gate.

Traces of a wooden *cavea* in the north-eastern part of the excavated surface include horizontal timber beams 20-25 cm wide. The timber seating framework consisted of wooden seats that were set on a timber framework which was carried by timber beams. Based on the excavated parts of the horizontal timber beams it was not possible to determine the full width of the cavea which is defined by the length of the entrances, and measures c. 10.90 m. There is a possibility that some post-holes discovered in the southern and south-western part of the building also represent traces of the wooden amphitheatre grandstands.

Three small fresco-painted structures (Rogić 2010) discovered to the north of the eastern entrance probably belong to the wooden amphithea-

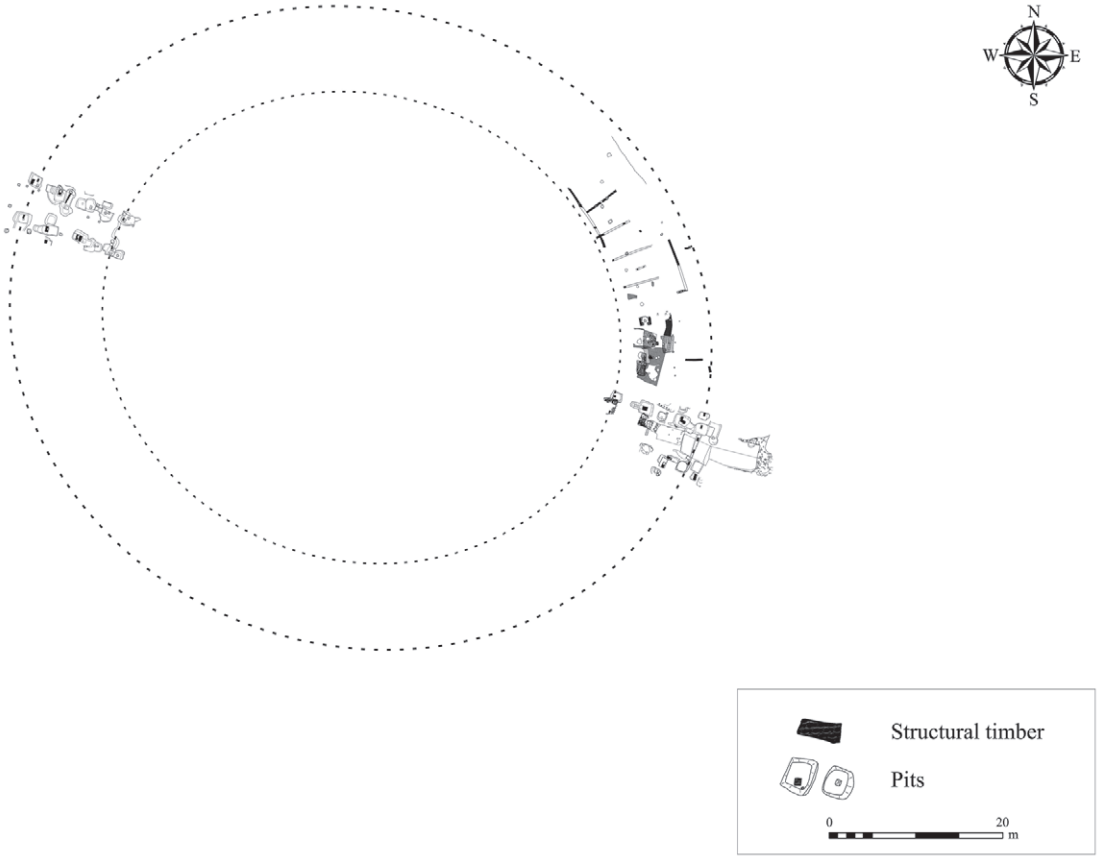


Fig. 4. *Viminacium* amphitheatre. Excavated parts of the wooden amphitheatre

tre. Around those shrines, traces of wooden-earth construction were detected. It is still not clear whether it was a gladiatorial cult place, a shrine, an altar or a chapel, which could be expected in the amphitheatre (Golvin 1988, 337-340).

According to the layout of pits comprising the main entrances, we can suggest that the length of the first timber amphitheatre was c. 81.80 m. It was not possible to establish the width of this building. The orientation of the longer axis of the amphitheatre is east-west, with a deviation at the western end by 20 degrees to the north. It is very important to note that the mentioned orientation is the same as the orientation of *via principalis* of the legionary fortress. If we accept the relations between length and width of the *Viminacium* amphitheatre and its arena during the stone-wooden construction period, and if we compare them with the known dimensions of the wooden structure, then we can suppose that the wooden amphitheatre could accommodate a maximum of 6000 spectators.

Wooden amphitheatres are known from the late Republican and Early Imperial period as the first temporary structures for holding gladiatorial combats, but traces of these buildings are very rare (Golvin 1988, 98-101; Welch 2009, 65-70). The wooden amphitheatre of *Viminacium* was built along the legionary fortress. Based on excavated parts it can be assumed that the southern part of the building was dug into a natural slope, while the northern part was set on an almost flat surface. It belongs to Golvin's simplest type of amphitheatre with wooden *cavea* supported by embankments (Golvin 1988, pl. II/a). Buildings consisting only of earthen banks enclosing an oval space and supplemented by timbering are typical of Early Imperial military amphitheatres erected beside legionary and auxiliary fortifications (Golvin 1988, 98-101; Alicu / Opreanu 2000, Sommer 2009; Wilmott 2010). The closest analogies are the wooden amphitheatres in *Porolissum* (Alicu / Opreanu 2000, 60-62; Bajusz 2005), *Carnuntum* (Klima / Vetters 1953, 53-60; Golvin 1988, 85), *Vindonissa* (Golvin 1988, 79-80), *Castra Vetera* (Golvin 1988, 80), *Londinium* (Bateman et al. 2008, 19-38; Wilmott 2010, 92-95), *Calleva Atrebatum* (Fulford 1989, 12-36; Wilmott 2010, 97-101) and *Durnovaria* (Wilmott 2010, 103-108).

Wooden military amphitheatres were built during the 1st and at the beginning of the 2nd century AD (Golvin 1988, 98-101; Wilmott 2010). Based on previous investigations we can suggest that *Viminacium* wooden amphitheatre was built during the reign of

Emperor Trajan. This building was probably used for a very short period and then it was replaced by a stone and wooden structure during the first half of the 2nd century AD, soon after Trajan's death.

Stone-wooden Amphitheatre

The amphitheatre made of stone and wood was built above a timber structure (**fig. 5**). Excavated parts include masonry walls and post-holes. Along the amphitheatre segments of the northern and the eastern city ramparts were excavated.

The arena of the stone-wooden amphitheatre measures 54.90 x 45.30 m. It covers nearly 40 % of the building's surface. It was not possible to define the level of the arena, but we can assume this, based on the thresholds of the main entrances and doors that led to the rooms behind the arena wall. Like the arena of the wooden amphitheatre, this one was also partly dug into the natural slope. Chambers that might have lain below the arena were not detected either.

The width of the wall that surrounded the surface of the arena was between 0.80 and 1.15 m. The best preserved segment of the arena wall was discovered in the south-western part of building. At this place, the height of the arena wall from the arena level to the top of the wall was 3.40 m, while the height of the foundation was 0.80 m. In the north-western and south-eastern parts of the arena, segments of collapsed parts of the arena wall were found. The collapse of the arena wall can be explained by its small foundations, and the Late Roman pits which were dug within the arena surface, thus impairing the structural integrity of the wall. Also, it could be due to the pressure of the embankment.

At the best preserved segment, it was easy to notice two phases of construction. At first, the arena wall was made of limestone in *opus quadratum* technique with the foundation made of greenschist. The preserved height of this wall is 2.40 m. In the course of time, the wall was reconstructed with smaller broken stones (greenschist) and bricks and raised higher. Judging by the bearings for wooden beams that were set on top of the walls of recess at the southern end of the shorter axis, we can suggest that the arena wall reached a height around 3.40 m plus a parapet which was about 0.80-1.00 m in height that protected spectators.

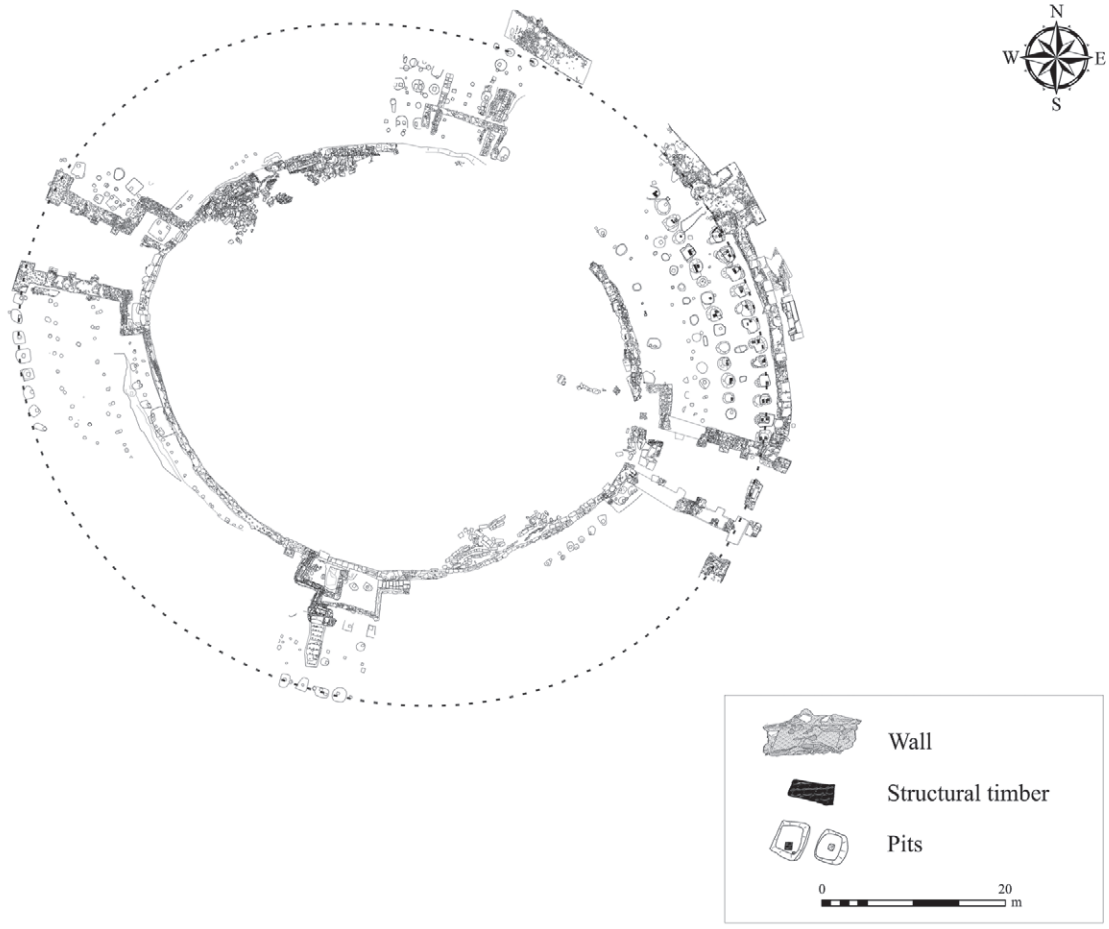


Fig. 5. *Viminacium* amphitheatre. Excavated parts of the stone-wooden amphitheatre

The arena wall was fresco decorated (Rogić / Bogdanović 2012). Only a small part of wall decoration was found *in situ*. It mostly fell along the arena wall, so 8.5 m^2 of fresco decoration had been found within south-western part of the arena beside the best preserved part of the arena wall. Wall painting consisted of bays and borders made in different colours.

Within the wall, two main entrances and five doors that led to small chambers were found. Main entrances are represented by two pairs of radial walls with pilasters on their internal sides and T-shaped ends on their outer parts. Walls were made of broken greenschists. The pilasters and T-ends show us that the vaulting carried seating over both entrances. The eastern entrance walls were partly destroyed. The length of this entrance was c. 14.80 m, while its width was 4.00-4.15 at the inner gate and 6.20 m at the outer gate. Within the entrance, a pavement, an inner and an outer threshold were found. On the external side, two pillars measured 1.60 x 1.50 m and 1.60 x 1.35 m were discovered. The western entrance passage was 14.35 m long and it was 4.15 m wide at the arena gate and 7.10 m wide at the outer gate. Within this entrance threshold and part of pavement on the arena side were found. According to shaft cuts and the pivot socket noted within both entrances it was easy to appropriate that double doors led to the arena.

On the arena side, both entrances were flanked by two chambers – *carceres*[2]. These chambers were connected with the main entrance and the arena by doors, 1.20-1.30 m wide. The internal dimensions of the chamber to the south of the eastern entrance measure 3.30 x 1.60 m, while the dimensions of the northern chamber are 3.85 x 1.60 m. The internal dimensions of the chamber to the south of the western entrance measure 4.30 x 1.80 m, while the dimensions of the northern room are 4.20 x 2.45 m. Distinguished by the shape of the basis, these chambers were probably used for animals. An exception may be the room to the north of the western entrance which has a different layout so it could have been used for some other purpose related to the spectacle.

On the shorter axis of the *Viminacium* amphitheatre, behind the arena wall, three trapezoid recesses were detected. Two doors 1.20-1.25 m wide ascertained at the southern end of the shorter axis of the arena led to a separate chamber set behind the arena wall. The internal dimensions of the western chamber were 3.55-4.05 x 2.60 m, while the eastern recess internal dimensions measure 6.25 x 3.85 m. By close inspection of the southern chambers it was possible to appoint their construction to different phases of construction of the stone-timber amphitheatre. The western room, which was connected to the outer space via wooden-earthen stairs, was built before the eastern chamber, which was built during the reconstruction of the arena wall and was connected with the stands via a stone staircase. During the final phase of the amphitheatre both rooms were used together. The northern recess that extended behind the arena wall was badly preserved. Its internal dimensions measure 6.70-8.10 x 3.85 m, while the door leading to the arena was not preserved. Beneath this chamber, two walls were discovered. The function of these walls is not clear yet. Above the arena-side recesses there were places for the most important spectators (*tribunalia*). Considering the bearings for the wooden beams set at the top of the southern recesses walls, it was possible to suggest the level of the floor of *tribunalia*.

The grandstands of the *Viminacium* amphitheatre were made of wood. The *cavea* rested on a natural slope on the southern part, while on the other side post-holes found on the banks suggest that the seating was set on embankments. Traces of wooden construction include 4 or 5 rows of pits for timber posts. According to previous excavations, it is not possible to determine the number of rows, because it is obvious that there were older pits with timber slots that were partly damaged by new ones. However, it was possible to establish the height of the bank in the south-western part of the amphitheatre. It reaches 3.35 m, which is 5.70 m above the arena level.

Apart from relying on the embankments, the wooden framework also relied on the arena wall and the stone walls of the entrances and chambers. The outer wall was detected only in the north-eastern part of the amphitheatre, while the southern and western part of the amphitheatre was built without it. It runs from the eastern entrance to the northern city rampart. The length of the outer wall is 23.20 m and it was 1.20 m wide. Between the outer wall and the northern city rampart lays a 7.20 x 5.00 m masonry platform. It probably represents the foundation of the angle tower. The length of the excavated part of the northern rampart is 28 m, while the length of unearthed segment of the eastern one is 7.50 m. The width of the excavated part of the northern rampart

[2] For types and dimensions of the *carceres* see Golvin 1988, 328-330, tab. 41.

is between 2.80 and 2.95 m and the width of the eastern rampart is between 2.40 and 2.65 m. During the final phase the *cavea* laid between the arena wall and the outer wall of the amphitheatre or city ramparts, which were built along the amphitheatre. We can assume that the amphitheatre was then incorporated into the area defended by city ramparts and became part of the civil settlement developed western to the legionary fortress.

The width of the *cavea* is 14.35 m in the western, northern and southern part, and 14.80 m in the eastern part. The *cavea* was connected to the outer wall and an angle platform or tower in the eastern and north-eastern part, while in the northern and south-eastern part it was connected to the city ramparts. In the eastern part of the building, between grandstands and the outer wall, a walking platform was probably set[3]. The *cavea* in *Viminacium* amphitheatre covered around 60 % of the structure. If the seating rake was around 30 degrees (Golvin 1988, 293, tab. 32), the external elevation of the grandstands construction was around 10.50 m above the arena level, plus a fixed part of 0.80-1.00 m in height that protected the last row of seats. Spectators probably climbed the wooden structure either by means of external stairs or via entrances in its substructures. Beside c. 16 rows of seats it was possible to determine two tribunals (*tribunalia*) that were set above the arena-side recess contained behind the arena wall.

During the excavations of the *Viminacium* amphitheatre, a channel belonging to a drainage system was found under the northern part of the grandstands. The drainage system was a very important feature of the amphitheatre, because it carried water from the arena. With a degradation of c. 3 %, it ran below the chamber on the shorter axis of the building and also below the northern city rampart. The length of the channel is 16.40 m, and it was 0.40-0.45 m wide. The bottom of the channel was made of *tegulae* with stamps of *Legio VII Claudia*.

According to previous investigations, the overall dimensions of the amphitheatre are 84.00 x 73.70 m. The orientation of the stone-wooden amphitheatre was the same as the orientation of the older wooden amphitheatre and of *via principalis* of the legionary fortress. Based on estimation of space used for a single spectator (Golvin 1988, 380–381; Bomgardner 1993, 386; Welch 2009, 53), the capacity of the *Viminacium* amphitheatre was between 6500 and 7300 spectators.

Considering the excavated part of the stone-wooden amphitheatre, it can be assumed that the southern part of the building was buried into a natural slope, while in the other parts embankments were made for the setting of the *cavea*. The stone-wooden amphitheatre belongs to Golvin's type of amphitheatre with wooden *cavea* supported by embankments (Golvin 1988, pl. II/b). Similar constructions were built in Roman provinces, especially in Dacia and Britannia. The closest analogies are the amphitheatres in *Ulpia Traiana Sarmizegetusa* (Alicu / Opreanu 2000, 81-88), *Micia* (Alicu / Opreanu 2000, 42-57), *Londinium* (Bateman et al. 2008, 39-87; Wilmott 2010, 95-97) and *Calleva Atrebatum* (Fulford 1989, 37-56; Wilmott 2010, 101-103). In the course of its existence, the *Viminacium* amphitheatre fitted into the space defended by walls and it was situated in the north-eastern corner of the settlement. Location of the amphitheatre during the stone-timber phase is similar to examples noted in Pompeii (Golvin 1988, 33-37; Bomgardner 2002, 39-53), Colonia Ulpia Traiana (Hönle / Henze 1984, 156-157; Golvin 1988, 195), Salona (Jeličić-Radonić 2008) and Emerita Augusta (Durán Cabello 2004; Durán Cabello et al. 2009, 17-21).

The Roman wooden military amphitheatres were rebuilt in stone in the 2nd century AD (Golvin 1988; Welch 2009, 70). As archaeological excavations are still in progress, we can suggest that the *Viminacium* stone-timber amphitheatre was built during Hadrian's reign. The stone-timber amphitheatre went through at least two construction phases. Firstly, the arena wall made in *opus quadratum* technique was erected. There is a possibility that the two partially excavated walls in the northern part of the amphitheatre date back to the same period of construction. This amphitheatre is characterized by rows of pits and traces of timber slots that were set over the older wooden amphitheatre. We are still not sure if the main entrance walls and chambers were made in the course of the same period. The different material and building technique, and also the lack of constructive links between walls show us that there were maybe two different structures. We can suppose that the stone-wooden amphitheatre got its form in the middle of the 2nd century AD. After that city ramparts were erected along the amphitheatre.

The structure made of stone and wood was remodelled. Modifications on the amphitheatre were characterized by raising the height of the arena wall

[3] The walking platform was probably connected to the rampart-walk via an angle tower.

and building the eastern recess on the southern side of the shorter axis. This chamber was connected to the arena via a newly pierced door and with the grandstands via stairs. This remodelling was made between the second part of the 2nd and middle of the 3rd century AD, but it is still not clear if this modifications followed erections of city ramparts or they were done separately. The *Viminacium* stone-wooden amphitheatre was used until the end of the 3rd or until the beginning of the 4th century AD.

After the *Viminacium* amphitheatre lost its function[4], the surface of the building was abandoned and stone was taken from the walls. Within the arena the Late Roman pits were detected. The whole surface was then filled with a 4th century layer. Above the amphitheatre, especially in the central and south-western area, a Late Roman graveyard was set during the middle and the second part of the 4th century AD[5].

Conclusion

As this is the first Roman amphitheatre ever excavated in the territory of modern Serbia, investigations of this structure influenced a new approach to studying gladiatorial games especially in the territory of the province of Upper Moesia.[6]

The *Viminacium* amphitheatre is a military amphitheatre erected by the legionary fortress. The arena was sunken, while the *cavea* rested on the natural slope in the southern part and was set on embankments on the other sides. In the course of its existence the construction belonged to Golvin's amphitheatre types with a *cavea* supported by embankments (Golvin 1988, Pl. II/a-b). According to the archaeological data, it is possible to assume that the amphitheatre was built in the first quarter of the 2nd century AD, and that it was used until the end of the 3rd or until the beginning of the 4th century AD. So far, it has been suggested that there were at least three phases of construction: the oldest timber phase dated to Trajan's reign, and the two stone-timber phases that date back to the period from the first half of the 2nd until the turn of the 3rd and 4th centuries AD.

We can assume that the first timber amphitheatre was slightly smaller in dimensions than the later stone-timber amphitheatre. During the period of usage of the stone-timber amphitheatre, it was incorporated into the area defended by city ramparts. It became part of the settlement developed western to the legionary fortress and, supposedly, was also used by the civil population. All discovered features play an important role in understanding the appearance and urbanization of the north-eastern part of the *Viminacium* settlement and also of the area to the north-west of the legionary fortress.

Bibliography

Alicu, D. / Opreanu, C. 2000. Les amphithéâtres de la Dacie romaine. Cluj-Napoca.

Bajusz, I. 2005. Das Militäramphitheater von Porolissum in Dakien (Krejs Salaj, Rumänien). In: Visy, Z. (ed.). Proceedings of the XIXth International Congress of Roman Frontier Studies held in Pécs, Hungary, September 2003. Pécs. 881-889.

Bateman, N. / Cowan, C. / Wroe-Brown, R. 2008. London's Roman Amphitheatre: Guildhall Yard, City of London. London.

Bomgardner, D. L. 2002. The Story of the Roman Amphitheatre. London / New York.

Bomgardner, D. L. 1993. A New Era for Amphitheatre Studies. – Journal of Roman Archaeology 6, 375-390.

Durán Cabello, R.-M. 2004. El teatro y el anfiteatro de Augusta Emerita. Contribución al conocimiento histórico de la capital de Lusitiana. Oxford.

Durán Cabello, R. / Fernández Ochoa, C. / Morillo Cerdán, Á. 2009. The Amphitheatres in Hispania: Recent Investigations. In: Wilmott, T. (ed.). Roman Amphitheatres and Spectacula, a 21st-Century Perspective: Papers from an International Conference Held at Chester, 16th-18th February, 2007. Oxford. 15-27.

Fulford, M. 1989. The Silchester Amphitheatre: Excavations of 1979-1985. London.

Golvin, J.-C. 1988. L'amphithéâtre romain: Essai sur la théorisation de sa forme et de ses fonctions. Paris.

Hönle, A. / Henze, A. 1984. Römische Amphitheater und Stadien. Gladiatorenkämpfe und Circusspiele. Luzern / Herrsching.

Jeličić-Radonić, J. 2008. Amfiteatar i zapadni bedemi Salone. – Tusculum 1, 35-44.

Klima, L. / Vetters, H. 1953. Das Lageramphitheater von Carnuntum (= Der römische Limes in Österreich, Heft 20). Wien.

[4] Causes of this are still unclear.

[5] Within the amphitheatre more than 60 graves were discovered and excavated.

[6] For further studying of gladiatorial spectacles at the Roman sites in Serbia see Вујовић 2011.

Mirković, M. 2003. Römer an der Mittleren Donau: Römische Strassen und Festungen von Singidunum bis Aquae. Beograd.

Mirković, M. 1968. Rimski gradovi na Dunavu u Gornjoj Meziji. Beograd.

Mrđić, N. 2009. Topografija i urbanizacija Viminacijuma. (Unpublished Master's Thesis). Filozofski fakultet, Beograd.

Nikolić, S. / Bogdanović, I. 2012. Istraživanja viminacijumskog amfiteatra u toku 2011. godine. In: Bikić, V. / Golubović, S. / Antonović, D. (eds.). Arheologija u Srbiji: Projekti Arheološkog instituta u 2011. godini. Beograd. 42-45.

Rogić, D. 2010. Wall Decoration at Amphitheater of Viminacium. In: 11. Internationales Kolloquium der AIPMA, Antike Malerei zwischen Lokalstil und Zeitstil? Ephesos und Selçuk, 14.-18. September 2010. Book of Abstracts. Ephesos / Selçuk. 19.

Rogić, D. / Bogdanović, I. 2012. Slikana dekoracija zida arene amfiteatra u Viminacijumu. In: Bikić, V. / Golubović, S. / Antonović, D. (eds.). Arheologija u Srbiji: Projekti Arheološkog instituta u 2011. godini. Beograd. 46-49.

Sommer, C.S. 2009. Amphitheatres of Auxiliary Forts on the Frontiers. In: Wilmott, T. (ed.). Roman Amphitheatres and Spectacula, a 21st-Century Perspective: Papers from an International Conference Held at Chester, 16th-18th February, 2007. Oxford. 47-62.

Tončinić, D. 2011. Spomenici 7. legije na području rimske provincije Dalmacije. Split.

Welch, K.E. 2009. The Roman Amphitheatre: From Its Origins to the Colosseum. Cambridge / New York.

Wilmott, T. 2010. The Roman Amphitheatre in Britain. Stroud.

Валтровић, М. 1884. Откопавања у Костолцу. – Старинар I, св. 1-4, 2-16, 49-63, 89-104, 121-142.

Вујовић, М. 2011. Представе гладијатора са римских налазишта у Србији. – Зборник Народног музеја 20-1, 243-276.

Поповић, В. 1968. Увод у топографију Виминацијума. – Старинар 18, 29-53.

Snežana Nikolić BA
Institute of Archaeology
Kneza Mihaila 35/IV
SRB-11000 Belgrade
snenik@gmail.com

Ivan Bogdanović BA
Institute of Archaeology
Kneza Mihaila 35/IV
SRB-11000 Belgrade
leshicka@gmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Route of the Eastern Road of *Viminacium*

Ilija DANKOVIĆ

Viminacium was the largest civil settlement and capital of the Roman province of *Moesia Superior*. It was founded on the right bank of Mlava river, not far from its confluence with the Danube. Very convenient strategic location, fertile soil, vicinity of terrains rich with ores and a big river nearby, resulted in population continuity of this territory from late Neolithic to present days.

Favorable geographic location directly influenced rapid economic and cultural prosperity of *Viminacium*. Namely, three roads connected the city with different parts of the Empire and gave it cosmopolitan character in various aspects of its life. First road led from the city to the south connecting it with the interior of the province and further with Macedonia. Near *Naissus* one branch separated from it, and led through Thracia to the Bosphorus. Second important road is the one that was coming from the west, through Pannonia, connecting *Viminacium* with Italy, and also with western and northern parts of the Empire. That way then continued to the east, along the Danube and to the Black Sea. Third communication was connecting the city with the left bank of the Danube, through *castellum Lederata* (modern day Ram) on the northeast (Mirković 1968, 56).

This paper focuses on the second and the third road. After a brief review of their mentioning in Roman itineraries and modern publications, an attempt will be made to interpret the latest results of geophysical and archaeological research in order to understand better the actual situation on the filed.

Viminacium is represented on all of the most important Roman itineraries. *Tabula Peutingeriana* mentions it as *Viminatio*, *Itinerarium Antonini Augusti* as *Viminacio* or *Eumenacio*, and *Itinerarium Burdigalense* as *civitas Viminacio* (Поповић 1968, 38). Unfortunately, the last one, though most detailed of the aforementioned, is not of any use for this subject, because it only enlists stations along the Danube to the west of *Viminacium*, and after that describes the road leading to *Naissus* (Mirković 1968,



Fig. 1. Representation of *Viminacium* on *Tabula Peutingeriana*

6). *Itinerarium Antonini Augusti* brings us a list of stations to the east of *Viminacium*, but the first mentioned is *Cuppae*, near modern day Golubac, so this document also cannot help to make a more precise reconstruction of the route of the eastern communication. It also does not mention the road leading through *Lederata* to Dacia. *Tabula Peutingeriana* remains the only itinerary that can be of any use on this subject (see **fig. 1** with the representation of *Viminacium* in this document). One can immediately notice that there is a single communication leading from the city to the east. The first station on this road is *Punicum* (*Pincum*, modern day Veliko Gradište), which is thirteen Roman miles away. Also, one branch leads from this road to *Lederata*, ten miles distant. This is the most detailed description of the road in question that has remained from Antiquity.

The first modern publication to address the problem of routes of the roads east of *Viminacium* is the book *Serbia: land and people, from Roman times to the end of XIX century*, written by Austro-Hungarian traveller Felix Kanitz. First of all, he correctly locates *Lederata* in modern day Ram, and describes the road between this *castellum* and *Viminacium*, stating that it is ten Roman miles long, with one branch road leading to *Pincum* (or *Picnum* as he calls it). His observations correspond with the information provided by *Tabula*. Further, Kanitz rules out the possibility of existence of direct link between *Lederata* and *Pincum* because of the quick sand in this area. More importantly, he introduces us to the work of regional engineer Čermak, who discovered remains of a Roman road near the Nimnik monastery, located northeast of Kurjače village (**fig. 3**). This information will prove useful (Каниц 1985, 188-189).

Dragana Spasić-Đurić concludes that roads near the city were built with great attention judging by the visible part of the road to *Lederata*. Unfortunately, she does not mention the precise location of this part of the road (Спасић-Ђурић 2002, 14-15).

So far, the only publication dealing solely with the eastern communication is the paper *Route of the Viminacium-Lederata road, results of the ground reconnaissance surveys in 2003-2004* by Dragana Spasić-Đurić and Dragan Jacanović. They have reconstructed the route, based on construction material visible on the surface, as well based on occasional finds from the Roman period. Their observation that the road for *Pincum* branches off at 1.1 km measured from the eastern gate of *Viminacium*'s *castrum* is of importance for this research (Спасић-Ђурић / Јацановић 2007).

The area east of the military camp is being researched since 2002 within rescue excavations conducted because of the expansion of the Drmno coal mine. In most cases excavations were preceded by geophysical surveys[1]. During early phases of researches, the road was archaeologically confirmed in three places on location called Pirivoj (**fig. 2**). Communication in this area is also easily visible on aerial photography, in length of 750 m. After a zone, where it was not possible to distinguish it, it becomes visible once again in the Nad Klepečkom location. Geophysical surveys in this area have been conducted since 2009. Geoelectric resistivity method was used, because it was thought to be the best method for detecting the road. Results confirmed its existence in length of ca. 500 m.

Simultaneously with geophysical surveys, excavations of aquaeducts were undertaken. We can see them on aerial photography as two parallel lines brighter than the ground besides them. They are approaching the road at 1.1 km measured from the eastern gate of the *castrum*. One cannot escape the impression that D. Spasić-Đurić and D. Jacanović saw the rubble originating from aquaeducts during their ground reconnaissance surveys and misinterpreted it as a branch leading to *Pincum*.

In 2009, the road was archeologically confirmed in four places, and in the following year in four more. Further analysis of aerial photography led to noticing that from one point the road was not leading further to the village of Kličevac, as expected, but had turned to the southeast. This area was subjected to surveying with geoelectrical resistivity method. Because of inaccessibility of the terrain the turn itself could not be investigated, but the road was registered for some 135 m. Geophysical surveys continued in 2011. Surface that could be researched was very limited partly because of the crops, and partly because of the lack of time. Results were not quite satisfying, however they showed that other archaeological features existed near the assumed route of the road. Excavations that followed discovered a Roman necropolis which indirectly suggested that the road should be nearby. Digs opened during these excavations were placed in such manner to confirm the remains of the road as well, but gave no result. After the removal of the crops, ground surveying confirmed

[1] Research was conducted by the Institute of Archaeology (Belgrade) and the Center for New Technologies (Belgrade), under the direction of PhD Miomir Korać.

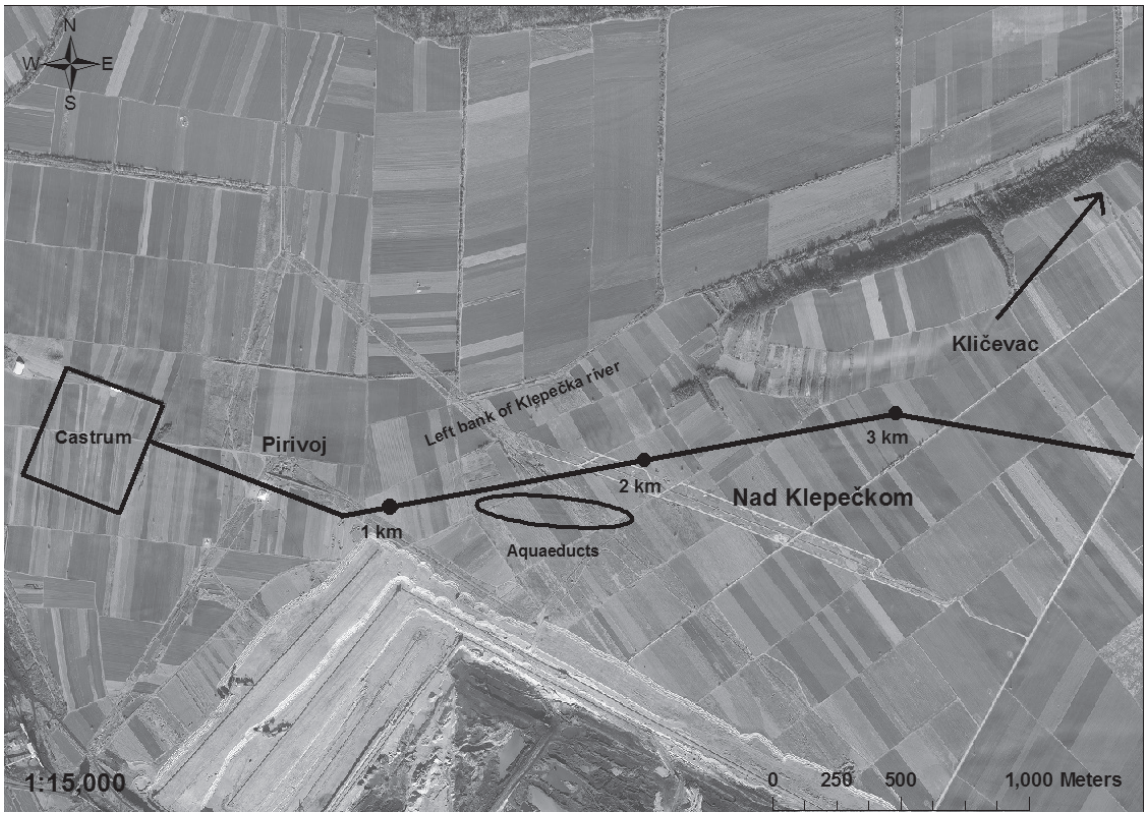


Fig. 2. Aerial photography of area to the east of *Viminacium*

the observations made during analysis of aerial photography, and the eastern communication was spotted for ca. 465 m. Two locations, on which the rubble was most intensive, were chosen for excavation, and the road was finally archaeologically confirmed.

On its fourth kilometer measured from the eastern gate of the *castrum*, the eastern communication leaves the area endangered by the coal mine.

To summarize the facts acquired on the field, the eastern communication of *Viminacium* starts at the eastern gate of *castrum*, and deviates towards south compared to the orientation of *via principalis*. It runs to the southeast for about 700 m ant then the road turns towards northeast. Reasons for this turn are not clear. The road has this orientation for 2280 m, after which it turns towards southeast once again. The second turn can be explained through its position. This is a dominant point, in terms of elevation, and from it visual routing of the next section of the road was possible, as was the common practice used by Roman road builders (Davies 1998, 3).

On satellite images available on Google Earth the eastern route is still visible for about 1 km, and it is clear that it leads towards the villages of Popovac and Topolovnik, which are located in a natural pass flanked by the hills on both sides (**fig. 3**). It is only logical to assume that in this pass the road turns to the northeast and leads to Veliko Gradište i.e. *Pincum*. Additional support for this claim is provided by the already mentioned information of the discovery of a Roman road in the vicinity of Nimnik monastery in the second half of the 19th century. The monastery could be on the route of the road, if it does not make any turns, though it should be expected that this is not the case in this area, but that it turns in order to pass through one of the valleys between the hills, on one of which Nimnik is located.

If we assume the shortest possible route after the point in which the road leaves the area endangered by the coal mine, we get the length of 24.6 km to Veliko Gradište, measured from the eastern gate of *Viminacium*'s *castrum*. This length substantially exceeds the 19 253 m or thirteen Roman miles provided by the *Tabula Peutingeriana*. This is not necessarily an argument that rules out the possibility that the discovered road is leading to *Pincum*, because of the fact that *Viminacium* and Veliko Gradište are 23 150 m apart in straight line, so there is obviously a mistake in the itinerary regarding this distance.

So, as it has been shown, all results indicate that the discovered communication is part of the road leading to the station *Ad Malum* near Vidin, Bulgaria, and that it was the main road from which branch roads led to Dacia (Шкриванић 1975, 45).

A question that imposes itself is the location of the road connecting *Viminacium* with *Lederata* and the left bank of the Danube. The presumption that road would branch instead of turning for a second time, thus forming the route suggested by D. Spasić-Đurić and D. Jacanović, was not confirmed on the field. This area was researched within strategically placed geophysical survey fields. Results showed no anomalies. Neither ground reconnaissance surveys have confirmed existence of archaeological remains. At this point one cannot rule out the existence of the road in this area with certainty, but it is very unlikely.

An alternative route, which deserves attention, is the left bank of the now non existing Klepečka river (**fig. 2**). A road could lead through this area after branching off from the road for *Pincum*, possibly in the area where the road could not be distinguished on aerial photography. Earlier researchers ruled out this possibility because of the marshy ground and frequent floods. But this does not necessarily make building of a road impossible. Roads made of timber were made on such occasions, especially in times of war, for the fastest possible transport of the troops (Van Tilburg 2007, 18-20). And the *Viminacium – Lederata* road was built in such circumstances, during the preparations for Trajan's war with Dacians.

Excavations conducted in 2010 confirmed continuity of life in this area from Bronze age to the 19th century but no indications of the road have been noted. However, two discoveries made in 2011 do not allow us to rule out this route easily. Firstly, part of a 3rd century necropolis have been excavated, and given that necropolis have always been formed along the roads it is logical to assume the existence of one nearby. Additional proof for this hypothesis was the discovery of a *villa rustica*, which also needed contact with one of the main roads (Laurence 1999, 103). At last, another group of graves, dated back to the 2nd century, was discovered in 2012.

It is impossible to measure the length of the presumed road given that we know neither where it branches off nor its precise route. However, crude measuring shows that this communication could have been around 14 km long, which is only about 500 m shorter than the 10 Roman miles given to us by *Tabula Peutingeriana*. This fact does not have to rule out the left bank of Klepečka river, because, as it has been shown, the *Tabula* is not always that precise when distances between stations are considered.

For the moment, it is impossible to propose a route of the *Viminacium – Lederata* road supported with strong evidence. Definitive answers to this question can be provided only by further researches.

Not much can be said about the construction of the eastern communication of Viminacium due to devastation caused by plowing and usage of construction material in times that came after the Roman period. For this matter, part of the road discovered in one of the digs on Nad Klepečkom loca-

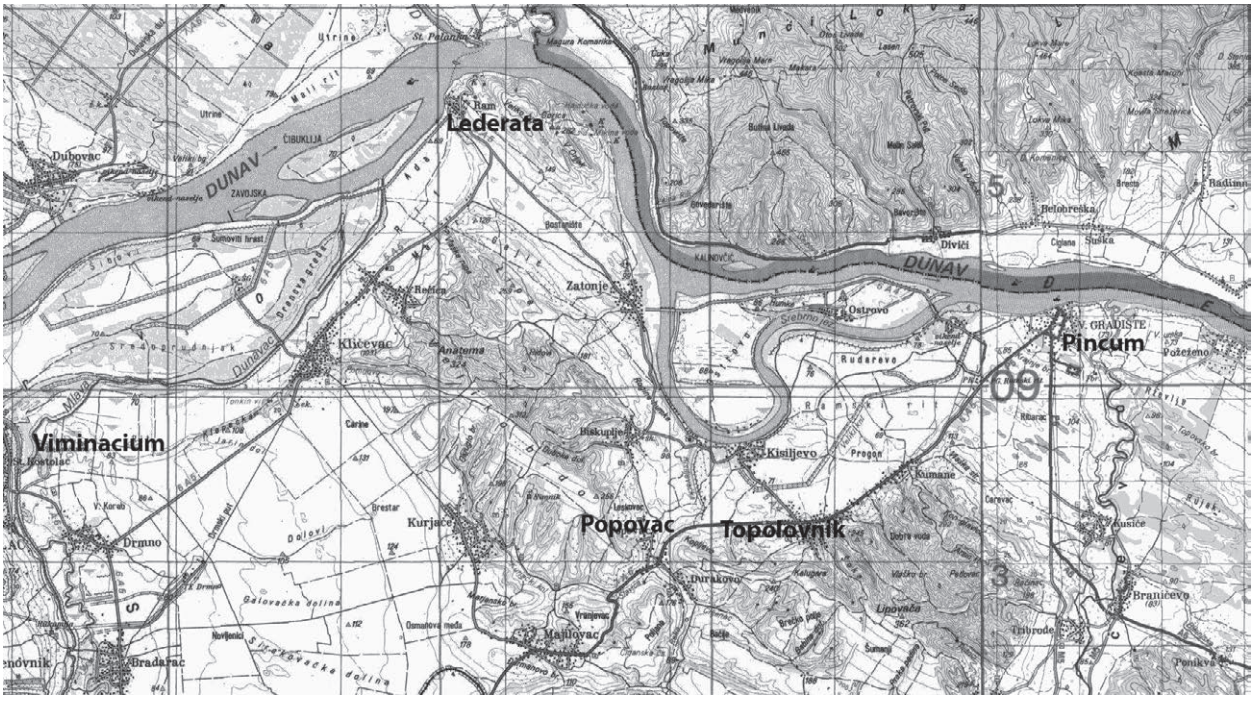


Fig. 3. Topographic map of area between *Viminacium* and *Pincum* (Veliko Gradište)



Fig. 4. Best preserved section of the road (Nad Klepečkom)

tion will prove most helpful (**fig. 4**). This is the only place where we have the actual width of the road which measures 5.10 m. This is more than two times wider then legislated minimum width for the roads labeled as *viae*, and it corresponds with widths of the more important roads across the Empire, 4-6 m wide in Italy, and 5-10 m wide in Gaul, for example (Van Tilburg 2007, 28). Sections of the road discovered in other locations east of *Viminacium* allow us to assume that it had similar width, given that rubble is up to 10 m wide with more distinct part of 4-4.5 m width.

As for the manner in which the road was constructed, it is clear that it did not consist of four layers known from literature (Chevallier 1997, 111). Judging by the cross section of mentioned part of the road (**fig. 5**) it can be concluded that first of all a 45 cm deep *fossa* was dug and chunks of rock were laid down along its edges forming curbs. After that the space between was filled with solidly packed gravel.

Another interesting fact is that the road construction material that has survived varies at different locations. At some of them shale only is present, at other combination of bricks and limestone, gravel or chunks of local rocks. One cannot escape the impression that the road was built from any material that was available at the moment.

Unfortunately, there is no way to know the precise date of the building of the road, due to lack of chronologically sensitive material at any of excavated locations. However, what is known for sure is that this communication must have existed as early as AD 33/34 when *IV Scythica* and *V Macedonica* legions began construction of the road through the Iron Gates connecting roads on the middle and lower Danube (Mirković 1968, 31-32). Indirectly, it is known in which period the road was used, through dating of the archaeological remains that had been found along it.

Along the first section of the road, closest to the military fort, a necropolis was formed at the beginning of the second century, and it was in function until the Late antiquity. The most important feature of this necropolis is a grave complex, interpreted as the mausoleum of a wealthy citizen, oriented as the road itself. The necropolis ends probably because of the aquaeducts, in the vicinity of which burials were forbidden. After this hiatus, graves are present along the road once again. Second necropolis is dated back to the second and third centuries. In it, several enclosures with two or more graves, possibly belonging to members of the same family were excavated. The abovementioned mausoleum could represent the more luxurious type of this kind of structures. Remains of a second century *villa rustica* were found at 2.4 km measured from the eastern gate, about 90 m north of the road. The *villa* also shares the same orientation with the road. In this same area, during 2010 and 2011, sixteen large buildings, dated back to the 2nd and 3rd c. were discovered. They are located at both sides of the road, and their function is not quite clear, though it can be said with certainty that they were not used for living. Possible interpretation is that they were craftsmen's, trade, and



Fig. 5. Cross section of the best preserved section of the road (Nad Klepečkom)

storage facilities. In a way, this could have been an industrial zone of *Viminacium*. It was a common practice for workshops that created too much noise or could cause fire to be placed outside of the city walls, along the roads (Van Tilburg 2007, 42). Another necropolis was found besides the road, after its second turn. It also has been in function throughout the second and third centuries.

These archaeological features discovered along the eastern road of *Viminacium* suggest that it was in use during the whole period in which Romans dominated this part of the Balkans, as could be expected; but more importantly, they show that the road was not only of great military and trade importance for the Empire, but it also served as backbone of agricultural and economic development of *Viminacium* itself.

Bibliography

Chevallier, R. 1997. Les Voies Romaines. Paris: Picard.

Davies, H. E. H. 1998. Designing Roman Roads. – Britannia 29, 1-16.

Laurence, R. 1999. The Roads of Roman Italy. Mobility and Cultural Change. London / New York: Routledge.

Mirković, M. 1968. Rimski gradovi na Dunavu u Gornjoj Meziji. Beograd: Arheološko društvo Jugoslavije.

Van Tilburg, C. 2007. Traffic and Congestion in the Roman Empire. Oxon / New York: Routledge.

Каниц, Ф. 1985. Србија, земља и становништво, од римског доба до краја XIX века. Прва књига. Београд.

Поповић, В. 1968. Увод у топографију Виминацијума. – Старинар 18, 1967 [1968], 29-50.

Спасић-Ђурић, Д. 2002. Виминацијум. Главни град римске провинције Горње Мезије. Пожаревац: Народни музеј.

Спасић-Ђурић, Д. / Јацановић, Д. 2007. Траса пута Виминацијум – Ледерата. Резултати микрорекогносцирања у 2003-2004. г. – Viminacium 15, 123-164.

Шкриванић, Г. А. 1975. Југословенске земље на Појтингеровој Табли. In: Monumenta Cartographica Jugoslaviae I. Beograd: Istorijski institut. 31-55.

Ilija Danković
Institute of Archaeology
Knez Mihajlova 35
SRB-11000 Belgrade
ilija.dankovic@yahoo.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Architectural Decoration in the Colony of *Ulpia Ratiaria*

Zdravko DIMITROV

During the exploration of Archar-Kaleto site (where Lower Danube *Colonia Ulpia Traiana Ratiaria* was located in NW Bulgaria), mainly in the 70s and 80s of the last century, several buildings, also parts of the western fortification system and other complexes of the territorial plan of the *Ratiaria* military centre and roman colony, have been unearthed (Динчев 2002, 16-24, with bibliography and history of the excavations). Despite the fact that so far basically the Late Roman period has been explored, in the Regional Museum of History in Vidin (RMH Vidin) and in the village of Archar an impressive display of architectural details was organized. They were dated to the second phase of the existence of *Ratiaria* – the period of Trajan's colony along the Lower Danube, early 2nd – last quarter of 3rd c. AD. There is little or no field data about most of these architectural elements, they are not classified, nor identified in terms of typology, and no architectural analysis has been carried out. This study of the architectural decoration of *Ulpia Ratiaria* is the first attempt to put in circulation the details – components of architectural complexes – collected so far.

Several goals can be achieved on the basis of classification, chronological references and stylistic analysis of the monuments: to outline what architectural styles were used in *Ratiaria*; what buildings there were in the Roman colony along the Lower Danube; in what way they were constructed, how they developed and how they were decorated; what was their level of representativeness; how this rapidly set up, new architectural environment was incorporated in the whole organism along the Lower Danube Limes.

The study encompasses 35 architectural details from *Ratiaria* and the vicinity[1]. They have various structural characteristics. Some of the details were taken from monumental public buildings, others from private houses, still others from cult or burial monuments. This is why one can see both architectural details canonically proportioned and decorated, and interior details of reduced forms. Examples of three antique orders have survived – Doric, Ionic and Corinthian.

Most problematic is the existence of architectural details in the **Doric Order**. As things are, only a base with highly stylized forms could be identified as an element in the Doric (or Tuscan) order (**cat. # 1**)[2]. This is only logical, bearing in mind that the most numerous examples of bases in the Doric and Tuscan orders were localized exactly along the Danube Limes zone: *Carnuntum*, *Brigetio*, *Aquincum*, *Intercisa*, etc. (Ertel 1991, 116-119, Taf. 5-6, 32-33; Kiss 1987, Kat. # I, IV-V, IX, XV, XX), *Oescus*, *Novae* (at the sites and in *lapidaria*), *Troesmis*, *Noviodunum* (Baumann 1983, 173, 184, pl. XLVI/4-6). The detail under **cat. # 1** is a base consisting of a *plinth*, *torus*[3] and a *listel*. It is difficult to assign it to any individual order, but in *Novae* and *Ulpia Oescus* exactly this type of stylized bases were placed most often under columns with Doric or Tuscan capitals: the street in front of the Temple

[1] Out of which 2 details from *Bononia* (Vidin) and the present day village of Yassen, which is situated very close to *castellum* of *Florentiana*.

[2] As is well known, there are no base details in the classic Doric order. However, during the Roman period there were instances when bases were already placed under the column. These are both Ionic bases and bases typical for the Tuscan order (Vitr., III, V, 1-3; IV, VII, 3, see: Vitruvius 2009, 81, 99-100, 111-112, pl. 9, 13, 17), consisting of a plinth, torus and an elongated listel.

[3] The torus is highly stylized, implemented in abrupt conic shapes, unlike the typical "torus" element having smooth convex lines, popular with the Ionic and Tuscan bases.

of Fortuna in *Oescus*; the building "*extra muros*" in front of the western gate of *Novae*, etc. The material it was made of is also worthy of notice – sandstone. This is the source material most architectural details from the Lower Danube Limes zone were made of; these were produced during the early stage of the Roman colonization: 1st – early 2nd c. AD (Dimitrov 2012, 127-128, 151-152).

The **Ionic order** is best represented in the Roman colony of *Ulpia Ratiaria*. Over 65% of the details, included in the catalogue (23 out of 35) certainly belonged to the Ionic order or were most probably used in its time (it is not unlikely some of the bases and columns to have been part of the Corinthian order).

Some of the base details and the vertical supports (pillars, pilasters and free-standing columns) were from big monumental public buildings, developed in consistence with a particular order, while others were part of interior decoration in the residential buildings in the colony. The base details (particularly the examples from the village of Archar and from the Danube Park, **cat. # 2 and 3**) are typical representatives of the order. They have smoothly developed *tori* and are perfectly shaped. The details were made in line with the canonical compartments and proportions of the Ionic base. It can be definitely stated, not only in terms of their implementation and specific decoration features, but also with regard to their parameters, that these elements belonged to monumental public complexes.

The architectural decoration of Ratiaria also contains very interesting order units, which are reduced or incorporated in one another. As parts of the residential buildings in the colony, they are smaller in size. Two fluted columns (**cat. # 6, 8**) represent an instance in point, one of which was a spiral-fluted column (*tordierte Säule* – Ger.), which is exceptionally rare to come across in Roman Thrace[4]. The only analogy (for the time being) is a spiral-fluted column from *Ulpia Oescus* (*И*ванов 2005, 161, обр. 116 а, кат. # 57). Quite impressive is also the smoothly co-ordinated residential building detail (**cat. # 5**), where an Ionic base, of impeccable proportions and craftsmanship, was directly connected to the smooth column above it. A monolithic order element was created. A residential architecture principle, which is well represented in *Moesia Inferior*, predominantly in monolithic entablature parts: *Ulpia Oescus*, *Abritus* (Димитров 2007, кат. # 366, 344, 352).

The other columns from *Ratiaria* (**cat. # 4, 7, 9-12**) are typical for the Moesian and Thracian provinces. They are smooth, ornament-free, but always with a profiled *apophysis* perfectly proportioned against the total height of the shaft. In most monuments, the *apophysis* is divided into two bands of different profiles: an upper convex one, connecting the column to the capital, and a lower vertical one, gently curved, and acting as a link to the body of the column.

So far most numerous of all the architectural details in *Ratiaria* are the **Ionic capitals** (**cat. # 13-19**).

With regard to their **construction,** all of them are designed for free-standing columns, and considering their proportions, they come from large buildings, public or private. They can be used in reconstruction as parts of: porticoes along the streets or around squares, as is the case in *Nicopolis ad Istrum*, for instance (*И*ванов, *И*ванов 1994, 66-67, 145-146, обр. 49, 60); façades of public complexes; entrances and *porticoes* of private houses, etc. Some were even brought from the vicinity of the colony, e.g. **cat. # 14**, which was unearthed in *Bononia* (modern Vidin) and **cat. # 16**, which is almost certainly an element from a cult complex from the area of *Florentiana* (nowadays Florentin village).

With regard to their **decoration,** the Ionic capitals from *Ulpia Ratiaria* were made according to models from Asia Minor. The carving style can also be referred to the style of the Eastern stone masons. (**cat. # 13-15, 18**).

With regard to the ***decoration of the façades,*** capitals of **cat. # 13, 15 and 16** belong to the type E 2 of Asia Minor: i.e. "capitals with façades with three-part (three *ovulae*), horizontal *cymatium*", and subtype 2 is an ornament-free variation. The items from *Ratiaria* are distinguished by their elongated pointed *ovulae* of the *cyma*, narrow and even *canalis* and above all by the fact that there is no space for lancets or arrows in the *cyma*. This element was dropped or is hardly visible. Similar architectural decoration models were produced as early as the Antonine pe-

[4] Under the term of "Roman Thrace" the author means the geographical region of Thrace during the time of the Roman Empire, but not any of the provinces on the Balkans. Indeed, Roman Thrace (a term introduced long ago in the studies of the Balkans, but unfamiliar and incomprehensible for quite a few other scholars from Europe and all over the world) covered the territory of present-day Bulgaria, northern Dobroudzha (nowadays part of Romania), Eastern Serbia, as well as parts of northern Greece and European Turkey. In terms of Roman provinces, these were: *Moesia Superior* and *Moesia Inferior*, *Thracia* and small parts of *Macedonia*.

riod (2nd c. AD) in Asia Minor. However, closer to the samples from the Lower Danube are the models from the Severan period and the entire 3rd c. AD, because the reduction of lancets and arrows in the *cyma* started exactly with them. The models copied by our samples come from Denizli, *Hierapolis*, Side (dated to the Antonine period or generally to 2nd – 3rd c. AD) and primarily from *Ephesus* (models from 3rd c. AD) and *Laodicea ad Lycum* (Severan) – see: Bingöl 1980, 37-38, # 87, 149, 291; 112, 114, 116-117, 169; Taf. 17-19[5].

The decoration of the pulvini (cushions) is probably the most important, since in Roman times it was the leading element in determining the dating, the stone-masonry techniques and artistic influences. The most common decoration in the Ionic capitals from *Ulpia Ratiaria* was the "horizontally developed smooth leaves", in **cat. # 13-16**. O. Bingöl classified some of them as **reed leaves** (*Schilfblätter* (Ger.)). The detail under **cat. # 13** certainly falls within this type. This is a detail of type VIII – "Ionic capitals with *pulvini*, covered with reed leaves" (Bingöl 1980, 84-86). On the other hand, the capital localized in Vidin (*Bononia*) under **cat. # 14**, belongs to type XV: "Ionic capitals with *pulvini* covered with smooth leaves interwoven at the bottom" (Bingöl 1980, 111-113). O. Bingöl identifies the decoration as floral, but he is not as certain as in type VIII, labelling it in this case provisionally and referentially "reed-like". The Ionic capital kept at Baba Vida fortress (**cat. # 15**) belongs to a type that does not figure in Bingöl's typology. In my opinion, the decoration of its *pulvinus* belongs to the type of "lotus leaves and blossoms" (see **pl. 2/6**), a model that was at that time quite popular in Roman Thrace: the examples are from *Novae*, *Nicopolis ad Istrum* and *Abritus*, i.e. all from the Lower Danube Limes zone (Димитров 2007, 127-129, кат. # 103, 106, 125, 130). Very important for this analysis is the capital from the village of Yassen (**cat. # 16**). It is possible that the capital, besides being from the unexplored region of Florentiana, contains also a dedication to Jupiter Dolichenus (*IOMD* was written on the *abacus*). The decoration of its *pulvinus* is of the interesting type X: "capitals with *pulvini* covered with leaves in the form of overlapping scale-ornament motifs" (*Schuppenartige Blätter* (Ger.), Bingöl 1980, 89-90). This ornament from Asia Minor, quite popular in Roman Thrace, is rather schematic and simplified here, unlike its ornate variations in *Novae* and *Nicopolis ad Istrum*. The **ivy leaves** ornamentation (*Efeublätter* (Ger.)), rather rare for the limes region, can be seen in the *pulvini* of the Ionic capitals from *Ratiaria* (**cat. # 17-18**), XVIII type (Bingöl 1980, 118). Most probably this motif started on its way to the Lower Danube lands from *Heraclea Pontica*, where there are exquisite examples of the model, dated to the Severan period, while our monuments copy it with an absolute precision (Bingöl 1980, # 142, Taf. 41). It seems that the "mould" is a direct copy – large ivy leaves lined one after another horizontally in the direction of the sides of the *pulvini* (**cat. # 17**). The other "ivy capital" (**# 18**) is by far more extravagant. Apart from the ivy leaves, it contains also scrolls, the elements are grouped in a number of clusters lined both horizontally and vertically along the *pulvinus*; a pattern dating much earlier: to the Antonine period (2nd c.).

The prototypes, the synchronic analogies, as well as the models directly copied in *Ratiaria* in the group of the Ionic capitals, all of these are in the Roman provinces in Asia Minor. The prototypes date to the Hadrianic period as a rule (especially in *Perge* and *Ephesus*); however, our monuments are not so early. The closest matches (particularly considering not only the decoration pattern, but the style of work as well) date to the Severan period and 3rd c. AD. The analogies with the *interwoven reed leaves at the bottom* are in the museum in Ankara, in *Ephesus* and *Heraclea Pontica*, a fact we dwelt upon also when examining the artistic execution of the façades (Bingöl 1980, # 20, 117, 141; Taf. 36-38). On the other hand *the smooth red leaves* have their analogies in Burdur, Side and predominantly in *Hierapolis* and *Laodicea ad Lycum*.

Similar replicas of the Asia Minor originals with reed leaves interwoven at the bottom or, alternatively, leaves in the form of overlapping scale-ornament motifs can be encountered everywhere in the regions around *Ratiaria*. Dozens of Ionic capitals with decoration from these *pulvinus* models were unearthed in *Moesia Inferior*, *Thracia* and *Macedonia*, as well as in the southern areas of *Moesia Superior* itself, where *Ratiaria* belonged. There are examples from: *Novae*, *Nicopolis ad Istrum* (and its territory), *Abritus*, *Marcianopolis* (and its territory, the regions of Shumen and Dobrich for instance), *Histria*, *Odessos* and *Messambria* in *Moesia Inferior*; *Serdica*, *Philippopolis* and *Augusta Traiana*; *Felix Romuliana* (Gamzigrad), *Scupi*, *Heraclea Lyncestis* (from the

[5] The capital from the village of Yassen (# 16) has only two *ovulae* in the *cyma*, with almost spherical shells and has no lancets or arrows. The Severan models in *Laodicea ad Lycum* can be seen as its perfect prototypes (Bingöl 1980, 37-38, # 170, 180, Taf. 18).

theater), a temple in the village of Marvintsi (181 AD), certain rural areas and Ohrid from *Moesia Superior* and *Macedonia* (*Lychnidos*, the theater) (Димитров 2007, кат. # 102, 104, 111, 120, 122, 131-134, 141, 143, 147; Mărgineanu-Cârstoiu 2002-2003, pl. 2-4, 6-8; Петрова 1996, 24-26, тип I-IV; Srejović 1993, 219, # 64; Лилчиќ 2001, 173-175, 208-209, 237-238, 278, 304-305, 371-373). The difference from the Ionic capitals in Hellas is apparent. The reed leaves model is to be seen in some of them, but both the band and the very craftsmanship of the leaves differ from the samples from Asia Minor (Shoe Meritt 1996, 172, # 24, figs. 4, 34, pl. 49).

The third and last criteria, according to which Ionic capitals from the Roman period are classified, is the model of **the band in the *pulvinus*.** *Ratiaria* exhibits a great diversity of this decorating element. The bands survived in four monuments, and all of them belong to different types (**cat. # 13-16**). The following bands can be seen: in **cat. # 13** – type P "laurel twigs" (Bingöl 1980, 71-72), with absolutely precise prototypes in Hadrain's examples from the main street in *Perge*; in **cat. # 14** – type O or P "reed" or "laurel" twigs (Bingöl 1980, 70-72); in **cat. # 15** – pseudo band (Bingöl 1980, 56), very often used in *Ephesus*, *Pergamon* and the western part of Asia Minor; and in **cat. # 16** (the village of Yassen) – type R 2 "flat band" without ornamentation (Bingöl 1980, 73).

The entablature of the Ionic buildings in *Ulpia Ratiaria* also has impressive representatives. A splendid frieze-architrave is a very important element (**cat. # 20**), absolutely similar in terms of chronology, style, production method, but above all in terms of decorative model, to the monuments from the Temple of Fortuna in *Oescus* (Иванов 2005). This is a pilaster facing element from a big monumental complex that was in *Ratiaria*, similar to the one in Trajan's colony near the village of Gigen. The decoration of the frieze-architrave belongs to the "garland" type, where the garlands are placed on bull heads. It was produced under the same influences that were found in *Oescus* at the end of 2nd c. AD. These are again models from Asia Minor, where the ornamentation starts with an Ionic *cyma*, then there is a frieze with bull heads and garlands, and lavish abundant imagery in the lunettes, where the separation from the architrave is marked by a lesbian *cyma* (arch-like (*Bügelkymation typus* – Ger.), of the C type, according to the classification of J. Ganzert (Ganzert 1983, 190-202) and in the end there is a three-part architrave with protruding *fascia* and *astragals*. There is no doubt about the execution of this element – it comes from Asia Minor, or is an exact copy of the Asian decorative patterns and stone carving techniques applied by local stone-masters.

Several cornices have to be added to the Ionic order details in the colony of *Ulpia Ratiaria* (**cat. # 21-24**). Three of them are exterior elements, quite large in size (**# 21, 23-24**). They stand out with *simas*, inevitably covered with seven-leaf straight and reversed *palmettos*, tied with a smooth band in the bottom. There the motifs of the alternating *palmettos* are linked with "floating" spiralling bands. These are the typical *sima* ornaments from the Ionic cornice during the Antonine and Severan periods as a whole, so the dating of these elements to the second half of 2nd – the first half of 3rd c. AD arouses no doubts whatsoever. On the other hand, the *geisons* of the Ionic cornices from *Ratiaria* exhibit a slight simplification. There are areas with *cymas* and *astragals*, but in most cases the *geison* is not ornamented, or is altogether of smaller parameters, and the *cymas* simply separate it from the *dentils* above it. This last element of the Ionic cornice seems to have always been executed with a good deal of precision.

The **Corinthian order** of the Roman colony of *Ulpia Ratiaria* contains three big capitals from semi-column pillars, which were part of a monumental lavishly ornamented complex, most probably for cult purposes (**cat. # 25-27**). Nowadays these Corinthian capitals are kept in the village of Archar. They exhibit all the major features of the stone-masonry techniques applied by masters in Asia Minor (in *Nicomedia*, *Ephesus*, *Pergamon*, *Aphrodisias*, etc.) – acanthus leaves separated, almost completely, from the base of the *calathos*; spreading and carving all of the elements from the leaves; drill-work and taking away large areas of the stone surface between the leaves and even behind them; the decorative elements are characterized by an overall fretwork and lightness, and they are three-dimensional; the fretwork bits of the leaves are connected with thin stone "sticks" – for example, at the points of the leaves and sometimes with the *helices*, *volutes* and their stems and curves.

The models, according to which these three capitals were made, were known in all antique towns in modern Turkey, especially from the time of Hadrian onwards, and the most precise prototypes are the Corinthian capitals from the *Asclepieion* in *Pergamon* (Heilmeyer 1970, 78-105, 164-172, Taf. 24-28, 32-33, 36-39; Ward-Perkins 1980, pl. XIII, XVII b, d; Rohmann 1998, 79-81, 133, # 28-33, Taf. 45-47 (1-3)). In Ostia and Rome it was exactly the

capitals made after this model that were designated by Klaus Freyberger as "Eastern" make, produced by travelling stone-masons groups, working under projects or specially commissioned orders in various parts of the Roman Empire, especially since the time of Hadrian up until the Severans, or early 3rd c. AD (Freyberger 1990, 125-129, # 300-312, Taf. 44-46). In the Danube limes zone the capitals from the village of Archar are by far not the only artefacts featuring these "Eastern" characteristics. Similar artefacts were localized in *Ulpia Oescus*, *Novae* (Димитров 2007, кат. # 151-175, 190-193), *Sirmium* (Sremska Mitrovitsa) (Maver et al. 2009, 121-129, fig. 4-9) and *Felix Romuliana* (present-day Gamzigrad) (Srejović 1993, 213, # 57).

Apart from the stone-carving techniques, we shall dwell on the individual components of these three capitals. These are also entire architectural-decoration models of the stone-carving workshops in Asia Minor: fan-like spread acanthus leaves with heavily indented surface and tips; peopled ornamentation in the abacus (face of Gorgon Medusa), instead of the blossoms (so-called: *fleuron*) in the abacus; an ornate and lavishly carved acanthus cup; a single-stalk *caulis* with only one central rib (i.e. it is definitely different from the fluted variations produced in Rome and Hellas); a node on the *caulis*, however, executed with several smooth leaves.

Nonetheless, the most important elements, which reveal all about these capitals, both in terms of modelling and production techniques, are their *volutes* and *helices*. The *volutes* (**plate 4/4**) are open with a broad curve, without any "eye" in the centre[6], while the *helices*, as a component of the capitals, seem to have "gone completely mad". In some artefacts they are standard *helices* (with curling *volutes*), while in others they are executed as a double spiral, and seem to imitate the scrolls motifs, i.e. similarly to the so called "*floral helices*" from Asia Minor type that were so popular in many cities in Roman Thrace[7] (Ward-Perkins 1980, # 7, pl. XVIa; Mărgineanu-Cârstoiu 1988, 37-38, 51, Abb. 3, 4, 9, 10; Димитров 2007, кат. # 246-248; Toma 2009, 117-118, 123-128). The third capital (**cat. # 27**) from the group even contains absolutely completed "*floral helices*", whose twisted interwoven stalks transform into diverse floral motifs at the tips.

The three Corinthian capitals from the village of Archar were undeniably produced by masters from Asia Minor, most likely Aphrodisians, considering the analogies, with respect to the production mode and models, found with the Corinthian order in Villa Armira. Their appearance in the early 2nd century AD, when the newly-founded colonies along the Lower Danube (*Ratiaria* and *Oescus*) were in process of construction and the most imposing architectural complexes were developed in their city centres, stands to logic and is easy to explain.

Besides these three gorgeous capitals, there are two more details in the Corinthian order, kept today at the depository of Vidin-RMH – **cat. # 28 and 29**. These are Corinthian capitals characteristic for the entire Roman Thrace having an incomplete set of elements in the scheme, of the so-called "four-leaf" type. Though there are no doubts that one of them is a local product (**cat. # 29**), the decoration and the execution of the other one exhibits the typical features of the workshops in Asia Minor. These are *"floral helices"*, which in turn stand out with their fine chiselling (**cat. # 28**; see **pl. 4/5**).

The Corinthian cornices and *pediments*, the parts completing the entablature, are the last to examine in the analysis of the architectural details from *Ratiaria*. Nowadays, in the Danube Park in Vidin one can see a whole left-end bloc from the *pediment* (**cat. # 30**) and a whole Corinthian cornice (**cat. # 31**). These are the most opulently decorated architectural details from *Ratiaria*. Apart from the typical compartmentalization of the Corinthian cornices into a *sima*, *geison* (consisting of consoles and cassettes) and *dentils*, these monuments were generously decorated with Ionic and Lesbian *cymas*, *astragals*, diverse ornamentation in the cassettes and in the consoles. For example, the *geison* consoles were ornamented not only with the most common motif – acanthus leaves – but also with floral scrolls and ivy leaves. The cassettes of the *geison* contain the typical rosettes, Ionic *cyma*, profiled strips, but there is also a whole musical instrument – a *syrinx* or a Pan flute (**pl. 5/1**). Even more bountiful imagery can be seen in other two Corinthian cornices (**cat. # 32 and 33**). Bull heads appear there

[6] In the present-day Bulgarian lands there are such volutes from Villa Armira, near Ivailovgrad, where a touring group of Aphrodisian masters made the decoration (Mladenova 1979, 91-94; Mladenova 1981, 38-48). Similar examples are well known from *Oescus*, *Marcianopolis*, *Odessos* (Димитров 2007, кат. # 173, 246, 247) and *Tomis* (Toma 2009, 124-125). Original artefacts can be seen in Pergamon, too (Ward-Perkins 1980, pl. XIII a, XVIII a; Rohmann 1998, N 31).

[7] Most of them are from the so-called "palmetto type" *helices*, or the clear *palmetto* motives, taking the place of the normal *helices* (see the researches cited above). But some of the examples, like the capital from *Messambria*, are with acanthus scrolls at the ends of the *helices* motives instead of the normal execution.

in the cassettes of the *geison*, a pattern typical for the Roman cities in Thrace and Moesia. Judging by the craftsmanship of the *palmetto* decoration in the *simas* of the Corinthian cornices, the Lesbian *cyma* and above all the Ionic *cyma*, the monuments are dated after the mid 2nd c. AD. They probably exemplify a trend to sumptuousness and splendour in the development of the architectural decoration of the urban environment of *Ratiaria* during the late Antonine and early Severan periods. A future detailed study of the structure of the Corinthian cornices from *Ratiaria* is promising also in terms the potential examination, classification and tracing of the development of the individual elements – *geison*, *sima*, *dentils* and their ornamentation, in line with the latest research on these architectonic elements (see: Mattern 2001, with all the types of *sima*, *geison*, *dentils* and ornamental motives of the cornices from the roman period).

The following can be summarized in **conclusion:**

1. Most of the architectural details from *Ratiaria* are in the Ionic order. This is slightly surprising in view of the obvious close similarities with *Oescus*, where the Corinthian order is prevalent;

2. Some of the details are from public buildings (as e.g. in *Nicopolis ad Istrum*), nonetheless the Ionic order was certainly preferred also in private houses and villas in the vicinity of the colony;

3. The Corinthian capitals from the village of Archar are from a monumental public complex having leading functions in the civil life of the settlement (temple, basilica, arch or something else (?). They were commissioned as early as the beginning of the colony, the principate of Hadrian (117-138), and were produced by masters from Asia Minor;

4. The later Corinthian details (capitals, cornices, *pediment*) were unquestionably produced at local workshops, using models from Asia Minor as prototypes. They demonstrate the level of development reached by the local provincial art during the late Antonine period;

5. It can be stated, on the basis of the analysis of the already unearthed and preserved architectural artefacts, that there were grand architectural complexes in *Ulpia Ratiaria* – the data collected so far points to at least two such. One of them dates to the time of Hadrian, and the other one to the second half of 2nd c. AD, the late Antonine period. The remains of these complexes (most probably temples) are: the Corinthian capitals from the village of Archar (Hadrian's period); the *pediment* and the cornice from the Danube Park (late Antonine – early Severan period). I believe that these were in all likelihood temples, according to the exact analogies and synchronic development trends in the monumental cult architecture in the neighbouring Roman colony of *Ulpia Oescus*. Concurrences: historical events; trends in the development of the two colonies along the Danube; the decorative patterns, the structure and proportion of the details; the influences, affecting the architectural environment at the beginning of its construction, coming from the stone carving schools in Asia Minor;

6. After analyzing some of the Ionic and Corinthian details, I believe that the presence and work of stone-masters from Asia Minor in *Ulpia Ratiaria* is beyond doubt, from the time of Hadrian and onwards;

7. For the time being, perhaps due to insufficient research, there are no direct architectural and decorative data about the early period of *Ratiaria* – the phase of the first military camp: 1st AD until the Dacian Wars. No Doric or Tuscan orders, so typical for the other military centres along the Lower Danube Limes, executed predominantly from soft sandstone (*Novae*, *Dimum*, *Trimammium*, *Sexaginta Prista*), a reliable distinctive feature of an Italic tradition and "import", camp, military architecture, have been identified to this point yet. Certainly, here again similarly to *Oescus*, there is the problem with the localization of the early military camp, the issue whether the later colony sprang out of the military camp, what was the intensity of the construction work during the colonial period, which, as can be expected, affects, destroys and sometimes buries the remains of the earlier camp architectural environment below rather deep cultural layers.

Considering the above mentioned fact, a conclusion can be drawn that the existing 35 architectural details provide a wealth of information both about the development of the architectural orders in the Roman colony of *Ulpia Ratiaria* and the architectural complexes, which might be expected to be localized and, certainly, about their relevant chronology. These complexes are bound to be unearthed during future excavations and research of the Roman colony and military camps.

Catalog of the Architectural Details from *Ratiaria* and Its Environs:

Doric (or Tuscan) Order

 # 1. Base. Smooth, undecorated, divided to: *plinth*, two stylized upper parts – cylindrical and conical. Intended for free-standing column. *Status*: strongly

destructed surfaces. *Material*: sandstone. *Today in*: "District Administration building – Vidin". *Inv. #:* ВдМ А I 251. *Dimensions:* h. 19; d (c) 30; p. 40x40; d.h. (*plinth*, cylindrical, conical parts: 8, 6, 5). *Origin:* Archar – "Kaleto" (*Ratiaria*), 28.01.1999. *Chronology:* Late Antiquity: 4th – 6th c. AD. *Fig.:* **pl. 1/1.**

Ionic Order (Some Bases and Columns Could have been Used also in Corinthian Order)

 # 2. Base, Ionic order, Attic version (Attic-Ionic base). *Plinth*, two *tori*, two *listels* and *trochilus* (*scotia*). Intended for half column pillar, attached to the wall construction. *Status*: perfectly preserved. *Material*: limestone. *Today in*: Archar village, in front of the Police Office. *Inv. #:* ДМ А/17. *Dimensions:* h. 62-63; back side (down) 156; r (1/2 c) 45; w. of the pillar part 30 (down), 24 (above); *all other dimensions could be measured from the graphic reconstruction*. *Origin:* Archar (*Ratiaria*), 21.08.2011. *Chronology:* Hadrianic period – to the middle of the 2nd c. AD. *Fig.:* **pl. 1/2-3; pl. 6/1-2.**

 # 3. Base, Ionic order. *Plinth*, *torus*, *listel*, *trochilus*, finished with second *listel* on the top. Intended for pillar, attached to the wall construction or used like a pedestal (again engaged to the wall). *Status*: perfectly preserved, back side undecorated, rough, engaged to the wall, but not built in it. *Material*: limestone. *Today in*: Danube park of Vidin, *lapidarium*. *Inv. #:* none. *Dimensions:* l. (down) 103, (above) 76; w. (down) 90, (above) 63; h. 37; d.h.: *plinth*, *torus*, *trochilus*, *listel*: 10, 8.5, 8.5, 10. *Origin:* Archar (*Ratiaria*). *Chronology:* Roman imperial period: 1st-3rd c. AD. *Fig.:* **pl. 1/4.**

 # 4. Column (smooth). *Apophyge* in the upper part (double sectioned in profile). Freestanding column. *Status*: large fragment. *Material*: limestone. *Today in*: Danube park of Vidin, *lapidarium*. *Inv. #:* ВдМ I А 241. *Dimensions:* h. (today) 82; d (c) upper surface 34. *Origin:* Archar village (*Ratiaria*). *Chronology:* Roman imperial period: 1st- 3rd c. AD. *Fig.:* **pl. 1/5.**

 # 5. Column (smooth, undecorated, connected with attic-ionic base). Base divided in: *plinth*, *tori*, *listels*, *trochilus*. Column with well moulded profile of the lower part. Free-standing detail. *Status*: whole detail, well preserved. *Material*: limestone. *Today in*: Hotel "Bononia", Vidin. *Inv. #:* ВдМ А I 245. *Dimensions:* h. 73; d (c) down 37, upper surface 28; d.h. *plinth*, *torus*, *listel*, *trochilus*, *listel*, *torus*, column: 7.5, 3.5, 1.5, 3.5, 1.5, 2.5, 52. *Origin:* Archar – "Kaleto" (*Ratiaria*), 05.03.1997. *Chronology:* Roman imperial period: 1st- 3rd c. AD. *Fig.:* **pl. 1/6; pl. 6/4.**

 # 6. Column (fluted). *Apophyge* in the upper part, double sectioned and well moulded, 16 flutings with round-shaped endings in the upper parts. *Status*: huge fragment from the upper part of the whole column body. *Material*: limestone. *Today in*: Hotel "Bononia", Vidin. *Inv. #:* ВдМ А I 244. *Dimensions:* h. (today) 74; d (c) upper part 28; d.h. *apophyge* 4 (2.5 and 1.5); width of the flutings 3. *Origin:* see previous detail. *Chronology:* Roman imperial period: 1st-3rd c. AD. *Fig.:* **pl. 1/7; pl. 6/3.**

 # 7. Column (smooth). Undecorated, free-standing. *Status*: huge fragment from the central part of the column's body. *Material*: limestone. *Today in*: Hotel "Bononia", Vidin. *Inv. #:* ВдМ А I 246. *Dimensions:* h. (today) 61-63; d (c) central part 33. *Origin:* Archar – "Kaleto", 30.01.1998. *Chronology:* Roman imperial period: 1st-3rd c. AD. *Fig.:* without images here.

 # 8. Column (spiral flutings – *tordierte Säule* (Ger.)). Probably part of table (?) or other interior detail. With *apophyge* and perfectly carved spiral flutings. *Status*: huge fragment from the upper part of the detail. *Material*: limestone. *Today in*: RMH-Vidin, exhibition building ("Konaka"). *Inv. #:* none. *Dimensions:* h. (today) 47; d (c) upper part 15; *apophyge* 3.5. *Origin:* from case with captured materials (by police action), probably from Ratiaria. *Chronology:* Roman imperial period: 1st-3rd c. AD. *Fig.:* without images here.

 # 9. Column (smooth). Undecorated, free-standing, well carved profile in the lower part. *Status*: huge fragment from the lower part of the column body. *Material*: limestone. *Today in*: Baba Vida fortress, Vidin. *Inv. #:* none. *Dimensions:* h. (today) 40. *Origin:* unknown, probably Archar. *Chronology:* Roman imperial period: 1st-3rd c. AD. *Fig.:* without images here.

 # 10. Column (smooth). Undecorated, free-standing, moulded upper and lower parts (both from one section). *Status*: whole detail, perfectly preserved. *Material*: limestone. *Today in*: Baba Vida fortress, Vidin. *Inv. #:* none. *Dimensions:* h. 160 40?; d (c) above 25, down 33. *Origin:* like #9. *Chronology:* Late Antiquity: 4th – 6th c. AD. *Fig.:* without images here.

 # 11. Column (smooth). Undecorated, free-standing, contains inscription in Latin, today visible three rows with letters in lower part. *Status*: whole detail, but it is a segment of the column's body. *Material*: Limestone. *Today in*: "District Administration building – Vidin". *Inv. #:* none. *Dimensions:* h. 76; d (c) 30. *Origin:* unknown, probably Archar. *Chronology:* Roman imperial period: 1st-3rd c. AD. *Fig.:* without images here.

 # 12. Column (smooth). Undecorated, free-standing. *Status*: huge fragment. *Material*: sandstone. *Today in*: "District Administration building – Vidin". *Inv. #:* none. *Dimensions:* h. (today) 47; d (c) 26. *Origin:* unknown, probably Archar. *Chronology:* Roman imperial period: 1st-3rd c. AD. *Fig.:* without images here.

 # 13. Ionic capital. According to the façade: Asia Minor' type E 2: "Ionic capitals with *echinus*, covered with tripartite, horizontal *cymatium* (with three eggs in egg-and-dart ornament)". The subtype 2 is also called: "with undecorated *abacus*" (Bingöl 1980, 37-38). According to the *pulvinus* decoration: type "reeds leaves". *Balteus* motive: vertical, prob. "laurel branch"; without endings of the *balteus*. *Status:* whole detail, perfectly preserved. *Material:* limestone. *Today in:* Hotel "Bononia", Vidin. *Inv. #:* ВдМ А I 247. *Dimensions:* l. 54; w. (*pulvinus*) 35, (*echinus*) 52; h. (full) 22, (without *volutes*) 15; d (c) 34-36; d (*volutes*) 18; *abacus* 40x40x4; ionic *cymatium* 7.5. *Origin:* Archar – "Kaleto", 30.01.1998. *Chronology:* late Antonine – early Severan period, second half of the 2nd – beginning of the 3rd c. AD. *Fig.:* **pl. 2/1-2.**

 # 14. Ionic capital. According to the façade: see # 13. According to the *pulvinus* decoration: type "smooth leaves, connected in the lower ends (reeds-shaped)". *Balteus* motive: like # 13 (vertical), prob. "ivy leaves". *Status:* whole detail, severely eroded, large parts of the body seriously damaged by reusing and by erosion. *Material:* limestone. *Today in:* "District Administration building – Vidin". *Inv. #:* ВдМ А I 906. *Dimensions:* l. 67; w. (*pulvinus*) 38; h. (full) 26, (without *volutes*) 17; d (c) 34; d (*volutes*) 22; *abacus* – broken. *Origin: Bononia* (Vidin), found by the building of a house near to "Cross-shaped Barracks", 26.09.1962. *Chronology:* late Antonine – early Severan period, second half of the 2nd – beginning of the 3rd c. AD. *Fig.:* **pl. 2/3-4.**

 # 15. Ionic capital. According to the façade: see # 13. According to the *pulvinus* decoration: type "lotus leaves and blossoms". *Pseudobalteus. Status:* whole detail, perfectly preserved, some breakings of the *volutes*. *Material:* limestone. *Today in:* Baba Vida fortress, Vidin. *Inv. #:* none. *Dimensions:* l. 54; w. (*pulvinus*) 35; h. (full) 20, (without *volutes*) 14; d (c) 35; d (*volutes*) 17; *abacus* 40x40x3; ionic *cymatium* 6. *Origin:* probably Archar – "Kaleto" (*very similar like dimensions to # 13*). *Chronology:* Severan period, end of the 2nd – first third of the 3rd c. AD. *Fig.:* **pl. 2/5-6.**

 # 16. Ionic capital. According to the façade: simplified model with reducing of the forms – just two eggs of the *cymatium* are carved and the *volutes* are made shorter. According to the *pulvinus* decoration: type "flaky ornament", strongly stylized ornaments. *Balteus:* smooth, undecorated, vertical bar. On the *abacus* plate written: *I O M D*. *Status:* whole detail, perfectly preserved. *Material:* limestone. *Today in:* "District Administration building – Vidin". *Inv. #:* ВдМ А I 184. *Dimensions:* l. 23.5; w. (*pulvinus*) 21; h. (full) 16, (without *volutes*) 14,5; d. (c) 22; d (*volutes*) 9.5; *abacus* 27.5x27.5x4.5; Ionic *cymatium* 4. *Origin:* Yasen village, Vidin district, very close to the *castellum* of *Florentiana* (today Florentin village), 18.11.1986. *Chronology:* 3rd c. AD (probably Severan, but also maybe a little later). *Fig.:* **pl. 2/7-8.**

 # 17. Ionic capital. According to the façade: see # 13. According to the *pulvinus* decoration: type "ivy leaves". *Balteus:* not preserved today. *Status:* huge fragment, today preserved: one façade, *volute* and almost half of a *pulvinus*. *Material:* limestone. *Today in:* RMH-Vidin, depot in "Cross-shaped Barracks". *Inv. #:* ВдМ А 777. *Dimensions:* h. (full) 18, (without *volutes*) 11; d (*volutes*) 17. *Origin:* Archar village, Turkish quarter – "Kaleto" 04.03.1962. *Chronology:* Severan period, end of the 2nd – first third of the 3rd c. AD. *Fig.:* **pl. 3/1.**

 # 18. Ionic capital. According to the façade: see # 13 (volutes here are four times turned around the eye). According to the *pulvinus* decoration: type "ivy leaves and branches". *Balteus:* not preserved today. *Status:* huge fragment, today preserved: ¼ of the whole capital – half façade and half *pulvinus*. *Material:* limestone, yellowish. *Today in:* RMH-Vidin, fond in "Cross-shaped barrack". *Inv. #:* ВдМ А 475. *Dimensions:* w. (1/2 *pulvinus*) 17 (total – about 35); h. (full) 17, (without *volutes*) 11; d (*volutes*) 14. *Origin:* Archar – "Kaleto". *Fig.:* **pl. 3/2.**

 # 19. Ionic capital. According to the façade: "confused" scheme – the *cymatium* (just two eggs) is with the darts turned back (not downwards – upwards), flutings over the *soffit*, lack of *half-palmette* motives and *canalis*, just the *volutes* are canonically made. According to the *pulvinus* decoration: type "flaky ornament". Strongly stylized ornaments. *Balteus:* type: "acanthus branches with S-shaped motives"; with undecorated endings. *Status:* whole detail, everywhere with destructions and breakings. *Material:* sandstone. *Today in:* RMH-Vidin, depot in "Cross-shaped Barracks". *Inv. #:* none. *Dimensions:* w. (*pulvinus*) 40; h. (full) 25; d (c) 35; d (*volutes*) 16. *Origin:* unknown, probably Archar – "Kaleto". *Chronology:* probably Late Roman period: 3rd-4th c. AD (?). AD. *Fig.:* without images here.

 # 20. Frieze-architrave (used by Ionic or Corinthian order). According to frieze decoration: type "Friezes with garland decoration"; subtype "garlands, combined with bull heads". According to the architrave decoration: "architraves divided in three *fasciae*". The whole block decorated with Ionic and Lesbian *cyma* and *astragal* (bead-and-reel ornament). According to the construction: frieze-architrave – wall facing pilaster detail. *Status:* huge fragment of the left end of the block, the right end is broken. *Material:* limestone (probably: marbleized limestone). Today in: Baba Vida fortress, Vidin. *Inv. #:* 458. *Dimensions:* l. (today) 44; w. (above) 13, (in the middle) 15, (down) 12; h. (full) 60; d.h.: ionic *cyma* 5, *astragal* 2, flat line 2, frieze 14, flat line 2.5, Lesbian *cyma* 6.5, *astragal* 2, *fasciae* 9, 6, 5. *Origin:* from Archar village (unknown complex). *Chronology:* late Antonine: second half of the 2nd c. AD (perfect analogue with Fortuna temple in *Oescus* (191 AD). *Fig.:* **pl. 3/3; pl. 6/5.**

 # 21. Ionic cornice. Richly decorated. Divided to: *sima*, simplified *geison* and *dentils*. *Sima* – covered with huge seven-leaved *palmettos*, bound in the lower ends. *Geison* – totally simplified, covered with lesbian *cyma*. *Dentils* – made by huge, roughly carved ornaments. *Status:* whole detail, some breakings in the both ends. *Material:* limestone (probably: marbleized limestone (?)). *Today in:* Danube Park in Vidin, *lapidarium*. *Inv. #*: ВдМ А I 239. *Dimensions:* l. 103; w. 37; h. 40; d.h.: *sima* 23, Lesbian *cyma* 8, *astragal* 3.5, *dentils* 4. *Origin:* Archar – "Kaleto" (unknown object). *Chronology:* late Antonine: second half of the 2nd c. AD. *Fig.:* **pl. 3/4.**

 # 22. Ionic cornice. Pilaster, wall facing cornice in entablature. With reduced elements. Divided to: Ionic *cyma* (type: "eggs combined with lancets") and fine *dentils* under it. *Status:* little fragment from the pilaster wall facing constructions; interior detail from the private house. *Material:* marble. *Today in:* RMH-Vidin, depot in "Cross-shaped Barracks". *Inv. #*: none. *Dimensions:* l. (today) 17,5; w. 8; h. 6; d.h.: ionic *cyma* 4.5, *dentils* 1.5. *Chronology:* 2nd-3rd c. AD. *Origin:* probably from Archar village. *Fig.:* **pl. 3/5.**

 # 23. Ionic *cyma* (probably part of the ionic cornice). Type: "eggs-and-darts". Here, the darts are with heart-shaped from. *Status:* little fragment. *Material:* limestone. *Today in:* RMH-Vidin, depot in "Cross-shaped Barracks". *Inv. #*: none. *Dimensions:* h. (Ionic *cyma*) 10-12 (enough for the order construction like architraves or cornices). *Origin:* Archar – "Kaleto". *Chronology:* 2nd-3rd c. AD. *Fig.:* without images here.

 # 24. Piece of *sima* in Ionic (or Corinthian) cornice. Today preserved just part of *palmette* decoration over the *sima* surface. *Palmettos* are from the type: "seven-leaved, bound in the lower end". Little fragment, material – limestone, stored in RMH-Vidin, depot "Cross-shaped Barracks". Without Inv. # and only the height can be measured today: 23 cm. (without doubt from the huge order element – cornice). *Chronology:* end of the 2nd c. AD (late Antonine).

Corinthian Order

 # 25. Corinthian capital. Reduced general scheme – with all canonical elements, but with just one row of acanthus leaves. Half column pillar detail (see cat. # 2). *Scheme:* perfectly carved acanthus leaves, *caulis*, acanthus cups, *helices*, *volutes* and *abacus* motives (*fleuron*, figural images and etc.). *Helices* – start like standard elements (like inner *volute* motives), but finish with double spiral endings; they imitate *helices* from the "floral types". *Status:* whole detail, well preserved, *volutes* and *abacus* plate are broken. *Material:* limestone, yellowish-white, spongy, very porous. *Today in:* Archar village, in front of the Police Offica. *Inv. #:* ДМ А/16. *Dimensions:* h. 78; d (1/2 c) 61-62; h. (acanthus leaves) 43. *Origin: Ulpia Ratiaria*, 21.08.2011. *Chronology:* Hadrianic, 120s / 130s AD. *Figs.: pl. 3/6-7.*

 # 26. Corinthian capital. Same scheme, pattern and features like # 25, very interesting *abacus* ornament – face of Medusa. This motive includes the capital into the group of so-called "Figural capitals from the Roman era". This is the only Corinthian capital from Archar with well preserved *volutes*. They are open-worked, made without executing of the eye in the center of the motive. *Caulis* element is covered by the flat, undecorated leaves. *Status:* whole detail, well preserved, acanthus cups and *abacus* are broken today, just one *volute* curve are presented. *Material:* same as # 25. *Today in:* as # 25. *Inv. #:* ДМ А/15. *Dimensions:* h. 84; d (1/2 c) 66; h. (acanthus leaves) 51; h. (abacus plate) 8.5; d (*volutes*) 13. *Origin:* see # 25. *Chronology:* as # 25. *Figs.:* **pl. 3/8; pl. 4/1-4.**

 # 27. Corinthian capital. Same scheme, pattern and features like # 25, but in this example are very well preserved the profiles and cusps of the *abacus* plate, also like the *helices* – here from two different types: standard curves and "floral type". *Status:* whole detail, well preserved, acanthus cups, stems and curves of the *volutes* are broken today, but the cusps of the *abacus* are well visible and preserved. *Material:* same as # 25. *Today in:* as # 25. *Inv. #:* ДМ

A/14. *Dimensions:* h. 80; d (1/2 c) 64; h. (acanthus leaves) 42-43; h. (abacus plate) 8.5-9. *Origin:* as # 25. *Chronology:* see # 25. *Figs.:* without images here.

 # 28. Corinthian capital. Reduced scheme, type: "four-leaved Corinthian capital". "Floral *helices*" and huge *abacus* blossom (floral motives). On the *helices* – traces from drill. *Status:* little fragment, almost all of the elements are broken, today visible: *abacus* plate, pieces of *volutes*, *helices*, *abacus* motive, and upper parts of two acanthus leaves. *Material:* marble, white color, grained. *Today in:* RMH-Vidin, depot in "Cross-shaped Barracks". *Inv. #:* none. *Dimensions:* h. (*abacus* plate) 3; *helices* 8. *Origin:* Archar village. *Chronology:* late Antonine, second half of the 2nd c. AD. *Figs.:* **pl. 4/5.**

 # 29. Corinthian capital. Reduced scheme, type: "four-leaved Corinthian capital". *Volutes* – strongly projected in relief, acanthus leaves – placed under the *volutes*, *abacus blossom* – huge, floral motives. *Status:* whole detail, well preserved. *Material:* limestone, so-called "*Müschelkalkstein" (*Ger.*). Today in:* RMH-Vidin, depot in "Cross-shaped Barracks". *Inv. #:* none. *Dimensions:* h. 32; d (c) 28; h. (acanthus leaves) 18; h. (*abacus*) 5; h. (*abacus* motive) 15; d (*volutes*) 7.5. *Origin:* Archar village (unknown complex). *Chronology:* late Antonine, second half of the 2nd c. AD (probably also: early Severan). *Figs.:* **pl. 4/6.**

 # 30. *Pediment* (monolithic detail; Corinthian style). Divided to: cornice parts (the triangular frame of the *gable* is made by Corinthian cornices); inner part of the detail (*tympanum*); *soffit* and the bed of *acroterium*. Cornice (Corinthian) divided to: *sima* – ornamented with *palmettos*; *Lesbian cyma* – first row (type: *Scheren-kymation typus* (Ger.) – according to Ganzert 1983); *geison* – richly decorated, divided to *consoles* (*modillions* from the so-called block type), decorated with acanthus or ivy leaves (the corner console is rotated in 45° to the lines of the cornices), and *cassettes*, with different ornamentations – musical instrument (*syrinx* (Pan flute)), rosettes and frames, decorated with ionic *cyma* (*eggs-and-darts* type), *astragal* and undecorated and well moulded lines; second row of *lesbian cyma* (type: *Bügel-kymation typus* (Ger.) – according to Ganzert 1983); *astragal* and *dentils*. *Status:* whole detail, perfectly preserved, some light breakings over the edges and effacement of some ornaments over the surface. *Material:* marbleized limestone. *Today in:* Danube Park in Vidin, *lapidarium*. *Inv. #:* none. *Dimensions:* l. 166; w. 110; h. (with the bed of *acroterium*) 93; bed of *acroterium* 44x44x23; d.h.: *sima* 19, Lesbian *cyma* 5.5, *geison* 14 (Ionic *cyma* 3.5; *astragal* 1.5; undecorated vertical line 9), lesbian *cyma* (second row) 5.5, *astragal* 3, *dentils* 5; elements of the *geison* in plan: cassettes 20x15, consoles 14x14. *Origin:* Archar village (unknown complex). *Chronology:* late Antonine, second half of the 2nd c. AD. *Figs.:* **pl. 5/1-3; pl. 6/6-7.**

 # 31. Corinthian cornice. Divided to: *sima*, *geison* and *dentils*. *Sima* – moulded in the profile of *cyma recta*, undecorated. *Geison* – consoles and cassettes. Consoles are from the modillion type (spiral-shaped ornamentation is well presented). Cassettes are framed by wide moulded lines and Ionic *cyma* from the *eggs-and-darts* type. Between *geison* and *dentils* there is also Ionic *cyma* from the *eggs-and-darts* type. The dentils are huge, roughly made, and the spaces between the elements are narrow. *Status:* whole detail, large breakings over the *sima* part, effacement of some ornaments over the surface. *Material:* limestone. *Today in:* Danube Park in Vidin, *lapidarium*. *Inv. #:* none. *Dimensions:* l. 140; w. 138; h. 55; d.h.: *sima* 20, *geison* 14 (*corona* 5, Ionic *cyma* 3.5, undecorated vertical parts in cassettes 10); Ionic *cyma* 8; *dentils* 8; elements of the *geison* in plan: cassettes 20x20, consoles 18x18. *Origin:* Archar village (unknown complex). *Chronology:* Antonine period, 2nd c. AD. *Figs.:* **pl. 5/4; pl. 6/8.**

 # 32. Corinthian cornice. Divided to: *sima*, *geison* and *dentils*. *Sima* – decorated with seven-leaved *palmettos*. *Geison* – consoles (block-type *modillions*) and cassettes, divided with undecorated but well moulded lines in the footings of the consoles. Only one cassette preserved – with the decoration of a single bull' head. Consoles are covered with acanthus leaves. Ionic *cyma* between *geison* and *dentils* (*eggs-and-darts* type). *Status:* whole detail, perfectly preserved, some light breakings over the *sima* and the *soffit*. *Material:* limestone. *Today in:* RMH-Vidin, main exhibition building ("Konaka"), *lapidarium*. *Inv. #:* 869. *Dimensions:* l. 76; w. 90; h. 40; d.h.: *sima* 18, *geison* 10; Ionic *cyma* 7; *dentils* 5.5; elements of the *geison* in plan: cassettes 20x20, consoles 18x18. *Origin:* Archar village, Turkish quarter, March 1953. *Chronology:* Antonine period, 2nd c. AD. *Figs.:* **pl. 5/5.**

 # 33. Corinthian cornice. Part of a cassette in *geison* – ornamentation with bull' head. *Sima* – decorated with *palmettos*. *Status:* little fragment, today preserved: bull's head in the cassette, little piece of the *sima*. *Material:* limestone. *Today in:* Baba Vida fortress, Vidin. *Inv. #:* none. *Dimensions:* l. (today) 35; h. (*sima*) 20. *Origin:* Archar village, parameters and decoration very similar to # 32. *Chronology:* like #32. *Figs.:* **pl. 5/6.**















Plate 1. 1. Base, Doric (or Tuscan) order, cat. #1; **2.** Base, Ionic order, cat. # 2 – general view; **3.** Base, Ionic, cat. # 2 – side view to the pillar part of the detail; **4.** Base, Ionic, cat. # 3; **5.** Column, cat. # 4; **6.** Column with Ionic base (monolithic detail), cat. # 5; **7.** Column (fluted decoration), cat. # 6

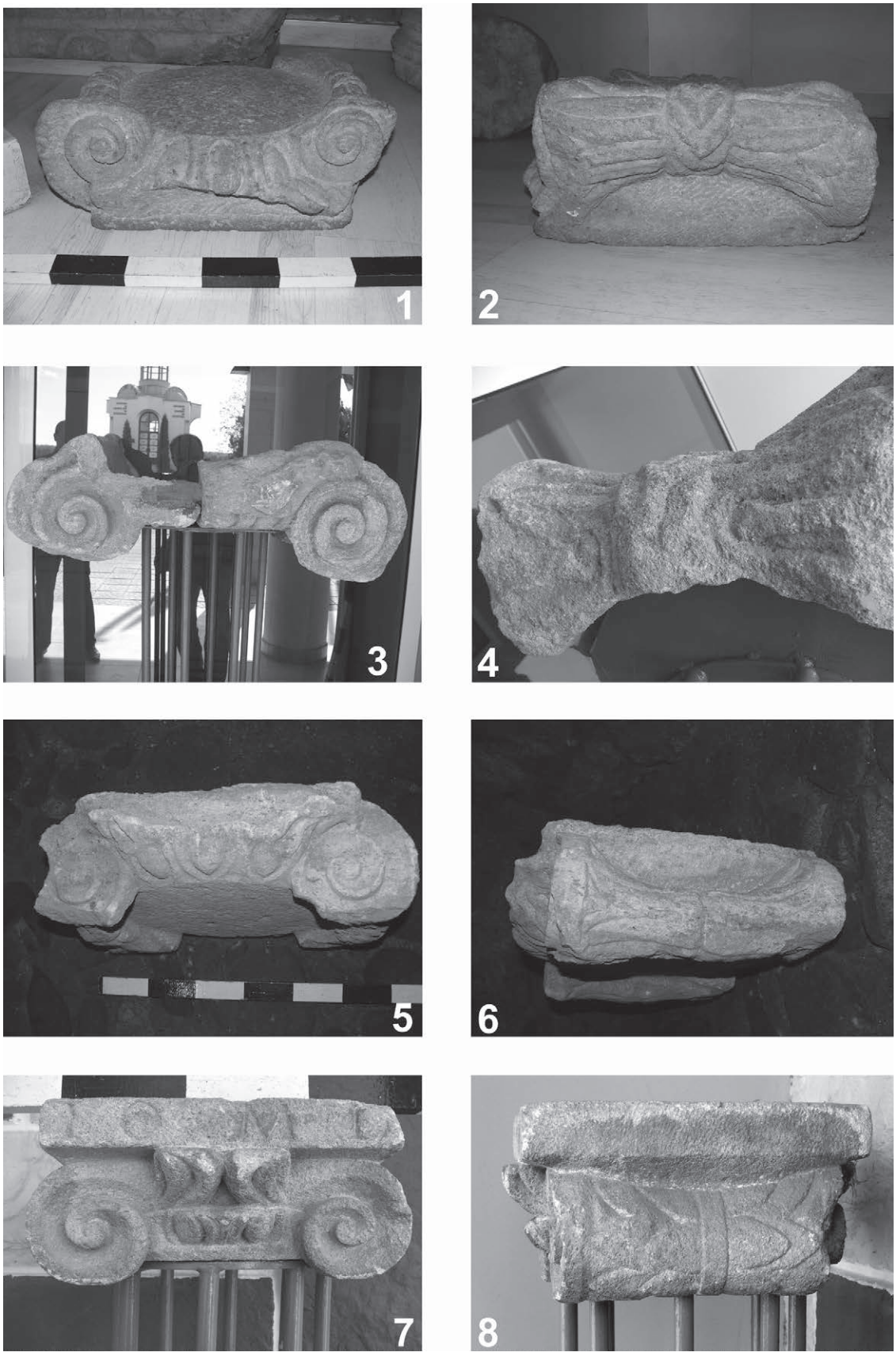


Plate 2. 1. Ionic capital – façade, cat. # 13; **2.** Ionic capital – decoration of the *pulvinus* (reeds leaves), cat. # 13; **3.** Ionic capital – façade, cat. # 14; **4.** Ionic capital – decoration of the *pulvinus* (smooth leaves, probably reeds), cat. # 14; **5.** Ionic capital – façade, cat. # 15; **6.** Ionic capital – decoration of the *pulvinus* (lotus leaves and blossoms), cat. # 15; **7.** Ionic capital – façade, cat. # 16; **8.** Ionic capital – decoration of the *pulvinus* (flaky ornament), cat. # 16

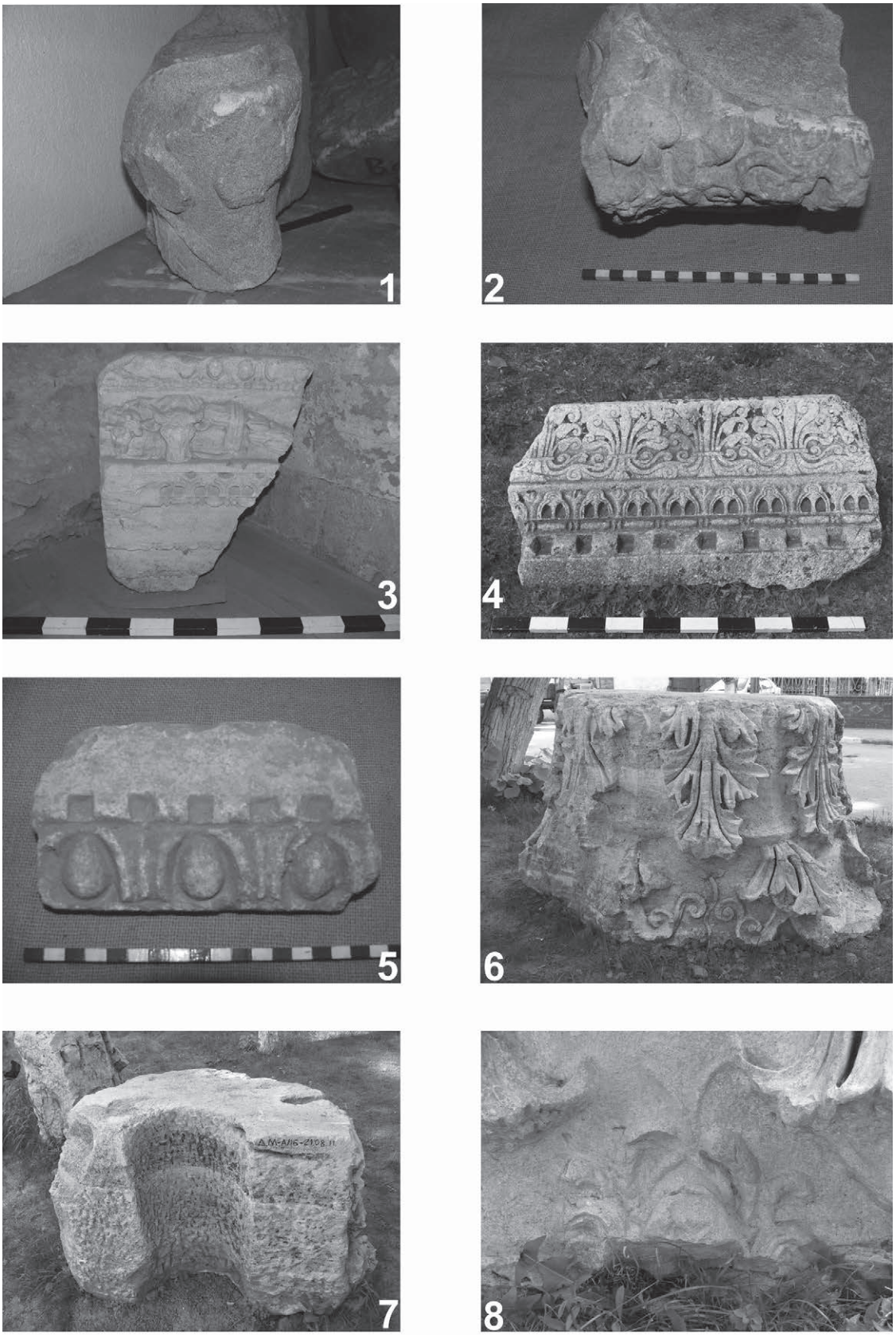


Plate 3. 1. Ionic capital – decoration of the *pulvinus* (ivy leaves), cat. # 17; **2.** Ionic capital – decoration of the *pulvinus* (ivy leaves), cat. # 18; **3.** Frieze-architrave block, decorated with garlands and bull heads, cat. # 20; **4.** Ionic cornice, cat. # 21; **5.** Ionic cornice (reduced elements), pilaster wall facing detail, cat. # 22; **6.** Corinthian capital – general view, cat. # 25; **7.** Corinthian capital – back side, cat. # 25; **8.** Corinthian capital – figural ornamentation of the *abacus* plate: Medusa's head, cat. # 26.

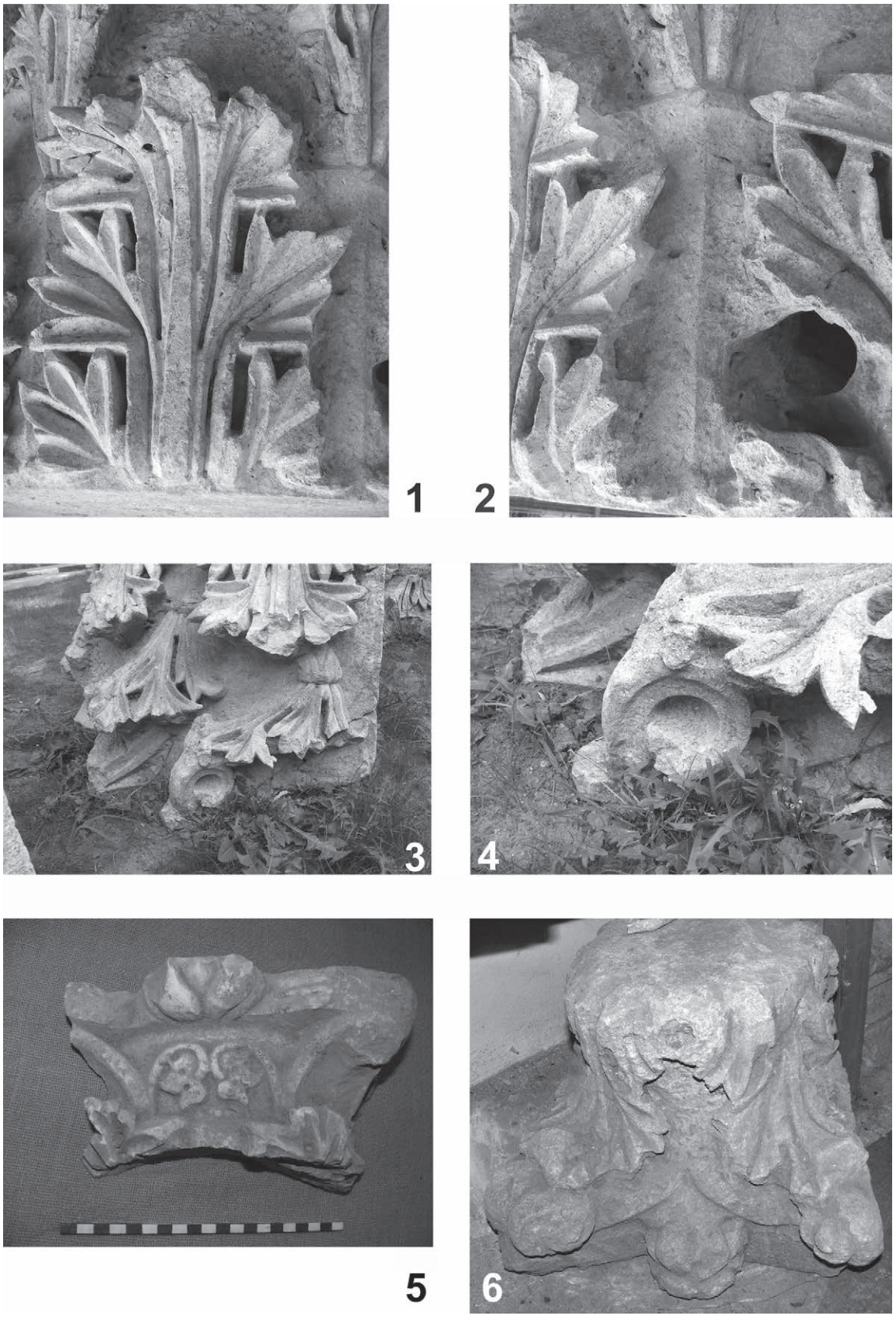


Plate 4. 1. Corinthian capital – detail of the acanthus leave, cat. # 26; **2.** Corinthian capital – detail of the *caulis* and carving technique, cat. # 26; **3.** Corinthian capital – detail of the acanthus cups, cusps of the abacus plate and *volutes*, cat. # 26; **4.** Corinthian capital – detail of the *volute*-element, cat. # 26; **5.** Corinthian capital – four-leaved type with floral *helices*, cat. # 28; **6.** Corinthian capital – four-leaved type, cat. # 29

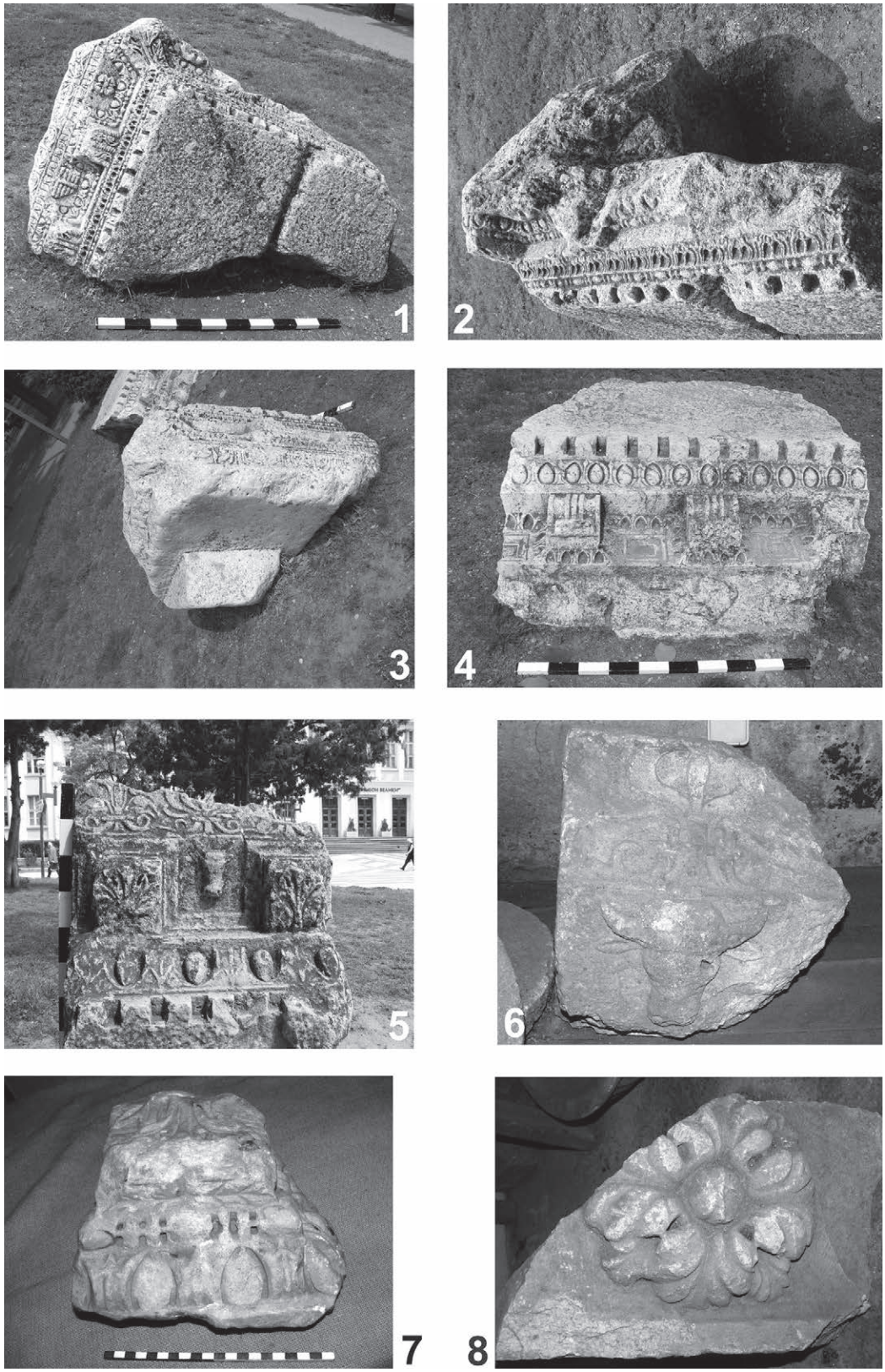


Plate 5. 1. Pediment (monolithic detail) from Corinthian order – view of the *soffit* and *geison* part of the cornices, cat. # 30; **2.** Pediment (monolithic detail) from Corinthian order – general view of the façade, cat. # 30; **3.** Pediment (monolithic detail) from Corinthian order – upper surface with the "bed" of *acroterium*, cat. # 30; **4.** Corinthian cornice – the type, made by the so-called *modillions* (*consoles*) and cassettes between them, cat. # 31; **5.** Corinthian cornice – ionic *cyma*, *palmetto* decoration, acanthus leaves over the lower surfaces of the consoles and with bull' heads in the cassette, cat. # 32; **6.** Corinthian cornice – bull's head in the cassette, cat. # 33; **7.** Corinthian cornice – fragment with well-preserved console, cat. # 34; **8.** Corinthian cornice – fragment with a rosette, cat. # 35

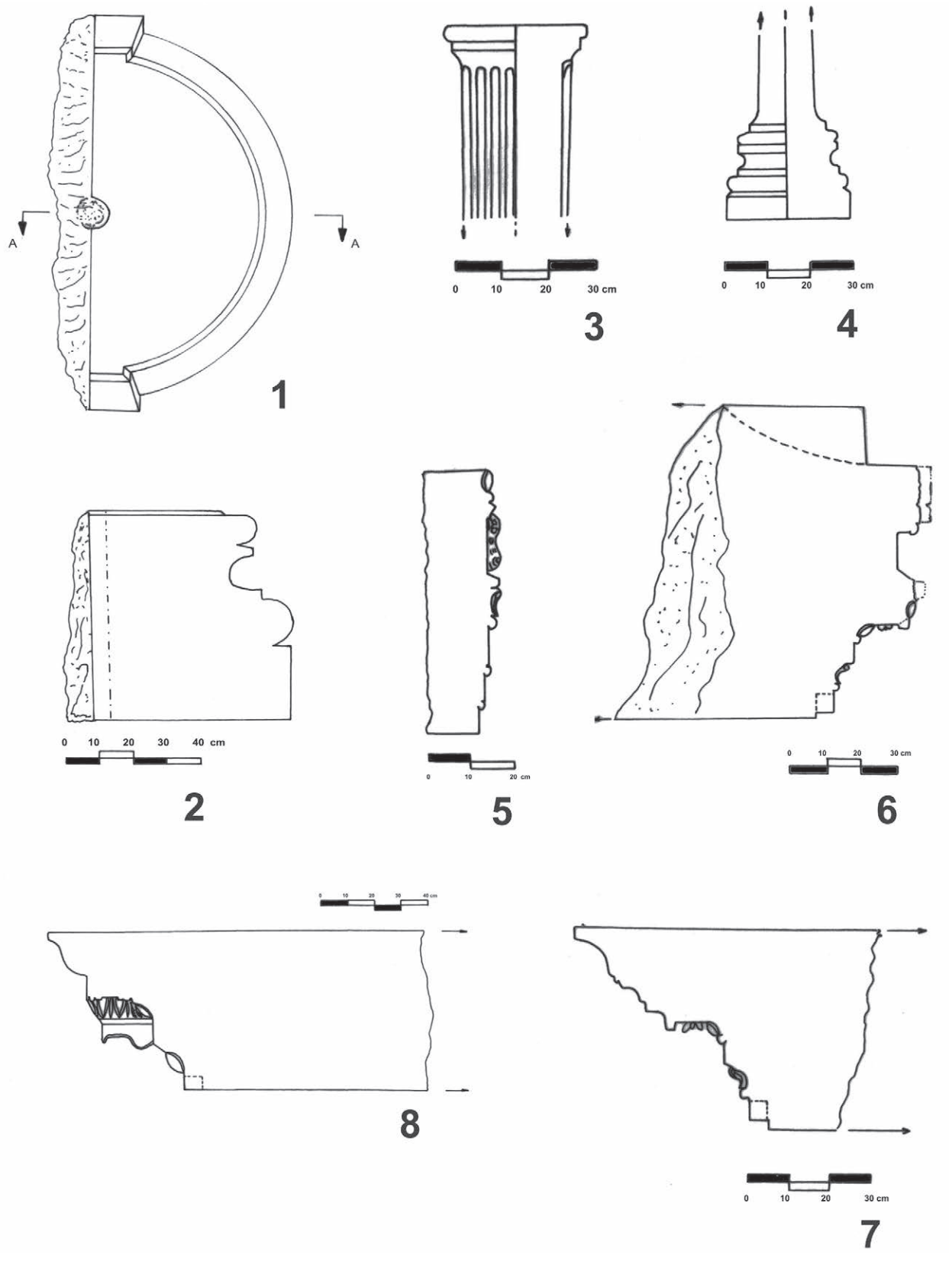


Plate 6. 1. Graphic reconstruction of the Ionic base from Archar – plan, cat. # 2; **2.** Graphic reconstruction of the Ionic base from Archar – vertical cross-section, cat. # 2; **3.** Fluted column – vertical cross-section and side view, cat. # 6; **4.** Monolithic detail, column with an Ionic base – vertical cross-section and side view, cat. # 5; **5.** Frieze-architrave block with garlands and bull's heads – vertical cross-section, cat. # 20; **6.** Pediment, Corinthian order – vertical cross-section though the bed of *acroterium*, cat. # 30; **7.** Pediment, Corinthian order – vertical cross-section though the cornices, cat. # 30; **8.** Corinthian cornice with *modillions* – vertical cross-section, cat. # 31

 # 34. Corinthian cornice. Part of the *geison* – single console. Today preserved: acanthus leave, Ionic *cyma* and *astragal*. *Status:* little fragment, single console. *Material:* limestone. *Today in:* RMH-Vidin, depot in "Cross-shaped Barracks". *Inv. #:* 472. *Dimensions:* general measurements of the console 15x15; acanthus 15; Ionic *cyma* 5.5; *astragal* 3. *Origin:* Archar village, unknown complex. *Chronology:* Antonine period, 2nd c. AD. *Figs.:* **pl. 5/7.**

 # 35. Corinthian cornice (possible also: part of a cassette roof slab (?)). Huge rosette in the flat and undecorated cassette. In the upper part of the detail are visible little pieces of Lesbian *cyma* (probably placed between *geison* part and *sima*). *Status:* little fragment from the cassette in *geison* of the Corinthian cornice (or in the cassette roof slab). *Material:* limestone. *Today in:* RMH-Vidin, depot in "Cross-shaped Barracks". *Inv. #:* none. *Dimensions:* rosette 20 (without doubt from a huge, monumental complex in Corinthian order). *Origin:* Archar village, unknown complex. *Chronology:* Antonine period, 2nd c. AD (probably Trajanic-Hadrianic period, according to analogues in *Oescus*). *Figs.:* **pl. 5/8.**

Abbreviations: l. – length; w. – width; h. – height; d (c) – diameter of the column; r (1/2 c) – radius of the half column or d (1/2 c) – diameter of the half column; r – radius; d.h. – division in height of the decorative element in the architectural details; p. – plinth. All dimensions are in centimeters.

Bibliography

Димитров, *З.* 2007. Архитектурна декорация в провинция Долна Мизия (I-III в) (= Дисертации 2). София.

Динчев, *В.* 2002. Рациария (Ratiaria). In: Иванов, Р. (ред.). Римски и ранновизантийски градове в България, I. София. 13-28.

Иванов, *Т.* 2005. Улпия Ескус. Римски, късноримски и ранновизантийски град, II. Гражданска базилика и храм на Фортуна. София.

Иванов, *Т.* / *Иванов*, *Р.* 1994. Никополис ад Иструм, 1. София.

Петрова, *С.* 1996. Римо-йонийски капители от Мизия и Тракия (I – IV век). София.

Baumann, *V. H.* 1983. Ferma Romana din Dobrogea. Tulcea.

Bingöl, *O.* 1980. Das ionische Normalkapitelle in hellenistischer und römischer Zeit in Kleinasien (= Istanbuler Mitteilungen, Beiheft 20). Tübingen.

Dimitrov, *Z.* 2012. Development of the Architectural Orders in the Region of the Lower Danube Limes (1st – 3rd c. AD). In: Vagalinski, L. / Sharankov, N. / Torbatov, S. (eds.). The Lower Danube Roman Limes (1st – 6th c. AD). Sofia. 121-158.

Ertel, *C.* 1991. Römische Architektur in Carnuntum (= Römische Limes in Österreich 38). Wien.

Freyberger, *K. S.* 1990. Stadtrömische Kapitelle aus der Zeit von Domitian bis Alexander Severus. Mainz am Rhein.

Ganzert, *J.* 1983. Zur Entwicklung lesbischer Kymationformen. – Jahrbuch des Deutschen Archäologischen Instituts 98, 123-202.

Heilmeyer, *W.-D.* 1970. Korinthische Normalkapitelle (= Mitteilungen des Deutsches Archäologisches Institut, Römische Abteilung, Ergänzung 16). Heidelberg.

Kiss, *A.* 1987. Pannonische Architekturelemente und Ornamentik in Ungarn. Budapest.

Mărgineanu-Cârstoiu, *M.* 2002-2003. The Evolution of the Ionic Capitals from the Hellenistic Age to the Roman Age. A Standstill in Geometry? – Dacia, 46-47, 53-112.

Mărgineanu-Cârstoiu, *M.* 1988. Römische korinthische Kapitelle aus von Histria. – Dacia 32, 37-53.

Mattern, *T.* 2001. Gesims und Ornament: zur stadtrömischen Architektur von der Republik bis Septimius Severus. Münster.

Maver, *A.* / *Müller*, *H.* / *Rižnar*, *I.* 2009. Roman Capitals from Sirmium (Sremska Mitrovica, Serbia). – Старинар 59, 119-148.

Mladenova, *J.* 1991. Die römische villa bei Ivajlovgrad (VR Bulgarien) und ihre Architekturdekoration. – Das Altertum 27, 1, 38-48.

Mladenova, J. 1979. L'école d'Aphrodisias en Thrace. – Rivista di Archeologia 3, 91-94.

Rohmann, *J.* 1998. Die Kapitellproduktion der römischen Kaiserzeit in Pergamon (= Pergamenische Forschungen, 10). Berlin / New York.

Srejović, *D.* 1993. Roman Imperial Towns and Palaces in Serbia. Sirmium, Romuliana, Naissus. Beograd.

Toma, *N.* 2009. Eine Gruppe von Pilasterkapitellen korinthischer Ordnung aus Tomis. – Dacia 53, 113-129.

Vitruvius 2009. On Architecture. Penguin Classics. London.

Ward-Perkins, *J. B.* 1980. Nicomedia and the marble trade. – Papers of the British School at Rome 48, 23-69.

Assoc. Prof. Zdravko Dimitrov PhD
National Archaeological Institute with Museum
2 Saborna St.
BG-1000 Sofia
zdravkodimitrov@abv.bg

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The *Municipia* of the Province of *Moesia Inferior*

Ventzislav DINTCHEV

Despite the differences in their status and organizational traditions, *Colonia Oescensium* (*Oescus*)[1], *Nicopolis ad Istrum*[2] and *Marcianopolis*[3] (**fig. 1**), founded by emperor Trajan, developed as centres with similar main features: large areas, which enclosed tens of hectares; cadastral plans, based on orthogonal street layout; streets with permanent pavement, canals and pipelines; public square complexes in the central zones (still not discovered but expected in *Marcianopolis*); representative and utilitarian public architecture, etc. They were already fortified by the end of the 2nd c., and the dimensions of their massive fortresses reflect in an approximately accurate manner their state and significance at that time[4].

According to the standards of ancient town building, *Oescus, Nicopolis ad Istrum* and *Marcianopolis* can be determined as genuine cities. These criteria could be defined in short as monumental urbanism.

According to the available archeological information, the *municipia* of the province of *Moesia inferior* (**fig. 1**) – *Montana* (?) (**fig. 2**)[5], *Novae* (?) (fig. **3a, 3b**)[6], *Durostorum* (**fig. 4a, 4b**)[7], *Troesmis* (**fig. 5**)[8],

[1] For *Oescus*: Иванов / Иванов 1998; Кабакчиева 2000; Иванов 2005; Динчев 2009a.

[2] For *Nicopolis ad Istrum*: Иванов / Иванов 1994; Русева-Слокоска, 1994; Poulter 1995; Vladkova 2002; Слокоска et al. 2002; Църов 2002; Динчев 2009b, 69-78.

[3] For *Marcianopolis*: Gerov 1975; Tončeva 1981; Minčev 1987; Ангелов 1999; Minchev 2002; Кузов 2010.

[4] About the accession of *Nicopolis ad Istrum* and *Marcianopolis* by the province of *Moesia inferior* in the end of 2nd c. see Ботева 1997, 27-28, 236.

[5] For the municipal status (?) of the settlement *Montana*: Велков 1971, 108-109; 1987, 10; 1992, 395-398; Vulpe 1976, 294-296; Геров 1980, 76-82; Rankov 1983, 57-58; Велков / Александров 1994, 1 sqq., 48; Тачева 2004, 37, 45, 72, 78-79. For the fortress and the other known rests from *Montana*: Дякович 1904, 17-25; Милчев / Пеков 1965; Александров 1970; 1980; 1987; 1994; Огненова-Маринова et al. 1987; Динчев 2006, 33-34, 129; Кабакчиева 2011.

[6] For the municipal status (?) of the *vicus* or the *canabae* of *Novae*: Gerov 1964; 1977, 300-301; Мрозевич 1980, 9-15; Poulter 1983, 84; Mrozewicz 1984, 295-296; Kolendo / Božilova 1997, 17, 76-77, 241, #39; Иванов 1999, 267-269; Тачева 2004, 45-46, 72, 77-78. General bibliography on *Novae* see in Dyczek et al. 2008, 41-49. For the known remains from the vicinity of the military camp, including the areas of the *vicus* and the *canabae*: Стефанов 1956, 24; Митова-Джонова 1961; 1966; Димитров et al. 1964, 222-226; Вълов 1966; Димитров et al. 1967, 90-93; Василчин 1984; Pres / Sarnowski 1990, 239-240; Conrad / Stančev 2002, 674, 680-682; Čičikova 1987; 1997; Naydenova 1999; Conrad / Stančev 2002, 674, 680-682; Vladkova 2003; Владкова 2007; 2012; Димитров 2008; Conrad 2008, 74-76.

[7] For *Municipium Aurelium Durostorum*: Gerov 1977, 301; Геров 1980, 96-97; Poulter 1983, 78-82; Mrozewicz 1984, 294-295; Доневски 1988, 89-92; Иванов 1999, 268-275; 2003, 75, 81-83; Тачева 2004, 46-47, 79-82; Доневски 2006, 186-188, 228-238; Ангелова / Бъчваров 2008, 82, 84; Боянов 2010, 296-300. For the known rests from the vicinity of the military camp, including the areas of the *vicus* and the *canabae*: Culică 1978; Chera-Mărgineanu 1978; Вълев 1984; Muşeţeanu 1985; Milošević / Donevski, 1999; Атанасов 2005, 101-102; 2006, 335-342; Доневски 2006; Ангелова / Бъчваров 2008; Димитров 2010; Cîrjan 2011.

[8] For *Municipium Troesmensium*: Vulpe 1976, 290-292; Doruţiu-Boilă 1978, 247; Poulter 1983, 82-83; Велков 1984, 136, 142-143; Suceveanu / Barnea 1991, 49-51; 1993, 164, 166-167; Тачева 2004, 72, 79; Aparaschivei 2006, 189-192, 195-206. For the known rests from the fortresses and the other structures of *Troesmis*: Ştefan 1974, 97-100, 102, 104; Scorpan 1980, 31-33, 105-113, 152-154; Simion 1980; Baumann 1980; Opaiţ 1980; Oberländer-Târnoveanu 1980; Zahariade 1988, 128-130; Торбатов 2002, 121-129; Aparaschivei 2006, 189; Zahariade 2006, 67, 90-91, 99, 101.

Noviodunum (**fig. 6**)[9] and *Tropaeum Traiani* (**fig. 7a, 7b**)[10] did not reach the monumental urbanism of *Oescus*, *Nicopolis ad Istrum* and *Marcianopolis* during the Principate. The former were surpassed by the latter in terms of all main urban indicators during the 2nd and 3rd c.

It seems that among all possible candidates for *municipia* settlements, only the *canabae* of *Durostorum* acquired certain dimensions (**fig. 4a, 4b**), that could be compared to those of real cities. The information about the materials scattered in the field – e.g. from the *canabae* of *Novae* (**fig. 3b**), is not a reliable indication of the total area of the settlement.

A street network has been found in the *canabae* of *Durostorum*. Nevertheless, it lacks common orientation (**fig. 4b**) and cannot be considered as a variation of the classic pattern of *decumani* and *cardines*. The detected streets have no solid pavement (there is one exception with no clear context) and some of them – none at all. The scarce information about the street layout of *municipium Tropaeum Traiani* (**fig. 7b**) during the 2nd and 3rd c. does not include data of permanent pavement. So far, there has been found only one "street" (part of the Danube *via militaris*?; a shorter passage in a complex of buildings?) among the ruins of earlier buildings in the *canabae* of *Novae*. However, this cannot be considered sufficient evidence for a developed street network.

In the settlements that attract our attention, various remains have been discovered, including parts of monumental buildings – public (mainly temples and baths) and/or private (**fig. 2, 3b, 4b, 7b**). However, such buildings were not a privilege exclusively of the real cities, but also of *vici*, *villae* and other sites. What is more, no information has been found yet about the existence of public squares with the most important buildings for urban governance in these settlements. It is possible that such complexes may be uncovered during further archaeological research. However, they would not look like the *forum* of *Oescus,* or the *agora* of *Nicopolis ad Istrum*. The identification of these two cities in the 19th c. was due to their monumental remains, among which those of their public square complexes of the 2nd – 4th c. stood out. It is within these areas where the first local archaeological excavations took place (cf.: Иванов / Иванов 1994, 11-13; 1998, 44-45). The monumentality of the remains is the reason for the early localization of the real *Tropaeum Traiani* (cf.: Barnea et al. 1979, 13-15; Sâmpetru 1984, 27-35) – the monument, whose name was given to the nearby *municipium*. The latter was identified at the same time, although not by the ruins of the Roman public buildings in it, but rather because of the remains of the massive fortress walls from its Late Roman successor (**fig. 7a**).

It appears that some of the settlements were fortified as they received the status of *municipium* – e.g. *Tropaeum Traiani* (*Troesmis*?; *Noviodunum*?). However, their fortresses cannot be compared in size to the fortresses of the real cities in the 2nd c. Meanwhile, at the beginning of the Dominate, when a vast fortification-and-construction campaign was carried out, most of these settlements were left unfortified. The earlier *canabae* near *Novae* and *Durostorum* remained suburbia of the nearby legionary camps, which at that time were in the process of transformation into urban fortresses. The Late Roman extension of the legionary fortress in *Novae* and the new one, most probably the military fortress in *Durostorum* (**fig. 3b, 4a**), can be considered indirect confirmation of this conclusion. The functions of the earlier *vici* localized near *Novae* and *Durostorum* (**fig. 4a**) tend to decline, especially after the 70s of the 4th c. The municipal or quasi-municipal settlement by *Montana* was probably transformed into a suburb with a reduced scope (**fig. 2**). The known small fortress here preserved its military character at least until the end of the 4th c. In the beginning of the Dominate, a civilian stronghold ("cetatea de west") of modest size appeared, or was re-edified, in *Troesmis* (**fig. 5**). The fate of *municipium Noviodunum* at that time is not very clear (**fig. 6**). It is possible that the situation here was similar to the one in *Novae,* but at a smaller scale –

[9] For *Municipium Noviodunum*: Barnea 1988, 53-55; Suceveanu / Barnea 1991, 48-49; Baumann 2010, 8. For the known rests from the fortress and the other structures of *Noviodunum*: Ștefan 1974, 100-104; Barnea 1977a; Scorpan 1980, 17-23, 116, 148-149; Barnea / Barnea 1984; Zahariade 1988, 134-137; Торбатов 2002, 144-152; Zahariade 2006, 67 sqq., 99; Lockyear et al. 2006; 2008; Baumann 2010; Teodor et al. 2011.

[10] For *Municipium Tropaeum Traiani*: Vulpe 1976, 292-293; Doruțiu-Boilă 1978, 245; Barnea et al. 1979, 13, 60-62, 249-250; Poulter 1983, 83; Велков 1984, 144; Suceveanu / Barnea 1991, 54, 55; Тачева 2004, 44, 71; Aparaschivei 2003, 333-337; Zahariade 2006, 17, 85. For the known rests from Roman and Late Antiquity periods of *Tropaeum Traiani*, including these of the famous monument: Popescu 1976, 183-185, No 170; Barnea 1977b; Mărgineanu-Cârstoiu 1977; Barnea et al. 1979; Panaitescu 1979; Scorpan 1980, 44-49, 102-114, 160; Sâmpetru 1984; 1994, 18 sqq., 160-166; Papuc 1986; Suceveanu / Barnea 1991, 200, 202, 271-278; Poulter 1996, 117, 126; Lungu, 1997, 99-104; Bogdan-Cătăniciu 1998; 1999; 2001; 2006; Торбатов 2002, 50-51, 301-307; Zahariade 2006, 69 sqq., 107-109; Achim 2007; Crow 2007, 447-450; Gămureac 2009; Динчев 2009c, 418-419.

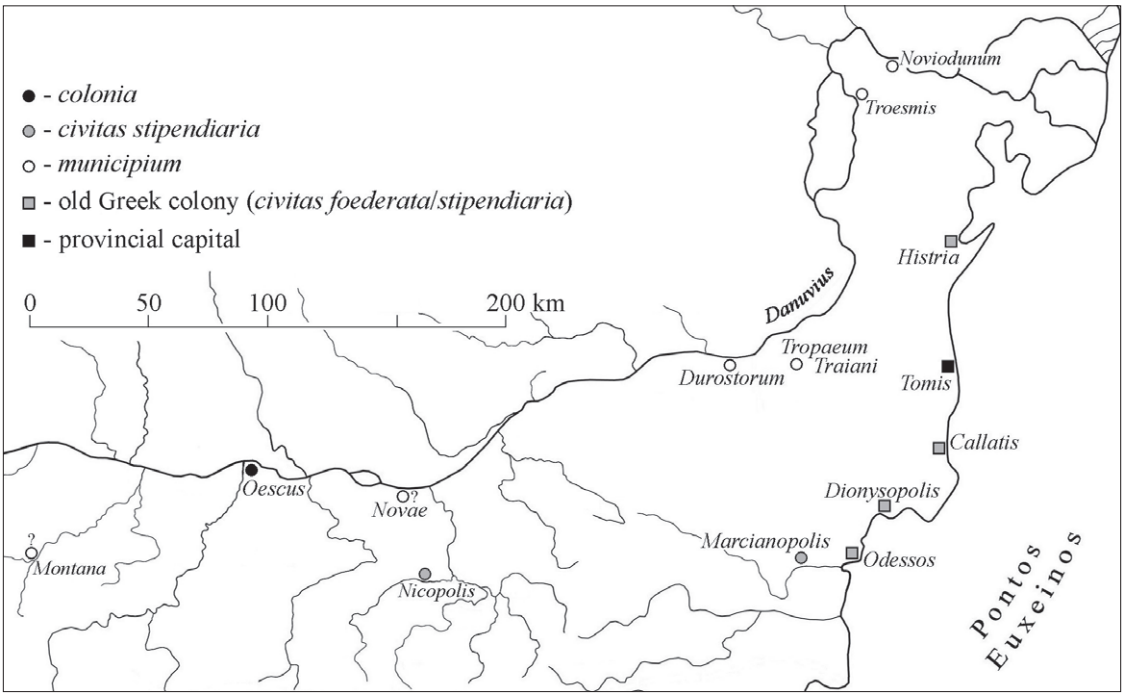


Fig. 1. The territory and the main settlements of the province of *Moesia inferior* in the beginning of 3rd c.

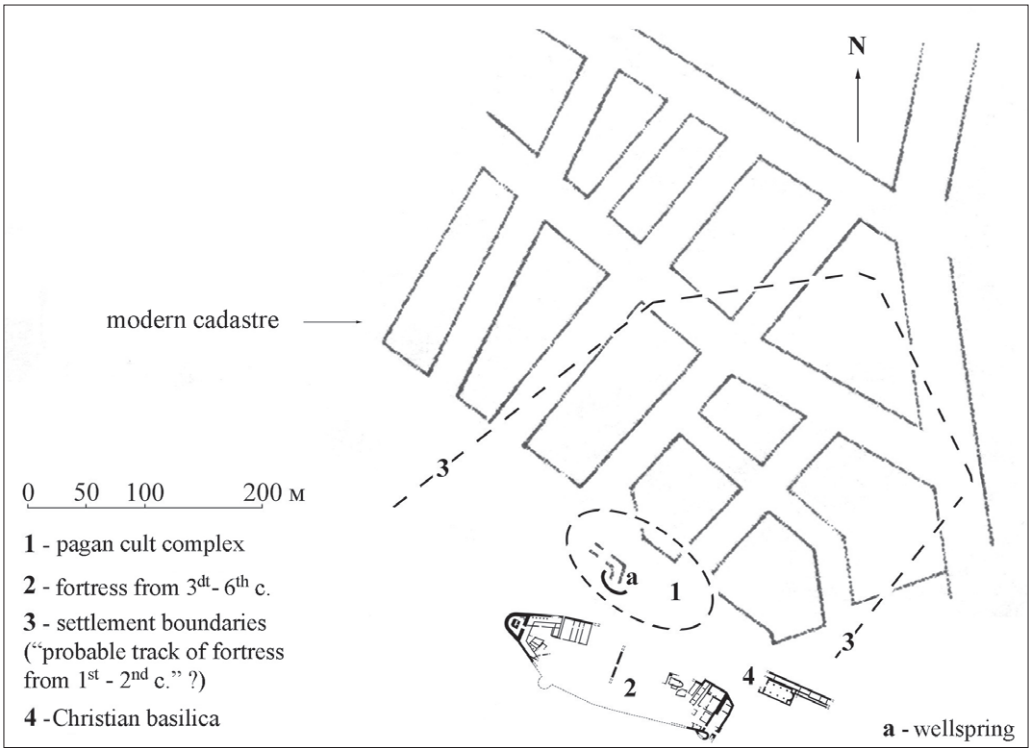


Fig. 2. Situation of the known ruins of *Montana* (after: Огненова-Маринова et al. 1987, pl. 2; Велков / Александров 1994, 75)

an open suburb and a fortified civilian annex to the camp of *legio I Iovia*.

The fate of the *municipia* of *Montana* (?), *Novae* (?), *Durostorum*, *Troesmis* and *Noviodunum* at the beginning of the Dominate demonstrates the resources they had possessed in the previous period. *Tropaeum Traiani* was an exception with its large Late Roman fortress (**fig. 7a, 7b**). The exception, however, was not due to the autonomous development of the earlier *municipium*, but was rather a

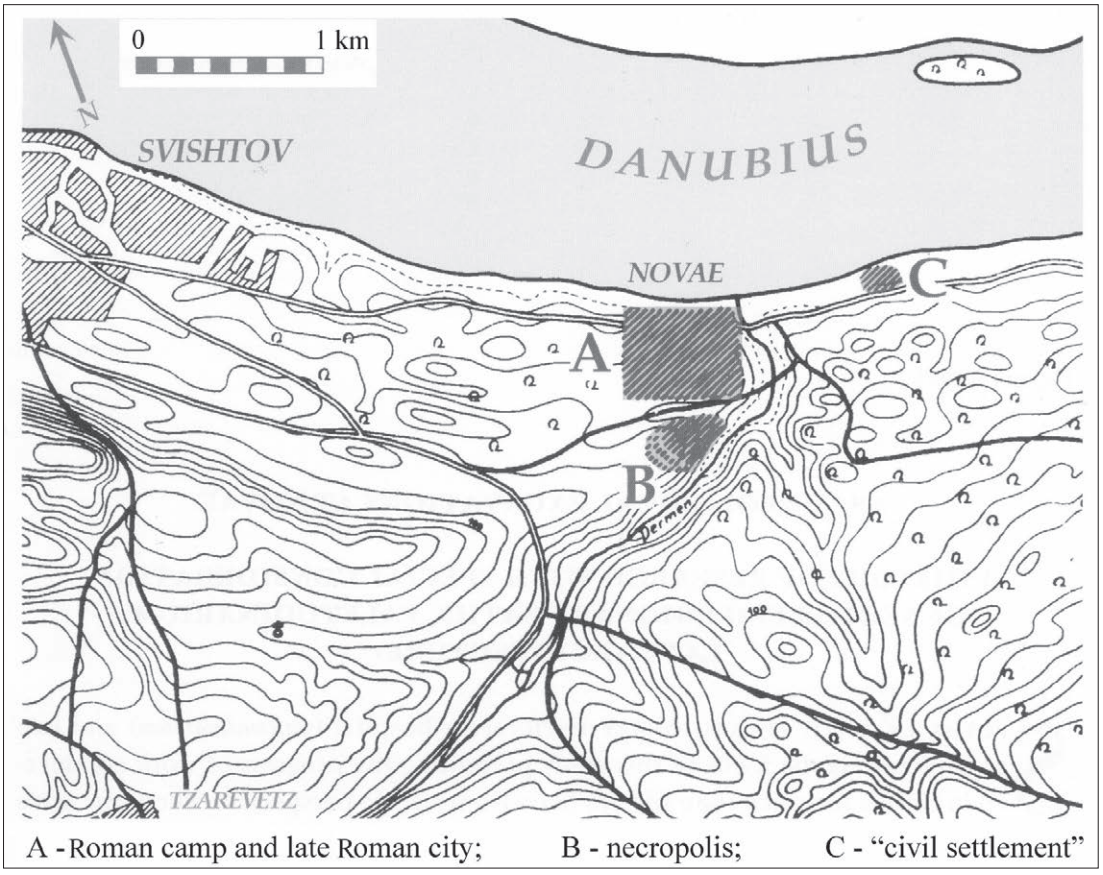


Fig. 3a. Map of the area of *Novae* (after Dyczek 2008, 32, fig. 9)

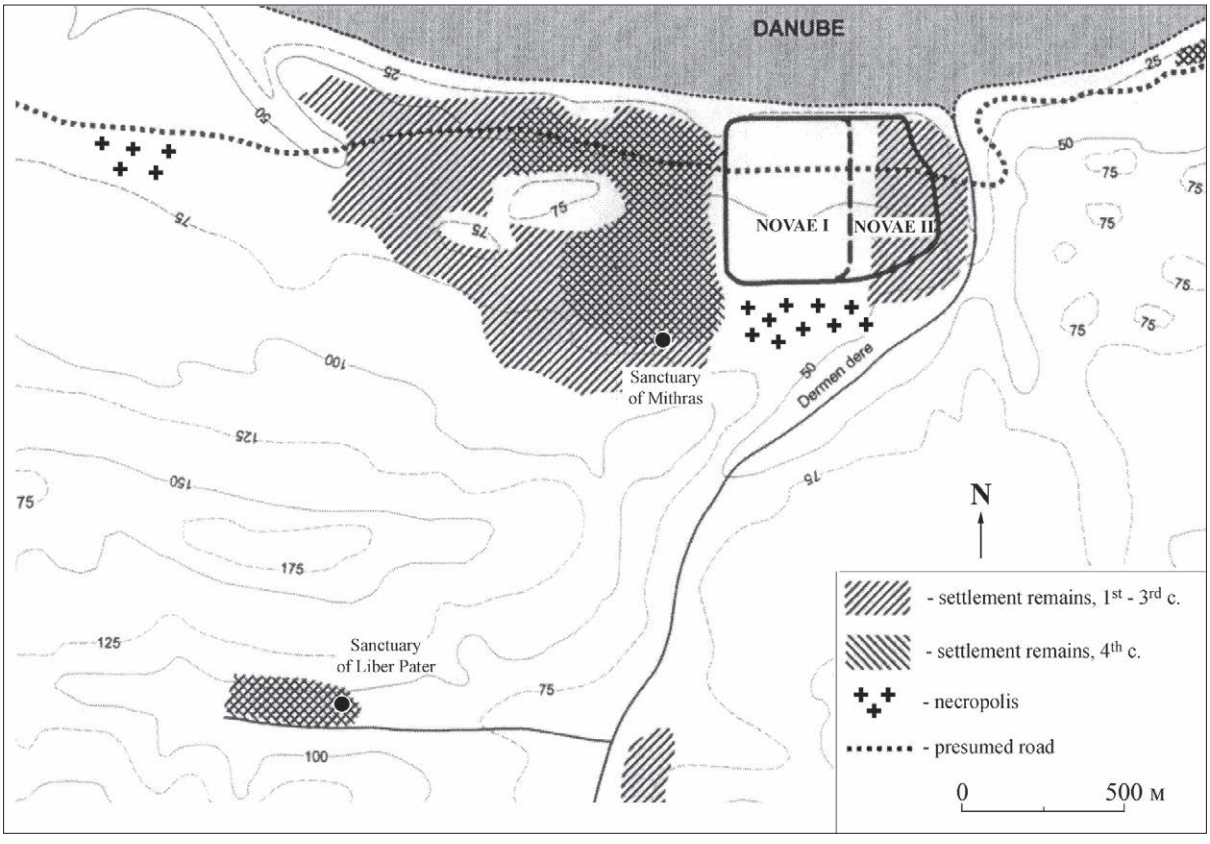


Fig. 3b. Remains from 1st – 4th c. in the vicinity of *Novae* (after Conrad / Stančev 2002, 682, fig. 5)

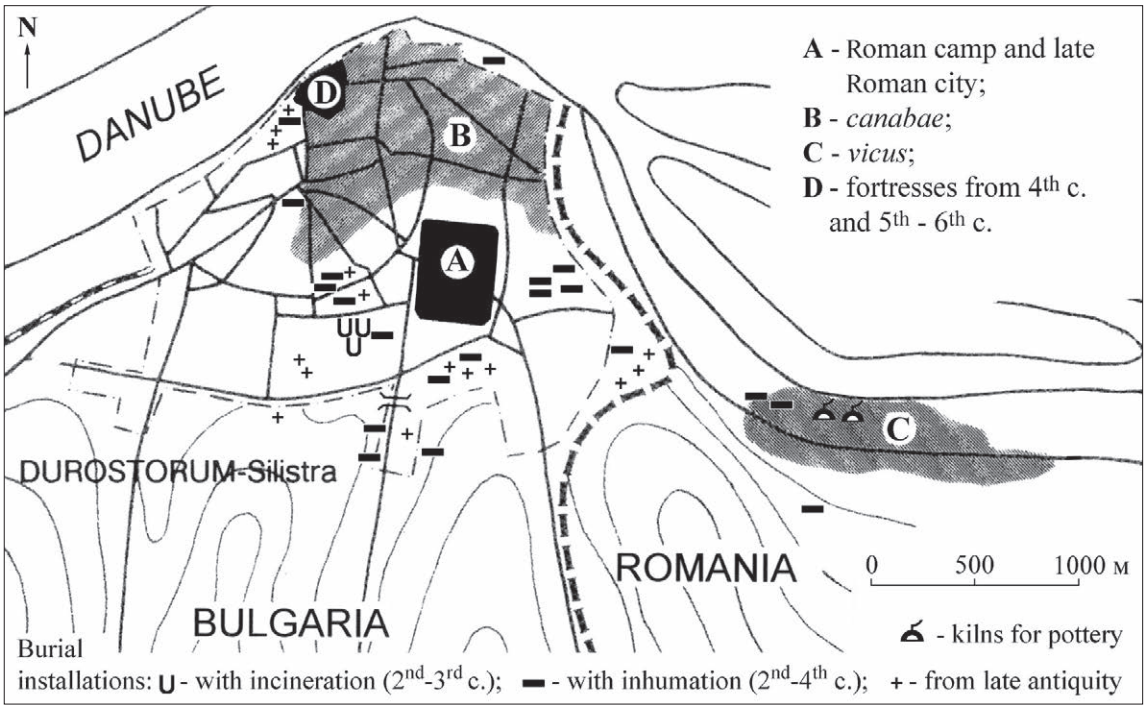


Fig. 4a. Sites and remains in the vicinity of *Durostorum* (after Доневски 2006, 232)



Fig. 4b. Plan of the studied remains from the *canabae* of *Durostorum* (after: Доневски 2006, 189; Атанасов 2006, 343)

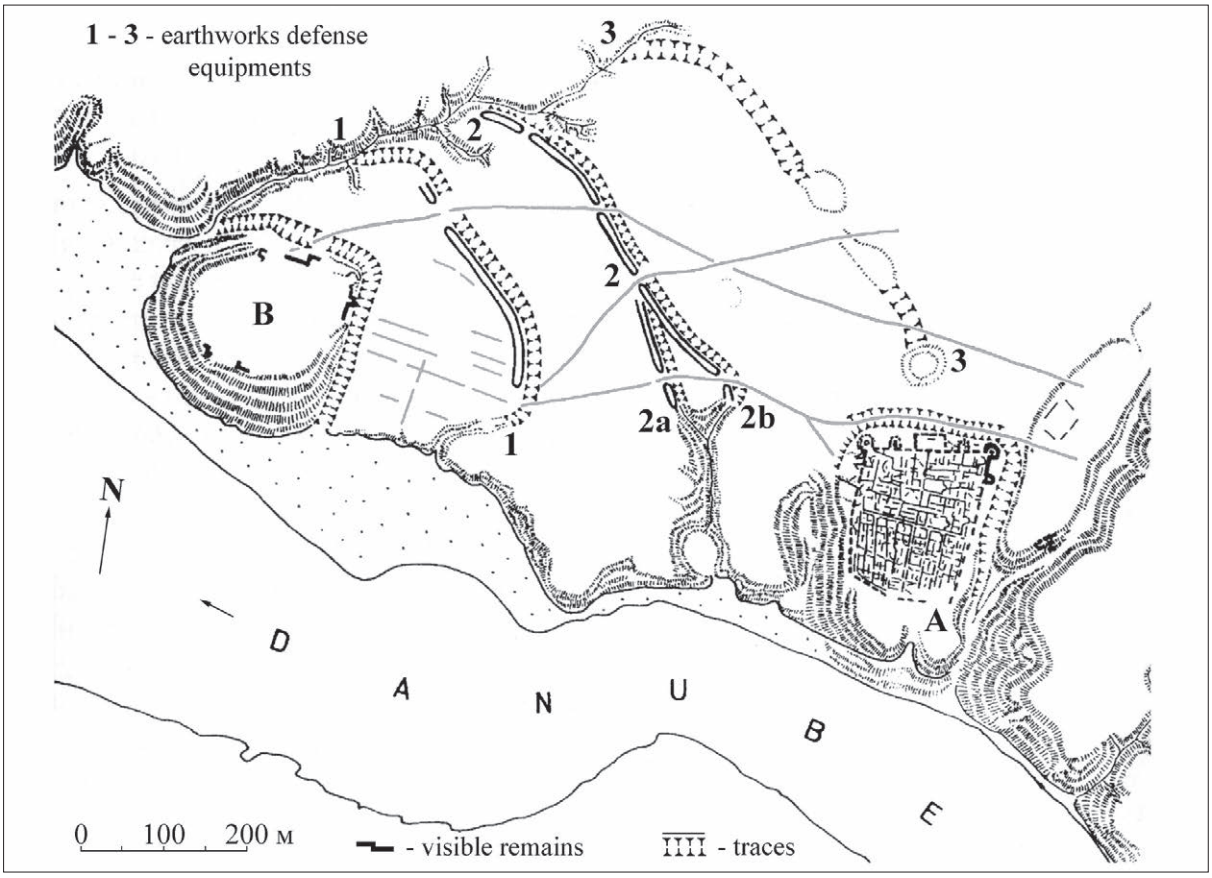


Fig. 5. Sites and remains in the vicinity of *Troesmis* (after Ştefan 1974, pl. 16)

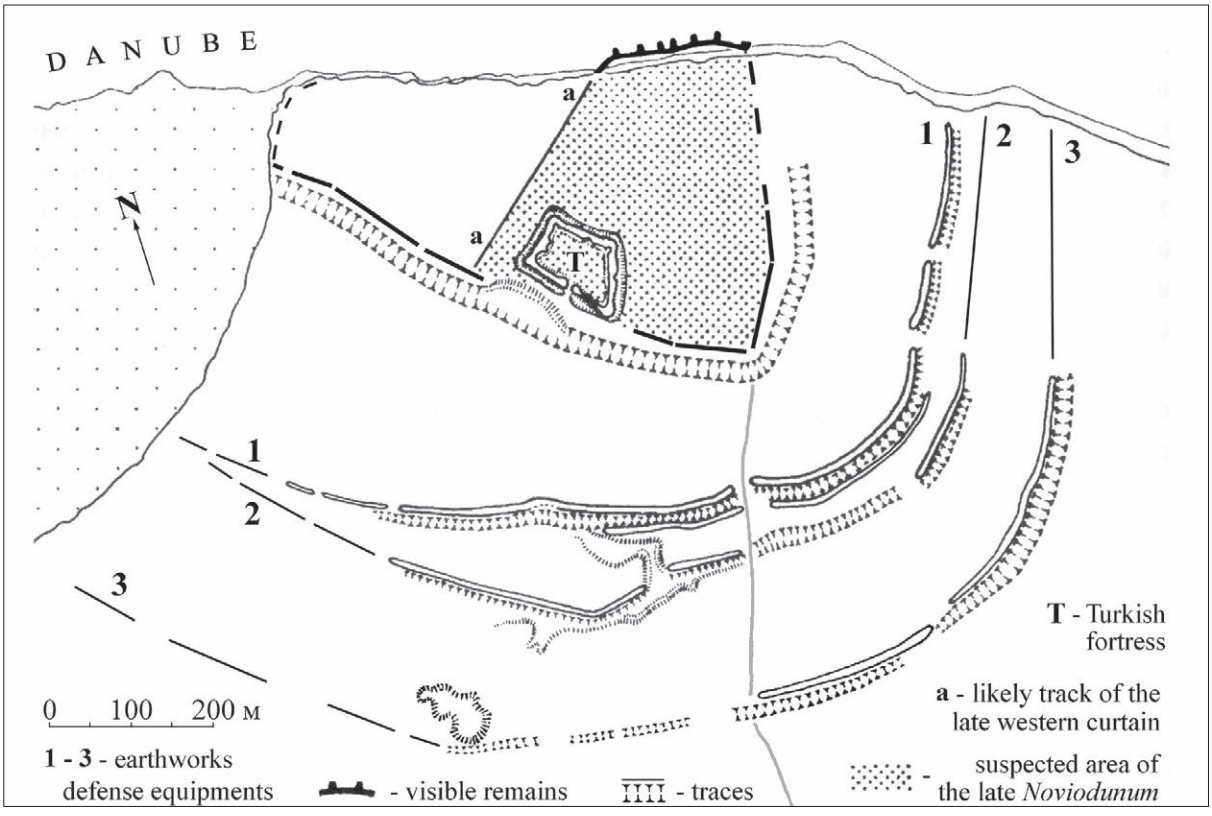


Fig. 6. Sites and remains in the vicinity of *Noviodunum* (after Ştefan 1974, pl. 20).

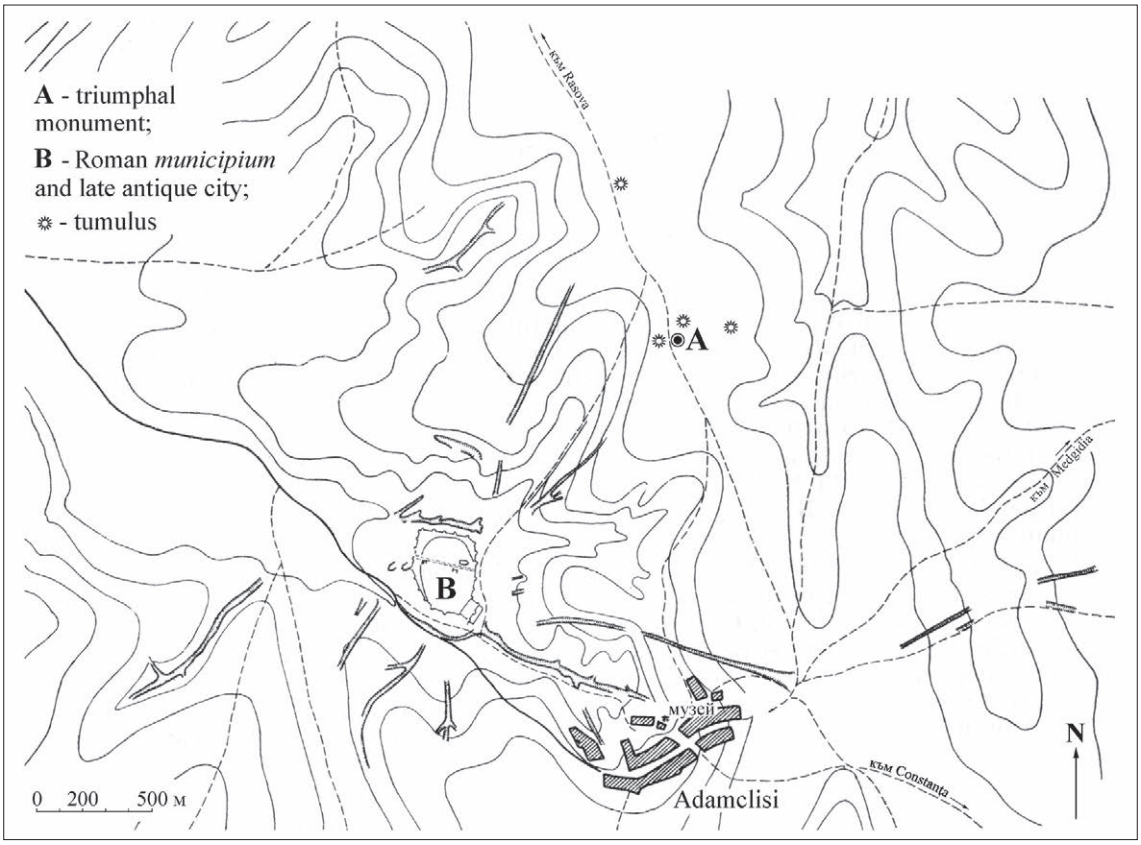


Fig. 7a. Map of the area of *Tropaeum Traiani* (after Barnea et al. 1979, 14, fig. 1)

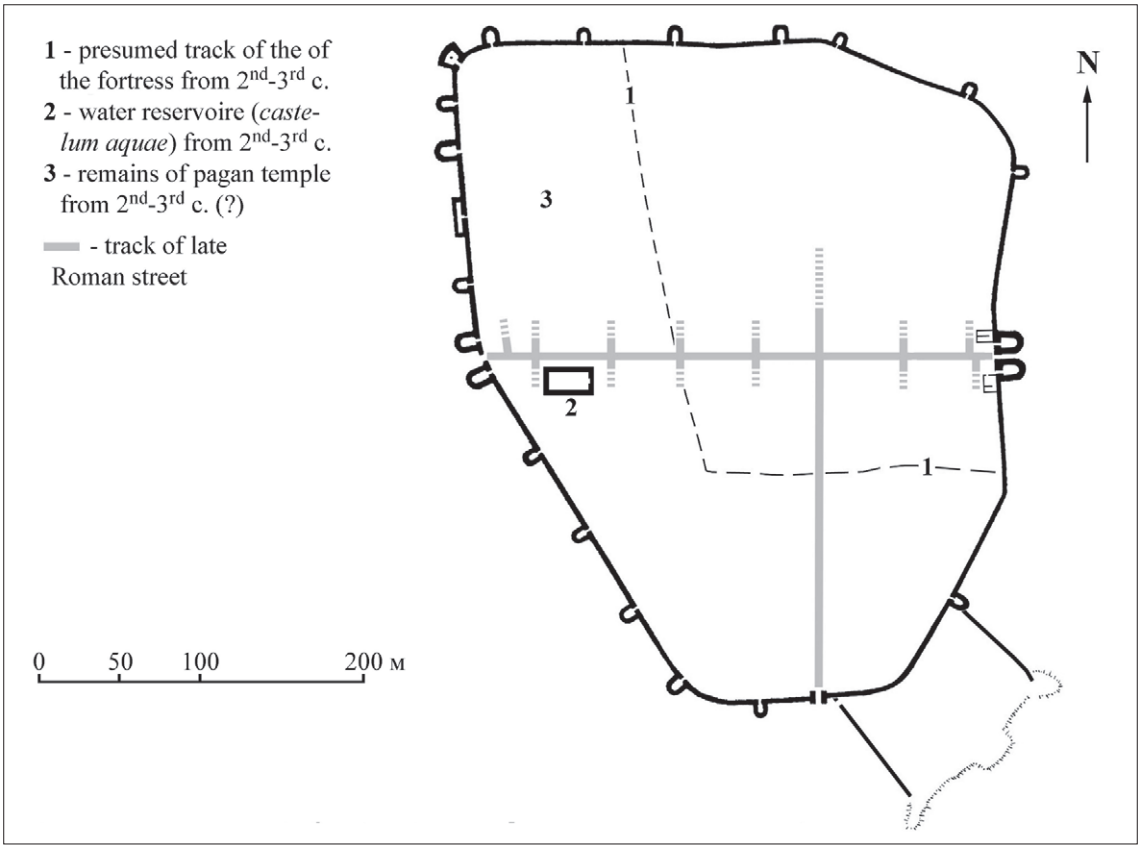


Fig. 7b. Plan of the Late Roman fortress of *Tropaeum Traiani* with the known remains of the Roman *municipium* (after Barnea et al. 1979, fig. 23, 107, and the publications cited in the text)

result of the initiative of the supreme imperial administration. The edification of the new *Tropaeum Traiani* is part of a large project of the first half of the 4th c. This campaign caused the emergence of a number of new and big fortified centers in the inner regions of the Late Roman provinces at the Lower Danube – *Ibida*, *Zaldapa*, the Late Roman *Abritus* etc. (Динчев 2009c, 430-441).

The settlements with municipal status are the supporting points for the establishment and maintaining of the Roman administration and the Roman model of economic life in the provinces. The border *municipia* are of great importance for the logistics of the troops, which were dislocated along the imperial frontiers during the Principate. The previous conclusions do not question that role and importance for the *municipia* at the Lower Danube (**fig. 1**). The authenticity of their status does not depend on the archaeological evidence. According to this information, however, "*municipium*" is not a single, homogeneous settlement category. Archaeological data shows that the majority of the *municipia* at the Lower Danube are not genuine cities, according to the standards of the classic town building.

We are aware of some settlements, in *Moesia inferior* as well, which do not officially possess municipal status (*vici*), but have quasi-municipal administrative governance (e.g. Тачева 2004, 36-41, 50-53). It is also well known that during the Principate not all of the *vici* or *canabae* near legionary camps obtained municipal status (e.g. Hanel 2007, 413). The relation "settlement type – settlement status" is quite complicated and includes examples of settlements holding *municipia* status, but being of a quasi-urban type, with incomplete urbanization.

Probably due to the fact that the major part of the *municipia* in *Moesia inferior* appeared, or were included, in the Roman administrative and settlement system later than the rest, they did not develop at all – like, for example, the *municipium Mursella* in *Pannonia superior* (Szőnyi 2008, 235-248, Abb.13), or developed only partly their urban potential.

The comparison between the *municipia* in *Moesia inferior* and other Pannonian examples, such as the *vici* near the military camps at *Carnuntum* and *Aquincum,* which, during the 2nd c., successively obtained the status of *municpia* and *coloniae* (e.g.: Mócsy 1974, 112-147, 159-169, 213-227; Póczy 1980, 240-252, 255-261, 264-266), lead us to an interesting conclusion. It seems that in the Danube area a "*municipium*" is not equal to an "urbanized settlement". When a settlement of municipal status in this region transforms into a real urban center, it also obtains the status of *colonia*. The impetus for such development was adequate until the proclamation of the *Constitutio Antoniniana* in 212 A.D.

Bibliography

Александров, Г. 1994. Погребални съоръжения и находки от римската епоха в Монтана и района. In: Надгробните могили в Югоизточна Европа. Т. I. В. Търново. 241-247.

Александров, Г. 1987. Резултати от разкопките на крепостта Монтана (1971-1982). In: Велков, В. (ed.). Монтана. Т. I. София. 54-85.

Александров, Г. 1980. Антични надписи и други находки от Монтана (Долна Мизия). – Археология 22, 1, 34-41.

Александров, Г. 1970. Антични паметници от Монтана (Михайловград). – Археология 12, 3, 43-48.

Ангелов, А. 1999. Марцианопол – история и археология. Варна.

Ангелова, Ст. / Бъчваров, И. 2008. Дуросторум през късната античност (IV-VI век). In: Иванов, Р. (ed.). Римски и ранновизантийски селища в България. Т. III. София. 82-101.

Атанасов, Г. 2006. Глави 11-14. In: История на Силистра. Т. I. Античният Дуросторум. Силистра / София. 263-358.

Атанасов, Г. 2005. Дворецът на доростолските епископи от V-VI в. – Известия на Регионалния исторически музей Русе 9, 100-112.

Ботева, Д. 1997. Долна Мизия и Тракия в римската имперска система (193-217/218 г. сл. Хр.). София.

Боянов, И. 2010. Нови данни за развитието на Дуросторум през Принципата. In: Гетов, Л., Пенчева, Е., Рабаджиев, К. (eds.). Stephanos Archaeologicos in honorem Professoris Stephcae Angelova. София. 295-301.

Василчин, И. 1984. Раннохристиянска гробница от Нове. – Векове 13, 3, 75-78.

Велков, В. 1992. Montana – castra et civitas. – Годишник на Националния археологически музей 8, 395-400.

Велков, В. 1987. Исторически очерк. In: Велков, В. (ed.). Монтана. Т. I. София. 9-13.

Велков, В. 1984. Дял II/5, III, IV. In: История на Добруджа. Т. 1. София. 97-101, 124-173.

Велков, В. 1971. Принос към историята на римските градове. Монтана. In: Чипровци (1688-1968). София. 105-114.

Велков, В. / Александров, Г. 1994. Монтана. Т. II. Епиграфски паметници от Монтана и района. Монтана.

Владкова, П. 2012. Нове. Сграда extra muros. In: Археологически открития и разкопки през 2011 г. София. 265-267.

Владкова, П. 2006. Некропол край Novae от времето на

Теодорих Велики. In: Милев, Р. (ed.). Готите. Съвременни измерения на готското културно-историческо наследство в България. София. 57-70.

Вълев, П. 1984. Слънчевият часовник от Дуросторум. – Археология 26, 2-3, 84-92.

Вълов, В. 1966. Пещ за строителна керамика от Нове. – Археология 8, 1, 46-51.

Геров, Г. 1980. Земевладението в римска Тракия и Мизия (I-III в.). София.

Димитров, З. 2010. Амфитеатър в Дуросторум (?). In: Гетов, Л. / Пенчева, Е. / Рабаджиев, К. (eds.). Stephanos Archaeologicos in honorem Professoris Stephcae Angelova. София. 327-340.

Димитров, К. 2008. Към въпроса за развитието на комплекса extra muros (сектор VIII А) на Нове в Долна и Втора Мизия. In: Гергова, Д. et al. (eds.). Phosphorion. Studia in honorem Mariae Čičikova. София. 429-451.

Димитров, Д. / Чичикова, М. / Димитрова, А. / Найденова, В. 1967. Археологические раскопки в восточном секторе Нове в 1965 г. – Известия на археологическия институт 30, 75-100.

Димитров, Д. / Чичикова, М. / Султов, Б. 1964. Археологические раскопки в восточном секторе Нове в 1962 г. – Известия на археологическия институт 27, 217-236.

Динчев, В. 2009a. Античните градски площадни комплекси и тяхната съдба през късната античност: Oescus. – Археология 50, 3-4, 28-37.

Динчев, В. 2009b. Античните градски площадни комплекси и тяхната съдба през късната античност. Philippopolis и Nicopolis ad Istrum. In: Бошнаков, К. / Ботева, Д. (eds.). LAUREA. In honorem Margaritae Vaklinova. Т. I. София. 63-81.

Динчев, В. 2009c. Новите късноримски центрове на Scythia и Moesia secunda. In: Аладжова, Д. et al. (eds.). Сборник в памет на професор Велизар Велков. София. 414-448.

Динчев, В. 2001. Класификация на късноантичните градове на Thracia и Dacia – модел и интерпретация. – Годишник на Археологическия институт с музей 1, 223-252.

Доневски, П. 2006. Глави 7-10. In: История на Силистра. Т. I. Античният Дуросторум. Силистра / София. 166-262.

Доневски, П. 1988. Археологически разкопки на лагера и канабето на XI-и Клавдиев легион в Дуросторум. In: Дуросторум – Дръстър – Силистра. 90 години музейно дело в Силистра. Силистра. 84-96.

Дякович, Б. 1904. Археологически излет в Крайдунавска България. – Сборник за народни умотворения, наука и книжнина 20, 1-56.

Иванов, Р. 2003. Дуросторум. In: Иванов, Р. (ed.). Римски и ранновизантийски селища в България. Т. II. София. 75-86.

Иванов, Р. 1999. Долнодунавската отбранителна система между Дортикум и Дуросторум от Август до Маврикий. София.

Иванов, Т. 2005. Улпия Ескус. Римски и ранновизантийски град. Т. II. Гражданска базилика и храм на Фортуна (Разкопки и проучвания 34). София.

Иванов, Т. / Иванов, Р. 1998. Ulpia Oescus. Римски и ранновизантийски град. Т. I. София.

Иванов, Т. / Иванов, Р. 1994. Никополис ад Иструм. Т. I. София.

Кабакчиева, Г. 2011. Разкопки на раннохристиянска базилика в Монтана. In: Археологически открития и разкопки през 2010 г. София. 289-291.

Кабакчиева, Г. 2000. OESCUS, Castra Oescensia – ранноримски военен лагер при устието на Искър. София.

Кузов, Хр. 2010. Археологически разкопки в Марцианопол, сектор „Западна инсула". – In: Археологически открития и разкопки през 2009 г. София. 279-282.

Милчев, А. / Пеков, Д. 1965. Новооткрити находки от Михайловгард (Монтана). – Археология 7, 3, 43-52.

Митова-Джонова, Д. 1966. Пещ за керамика и керемиди от Нове. – Археология 8, 1, 38-45.

Митова-Джонова, Д. 1961. Светилище на Дионис край Свищов. – Археология 3, 2, 21-24.

Мрозевич, Л. 1980. Положението на Нове в организационната структура на провинция Долна Мизия (I-III в.). – Векове 9, 4, 5-15.

Огненова-Маринова, Л. / Божилова, В. / Александров, Г. 1987. Разкопки при светилището на Диана и Аполон (1968-1978). In: Велков, В. (ed.). Монтана. Т. I. София. 14-53.

Русева-Слокоска, Л. 1994. Към въпроса за укрепителната система на Никополис ад Иструм – строителни периоди и датировка. In: Драганов, Д. (ed.). Поселищен живот в Тракия. Т. III. Ямбол,. 171-181.

Слокоска, Л. / Владкова, П. / Църов, И. / Бояджиев, Ст. / Иванов, Р. 2002. Никополис ад Иструм (Nicopolis ad Istrum). In: Иванов, Р. (ed.). Римски и ранновизантийски градове в България. Т. I. София. 83-104.

Стефанов, Ст. 1956. Старините по долния басейн на Янтра. София.

Тачева, М. 2004. Власт и социум в римска Мизия и Тракия. Т. 2. София.

Торбатов, С. 2002. Укрепителната система на провинция Скития (края на III-VII в.). Велико Търново.

Църов, И. 2002. Западният акведукт на Никополис ад Иструм – 70 години по-късно. In: Русева-Слокоска, Л. (ed.). Римският и късноантичният град. София. 35-44.

Achim, I. 2007. Grigore Tocilescu şi antichităţile creştine de la Tropaeum Traiani. Remarci asupra cercetărilor savantului după documente de arhivă. – Studii şi cercetări de istorie veche şi arheologie 58, 3-4, 195-209.

Aparaschivei, D. 2006. Municipiul Troesmis. Instituţii şi elite. – Peuce 3-4, 189-208.

Aparaschivei, D. 2003. L'institution de duumvirat en Dobroudja romaine. Troesmis et Tropaeum Traiani. – Studia antiqua et archaeologica 9, 327-340.

Barnea, A. 1988. Municipium Noviodunum. Nouvelles

données épigraphiques. – Dacia 32, 1-2, 53-60.

Barnea, I. 1977a. Noi descoperiri la Noviodunum. – Peuce 6, 103-121.

Barnea, I. 1977b. La basilique cisterne de Tropaeum Traiani à la lumière des dernières fouilles archéologiques. – Dacia 21, 221-233.

Barnea, I. / Barnea, A. 1984. Săpăturile de salvare de la Noviodunum. – Peuce 9, 97-105, pl. I-XVI.

Barnea, A. / Barnea, I. / Cătăniciu, B. / Mărgineanu-Cârstoiu, M. / Papuc, G. 1979. Tropaeum Traiani. Vol. I. Cetatea. Bucureşti.

Baumann, V. 2010. Noviodunum. Şantier arheologic 1995-2009. Tulcea.

Baumann, V. 1980. Observaţii topo-stratigrafice asupra locuirii de la Troesmis (Casetele 1-40). – Peuce 8, 1980, 159-196.

Bogdan-Cătăniciu, I. 2006. The Marble Basilica (B) in Tropaeum Traiani. – Dacia 50, 235-254.

Bogdan-Cătăniciu, I. 2001. Tropaeum Traiani, poarta de nord. – Pontica 33-34, 415-424.

Bogdan-Cătăniciu, I. 1999. Changements du projet de la citadelle Tropaeenses à l'epoque constantinienne. In: Der Limes an der unteren Donau von Diokletian bis Heraklios. Sofia. 259-269.

Bogdan-Cătăniciu, I. 1998. Semnificaţia ultimelor schimbări în urbanismul de la Tropaeum Traiani. – Pontica 28-29, 201-214.

Čičikova, M. 1997. La basilique et la nécropole paléochrétiennes extra muros de Novae (Mésie Inférieure). In: Late Roman and Early Byzantine Cities on the Lower Danube. Poznan. 57-70.

Čičikova, M. 1987. Su un edificio con peristilio extra muros di Novae. – Ratiariensia 3-4, 185-192.

Chera-Mărgineanu, C. 1978. Un mormint de epocă romană descoperit pe raza comunei Ostrov. – Pontica 11, 137-143.

Cîrjan, R. 2011. Nouvelles témoignages sur les canabae de la XI^{e} légion Claudia à Durostorum. – Materiale şi cercetăru arheologice 7, 73-81.

Conrad, Sv. 2008. Die Besiedlung um Iatrus und Novae an der Unteren Donau. In: Roman and Early Byzantine Settlements in Bulgaria. Vol. III. Sofia. 68-81.

Conrad, Sv. / Stančev, D. 2002. Archaeological survey on the Roman frontier on the Lower Danube between Novae and Sexaginta Prista. Preliminary report (1997-2000). In: Proceedings of the XVIIIth Intern. Congress of Roman Frontier Studies held in Amman, Jordan. Vol. II. Oxford. 673-684.

Crow, J. 2007. Amida and Tropaeum Traiani: a Comparison of Late Antique Fortress Cities on the Lower Danube and Mesopotamia. In: The Transition to Late Antiquity on the Danube and Beyond. Oxford. 435-455.

Culică, V. 1978. Cu privere la lagărul legiunii a XI-a Claudia la Dunărea de Jos. – Pontica 11, 113-119.

Doruţiu-Boilă, E. 1978. Über den Zeitpunkt der Verleihung des Munizipalrechts in Scythia Minor. – Dacia 22, 245-247.

Dyczek, P. / Kolendo, J. / Sarnowski, T. 2008. In: Roman and Early Byzantine Settlements in Bulgaria. Vol. III. Sofia. 24-53.

Gămureac, E. 2009. Edificiul B1 din sectorul B al cetăţii Tropaeum Traiani. Consideraţii preliminare privind cercetările din 2005-2008. – Pontica 42, 243-299.

Gerov, B. 1977. Zum Problem der Entstehung der römischen Städte am Unteren Donaulimes. –Klio 59, 2, 299-310.

Gerov, B. 1975. Marcianopol im Lichte der historischen Angaben und der archäologischen, epigraphischen und numismatischen Materialien und Forschungen. – Studia Balcanica 10, 46-72.

Gerov, B. 1964. Die Rechtstellung der untermösischen Stad Novae. In: Akten des IV. Intern. Kongresses für griechische und lateinische Epigraphik. Wien. 128-133.

Hanel, N. 2007. Military Camps, Canabae, and Vici. The Archaeological Evidence. In: A companion to the Roman army. Blackwell Publishing Ltd. 395-416.

Kolendo, J. / Božilova, V. 1997. Inscriptions grecques et latines de Novae (Mésie Inférieure). Paris / Bordeaux.

Lockyear, Kr. / Popescu, A. / Sly, T. 2008. Rome and Byzantium on the Danube: the Noviodunum Archaeological project 2005–2008. – Archaeology International 11, 45-48.

Lockyear, Kr. / Sly, T. / Popescu, A. 2006. The Noviodunum archaeological project 2000-2004: results and conclusions from the pilot seasons. – Peuce 3-4, 121-158.

Lungu, V. 1997. L' evoluzione tipologica delle basiliche della Scythia Minor. – Miscellanea Bulgarica 11, 99-108.

Mărgineanu-Cârstoiu, M. 1977. Problèmes d' architecture concernant la citerne romaine et la basilique chrétienne de Tropaeum Traiani. – Dacia 21, 235-250.

Milošević, G. / Donevski, P. 1999. The Late Antique Tombs at Silistra (Durostorum). In: Der Limes an der unteren Donau von Diokletian bis Heraklios. Sofia. 245-258.

Minchev, A. 2002. The "house of Antiope" – a late roman residential house with moaics at Marcianopolis (Devnya, Bulgaria). In: The Roman and Late Roman City. Sofia. 245-254.

Minčev, A. 1987. Marcianopolis christiana. – Miscellanea Bulgarica 5, 297-306.

Mócsy, A. 1974. Pannonia and Upper Moesia. A History of the Middle Danube Provinces of the Roman Empire. London / Boston.

Mrozewicz, L. 1984. Ze stidiów nad rolą canabae w procesie urbanizowania terenóv pogranicza reńsko-dunajskiego w okresie Wczesnego Cesarstwa. – Balcanica Posnaniensia 3, 285-299.

Muşeţeanu, Cr. 1985. Ateliers céramiques de Durostorum. – Dacia 29, 147-153.

Naydenova, V. 1999. Le culte de Mithra à Novae (Mésie Inférieure). In: Der Limes an der unteren Donau von Diokletian bis Heraklios. Sofia. 117-120.

Oberländer-Târnoveanu, E. 1980. Monede antice si bizantine descoperite la Troesmis. – Peuce 8, 248-288.

Opaiţ, A. 1980. Troesmis – aşezarea romană timpurue de pe platou. – Peuce 8, 197-217.

Panaitescu, A. 1979. Descoperiri pe Via Forensis a municipiului Tropaeum Traiani. – Pontica 12, 197-201.

Papuc, Ch. 1986. Cîteva precizări in legătura cu cetatea Tropaeum Traiani. – Pontica 19, 159-170.

Póczy, Kl. 1980. Pannonian Cities. In: The Archaeology of Roman Pannonia. Budapest. 239-274.

Popescu, E. 1976. Inscriptiile grecesti si latine din secolele IV-XIII, descoperite în România. Bucuresti.

Poulter, A. 1996. The use and abuse of urbanism in the Danubian provinces duing the Later Roman Empire. In: The City in Late Antiquity. London / New York (2nd edn). 99-135.

Poulter, A. 1995. Nicopolis ad Istrum: a Roman, Late Roman and Early Byzantine City. Excavation 1985-1992. London.

Poulter, A. 1983. Town and Country in Moesia Inferior. In: Ancient Bulgaria. P. 2. Nottingham. 74-119.

Press, L. / Sarnowski, T. 1991. Novae, Romisches Legionslager und frühbyzantinische Stadt an den unterren Donau. – Antike Welt 21, 4, 225-243.

Rankov, N. 1983. A Contribution to the Military and Administrative History of Montana. In: Ancient Bulgaria. P. 2. Nottingham. 40-73.

Sâmpetru, M. 1994. Oraşe şi cetăţi romane târzii la Dunărea de Jos. Bucuresti.

Sâmpetru, M. 1984. Tropaeum Traiani. Vol. II. Monumentele romane. Bucureşti.

Scorpan, C. 1980. Limes Scythiae: Topographical and Stratigraphical Research on the Late Roman Fortifications on the Lower Danube (BAR, Intern. Series, 88). Oxford.

Simion, G. 1980. Săpăturile de salvare de la Troesmis – 1977. Raport preliminar. – Peuce 8, 153-158.

Ştefan, A.-S. 1974. Recherches de photo-interprétation archéologique sur le limes de la Scythie Mineure à l' époque du Bas Empire. In: Actes du IXe congrès intern. d'études sur les frontières romaines (Mamaia 1972). Bucharest / Köln / Wien. 95-108, pl. 15-23.

Suceveanu, A. / Barnea, I. 1993. Contribution à l' histoire des villes romaines de la Dobroudja. – Dacia 37, 159-179.

Suceveanu, A. / Barnea, A. 1991. La Dobroudja romaine. Bucarest.

Szőnyi, E. 2008. Hauser im Munizipium Mursella. In: Domus – Das Haus in den Städten der römischen Donauprovinzen. Akten des 3. Intern. Symposium über römische Städte in Noricum und Panonien. Wien. 235-249.

Teodor, A. / Teodor, E. / Florea, M. / Popescu, M. 2011. Noviodunum Roman fortress. A survey on a city wall section. – http://www.isprs.org/proceedings/ XXXVIII.

Tončeva, G. 1981. L' amphithéatre de Marcianopolis. In: Spartacus. Symposium rebus Spartaci gestis dedicatum 2050 a. Sofia. 138-143.

Vladkova, P. 2003. The Portico Building extra muros in Novae. Investigations and Problems. – Novensia 14, 221-229.

Vladkova, P. 2002. The Earliest Nicopolis ad Istrum. In: The Roman and Late Roman City. Sofia. 30-34.

Vulpe, R. 1976. Studia thracologica. Bucureşti.

Zahariade, M. 1988. Moesia Secunda, Scythia şi Notitia Dignitatum. Bucuresti.

Zahariade, M. 2006. Scythia Minor: A History of a Later Roman Province (284-681). Pontic Provinces of the Later Roman Empire. Vol. I. Amsterdam.

Assoc. Prof. Dr. Ventzislav Dintchev
National Archaeological Institute with Museum
2 Saborna St.
BG-1000 Sofia
vdintchev@abv.bg

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Roman Roads in *Moesia Inferior*. Archaeological and Epigraphic Evidence

Adriana PANAITE

Moesia Inferior lies in the territory of two contemporary countries, Romania and Bulgaria, and that is why, in most cases, the system of Roman roads has been studied by taking into account the borders of modern states (Pârvan 1912, 575-585; Gajewska 1974, 62-88; Маджаров 2009). Even so, the researchers were mainly interested in locating some ancient toponyms, and less in establishing the courses and directions of the roads (Aricescu 1970, 297-305; Aricescu 1971, 43-52; Aricescu 1975, 313-351; Aricescu 1977a; Aricescu 1977b). In this paper, we are trying to present the roads from *Moesia Inferior* based on archaeological and epigraphic evidence[1]. Traces of Roman roads have been preserved only in few places. So, the reconstruction of the system of Roman roads can be carried out based on inscriptions and other archaeological evidence, for example: parts of roads; settlements, *stationes*, *mansiones* etc. First, we take into account the milestones. So far, in the territory of *Moesia Inferior* 109 milestones have been discovered: 61 date between the 1st and 3rd century AD, and 41 are from Late Roman time (**fig. 1-2**). The texts are written in Latin, with the exception of four pieces in Greek (*Marcianopolis IGBulg* II 797, *Odessos IGBulg* I² 251, *IGBulg* I² 252(a), Markovo *IGB* II 834). The oldest milestone dates back to the reign of *Trajan* (103 AD) and was discovered at *Sacidava* (Rădulescu / Bărbulescu 1981, 353-359), while the latest one is from the time of *Theodosius and Arcadius* (383-393), discovered in Kipra (*SGLI* 149).

The road along the Danube (*limes*) was built at a very strategic position and fullfilled primarily a military role. Along it, at a determined distance there were stations, watch- and signaling towers[2]. Differences between distances indicated in itineraries and the real ones on the ground are quite numerous. This is due to the fact that none of the original stations built along the way has been archaeologically investigated yet. Moreover, we still pay tribute to descriptions made in the late nineteenth century or the beginning of the next. In addition, research on these fortifications is mainly related to their functioning during the Late Antiquity[3].

The *limes* road starts from *Singidunum* and is built entirely on the right bank of the river (Barnea 1987, 77-86; Иванов 1999). At the Danube Delta, it meets the road that runs along the Black Sea coast to reach Constantinople. Construction began in the reign of *Tiberius* with the works at Djerdap – Iron Gate (Mirković 1996, 27-40), and continued during the times of *Claudius* (Petrović 1986, 41-52), *Domitian* (*ILJ* 55, 58) and *Trajan* (Mirković

[1] For detailed presentation of sources in order to reconstruct the Roman road network in *Moesia Inferior* see: Panaite 2012, 67-80.

[2] *Tabula Peutingeriana*: Dortico XXV Ad Malum XVI Ratiaris XII Remetodia IV Almo IX Pomodiana IX Camistro XII Regianum VI Augustis XX Pedonianis XI Esco XIV Vio (Uto) IX Anasamo XVII Securispa XIII Dimo XVI Ad Novas IX Latro XVI Trimamio XII Pristis IX Tegris XIV Appiaris XIII Trasmarisca XII Nigrinianis XIII Tegulicio XI Durostero XVIII Sagadava XII Sucidava XVII Axiopolis XVIII Calidava XVIII Carsio XXV Bereo XXI Troesmis IX Arubio XXVI Noviodunum XLI Salsovia XXIV Ad Stoma;

Itinerarium Antonini: Dortico m. p. X Bononia m. p. XVII Ratiaria, leg. XIIII G. G., m. p. XVIII Almo m. p. XVIII Cebro m. p. XVIII Augustis m. p. XVIII Variana m. p. XII Valeriana m. p. XII Oesco, leg. V Mac., m. p. XII Dimo m. p. XII Novae, leg. I Ital., m. p. XVI Scaidava m. p. XVIII Trimammio m. p. VII Sexantapristis m. p. XII Tigra m. p. XIII Transmariscam m. p. XVI Candidiana m. p. XIII Teclitio m. p. XII Dorostoro, leg. XI Cl, XII m.p. Sucidava XVIII m.p. Axiopolis XII m.p. Capidava XVIII m.p. Carsium XVIII m.p. Cius X m.p. Beroe XVIII m.p. Troesmis, leg.I Jovia XVIII m.p. Arrubio IX m.p. Diniguttia IX m.p. Novioduno, leg. II Herculea XX m.p. Aegiso XXIV m.p. Salsovia XVII m.p. Salmorude IX Vale Domitiana XVII Ad Salices.

[3] See further Маджаров 2009, 131-184.

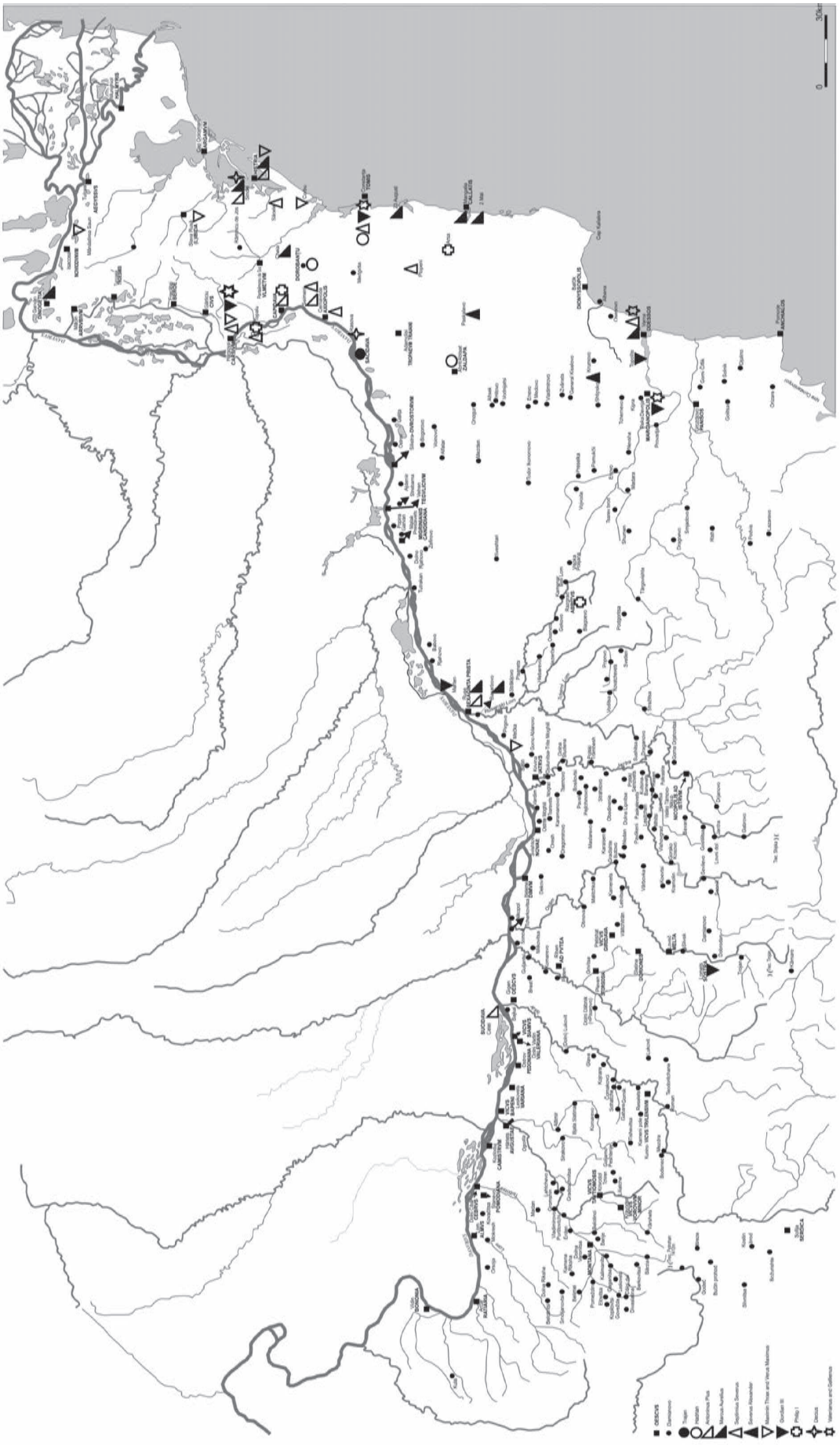


Fig. 1. Milestones from *Moesia Inferior* I-III centuries AD

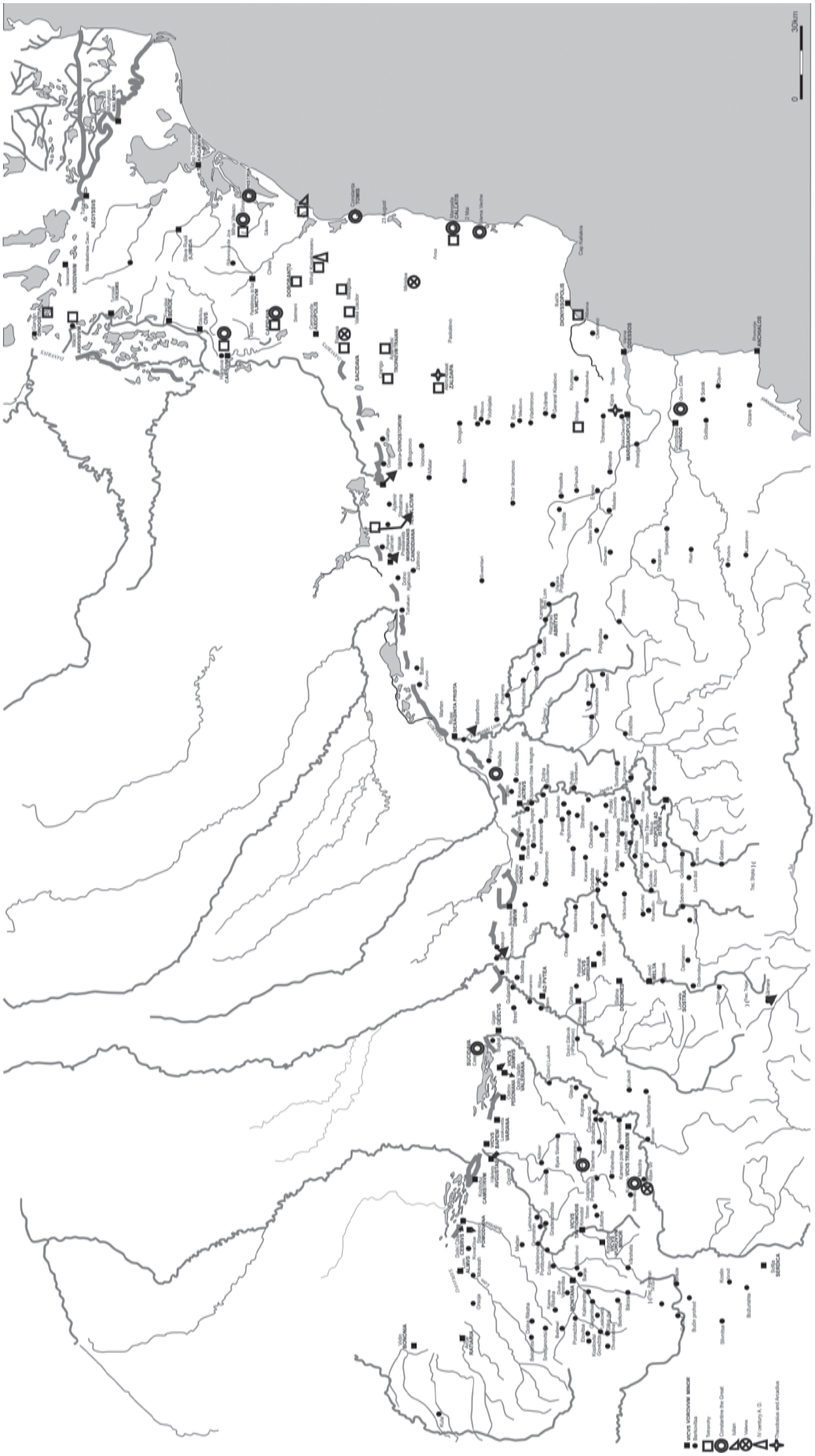


Fig. 2. Milestones from *Moesia Inferior* III-IV centuries AD

1996, 27-40), so the road stretched to cross the entire area[4].

A number of 40 milestones have been found along this road and the inscriptions on them date to the following emperors: 1 – Trajan, 4 – Antoninus Pius, 5 – Marcus Aurelius, 5 – Septimius Severus, 3 – Maximinus Thrax, 2 – Gordian III, 2 – Philip the Arab, 1 – Decius, 1 – Valerianus and Gallienus, 3 – Aurelian and Probus, 9 – Tetrarchy, 4 – Constantine, 1 – Valens[5].

The road along the Black Sea coast connects urban centers of ancient tradition, from the Danube Delta to Constantinople, the capital of the empire[6]. The road plays a decisive role in terms of trade. While economic considerations prevail, the strategic aspect of this route should not be overlooked either, since the road was one of the main access ways from the south into this area. Originally, the road was not "set up", and the movement was done mainly by sea. The Romans took over the already existing route and transformed it into a road in the real sense of the word. A number of 37 milestones have been found along it. The inscriptions date to: 2 – Hadrian, 2 – Antoninus Pius, 8 – Marcus Aurelius, 5 – Septimius Severus, 2 – Maximinus Thrax, 1 – Gordian III, 1 – Decius, 2 – Valerianus and Gallienus, 1 – Claudius II, 1 – Aurelian and Probus, 1 – Tacitus, 6 – Tetrarchy, 5 – Constantine[7].

The road crossing Bulgaria's northern part, along a line north of the Balkan Mountains and parallel with the limes, is only partly shown in *Tabula Peutingeriana* and does not appear at all in *Itinerarium Antonini*. The segment presented in *Tabula Peutingeriana* is the one between *Melta* and *Marcianopolis*, with only one station in between at *Nicopolis ad Istrum*. The route connected *Bononia* – Montana – Čomakovci – *Melta – Nicopolis ad Istrum – Marcianopolis – Odessos*. Seven milestones have been discovered along it. They date to the reigns of: 1 – Marcus Aurelius/Commodus (?), 2 – Septimius Severus, 1 – Maximinus Thrax, 1 – Gordian III, 2 – Valerianus and Gallienus, 1 – Tacitus and 1 – Constantine.

The central road crossesd Dobroudja from north to south, from *Noviodunum / Aegyssus* to *Marcianopolis*, passing through *Zaldapa, Tropaeum Traiani*, Medgidia and *Ulmetum*. It is not represented in any ancient itinerary, its path being established on the basis of archaeological and written sources[8]. There are 10 milestones that have been discovered along it, most of them dating to the Tetrarchy period (293-305 A.D.), but also from earlier times (Hadrian, Septimius Severus)[9].

Connections between main roads were ensured by secondary access routes. From the *limes* road, more west-east and north-south oriented traffic routes diverged and reached the province of Thrace or the Black Sea coast. 18 milestones have been discovered along them. These roads are:

Oescus (Gigen) is the starting point of two strategic sections southwards to *Serdica* and *Philippopolis* (Аврамов 1914; Маджаров 2004).

From Guljanci and Čerkovica camps two junctions go south, following the courses of the rivers Vit and Osâm. They crossed the main road *Oescus – Philippopolis* in Pleven (the Vit river) and Loveč (the Osâm river) (Велков 1929, 63; Poulter 1983, 76; 1995, 8-9 and fig. 6; Иванов 1960, 276).

In *Novae* (Svištov), from the main road a secondary road with a significant strategic role branched out, reaching southwards to the river Rosica, Stari Nikjup (*Nicopolis ad Istrum*) and continues through the Shipka Pass to Stara Zagora (*Augusta Traiana*). A second road goes to *Melta* and further to *Philippopolis* (Стефанов 1956, 72-73; Poulter 1995, 8-9 and fig. 6).

From *Sexaginta Prista* (Ruse) southwards two

[4] Preparing for the war with the Dacians, Trajan built new fortifications or reinforced existing ones: *Stobi*, *Scupi*, *Lederata*, *Dierna*, *Drobeta*, *Pontes*, *Diana*. A navigation canal was also built. Based on epigraphic information it is possible to reconstruct the chronology of Trajan's war preparations, which took place in two stages: until 100 AD and between the two wars. The inscriptions show that the fortifications and the limes road were not built at the same time, construction work progressed from west to east, the digging of the canal ended in 101 AD and the bridge over the Danube was built between the wars.

[5] Panaite 2013 (in print). See also Panaite 2012, 67-80.

[6] *Tabula Peutingeriana*: Histria XL Tomis XII Stratonis XXII Callatis – XXIII – Trissa – XII – Bisone – XII – Dyonisopoli – XXXII – Odessos – XI – Erite – XVI – Templo Iovis – XVI – Mesambria – XII – Ancialis.

Itinerarium Antonini: Historio XXV Tomos XXXVI Callacis XXX Timogittia XVIII Dionysopoli XXIV Odisso XXIV Marcianopoli XVIII Scatris XXVI Anchialis.

[7] See footnote 5.

[8] Barnea 1997, 29-43; Panaite /Alexandrescu 2009, 429-455.

[9] The analysis of which shows that the Romans started to build the road from south to north in the time of Hadrian and some parts were repaired during the Severan dynasty. An extensive restoration campaign occurred during the Tetrarchy period. An additional argument would be the construction of the road parallel with the limes and the crystallization of the strategic concept of "defense in depth" in the times of Hadrian and Antoninus Pius.

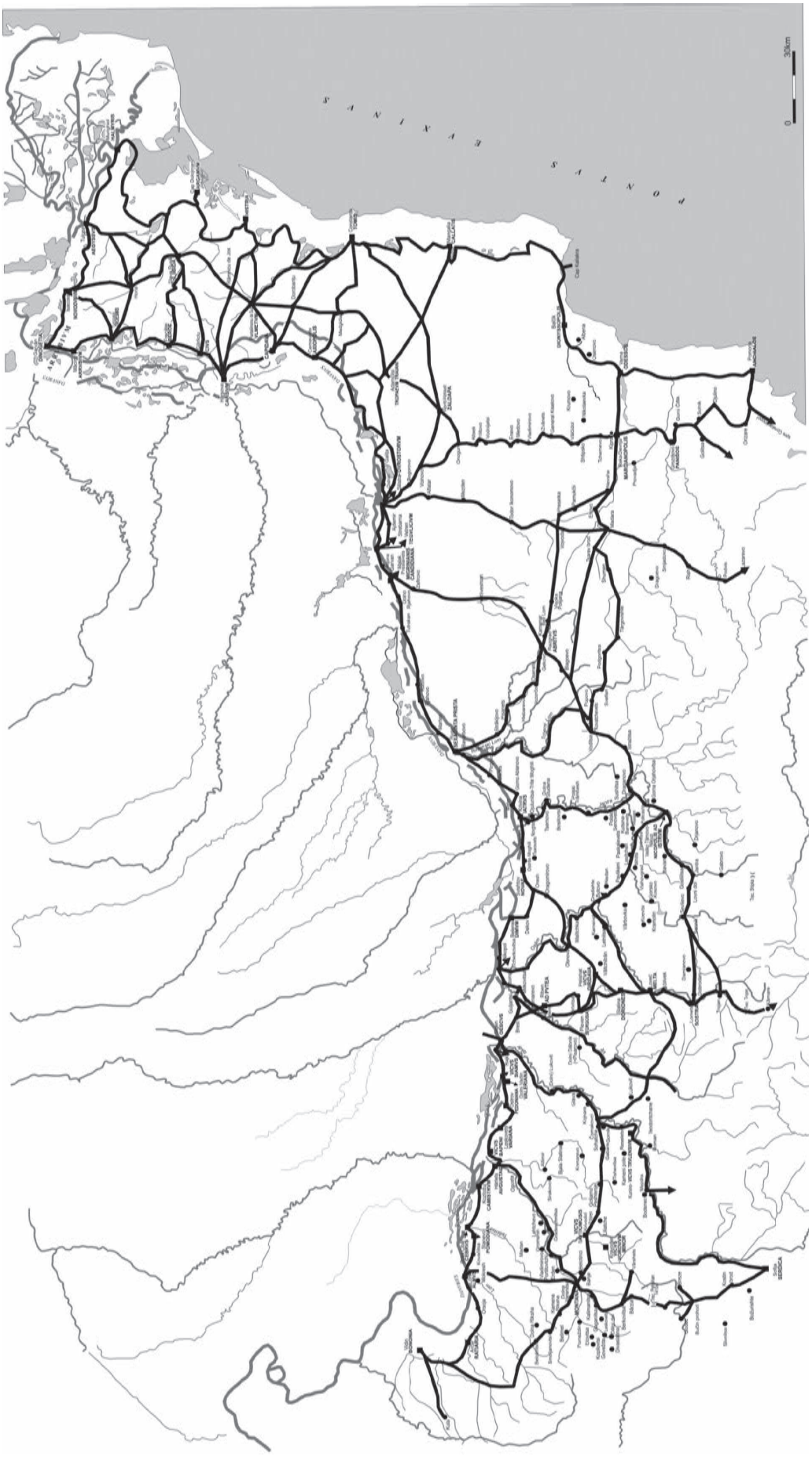


Fig. 3. Roman Roads in *Moesia Inferior*

major sections parted, which connected the *limes* with some large urban areas. One led along the Beli Lom river valley to Razgrad (*Abritus*) and Devnja (*Marcianopolis*), and the other – along Černi Lom and Jantra river valleys to Gorna Orjahovica, Veliko Târnovo, Gabrovo and Stara Zagora (Шкорпил 1914, 88-89; Иванов 1981, 48-54; Петров 2002, 313-317)

Durostorum (Silistra) is a junction point of the major strategic road. A section heading to *Marcianopolis*, another to Ajtos, and one to *Zaldapa*. From each of these localities the road then projects to large urban centers in the province (*Tropaeum Traiani*), on the coast (*Callatis* and *Odessos*) and Thrace (*Anchialos*) (Torbatov 1997, 2000a, 2000b; Петров 2002, 313-317; Poulter 1995, 9).

Capidava was connected with the Black Sea coast road by two roads, which reached *Tomis* and *Histria* (Pârvan 1913b, 394-396, Panaite 2004, 54-55; Panaite 2013, in print).

From *Axiopolis* diverged a section which ran along Carasu valley to *Tomis*. This is the shortest route that crosses transversally Dobrudja from the Danube to the Black Sea (Panaite 2004, 54-55; Panaite 2013, in print).

From *Carsium* there is another important road connecting the *limes* and the Black Sea coast, crossing the Dorobantul plateau on an almost straight trajectory towards Istria (Barnea 1997, 29-43).

Troesmis is the starting point of another road from the Danube to the Black Sea along the Taita Valley and the lakes of the northern plateau Babadag (Topraichioi, Babadag) (Ștefan 1971).

The rivers that flow into the Danube also had roads along them (mostly on their right banks): Cibrica, Ogosta, Iskâr, Vit, Osâm, Jantra, Rusenski Lom.

The second category of sources is represented by the inscriptions mentioning *beneficiarii consularis*, lower rank soldiers in charge of guarding the roads. In the territory of the province 48 such inscriptions have been discovered. They come from the main and the secondary roads. A high concentration of them is registered in the Montana area, but also in other places along the road parallel to the the *limes* (at Glava Panega in the Asklepion). In terms of dating, they fall largely in the 2nd and 3rd centuries AD, and most of them date to the second half of the 2nd and the first half of the 3rd century AD (Schallmayer et al. 1990, 469-506, 758-759; Ivanov 1993, 26-30).

Some inscriptions discovered in *Moesia Inferior* and *Thracia* record annex buildings erected along the Roman roads for military purposes. These date to emperors *Nero*, *Antoninus Pius* and *Marcus Aurelius* and have been discovered at Ihtiman (*mansio Helice* – Ivanov 1973, 209-213), Bučin (Филов 1912, 16-17), Mihilci (*CIL* III 6123 = *CIL* III 14207/34 = *ILS* 231), Belozem (*statio Parembole* – Hollenstein 1975, 28), Nevša (Мирчев 1961, 15-16, #14), Šipka (Буюклиев / Гетов 1964, 29-33), Bâlgarski Izvor (*ILBulg* 211), Pančevo (Кацаров 1926-27, 107-112), Vojnjagovo (*statio Viamata* – Маджаров 1985). The first four inscriptions are dated in 61 AD and attest to the construction of *praetoria* and *tabernae* along military roads. *Praetorium* means a military construction for superior rank officers. Another word is an inn, so a construction for the accommodation of superior rank officers, namely a fortified residence on the road. *Tabernae* is an ordinary inn to offer overnight shelter and food for civilian travelers. The next four inscriptions are from 152 AD, the time of *Antoninus Pius*, when a number of military constructions with a defensive role appeared on the road. There were military detachments stationed, sometimes *beneficiarii consularis* are also attested. The last inscription is from the time of Marcus Aurelius. Unlike others, in this the term *stabulum* appears – which in translation means stables, where animals for travel could be changed.

In Lower Moesia two inscriptions contain the expression *via publica*. The first one, written in Greek, is a complaint to the emperor by the inhabitants of *Chora Dagei*, a settlement located near the "public road" (*ISM* I, 378). They ask that their obligations for road maintenance (*leitourghiai, angareia = munera*) be reduced. The same inscription mentions a second location, *Laikos Pyrgos*, where a "public road" previously started, and whose inhabitants, having the same problems in carrying out the public tasks, complained about them to the governor.

The second inscription, in Latin, comes from *Ulmetum* (Pantelimonu de Sus) (*ISM* V, 60), and is most likely a delimitation decision of an estate; among other elements bordering it there is a reference to *viam publicam*.

The roads were under the protection of the gods, Mercury and Mars in particular. Intersections of roads had their particular deities: *Diviae, Triviae, Quadriviae* (junction of 2, 3 or 4 roads), deities of Celtic or Illirian origin , who were worshiped in specific sanctuaries named *compita*. Protective deities of the roads attested in *Moesia Inferior* are *Apollo Agyeus* and *Quadriviae. Apollo Agyeus* appears on two inscriptions discovered at *Tomis* (*ISM* II, 116). The term *Agyeus* (= protector of roads) accompanies as epithet the name of deity. The inscriptions

from *Tomis* are from the time of Marcus Aurelius. They were put by their dedicators in relation with the extensive reconstruction works on the road.

Several Latin inscriptions attest the cult of *Quadriviae* in the province – in *Novae* (*ILNovae* 22, 23), *Oescus* (*ILBulg* 40) and *Tomis* (Tocilescu 1879, 45, 19). With the exception of one inscription from *Novae,* for the rest of them the place of discovery is unknown. The one in *Novae* was accidentally discovered near the western gate. We can only suppose the existence in that area of a temple dedicated to this deity.

Excavations and field research provide information about the structure of the roads or the various stop points along the roads (*statio, mutatio, mansio*). With the use of this type of data, it is possible to trace the lines of the local roads (*semitae*) as well (Panaite 2006, 57-80; 2010, 373-379).

Information based predominantly on the inscriptions allow us to outline the following steps of the construction and use of the road network in Lower Moesia (**fig. 3**):

• *Trajan* lay the foundations of the system of roads in *Moesia Inferior*. After the conquest of *Dacia,* the *limes* stretched way up the Danube Delta, where gradually new branches appeared, which determined the articulation of a real communication network. Also at this time the coast road was "modernized" and the construction of the road parallel to the *limes* began. Trajan's successor started construction of the central road through Dobrudja.

• The next stage was during the reign of *Antoninus Pius*. In his time, along the inner routes new types of fortifications were built in order to protect the roads.

• The moments of maximum intensity in terms of constructive work are represented by emperors *Marcus Aurelius* and *Septimius Severus*. A large number of milestones dated to their reigns (26) indicates real repair programs designed to ensure the proper functioning of the roads. Not only surface circulation was considered, but also the annex buildings.

• After the events of the mid-3rd century, two well-defined moments in the evolution of the system of Roman roads in the Lower Danube area can be identified: the first one is the time of Diocletian and Constantine, and the second one – that of Anastasius and Justinian. Both periods are characterized by reforms that lead to the transformation of the state, which, ultimately, extended the existence of the Empire for a long time. For the Lower Danube area, this is a particular time. The region became the hinterland of the new capital and therefore roads and fortifications were largely repaired or rebuilt.

Roman roads continued to be used long after the fall of the Empire. Few traces of them still exist today. Their builders possessed an extraordinary knowledge of the territory, which is evident by the fact that contemporary roads follow to an overwhelming extent the same routes as those from the Roman period.

Bibliography

Аврамов, В. 1914. Траяновият път от Карпатите през Дунава за Пловдив. – Известия на Българското археологическо дружество 4, 226-240.

Буюклиев, Х. / Гетов, Л. 1964. Два нови епиграфски паметника за укрепителната дейност на Антонин Пий в Тракия. – Археология 6, 1, 29-33.

Велков, И. 1929. Стари римски пътища и селища в днешните български граници. – Българска историческа библиотека 2, 4, 46-71.

Иванов, Р. 1999. Долнодунавската отбранителна система между Дортикум и Дуросторум от Август до Маврикий. София.

Иванов, Р. 1993. Два надписа на бенефициарии консуларис от Абритус. – Археология 35, 3, 26-30.

Иванов, Р. 1981. Милиарна колона с името на Абритус. – Археология 22, 3, 48-54.

Иванов, Т. 1960. Принос към проучването на античния град при Чомаковци. In: Миятев, К. / Миков, В. (ред.). Studia in memoriam Karel Škorpil. София. 255-268.

Кацаров, Г. 1926-1927. Антични паметници из България. – Известия на българския археологически институт IV, 107-112.

Маджаров, М. 2009. Римски пътища в България. Принос в развитието на римската пътна система в провинциите Мизия и Тракия. Велико Търново.

Маджаров, М. 2004. Римският път Ескус – Филипопол. Пътни станции и селища. Велико Търново.

Маджаров, М. 1985. Римската станция Виамата на пътя Филипопол – Ескус. – Археология 27, 2, 36-45.

Мирчев, М. 1961. Нови епиграфски паметници от Черноморието. – Известия на Археологическия музей-Варна 12, 15-16.

Стефанов, С. 1956. Старините по долния басейн на Янтра. София.

Петров, Д. 2002. Римската пътна мрежа в Лудогорието. In: Бошнаков, К. / Ботева, Д. (ред.). Jubileus V. In honorem Prof. Dr. Margaritae Tacheva. София. 313-317.

Филов, Б. 1912. Антични паметници из България. – Известия на Българския археологически институт, 16-17.

Шкорпил, К. 1914. Опис на старините по течението на река Русенски Лом. София.

Aricescu, A. 1977a. Armata romană în Dobrogea. Bucureşti.

Aricescu, A. 1977b. În legătură cu zonele de acţiune ale legiunilor moesice. – Pontica 10, 179-188.

Aricescu, A. 1975. Drumul militar de la Noviodunum la Callatis în lumina itinerariilor antice. – Pontica 8, 315-331.

Aricescu, A. 1971. Despre numele aşezării antice de la Slava Rusă. – Buletinul monumentelor istorice 40, 4, 43-52.

Aricescu, A. 1970. Quelques précisions sur la carte de la Scythia Minor. – Dacia 14, 297-305.

Barnea, A. 1997. Voies de communication au Bas-Danube au IVe-VIe siècle après J.Chr. In: Popescu, E. / Teoteoi, T. (eds.) Ètudes byzantines et post-byzantines 3, 29-43.

Barnea, A. 1987. Limesul danubian al provinciei Moesia Inferior. Organizarea militară şi civilă. – Cultură şi Civilizaţie la Dunărea de Jos 3-4, 77-86.

Gajewska, H. 1974. Topographie des fortifications romaines en Dobroudja (= Bibliotheca Antiqua 11). Wrocław. Warszawa. Kraków. Gdańsk, Zakład Narodowy Imienia Ossolińskich, Wydawnictwo PAN.

Hollenstein, L. 1975. Zu den meilensteinen der römischen provinzen Thracia und Moesia Inferior. – Studia Balcanica 10, 23-44.

Ivanov, T. 1973. Neuentdeckte Inschrift über die Bautätigkeit Neros in Thrakien. – Archaeologia Polona 14, 209-213.

Mirković, M. 1996. The Iron Gates (Đerdap) and the Roman Policy on the Moesian Limes AD 33-117. In: Petrović, P. (ed.) Roman Limes on the Middle and Lower Danube. Belgrad. 27-40.

Panaite, A. 2013 (in print). Roman roads in Moesia Inferior. Epigraphical evidence. – Novaensia 23.

Panaite, A. 2012. Written and archaeological sources for the reconstruction of the Roman roads network in the province of Lower Moesia. – Caiete ARA (Arhitectura. Restaurare. Arheologie), 67-80.

Panaite, A. 2010. Roman roads in the territory of Histria (1st – 3 rd centuries A.D.). In: Angelescu, M. V. / Achim, I. / Bâltâc, A. / Rusu-Bolindeţ, V. / Bottez, V. (eds.) Antiquitas Istro-Pontica. Mélanges d'Archéologie et d'histoire ancienne offerts á Alexandru Suceveanu. 373-379.

Panaite, A. 2006. Drumuri romane în teritoriul oraşului Tropaeum Traiani. – Studii si Cercetari de Istorie Veche si Arheologie 57, 1-4, 57-70.

Panaite, A. 2004. The System of Roman Roads in Moesia Inferior. – Ephemeris Dacoromana 12, 2, 39-89.

Panaite, A. / Alexandrescu, C. G. 2009. A „Rediscovered" Inscription from Dobrudja. Roads and Milestones in Scythia (3rd -4th centuries A.D.). – Pontica 42, 429-455.

Pârvan, V. 1912. V. Cetatea Ulmetum (I). Descoperirile primei campanii de săpături din vara anului 1911. – Analele Academiei Române. Memoriile Secţiunii Istorice 2, 34, 497-607.

Petrović, P. 1986. Rimski put u Đerdapu. – Starinar 37, 41-52.

Poulter, A. 1995. Nicopolis ad Istrum. A Roman, Late Roman and Early Byzantine City. Excavations 1985-1992. London.

Poulter, A. 1983. Town and Country in Moesia Inferior. In: Ancient Bulgaria. Paper presented to the International Symposium on the Ancient History and Archaeology of Bulgaria, University of Nottingham, 1981, vol. 3. Nottingham. 74-118.

Rădulescu, A. / Bărbulescu, M. 1981. De nouveau sur les légats de Trajan en Mésie Inférieure entre 103 et 108 de n.è. – Dacia 25 , 353-359.

Schallmayer, E. / Eibl, K. / Ott, J. / Preuss, G. / Wittkopf, E. 1990. Der römische Weiherbezirk von Osterburken I. Stuttgart.

Ştefan, A. S. 1971. Troesmis, consideraţii topografice. – Buletinul monumentelor istorice 40, 4, 43-52.

Tocilescu, G. 1879. Inschriften aus Dobrudscha. – Archäologisch-epigraphische Mitteilungen 45, no.19.

Torbatov, S. 2000a. The Roman Road Durostorum – Marcianopolis. – Archaeologia Bulgarica 4, 1, 59-72.

Torbatov, S. 2000b. PROCOP. DE AEDIF. IV, 7, 12-14 and the Historical Geography of Moesia Secunda. – Archaeologia Bulgarica 4, 3, 58-77.

Torbatov, S. 1997. Quaestura exercitus: Moesia Secunda and Scythia under Justinian. – Archaeologia Bulgarica 1, 3, 78-87.

Dr. Adriana Panaite
Researcher 3rd degree
Institute of Archaeology "Vasile Parvan" of the Romanian Academy
Department of Greek and Roman Archaeology and Epigraphy
11 Henri Coanda St.
RO-010667 Bucharest
panaite_adriana92@yahoo.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Archaeology of the Roman Town of *Abritus*: The *Status Quaestionis* in 2012[1]

Jean-Philippe CARRIÉ / Dominic MOREAU

This *status quaestionis* on *Abritus*[2] constitutes a call to the international community for the creation of a research group for the resumption of academic work on this important archaeological site. This idea was launched by Dominic Moreau, while he was Postdoctoral Research Fellow in Roman History at the Université de Strasbourg (UMR 7044). The present study will explore several areas which will interest both historians and archaeologists. The following lines will be devoted both to past work on *Abritus* and to possible future paths to be followed. First, we will summarize the archaeological discoveries of our Bulgarian colleagues, who have described the site and revealed its great scientific interest. After, we will focus on the urbanism of *Abritus*. Finally, in conclusion, we will discuss the problematization and the methodological orientation which are, in our view, all the more interesting and innovative in the eventual resumption of fieldwork by an international research group.

1) At the "sources" of Abritus

a) The discoveries from Yavashov to Ivanov

We owe the first archaeological survey of *Abritus* to Anani Yavashov (1855-1934). It is effectively him who did the initial archaeological prospecting in 1887 (Явашов 1930, 1-2; Иванов 1980, 7-9, 28-29, 234, 238; Ivanov / Stojanov 1985, 3-4; Стоянов 2007, 15-17). These founding works led him to uncover some remains of a basilica with three naves, in the western part of the castle walls. Today, this building is hidden under a pharmaceutical factory (**fig. 1**, **C**; Явашов 1930, 36-38). At first, A. Yavashov believed he had found a temple of Pythian Apollo, because of the discovery of a votive plate dedicated to the god by two *Va[(lerii)]* (according to the reading by Herman and Karel Škorpil), a certain *Va[le]rianus* and a certain *Va[l]entinus*, among the *spolia* in the walls of the basilica (*CIL* III, 7463; Radoslavova / Dzanev 2012, 4).

In 1893, he discovered another church, near the middle part of the eastern castle wall, which was later dated as the 5th century (**fig. 1, G**; Явашов 1930, 38-39; Ivanov / Stojanov 1985, 40). At this early stage of the excavations, the site already appeared as a place dedicated to religious practices and the structures found seemed to testify to continuity between the pagan and the Christian cults. Still in 1893, A. Yavashov tried to excavate the southern gate, but he only succeeded in revealing a clay pipe of the aqueduct, which came from the south, crossing the fortification and going to the center of *Abritus* (Явашов 1930, 34-35; Иванов 1980, 106).

Afterwards, the archaeological exploration of the site by A. Yavashov seems to have become more irregular. The time was devoted rather to

[1] This article is based on the paper given at the XXII International Limes Congress by Jean-Philippe Carrié. The preliminary documentary research was made in collaboration with Dominic Moreau, who has also completed and translated into English the original French text, with the agreement of Jean-Philippe Carrié. The authors decided not to make the lecture together, because of the shortage of time at the congress. They would like to give a special thank to Dr. Lyudmil Vagalinski, director of the National Institute of Archaeology with Museum (NAIM) of Bulgaria, to Mr. Ivan Ivanov, director of the Razgrad Regional Historical Museum, and to Mrs. Galena Radoslavova and Mr. Georgi Dzanev, respectively chief archaeologist and chief numismatist of the Abritus Archaeological Reserve, for their advice, availability and warm welcome to Bulgaria. It is necessary to note that the authors had not used the chapter on *Abritus* in *Roman Cities in Bulgaria* directed by Rumen Ivanov (Sofia, 2012), because it was in press during the writing of this article.

[2] Eastern suburbs of Razgrad, Bulgaria.

the analysis of the material, at first with the help of Karel Škorpil (1859-1944), whose collaboration seems to at least go back to 1892 (Radoslavova / Dzanev 2012, 4), then within the framework of the Razgrad Archaeological Association, which was established in 1922 (Богомирова 2007). The first three decades of the 20th century were nevertheless the occasion of new discoveries, especially during the periods of agricultural work and of development of the road network, which brought out, *inter alia*, a large number of bronze tablets – characteristic of the site – and of statuettes, representing Asian, Celtic, Roman and local divinities, such as the famous Thracian Horseman (Ivanov / Stojanov 1985, 62-68). It is also during this first phase of the archaeological research of *Abritus* that the tower of the northwest angle of the castle walls was discovered, more precisely in 1928 (Явашов 1930, 31-33; Иванов 1980, 32).

The second stage of the archaeological studies of *Abritus*, the most determinative one, extends from 1953 till 1978. The excavations were conducted by Teofil Ivanov (1918-1999), who investigated the fortifications, as well as the inside of the fortress. During his first campaign, the archaeologist discovered an important epigraphic document, reused in a wall of the basilica found sixty years earlier (**fig. 1, C**). This text dates from the 20s AD and mentions the Thracian king Rhoemetalces II (*IGBulg* II, 743; Иванов 1955, 167-175, 183-184; Iwanow 1961; Иванов 1980, 10-14, 235; Ivanov / Stojanov 1985, 4-7; Radoslavova / Dzanev 2012, 2-3). It constitutes an invaluable witness, not only of the pre-Roman organization of the Lower Danube, but also of Rome's foreign policy in the region, because this inscription illustrates well the comments of Tacitus on the local dynasts installed by Augustus.[3] One should note that this text could indeed concern the Apollo cult, as well as the inscription of both Valerii.[4] It is also during the same second phase of the investigation of *Abritus* that the necropolises, situated in the four cardinal directions outside of the castle walls, were first explored by Stoyan Stoyanov (Ivanov 1971, 43). The major contribution of the archaeological works directed by T. Ivanov remains, however, the formal identification of the site, which was recognized as the ancient *Abritus* only after 1954.

b) The identification of the site

Before 1954, all the scholars who came to the site believed it to be in the *Δαούσδανα* mentioned by Ptolemy in the description he made of Moesia not long after the Dacian Wars.[5] Without necessarily challenging this first position[6], the excavations undertaken by T. Ivanov allowed the discovery of a *spolium* of the years 139-161 AD, on which a town is mentioned, in Latin, of the name of *Abritus*, which was situated *ad c[an(abas)],* according to its discoverer.[7]

The identification of Abritus was confirmed in 1980 by the discovery of a milestone, re-used at 1.5 km southeast of the site (*AE* 1985, 765; Ivanov 1981; Ivanov / Stojanov 1985, 9; Radoslavova / Dzanev 2012, 1). Dating from the years 244-247 AD, it originally stood one Roman mile away from *Abritus*, on the road which connects *Marcianopolis* to *Sexaginta Prista* (Маджаров 2009, 68, 229; Radoslavova / Dzanev 2012, 4). The last found *in situ* epigraphical witness, which is really useful in order to confirm the location of Abritus, is a funeral inscription found before 1958. It mentions the *Civ(itas) Abr(itanorum)*, whose reading we could not however confirm until the discovery of the milestone (*IGBulg* II, p. 153; Иванов 1980, 18, 236; Ivanov / Stojanov 1985, 9; Radoslavova / Dzanev 2012, 1, 3). The identification of Abritus also enables the archaeologists – from Teofil Ivanov and Stoyan Stoyanov to Galena Radoslavova and Georgi Dzanev – to confirm the interpretation that the "A" inscribed in diverse places of the castle walls is the initial of the name of the city (Иванов 1980, 36 [fig. 18], 39, 45, 47, 61 [fig. 55], 240; Ivanov / Stojanov 1985, 9; Radoslavova / Dzanev 2012, 1).

There are other epigraphic attestations of *Abritus*. However, they have not been found *in situ*, as the fragmentary Greek inscription kept at the Archaeological

[3] Tacitus, Annales, II, 64 (ed.-Fr. transl. Wuilleumier 1990, 124).

[4] According to T. Ivanov, *IGBulg* II, 743 should be read in parallel of *IGBulg* I, 378.

[5] Claudius Ptolemy, Geographia, III, x, 12 (ed. Stückelberger-Graßhoff 2006, 324-325, 813).

[6] According to T. Ivanov, *Daousdaua* must be sought north of *Abritus*, in the area of Isperih, but no study has proven this opinion yet (Иванов 1980, 15, 25, 236; Ivanov / Stojanov 1985, 8, 10).

[7] *AE* 1957, 97; Иванов 1955, 175-183, 184-186; Ivanov 1963, 81; Иванов 1980, 15-17, 236; Ivanov / Stojanov 1985, 8-9; Radoslavova / Dzanev 2012, 1, 3. The reading of T. Ivanov is not universally accepted (Ivanov 1997, 605 ≈ Иванов 1999, 275). It is Friedrich Vittinghoff (1910-1999) who launched the debate, by proposing *ad c[as(tellum)]* (Vittinghoff 1968, 136, n. 34). Like Florian Matei-Popescu's position, the current tendency is not to choose definitely between *canabae* and *castellum* (Matei-Popescu 2010a; Matei-Popescu 2010b, 151, n. 1237). However, let us note that most scholars seem rather favorable to *canabae*, in the light of inscriptions about *Durostorum* (*CIL* III, 7474 = ILS I, 2475) and about *Troesmis* (*CIL* III, 6166).

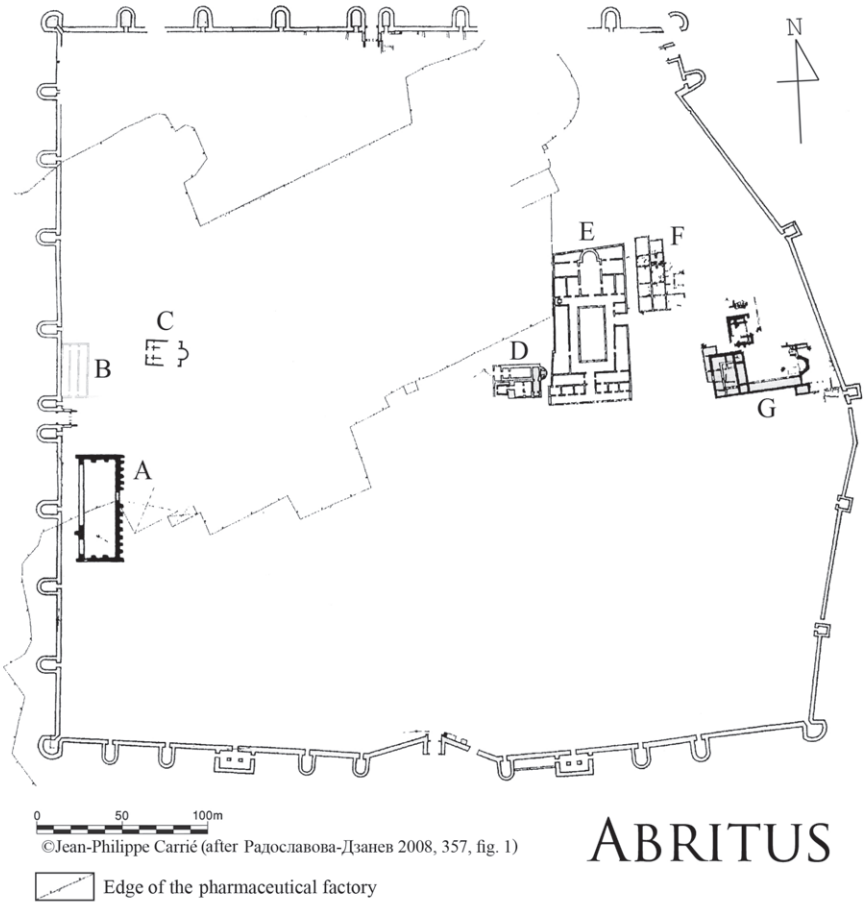


Fig. 1. The identified structures on the site of *Abritus*

Museum "Veliki Preslav"[8], in which we can read the word *Ἀβρύττου*, or the funerary inscription of the 3rd/4th century AD from *Aquileia*[9], in which it is specified that the deceased, a certain *Val(erius) Longinianus*, of the *Legio XI Claudia*, was born at the *Castell(um) Abritano(rum)* (Иванов 1980, 19; Mattei-Popescu 2010a ; Id. 2010b, 140, 151.

c) Historical matters

From the historical perspective, the identification of the ruins of the eastern suburbs of Razgrad as *Abritus* allows us to connect the site to a variety of texts narrating the death of emperor Decius and his son Herennius in 251 AD, at this very place, during a battle between Romans and Goths (Иванов 1980, 19-21, 236-237; Radoslavova / Dzanev / Nikolov 2011; Radoslavova / Dzanev 2012, 1-2). By comparing the different sources, we can see that they belong to three main literary traditions, the two younger maybe descending from the older one. This last one is based on the lost *Chronicle* of Publius Herennius Dexippus, sometime qualified as "the Athenian" († ca. 275 AD). The passage mentioning *Abritus* first reached us via Georgius Syncellus († after 810 AD) and the other testimonies, mostly known in Greek, seem to derive, directly or indirectly, from his *Chronographia.*[10] Besides the form of the speech, it has the peculiarity to state that Abritus was also called *Forum Thembronium*.

[8] *IGBulg* II, 773 bis.

[9] *CIL* V, 942 = *ILS* I, 2670 = Brusin 1992, # 2779. It is stated above that there is no more *in situ* epigraphical witness of *Abritus*. In fact, a new inscription was discovered in 2008. Cf. Радославова / Дзанев 2009, 351. As the text has just been published in the *Année épigraphique*, it was not considered in this paper, neither in the expanded French version which will be published in the Festschrift for Jean-Michel Carrié.

[10] Georgius Syncellus, Chronographia, A.M. 5746 (ed. Mosshammer 1984, $459_{10\text{-}13}$): "Ἐπανιοῦσι δὲ Σκύθαις ἐπὶ τὰ σφέτερα ὁ αὐτος Δέκιος ἐπιθέμενος ἀναιρεῖται ἐν Ἀβρύτῳ, τῷ λεγομένῳ Φόρῳ Θεμβρωνίῳ, σὺν τῷ παιδὶ λίαν οἰκτρῶς ὁ θεομάχος, οἵ τε Σκύθαι μετὰ πλείστων αἰχμαλώτων καὶ λαφύρων ἐπανέρχονται". The subsequent witnesses are: (Pseudo- ?) Nicephorus I of Constantinople († 815 ?), Chronographia brevis, Decius (ed. de Boor 1880, 94_{22}); Landolfus Sagax († beginning of the 11th century), Historia Romana, X, 4 (ed. Crivellucci 1912, $251_{12\text{-}19}$); Michael the Syrian/Great (1166-1199), Chronicon, VI, 8 (ed. Chabot 1910, 115); Catalogus imperatorum et officiorum palatii anni 1204, Imperatores Romanorum, Decius (ed. Löwenklau 1596, 180). That list of emperors, for which the origin is unknown, has been extended several times after 1204, including during the Ottoman Period.

The second literary tradition, mostly known in Latin and in Syriac, is also based on a lost source: the *Chronicle* of Eusebius of Caesarea († 339 AD). The texts of this group record very briefly, following a similar pattern, the death of Decius and his son at *Abritus*, most of the time as a consequence of the Christian persecution.[11]

The third literary tradition, which is less uniform and less clear in its filiations than the previous ones (common source: *Enmanns Kaisergeschichte*?), presents the same event as the consequence of the treason of the governor of Moesia Inferior, Trebonianus Gallus, who became emperor immediately after Decius (in *Abritus*? from which *Forum Trebonium/-nianum*?). In addition, the barbarians fought are presented as Franks in at least two cases.[12]

Abritus is not only mentioned in the written sources as the theatre of the events that surround the end of Decius and Herennius. The town also appears in texts for other reasons, especially in the conciliar documents, as an episcopal see. Nonetheless, the sole bishop of *Abritus* attested with certainty is Markianos/Marcianus, who attended the Third Ecumenical Council (Ephesus, 431 AD) and who was still alive seven years after the Fourth Ecumenical Council (Chalcedon, 451 AD)[13]. In 458, he was the oldest prelate of *Moesia Secunda* and that is why he was the first to sign the letter sent by the bishops of this province to the emperor Leo I.

Certainly, *Abritus* was never the most important city of the region – as a reckless reading of the last document cited might suggest –, but it was important enough to be ranked by Hierocles (end of the 5th century/beginning of the 6th century [before 535 AD]) among the seven cities of *Moesia Secunda*.[14] Furthermore, the mention by Procopius of Caesarea († ca. 565 AD) of the restoration of its fortifications proves that the urban agglomeration had a significant strategic role, even if it is not certain that its reconstruction was the work of the Emperor Justinian I (527-565 AD), as the author claims.[15] As for the bishopric, it may be still attested at the end of the 8th century, at least if we accept the testimony of the Byzantine *notitiae episcopatuum* and/or if we accept the attribution of the episcopal see of *Abritus* to a certain Ursos/Ursus who attended the Seventh Ecumenical Council (Nicaea II, 787 AD).[16]

[11] Even if this text was certainly composed by a pagan, the most ancient evidence of the tradition seems to be Chronographus anni 354, XVI, Decius (ed. Mommsen 1892, 147_{35}): "Occisus praetorio Abrypto." However, the source of the other Latin examples is Jerome of Stridon († 420 AD), Chronicon, 300 F (ed. Helm 1984, 218_{20}): "Decius cum filio in Abryto occiditur." The other references are: Prosper of Aquitaine († ca. 455 AD), Epitoma chronicorum, DCCCL (ed. Mommsen 1892, 439); Cassiodorus († ca. 580 AD), Chronica, CMLVI (ed. Mommsen 1894, 147); Jordanes († second half of the 6th century AD), De summa temporum vel origine actibusque gentis Romanorum, CCLXXXIV (ed. Mommsen 1882, 37_{6-8}); Pseudo-Fredegar (after 660 AD), Chronicorum libri IV, II, 39 (ed. Krusch 1888, 64_{8}); Chronicon miscellaneum ad annum Domini 724 pertinens (Brooks 1904, 125_{25-27}); Pseudo-Dionysius of Tel Mahre (after 775 AD), Chronicon Zuqninensis, f. 39r (ed. Chabot 1927, 143_{26}-144_{3}); Chronographia syntomos ex codice Matritensi 121 (after 886 AD), Imperatores Romanorum, 27 (ed. Bauer 1909, 53_{14}). Linked to both Cassiodorus and Jordanes, the mention of the death of Decius and his son in the Getica must be associated with the same tradition, even if the text is more precise and does not follow the same pattern: Jordanes, De origine actibusque Getarum, XVIII, 103 (ed. Giunta-Grillone 1991, 46_{14-18} [where a Decii Ara is mentionned near Abritus]). Such is also the case for all subsequent texts inspired by it, even the most recent like: Antonio Bonfini (1427-1503), Rerum Ungaricarum Decades, I, ii, 126 (ed. Fógel / Iványi / Juhász 1936 [I], 50). Finally, we must add to the same category all the other translations of Eusebius' Chronicle, like the Armenian one (ed.-Lat. transl. Aucher 1818, 298-299).

[12] Aurelius Victor († ca. 390 AD), Liber de Caesaribus, XXIX, 4 (ed.-Fr. transl. Dufraigne 1975, 37); Chronicon paschale (after 627 AD), CCLVII Olympias, 253 (ed. Dindorf, Lat. transl. du Fresne-du Cange 1860, 669-670_{A-B}); Constantine VII Porphyrogenitus (905-959 AD), Excerpta de insidiis, ex Ioanne Malala, XXII (ed. de Boor 1905, 159_{34-36}).

[13] Gesta a synodo Orientalium ab Epheso (June 26th 431 AD) XVI, 35 (ed. Schwartz 1927, 124_{1}) = versio Latina (a Rustico diacono confecta), II [88], subscriptiones, 38 (ed. Schwartz 1922-1923, 38); Versio Latina (a Rustico diacono confecta) epistulae synodi Orientalium ab Epheso ad clerum populumque Hierapolitanum (June 26th 431 AD), subscriptiones, 39 (ed. Schwartz 1922-1923, 46); Versio Latina (a Rustico diacono confecta) epistulae synodi Orientalium ab Epheso ad mandatarios (ca. September 431 AD), subscriptiones, 20 (ed. Schwartz 1922-1923, 67_{18}); Versio Latina (a Epiphanio Scholastico confecta) epistulae episcoporum Mysiae II ad Leonem I imperatorem (ca. April 458 AD), subscriptiones, 1 (ed. Schwartz 1936, 32_{26}). On Markianos/Marcianus, cf. Ilski 1995, no. 21.

[14] Hierocles, Synecdemus, DCXXXVI, 8 (ed. Honigmann 1939, 13); Radoslavova / Dzanev 2012, 4.

[15] Procopius of Caesarea, De aedificiis, IV, 11 (ed. [according to J. Haury and G. Wirth]-Germ. transl. Veh 1977, 242-243); Radoslavova / Dzanev 2012, 4.

[16] Notitiae episcopatuum Ecclesiae Constantinopolitanae, III, 608 (ed. Darrouzès 1981, 241); Concilium oecumenicum Nicaenum (II) anni 787, actio IV, nomina episcoporum, 72 (ed.-vers. Lat. [a Anastasio Bibliothecario confecta] Lamberz 2012, 500_{12}, 501_{10}), and actio VII, nomina episcoporum, [71], and subscriptiones, [108] (ed.-vers. Lat. [a Anastasio Bibliothecario confecta] Morin et al. 1767, 367-368_{A} and 387-388_{B}); Radoslavova / Dzanev 2012, 4. It is Michel Le Quien (1661-1733) who was the first to associate Ἀβαριτιανῶν / Avaritianensium / Ἰβαριτιανῶν / Hibaritensium with Abritus. Cf. Le Quien 1740, 1222. For their part, the authors of the Prosopographie der mittelbyzantinischen Zeit make of Ursos/Ursus rather a bishop of Arba/Rab (Dalmatia), without explaining adequately their choice. Cf. Lillie et al. 2001, # 8557. This is also the opinion of Erich Lamberz, but his justification is based on a misreading of the *notitia episcopatuum* mentioning Abritus (it is Moesia Inferior!). Cf. Lamberz 2004, 550, n. 194.

Considering the apparent historical importance of *Abritus* in Late Antiquity, we can only be astonished by its absence in the main itineraries such as the *Antonine Itinerary* (3rd century) and the *Peutinger Table* (which derives from a 4th/5th century archetype). This situation is even more curious, as the massiveness of *Abritus*' fortification encourages its inclusion among the principal cities of eastern Balkans.

2) The Urbanism of *Abritus*

a) The fortification and the surrounding area

We owe the knowledge of the main architectural structures of the site to T. Ivanov, who mainly worked on the layout of the castle walls and in the zone protected by them (Ivanov 1963; Иванов 1966; Иванов 1980). However, he also showed us that the outside part of the castle walls is surrounded by up to four necropolises: to the south, east, north and west (Иванов 1980, 26, 237; Ivanov / Stojanov 1985, 69-71; Radoslavova 2011, 250; Radoslavova / Dzanev 2012, 8; and for the most recent research: Радославова 2012). Still outside of the fortress, the *canabae* would be situated 300 or 400 m to the south-east of the walls, according to T. Ivanov, but they still have not been found (Radoslavova / Dzanev 2012, 2-3; and cf. *supra*, n. 7). The same archaeologist also speaks about the presence of a hypothetical *vicus* in the east, known only by the surfacing of fragment from ploughing (Ivanov / Stojanov 1985, 13). Today, G. Radoslavova and G. Dzanev prefer to talk of an early Roman settlement (Radoslavova 2011, 250; Радославова / Дзанев 2011; Radoslavova / Dzanev 2012, 2).[17]

The primary function of Roman *Abritus* was perhaps to serve as a camp for some garrisons. The first known to be stationed here is the *Cohors II Lucensium*, which arrived in Moesia in 78 AD at the latest (*CIL* XVI, 22; Radoslavova / Dzanev 2012, 2-3). It was moved to *Abritus*, maybe under Trajan (98-117 AD) to fight in the Dacian Wars, and it kept this position, until after 127 AD, maybe until 136 AD (Matei-Popescu 2010b, 219-220; Radoslavova / Dzanev 2012, 3). Thereafter, the *II Lucensium* was replaced by at least one unknown unit. Yet, *Abritus* was allegedly a *castellum* in the 3rd/4th century. It is shown by the funerary inscription from *Aquileia* (Radoslavova / Dzanev 2012, 3; and cf. *supra*, n. 9). The known fortification was built in the 4th century, probably by Diocletian and Constantine, according to the *spolia*. Thus, the erecting came after the battle of *Abritus* and the invasion of the Goths (Scorpan 1980, 117). The castle walls are 1400 m long and they surround approximatively 15 ha. They possess 35 towers, 9 posterns and 4 gates.[18] The foundations are 1.5 m deep and for 3 to 3.20 m wide. They are made of limestone blocks bonded with mortar. The curtain walls, 2.70 m thick on average[19], are clad in *opus vittatum* with a *nucleus* of stones, of mortar and of brick fragments. The walls would have been 10 or 12 m high (Иванов 1980, 29-142, 238-241; Ivanov / Stojanov 1985, 12-19; Radoslavova / Dzanev 2012, 5).

The foundation of the towers is in *opus mixtum* and the elevation is in *opus implectum*. There are four types of towers which would have reached 16 m high.[20] As for the four gate passages, they are all built on the same principle. There is a *cavaedium*, accessible from the outside pass through a flap door. Once in the central *cavaedium*, visitors still need to go through a double door to enter the city. All gates have heavier brickwork in *opus quadratum* made of limestone, such as the one found at the base of the towers. Only the southern gate is distinguished by its characteristic recess, which would have increased its usefulness.[21] It has also the particularity of being crossed by a water pipe that remains to this day the only known water supply of the whole site (Georgiev / Ivanov / Mihajlov 1969, fig. 4; Иванов 1980, 106-108, 240; and cf. *supra*, § 1, a).

Many components of the walls – in particular, their thickness and the reduced curtains on the west and the south sides, both strongholds which frame the south door recess and the defensive ditch in the southern part – allow us believe that the danger came originally from the south and the west. Thus, the north and the east seem to have been less exposed, maybe taking advantage of the protection of the Beli Lom River. During the 6th century, the northern, the eastern and the southern gates were blocked, while the western gate and the walls were repaired and enhanced (Ivanov 1963, 85, 89; Иванов 1980, 42-50, 66-70, 99-105, 126-136, 241; Ivanov / Stojanov 1985, 19). Even though the repairs made on the fortifica-

[17] G. Radoslavova informed us that she considered this "early Roman settlement" occupied by relatively massive constructions.

[18] Similar to the fortification of *Novae*. Cf. for example Ivanov 1997, 562, fig. 27 ≈ Иванов 1999, 184, fig. 45.

[19] They reach a maximum of 2.85 m on the south side and a minimum of 2.10 m on the east side.

[20] The majority of towers are "U"-shaped. The plan of the corner towers is fan-shaped. Others are either rectangular or square. (Ivanov / Stojanov 1985, 14-19, 22-23).

[21] This makes it comparable to the gate of *Iatrus*. Cf. for example Ivanov 1997, 575, fig. 36 ≈ Иванов 1999, 192, fig. 52.

tions are clearly visible and unambiguously datable on the eastern wall, the archaeological survey cannot currently associate Justinian I with the repairs, as Procopius says (cf. *supra*, n. 15).

The excavations of the inside part of the walls also helped to find, on both sides of the western gate, two rectangular buildings. The southern one is a *horreum* (**fig. 1, A**). Discovered in 1957, this building with 3 naves, which is invisible right now, measures 56.25 x 20.20 m and has buttresses in *opus listatum* and independent foundations for its eastern and western walls (Ivanov 1963, 88, 90; Ivanov / Stojanov 1985, 34-39; Radoslavova 2011, 250; Radoslavova / Dzanev 2012, 7). Joined by mortar, the foundation blocks in raw limestone are 0.90 m deep and 1.45 m thick. The walls are in *opus vittatum* and are 1.30 m thick. This *horreum*, which is posterior to the 4th century wall, had two entrances: one to the east and the other to the north (this one was walled up later). The floor inside is made of brick. T. Ivanov said that they were engraved with decorations. We may wonder if these were not *bolli* (anepigraphical stamps), as we frequently find in the 4th century *horrea* of Lazio.[22]

North of the *horreum*, there is another building leaning against the wall (**fig. 1, B**), unfortunately also invisible today. Excavated in 1971, this building has three naves, is oriented north-south and measures 34 x 17 m (Ivanov / Stojanov 1985, 38-39; Radoslavova 2011, 250-251; Radoslavova / Dzanev 2012, 7). Its foundations in *opus caementicium* are 1.5 m thick and the walls are in *opus vittatum*. The southern entrance was walled up for a second time. T. Ivanov tends to be a little vague about the function of this building from the late 4th century, proposing the hypothesis of barracks, without further details. G. Radoslavova and G. Dzanev present the building as a warehouse. Without rejecting both possibilities, we should not ignore the obvious similarities between this structure and the *horrea* equipped *suspensurae*.[23] Finally, excavations along the wall in 1971 enabled the discovery of a treasure of 835 gold coins from the 5th century (Ivanov 1975, 50; Стоянов 1982; Ivanov / Stojanov 1985, 53-61; Radoslavova 2011, 250; Radoslavova / Dzanev 2012, 7; and for the numismatic of *Abritus* in general, cf. the numerous published works of G. Dzanev). Does this not testify to the presence of real elites in *Abritus* and thus, to true social and civic organizations beyond the military one? At least, archaeology seems to demonstrate so.

b) The residential *insula*

The *insula* located near baths, which will be discussed later, (**fig. 1, D**) was occupied between the late 4th century and the late 6th century by a large *domus* of 3 300 m², which was discovered in 1953 (**fig. 1, E**; Ivanov 1963, 90-92; Ivanov / Stojanov 1985, 27-31; Radoslavova 2011, 251-252; Radoslavova / Dzanev 2012, 5-7). The space occupied by this building of 41 x 77.8 m, which has two entrances, is divided into three parts. Thus, the south façade of the *domus* is composed of six shops, which open to a portico of fifteen columns on the street. Further north, the second part of the house consists of a peristyle of 25 x 12.5 m and a series of storage rooms. We can imagine this space was used for both utilitarian functions and for reception. Still, in the north part of the building, we find the private reception rooms and what should correspond to the apartments of the *dominus*. We can also consider that the above mentioned baths were originally linked to the *domus*.

This last one was not built *ex novo*. Actually, it was the successor of four *domus*, of which it covers completely two *insulae*.[24] Each of these houses was organized around a courtyard and plastered terracotta walls. Numismatics allow us to date one of these houses to the reign of Constantius II (337-361 AD) and a *spolium* in its structure shows an inscription from the time of Diocletian (284-305 AD) or of Constantine I (306-337 AD)[25]. It was therefore built in the first half of the 4th century. All these *domus* were eventually destroyed during the Gothic war of 376-382 AD.

To the east of the large house which replaced them, we find a residential building which is contemporary with this "new" construction. (**fig. 1, F**; Радославова / Дзанев 2008, 357-358; Радославова 2010; Radoslavova 2011, 253-254). Other houses were discovered, but few plans of these structures exist (for example, cf. Радославова / Дзанев 2003, 134, fig. 52). Besides the different parts of buildings attached to the castle walls, an adobe house of 16 x 8 m, built upon a stone base, was excavated be-

[22] Jean-Philippe Carrié saw such cases during his participation in the Atelier archéologique Ostie-Portus 2009-2010 (http://www.entrepots-anr.fr/sitefiles/files/Extrait%20Rapport%20Portus%202009-2010.pdf) of the ANR project « Entrepôts et lieux de stockage du monde gréco-romain antique » (http://www.entrepots-anr.fr).

[23] Cf. supra, n. 22.

[24] In the nomenclature established by T. Ivanov, our Domus E is called Building VII and it covers the Buildings I-IV.

[25] The Building III. Cf. Ivanov / Stojanov 1985, 26-27; Radoslavova / Dzanev 2012, 6.

tween 1990 and 1993. It should be supplemented by a wooden structure that was obviously a bone-working workshop. The whole structure seems to have been built in the late 4th century and was possibly destroyed by the Huns in 447 AD. Northwest of this house, there is another one of the same kind. A furnace for metals was also discovered east of this area dedicated to handicraft between the 4th and the 6th century. Of all types of houses, it is however those devoted to the god of the Christians which constitute the most important category of structures among those already searched and studied in *Abritus*.

c) The churches

The first paleo-Christian basilica to have been discovered, as early as 1887 by A. Yavashov, is located at the western part of the city (**fig. 1, C**; Ivanov / Stojanov 1985, 39-40; Radoslavova 2011, 251-252; Radoslavova / Dzanev 2012, 7; and cf. *supra*, § 1, a). At this early date, only the narthex was identified. We had to wait 1953, to see T. Ivanov expose the complete structure. During this operation, he discovered a reliquary, incised with a cross painted red. This church would date from the time of Justinian I and was probably destroyed by the Avars. The ruins are no longer accessible.

In 1893, A. Yavashov found a second church (**fig. 1, G**; and cf. *supra*, § 1, a). Today, it is the most well known, because of the important works undertaken by G. Radoslavova and G. Dzanev in recent years.[26] The interesting interpretation of G. Dzanev about this structure built in the 5th century allows us to consider not only that the building was perhaps rebuilt in the 10th century, but also that it can have been part of an extended religious complex, which certainly kept a close relationship with the vast adjacent *domus* (**fig. 1, E**). Are we in the presence of the episcopal group then?

To these first two religious buildings, we must add a late stage of the only known baths of the site, dating from the 4th or the 5th century (**fig. 1, D**; Ivanov / Stojanov 1985, 31-34; Radoslavova 2011, 253-254; and cf. *supra*, § 2, b). The bathing function of the building, easily identifiable by the mere reading of its plan, was established by T. Ivanov, at its discovery in 1954. Made of bricks and stones, the structure is in *opus mixtum* and is 19.9 x 16.8 m. However, the archaeologist did not see at first that these baths were ultimately converted into a church. It is suggested by the added parts and the block of limestone, incised with a cross painted in red, which was discovered near the apse. For now, we can assume that at least three religious buildings (four, if we accept the hypothesis of the 10th century basilica) mark out the urban network of *Abritus*.

3) Conclusion and Perspectives

a) Synthesis

Since the first excavations in 1887, only a small part of *Abritus* has been searched and studied, in some cases very partially: the castle walls, about fifteen buildings inside them and some specific locations in the four necropolises. Also, excavations ceased to be overseen by an academic institution in 1978. Nevertheless, the site offers exceptional potential, due to its historical importance, as evident in literary sources. This importance seems to have increased with the introduction of Christianity and with the creation of the bishopric, which may have lasted from the 4th to the 8th century.

b) The *problématique* of the return to *Abritus*

Considering the situation, we believe that future academic research in *Abritus* should be both historical and archaeological and that it should fit into the wider context of the studies of the Christianization of the Lower Danube. It immediately becomes clear that the establishment of Christianity (probably brought by the army) had significant impact on the evolution of urban forms and functions in *Abritus*. The details of this change remain, however, to be studied and only after will we be able to evaluate whether it is Christianity that allowed the small military camp to be elevated to the rank of a real city (cf. *supra*, § 1, b).

c) Methodology

Methodologically speaking, this *problématique* has the advantage of putting the oldest layers at the service of the understanding of the most recent ones. Thus, it will be important to clarify the *intra muros* urban network, but also its possible *extra muros* extensions. The geographical situation of *Abritus* allows it to be counted among the "second line" of defence of the Danubian *limes* (Scorpan 1980, 2). It was therefore a more secure area, where peripheral habitation could develop more easily.

For this, it will be appropriate firstly to perform non-invasive surveys that will specify the layout of the streets inside the castle walls. It will be especially interesting to try to describe the urban centre, presumably occupied by *principia* (unless they

[26] Радославова / Дзанев 2005; Радославова / Дзанев 2006; Радославова / Дзанев 2007; Радославова / Дзанев 2008, 359-360; Радославова / Дзанев 2009, 350-351; Radoslavova 2011, 253-254.

correspond to the large *domus*). These surveys will surely enable a better understanding of the general structure of the vast space inside the fortifications (± 15 ha). The same type of work carried outside the walls will also help to capture the functioning of the *castellum* with its direct environment, be it the *canabae*, the *vicus* or the necropolises, and also the functioning of the bishopric of *Abritus*.

Bibliography

Aucher, J. B. 1818. Eusebii Pamphili Caesariensis episcopi Chronicon bipartitum nunc primum ex Armeniaco textu in Latinum conversum, adnotationibus auctum, Graecis fragmentis exornatum, 2. Chronicus canon. Venezia.

Bauer, A. 1909. Anonymi Chronographia syntomos e codice Matritensi no. 121 (nunc 4701). Leipzig.

Brooks, E. W. 1904. Chronicon miscellaneum ad annum Domini 724 pertinens. In: Guidi, I. (ed.) Chronica minora, 1 (Corpus scriptorum christianorum Orientalium. Scriptores Syri. Textus. Series tertia 4,2 [= 1953. Corpus scriptorum christianorum Orientalium 3 – Scriptores Syri 3]). Paris [/ Leuven]. 61-119.

Brusin, J. B. 1992. Inscriptiones Aquileiae (Pubblicazioni della Deputazione di storia patria per il Friuli 20). Udine.

Chabot, J.-B. 1927. Chronicon anonymum Pseudo-Dionysianum vulgo dictum, 1 (Corpus scriptorum christianorum Orientalium. Scriptores Syri. Textus. Series tertia 1 [= 1953. Corpus scriptorum christianorum Orientalium 91 – Scriptores Syri 43]). Paris [/ Leuven].

Chabot, J.-B. 1910. Chronique de Michel le Syrien patriarche jacobite d'Antioche (1166-1199), 4. (Texte syriaque). Paris.

Crivellucci, A. 1912. Landolfi Sagacis Historia Romana, 1 (Fonti per la Storia d'Italia 49 – Scrittori. Secoli X-XI). Roma.

Darrouzès, J. 1981. Notitiae episcopatuum Ecclesiae Constantinopolitanae (Géographie ecclésiastique de l'Empire byzantin 1). Paris.

de Boor, C. 1905. Excerpta historica jussu imp. Constantini Porphyrogeniti confecta, 3. Excerpta de insidiis. Berlin.

de Boor. C. 1880. Nicephori archiepiscopi Constantinpolitani opuscula historica. Leipzig.

Dindorf, L. / du Fresne-du Cange, Ch. 1860. Chronicon paschale. In: Migne, J.-P. (ed.). Patrologiae cursus completus. Series Graeca 92. Paris. 69-1023.

Dufraigne, P. 1975. Aurelius Victor, Livre des Césars (Collection des universités de France. Série latine 221). Paris.

Fógel, I. / Iványi, B. / Juhász, L. 1936-1941. Rerum Ungaricarum Decades, I-IV, 1 (Bibliotheca scriptorum medii recentisque aevorum. Saeculum XV). Leipzig.

Georgiev, G. I. / Ivanov, T. / Mihajlov, S. 1969. Résultats des fouilles archéologiques effectuées en Bulgarie en 1965. – Bulletin d'archéologie sud-est européenne 1, 35-59.

Giunta, Fr. / Grillone, A. 1991. Jordanis De origine actibusque Getarum (Fonti per la storia d'Italia 117). Roma.

Helm, R. 1984. Eusebius Werke, 7. Die Chronik des Hieronymus – Hieronymi Chronicon, anast. repr. of the 2nd ed. with foreword by U. Treu (Die Griechischen Christlichen Schriftsteller der ersten Jahrhunderte). Berlin.

Honigmann, E. 1939. Le Synekdèmos d'Hiéroklès et l'opuscule géographique de Georges de Chypre (Corpus Bruxellense historiae Byzantinae. Forma Imperii Byzantini, 1). Bruxelles.

Ilski, K. 1995. Biskupi Mezji i Scytii IV-VI w. (Prosopographia Moesiaca, 3. Moesia II et Scythia minor, 2). Poznań.

Ivanov, R. 1997. Das römische Verteidigungssystem and der unteren Donau zwischen Dorticum und Durostorum (Bulgarien) von Augustus bis Maurikios. – Bericht der Römisch-Germanischen Kommission 78, 469-640.

Ivanov, T. 1975. Fouilles archéologiques en Bulgarie des années 1970-1971. II. Époque antique. – Bulletin d'archéologie sud-est européenne 3, 47-55.

Ivanov, T. 1971. Fouilles effectuées en Bulgarie dans l'intervalle 1966-1969. Époque antique. – Bulletin d'archéologie sud-est européenne 2, 39-58.

Ivanov, T. 1963. Archäologische Forschungen in Abrittus (1953-1961). In: Dimitrov, D. P. / Ivanov, T. / Ognenova, L. (eds). Acta antiqua Philippopolitana. Studia archaeologica. VI Международна конференция по класически студии (Plovdiv, April 24th-28th 1962). София. 81-93.

Ivanov, T. / Stojanov, St. 1985. Abritus, histoire et archéologie [2nd ed.], Fr. transl. by Gl. Vâleva / S. Pojarlieva. Разград.

Iwanow, Th. [= *Ivanov, T.*] 1961. Die thrakisch-römischen politischen Beziehungen am vorabend der römischen Herrschaft in Thrakien. – Studii clasice 3, 93-98.

Krusch, Br. 1888. Fredegarii et aliorum chronica. Vitae sanctorum (Monumenta Germaniae historica. Scriptores rerum Germanicarum 2). Berlin.

Lamberz, E. 2012. Acta conciliorum oecumenicorum. Series secunda, III. Concilium universale Nicaenum secundum, 2. Concilii actiones 4-5. Berlin.

Lamberz, E. 2004. Die Bischofslisten des VII. Ökumenischen Konzils (Nicaenum II) (Bayerische Akademie der Wissenschaften. Philosophisch-historische Klasse. Abhandlungen. Neue Folge 124). München.

Le Quien, M. 1740. Oriens christianus, in quatuor patriarchatus digestus, quo exhibentur Ecclesiae, patriarchae, caeterique praesules totius Orientis, ed. by É. de Foncemagne, 1. Tres magnas complectens dioeceses Ponti, Asiae, & Thraciae, patriarchatui Constantinopolitano subjectas. Paris.

Lillie, R.-J. / Ludwig, Cl. / Pratsch, Th. / Rochow, I. / Zielke, B. (according to *Fr. Winkelmanns*), with the collab. of *W. Brandes / J. R. Martindale*. 2001. Prosopographie der mittelbyzantinischen Zeit. Erste Abteilung (641-867), 5. Theophylaktos (#8346) – Az-Zubair (#8675). Anonymi (#10001 – #12149). Berlin / New York.

Löwenklau, J. 1596. Juris Graeco-Romani tam canonici quam civilis tomi duo, 1. Frankfurt am Main.

Matei-Popescu, Fl. 2010a. Castellum Abritanorum. – Studia antiqua et archaeologica 16, 61-67.

Matei-Popescu, Fl. 2010b. The Roman Army in Moesia Inferior (The Center for Roman Military Studies 7). Bucureşti.

Mommsen, Th. 1894. Chronica minora saec. IV. V. VI. VII., 2 (Monumenta Germaniae historica. Auctores antiquissimi 11). Berlin.

Mommsen, Th. 1892. Chronica minora saec. IV. V. VI. VII., 1 (Monumenta Germaniae historica. Auctores antiquissimi 9). Berlin.

Mommsen, Th. 1882. Iordanis Romana et Getica (Monumenta Germaniae historica. Auctores antiquissimi 5). Berlin.

Morin, P. / Carafa, A. (?) / de Toledo, Fr. (?) / Borromeo, Fr. (?). 1767. Concilii Nicaeni secundi continuatio, rev. by Ph. Labbe / G. Cossart. In: Mansi, G. D. (ed.). Sacrorum conciliorum nova et amplissima collectio, in qua praeter ea quae Phil. Labbeus et Gabr. Cossartius S.J. et novissime Nicolaus Coleti in lucem edidere, ea omnium insuper suis in locis optime disposita exhibentur, 13. Ab an. DCCLXXXVII usq. ad an. DCCCXI. incl. Firenze. 1-486.

Mosshammer, A. A. 1984. Georgii Syncelli Ecloga chronographica (Bibliotheca scriptorum Graecorum et Romanorum Teubneriana). Leipzig.

Radoslavova, G. 2011. Abritus – eine spätrömisch-byzantinische Stadt in Moesia secunda. In: Heinrich-Tamáska, O. (ed.). Keszthely-Fenékpuszta im Kontext spätantiker Kontinuitätsforschung zwischen Noricum und Moesia. (Castellum Pannonicum Personense, 2). Budapest / Leipzig / Keszthely / Rahden. 249-256.

Radoslavova, G. / Dzanev, G. 2012. Abritus. In: Ivanov, R. T. (ed.). Tabula Imperii Romani. K35/2 Philippopolis. София. 1-8.

Radoslavova, G. / Dzanev, G. / Nikolov, N. 2011. The Battle at Abritus in AD 251: Written Sources, Archaeological and Numismatic Data. – Archaeologia Bulgarica 15 (3), 23-49.

Schwartz, E. 1936. Acta conciliorum oecumenicorum, II. Concilium universale Chalcedonense, v. Collectio Sangermanensis. Berlin / Leipzig.

Schwartz, E. 1927. Acta conciliorum oecumenicorum, I. Concilium universale Ephesenum, i. Acta Graeca, 5. Collectio Vaticana 140-164. Berlin / Leipzig.

Schwartz, E. 1922-3. Acta conciliorum oecumenicorum, I. Concilium universale Ephesenum, iv. Collectionis Casinensis sive Synodici a Rustico diacono compositi pars altera. Berlin / Leipzig.

Scorpan, C. 1980. Limes Scythiae. Topographical and Stratigraphical Research on the Late Roman Fortifications on the Lower Danube (BAR International Series 88). Oxford.

Stückelberger, A. / Graßhoff, G. 2006. Klaudios Ptolemaios, Handbuch der Geographie. Griechisch-Deutsch, with the collab. of Fl. Mittenhuber / R. Burri / Kl. Geus / G. Winkler / S. Ziegler / J. Hindermann / L. Koch / K. Keller. Basel.

Veh, O. 1977. Prokop, Bauten – Paulos Silentiarios, Beschreibung der Hagia Sophia. Griechisch-deutsch, with an archaeological comm. by W. Pühlhorn (Tusculum-Bücherei; Prokop, Werke, 5. Die Bauten). München.

Vittinghoff, F. 1968. Die Bedeutung der Legionslager für die Entstehung der römischen Städte an der Donau und in Dakien. In: Claus, M. / Haarnagel, W. / Raddatz, Kl. (eds). Studien zur europäischen Vor- und Frühgeschichte. Neumünster. 132-142.

Wuilleumier, P. 1990. Tacite, Annales, 1. Livres I-III, rev. and corr. by J. Hellegouarc'h (Collection des universités de France. Série latine 18). Paris.

Богомирова, Р. 2007. Създаване и дейност на Разградското археологическо Дружество. In: Иванов, И. / Босева, М. / Николова, Н. (eds.). Изследвания в памет на акад. Анание Явашов. Сборник статии от научна конференция, посветена на 150-годишнината от неговото рождение. София. 20-33.

Иванов, И. / Босева, М. / Николова, Н. (eds.). 2007. Изследвания в памет на акад. Анание Явашов. Сборник статии от научна конференция, посветена на 150-годишнината от неговото рождение. / Researches in Memory of Acad. Ananie Yavashov. Symposium from Scientific Conference dedicated to 150 Anniversary of his Birthday (Razgrad, October 25th, 2005). София.

Иванов, Р. 1999. Долнодунавската отбранителна система между Дортикум и Дуросторум от Август до Маврикий – The Defense System along the Lower Danube between Dorticum and Durostorum from Augustus to Mauricius [rev. Bulg. transl. of Ivanov 1997]. София.

Иванов, Т. 1981. Милиарна колона с името на Абритус. – Археология 3/1981, 48-54.

Иванов, Т. 1980. Абритус. Римски кастел и ранновизантийски град в Долна Мизия, 1. Топография и укрепителна система на Абритус. София.

Иванов, Т. 1966. Укрепителната система на Абритус. – Археология 1/1966, 18-32.

Иванов, Т. 1955. Два надписа от античния град при Разград. – Известия на Археологическия институт 19, 167-186.

Маджаров, М. 2009. Римски пътища в България. Принос в развитието на римската пътна система в провинциите Мизия и Тракия – Roman Roads in Bulgaria. Contribution to the Development of Roman Road System in the Provinces of Moesia and Thrace. Велико Търново.

Радославова, Г. 2012. Абритус – 2011 г. Южен некропол. – Археологически открития и разкопки през 2011 г., 295-297.

Радославова, Г. 2010. Археологически проучвания в Абритус. – Археологически открития и разкопки през 2009 г., 346-347.

Радославова, Г. / Дзанев, Г. 2011. Археологическо проучване в селище от римската епоха, източно от късноантичната крепост Абритус. – Археологически открития и разкопки през 2010 г., 303-304.

Радославова, Г. / Дзанев, Г. 2009. Абритус. Археологическо проучване през 2008 г. – Археологически открития и разкопки през 2008 г., 348-351.

Радославова, Г. / Дзанев, Г. 2008. Археологически проучвания в Абритус. – Археологически открития и разкопки през 2007 г., 356-360.

Радославова, Г. / Дзанев, Г. 2007. Археологически проучвания в Абритус през 2006 г. – Археологически открития и разкопки през 2006 г., 373-375.

Радославова, Г. / Дзанев, Г. 2006. Проуване на обекти "сграда VIII" и "Ранносредновековен комплекс" от градоустойствения план на Абритус. – Археологически открития и разкопки през 2005 г., 253-254.

Радославова, Г. / Дзанев, Г. 2005. Абритус – Ранносредновековен комплекс-епископия. – Археологически открития и разкопки през 2004 г., 192-193.

Радославова, Г. / Дзанев, Г. 2003. Абритус (Abritus). In: Иванов, Р. (ed.). Римски и ранновизантийски селища в България - Roman and Early Byzantine Settlements in Bulgaria, 2. София. 110-148.

Стоянов, Ст. 2007. Академик Анание Явашов – живот и научна дейност. In: Иванов, И. / Босева, М. / Николова, Н. (eds.). Изследвания в памет на акад. Анание Явашов. Сборник статии от научна конференция, посветена на 150-годишнината от неговото рождение. София. 13-19.

Стоянов, Ст. 1982. Златно монетно съкровище от Абритус (V в. на н.е.). София.

Явашов, А. И. 1930. Разград. Неговото археологическо и историческо минало, 1. София.

Dr. Jean-Philippe Carrié
Associate researcher to the UMR 7044 –
ARCHIMÈDE
(CNRS / Unistra / UHA / DRAC
of Alsace and of Lorraine)
7, rue Lafontaine
F-91330 Yerres
jeanphilippecarrie@gmail.com

Dr. Dominic Moreau
Maître de Conférences in Late Antiquity
Université Charles-de-Gaulle – Lille 3
UMR 8164 – HALMA-IPEL (CNRS / Lille 3 / MCC)
14, rue d'Andlau
F-67000 Strasbourg
moreau_dominic@hotmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Kiln Works of the *Legio Decima Fretensis*: Pottery Production and Distribution

Renate ROSENTHAL-HEGINBOTTOM

The conquest and destruction of Jewish Jerusalem in 70 CE at the hands of the Romans resulted in the presence of the Tenth Legion for more than 200 years until its transference to Aila on the Gulf of Eilat/Aqaba towards the end of the third century. In the material culture the requirements of the Roman military and administration lead to a profound change in the ceramic repertoire of both tableware and utilitarian vessels. The local production of clay vessels, roof-tiles, bricks and pipes took place at a site located in the area of the present-day Jerusalem International Convention Centre situated 2 km to the west of the city on the road from Jerusalem to Emmaus-Nicopolis (for location maps see Arubas / Goldfus 2005, fig. 1). The choice of the site was determined by the existence of Jewish kiln works which had been in operation from the middle of the 2nd century BC onwards (Levi / Beeri 2010, 121-122). About 3 km further west the Romans established a colony at Biblical Moza, the Arabic Qalunyia preserving the Latin term Colonia (Tsafrir / Di Segni / Green 1994, 105; Fischer / Isaac / Roll 1996, 87-98). From this area the necessary raw material was brought to the kiln site. Petrographic analyses indicated the extensive use of the clay and marls of the Moza soil formation besides *terra rossa* from the Central Hills for cookware (Goren 2005; Cohen-Weinberger / Rosenthal-Heginbottom forthcoming). In the city of Jerusalem itself a huge accumulation of vessels produced at the kiln site has been unearthed near the eastern *cardo* in the Western Wall Plaza excavations, named the Roman 'dump' (Weksler-Bdolah 2014; Weksler-Bdolah forthcoming; Rosenthal-Heginbottom forthcoming). A full presentation not possible, three classes of ceramics are chosen: ritual vessels, relief-decorated tableware and utilitarian basins.

Ritual Vessels

A complete vase (**fig. 1a)** and fragments of a second with images of Hermes and other figures and objects applied in application technique was unearthed by C. Clermont-Ganneau in 1874 in a rock-cut chamber close to the northern *decumanus* in Jerusalem, running from the present-day Lions' Gate to the eastern *cardo* (1899, 49-76; Gibson 1997, 24; Magness 2003). By visual inspection the vessels were manufactured in the legionary kiln works. C. Clermont-Ganneau defined them as kraters for sacrificial libations performed in a nearby Mithraeum, an interpretation accepted by J. Magness. The four serpents, drinking out of little wells, are part of the pictorial language on ritual vessels related to the veneration of terrestrial deities, especially Mithras. Two additional fragments from the Jewish Quarter excavations (**fig. 1b**) and the Mount Zion excavations (personal communication S. Gibson) are known to me. Parallels are wide-spread in the Roman Empire. Related are two kraters from the House of Magic Rites at Pompeii with banquet hall and garden for the mysteries of Jupiter Sabazius (Berry 2007, 200) and snake kraters unearthed in the provinces Germania superior and inferior and Gallia (Filtzinger 1972, 28, Pl. 46:1; Schmid 1991; Meylan-Krause 1999, 45-46; Plouin-Fortune 2004, 272-273). On a fragmentary krater from Isthmia the snake crawls up the handle, its head resting on the rim (Lindros Wohl 2005, 212, fig. 8). For the Jerusalem vases S. Gibson suggested to attribute them to the Serapeum which existed to the east of the find-spot at the Pool of Bethsaida (Gibson 2011, 29, note 36). The cults of Mithras and Serapis were popular with the Roman military.

Evidence for locally produced application-decorated vessels came to light in the legionary kiln

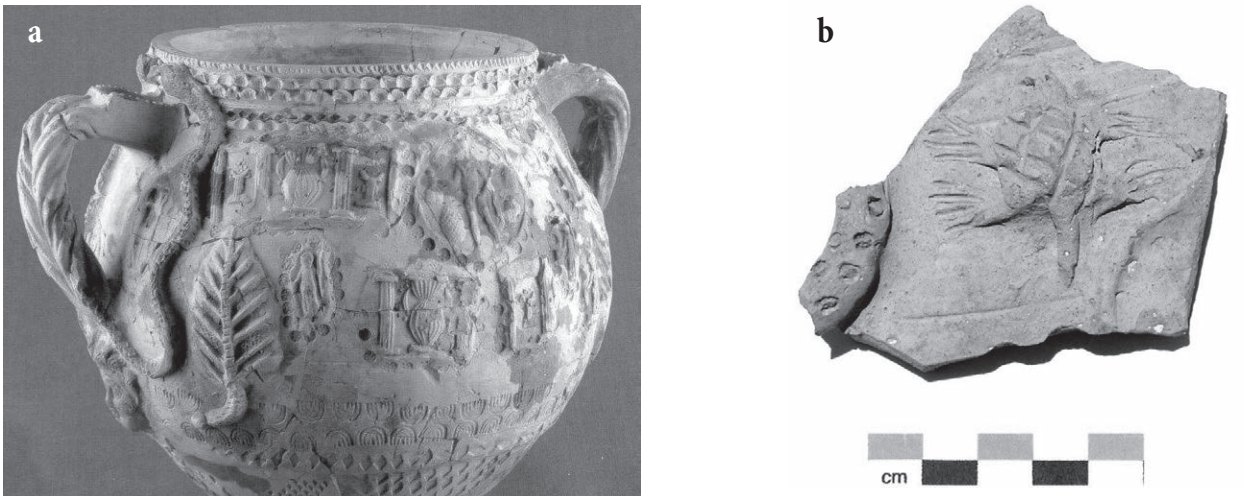


Fig. 1 a-b. The reconstructed vase unearthed by Clermont-Ganneau, now in the Palestine Exploration Fund in London, and a fragment of a similar vessel from the Jewish Quarter Excavations (photos Shimon Gibson and Oren Gutfeld)

works where a broken mould with three frontal faces, a head and two busts, worked in a crude style came to light in Stratum V, dated to the periods between the two revolts 70-132 CE (**fig. 2**; Rosenthal-Heginbottom in preparation). So far no vessels decorated with items produced in the mould have been found. However, frontally depicted heads became a characteristic feature of large deep two-handled bowls / kraters with carination and a diameter of up to 40 cm (Saller 1957, fig. 50: 2587; Taxel 2007, fig. 3). The only complete bowl has a row of 39 heads on the vertical wall section above the carination (from Khirbet Shumeila, Ramat Bet Shemesh, personal communication Y. Dagan). Generally dated to the Byzantine period it is now clear that their production began after 70 CE. In his discussion I. Taxel attributes the bowls with applied decorations to the late Roman and early Byzantine periods, covering a span of time from the second into the fifth centuries CE (Taxel 2007, 178-179). Without repeating the arguments forwarded in the dating debate four points should be kept in mind. First, the discovery of the mould (**fig. 2**) in the legionary compound and the petrographic evidence indicating that it was made from Moza marl leave no doubt that by fabric and iconography the locally manufactured vessels with applied decoration are typical products of the so-called military pottery, associated in Jerusalem with activities of the Tenth Legion. Second, this evidence excludes suggested pre-70 CE and Herodian period dates. Third, it should be remembered that many of the extent bowls were retrieved from fills and accumulations and can therefore not precisely be dated. E. Mader states that the relatively large number of bowls from Mamre came to light in the debris of the foundations of the Constantinian basilica and should therefore be attributed to either the Hadrianic or Herodian complex (Mader 1957, 149); the latter suggestion is no longer relevant. Fourth, the issue of the end of the bowls with applied decorations is a tricky one. The single bowl found in the Byzantine monastery below the Temple Mount is attributed to the mid sixth-early seventh century (Mazar / Peleg 2003, 90, Pl. I.16: 2; see also Taxel 2007, 179); being the only fragment from a securely dated late context it is most likely residual.

The identification of the head is difficult since hair-style and attributes are seldom definite. The heads surrounded by a rich frame of curly hair have been identified with Medusa (Rahmani 1991, 102) and Dionysos (Hershkovitz 2005, 289; Taxel 2007, 175, the motif is Type 1b, fig. 1/4). The frontal head on a neck fragment of an amphora found at Mamre has been identified by the excavator as a female, yet Dionysos is more likely (Mader 1957, 149, Pl. 83).

Taking into account the concentration of deep bowl fragments at Mamre, the discovery of a statue of Dionysos (Mader 1957, 136, Pl. 54) and the fact that it was a cult site during the Roman and Byzantine periods I. Taxel, following A. Kofsky, postulates a tentative use as krater for the mixing of wine and water related to the cult of Dionysos and the god's summer wine festival (2007, 82-83; Kofsky 1998, 21), attributing them to the class of ritual vessels. Hermes, the protector of merchants and commerce, was also venerated at the site where under

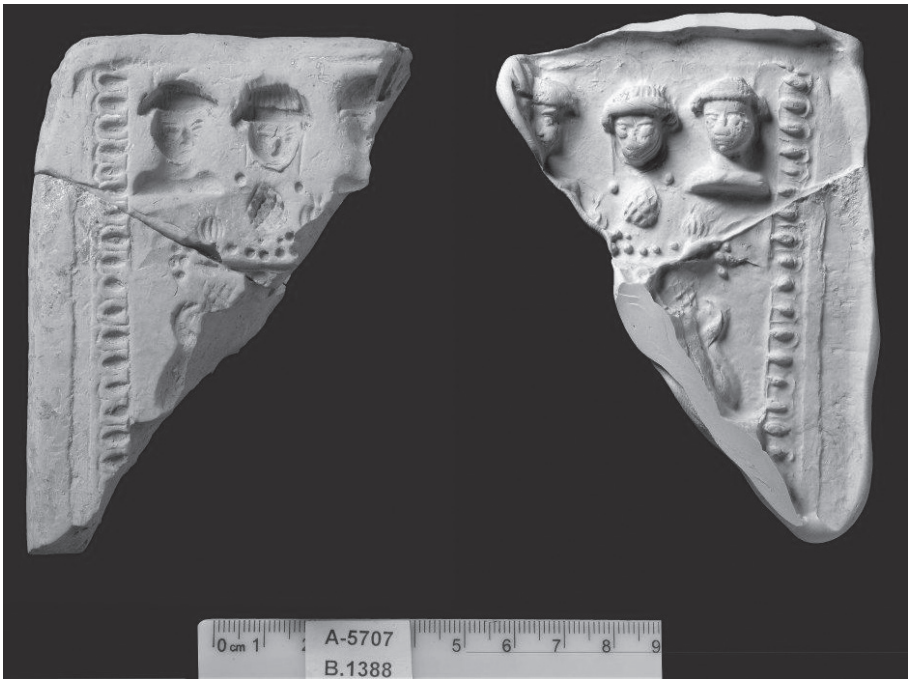


Fig. 2. Clay mould and cast from the Crowne Plaza excavations (photo Clara Amit, Israel Antiquities Authority)

Hadrian a fair had been established (Kofsky 1998, 21). Thus, in Jerusalem and Judea application-decorated kraters were most likely not part of the household tableware but were used in cult activities – at least during the Roman phase of their production.

Tableware

The tableware imitates the precious silver chalices and cups and silver and bronze jugs so popular among the Roman urban and military elite (Dunbabin 2003, 65-66, 85-88). Fragments of several drinking cups came to light in the excavations of the Western Wall Plaza and the legionary kiln site. The first example manufactured from marl of the Moza soil formation (**fig. 3**) shows a male bearded figure seated on a throne, the gesture of the right hand supporting the head expresses a pensive mood (for a parallel from the legionary kiln site, made from a worn mould see Hershkovitz 2005, 291, fig. 11/9). The position fits particularly Saturn / Kronos who has a melancholy nature, though generally he is shown with a mantle pulled over his head (LIMC VI, 144, # 5-8). The fragment of another cup depicts a male youth carrying an amphora on his shoulder and pouring water or wine into the vessel placed on a table or altar. The figure is either part of a libation ritual or a procession scene with members of Dionysos' retinue (from the legionary kiln site, Hershkovitz 2005, 291, fig. 11/8; for the procession Oliver 1977, 116-117, # 76). Since on both fragments a single figure is preserved it cannot be excluded that



Fig. 3. Clay fragment of drinking cup from the Western Wall Plaza excavations (photo Clara Amit, Israel Antiquities Authority)

the motif was repetitive. I suggest that the figures were part of a scene, compare the dancing maenad and satyr on the silver cup from the Neupotz Hoard (Cat. Speyer 2006, fig. 115). The two clay fragments can be attributed to shapes of drinking vessels common in Italian-type sigillata (compare the shape in Hershkovitz 2005, 291, fig. 11/8-9 with Ettlinger et al. 1990, 168-169, Form R 2; 176-177, Form R 7).

Mould-made handle shafts and escutcheons belong to closed vessels, most likely wine jugs and table amphoras. Of the seven similar shafts three are made from the same mould and from marl of the Moza soil formation. They depict an old Satyr, a panther, a bowl of fruit and a table or an altar (**fig. 4a**). Two escutcheons with Eros the hunter, produced from marl of the Moza soil formation and Amminadav sand, are part of different jugs (**fig. 4b**). A bronze parallel of a table amphora from Alexandria combines the handle shaft motifs with an escutcheon of Eros and panther (Schreiber 1894, 364, figs. 102-103). Eros the hunter depicted on a Campanian bronze jug is stylistically close (Tassinari 1993, 29, B1222, # 4685, Pl. CXLV/2). The prototype and source of inspiration are most likely the bronze jugs manufactured in the Campania, yet the exact shape of the vessels from Jerusalem is difficult to assess and it is not clear whether they had a single handle or were double-handled.

Utilitarian Pottery

Utilitarian pottery, necessary for the preparation, consumption, and keeping of food, can be defined as 'military style' since the shapes are standard military repertoire meant to satisfy the legionary requirements: wide deep and shallow bowls, kraters and basins, mortaria and dolia, amphoras and storage jars, cooking cauldrons, casseroles and flat-bottomed pans (Rosenthal-Heginbottom 2008, 94-95). These vessels were manufactured in the legionary kiln works at the Jerusalem International Convention Center and can be considered one of the hallmarks of local pottery manufacture in Jerusalem after 70 CE (Arubas / Goldfus 2005).

The predominant shapes are open vessels with ledge rims or everted rims described as basins / deep bowls. In her Ph.D. thesis J. Magness classified them into shelf-rim, rilled- rim and arched-rim basins (1993, 202-209). The earliest form, the shelf-rim basins, began to be manufactured in Jerusalem after 70 CE until c. 300 CE, appearing with the Roman military. The post-300 CE dating suggested at the time for the rilled-rim and arched-rim basins has been lowered and the beginning of production is now also conclusively linked to the legionary kiln site (Magness 2011, 319-320; 2012, 282; Rosenthal-Heginbottom 2014).

Particularly common are heavy-walled basins made in the local roof-tile fabric (for the complete shape see Magness 2005, 147, fig. 27/10; Rosenthal-Heginbottom 2005, 270, #168). Their common features include grooved rims, grooved handles, incised wavy-lines on the rims and band- and wavy-combing on the upper exterior walls as well as frilling on the rim exterior. The roof-tile fabric and the decorative elements are also characteristic for mortaria and shallow basins (Magness 2005, figs. 28-30; Rosenthal-Heginbottom 2005, # 162-167, 175-173). A singular find from the Jewish Quarter



Fig. 4 a-b Clay handle shaft and escutcheon of jugs or table amphoras from the Western Wall Plaza excavations (photo Clara Amit, Israel Antiquities Authority)

excavations (**fig. 5**) is also made in roof-tile fabric; the fragment can be attributed to the heavy flat-bottomed basins with the frilling on the rim exterior. Unique is the relief frieze of running scrolls each filled with a grape cluster and a vine leaf, showing a high artistic and technical workmanship. In the art of stone-carving in Jerusalem of the late Second Temple period non-figurative decoration is a common element of architectural ornamentation, on tomb facades and on ossuaries (Rahmani 1994, 43, 206-207, # 600; 262-263, # 893). Noteworthy are the ceiling decorations in the underground passageway of the Double Gate, leading to the Herodian Temple (Mazar 2002, 53-54). For the clay fragment it appears that the artisan was a native potter employed in the military kiln works, who still worked in the local tradition and style.

This brings us to the question whether after 70 CE Jewish potters were permitted to continue their occupation. At the kiln site there are no signs of destruction of the installations parallel to the destruction of Jerusalem, yet there are signs for a massive clean-up operation (Berlin 2005, 33). It has been suggested that contrary to the custom in Europe the Tenth Legion did not resort to local civilian potters but employed foreign military potters; the reason seen in the hostility of the Jewish population, the Romans encountered particularly in Jerusalem (Magness 2005, 107). With regard to the distribution of the products of the Jerusalem legionary kiln works Magness rightly points out that few parallels for the legionary pottery have been reported in Jerusalem and its vicinity (Magness 2005, 104); even the extensive excavations in the Armenian Garden from 1961-1967 yielded an insignificant amount of pottery (Tushingham 1985; for references see Magness 2005). The situation has changed with the Western Wall Plaza excavations (Weksler-Bdolah 2014). Furthermore, the study of the ceramics from the Jewish Quarter excavations and from the Temple Mount excavations brought to light additional legionary contexts[1]. Being not known other fragments could not be correctly attributed. Escutcheons of wine jugs of the type related to **fig. 4b** come from the Temple Mount excavations (Ben-Dov 1985, 205, photo on the right) and are found in the Ustinow Collection in Oslo



Fig. 5. Fragment of a basin from the Jewish Quarter excavations (photo Gabi Laron, Institute of Archaeology, The Hebrew University, Jerusalem)

(Skupinska-Løvset 1978, 140, UT 148, Pl. 31). A matching pair of handles, possibly of a table amphora, was bought in Jerusalem and is now in the Royal Ontario Museum in Toronto, the escutcheons depicting frontal masks (Hayes 1984, 88-89, #141). These finds define the ethnic and social identity of the dwellers as non-native and foreign and part of the Roman military and administrative personnel.

A tentative answer on the question of Jewish native or foreign military potters working in the kilns after 70 CE is provided by the stratigraphical evidence drawn from the recent excavations by D. Levi and R. Beeri[2]. Two strata (V-IV) are attributed to the time-span between the two revolts. The ceramic output associated with Stratum V displays a strong continuation of local Second Temple period traditions with some new vessel types introduced, and it is reasonable to assume that the Roman authorities employed native potters who had worked at the kiln site before 70 CE. This conclusion receives additional support by the fact that the Jewish kiln site ceased to function yet was not destroyed (Berlin 2005, 33). In Stratum IV a change occurred. Ethnic indicators can be seen in the increase of shape categories defined as 'military' style, suggesting that military potters began to work, in two coins minted in Rome during the years 98-138, a coin with a countermark of the Tenth Legion of the year 95/95 CE, pointing to ethnically Roman users, in the stamping

[1] Jewish Quarter excavations: In Area F 6 a cistern was filled with utilitarian legionary ceramics. Three complete vessels in Eastern Sigillata A, Hayes Forms 58 or 60, were attributed to the destruction by the Romans, Avigad 1983, Ill. 233 left and lower right, yet are of a post-70 CE date. For the Temple Mount excavations see Rosenthal-Heginbottom 2011.

[2] The details will be presented in the final excavation report, Rosenthal-Heginbottom in preparation. I thank the excavators for permission to summarize the results in the present article.

of roof-tiles and in the construction of a building related to the Tenth Legion. It is tempting to relate the archaeological evidence to the historical events of the Diaspora unrest in Egypt, the Cyrene and Cyprus in the years 115-117 CE. In a recent study M. Pucci Ben Zeev suggested that when general Lusius Quietus was sent from the Parthian front to Judea in 117 CE to serve as the new governor of the province, this event caused instability yet no serious uprising (2005, 219-257). Even though we lack historical information that Jews of Jerusalem were involved, the unrest might have caused Trajan's successor Hadrian, in 117 governor of Syria, to embark on a change in the policy towards the Jewish population in Jerusalem and Judea, culminating in the city's founding as a colony and its rebuilding as a Roman urban centre (see Weksler-Bdolah forthcoming).

Distribution always reflects market circuits and the restricted distribution of the legionary products in Jerusalem and Judea suggests that at the beginning they were not sold to the civilian population. Two reasons are possible. Firstly, religious Jews would neither buy nor make use of them and after the Bar Kokhba Revolt they were not permitted to live in the area. Secondly, the production was not intended for a wider distribution. Ultimately, when the markets were opened to the civilian population rilled-rim and arched-rim basins as well as application-decorated vessels and Jerusalem Rouletted bowls set the ceramic trend for the next centuries[3].

In conclusion it can be said that with the arrival of the Romans the local ceramic production of tableware and utilitarian ware underwent changes characterised by innovations in the repertoire of shapes (deep and shallow bowls and basins, mortaria), surface treatment (frilling and incised band- and wavy-line combing) and decorative techniques and designs (mould-made and application-decorated pottery).

Bibliography

Arubas, B. / Goldfus, H. (eds.). 2005. Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kilnworks, and a Byzantine Monastic Complex. The Pottery and Other Small Finds (Journal of Roman Archaeology, Supplementary Series 60). Portsmouth, RI.

Avigad, N. 1983. Discovering Jerusalem. Nashville, TN.

Ben-Dov, M. 1985. In the Shadow of the Temple. The Discovery of Ancient Jerusalem. New York.

Berlin, A. 2005. Pottery and pottery production in the Second Temple period. In: Arubas, B. / Goldfus, H. (eds.). Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kilnworks, and a Byzantine Monastic Complex. The Pottery and Other Small Finds (Journal of Roman Archaeology, Supplementary Series 60). Portsmouth, RI. 29-60.

Berry, J. 2007. The Complete Pompeii. London.

Cat. Speyer 2006. Geraubt und versunken im Rhein: Der Barbarenschatz. Stuttgart.

Clermont-Ganneau, C. 1899. Archaeological Researches in Palestine during the Years 1873-1874, I. London. 49-76.

Cohen-Weinberger, A. / Rosenthal-Heginbottom, R. forthcoming. Studying Local and Imported Ceramics through Typological and Petrographic Analysis. In: Weksler-Bdolah, S. forthcoming. The Western Wall Plaza Excavations: The Eastern Cardo (IAA, Reports). Jerusalem.

Dunbabin, K.M.D. 2003. The Roman Banquet. Images of Conviviality. Cambridge.

Ettlinger, E. / Hedinger, B. / Hoffmann, B. / Kenrick, P. M. / Pucci, G. / Roth-Urbi, K. / Schneider, G. / Schnurbein, S. von / Wells, C. M. / Zabehlicky-Scheffenegger, S. 1990. Conspectus formarum terrae sigillatae italico modo confectae. Bonn.

Filtzinger, P. 1972. Novaesium V. Die römische Keramik aus dem Militärbereich von Novaesium (etwa 25 bis 50 n. Chr.) (Limesforschungen 11). Berlin.

Fischer, M. / Isaac, B. / Roll, I. 1996. Roman Roads in Judea II: The Jaffa-Jerusalem Roads (British Archaeological Reports International Series 628). Oxford.

Gibson, S. 1997. Officers and Gentlemen. Men of the PEF. – Eretz Magazine, 19-25.

Gibson, S. 2011. The Excavations at the Bethesda Pool in Jerusalem. Preliminary Report on a Project of Stratigraphic and Structural Analysis (1999-2009). – Proche-Orient Chrétien, 17-44.

Goren, A. 2005. Appendix: the pottery technology. In: Arubas, B. / Goldfus, H. (eds.). Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kilnworks, and a Byzantine Monastic Complex. The Pottery and Other Small Finds (Journal of Roman Archaeology, Supplementary Series 60). Portsmouth, RI. 193-194.

Hayes, J W. 1984. Greek, Roman, and Related Metalware in the Royal Ontario Museum. A Catalogue. Toronto.

[3] The Jerusalem Rouletted bowls were not produced at the legionary kiln site, but in different, so far unidentified workshops in the Jerusalem area at the earliest during the reign of Marcus Aurelius (161-180 CE) or even after 200 CE, see Magness 1993, 153-156, 185-188; 2012, 282 and Rosenthal-Heginbottom 2011, 210-212, 215, 226.

Hershkovitz, M. 2005. The pottery of the late 1st and 2nd c. A.D. from the 1949 excavations. In: Arubas, B. / Goldfus, H. (eds.). Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kilnworks, and a Byzantine Monastic Complex. The Pottery and Other Small Finds (Journal of Roman Archaeology, Supplementary Series 60). Portsmouth, RI. 283-296.

Kofsky, A. 1998. Mamre: A Case of a Regional Cult? In: Kofsky, A. / Stroumsa, G.G. (eds.). Sharing the Sacred. Religious Contacts and Conflicts in the Holy Land, First-Fifteenth Centuries CE. Jerusalem. 19-30.

Levi, D. / Beeri, R. 2010. Excavations in the Crown Plaza Hotel (Binyanei Ha'uma). In: Amit, D. / Peleg-Barkat, O. / Stiebel, G.D. (eds.). New Studies in the Archaeology of Jerusalem and its Region. Collected Papers Volume IV. Jerusalem. 119-129 (Hebrew).

Lindros Wohl, B. 2005. Darkness and light – Lamps from a tunnel at Isthmia, Greece. In: Chrzanovski, L. Lychnological Acts 1. Actes du 1er Congrès international d'études sur la luminaire antique (Nyon-Genève, 29.9.-4.10.2003) (Monographies Instrumentum 31). Montagnac. 211-216.

LIMC – Lexicon Iconographicum Mythologiae Classicae. Zurich-Munich 1981-2009.

Mader, E. 1957. Mambre. Die Ergebnisse der Ausgrabungen im Heiligen Bezirk Ramet el-Halil in Südpalästina. Freiburg im Breisgau.

Magness, J. 1993. Jerusalem Ceramic Chronology circa 200-800 CE. Sheffield.

Magness, J. 2003. A Mithraeum in Jerusalem? In: Bottini, G.C. / Di Segni, L. / Crupcala, L.D. (eds.). One Land – Many Cultures. Archaeological Studies in Honour of Stanislao Loffreda OFM (Studium Biblicum Franciscanum Collectio Maior 41). Jerusalem. 163-171.

Magness, J. 2005. The Roman legionary pottery from Binyanei Ha'uma. In: Arubas, B. / Goldfus, H. (eds.). Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kilnworks, and a Byzantine Monastic Complex. The Pottery and Other Small Finds (Journal of Roman Archaeology, Supplementary Series 60). Portsmouth, RI. 69-191.

Magness, J. 2011. Aelia Capitolina: A Review of Some Current Debates about Hadrianic Jerusalem. In: Galor, K. / Avni, G. (eds.). Unearthing Jerusalem: 150 Years of Archaeological Research in the Holy City. Winona Lake, Indiana. 313-324.

Magness, J. 2012. Late Roman and Byzantine Pottery from the Cardo and the Nea Church. In: Gutfeld, O. Jewish Quarter Excavations in the Old City of Jerusalem conducted by Nahman Avigad, 1969-1982. Vol. V: The Cardo (Area X) and the Nea Church (Areas D and T). Final Report. Jerusalem. 282-300. (Republication of pp. 119-152 in Magness 1993).

Mazar, E. 2002. A Complete Guide to the Temple Mount Excavations. Jerusalem.

Mazar, E. / Peleg, O. 2003. The Pottery Assemblage in the Large Byzantine Structure in Area XV. In: Mazar, E. The Temple Mount Excavations in Jerusalem 1968-1978 Directed by Benjamin Mazar. Final Reports Volume II : The Byzantine and Early Islamic Periods (Qedem 52). Jerusalem. 86-103.

Meylan-Krause, M.-F. 1999. Des goûts et des couleurs, céramiques gallo-romaines (Documents du Musée romain d'Avenches 6). Avenches.

Oliver Jr., A. 1977. Silver for the Gods: 800 Years of Greek and Roman Silver (The Toledo Museum of Art). Toledo, OH.

Plouin-Fortune, C. 2004. Les vases culturels découverts dans le mithraeum de Biesheim (Haut-Rhin). In: Rivet, L. (ed.). Actes du Congrès de la SFECAG, tenu à Vallauris (20-23 mai 2004). Marseille. 268-276.

Pucci Ben Zeev, M. 2005. Diaspora Judaism in Turmoil, 116/117 CE: Ancient Sources and Modern Insights. Leuven.

Rahmani, L.Y. 1991. Two Byzantine Wine Presses in Jerusalem. – 'Atiqot 10 (English Series), 95-110.

Rahmani, L. Y. 1994. A Catalogue of Jewish Ossuaries in the Collections of the State of Israel. Jerusalem.

Rosenthal-Heginbottom, R. 2005. The 1968 excavations. In: Arubas, B. / Goldfus, H. (eds.). Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kilnworks, and a Byzantine Monastic Complex. The Pottery and Other Small Finds (Journal of Roman Archaeology, Supplementary Series 60). Portsmouth, RI. 229-282.

Rosenthal-Heginbottom, R. 2008. The Material Culture of the Roman Army. In: The Great Revolt in the Galilee (Hecht Museum, University of Haifa, Catalogue # 28). Haifa. 91*-107*.

Rosenthal-Heginbottom, R. 2011. The Pottery Assemblage from Locus 6031. In: Mazar, E. The Temple Mount Excavations in Jerusalem 1968-1978 Directed by Benjamin Mazar. Final Reports Volume IV: The Tenth Legion in Aelia Capitolina (Qedem 52). Jerusalem. 195-227.

Rosenthal-Heginbottom, R. 2014. Dating the Jerusalem Rilled-Rim and Arched-Rim Basins. In: Poulou-Papadimitriou, N. / Nodarou, E. / Kilikoglou, V. (eds.). LRCW4, Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean, Archaeology and archaeometry. The Mediterranean: a market without frontiers (British Archaeological Reports International Series 2616 (I). Oxford. 657-664

Rosenthal-Heginbottom, R. forthcoming. The Ceramic Finds from the Eastern Cardo: Catalogue and Discussion. In: Weksler-Bdolah, S. forthcoming. The Western Wall Plaza Excavations: The Eastern Cardo (IAA, Reports). Jerusalem.

Rosenthal-Heginbottom, R. in preparation. The Ceramics from Strata V-III. In: Levi, D. / Beeri, R. The Crowne Plaza Excavations (IAA, Reports). Jerusalem.

Saller, S. 1957. Excavations at Bethany. Jerusalem.

Schmid, D. 1991. Die Schlangentöpfe aus Augst und Kaiseraugst (Forschungen in Augst 11). Augst.

Schreiber, T. 1894. Die alexandrinische Toreutik. Leipzig.

Skupinska-Løvset, I. 1978. The Ustinow Collection. Terracottas. Oslo / Bergen / Tromsö.

Tassinari, S. 1993. Il vasellame bronzeo di Pompei. Rome.

Taxel, I. 2007. Application-Decorated Bowls: A Cultural Characterisation of the Pagan and Christian Population of Jerusalem in the Late Roman and Byzantine Periods. – Israel Exploration Journal 57, 170-186.

Tsafrir, Y. / Di Segni, L. / Green, J. 1994. Tabula Imperii Romani. Iudae • Palaestina. Eretz Israel in the Hellenistic, Roman and Byzantine Period. Maps and Gazetteer. Jerusalem.

Tushingham, A.D. 1985. Excavations in Jerusalem 1961-1967. Volume I. Toronto.

Weksler-Bdolah, S. 2014. The Foundation of Aelia Capitolina in Light of New Excavations Along the Eastern Cardo. – Israel Exploration Journal 64, 38-62.

Weksler-Bdolah, S. forthcoming. The Western Wall Plaza Excavations: The Eastern Cardo (IAA, Reports). Jerusalem.

Renate Rosenthal-Heginbottom PhD
Am Strohberg 7
DE-24991 Grossolt
renate34@gmx.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Story of Dacian Pots and Dacian Cups Development through Prehistory and History

Milica TAPAVIČKI-ILIĆ

Dacian pottery is well known to anyone who ever came across Late Iron Age and Roman pottery at the Balkan part of the Danubian Limes and also in the inland areas. It includes two most common shapes – Dacian cups and Dacian pots.

Conical one- or two-handled cups have a simple design and even simpler fabrics (**fig. 1**). Despite their name in many typologies, they were most likely no cups at all, but lamps. They were very popular among the Dacians and also among their neighbors, like the Scordisci, who also used them as lamps.

The design of Dacian pots is not much different from that of the cups (**fig. 2**). They were simple, cylindrical or oval, with a flat base, also of simple fabrics. During the Late Iron Age, they were not used in Dacia only, but also in the neighboring areas.

The so far westernmost finds of Dacian pottery were discovered in the Vinkovci area, actually in the Bosut valley (Јовановић 1991, 155). From Bačka, only occasional finds are known and none of them from a systematic archaeological excavation. The northern border of the spreading area of this type of pottery is estimated at the Danube valley (towards Hungary and Slovakia), and the Tisa valley.

The finds of Dacian pots and cups from the proto-historical period, especially from the middle of the 1st century BC, are understood as proof of ethnical presence of the Dacians within the Scordiscian settlements. Already at the end of the 2nd century BC, the Dacians and the Scordisci were allies against the Roman leader *Minutius Rufus*. During the 60s BC, under the leadership of *Boirebista*, they were allies against the Boii and the Taurisci (Сладић 1991, 144). At that time, the Dacian state extended towards the west and northwest. The finds of this kind of pottery in Scordiscian settlements next to pottery kilns indicate that it was produced locally, together with Scordiscian wheel-thrown pottery of a much higher quality (Јовановић 1979, 10-11, 13; Сладић 1997, 60; Dizdar 2001, 90).

The site Gomolava near Hrtkovci is a good example showing Dacian presence at the site itself. There, it was confirmed that the Dacian cups were in use during the entire phase VI, from its sub-phase VI-a, to the end of the sub-phase VI-c. Expressed in absolute dates, that was the period from the second half of the 2nd to the first half of the 1st century BC. The reason for such a long usage of Dacian cups can actually be their way of usage itself – as lamps. From this site, from the youngest phase of the Late Iron Age settlement (phase VI-c), there is a group find of Dacian cups (Јовановић 1971, 132, T. 5/1-4).

Finds of Dacian cups are known from the following Late Iron Age settlements (**Map**):

Gomolava (Jovanović / Jovanović 1988, 11),

Plavna (Јовановић 1988-1989, 59-61, T. 1/7, T. 4/2) and Orašje near Dubravica (Јацановић / Ђорђевић 1989-1990, 29, T. 86/2, 3) in the Požarevac county,

Voganj-Bare in Srem (Brukner 1986, 78),

Ruma (Majnarić-Pandžić 1970, 41, T. 30/3),

Židovar (Сладић 1991, 139, сл. 4/1, сл. 5/9, 144, сл. 9/1; Сладић 1997, 60-61, сл. 48),

Kale-Krševica (finds among grouped pottery from pits) (Popović 2011, 152, pottery groupings A/02, B/02, 153, pit 3/03, 154, pits 5/05, 6/05, fig. 20/13, 14, fig. 21/7). They date into the period of the 2nd and the 1st century BC (Popović 2011, 158).

From the area of the Iron Gates, there are also several finds of Dacian cups:

Ljubičevac – the upper island (Поповић 1984a, 133, сл. 122/6, 8),

Ljubičevac – the river-bank (Поповић / Мркобрад 1986, 319, сл. 8/13),

Velesnica (Васић 1986, 283, сл. 27, 4,5).

Outside the territory of modern Serbia:

Stari Mikanovci, the Vinkovci county (Dizdar 2001, 90, 91),

Esztergom-Búbánatvölgy in Hungary (Kelemen 1987, 181),

Gellérthegy-Tabán in Hungary (Bónis 1969, 189, sl. 17/23, 34/19, 42/23),

Chotin in Slovakia (Kuzmová 1980, 330, sl. 10/4),

Krivina, Ruse in Bulgaria (Vagalinski 2011, 224, fig. 5/2, 5). These finds of Dacian pots come from pottery kiln and they date at the very end of the 1st century BC and at the beginning of the 1st century AD (Vagalinski 2011, 224, 226).

Dacian pots were also almost exclusively found within Late Iron Age settlements. At Gomolava, this pottery type is determined as type 2. Same as cups, Dacian pots are found through the entire phase VI (Jovanović / Jovanović 1988, прилог 1e, T. 19, 12). During the research of the unfortified settlement Voganj-Bare, pots of this type were excavated as well (Brukner 1986, 78, сл. 4). Some finds are also known from the excavation of Čurug (Information kindly shared by my colleague S. Trifunović, Ph.D. The material is not published yet).

From the Iron Gates area, finds of Dacian pots are known from the following sites (**Map**):

Ljubičevac – the upper island (Поповић 1984a, 133, сл. 123/8),

Ljubičevac – the river-bank (Поповић / Мркобрад 1986, 318, сл. 7/8-13, сл. 9/2,3),

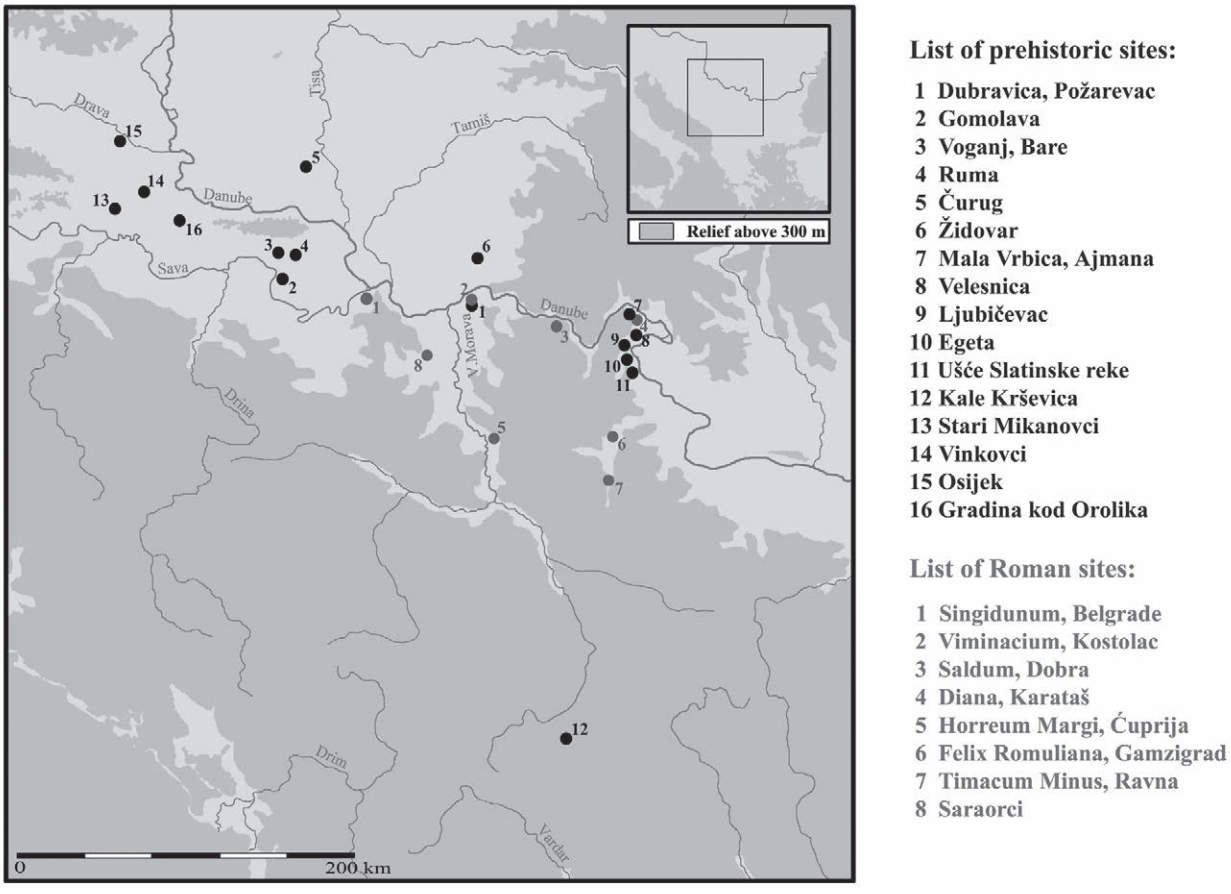
Egeta (Поповић 1984b, 151, сл. 138/7),

Velesnica (Васић 1986, 283, сл. 27/3,6),

From Gradina near Orolik (Majnarić-Pandžić 1970, 33, T. 10/4), as well as from Damića gradina near Vinkovci (Dizdar 2001, 80), there are also finds of Dacian pots.

As for the other Late Iron Age settlements from the Carpathian basin, finds of Dacian pots are known from Gellérthegy-Tabán. Their presence here is considered as a consequence of a brief Dacian influence during *Boirebista*'s reign in the midle of the 1st century BC (Bónis 1969, 189, sl. 12/24, 22/7, 88/10, 93/18, 26). Similar finds from the territory of Hungary are known from the sites of *Esztergom-Héviz* (Kelemen 1987, 187, T. 6/11) and Ostffyasszonyfa-Földvár (Károlyi 1985, 397, sl. 8/6).

From the territory of the Czech Republic, finds of Dacian pots are known from the *Hradište* settle-



Map. Distribution of Dacian pottery in prehistory and in Roman times (map by V. Ilić)

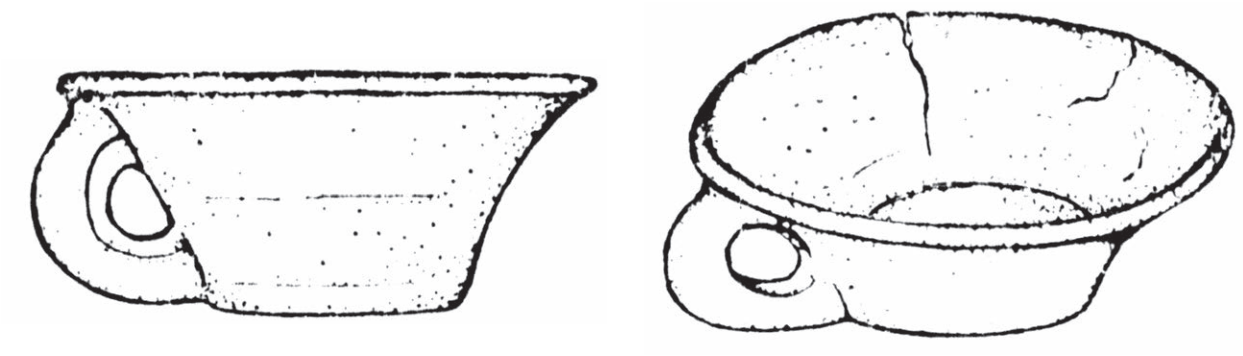


Fig. 1. Dacian cups

ment, more precisely from the lower settlement of this *oppidum* (Motyková-Šneiderová 1962, 153, sl. 9/7).

Unlike Dacian cups, there are several finds of Dacian pots from graves (**Map**).

From the area of the Iron Gates, one such find is known from Mala Vrbica-Ajmana (grave number 2), which dates into the second half of the 1st century BC and belongs to a female person (Сталио 1986, 36).

From the site Ušće of the Slatinska river, from grave number 2, also ascribed to a female person (after the find of a belt-buckle of the „Laminci" type), there is a find of a Dacian pot (Јовановић et al. 1986, 387, 390, сл. 3).

Other find comes from a devastated grave in the cemetery of Donji grad in Osijek (Spajić 1962, 44, T. 21/27).

After the Roman occupation, both Dacian pots and Dacian cups continue to be used and in some cases even become parts of funeral contexts.

Dacian pots in settlements (**Map**):

Singidunum (Belgrade), from the end of the 1st to the beginning of the 3rd century (Nikolić-Đorđević 2000, 79-80, тип 2/34),

Saldum (Dobra), the end of the 2nd and the beginning of the 3rd century (Jeremić 2009, 56-58, fig. 36, Cat. # 55-57),

Diana (Karataš), the 1st and the 2nd century (Јевремовић 1987, 61, тип 2/9),

Horreum Margi (Ćuprija), the 2nd and the 3rd century (Tapavički-Ilić 2010, 979-982; Petković / Tapavički-Ilić 2011, 260, 265, Tabelle 1, T. 2, Abb. 10-12).

According to quantity and frequency of Dacian pots, it can be presumed that they were used not only for cooking and preparing food, but also for depositing supplies i.e. as containers. On the finds from Ćuprija for example, there are often no traces of burning or usage over fire, and therefore it

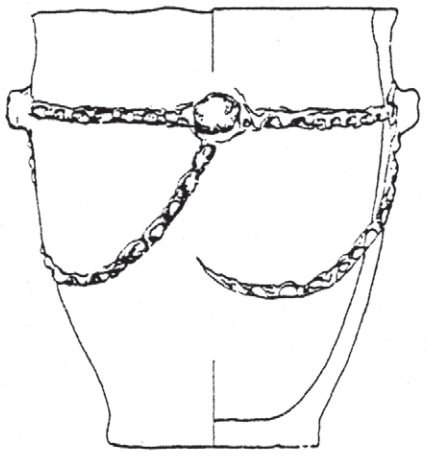


Fig. 2. Dacian pot

is presumed that they were used as containers. Local inhabitants most likely used to bring their products, like milk or other diary products, into the military camp in such pots (Tapavički-Ilić 2010, 981).

Finds of Dacian pots in Roman graves (**fig. 3** and **4**):

Viminacium (Kostolac), 2nd century (Tapavički-Ilić 2008, 218),

G-2931 – Pećine

G-540 – Više grobalja, grave of an infant, two golden ear-rings.

G-1101 – Više grobalja, grave of an infant, seven shells

G-1135 – Više grobalja, grave of an infant

G-1544 – Više grobalja

G-1884 – Više grobalja

G_1-93 – Više grobalja, the 1st or the beginning of the 2nd century (Зотовић / Јордовић 1990, 88, T. 106, 4, 5).

G_1-187 – Više grobalja, the end of the 1st century (Зотовић / Јордовић 1990, 98-99, T. 158, 5). The grave belonged to an adult female person. Other grave-goods consisted of a bone needle, two *balsamaria*, a coin and an oil-lamp.

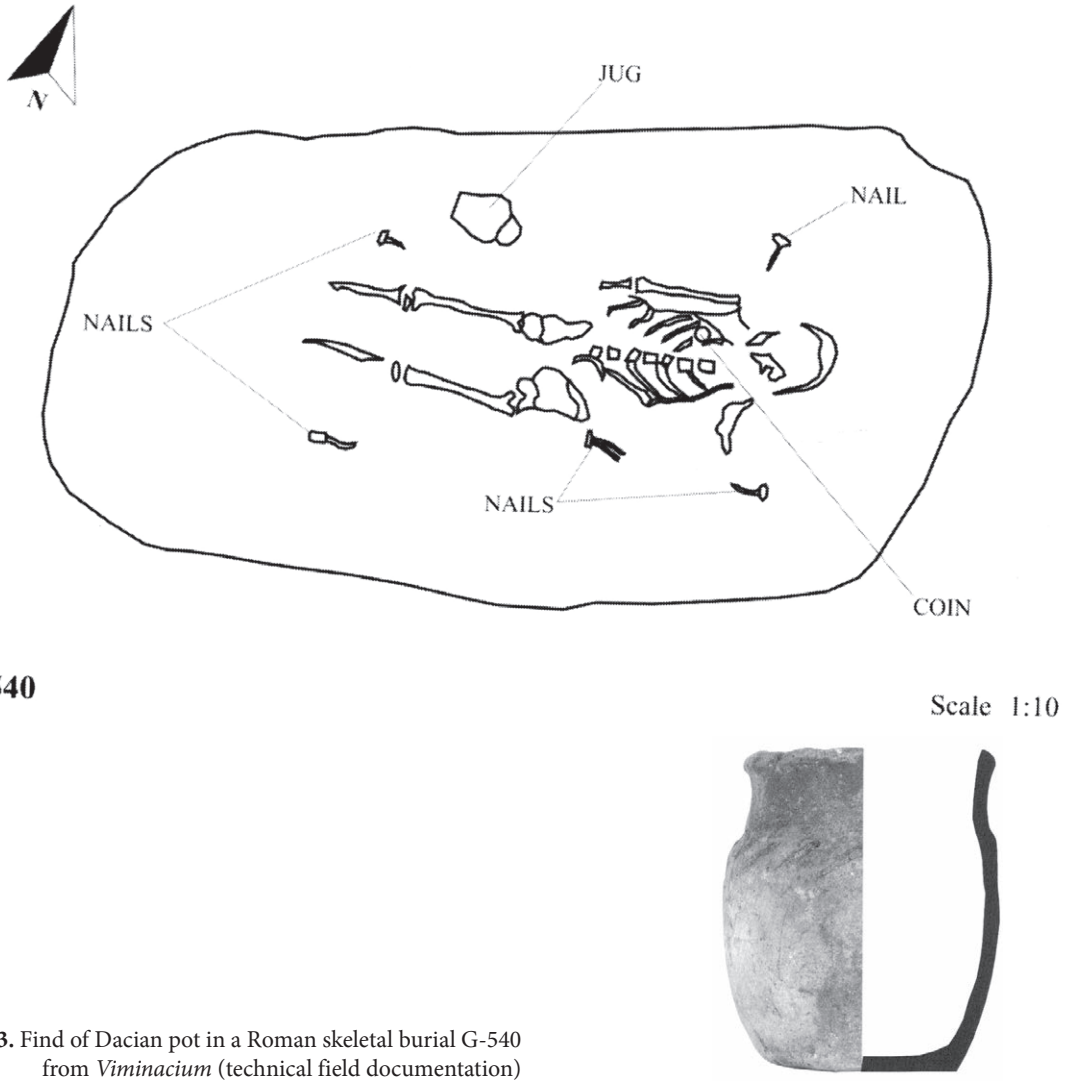


Fig. 3. Find of Dacian pot in a Roman skeletal burial G-540 from *Viminacium* (technical field documentation)

G_1-396 – Više grobalja, the second half of the 2nd century (Korać / Golubović 2009, 136, 137, 7). Other grave-goods consisted of a silver mirror, a bone needle, a bronze needle, a knife, two coins, a beaker and another pot.

G_1-688 – Više grobalja, pyxis made of bronze tin

G_1-989 – Više grobalja

G_1-1089 – Više grobalja

G_1-1332 – Više grobalja, a bronze mirror, pincette, an oil-lamp with a rosette.

G_1-1406 – Više grobalja, a hinge fibula.

Finds of Dacian cups from Roman settlements (**Map**):

Singidunum (Belgrade), 2nd century (Nikolić-Đorđević 2000, 169, тип 9/28),

Saldum (Dobra), military camp, from the Flavian period to the beginning of the 2nd century (Jeremić 2009, 57-58, Fig. 36, Cat. # 69-71),

Diana (Karataš), military camp, the 1st and the 2nd century (Јевремовић 1987, 67, тип 8/3),

Horreum Margi (Ćuprija), Roman military camp and a settlement, the 2nd and the 3rd century (Book about *Horreum Margi* (Ćuprija) in preparation, types 4/1 and 4/2),

Saraorci (to the west from Morava, near Majdan), settlement from the 1st century AD (Popović 2000, 85-86, Pl. 2/11),

Višicina bašta in the village of Gamzigrad (mining area), the end of the 1st and the beginning of the 2nd century (Сладић 2005, 214, 220, T. 7/2).

Timacum Minus (Ravna), Roman military camp and a settlement, the beginning of the 1st century (Петровић / Јовановић 1997, 104, кат. бр. 1).

Finds of Dacian cups from graves (**fig. 5**):

Viminacium (Kostolac), 2nd century, the Pećine necropolis, a cremation of an infant, G_1-472 (C-5728) (other grave-goods consisted of a glass *guttus* and a glass *balsamarium*).

From the same necropolis, finds of Dacian cups are known from the sacrificial area.

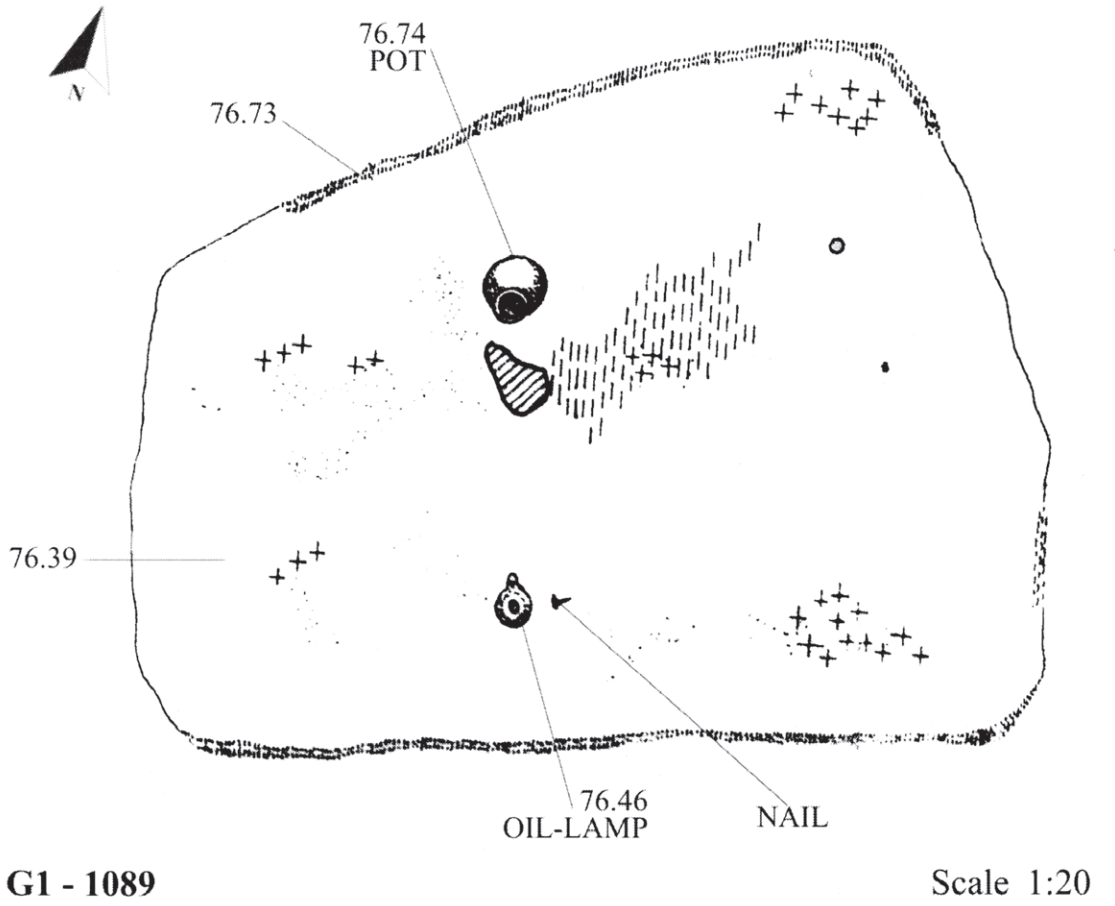


Fig. 4. Find of Dacian pot in a Roman cremation burial G_1-1089 from *Viminacium* (technical field documentation)

While studying grave inventories from the graves listed above, it was easily noticed that there were other grave-goods according to which it was not possible to determine the gender of the deceased. In most cases, next to the deceased, there was some pottery, sometimes a coin and an oil-lamp. Still, it should be mentioned that in none of the graves with a Dacian pot or a cup, were there grave-goods typical for a male burial. In some of the graves there were grave-goods typical for female individuals, like a pincette, bronze mirrors, a *pyxis* or jewelry. Dacian pottery was also discovered in several graves of infants, although in such cases, the main indicator of an infant grave was the ostheological material. Only the cremation of an infant G_1-472 from the Pećine necropolis was determined as such according to the accompanying *guttus*.

Since *Viminacium* became a *municipium* during Hadrian's reign, veterans and their families, the inhabitants of this city, were given the status of Roman citizens (Ферјанчић 2002, 162). The graves ascribed to female persons could have belonged to female membes (wives, sisters, daughters) of such families. The objects of cult, like oil-lamps or *balsamaria*, are typical for graves of Italic newcomers or highly Romanized natives. This is why here one could be dealing with members of such a social group.

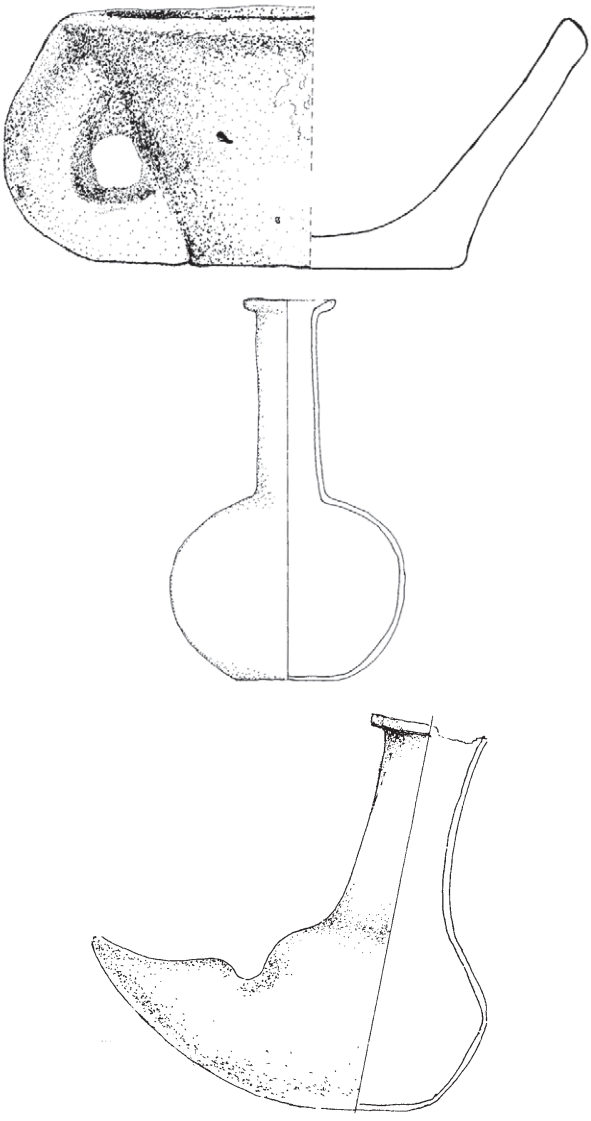


Fig. 5. Find of Dacian cup in a Roman cremation burial G_1-472 from *Viminacium* (technical field documentation)

Finally, persons who were burried with or within a Dacian pot only, most likely belonged to the provincial inhabitants of *Moesia Superior*. Vessels indicating pre-Roman tradition can be brought in connection with marginal social groups. The lack of grave-goods or very few of them can indicate graves of poor people, actually people whose families could not afford grave-goods. It is even possible that such individuals were burried at the expense of the community.

Conclusion:

During the prehistoric period, the Dacian pottery reached its peak and it was spread in the wide area of the Danubian valley and the Carpathian basin. The finds of this pottery from the prehistoric times are usually connected to settlements, while only a limited amount of Dacian ware, pots exclusively, was discovered in graves.

After the Roman occupation, Dacian cups and pots remained in usage, but with a slightly altered function. From that period onwards, Dacian pots can be found in settlements and in military camps, as well as in graves, as grave-goods or as urns. Finds from settlements and military camps are considered containers, in which local population delivered their food products.

Dacian cups are also known from Roman settlements and military camps, possibly as a kind of still present, primitive lamp variant. The most interesting case is a find of a Dacian cup in a grave of an infant from the *Viminacium* necropolis of Pećine. According to the author's opinion, this probably, more than anything else, proves that these objects were lamps.

If Dacian pottery is further considered from the aspect of funerary practice, it can be concluded that in pre-historical, as well as in historical period, it was deposited into graves that belonged either to female persons or infants. During the prehistoric period, next to the Dacian pots from the site Ušće Slatinske reke, there was a find of a "Laminci" belt-buckle, while the grave from Ajmana can also be ascribed to a female individual. In Roman times, considering graves in which a gender determination was possible, it also supports the theory that Dacian pottery was deposited in female graves.

Bibliography

Bónis, É. 1969. Die spätkeltische Siedlung Gellérthegy-Tabán in Budapest (= Archaeologia Hungarica 47). Budapest.

Brukner, O. 1986. Voganj-Bare, kasnolatensko naselje. – Arheološki Pregled 27, 77-78.

Dautova-Ruševljan, V. / Brukner, O. 1992. Gomolava, rimski period. Novi Sad.

Dizdar, M. 2001. Latenska naselja na vinkovačkom području. Zagreb.

Jeremić, G. 2009. Saldum. Roman and Early Byzantine Fortification. Archaeological Institute. Cahiers de Portes de Fer, Monographs no. 6. Belgrade.

Jovanović, B. / Jovanović, M. 1988. Gomolava, naselje mlađeg gvozdenog doba. Beograd, Novi Sad.

Károlyi, M. 1985. The Late Hillfort at Ostffyasszonyfa-Földvár majop (Vac county). – Acta Archaeologica Academiae Scientiarum Hungaricae 37, 391-418.

Kelemen, M. 1987. Komбrom county. In: Corpus of Celtic Finds in Hungary, vol. 1. Budapest. 179-230.

Korać, M. / Golubović, S. 2009. Viminacium 2, Više Grobalja. Beograd.

Kuzmová, K. 1980. Nížinné sídliská z neskorej doby laténskej v strednom Podunajsku. – Slovenská Archeológia 28/2, 313-340.

Majnarić-Pandžić, N. 1970. Keltsko-latenska kultura u Slavoniji i Srijemu. – Akta Muzeja Slavonije 2.

Motyková-Šneiderová, K. 1962. Osada pod Hradištem u Stradonic. – Acta Praehistorica 53/1, 137-154.

Nikolić-Đorđević, S. 2000. Antička keramika Singidunuma, oblici posuda. – Singidunum 2, 11-244.

Petković, S. / Tapavički-Ilić, M. 2011. Römerzeitliche Keramik aus dem nordöstlichen Turm der Römerstadt Horreum Margi. – Старинар 61, 251-273.

Popović, P. 2011. Late Iron Age ritual pits at Kale-Krševica. In: Guštin, M. / Jevtić, M. (eds.). The Eastern Celts – the Communities between the Alps and the Black Sea. Koper – Beograd. 151-162.

Spajić, E. 1962. Nalazište mlađeg željeznog doba s terena Osijeka. – Osiječki Zbronik 8, 37-55.

Tapavički-Ilić, M. 2010. Dacian Ware at Horreum Margi. In: LRCW 3, Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean, Archaeology and Archaeometry, Comparison between western and eastern Mediterranean. BAR International Series 2185 (2). Oxford. 979-982.

Tapavički-Ilić, M. 2008. Finds of Dacian Pots from the Roman Graves in Viminacium. In: Sorbu, V. / Ştefănescu R. (eds.). Proceedings of the 10th Colloquium of Funerary Archaeology. Funerary Practices in central and eastern Europe (10th century B.C. to 3rd century A.D.). Brăila – Braşov. 215-224.

Vagalinski, L. 2011. A new Late La Tene pottery kiln with a bread oven on the lower Danube (northern Bulgaria). In: Guštin, M. / Jevtić, M. (eds.). The Eastern Celts – the Communities between the Alps and the Black Sea. Koper – Beograd. 219-226.

Васић, Р. 1986. Извештај о ископавањима на праисторијском локалитету Велесница 1981-1982. године. – Ђердапске свеске 3, Cahiers des Portes de Fer 3, 264-285.

Зотовић, Љ. / Јордовић, Ч. 1990. Viminacium 1, некропола Више Гробаља. Београд.

Јацановић, Д. / Ђорђевић, А. 1989-1990. Вишеслојно праисторијско налазиште Орашје у Дубравици. – Viminacium 4-5, 7-80.

Јевремовић, Н. 1987. Керамика јужног и западног бедема локалитета Diana – Караташ. – Ђердапске свеске 4, Cahiers des Portes de Fer 4, 49-70.

Јовановић, А. / Кораћ, М. / Јанковић, Ђ. 1986. Ушће Слатинске реке. – Ђердапске свеске 3, Cahiers des Portes de Fer 3, 387-400.

Јовановић, Б. 1991. Скордисци и дако-гетска керамика Подунавља. – Зборник Филозофског факултета, сер. А, 17, 151-160.

Јовановић, Б. 1979. Значење дачке керамике на насељима Скордиска у Подунављу. – Старинар 28-29, 9-17.

Јовановић, Б. 1971. Насеље Скордиска на Гомолави (ископавање 1967-1971). – Рад Војвођанских Музеја 20, 123-141.

Јовановић, М. 1988-1989. Плавна – келтско утврђење. – Радови Војвођанских Музеја 31, 59-74.

Петровић, П. / Јовановић, С. 1997. Културно благо књажевачког краја – археологија. Београд.

Поповић, П. / Мркобрад, Д. 1986. Сондажна истраживања на локалитету Љубичевац – обала. – Ђердапске свеске 3, Cahiers des Portes de Fer 3, 308-328.

Поповић, П. 1984a. Љубичевац – горње острво. – Ђердапске свеске 2, Cahiers des Portes de Fer 2, 133-136.

Поповић, П. 1984b. Егета (извештај о археолошким истраживањима у 1980. години – праисторија). – Ђердапске свеске 2, Cahiers des Portes de Fer 2, 151-152.

Сладић, М. 2005. Вишицина башта – село Гамзиград: насеље позног латена у долини Црног Тимока. – Гласник Српског Археолошког Друштва 21, 211-222.

Сладић, М. 1997. Жидовар у млађе гвоздено доба. In: Жидовар, насеље бронзаног и гвозденог доба. Београд – Вршац. 53-67.

Сладић, М. 1991. Латенски слој на Жидовару, осврт на археолошка ископавања 1977. – Зборник Филозофског факултета, сер. А, Историјске науке 17, 137-150.

Сталио, Б. 1986. Праисторијско налазиште Ајмана у Малој Врбици. – Ђердапске свеске 3, Cahiers des Portes de Fer 3, 27-50.

Ферјанчић, С. 2002. Насељавање легијских ветерана. Београд.

Milica Tapavički-Ilić, Ph.D.
Archaeological Institute
Serbian Academy of Sciences and Arts
Knez Mihailova 35/IV
SRB-11000 Belgrade
mtapavic@sbb.rs
mtapavic@txf.de

Religion and Burial Rites

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Maryport Altars: New Research and New Conclusions

Ian HAYNES / Tony WILMOTT

The fort of Maryport (*Alauna*) occupies a high bluff to the north of the mouth of the river Ellen on the Cumbrian coast and is an integral part of the chain of forts, mile-fortlets and turrets that form a continuation down the coast of the Hadrian's Wall system. The forts of the Cumbrian Coast system, like those of Hadrian's Wall, are thought to have been added to the system shortly after it was constructed.

Excavation at Maryport has been limited, and a great deal of what is understood about the site's history is based on antiquarian, epigraphic and numismatic evidence (Wilson 1997). The fort itself survives as a prominent earthwork (Breeze 2006, 401-402; Biggins / Taylor 2004, fig. 5.7). Antiquarian excavation has revealed the headquarters building and internal bath-house. The only modern excavation within the fort explored a small area of barracks, showing occupation and multiple rebuilding from the second to the late fourth century (Jarrett 1976, 41). The fort plan has been further elucidated through geophysical survey, which has famously revealed the existence of an extensive extra-mural settlement in the fields to the north of the fort (Biggins / Taylor 2004; Biggins / Taylor / Strutt 2010) consisting of structures and enclosures mainly fronting onto and ranged along a street running from the northern gate of the fort and continuing to the north-west of the whaleback ridge upon which the site stands.

In the field of Roman frontier studies, and the study of Roman military religion, Maryport is best known for a large collection of military altars. Of twenty-two altars dedicated to Jupiter Optimus Maximus, seventeen were unearthed in 1870 following the chance discovery of one of the number during ploughing. The altars found in 1870 had been buried in pits. The discovery was reported in a paper by John Collingwood Bruce (1874) a few months after the event. The following year Bruce (1875, 429) reported that a total of 57 pits had been excavated, some of which were up to 2 m deep. This report was accompanied by a plan of 'The Diggings', which identified those pits in which altars or altar fragments had been found. The complete altars were found in nine pits, while altar fragments were found in a further seven pits. 'As well as the pits which contained altars there were others in which fragments of inscribed stones were found, and others which were quite empty' (Bruce 1875, 429). Caution needs to be used in interpreting these remarks; in the light of the discovery of altars and inscriptions the words 'quite empty' in Bruce's description may simply mean empty of epigraphy. As Daniels (1978, 26) pointed out 'no attention was paid to the general contents of the pits'.

A decade later, in 1880, excavation was carried out in the extramural settlement by Joseph Robinson (1881, 239-242), who principally concentrated on an area to the south of the 1870 altar find. Two stone buildings were found and were provisionally interpreted as temples, though other possible uses were considered. One was circular, 10.35 m in diameter with buttresses, the other a rectangular building 14 m x 7.6 m with a porch at the front (east) and a square apse at the end. To the east of the buildings two altars were recovered, one certainly, the second probably dedicated to I.O.M. They lay between the temple buildings and the site of the 1870 find, a distance of 120 m (Bellhouse 1992).

The Maryport I.O.M. altars were dedicated by successive commanders of the units stationed at the fort. They have often been interpreted as an annual series dedicated either at the beginning of January, when vows were made for the welfare of the emperor, or the anniversary of the emperor's accession (in

the case of Hadrian, this would have been August 11th). It seems that the first time a new commander dedicated he did so on behalf of himself and the unit, subsequently doing so on his own behalf. The texts of the altars are important in the study of the Roman army, of the careers of the individuals recorded and in the history of the Maryport garrison, and there is a substantial literature on the subject (but now see principally Breeze 1997). The altars record several military units, but the best represented is the *cohors I Hispanorum*, a milliary equitate cohort, of which six commanders are recorded. One of these, M Maenius Agrippa, is recorded in his home town of Camerinum in Italy as having entertained Hadrian himself. He is commemorated on four Jupiter altars (RIB 823-826), and the dates of his career are well enough known to establish that he was the first of the recorded commanders, arriving with the rank of tribune at Maryport in the 120s (Breeze 1997, 72) His probable successor, C Caballius Priscus, is also named on four altars (RIB 817-820). It appears that we have almost a full record of the commanders of this unit during its sojourn at Maryport (Breeze 1997, 77). Another well represented unit is *cohors I Baetasiorum* which was in garrison between the mid 160s to at least the early 180s (Breeze 1997, 81). Five altars of this cohort were found in 1870, three of which were dedicated by the prefect T. Attius Tutor (RIB 830, 837 and 842). In 1873 a further pit was discovered which yielded a dedication to I.O.M. Capitolinus (RIB 832) – the only such dedication from Britain – dating to the reign of Antoninus Pius. This slab is likely to have come from a building, probably a temple.

Since 1939 the Maryport altars have been widely assumed to have been dedicated on a parade ground, kept there, and buried at periodical *lustra* (Jarrett 1976, 5; Wenham 1939; Davies 1968, 79). This interpretation has been influential and parade grounds have been located through circular argument on the strength of the presence of such groups of altars (Wilmott 1997, 195; Baatz 1993, cited by Hill 1997, 95). The idea of a parade ground in this area at Maryport is clearly erroneous. A much better place for a parade ground lay to the south of the fort, the altar find was at the highest point of the site on a ridge, and geophysics gives no sign of a parade ground here

The discovery of groups of altars dedicated by *beneficiarii* and placed in rows in shrines at Osterburken in Germany (Schallmeyer 1983) and *Sirmium* in Serbia (Popovic 1989), combined with Robinson's temple finds in reasonable proximity to the buried altars, has led to the speculation that the altars were probably part of a shrine complex dedicated to Jupiter (Waldock 1995 cited in Breeze 1997, 69). At *Sirmium* the altars were found *in situ*, standing upright, and packed close together allowing weathering to take place on the tops. They stood in open courts, and were further protected from weathering by screens. Hill's (1997) recent reconsideration of the altars has stressed the similarity between the patterns of weathering on the altars at *Sirmium* and at Maryport, concluding that they were probably kept in much the same way. Hill's comprehensive review of the evidence for the burial of the altars concludes that burial took place in a single operation when the supposed shrine was abandoned in the third century and this area of the extra-mural settlement was reorganised (Hill 1997, 103). Despite the oft-repeated idea that the altars were buried ceremonially and reverently, Bruce's initial description of the way in which the altars were deposited does not appear to bear this idea out. He describes 'marks of haste.... lying diagonally ... as if hurriedly thrown in.... portions of the capitals have been broken off the altars, apparently with the force with which they have been projected into their places...' (Bruce 1874, 179). As Hill (1997, 101) has noted, 'This does not carry the signs on "honourable burial", but rather the disposal of unwanted items'.

The emerging doubt concerning the context of the altars prompted the initiation of a new project funded by the Trustees of the Senhouse Museum and Newcastle University with access granted by Hadrian's Wall Trust. The work was carried out by Newcastle University under Ian Haynes (Project Director) and Tony Wilmott (Site Director). The purpose of the project was to establish the archaeological context of the altars, in order better to understand and explain the collection. Additionally, the methods of our archaeological predecessors were to be investigated and evaluated.

Further geophysics was carried out to supplement the poorly-located Bruce sketch-plan. Although this work located few pits, it did identify a curvilinear ditch, which apparently defined an enclosure in the area of pits. The combination of the Bruce plan and the geophysics guided the location of an area excavation which took place over two summer seasons in 2011 and 2012.

The earliest features were a scatter of shallow gullies and post-holes and a cobbled surface, representing non-intensive Roman occupation. Plough damage and the loss of top-soil which had been washed down-slope, meant that these shallow features were

poorly preserved. Despite this it was possible to determine that the curvilinear ditch noted on the geophysical survey was cut through these earlier features. The ditch contained Roman pottery including Crambeck parchment ware – the latest Roman pottery found in the area, dating to 370+. Also from the primary fill of the ditch came a fragment of altar which prompted an association between the ditch and the 'altar pits'. In fact it was demonstrated that this ditch had no clear spatial relationship with the pits, and was earlier in date than at least two of them.

The pits were difficult to excavate because of the earlier disturbance. Careful excavation allowed an assessment of the methods of our Victorian predecessors. Two pits were excavated around naturally occurring glacial erratic blocks suggesting that sounding rods had been used to probe for stone beneath the surface. When stone was encountered a pit was dug, and was then back-filled when the stone was found to be of natural origin. Bruce recorded extensive trenching, and narrow spade-cuts were found confirming this. This trenching had led to the discovery of ancient pits, which had then been partially excavated, but not all of these were ancient features. Two deep pits had been cut into the fill of an earlier antiquarian trench, for example. A row of ancient pits had been followed by an exploratory hole which found only undisturbed natural clay. At least some of the pits planned by Bruce, therefore, were not ancient. His plan should be regarded simply as a plan of Victorian sondages.

Despite these false positives, a total of sixty-four ancient pits were located and excavated by the Maryport Project team. The vast majority of these

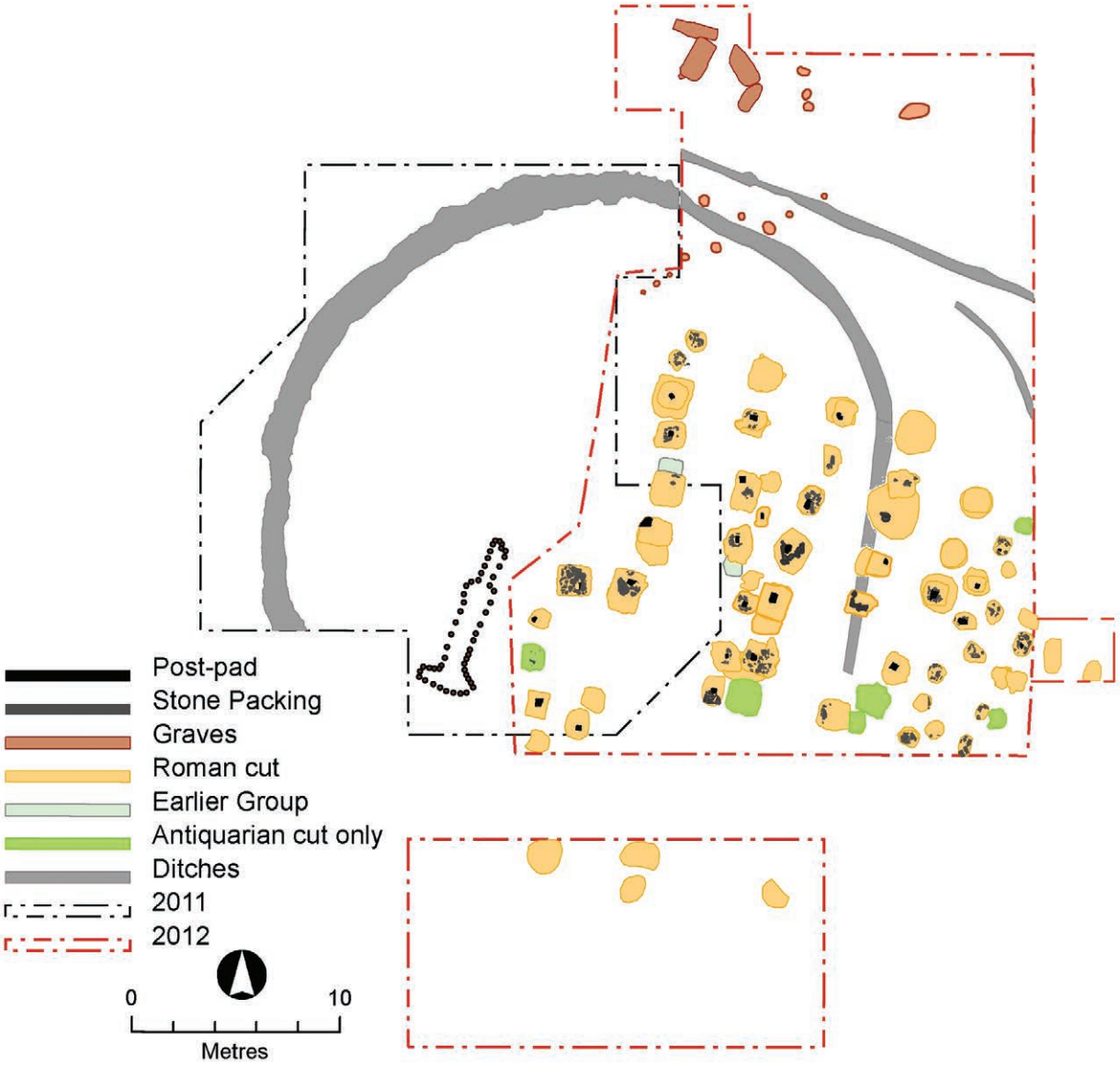


Fig. 1. Composite plan showing the location of pits and ditches as unearthed in the 2011/2012 seasons

had been disturbed to some extent, ranging from limited exploration to total excavation in the nineteenth century. Notwithstanding this, very few had been totally excavated by our predecessors, and elements of original Roman filling were found in most.

The features are most easily summarised as falling into ten rows, aligned more-or-less north-south. These were not parallel, and in three cases they converged. Furthermore, it is important to emphasise that individual rows did not necessarily follow a straight N-S line, but describing them as lying in ten rows facilitates visualisation of this complex site. There were at least two types of pit, a larger group and a smaller group. Further analysis will clarify the distinctions.

The larger pits were square in plan and measured 1.3 m^3. The original filling had consisted predominantly of stones including some standard Roman building stones, but mostly un-dressed rough pieces of sandstone or natural glacial erratic stones, including the heavy, granite like, Dalbeattie dolerite. In the bases of the first two pits of this kind to be excavated, were square greenish stains some 300 mm square. Though not initially understood, the excavation of less disturbed pits showed the clear impressions of post-pipes lined with the green stain previously noted. This demonstrated conclusively that these large pits were post-pits excavated to accommodate posts 300 mm square penetrating 1.3 m into the ground, and packed into place with stone. Given this finding, were the altars used here as nothing more than post packing in the construction of one or more major buildings?

Excavation of one of two adjacent pits in which the pattern of antiquarian disturbance differed from all the others helps answer this question. In the case of these two pits the antiquarian cuts had left about half of the original fill *in situ*, and the intact 300 mm square post-pipes were recorded to their full depth. In one of these pits a fragment of the corner of an altar capital was found. This was identified as the missing corner of one of the altars dedicated to I.O.M. by M. Maenius Agrippa as tribune of *cohors I Hispanorum* (RIB 823), and now in the Senhouse Museum. However, we know that this had not been recovered in 1870, but had first been recorded by John Horsley in 1725, when it stood in the garden of the Senhouse family east of Netherhall with a sundial set in the top of it. This shows that 1870 was not the first occasion on which altars had been recovered from the site. There can be no doubt that this altar was removed from this pit. The area of the antiquarian intervention into the original fill measured 1.10 m x 460 mm in plan – the identical dimensions of RIB 823 if laid flat on its widest side. Furthermore, the void from which the altar had come was immediately adjacent to the post-pipe. This was definite proof that the altar had been used as post packing.

During the second season this was confirmed by the excavation of a totally undisturbed pit in the base of which was a complete altar, incorporated in the stone packing around a square post-pipe. This was the sixth altar dedicated to I.O.M. by *cohors I Baetasiorum*, and the fourth to name the prefect, T. Attius Tutor.

The eastern three rows of features consisted of smaller, oval-shaped post-pits of some 900 mm diameter. Despite their size, the post-pipes contained within them were of the same dimensions, 300 mm square, as those in the large pits. These pits also contained reused altar fragments in their packing. One row of post-pits of this size lay within the area of large pits, and in two cases within this row the smaller pits cut the original fill of the larger examples.

Further work on the plan and morphology of the post-pits will be required fully to understand these structures, however, a minimum chronology can be suggested on the basis of stratigraphy and finds. The earliest occupation in the excavated area comprised scattered structures and boundaries on the edge of the extra-mural settlement to the north of the fort. Most of this settlement lay towards the sea, on the western side of the hill on which the altar find was made. The creation of a sub-circular enclosure or 'ring' ditch, cutting through the traces of the early occupation marked the beginning of later activity on the exposed hill-top. This ditch may have enclosed a timber building or other focal point pre-dating the group of large post-pits, though no evidence has yet been discovered for such a structure. The filling of the ditch dated to the later fourth century or later, and already at least one broken altar had reached the site. After this, one or more large timber buildings were constructed, the largest of which was built using 300 mm square timbers set in post-pits 1.3 m^3. These posts were packed with stone, including complete Roman altars. It seems clear that these buildings were altered or rebuilt using timbers of similar dimensions, but set in smaller, sub-circular or oval post pits also stone packed and containing altar fragments.

So what were these structures? Clearly they were substantial buildings. The interpretation is hindered by the wholesale absence of contemporary floor surfaces. While there is sufficient overlap to

demonstrate that more than one phase of timber construction is involved, the archaeological evidence alone is insufficient to resolve all of the post-pits into distinct phases. The directors continue to examine different interpretative models. That at least one hall type structure is involved is clear, but how could this be understood?

One possible explanation would be to see a substantial structure with 300 mm square timbers as the hall of a powerful local leader. The identification of hall buildings in the sub-Roman period at Roman fort sites is well attested at this time at Birdoswald (Wilmott 1997) and Vindolanda. If this explanation is correct, we might expect to find more evidence for domestic activity and rubbish pits in the vicinity.

The location of an apse on the western side of the complex and a concentration of small post pits on the eastern side may suggest that at least one of the structures was an apsidal building with an east west orientation. In this model the smaller pits had to carry a lighter load. Such pits may perhaps indicate the presence of an elaborated entrance, rather than a wall. Given the late date of the buildings, we should allow that such an east west oriented apsidal plan would be compatible with a church. The presence of so many substantial posts inside the footprint of the building need not mitigate against such a hypothesis. The late Romano-British church of St Paul in the Bail at Lincoln clearly had substantial columns running across the apse (Jones 1994, Eric Cambridge pers. comm.). Furthermore, as recent work has demonstrated, c. 300 mm square posts were already been used to mark further spatial divisions (over and above the nave and apse) in the early basilica of St John Lateran in Rome (Haynes / Liverani / Spinola / Piro 2013). Posts here were added to define a *solea,* a liturgical barrier within the nave. The phenomenon was previously often understood to be a sixth century phenomenon. Again the presence of a church at this date so close to a fort site finds a possible parallel with evidence from Vindolanda (Birley / Birley / Blake 1999, 20-21). The strange apsidal building discovered in the principia dated to c. AD 400 or later also had an E-W orientation and timber superstructure. It was notable for very few finds. The parallel is not exact, the apse is more pronounced in the Vindolanda example, and the 'church' interpretation is unproven, but it should be noted here.

A clue to the interpretation of the structures may lie in the small cemetery identified directly to their north east. The earliest graves in this group are oriented north-south. A fragment of textile discovered in one of these (Grave 3) was given a calibrated AD 240-340 date (95.4%) probability (SUERC-44284 (GU29199)), while the upper fill of another (Grave 1) contained a nummus of the House of Valentinian minted after AD 364. The cemetery features stone-lined long-cists of a type often deemed to be characteristic of early Christian communities of northern and western Britain in the 5th and 6th centuries, though long-cists were used in earlier, demonstrably non-Christian contexts, in the south as well as at later dates in the north. The presence of quartz stones in one of the earliest graves of the sequence (Grave 1) was originally thought to be an indicator of Christian practice, recalling Revelations 2:17, but it is more likely that these stones were used to mark the grave. Also interesting was the fact that the later graves run on an east-west orientation, an attribute often associated with Christian burial at a later date. In fact however, as Maldanado (2011) has recently demonstrated in his comprehensive analysis of Christianity and burial in Scotland from AD 400-650, none of these attributes: long-cists, quartz pebbles or east-west orientation can be shown to be a definitively Christian practice in Northern Britain at this time. Indeed, he argues that distinctively Christian burial practice cannot be demonstrated in Scotland until the seventh century. Importantly, however, he has noted that intercutting graves are exclusively associated there with early Church sites (Maldanado, pers comm). While the same situation need not apply in Wall corridor, where our knowledge of late 4th to 6th century burial practices remains poor, this is striking. The graves at Maryport clearly intercut with, as is noted above, later graves oriented broadly east-west. Unfortunately, no dating evidence was recovered from the later graves, which were lacking in grave goods.

However the buildings are interpreted, it is clear that they were constructed in a community where Christianity was already a conspicuous presence. They and the later burials in the cemetery group are of similar date to a group of known tombstones of early Christian type from Maryport, dedicated to individuals named Rianorix (RIB 862) and Spurcio (RIB 863). Another, now lost, monument from the site was RIB 856 – a Roman altar discovered prior to 1794, which had been recut with a Chi Rho. The concentration of evidence for early medieval Christianity at Maryport is therefore relatively high, a point stressed by several recent commentators (eg, Forsyth 2009, McCarthy 2009).

The location of the timber buildings must also be considered. The choice of site is significant,

and given the large scantling of the timbers, the building(s) must have been large. We suggest that the hill-top site was chosen so that these structures could be viewed from a distance. It seems unlikely that visibility from the fort was the main priority, for had this been the primary consideration a location further to the south would have been preferable. It is also notable that the situation of the structures is a departure from the location of Roman activity at Maryport. However, the location is notably intervisable with the Isle of Whithorn.

This may prove significant in the context of certain parallels between the site excavated in 2011 and 2012 at Maryport and the archaeology of the Whithorn site such as intercutting burials and the presence of an enclosure ditch. While its interpretation as a very early monastic site has now been convincingly challenged (Maldanado 2011, 205-206), Whithorn is strongly associated with the missionary figure of St Ninian (died c. AD 431) and is widely understood to have been fundamental to the spread of Christianity in Scotland.

A further issue to consider is the extreme paucity of small finds from the excavations. This is evident in every category of find and is also mirrored in the environmental evidence recovered. The juxtaposition of evidence for such substantial structures with a paucity of artefactual and ecofactual evidence is tantalising – it is certainly not what we would expect in the extra-mural settlement and fort. It can be attributed to two factors – firstly that the area is not one of domestic or industrial activity and thus not a place where objects would naturally be discarded, and secondly that this part of the site saw only early post-Roman occupation, of the period for which no finds material is forthcoming in the Roman military north (Wilmott 1997; Cool 2010). The latter explanation, however, fails to explain the paucity of environmental evidence for domestic activity.

Although the analysis of the findings of the excavation is in its early stages at the time of writing, it is clear that our results overturn long-standing theories about the celebrated altar find and demonstrate that the altars were not interred as part of any Roman ritual, but as part of the construction of one or more substantial timber buildings. A separate debate about whether the altars had a symbolic significance as building material in the 5th and 6th centuries may perhaps be considered, such a practice has, for example, been suggested in later periods (Hawkes 2006, 105-107). Our view, however, is that by the time of their re-use the altars seem to have lost their value, being considered merely as stones available for re-use in post-pits along with other scrap stone.

The minimal dating evidence shows that the buildings were erected in the later fourth century or, more likely, the fifth, and that they were of several phases. In this respect they are comparable to the well-known buildings of this period at Birdoswald (Wilmott 1997) and those recently discovered at Vindolanda. The idea that the settlement should be seen specifically in an early post-Roman Christian milieu is very possible, but will be enhanced by further study.

Though the story of the disposal of the altars has been transformed, the other end of their story – where they were originally sited and how used, remains to be addressed, and it is hoped to do this over further stages of the present project.

Bibliography

Baatz, D. 1993. Der Roemische Limes. Third ed. Berlin.

Bellhouse, R. 1992. Joseph Robinson of Maryport: Archaeologist extraordinary. Otley.

Biggins, J. A. / Taylor, D. J. A. 2004. The Roman fort and vicus at Maryport; geophysical survey 2000-2004. In: Wilson, R. J. / Caruana, I. (eds.). Romans on the Solway; essays in honour of Richard Bellhouse. Senhouse Museum.

Biggins, J. A. / Taylor, D. J. A. / Strutt, K. 2010. Detailed Mapping of the Extra-Mural Settlement at Maryport: An Integrated Approach to Geophysical Survey July - August 2010, (Unpublished Report: Senhouse Museum).

Birley, R. / Birley, A. / Blake, J. 1999. The 1998 Excavations at Vindolanda: The Praetorium Site. Interim Report. Vindolanda Trust, Bardon Mill.

Breeze, D. J. 2006. Handbook to the Roman Wall. Fourteenth ed., Newcastle-upon-Tyne.

Breeze, D. J. 1997. The regiments stationed at Maryport and their commanders. In: Wilson, R. J. A. (ed.). Roman Maryport and its setting. Senhouse Museum. 67-89.

Bruce, J. C. 1874. On the altars recently found in the Roman camp at Maryport. – Trans Cumberland Westmorland Antiq Archaeol Soc 2, 1, 175-88.

Bruce, J. C. 1875. Lapidarium Septentrionale. Newcastle-upon-Tyne.

Cool, H. E. M. 2010. A different life. In: Collins, R. / Allason-Jones, L. (eds.). Finds from the Frontier: Material Culture in the 4th-5th centuries. CBA Res. Report. York. 1-9.

Daniels, C. M. 1978. Handbook to the Roman Wall. Thirteenth ed. Newcastle-upon-Tyne.

Davies, R. W. 1968. The training grounds of the Roman cavalry. – Archaeological Journal 125, 71-100.

Forsyth, K. 2009. The Latinus Stone: Whithorn's earliest Christian monument. In: Murray, J. (ed.). St Ninian and the

Earliest Christianity in Scotland. BAR British series 483. Oxford.19-41.

Hawkes, J. 2006. The Legacy of Constantine in Anglo-Saxon England. In: Hartley, E. / Hawkes, J. / Henig, M. / Mee, F. (eds.). Constantine the Great: York's Roman Emperor. York. 104-112.

Haynes, I. P. / Liverani, P. / Spinola, G. / Piro, S. 2013. The Lateran Project: Interim project 2012-2013 seasons. -PBSR 81. 360-363

Hill, P. R. 1997. The Maryport altars: some first thoughts. In: Wilson, R. J. A. (ed.). Roman Maryport and its setting. Senhouse Museum. 92-104.

James, S. / Millett, M. 2001. Britons and Romans: advancing an archaeological agenda. – CBA Res Rep 125. London.

Jarrett, M. G. 1976. Maryport, Cumbria: A Roman Fort and its Garrison. – Cumberland Westmorland Antiq Archaeol Soc Extra Ser, 22. Kendal.

Jones, M. J. 1994. St Paul in the Bail, Lincoln: Britain in Europe? In: Painter, K. (ed.). Churches Built in Ancient Times: Recent Studies in Early Christian Archaeology (Soc. Ants London Occasional papers 16, Accordia Research Centre). London. 325-347.

Maldonado Ramírez, Adrián D. 2011. *Christianity and burial in late Iron Age Scotland, AD 400-650*. PhD thesis, University of Glasgow.

McCarthy, M. 2009. Christianity in northern Britain in the late-Roman period: a critical assessment? In: Murray, J. (ed.). St. Ninian and the earliest Christianity in Scotland. BAR British Series 483. Oxford. 57-70.

Popovic, V. 1989. Une station de bénéficaires à Sirmium. – Comptes Rendues de l'Academie des Inscriptions et Belles-Lettres. 116-22.

Robinson, J. 1881. Notes on excavations near the Roman camp Maryport during the year 1880. – Trans Cumberland Westmorland Antiq Archaeol Soc 1, 5, 237-55.

Schallmayer, E. 1983. Ausgrabung eines Benefiziarier-Weihebezirkes und römischer Holzbauten in Osterburken, Neckar-Odenwald-Kreis. – Archäologische Ausgrabungen in Baden-Württemberg 1982. Stuttgart.

Waldock, S. A. 1995 A study of the auxiliary forts along Hadrian's Wall, and some associated forts, to ascertain possible locations of cavalry and infantry parade grounds. Unpublished BA dissertation, University of Durham.

Wenham, L. P. 1939. Notes on the garrisoning of Maryport. – Trans Cumberland Westmorland Antiq Archaeol Soc 2, 39, 19-30.

Wilmott, T. 1997. Birdoswald: Excavations of a Roman fort on Hadrian's Wall and its successor settlements, English Heritage

Wilson, R. J. A. (ed.) 1997. Roman Maryport and its setting. Senhouse Museum.

Wilson, R. J. A. 1997. Maryport from the first to the fourth centuries: some current problems. In: Wilson, R. J. A. (ed.). Roman Maryport and its setting. Senhouse Museum. 17-39.

Prof. Ian Haynes
School of History, Classics and Archaeology
Armstrong Building
Newcastle University
UK-Newcastle Upon Tyne NE1 7RU
ian.haynes@ncl.ac.uk

Tony Wilmott, Senior Archaeologist
Archaeology Projects
English Heritage
Fort Cumberland
Fort Cumberland Road
Eastney
UK-Portsmouth PO4 9LD
Tony.Wilmott@english-heritage.org.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Syrian Deities, the Army and the Danube Limes. The Case Study of the Sanctuary of Iuppiter Heliopolitanus at *Carnuntum*

Eva STEIGBERGER

The sanctuary of Iuppiter Heliopolitanus at *Carnuntum*, located in the Roman province of Pannonia, modern day Lower Austria, is the only known sanctuary of the Syrian Deities in the Western provinces. We owe the exploration of the site to rescue excavations undertaken by Kandler and Zabehlicky from 1978 to 1991 which present all the difficulties connected with excavations conducted with the methodology of that period. For a brief summary of the site's history see recently Gassner / Steigberger / Tober 2011, 129-130; and Gassner et al. 2010, 11-13. The sanctuary was only partially excavated; the central courtyard and the western part of the site remain unexcavated. Research on this site was resumed recently as part of a programme at the Institute for the Study of Ancient Cultures of the Austrian Academy of Sciences. As a result of the stratigraphical analysis very interesting new facts have been uncovered, that should at least in part be presented as follows.

The sanctuary is situated in the eastern area of the Carnuntine *canabae*. The area called "Mühläcker" is located on the outskirts of the settlement, about 1 km north-east of the legionary fort and about 1.5 km southwest of the Pfaffenberg hill, where the second sanctuary of Iuppiter was found.

The life span of the sanctuary consists of at least three major building phases dating from the early 2nd c. to the late 3rd or the first half of the 4th c. AD. Our recent research clarified a building concept that shows a combination of Eastern and Western elements from the inception of this sanctuary. For a summary on the recent results see Gassner et al. 2011.

We know of the god who was worshipped there mainly because of two votive offerings and an altar, which identify the name of *Iuppiter Optimus Maximus Heliopolitanus*. He was originally worshipped at *Heliopolis*/Baalbek, in ancient Syria, where the Romans equated the Semitic weather-god Ba'al-Hadad with Iuppiter. North of the Alps he is known mainly from inscriptions, most of which were found in the province of Pannonia and especially at *Carnuntum*. This is attributed to the existence of a sanctuary dedicated to him. The elongated rectangular shape of the early temple and the fact that it didn't actually use a Roman podium, rather a slightly elevated base – for which there are very good comparisons in Syria – may point towards a certain Oriental origin for the building concept as well, since there are quite a few examples built like that as shown by Krencker / Zschietzschmann (1938, Fig. 3-4, 15, 40, 53).

At its peak in the early 3rd century AD the sanctuary at *Carnuntum* was a complex measuring approximately 110 by 90 m and surrounded by a wall. A trapezoidal courtyard was located at the centre, to the east stood the temple (B), and leading to the north was a porticoed hall. To the south another portico connected the area to two halls (H and J) in the west and south. In the south-eastern part a small bath with a latrine was located. Before Temple B was erected, an earlier temple (A) with an enclosed courtyard (C) stood in the eastern part of the sanctuary.

General Information on the Sanctuary

The first temple (A) was built with an adjoining courtyard (C) and a connecting portico-complex in the early 2nd c. AD. For festive events a banquet hall was located a little bit further to the south (H) – see

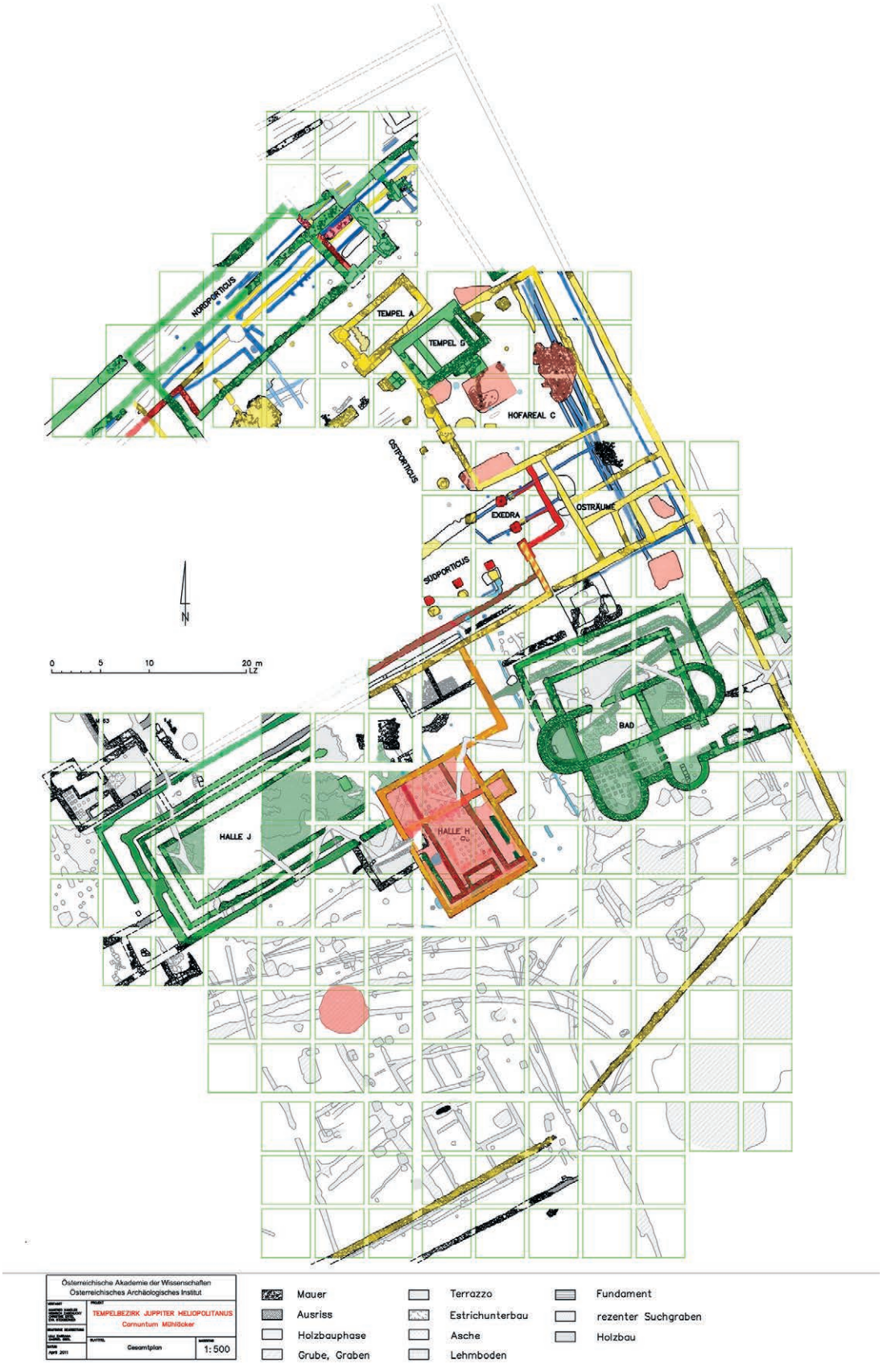


Fig. 1. Plan of the Sanctuary with building phases:
blue – Phase 1, yellow – Phase 2.1., red – Phase 2.2., green – Phase 2.3
(plan: OEAW, L. Zabrana – G. Seidl – E. Steigberger)

fig. 1 (All features of this phase identified as 2.1 are indicated in yellow).

Temple A was a simple, rectangular structure, measuring 9.50 m by 4.80 m, and was oriented towards the West and the central courtyard. The adjoining courtyard (C), measuring 17 by 18.40 m, had a slightly different orientation. A small portico – the so-called eastern portico – was superimposed, thereby creating a homogeneous architectural façade to the East. Towards the west the southern portico connects the buildings in the south with the northern part of the sanctuary and forms the boundary of the central courtyard.

In 2010 Barbara Tober (forthcoming) worked on the fragments of wall-painting from the sanctuary and we were able to assign certain decorations to specific layers and buildings. Tober reconstructed a part of the decoration of temple A (decoration 12, **fig. 2a**) showing vegetal scrolls in white stucco completed by white painting on a yellow ground – stems and remains of leaves. Similar examples are known from *Aquincum* in Pannonia (Gassner et al. 2011, 151-153).

Decoration 19 (**fig. 2b**) was probably the decoration of the walls surrounding courtyard C. It was reconstructed as a fence consisting of red frames with green foliage sprouting in between the gaps. Metal medallions were painted at each point of intersection. Trellis type fences are typical for garden paintings, for example a very similar Pannonian one from the courtyard of the villa of Balacapuszta in Hungary (Gassner et al. 2011, 155-157).

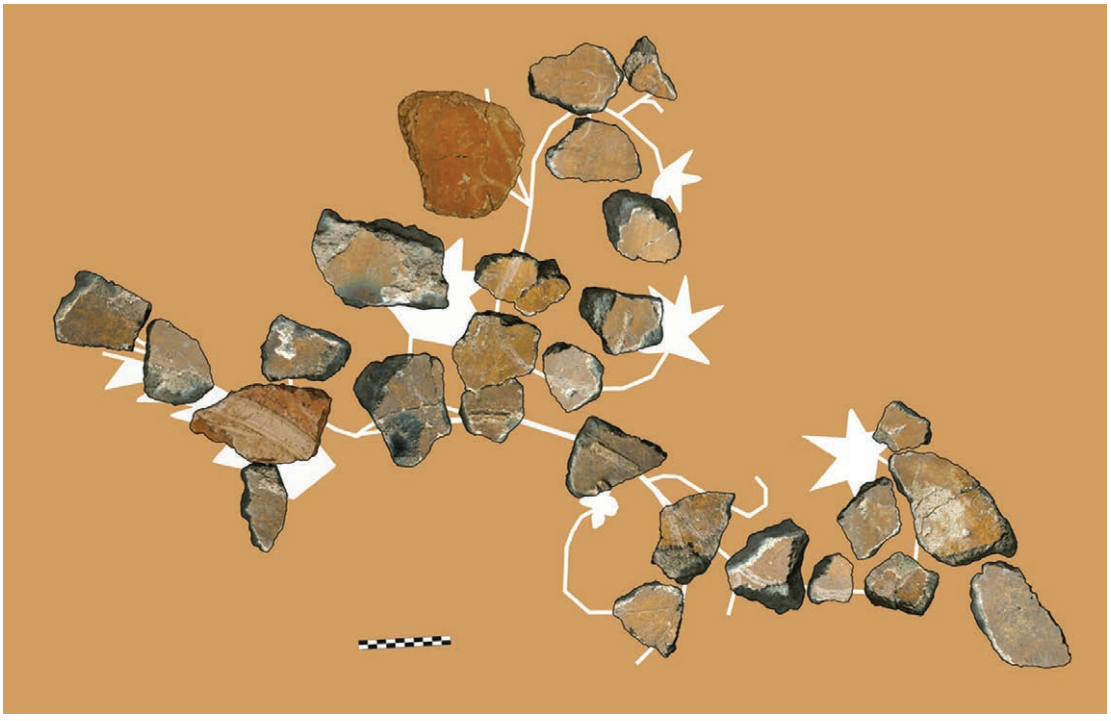


Fig. 2a. Reconstruction of Decoration 12
(reconstruction: B. Tober)

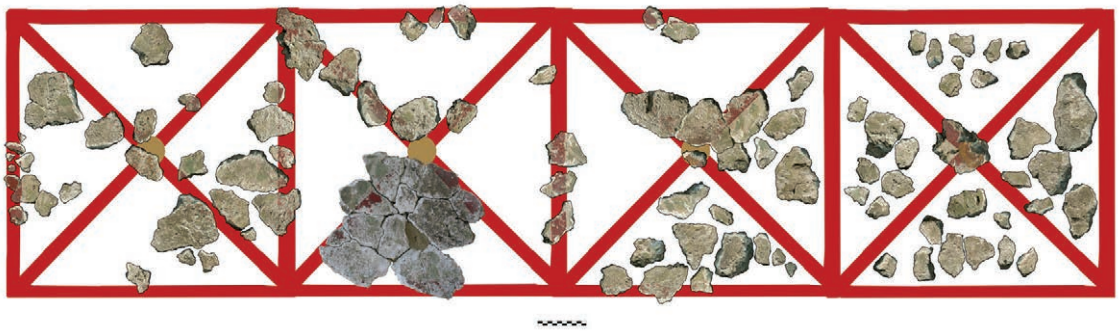


Fig. 2b. Reconstruction of Decoration 19
(photos: OEAW, B. Tober; reconstruction: B. Tober)

Later on during the 2nd century only some adaptations were made and a second modified building phase is visible mainly to the north of temple A and to the south of the courtyard where the so-called Eastern rooms are located. The changes in the Southern and Northern portico are the most noticeable of those. Only recently we were able to discover that, at the same time, Hall H in the southern part was equipped with hypocaust heating.

The whole area shows evidence of a destruction of the combined phases 2.1 and 2.2 – or rather a demolition, since no convincing evidence was found for a violent destruction on such a large scale. Birley (1930, 171-174) already states in his research on Hadrian's Wall that such layers are not always to be interpreted as the aftermath of destruction, rather of renovation work undertaken in the ordinary course of routine. After existing for approximately thirty years, every building requires a certain amount of renovation.

The strata connected with the end of phase 2 are manifested in a massive layer of rubbish, reaching from the north of temple A to the area of the later *thermae*. They contained a large amount of small stone fragments from architectural elements and cult installations of phase 2.1 and 2.2. Most of the rubbish can thus be connected with such activities as the intentional demolition of the older cult buildings and the preparation for a new building space (see Steigberger / Tober 2012).

Admittedly, some strata found in the area of the so called eastern rooms did have a slightly higher amount of rubble and showed signs of burning. So far it seems possible, that at least in this particular area around the southern portico a fire and therefore incidental destruction could have been the reason for the demolition[1], but there is hardly enough evidence for a destruction of the sanctuary as such. In the layers evidence of both masonry debris and the common occurrence of ash are lacking on a larger scale as is the lack of roof tile, which would point to a collapse of the buildings. We believe that the traces of fire in this area could also have been connected to certain ritual activities during the abandonment of phase 2.2. Two large pits in the southern part of the sanctuary – G7 and G11 – were found containing a distinctive assemblage of finds and therefore are interpreted as remains of so-called closing rituals. Their deposit material clearly differs from other pits such as those dug for disposal and reflects on certain aspects of cultic life. For instance, the pottery deposited there consists of only a small variety of drinking vessels. Contiguous sherds from the same object were found in both the bottom and upper layers of the pits, thus indicating that filling the pit was done in a single action. These pits also included layers of certain animal bones, so-called "snake-decorated vessels" and a clay figurine used for magic, indicating ritual use. No architectural decoration or larger parts of painted plaster were found[2]. It is not easy to give an exact date for this reorganisation: Taking into account all the finds contained in these deposits we can determine the approximate period of their deposition to between 170/180 and 220 AD. This is due to the difficulties in dating Samian Ware from Rheinzabern as stated by Eschbaumer / Radbauer 2007. The buildings would have been abandoned before that period.[3]

As a result the new temple B was built (Phase 2.3).

Religion and the Army

The strong influence of the so-called Oriental cults in general at *Carnuntum* is shown by an altar dedicated by a centurion of the 15th legion to Mithras – dated probably some time before 96 AD and therefore making it one of the earliest in the Western provinces[4]. Another early proof for Mithras exists for Nida-Heddernheim – where two examples of the earliest phase (80-120 AD) exist, as Beck (2004, 34-35) pointed out: *Mithraeum III* (dated from pottery) and *Mithraeum I* (datable dedication; *CIMRM* 1091/1092, 1098)[5]. The army and its cultural environment at *Carnuntum* prove to be quite favourable not only for the early distribution of the Oriental cults but also for its development both in private and official contexts. This is visible in the number and remarkably large scale of sanctuaries but also in the many dedications by high ranking dignitaries to

[1] It could well be a destruction fire, but also un-useable wooden remains could have been burnt to get rid of them. We can not deny that it is also possible that ritual incidents took place in this area, which ended with the ritual deposition in pit G7, since the traces of fire are immediately near this pit.

[2] For further information see Gassner et al. 2011, 146-150.

[3] For information on dating the Samian ware we would like to thank P. Eschbaumer and S. Radbauer, who are working on that class of finds.

[4] Gugl / Kremer 2011, Kat. Nr. 35, 168; Kremer in print; CIL III, 352; CIL III, 4418; Clauss 1992, 156-157.

[5] On Nida-Heddernheim see Huld-Zetsche 1986.

Iuppiter, Isis and Serapis or Mithras. This close connection and interpenetration, so as to say the mutual permeation as Gugl / Kremer (2011, 101) call it, of the Roman emperor cult and oriental cults can be referred to as a typical feature of the provincial cult activity in the region of the central and lower Danube River regions.

We can see a close connection between military personal and the cult which is clearly visible in the dedicator's inscriptions. A column with a dedication to *Iuppiter Optimus Maximus Heliopolitanus* was found in the 19th century in the *canabae*. The inscription mentions *Cornelius Vitalis*, military tribune of the 14th Legion as dedicant (Kremer 2011, 245, Nr. 259; CIL III, 11137). Another column, likewise found at the legionary fort, was dedicated by *Marcus Titius Heliodorus*, the *augustalis* of the *colonia Carnuntum* around 240 AD (Kremer 2011, 247, Nr. 261). Two inscriptions related to the Syrian cult – for *Iuppiter* himself and for *Venus Victrix* – were found at the *canabae* and at the legionary fort, as was an altar which shows an inscriptions in red letters, stating that *Lucius Pompeius Caeneus*, *princeps legionis* of the 14th Legion made the dedication after a dream (Kremer 2011, 245-248, Nr. 260, 262, 264; and Gassner / Kandler 2002). These finds establish a close relationship to the legion both because of their dedicants and their location.

Another altar originated from the sanctuary itself, although it is rather small – with a height of roughly 35 cm, but also lettered in red. It is one of the aforementioned reasons for naming the sanctuary. According to Beutler (2011, 249, Nr. 272), the inscription mentions an *Offellius*, who dedicates the altar to *Iuppiter Heliopolitanus*, but offers no further information. The two other inscriptions confirming the denomination of the sanctuary are the *tabula ansata* of *Quintus Pomponius Sosipater* (Beutler 2011, 253, Nr. 292) and, most importantly, the *tabula ansata* which connects all the bits of information to form one picture: *Sextus Titius Moderatus*, centurion of the 14th Legion dedicated the offering to *Iuppiter Heliopolitanus* (Beutler 2011, 254, Nr. 294).

The oriental origin of the deity is still visible in the provincial statues, which depict a male deity in a tight fitting sheath, between two bulls and accompanied by symbolic stars and suns. At the legionary fort of *Carnuntum* the torso of an imperial statue wearing armour was found. The figurative decoration shows this kind of statue and therefore is interpreted as *Iuppiter Heliopolitanus* with bundled spikes and a whip between two bulls. The torso is dated in the Severan period by Kremer (2011, 243, Nr. 258) – which corresponds to the time when the sanctuary was reorganised and was at its height.

Another link to the military is the extensive use of tiles from military brickyards[6]. The main stamp found is the one used by the 14th legion *Gemina Martia Victrix*, which was garrisoned at *Carnuntum* from the later period of Trajan's reign onwards until the end of the Roman period – so roughly for more than 300 years (Le Bohec 2000, 191-202). 45 stamped tiles were found in the central part of the sanctuary. For the most part, the stamps were imprinted on *tegulae*. 36 of these were used for the drains of the baths, five in Hall J and the surrounding rooms – one also from a drain as well, and two from a heating context. The others could not yet be connected with any special purpose. Only two stamped *tegulae* were found in the northern part of the sanctuary, one near temple A and one a bit further west. One *tegula* was deposited in one of the ritual pits (G 7). Three other tiles were used for the hypocaust columns and one was used in the wall of a well. These circumstances are easily explained. Since the tiles were basically found in lower lying structures such as drainage canals and heating, they were preserved. The remains of the original destruction of the buildings which would have contained large amounts of roofing tiles – such as *tegulae* and *imbrices* – did not survive. This is obvious, because only the foundations of the buildings and in a few places a small part of the actual walls were preserved.

The occupation of the 14th legion followed that of the 15th Legion Apollinaris, which left *Carnuntum* between 114 and 117/118 AD[7]. Both legions were closely connected and for example sent vexillation forces to build the legionary fort at *Brigetio* in about 100 AD, as Barkóczi / Mócsy (1976, 89) stated. And both dispatched *vexillationes* for the Dacian wars under Trajan from 101 – 106 AD (Mócsy 1974, 92). Veterans of both legions were – amongst others – given land at *Sarmizegetusa*, the new provincial capital of Dacia. One very important tile stamped by the 15th legion also originates from the sanctuary

[6] Gugl et al. 2003, 971-977.

[7] Shackleton Bailey 1981, 302; Gabler / Lőrincz 1977, 175; Strobel 1988, 202-203. The 15th legion fought in 66-71 AD at the Jewish Wars, before returning to Pannonia (Mosser 2003, 145-147) when they brought back new soldiers of Syrian origin (Mosser 2003, 151); on the connection of the 15th legion with the Orient see also Gassner in Eschbaumer et al. 2003, 164-166.

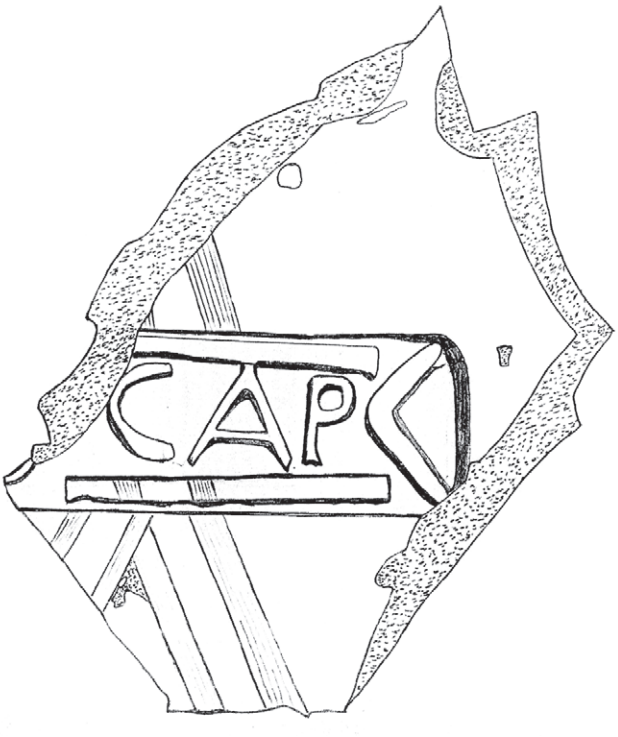


Fig. 3. Drawing of a fragmented tile, stamped *CAP* (OEAW, no scale given)

at *Carnuntum*, which was found in temple A, thus linking the legion garrisoned earlier at *Carnuntum* to the building activities in that area.

Other early stamps related to the 15th legion show the letters *CAP*. According to Genser (1986, 644), the *cohors prima Alpinorum*, an auxiliary with both infantry and cavalry, was attached to the 15th legion and probably still garrisoned at *Carnuntum* about mid 1st century. Before 80 AD it was garrisoned in *Illyricum*, not later than 80 AD based in Pannonia, later on in Pannonia Inferior after Pannonia was divided in ca. 107 AD. Inscriptions are found at *Carnuntum*, Szazholombatta, *Excisium*, *Apulum*. Spaul (2000, 261) gives a Flavian date for the garrison in *Carnuntum*, Lőrincz (2001, 27) an earlier date. At *Brigetio* these stamps are some of the earliest seen on tiles. At the sanctuary five *tegulae* were found in the eastern part of the northern portico (Z 011/78, Z 020/80, Z 021/80, Z023/80 and Z025/78) showing *CAP* in *tabula ansata* (**fig. 3**)[8].

Wooden Structures – Evidence of a Sanctuary

Underneath the first stone phase on the site, wooden structures were found, that were originally interpreted basically as the outskirts of the canabae with farm buildings. New stratigraphical analysis shows that some of those structures predominate the later first stone phase of the sanctuary (blue on **fig. 1**). In particular, the newly examined wooden structures underneath the northern part of the sanctuary – dating from the 2nd half of the 1st century AD – at least hint at a possible earlier sanctuary. An enclosure following exactly the same layout is visible, as are some structures underneath the so-called eastern rooms and the southern and northern porticoes, which also define the same layout. The location of the lost monument at the centre of courtyard C is defined by the three remaining post holes, too.

Another sanctuary for Iuppiter – on the Pfaffenberg hill, probably also existed since the first deployment of the 15th Legion at *Carnuntum* – as an altar for Victoria is dated to the year 62 AD – or perhaps even earlier (Bernát et al. 2011, 194, 214, Nr. 193). Admittedly, to date there are no convincing finds linking those wooden structures to the use as a sanctuary, and the levels for those structures – we believe that there were more than one, as did Eschbaumer et al. (2003, 131, 139), who assume three different phases – are not preserved, since the area was levelled significantly for the building of the first stone phase of the sanctuary. The small finds, however, show a close connection to early military equipment of high quality: Eschbaumer et al. (2003, *ibidem*) for example mention the military dagger type Mainz. And an inscription of a *princeps legionum* on an amphora found at the site in one of the early wooden buildings also shows a quite interesting connection to the military (Bezecky 1996). As this is an ongoing research, we still have to work on the interpretation.

Conclusion

As a result of this brief analysis we can see that the sanctuary of *Iuppiter Heliopolitanus* at *Carnuntum* existed as a large building complex from its early stage onwards – contrary to the previous opinion. The inscriptions show a strong connection to the army as is to be expected in the immediate vicinity of a legionary fort. The current research hints at a possible beginning of the cult at *Carnuntum* already in the late first century AD, thus in connection with the 15th Legion which connects it to the original site of Baalbek/*Heliopolis* and the expeditions to this area during the reign of Trajan

[8] They were all found together in the ditches left when the walls M115 and M166 were removed, the depth varying between 0.40 to 0.90 and 0.90 to 1.15 m.

that Macrobius mentions in his *Saturnalia* (I 23, 14-16).

The first confirmed sanctuary was remodelled during the 2nd century, but there are no traces of a violent destruction. There are pits containing debris of re-worked stone blocks for later re-use and there are no traces of wall-paintings in situ. All this hints at a planned reorganization of the sanctuary around the beginning of the 3rd century AD, when temple A was replaced with the building of Temple B and the surviving baths were added. The end of the cult at the sanctuary still remains a problem, since all the later layers are disturbed or even destroyed, but the buildings were still in use during the 4th century – only its purpose during late antiquity is uncertain, they were probably used as living quarters.

Bibliography

Barkóczi, L / Mócsy, A. 1976. Die römischen Inschriften Ungarns (RIU). 2. Lieferung. Salla, Mogentiana, Mursella, Brigetio. Amsterdam.

Beck, R. 2004. Beck on Mithraism. Collected works with new essays. Trowbridge.

Bernát, M. / Durianová, A. / Jobst, W. / Piras, R. 2011. Der Tempelbezirk auf dem Pfaffenberg. In: Humer, F. / Kremer, G. (eds.). Goetterbilder – Menschenbilder. Religion und Kulte in Carnuntum. Wien. 194-218.

Beutler, F. 2011. Katalog-Nummer 272, 292, 294. In: Humer, F. / Kremer, G. (eds.). Goetterbilder – Menschenbilder. Religion und Kulte in Carnuntum. Wien. 249, 253-254.

Bezeczky, T. 1996. Amphora Inscriptions – Legionary Supply. – Britannia 27, 329-336.

Birley, E. 1930. Excavations on Hadrian's Wall west of Newcastle upon Tyne in 1929. – Archaeologia Aeliana 3rd Series, 7, 171-174.

Clauss, M. 1992. Cultores Mithrae (= Heidelberger althistorische Beitraege und epigraphische Studien 10). Stuttgart.

Eschbaumer, P. / Radbauer, S. 2007. Ausgewaehlte Fundkomplexe aus dem Tempelbezirk der orientalischen Gottheiten in Carnuntum (Ausgrabungen Muehlaecker). – Carnuntum Jahrbuch 2007, 9-25.

Eschbaumer, P. / Gassner, V. / Jilek, S. / Kremer, G. / Kandler, M. / Pfisterer, M. / Radbauer, S. / Winter, H. 2003. Der Kultbezirk des Iuppiter Optimus Maximus Heliopolitanus in den oestlichen Canabae von Carnuntum – ein Zwischenbericht. – Carnuntum Jahrbuch 2003-2004, 117-164.

Gabler, D. / Lőrincz, B. 1977. Some remarks to the history of the Danubian limes of the first and second century. – Archaeologiai Értesítő 104, 145-175.

Gassner, V. / Kandler, M. 2002. Il culto di Iupiter Heliopolitanus in Pannonia. In: Buora, M. / Jobst, W. (eds.). Roma sul Danubio. Da Aquileia a Carnuntum lungo la via dell'ambra. Cataloghi e monografie archeologiche dei civici musei di Udine. Udine. 145–151.

Gassner, V. / Kremer, G. / Steigberger, E. / Tober, B. 2010. Die Anfaenge des Heiligtums des Iuppiter Heliopolitanus in Carnuntum (Flur Muehlaecker). Die Forschungen 2010. – Anzeiger der phil.-hist. Klasse der Oesterreichischen Akademie der Wissenschaften Wien 145. Jahrgang, 2. Halbband, 11-36.

Gassner, V. / Steigberger, E. / Tober, B. 2011. Das Heiligtum des Iuppiter Heliopolitanus in Carnuntum. Überlegungen zu den aelteren Kultbauten an der Ostseite, ihrer Ausstattung und den Mechanismen ihrer Aufgabe. – Carnuntum Jahrbuch 2009-2011, 129-190.

Genser, K. 1986. Der oesterreichische Donaulimes in der Roemerzeit, ein Forschungsbericht (= Der roemische Limes in Oesterreich 33). Wien.

Gugl, C. / Kremer, G. 2011. Kulte in Carnuntum. In: Humer, F. / Kremer, G. (eds.). Goetterbilder – Menschenbilder. Religion und Kulte in Carnuntum. Wien. 92-104.

Gugl, C. / Mosser, M. / Musil, J. 2003. Archaeometrical and archaeological research on stamped Roman tiles from the Carnuntum and Vindobona Region (Austria). In: Visy, Z. (ed.). Limes XIX. Proceedings of the XIXth International Congress of Roman Frontier Studies, Pécs 2003. Pécs. 971–977.

Huld-Zetsche, I. 1986. Mithras in Nida-Heddernheim. Archäologische Reihe, Gesamtkatalog. Frankfurt.

Kremer, G. in print. Götterdarstellungen, Kult- und Weihedenkmaeler aus Carnuntum. CSIR Oesterreich, Carnuntum Suppl. 1.

Kremer, G. 2011. Katalog. In: Humer, F. / Kremer, G. (eds.). Goetterbilder – Menschenbilder. Religion und Kulte in Carnuntum. Wien.

Krencker, D. / Zschietzschmann, W. 1938. Römische Tempel in Syrien (= Denkmaeler antiker Architektur 5). Berlin – Leipzig.

Le Bohec, Y. 2000. Les légions de Rome sous le Haut-Empire. Lyon.

Lőrincz, B. 2001. Die roemischen Hilfstruppen in Pannonien waehrend der Prinzipatszeit. Wien.

Mócsy, A. 1974. Pannonia and Upper Moesia: History of the Middle Danube Provinces of the Roman Empire. Routledge.

Mosser, M. 2003. Die Steindenkmaeler der Legio XV Apollinaris (= Wiener Archaeologische Studien 5). Wien.

Shackleton Bailey, D. R. (ed.) 1981. Harvard Studies in Classical Philology, vol. 84. Harvard University Press.

Spaul, J. 2000. Cohors. The evidence for and a short history of the auxiliary infantry units of the Imperial Roman Army (= BAR Int. Ser. 841). Oxford.

Steigberger, E. / Tober, B. 2012. The sanctuary of Iuppiter Heliopolitanus at Carnuntum. Destruction or Demolition? A Case Study. In: Proceedings to the International Round Table „Destruction – Archaeological, philological and historical perspectives" at Louvain-La Neuve. Louvain. 445-459.

Strobel, K. 1988. Bemerkungen zur Dislozierung der rö-

mischen Legionen in Pannonien zwischen 89 und 118 n. Chr. – Tyche 3, 1988, 193-222.

Tober, B. forthcoming. The painted decoration of the sacred area of the Heliopolitanian gods in Carnuntum. In: Zimmermann, N. (ed.). Akten des 11. AIPMA-Koloquiums Ephesos 2010.

Dr. Eva Steigberger
Institute for the Study of Ancient Culture
Austrian Academy of Sciences
Baeckerstrasse 13
AT-1010 Vienna
antike@oeaw.ac.at

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Roman Religion and Cults on the Dalmatian Limes

Silvia BEKAVAC

This paper presents the cult activity of Roman soldiers who were stationed on the Delmate Limes. It also stands out a few main problems such as: a shrine dedicated to Jupiter in *Burnum*, three efigraphic monuments dedicated to Italic Silvanus, *Tilurium* stelae with the motif of the gate and an Oriental and shrine to Liber in *Bigeste*.

As a result of Roman military operations and pretensions towards the territory populated by the Delmatae, a powerful Roman defence system was established, which stretched from the River Krka and the legionary camp in *Burnum*, across the River Cetina and the legionary camp in *Tilurium*, all the way to the auxiliary *castellum* in Bigeste. Auxiliary *castella* in *Burnum*, *Magnum* and *Andetrium*, and subsequent beneficiary stations were also founded along this route (Patsch 1914, 157; Wilkes 1969, 91-92; Sanader 2002, 120-128).

Legionary camp *Burnum* was built on the left bank of the river Krka, on the edge of the canyon, ensuring and controlling the river crossing, on which right edge side, the hillfort of Liburnian Burnistae was settled (Borzić 2007, 163-179; Miletić 2005, 181-203; Cambi et al. 2007, 7). The cult activity of stationed legions in *Burnum* left interesting group of finds dedicated to Jupiter, represented by four votive altars[1]. All four had holes on the bottom side for fixing them to their bases, which additionally suggests that they were part of a cult complex, and given the dedication they belonged to a shrine to Jupiter erected by soldiers in *Burnum* (Medini 1979, 137-165; Bekavac 2010, 62). They were unearthed in the course of ploughing at a site situated approximately 2 kilometres west of the legionary camp in the village of Ivoševci, suggesting the position of a shrine to Jupiter that has not been determined yet. The oldest inscription (**fig. 1**) can be dated to the end of the 1st century BC or the turn of the century, when the Twentieth Legion, the future *Valeria victrix*, was located in the territory of *Burnum* (Ritterling 1924/1925, col. 1769-1781; Cambi et al. 2007, 8). On the basis of an epigraphic analysis and linguistic characteristics, and especially given the name *Iovile*, the inscription can be associated with monuments of similar character found in Jupiter's shrine in *Capua*, where once a year, during the *Feriae Iovis* festivities, a sculpture of the Iuvile type was erected (Medini 1979, 139-140; Bekavac 2010, 62). The *nomen gentilicum* of the dedicator Coranus suggests Italic origin (Kurilić 1999, # 2168, Tab. 5/2), which is not surprising, given the ethnic structure of the soldiers of the Twentieth Legion. Presumably, a dedicator originating from the territory of *Capua* transmitted the rite of worshipping Jupiter from *Campania* to *Burnum* as part of the cult heritage of his home region (Haynes 1993, 157). The worship of the Capitoline Triad is confirmed by the find of a relief depicting the goddess Juno and a peacock (**fig. 2**), which was most probably part of the temple's frieze (Patsch 1897, 182; Cambi 2005a, 31; Bekavac 2010, 65). Given their stylistic characteristics, this monument and the monumental head of supernatural proportions found in the territory of *Burnum* and attributed to Jupiter have been dated to the 3rd century (Patsch 1897, 183; Cambi 2005a, 30), and confirm the continuity of worship and possibly also the continuity of the place of worship (Bekavac 2010, 66).

The specific nature of the cult and issues related to it in the territory populated by the Delmatae was expressed in the worship of individual autochthonous deities, which by means of *interpretationae*

[1] C(aius) Coran/us Iovi/le v(otum) s(olvit) (CIL III 9898); Iovi Op(timo) M(aximo) / T(itius) Fulfisius sig(nifer?) / v(otum) s(olvit) l(ibens) m(erito) (CIL III 9899); [-----] / Iovi O(ptimo) M(aximo) v(otum) s(olvit) / l(ibens) m(erito) (CIL III 9900); [-----] / CVOC[---] / M(arci) f(ilius?) Iovi [-----] (CIL III 9901).

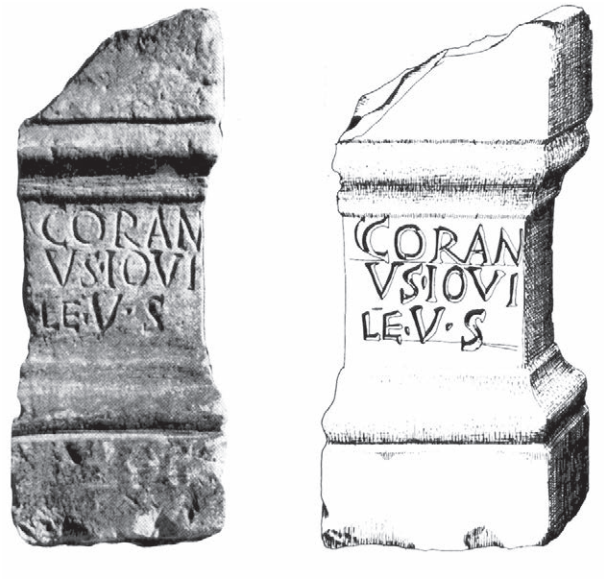


Fig. 1. The Iovilae inscription from *Burnum* (Medini 1979, 164)



Fig. 2. A relief depicting the goddess Juno and a peacock from *Burnum* (photo: Ž. Miletić 2011)

romana were identified as Roman ones (Rendić / Miočević 1955, 5-10; 1974, 29-42; Medini 1984a, 16; Cambi 2000, 99-112). Silvanus, Diana and the nymphs belong to this group of deities[2]. Along with numerous monuments collected in the territory populated by the Delmatae which can confirm individual autochthonous elements, there is also a group of monuments confirming a distinct Roman element within the mentioned group (Bekavac 2011, 151-166). Thus, an inscription was unearthed in the territory of the auxiliary camp in *Andetrium* which had been put up by a soldier of the Seventh Legion CPF, and which was dedicated to the nymphs, and possibly also to Silvanus (CIL III 14951). In *Tilurium*, two inscriptions have been unearthed, one dedicated to the nymphs and Silvanus (CIL III 9754) and the other only to Silvanus (ILJug 1986, 1940). Since Silvanus bears the epithet *Augustus*, it cannot be associated with the autochthonous component (Dorcey 1992, 155-159; Maršić 1997, 58; Bekavac 2011, 158), so that these dedications, whose dedicators were soldiers, suggest an exclusively Roman cult. The beneficiary inscription from Novo dedicated to Silvanus with the epithet Augustus also supports this view (CIL III 1911). Given the official nature of the inscriptions put up by the beneficiaries (Zaninović 2007a, 181-184), this dedication is direct proof of the existence of the worship of the Italic Silvanus.

The *castellum* of the auxiliary units of Bigeste was built in the hinterland of the Classical Antiquity colony of *Narona* on the left bank of the River Trebižat as the easternmost point of the defensive system of the Delmatae (Bojanovski 1988, 41-42; Periša 2008, 510; Zaninović 2010, 22). It seems that the camp had already been established in the first half of the 1st century, as the *cohors I Lucensium* stayed there (CIL III 8486, 8492), but traces of cult activity can be identified as late as the 2nd century, during the stay of the *cohors I Belgarum* (Mayer 2004, 240). The most interesting find, dated AD 173, mentions the reconstruction of a shrine dedicated to Liber and Libera (**fig. 3**), which was doubtlessly in the vicinity of the *castellum* (CIL III 1790). The information about the reconstruction means that the shrine had existed even earlier. An inscription by Quintus Pisenius Severinus (**fig. 4**), the Eleventh Claudian Legion centurion, reads that the same temple had a portico (CIL III 1789). We are not sure which of the two inscriptions is older. The sigla *Cl*, as the title of the Eleventh Legion, occur throughout the second century while the Legion was stationed in Moesia, which is where the centurion came from to *Bigeste* (Gencheva 2012, 6; Aleksandrov 2012, 271). He was an active soldier, which suggests that his moving to Dalmatia happened due to his engineering skills, and that the portico construction was the result of military plans and not his own private enterprise. In an attempt to clarify the role of the army in the reconstruction of the shrine, it is necessary to examine the wider territorial context and social-histori-

[2] The cult of Silvanus in Illyricum during the Roman era was based on a prehistoric forest and pasture deity that was present among most Illyrian tribes. Besides the male deity of forests and the hunt, there was also a female deity, who may be equated with the Italic Diana.

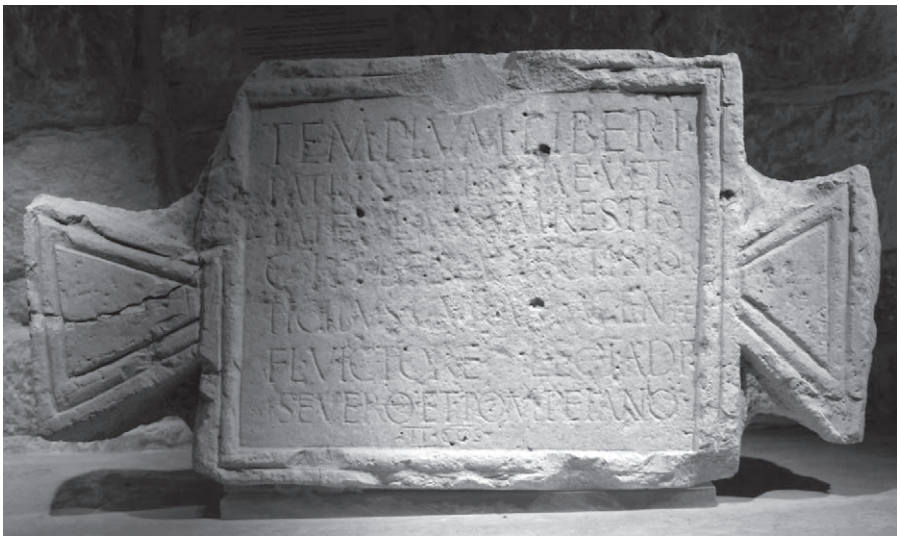


Fig. 3. An inscription by *cohors I Belgarum* from *Bigeste* (photo: Ž. Miletić 2007)

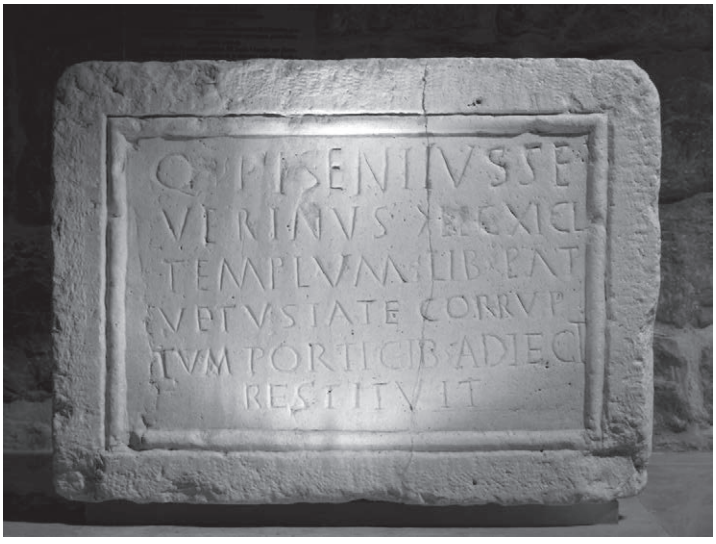


Fig. 4. An inscription by Quintus Pisenius Severinus (photo: Ž. Miletić 2007)

cal events. Liber is a deity that was very popular in the territory of the neighbouring colony of *Narona* . Numerous dedications, of which several also mention the construction of a shrine, confirm the existence of a larger community of worshippers of Liber (CIL III 1784, 1785, 1786, 1787; Glavičić 2002, 7). If we compare the cult of Liber, who was particularly worshipped by freedmen, and the specific social structure of *Narona*, where there was a large percentage of freedmen, the popularity of this deity, whose character also corresponds with the economic circumstances of the Naronitan region, is not surprising (Medini 1980, 195-206; Miletić 2003, 215-216; Glavičić 2003, 221-230; Mayer 2004, 229-246). The fertile Naronitan plain was characterised by growing of grapevines. These provided wine, which was the most important beverage consumed by soldiers on a daily basis. Seventh Legion veterans, who had been allocated land by the colony of Narona, had populated the fertile land around the River Trebižat in the Naronitan *ager* as early as AD 14[3]. The inscription put up in honour of August and Tiberius by the veterans of *Pagus Scunasticus* (Abramić 1950, 235, 236; ILJug 1963, 113, 114; Miletić 2003, 114),

[3] The inscription text suggests that the pensioning-off of the veterans and the allocation of land commenced during the reign of the Emperor Augustus and ended during that of Tiberius (Alföldy 1964, 167-179). This is supported by the dedication to *divo Augusto*, Augustus the Divine, by which he was proclaimed divine and classified amongst the gods, which appears in inscriptions after the emperor's death (Matijašić 2002, 132). A part of the veterans dismissed in the first wave settled in the Naronitan area.



Fig. 5. Gravestone with depiction of an Oriental from *Tilurium* (photo: Arheloški muzej u Splitu)

whose territory was home to both a shrine to Liber and the auxiliary camp, also confirms their settlement in the area. The engagement of the military on the reconstruction and expansion of the temple, the continuity of worship in the shrine, and the vicinity of the veterans' settlement suggest that maybe it was the veterans themselves who had erected the temple of Liber and Libera as a sign of gratitude for the granted land, and for the help the deities provided in the crop yield. The participation of the army in caring for the shrine can by no means be interpreted as pointing to Liber's warrior's aspect. Its engagement was closely connected with the construction activities of the military, which was the special area of the soldiers of the First Belgae Cohort, as suggested by finds of stamps on *tegulae*, the result of which was their stay in the region throughout the entire 2nd century and beyond (CIL III 3096; Zaninović 2007b, 66; Wilkes 1969, 472; Dodig 2007, 144-145). The cult activity of the cohort is also noticeable. For example, there was a dedication to the goddess Fortuna (CIL III 14630) and also a dedication to Hercules (CIL III 14980; Sanader 1995; 90-91). Claudius Peregrinus, the Cohort's Decurion, erected a votive altar to Hercules in *Burnum*, where he probably stayed to carry out a certain job, since the Cohort was not stationed at the camp. Dedications to Fortuna were common among the military throughout the 2nd and 3rd centuries (Perinić-Muratović 2003, 101). However, Claudius Peregrinus erected his dedication to Hercules after having successfully carried out a job or for some other similar reason. He may have chosen Hercules because the deity, to all appearances, seems to have been the patron of *Burnum*: a *municipium* since Hadrian's era. Hercules's patron role is also confirmed by a huge bust from Hadrian's era, part of a great arch, maybe from the Burnum town gate or another monumental public building (Cambi et al. 2007, 13). A special type of military stelae, dated to the first half of the 1st century, found in the territory of *Tilurium* and mostly belonging to soldiers of the Seventh Legion, represent a specific category of finds (Paškvalin 1960/1961, 325-327; Medini 1984b, 107-126; Cambi 1994, 147-181; Sanader 2003, 501-511; Dodig 2005, 205-211; Tončinić 2011, 16-21). The motif of a gate in the lower part of the monument is characteristic of the stelae, and some authors have attempted to link it with the Metroac cult (Medini 1984b, 109-110). In this group, four stelae particularly stand out (three from *Tilurium* and one from *Bigeste*): on their doorframe panels there are figures with crossed legs, dressed in oriental clothes, chin in hand, their position signifying an expression of grief (**fig. 5**). In these figures, some researchers have attempted to recognize Attis, and on the basis of this have associated the expansion of the cult of Cybele with soldiers of the Seventh Legion. However, a stylistic analysis of the monuments and their comparison with gravestones of soldiers of the Seventh Legion outside the Province of Dalmatia in *Viminacium*, suggests that the motif of the gate, and consequently also the figures depicted on the *Tilurium* stelae, are not of Metroac character but a product of models of a local workshop, and that the so-called grieving Attis is in fact a general depiction of an Oriental (Cambi 2003, 511-521; 2005b, 22). Such opinions reject any associations of the military with the spreading of the Metroac religion in Dalmatia, which is additionally reinforced by the fact that throughout the entire territory of the Province of Dalmatia there is not a single inscription dedicated to Cybele by a soldier.

After the cessation of military activity and the withdrawal of the legions from the territory of the Province of Dalmatia, beneficiary stations were established along the most important roads that connected the military strongholds of the Delmatae Limes (Betz 1938, 70-72; Suić 1970, 93; Cambi et al. 2007, 9; Zaninović 2007a, 181-184; Glavaš 2012, 93-103). Their purpose was to control everyday life in the area. Their presence is confirmed by numerous dedications erected by the beneficiaries on the occasion of their entering into service. On the basis of the distribution of the dedications, we have determined not only the approximate positions of the beneficiary stations, but also the location of the shrine in which they were placed. They were to a large extent dedicated to Jupiter, bearing the epithets *Optimus* and *Maximus*, which is not surprising given the fact that the beneficiary representatives of the Roman authorities served the provincial governor.

In conclusion, we may say that the army, as part of the Roman state system, was one of the main instruments of Romanisation in the region, and religion as a fundamental Roman institution constituted an important part of the everyday life of the Roman military. The worship of the supreme deity Jupiter was an official duty but also a matter of loyalty to Roman imperial policy (Haynes 1993, 142). Therefore, it is not surprising that the major part of dedications of the Roman Dalmatian military are devoted precisely to this deity, who without exception is assigned epithets such as *Optimus* and *Maximus*, additionally underlining the official nature of the cult (Sinobad 2010, 181-182, 190, 193-194, 199-201; Tončinić, 2004, 149). In two inscriptions, Jupiter appears together with Juno and Minerva, thus forming the Capitoline Triad. Other deities, Silvanus and the nymphs, Liber and Libera, Fortuna and Heracles, and Minerva herself, are represented to a significantly lesser extent.

The distribution of the dedications suggests the cult of Jupiter was strongly present in *Burnum*, which had already lost its military significance by the end of the 1st century. Silvanus and the nymphs have been confirmed in *Tilurium* and *Andetrium*, while the cult of Liber left traces in the territory of *Bigeste*.

Such a distribution of cults corresponds with the overall structure of religion in individual territory, because the same cults also remained in the areas after the withdrawal of the legions, meaning that the military presence had greatly influenced those territories. The influences also went in other directions, confirming interaction between the soldiers' home areas and the areas where they settled.

Bibliography

Abramić, M. 1950. Dva historijska natpisa iz antikne Dalmacije. – Известия на Българския археологически институт 16, 235-240.

Alexandrov, O. 2012. Roman Army Religion in the Province of Lower Moesia. In: The Lower Danube Roman Limes (1st – 6th c. AD). Sofia. 271-289.

Alföldy, G. 1964. Veteranendeduktionen in der Provinz Dalmatien. – Zeitschrift für Alte Geschichte 13.2, 167-179.

Bekavac, S. 2010. Jupitrov kult u Burnumu. – Radovi zavoda za povijesne znanosti HAZU u Zadru 52, 61-77.

Bekavac, S. 2011. Silvan u Saloni. – Vjesnik za arheologiju i povijest dalmatinsku 104, 151-166.

Betz, A. 1938. Untersuchungen zur Militärgeschichte der römischen Provinz Dalmatien. Wien.

Bojanovski, I. 1988. Bosna i Hercegovina u antičko doba. Sarajevo.

Borzić, I. 2007. Geografski položaj Burnuma na razmeđi liburnskog i delmatskog područja. In: Simpozij Rijeka Krka i nacionalni park "Krka": prirodna i kulturna baština, zaštita i održivi razvitak. Šibenik. 163-179.

Cambi, N. 1994. Stele iz kasnoantičke grobnice u Dugopolju. – Vjesnik za arheologiju i povijest dalmatinsku 86, 147-181.

Cambi, N. 2000. O svetištima Silvana u Dalmaciji. – Adrias 8-10, 99-112.

Cambi, N. 2003. Attis or someone else on funerary monuments from Dalmatia. In: Akten des VII. Internationalen Colloquiums über Probleme des provinzialrömischen Kunstschaffens. Mainz am Rhein. 511-521.

Cambi, N. 2005a. Kiparstvo rimskog legijskog logora i kasnijeg municipija Burnum. In: Zbornik Krka. Šibenik. 23-49.

Cambi, N. 2005b. Funerary monuments from Dalmatia, Istria and the Croatian part of Pannonia. A comparative study. In: The Proceedings of the 8th internacional Colloquium on Problems of Roman Provincial art. Zagreb. 13-31.

Cambi, N. / Glavičić, M. / Maršić, D. / Miletić, Ž. / Zaninović, J. 2007. Rimska vojska u Burnumu. Drniš / Šibenik / Zadar.

Dodig, R. 2005. Afterlife ideas on military monuments in Narona hinterland. In: The Proceedings of the 8th internacional Colloquium on Problems of Roman Provincial art. Zagreb. 205-213.

Dodig, R. 2007. Rimski vojni pečati na crijepu iz Ljubuškog. – Opuscula archaeologica 31, 143-163.

Dorcey, P. F. 1992. The cult of Silvanus. A Study in Roman Folk Religion. Leiden / New York / Köln.

Gencheva, E. 2012. The Everyday Life of the Roman Legionary on the Lower Danube. The catalogue of the exhibition. Rousse.

Glavaš, I. 2012. O municipalitetu Magnuma. – Opuscula archeologica 36, 93-103.

Glavičić, M. 2002. Kult Libera u antičkoj Seniji. – Senjski zbornik 29, 5-28.

Glavičić, M. 2003. Naronski magistrati i drugi gradski ugledni-ci. In: Arheološka istraživanja u Naroni i dolini Neretve. – Izdanja Hrvatskog arheološkog društva 22, 221-233.

Haynes, I. P. 1993. The Romanisation of Religion in the 'Auxilia' of the Roman Imperial Army from Augustus to Septimius severus. – Britannia 24, 141-157.

Kurilić, A. 1999. Puanstvo Liburnije od 1. do 3. st. po Kristu: antroponimija, društvena struktura, etnike promjene, gospodarske uloge. Unpublished PhD thesis, University of Zadar.

Maršić, D. 1997. Tri Silvanova žrtvenika iz Salone. – Radovi filozofskog fakulteta u Zadru 23, 45-67.

Matijašić, R. 2002. Uvod u latinsku epigrafiju. Pula.

Mayer, M. 2004. La sociedad de la Narona Romana (Vid, Metkovic, Croacia). Algunas observaciones. In: Atti del convegno internazionale: Dall' Adriatico al Danubio L'Illirico in età greca e romana. Pisa. 229-246.

Medini, J. 1979. Iovilae zavjet iz Burnuma. – Radovi filozofskog fakulteta u Zadru 18, 137-165.

Medini, J. 1980. Uloga oslobođenika u životu Narone. In: Dolina rijeke Neretve od prehistorije do ranog srednjeg vijeka. – Izdanja Hrvatskog arheološkog društva 5, 195-206.

Medini, J. 1984a. Spomenici s Atisovim likom na području Sinjske krajine. In: Cetinska krajina od prehistorije do dolaska Turaka. – Izdanja Hrvatskog arheološkog društva 8, 107-126.

Medini, J. 1984b. Autohtoni kultovi u razvoju antickih religija u rimskoj provinciji Dalmaciji. – Dometi 8, 7-16.

Miletić, Ž. 2003. Religijski život u Naroni. In: Arheološka istraživanja u Naroni i dolini Neretve. – Izdanja Hrvatskog arheološkog društva 22, 215-221.

Miletić, Ž. 2005. Prostorna organizacija i urbanizacija rimskog Burnuma. In: Zbornik Krka. Šibenik. 181-203.

Paškvalin, V. 1960/1961. Rimski nadgrobni spomenik iz Borasa. – Glasnik zemaljskog muzeja u Sarajevu 15/16, 325-327.

Patsch, K. 1897. Arhäologich-epigrapische Untersuchungen zur Geschichte der römanischen Provinz Dalmatien II. In: Wissenschaftliche Mittheilungen aus Bosnien und der Hercegovina 5. Wien. 177-241.

Patsch, K. 1914. Zbirke rimskih i grčkih starina u bosansko-hercegovačkom Zemaljskom muzeju. – Glasnik Zemaljskog muzeja 26, 141-219.

Perinić-Muratović, Lj. 2003. Vojnički kultovi u Mursi. – Vjesnik arheološkog muzeja u Zagrebu 36, 97-112.

Periša, D. 2008. Je li delmatsko područje presjekao rimski limes? – Archaeologia Adriatica 2, 507-517.

Rendić-Miočević, D. 1955. Ilirske predstave Silvana na kultnim slikama s područja Delmata. – Glasnik zemaljskog muzeja 10, 5-40.

Rendić-Miočević, A. 1974. Tri brončane statue Silvana s područja Delmata. – Vjesnik arheološkog muzeja u Zagrebu 8, 29-42.

Ritterling, E. 1924-1925. Legio. In: Paulys Realenecyclopädie der classischen Altertumswisswnschaft XII. Stuttgart. col. 1186-1829.

Sanader, M. 1995. O kultu Herakla u Hrvatskoj. – Opuscula archeologica 18, 87-114.

Sanader, M. 2002. Tilurium, Burnum, Bigeste. Novi prilog pitanju datacije delmatskog limesa. – Arheološke studije i ogledi, 120-128.

Sanader, M. 2003. Grabsteine der legio VII aus Tilurium – Versuch einer Typologie. In: Akten des VII. Internationalen Colloquiums über Probleme des provinzialrömischen Kunstschaffens. Mainz am Rhein. 501-511.

Sinobad, M. 2010. Jupiter i njegovi štovatelji u svjetlu epigrafskih izvora na području Hrvatske. – Opuscula archeologica 34, 145-229.

Suić, M. 1970. Noviji natpisi iz Burnuma. – Diadora 5, 93-130.

Tončinić, D. 2004. Votivna ara iz Tilurija. – Opuscula archeologica 28, 147-157.

Tončinić, D. 2011. Spomenici VII. legije na području rimske provincije Dalmacije. Split.

Wilkes, J. 1969. Dalmatia. London.

Zaninović, M. 2007a. Beneficiarii consularis na području Delmata. Prilozi instituta za arheologiju u Zagrebu. 181-184.

Zaninović, M. 2007b. Ilirsko pleme Delmati. Šibenik.

Zaninović, M. 2010. Rimska vojska u Iliriku. In: Nalazi rimske vojne opreme u Hrvatskoj. Zagreb. 13-33.

Prof. Silvia Bekavac
Archaeology Department
University of Zadar
Obala kralja Petra Krešimira IV., br. 2
HR-22300 Zadar
silviabekavac@ymail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Role of *Legatus Augusti Pro Praetore* in the Religious Life of *Exercitus Moesiae Inferioris*

Oleg ALEXANDROV

In this paper are examined all the monuments set up by the governors of *Moesia Inferior* strongly connected with the Roman army in the province (all found in the military camps on the right river bank of Danube or along the Roman military roads in the province).

After AD 106 in permanent camps in the province of Lower Moesia stationed *legio I Italica* in a camp at *Novae*, *legio XI Claudia* in a camp at *Durostorum* and *legio V Macedonica* in a camp at *Troesmis* (until AD 167). These legions and their auxiliary troops had an important role in the next few centuries not only in the military but also in the cultural history of the province and made an essential contribution to the process of Romanization. The Roman soldiers distinguished themselves from the surrounding local population by the use of Latin language and their specific way of life and culture. The Roman army brought also its religion into the new lands.

The religious life of the Roman army is characterized primarily by its great variety. Nowadays researchers consider the Roman army religion as a complex system of official and private cults (Helgeland 1978, 1470-1505; Stoll 2007, 451-476). This system varied and had characteristic features in the different Roman provinces (Irby-Massie 1999; Popescu 2004). The Roman army religion in the province of Lower Moesia had its own specific features but as a model we do not find any difference with the other Roman provinces (Alexandrov 2010).

The unofficial religion referred to the personal religious notions and preferences of the individual soldier. Its characteristic was the wide variety of worshipping cults. The reason for the latter was the varied ethnic composition of the Roman soldiers, especially after the 2nd century AD. At that time the simultaneous worship of Roman, Greco-Roman, Thracian, Celtic, Eastern etc. deities appeared to be unproblematic. There was no unification, strict rules and hierarchy in the unofficial religious system. The Roman soldier, being off duty, spent his time outside the camp's walls, where were situated the temples and the sanctuaries of these cults. He devoted part of his free time to the religious activities relating to the cult worshipped by him.

On the other hand, the official religion included cults and rituals which every soldier was obliged to fulfill. The cults and rituals were the same not only for the whole military unit, but also for all military units throughout the Roman Empire.

Thanks to the military calendar, discovered in *Dura-Europos* (*Feriale Duranum*) the official religious system in the Roman army has been successfully reconstructed. Dura papyrus N 54 was originally a roll with rather uneven edges, which had a maximum height of about 23 cm and a length which may be estimated at 120 cm. The text written in rustic capitals consisted of four broad columns about 25 cm in width, with about 60 letters to the line. The columns were separated from each other by blank spaces of 5 to 6 cm. Col. I contained 29 lines, with entries for the period from January to the middle of March. Col. II had 28 lines, and the number of lines in columns III and IV is unknown. The date of the document is certainly within the reign of Emperor Severus Alexander, probably between AD 223 and 227. There is evidence that the papyrus had undergone hard usage before being discarded. Most likely the calendar was kept in the *officium* of *cohors XX Palmyrenorum* (Fink et al. 1940).

The document represents the only surviving (even nowadays) Roman military calendar. It became clear that *Feriale Duranum* had over-regional character. Further evidence for this conclusion is that no gods from the region of *Dura-Europos* appear in it; there are no unofficial gods of any sort

recorded, only army festivals, Roman gods of the public festivals, and the cults of the reigning emperor, the *Divi*, and the Imperial women.

Most likely the document was prepared by the imperial administration in Rome and for this reason did not concern the regional peculiarities of the religion along the *limes* in Asia. The calendar's usage was empire-wide as the calendar was presumably possessed by every military unit in the Roman Empire down to the level of cohort at least. Military rites and ceremonies were strictly regulated including various celebrations, parades, military oaths, etc. A large number of soldiers from the military unit took part in them. Parades were held on the military parade ground (*campus*), and the rituals – in the most sacred part of the camp, *principia*, where the sanctuary of the standards was erected (*aedes principiorum*).

About 30 years ago, after detailed analysis of the epigraphic monuments discovered in the *castra* of *legio I Italica (Novae)*, Polish scholar J. Kolendo made significant conclusions concerning the function of the *primus pilus* (Kolendo 1980 (1982), 49-60). It became clear that besides military, the *primus pilus* had a leading religious role in the army. He was the officer with access to the military calendar and had the engagement to organize worshipping the official religion in the legion.

However, despite the discovering of the military calendar (*Feriale Duranum*) and despite the great research of J. Kolendo, there remained an open question – what was the connection between the *primus pilus* and the imperial administration in Rome. We believe that it was through the governor of the province (*legatus Augusti pro praetore*). This assumption is supported by the available original sources found in the province – votive monuments set up by provincial governors or in their presence.

The seat of the *legatus August pro praetore* was the Western Pontic city of *Tomis*. From the provincial capital originate many inscriptions connected with the provincial governors' activities. In most cases, however, they were associated with their public and administrative activity. But the legates of the Emperor stood at the head of the provincial army (*exertcitus Moesiae inferioris*) and were commanders of the legions and auxiliary troops in the province. In our opinion, provincial governors played a major role in pursuing of Roman religious policy in the army.

Several inscriptions give evidence for the role of *legatus Augusti pro praetore* in the religious life of provincial army[1]:

1. *Novae* (ILBulg 272; IGLNovae 25): ***A*** *– I(ovi) O(ptimo) M(aximo) / Depulsori / [pr]o salute d(omini) n(ostri) / [M(arci) Aurel(ii) Severi Ale]/[xandri] Pii Felicis / Aug(usti) / G(aius) Baienius G(ai) f(ilius) Clau/dia (tribu) [I]anuarius Cele/ia p(rimus) [p(ilus)] leg(ionis) I Ital(icae) Seve/rianae ex voto posu/it.* ***B*** *– Dedic(atum) III Non(as) Octobres / Albino et Maximo c[o(n)s(ulibus)] / per L(ucium) Mantennium Sa/binum leg(atum) Aug(usti) pr(o) pr(aetore) / et Servaeum Corne/lianum leg(atum) leg(ionis).* ***C*** *– [A]diutrix legio prim[a] tirone / probat[o] / [--- c]aliga prima cu[m] compare / cent[urio]ne / [---]cto Baienium / [---] / [---]AC[---] VMA felice / [---] pot[--- ---]M / [---] / DOM[--- R] omam misist[i] / [---] / [---]SA Iovi [--- prim]us pilus tibi / San[cto] / [ex] voto posuit PO[--- Ia]nuarius / a[ram?]*[2].

2. *Novae* (CIL III 7591=6224; ILBulg 282; IGLNovae 12): A *– Dis Militaribus Genio Virtuti A/quilae Sanc(tae) signis/que leg(ionis) I Ital(icae) Seve/rianae M(arcus) Aurel(ius) / Iustus domo Ho[r]/rei Margensis mu(nicipii) Moesiae Superio/ris ex (trecenario) p(rimus) p(ilus) / d(onum) d(edit).* **B** *– Dedic(atum) XII Kal(endas) / Oct(obres) Iuliano / II et Crispino / co(n)s(ulibus) / [pe]r Annium Italicum / leg(atum) Aug(usti) pr(o) pr(aetore)*[3].

3. *Novae* (ILBulg 268 ter; IGLNovae 47): ***A*** *– Signum originis / pro salute dominorum nnn(ostrorum trium) Immpp(eratorum) / Severi et Antonini Augg(ustorum duorum) [et P(ublii) Septimi(i)] / [Getae nob(ilissimi) Caes(aris)] et Iuliae Augustae / matris Augusti [et Cae]s(aris) et kastrorum / M(arcus) Aurelius M(arci) f(ilius) Aelia (tribu) / Paulinus Oviliavis p(rimus) p(ilus) / leg(ionis) I Ital(icae) Aquilae d(ono) d(edit).* ***B*** *– Felicissi[mis tem]/poribus dd[d(ominorum) [nnn(ostrorum trium)] / imp(eratore) Anton[ino Aug(usto)] / ter [et Geta Caes(are)] / iterum co(n)s(ulibus) I[dibus] / Mai(i)s dedi[cante] / Iul(io) Faustin[iano] / co(n)s(ulari) et Val(erio) O[---]/tiano le[g(ato) (legionis)*[4].

4. *Novae* (ILBulg 288; IGLNovae 18): *[Aesculapio et Hy]giae leg(io) [I Ital(ica) ---] /*

[1] The brevity of this paper does not allow making a detailed analysis of the monuments, but it has been already done several times by the publishers.

[2] 5 October 227 AD.

[3] 20 September 224 AD.

[4] 15 May 208 AD.

[--- dedicatum per T(itum) Vitrasium Po]llionem l[eg(atum) Aug(usti) pr(o) pr(aetore)][5].

5. *Durostorum* (CIL III 7474): *I(ovi) O(ptimo) M(aximo) / pro salute Imp(eratoris) Caes(aris) T(iti) Aeli Ha/driani Antonini Aug(usti) P[ii] e[t] Ve/ri Caes(aris) templum et statuam / c(ivibus) R(omanis) et consi(s)tentibus in / canabis Aelis l(e)g(ionis) / XI Cl(audiae) / Cn. Oppius Soterichus et / Oppius Severus fil(ius) eius / de suo fecerunt. Dedica/tum est per Tib. Cl(audium) Saturni/num leg(atum) Aug(usti) pr(o) pr(aetore) Tib(erio) Cl(audio) Iuli/ano leg(ato) Aug(usti)*[6].

6. *Durostorum* (Доневски 1976, 61-63; AE 1985, 726): *Divinib[u]s Ro/mae Aeternae / Ge[ni]o provin/ciae Moes(iae) Inf(erioris) / Dom(itius) Antigo/nus vir c(larissimus) leg(atus) Aug(usti) / pr(o) pr(aetore) cum Pompeia / Apa c(larissima) f(emina) coniuge / et Domitiis An/tigon(o) et Ant(igona)*[7].

7. *Montana* (CIL III 12385; Велков, Александров 1994, 30, #59): *I(ovi) O(ptimo) M(aximo) / pro salute Imp(eratoris) Caes(aris) M(arci) / Aureli Antonini Aug(usti) et / Imp(eratoris) Caes(aris) L(uci) Aureli Veri Aug(usti) / M(arcus) Servilius Fabianus leg(atus) / Aug(usti) pr(o) pr(aetore) templum vetus/tate corruptum a solo / per reg(ionem) Mont(anensium) restituit*[8].

8. *Montana* (Велков, Александров 1994, 3, #2; AE 1985, 752): *Imp(eratori) Caes(ari) [[Marco Aur(elio) / Severo Alexandro]] Pio / Felici Invicto Aug(usto) / pontifici maximo / patri patriae / C(aius) Quintus Decius leg(atus) Aug(usti) / pr(o) pr(aetore) provinciarum / Moesiae itemque / Germani(a)e inferiorum / candidatus Aug(usti) / devotissimus / dicatissimusque / numini / maiestatique / eorum*[9].

9. *Sostra* (CIL III 14428; ILBulg 260): ***A*** *– Imp(eratori) Caes(ari) / L(ucio) Septimio Severo / Pio Pertinaci Aug(usto) / Arabico Adiabenico / Parth(ico) Max(imo) pont(ifici) max(imo) / trib(unicia) p(otestate) VI imp(eratori) XI co(n)s(uli) II / p(atri) p(atriae) proconsoli, / dedicante / C(aio) Ovinio Tertullo / leg(ato) Augg(ustorum duorum) pr(o) pr(aetore) / T(itus) Aurelius Aquila / tr[ib(unus)] coh(ortis) II Matt(iacorum) / devotus numini eiu[s] / de suo posuit. /* ***B*** *– A(nte) d(iem) XIII Kal(endas) Aug(ustas) / Saturnino et Gallo co(n)s(ulibus)*[10].

10. *Sostra* (CIL III 14429; ILBulg 261): *Imp(eratori) Caesar[i] / [[Gaio Iulio Vero]] / [[Maximino]] Aug(usto) / [p]ontifici [max(imo)] / [t]ribunici[ae po]/[t]est(atis) co(n)s(uli) p(atri) [p(atriae)] / coh(ors) I C[isipad(ensium)] / [[Maximiniana]] / devot[a numini] / maiest[atiq(ue) eius] / d(e) p(ecunia) questur(ae), de/dicante Domitio An/[t]igono cl(arissimo) v(iro) leg(ato) Aug(usti) pr(o) p[r(aetore)]*[11].

11. *Sostra* (CIL III 14430; ILBulg 262): *Imp(eratori) Caesari / M(arco) Ant(onio) Gordiano / P(io) F(elici) Invicto Aug(usto) p(atri) p(atriae) / pontifici maximo / trib(unicia) potestate co(n)s(uli) / II proconsoli coh(ors) I / Hisp(anorum) Gordiana de[vo]/ta numini maiesta/tiq(ue) eius, dedicante / C[---] / leg(ato) Augusti pro / praetore*[12].

12. *Sostra* (Христов 2006, 30-32, #9; AE 2007, 1222): ***A*** **–** *Imp(eratori) Caesar(i) / P(ublio) Lic(inio) Gall<i>enio / P(io) F(elici) Invicto Aug(usto) / pontef(ici) max(imo) / trib(unicia) pot(estate) co(n)s(uli) / p(atri) p(atriae) proco(n)s(uli), dedicante G(aio) Iul(io) / Victore leg(ato) / Augg(ustorum duorum) pr(o) pr(aetore) per / Aur(elium) Dometia/no (centurionem) leg(ionis) praep(ositum) / coh(ortis) II Red(---) devotus / numini ipsius / de qu(a)estura coh(ortis) / posuit / [[---]] pr(o) pr(aetore).* ***B*** **–** *Posita VI Idus Octobres / [[---]] co(n)s(ulibus)*[13].

13. *Montemno* (CIL III 13724; ILBulg 264): *[I(ovi)] O(ptimo) M(aximo) / [Dis Dea]/[b]usq(u)e praesid[ib]/[u]s Haemi monti[s] / [---] / [s]anctissimi Augus(ti) / f(aciendum) c(uravit) Quintus Decius / leg(atus) Aug(usti) pr(o) pr(aetore) provinciae / [Moe]s(iae) inf(erioris) / [---]*[14].

***

Historical data from the monuments, in which the provincial governors appear as direct dedicators or are mentioned as *dedicante*, or simply attended consecration ceremony in their capacity as senior officers, allow to make some important generalisations and conclusions:

All the inscriptions have been found in main Roman military camps in Lower Moesia – *Novae* (## 1-4), *Durostorum* (## 5-6), *Montana* (## 7-8), *Sostra* (## 9-12) and *Montemno* (# 13). The epigraphic evidence suggests that the provincial governor was controlling his subordinates directly (including the implementation of the religious system). Governors often visited (probably in connection with military holidays) not only legionary camps (## 1-6), but

[5] AD 156-158.
[6] AD 145.
[7] AD 235-236.
[8] AD 162.
[9] AD 234.
[10] 20 July 198 AD.
[11] AD 235.
[12] AD 241.
[13] AD 253-260.
[14] AD 234.

also important for the military strategy strongholds within the Roman province (## 7-13).

The dedications were made predominantly toward the Capitoline Triad (## 1, 5, 7, 13) or were connected with the imperial cult (## 8-12) or other official cults as *Dea Roma* and *Genius provinciae Moesiae Inferioris* (# 6) or with military deities (# 2).

The structure of the deities worshipped by the provincial governors of Lower Moesia most closely resembles the structure of the celebrated deities according to the military calendar found in *Dura-Europos*. The only exception among these deities is *Asclepius* (# 4), whose cult had a special place in the religious system of *Legio I Italica* (there were a number of reasons to worship this cult as official in the legion – Dyczek 1995, 125-128; Kolendo1998 (1999), 55-70). Naturally, largest share of the dedications holds official state cults of the Capitoline Triad and the imperial cult.

This observation is indirect evidence that *Feriale Duranum* was copy of a calendar created by the imperial administration in Rome and distributed among the troops in the vast empire. Access to this military religious calendar in the legion had the *primus pilus* who was obliged to observe and execute the religious system (which was introduced by the provincial governors). It is hardly accidental that the dedications set up by *primi pili* are relatively well dated by the name of the emperor, for whose welfare they prayed, and some bear an exact date of the year, which is explicitly marked (## 1, 2, 3, 9). It seems that, in the auxiliary troops, access to the religious calendar had their commander (*praefectus* or *tribunus*). In all cases all these precisely dated monuments were made on dates which were important for the life of troops or were related in commemoration of significant military festivals.

The sanctification of the dedications was done on special ceremonies, during which soldiers (in their name) demonstrated loyalty to the supreme commander – the Emperor. Without exception, their dedications were made in the presence of the provincial governor. Thus, as direct representatives of the Roman Emperor and supreme authority (regardless of their personal preferences), provincial governors of Lower Moesia expressed not only their loyalty and devotion to the Roman state, but suggested these feelings to the soldiers in the Roman provincial army. In the same time by erecting these monuments the soldiers guaranteed the favor of the gods, who responded by granting success in combats.

In conclusion we can deduce assertion that in the central office of the provincial governors (in *Tomis*) were sent copies of the military calendars (sent directly from Rome). The governors in turn had them dispatched to the offices of the legions and auxiliary troops in the province. The main role of the governors, however, was not just forwarding the calendar, but the responsibility for its use in the provincial military units.

Bibliography

AE = L'Année épigraphique. Paris.

Alexandrov, O. 2010. The religion in the Roman army in Lower Moesia province (1st–4th c. AD). Veliko Tarnovo.

CIL III = Corpus inscriptionum Latinarum. Volumen tertium, ed. Theodor Mommsen. Inscriptiones Asiae, Provinciarum Europae Graecarum, Illyrici Latinae. Berolini, 1873; Voluminis tertii supplementum, ed. Theodor Mommsen, Otto Hirschfeld, Alfred von Domaszewski. Inscriptiones Orientis et Illyrici Latinae. Berolini, 1889-1902.

Dyczek, P. 1995. Was it "Sacellum Aesculapii" in the valetudinarium at Novae. – In: Nunc de Suebis dicendum est. Studia archaeologica et historica Georgio Kolendo ab amicis et discipulis dicata. Warszawa. 125-128.

Fink, R. O. / Hoey, A. S. / Snyder, W. F. 1940. Feriale Duranum – Yale Classical Studies 7, 1-222.

Helgeland, J. 1978. Roman army religion. In: Aufstieg und Niedergang der römischen Welt II, 16.2. Berlin / New York. 1470-1505.

IGLNovae = Kolendo, J. / Božilova, V. (eds.). Inscriptions grecques et latines de Novae (Mésie Inferieure). Bordeaux, 1997.

ILBulg = B. Gerov. Inscriptiones Latinae in Bulgaria repertae. Sofia, 1989.

Irby-Massie, G. 1999. Military religion in Roman Britain. Leiden.

Kolendo, J. 1998 (1999). Inscriptions en l'honneur d'Esculape et d'Hygie du valetudinarium de Novae. – Archeologia (Warszawa) 49, 55-70.

Kolendo, J. 1980 (1982). Le rôle du primus pilus dans la vie religieuse de la légion. – Archeologia (Warszawa) 31, 49-60.

Popescu, M. 2004. La religion dans l'armée romaine de Dacie. Bucarest.

Stoll, O. 2007. The religions of the armies. – In: Erdkamp, P. (ed.). A companion to the Roman army. Blackwell. 451-476.

Велков, В. / Александров, Г. 1994. Монтана, 2. Епиграфски паметници от Монтана и района. Монтана.

Доневски, П. 1976. Латински надписи от Силистра. – Археология 4, 61-64.

Христов, И. 2006. Состра. Римският град в полите на Хемус. Велико Търново.

Oleg Alexandrov PhD
Department of Archaeology
University of Veliko Tarnovo "St. Cyril and St. Methodius"
2 Teodosiy Tarnovski St.
BG-5003 Veliko Tarnovo
oleg_alexandrov@abv.bg

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

L'*aedes* du *praesidium* de Xèron Pelagos (Égypte)

Michel REDDÉ

Les fouilles menées en janvier 2012 à Wadi Gerf («Xèron pelagos») dans l'un des *praesidia* du désert oriental d'Égypte, sur la piste de Bérénice, ont révélé une nouvelle *aedes* sans doute attribuable au début du troisième siècle, avec des aménagements bien conservés (**fig. 1**).

Le fortin se présente sous la forme d'un rectangle d'environ 45 m x 34 m, avec une porte unique au nord. La porte, comme les angles, est défendue par des tours semicirculaires saillantes, selon une pratique architecturale constante dans le désert oriental d'Égypte (**fig. 2**). Le centre de l'espace est occupé, comme d'habitude, par un grand puits qui s'est effondré sur lui-même et ménage aujourd'hui une vaste dépression. Les bâtiments sont appuyés contre la courtine, édifiée en pierres sèches (**fig. 3**). Devant la porte, un énorme dépotoir a accueilli à la fois les poubelles et les déblais de curage du puits. Hormis le fait que nous sommes en présence d'un plan barlong, la disposition d'ensemble est absolument identique à celle des autres fortins de cette piste (Reddé 2003)[1].

Dans le détail, les choses sont plus complexes. Le site, pour cette fois, n'a pas livré d'inscription nous permettant de préciser la date de construction du poste. Nous savons en revanche qu'une grande partie des fortins de cette piste a été aménagée sous Vespasien, avec des compléments sous Trajan. Le matériel le plus ancien de Xèron étant semblable à celui des *praesidia* que nous avons fouillés plus au nord, il n'y a pas de raison de penser que le fort n'a pas été construit à la fin du premier siècle ou au tout début du second. De cette période restent pourtant très peu de constructions en élévation : les remparts (malgré quelques réparations, au sud-ouest), les citernes, peut-être les thermes, un petit nombre de murs bien appareillés, généralement arasés. L'ensemble des pièces internes a été reconstruit un grand nombre de fois, notamment en utilisant la technique de la brique crue, et on assiste ainsi à une prolifération rapide de constructions, avec de nombreux aménagements et réaménagements successifs. Dans la dernière période d'occupation, que nous situons vers le milieu du troisième siècle, peut-être sous Gallien, la présence de noms Blemmyes dans les derniers ostraca du fort indique la présence proche de ces nomades à qui l'armée distribue du blé. À ce moment le plan du *praesidium* ressemble à celui d'un habitat civil contemporain, avec des tas d'ordures au milieu de pièces abandonnées et des animaux à l'intérieur du périmètre défensif. Un tel phénomène a déjà été observé dans les fouilles de Didymoi et de Iovis, plus au nord, alors qu'il n'apparaît pas sur la route Coptos/Myos Hormos dont les forts ont été abandonnés plus tôt, vers la fin du second siècle apparemment. Ces réaménagements successifs rendent difficile l'identification des espaces appartenant à la phase de construction du fort. Dans deux cas, à Didymoi et Iovis, nous avons pu constater, par exemple, que l'*aedes principiorum* avait été déplacée et occupait d'anciens casernements, sans que nous puissions identifier de façon claire les aménagements du premier sanctuaire. Celle de Xèron obéit à la même logique.

[1] Ces différentes fouilles sont menées par une équipe française financée par le Ministère des Affaires étrangères et l'Institut français d'archéologie orientale (Le Caire), sous la direction d'H. Cuvigny (CNRS) ; elles sont partiellement publiées (voir la bibliographie ci-dessous). Reddé 2003 présente une synthèse de l'architecture de ces *praesidia* du désert oriental, telle qu'elle pouvait être dressée après les fouilles menées sur la route qui traverse le désert entre Coptos (mod. Qeft) et Myos Hormos (mod. Quseir al-Qadim). Une seconde synthèse a été présentée au XXIe Congress of Roman Frontier Studies de Newcastle, en 2009, dont les actes ne sont pas encore publiés.

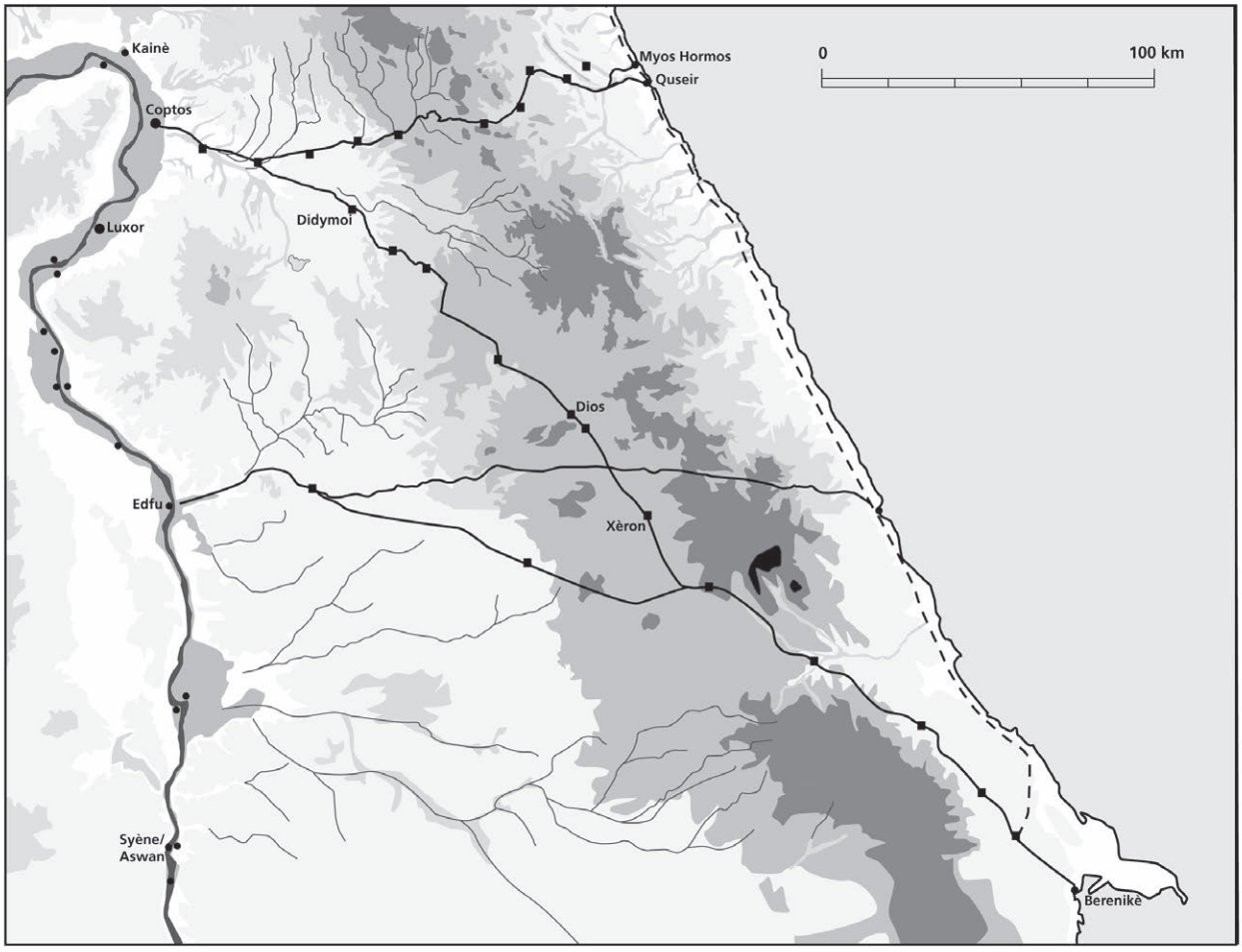


Fig. 1. Carte du désert oriental d'Égypte et des sites fouillés par la mission française

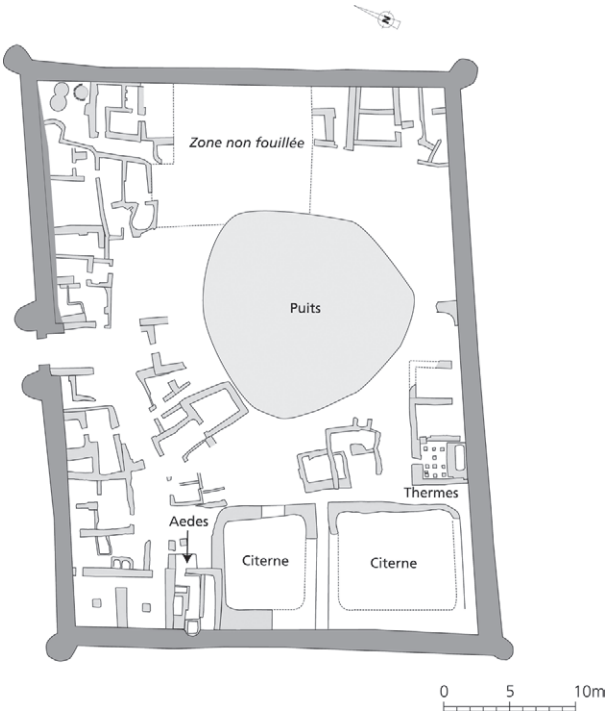


Fig. 2. Plan du *praesidium* de Xéron

J'identifie en effet comme telle une pièce située le long de la courtine sud-ouest du fort (**fig. 4**). L'ensemble mesure environ 5, 20 m x 2,60 m et occupe un espace antérieur réaménagé et exhaussé. La pièce est accotée au rempart, légèrement entaillé en forme de niche. L'entrée est au nord-ouest. On accède par un petit escalier qui donne accès à un couloir pavé de dalles de schiste (e), en forme d'équerre, qui longe le mur oriental et conduit au fond près du rempart, à un loculus carré creux (a) ; le côté occidental du couloir est bordé par un bassin (c) et un petit espace ouvert sur le couloir (d). À l'ouest du loculus a, contre le rempart, le bassin c est surmonté par une niche surélevée b (**fig. 5**).

Le loculus a est constitué de quatre murets de briques crues de 20/24 cm de large, qui forment un quasi carré (1,10 m x 1,20 m), partiellement encastré dans le rempart. Ces murets lisses sont soigneusement enduits de blanc à l'intérieur comme à l'extérieur. Les murs ouest, sud et est sont cassés en élévation, tandis que le muret nord est intact, comme en témoigne l'enduit qui recouvre son re-



Fig. 3. Vue générale du fortin

bord supérieur et le logement d'un seuil de bois dont le scellement est toujours visible. Dans la mesure où ce seuil est nettement plus bas que les murs périmétraux, on doit restituer à cet endroit une porte de bois qui fermait l'espace. Le fond est lui aussi enduit à la chaux, mais on observe, au centre, la trace circulaire d'un scellement. Le comblement comprenait

- une terre cuite acéphale de Minerve (h. conservée 12,5 cm, l. conservée 9,5 cm). La statuette est creuse, avec des rehauts noirs et rouges sur un fond blanc. L 'avant-bras gauche, qui tenait le bouclier, est cassé. La main droite, disproportionnée, tient une lance. La déesse porte le gorgoneion sur la poitrine. Un ostracon trouvé tout à côté évoque l'existence d'un *Athenadion* et nous savons par d'autres ostraca que le *genius loci* de Xèron était Athéna.

- un fragment d'anse d'amphore retaillée en brûle parfum. Des restes d'encens sont encore conservés dessus.

L'accès à cet espace a fait l'objet de plusieurs remaniements successifs.

- dans un premier temps, le couloir e se termine par un espace carré enduit de chaux.

- dans un second temps, cet espace est divisé en deux et reçoit une marche qui permet d'accéder plus commodément au loculus a.

- dans un troisième temps, tout l'espace est exhaussé et reçoit une plate forme dont la partie nord est décorée d'une «mosaïque» de tesselles blanches (quartz) et noires (schiste), avec des plaques elles aussi de schiste. Entre la mosaïque et le loculus a subsiste une plate-forme d'environ 40 cm de profondeur.

Le dernier niveau de ce corridor montre un exhaussement sableux induré et piétiné.

À l'est de l'escalier d'accès ont été emboîtées l'une dans l'autre deux amphores vinaires qui forment un conduit d'évacuation grossier. Celui-ci passe à travers le mur nord de la pièce 38, et débouche sur un petit canal creusé à même le sol qui évacue l'eau vers le nord, où on le perd. À 60 cm devant le début de cet escalier apparaît un massif de briques cuites, récupérées dans les thermes ou les citernes adjacentes, et formant un dé carré de 50 cm de côté, haut de 0,14 m.

L'interprétation d'un tel ensemble, dont je ne connais pas de parallèle, ni en Occident, ni en Orient, doit tenir compte de plusieurs éléments :

- bien que le *praesidium* de Xèron ait été largement fouillé, on n'y connaît aucune *aedes* alors que tous les autres postes sont pourvus d'un espace religieux. Celui-ci, dans un ostracon de Didymoi, porte le nom de πρινκίπια τῶν κυρίων (Cuvigny et al. 2012, II, 98).

- la pièce qui vient d 'être décrite ne saurait être

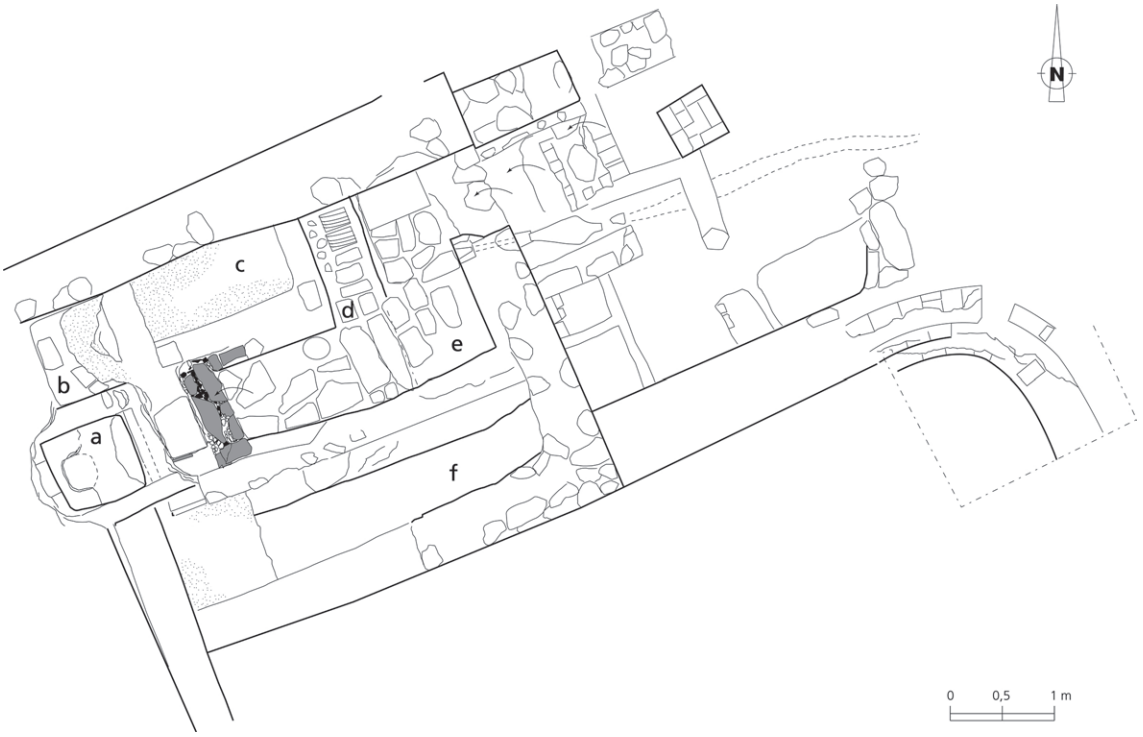


Fig. 4. Plan de l'*aedes* de Xèron



Fig. 5. Vue des installations de l'*aedes*

ni un casernement ni un espace de stockage ou un atelier, en raison de ses aménagements internes. Aucune fonction autre que religieuse ne semble lui convenir.

-il s'agit d'une construction réalisée lors d'une étape avancée de la vie du fort, non d'une construction initiale du poste, comme nous en avons d'autres exemples sur cette piste.

Je propose donc de l'identifier comme l'*aedes* du *praesidium*. Le dé carré, devant l'escalier, serait un autel (ou le support d'un autel). L 'existence d'autels extérieurs à l'*aedes* a été observée à Didymoi (Cuvigny et al. 2012, I, fig. 106 et 183). On pénétrait ensuite par un petit escalier, avant d'entrer dans le couloir dallé qui menait au fond au loculus a, dont l'accès était marqué par des degrés (puis par une mosaïque). Ce loculus était fermé, du côté du couloir, par un volet (ou une porte de bois) s'ouvrant à mi-hauteur. L'intérieur comprend une trace de scellement dont nous ne savons si elle accueillait un pilier ou autre chose. Compte tenu des pratiques religieuses romaines, il paraît peu probable qu'on puisse supposer ici une statue. En revanche le dispositif pourrait correspondre à celui d'une *arca*, supportant en élévation un podium pour les *signa*. Il s'agit là d'hypothèses préliminaires qu'il conviendra d'étayer ultérieurement. Le bassin c peut trouver des parallèles dans ceux de l'*aedes* de Dios, où des bassins avaient aussi été mis en évidence. La nécessité d'évacuer du liquide est en tout cas prouvée par le dispositif observé le long de l'escalier. La présence d'une statuette d'Athéna, *genius loci* de Xèron, renforce cette présomption.

Ce nouvel ensemble doit être confronté avec celui des deux autres *aedes* découvertes sur cette même piste. À Dios, le podium de fond portait encore le bas de plusieurs statues dont certaines appartiennent au cortège de Sarapis et les ostraca découverts prouvent l'existence de pratiques oraculaires à cet endroit (Cuvigny 2010, 247-250). Une inscription, découverte dans un autre secteur du fort, montre par ailleurs l'assimilation entre Jupiter et Sarapis sous le nom de Zeus Helios Megas Sarapis, bien connu dans le désert oriental d'Égypte (Cuvigny 2010, 250-251). Le podium était précédé par un autel, probablement surmonté par un baldaquin. Un dispositif de cette nature pourrait être attesté par une inscription des *principia* d'Apulum, que j'ai commentée ailleurs (Reddé 2011).

À Didymoi, le temple a livré une série d'aménagements cultuels complexes mais aussi d'objets et de statues qui attestent que la divinité était assimilée à Sarapis. La présence des Dioscures («les Jumeaux», Didymoi en grec) qui sont le *genius loci* du poste est rendue visible par une plaque de schiste gravée qui montre l'un des dieux guidant son cheval. Dans l'*aedes* même des restes de peinture montrent une file de soldats cuirassés se dirigeant vers l'édicule du fond, comme sur la célèbre frise relevée par J.J. Wilkinson dans l'*aedes* de Luxor (Cuvigny et al. 2012, 47-52).

J'ai montré ailleurs que cette association entre le dieu romain des armées, *Iupiter Optimus Maximus*, et Sarapis était beaucoup plus ancienne qu'on ne le pense, même en Occident et notamment dans la vallée du Rhin (Reddé 2014). Il n'est donc pas surprenant qu'on la retrouve en Égypte même, sous les formes qu'on vient de décrire, vers le milieu du troisième siècle, et ceci explique la mixité des pratiques religieuses, comme la consultation oraculaire mise en évidence dans les ostraca de Dios.

À Xèron même la présence de Sarapis n'est pas explicitement attestée et ce que je considère comme le sanctuaire a livré peu de matériel cultuel, de sorte qu'on ne peut aller très loin dans l'interprétation. Le dispositif architectural y est encore différent, ce qui montre que, à cette époque au moins, les aménagements de ces *aedes* ne répondaient pas à des standards répétitifs et qu'une grande liberté était laissée en ces matières à la garnison locale. On ne doit évidemment pas en conclure que la célébration des cultes avait cessé au milieu du troisième siècle dans ces postes qui étaient encore occupés par une troupe «romaine», même si les rites s'étaient évidemment égyptianisés avec le temps.

Bibliographie

Cuvigny, H. 2010. The Shrine in the praesidium of Dios (Eastern Desert of Egypt) : Graffiti and Oracles in Context. – Chiron, 40, 245-299.

Cuvigny, H. et al. 2012. Didymoi. Une garnison romaine dans le désert oriental d'Égypte, édité par H. Cuvigny. I- Les fouilles et le matériel ; II- Les textes. FIFAO, 64.

Reddé, M. 2003. Les fortins du désert oriental d'Égypte et l'architecture militaire romaine. In: La route de Myos Hormos. L'armée romaine dans le désert oriental d'Égypte, édité par H. Cuvigny, FIFAO, 48, 1, 2e éd., 235-252.

Reddé, M. 2011. Tetrastylum fecit et aquilam argenteam posuit. In: Corolla Epigraphica. Hommages au professeur Yves Burnand, édité par C. Deroux, II, Coll. Latomus, 331, 621-629.

Reddé, M. 2014. Du Rhin au Nil. Quelques remarques sur le culte de Sarapis dans l'armée romaine. – In : Le myrte et la rose. Mélanges offerts à Françoise Dunand par ses élèves, collègues et amis, réunis par G. Tallet et Chr. Zivie-Coche, Montpellier, CENiM 9, 2014, 69-77.

Prof. Dr. Michel Reddé
Directeur d'études, École pratique des Hautes Études
INHA/AnHiMa
2 rue Vivienne
F-75002 Paris
redde.michel@yahoo.fr

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Cult Constructions of the "Pontic Limes" in Abkhazia

Suram SAKANIA

Sukhum

Early Christian monuments in Abkhazia were most often located inside or near defensive structures, in which Roman, and later Byzantine garrisons were positioned. The best known early strongholds are *Pityos* (Pitsunda) and *Sebastopolis* (Sukhum). The presence of small military garrisons at various times in the other Late Antique coastal centers of Abkhazia, such as: *Ziganis* (Gudaa), *Gienos* (Ochamchira), *Trachea* (New Athos), *Nitika* (Gagra), *Tsibilium* (Tsebelda), and Hashupsa (the antique name is not known), is also possible. At these sites many Christian constructions were located, and they held a large variety of ancient artifacts.

Religious architecture belongs to the many-sided spiritual and material culture of a society. Ancient monuments, especially buildings for public worship, represent the legacy of the people by whose spiritual culture they were created. Abkhazia, involved in the Roman-Byzantine sphere in Late Antiquity before the fall of the new capital of the Empire – Constantinople, remained under its influence, especially in the art of building. Like A. I. Komech wrote, *'it is possible to speak about real influence only under conditions of active and interested perception by one art of the skill and experience of another, similar and necessary for it. The source of a process is in the growth of consciousness and level of skills of the perceiving art'* (Комеч 1987, 7-8). In this respect, the inhabitants of Abkhazia in Late Antiquity were at that level of growth of consciousness which allowed them to perceive a new spiritual religion – Christianity – and new forms of architecture which served it.

The new religious culture came into Abkhazia together with the pillar apostles of Christ. Here, in a coastal zone in Abkhazia, in the middle of the first century AD the apostles Andrew (the First-Called) and Simon the Canaanite (the Zealot) both preached, and so did later the apostle Matthew. Simon the Canaanite suffered a martyr's death near *Trachea*, called then *Nikopsia* (modern New Athos) and was buried in the area. Later, the apostle Matthew accepted similar martyrdom in *Sebastopolis*, and was buried there on the Mount of Samathua. The Christian religion was probably also spread among the local population via retired servicemen who had served in Egypt in the Abkhazian military formation of the Roman emperors *Ala prima Abasgorum* (the First Wing of Abasgians). According to some sources (Хрушкова 2002, 40), from the second half of the 3rd century to the 4th century AD they protected the southern boundaries of the Roman Empire. There could also have been soldiers of the Roman army who, after having completed their service, lived in *canabae* near fortresses in Abkhazia. These were soldiers of *Legio XV Apollinaris* and *Ala Fe1ix Theodosiana* (the First Fortunate Wing in honor of Theodosius). These soldiers and retired servicemen were in Abkhazia from at least the 2nd century AD. The Judaic diaspora played an important role in spreading the new religion with the help of dealers, moneychangers and handicraftsmen who lived in the towns near fortresses.

Heated discussions always arise in academic circles as regards the visits of the apostles in the territory of Abkhazia. However, written sources testify that legends and myths connected with the apostles christening inhabitants of Abkhazia go back deep into history and can be traced from at least the beginning of the 4th century. Throughout more than 1600 years these sources invariably certify that apostles preached in Abkhazia. One of the twelve apostles, Simon the Canaanite, is buried in New Athos. '*Another,* – informs us Sophronius, – *Matthew, was one of the seventy and was selected*

instead of Judas' (Василевский 1877, 52); and '*... passed away in Sebastopolis and was buried there near the Sun Memorial*' (Петровский 1898, 106).

The new Christian religion penetrated into Abkhazia not only with the apostles and retired servicemen, but also through Christian martyrs and prelates exiled beyond the borders of the realm into the less developed outskirts of the Roman Empire. During the reign of Diocletian, seven martyr brothers (Cyriacus, Firminus, Firmus, Heros, Longinus and Pharnaciusat, headed by Orentius) were banished to *Pityos* (Pitsunda) in Abkhazia. Among all the brothers, only Cyriacus and Longinus reached Abkhazia and their bodies were consigned to the earth – one in *Ziganis* (Gudaa) and the other in *Pityos* (Pitsunda). The well-known patriarch St. John Goldenmouth (the Chrysostom) was also banished into Abkhazia. Later, another prominent religious personality, St. Maximus the Confessor, together with his disciple monk Anastasius, as well as a Roman *apocrisiarius* also named Anastasius, were displaced there. The number of ordinary Christians exiled to Abkhazia for different offences was definitely much higher than the number of celebrated personalities, though history is silent about them. It is known that the existence of the Pontic limes is not confirmed by legal documents. However, the presence of a considerable quantity of defensive and other constructions in a small region has allowed researcher V. A. Lekvinadze to offer the term Pontic limes, and this definition has been included in scientific vocabulary (Леквинадзе 1969, 75-93). Since that time, many scientists have used this term, for example O. Lordkipanidze, H. Brakmann, D. Braund, and Y. Voronov. The existence of the Pontic limes is denied by N. Lomouri and K. Tsukerman.

It is impossible to ignore the fact that in the coastal zone of Abkhazia there were large, average and small fortresses from Roman and Byzantine times. They were built in a certain order, and all of them functioned to protect the interests of the Roman state. We believe that, under certain conditions, fortresses erected by local governors could have been included in this system of defense. Among these it is possible to include the remains of a defensive wall on Sukhum Mount, the fortress ruins on the banks of the river Gumista near Mayak, the ruins of a coastal fortress mentioned by travellers in *Trachea* (New Athos), the Hashupsa fortress in the Gagra area, and probably a fortress in Kelasur. As for the Roman fortifications, there are several of them located at certain sites in the territory of Abkhazia. Among those already revealed is a fortress in *Ziganis* (Gudaa) (Закарая / Леквинадзе 1971, 139-152). In this fortress was stationed a group of up to four hundred legionnaires of the *Second Cohort of Valens*. It is known that the great martyr Cyriacus, who was banished to Abkhazia with his brothers, was buried in this place. In Ziganis a baptistery was also discovered (**fig. 1**). To the north of *Ziganis* the remains of a wall made of burnt brick have been found in the village of Ilyr (Ilori). From accompanying materials the wall is dated to the 4th-5th centuries, as is the previous monument. Near the remains of this fortress no cult constructions have yet been revealed. However, in this village the fragments of a Roman road, presumably from the 2nd century, have been preserved. To the north-west of *Gienos* (Ochamchira) the remnants of strong cobblestone walls have been discovered which can be related to the Roman fortress (Воронов 1976, 314-323). At the same time, it is worth to note that the laying of cobblestone is not categorically characteristic of Roman building forms. In this part of *Gienos* a church has been found (Шамба / Шамба 1985, 19-22) (**fig. 2**).

Forty-five kilometers to the northwest of Ochamchira on the seacoast, the ancient city of *Sebastopolis* (Sukhum) is situated. The sea has literally absorbed most of the Roman and Byzantine defensive constructions in this city. Only fragments of the northern part of a fortress still remain. The ruined walls indicate that the sea has continuously

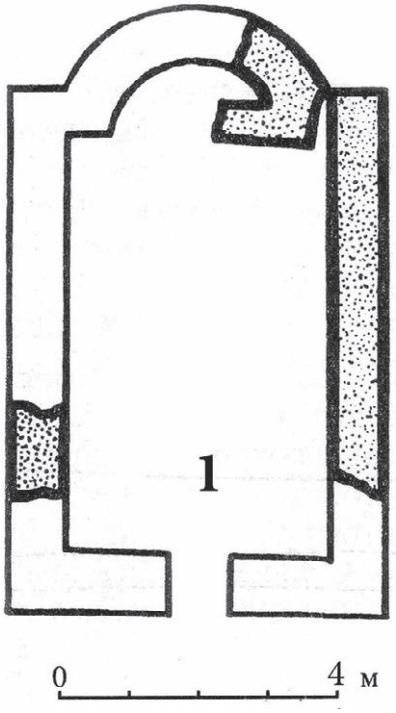


Fig. 1. *Ziganis*, plan of baptistery (after Закарая / Леквинадзе)

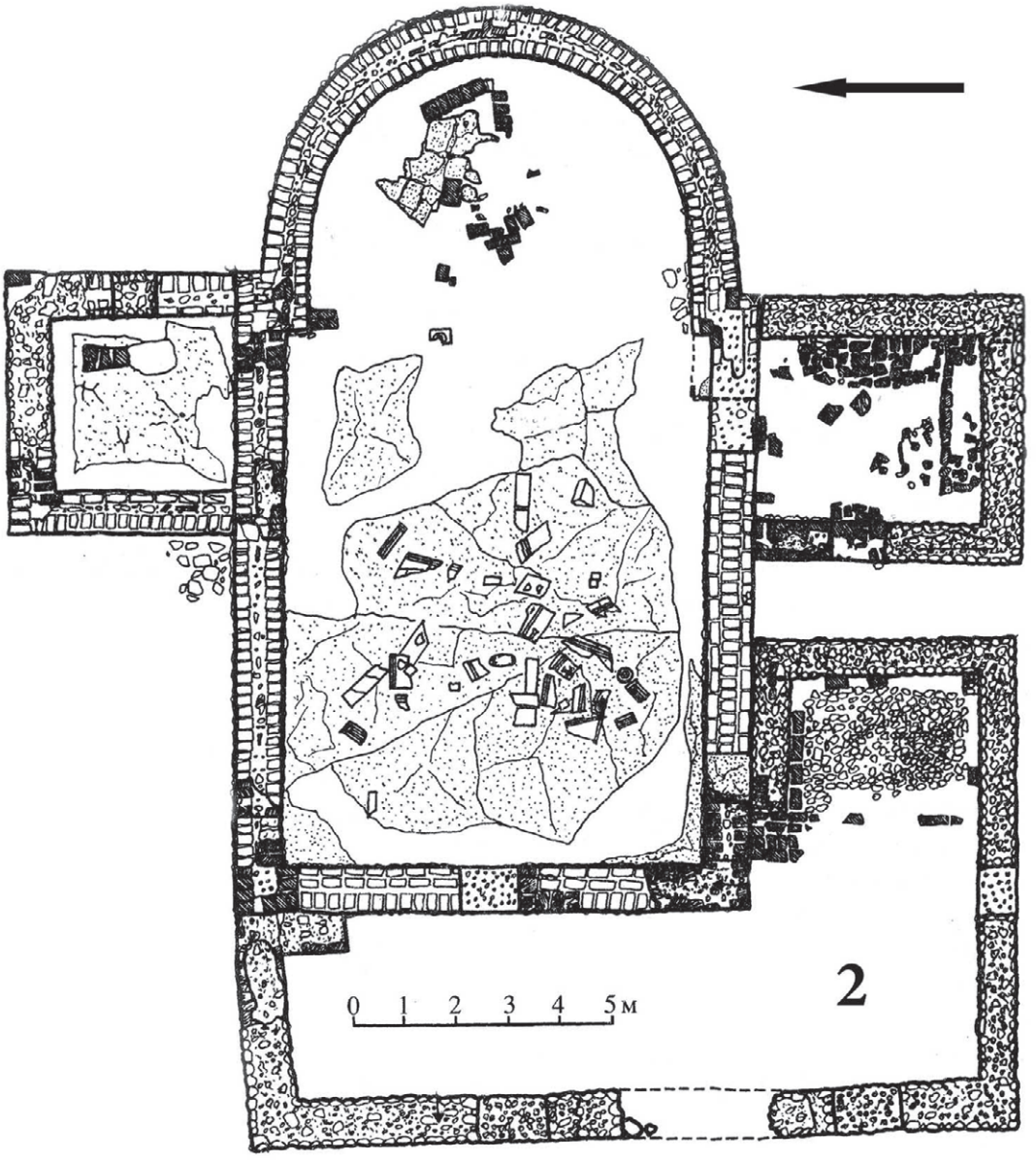


Fig. 2. *Gienos*, plan of church (after Хрушкова)

attacked the coastal sites, flooding and destroying the fortress. From written sources it is known that in *Sebastopolis* the *Cohors I Claudia Equitata* (the First horse cohort of Claudius) was placed (Леквинадзе 1969, 84). Archaeological research of the fortress has revealed the presence of two unique Christian temples (Хрушкова 2002, 195-259).

Twenty-five kilometers to the northwest of *Sebastopolis* is located *Trachea* (New Athos). The fort from Roman times has hardly survived. The remnants of fortification and a tower called Genovese were probably erected upon the ruins of a Roman *castellum*. Churches of that period have not yet been discovered, in spite of the fact that a church legend says that Apostle Simon the Canaanite was buried in *Trachea*.

Fifty kilometers to the northwest of *Trachea*, on the left bank of the river Bzyb near the seacoast, at the end of the 1st century AD a Roman fortress was constructed upon the ruins of what was at that time known as the city of *Pityos* (Pitsunda). In the 2nd century the fortress was reconstructed in accordance with the Roman system of regular masonry. Till the middle of the 3rd century the fortress had successfully repulsed attacks by enemies of the Empire – the nomadic people of the north. In the middle of the third century *Pityos* was crushed by the tribes of Borans and Goths. At the end of the 3rd century the fortress was restored. Later, in the 5th century, an irregular structure of a semicircular form was added to the existing fort. Near the first *castellum*, church # 1 was constructed at the begin-

ning of the 4th century. After its destruction, church № 2 was built on the site of the first church, and after the destruction of the second one, church № 3 was built on the same site, but it also collapsed. West from church № 3, church № 4 was built. However, churches № 3 and № 4, dated to the 5th century, were constructed inside an irregular fortress.

Nitika (Gagra) is located near *Pityos*. The Gagra fortress, despite its massive reorganization in the 19th century, remains a classical Roman fort. Because of the rising of the sea level, the southern wall has collapsed, and alluvial earth has buried most of the stronghold. A greatly reconstructed church of the 5th century has been excavated in the fortress.

Twenty kilometers from *Nitika*, in the settlement Tsandripsh is located a well-known church. Near the church partly remain walls of a fortress destroyed by the sea. An underground passage leads from these walls into the church. Researchers estimate the church construction date to be around the 5th-6th centuries.

Among the fortresses not erected on the seacoast, the ones possible to locate are Hashupsa and *Tsibilium* (Tsebelda). The fort of Hashupsa, considering its configuration and construction technique, does not belong to Roman fortifications. The Tsebelda fortress was known from Byzantine sources of the time of Justinian the Great and was constructed in accordance with the Roman-Byzantine examples of fortification. In this fortress there are also remnants of some churches built at different times.

Judging by the visible remains, in the territory of Abkhazia there is a sufficiently presented system of defensive constructions, which could have been protecting the interests of the Empire. As already mentioned, the early churches in the territory of Abkhazia were erected in settlements and towns near or inside fortresses.

The earliest Christian church in Abkhazia was excavated at the site of an ancient settlement in *Pityos* (Pitsunda). Three temples from the Late Antiquity were situated there. The most ancient and simplest in design was church # 1. Its size measures: length – 26.2 m, width – 11.3 m. The church was built with an east-west orientation. The apse was superficial, slightly oval, and merged into a longitudinal wall. A similar design, where an apse-exedra merges into a wall, is characteristic of the Mediterranean region in the Late Roman period (Хрушкова 2002, 70-72). This is the most ancient variation of a basilica type church not only in the territory of Abkhazia, but also throughout the whole Christian Caucasus. Consequently, researchers assume that the well-known Bishop Stratophil, who participated in the First Ecumenical Council in Nicaea in the year 325 AD, could have preached at this *Pityos* church. However, Bishop Sophronius, appointed by St. Gregory, could have served at the same church before Stratophil (Иеромонах Дорофей 2005, 129). The church was destroyed by a fire, presumably in the middle of the 4th century. Upon its site, the townspeople constructed a new temple, which had a size of 28 x 13.2 meters and surpassed the previous one in its dimensions. Five pairs of columns divided the internal space into three naves, thus distinguishing this church from the first one. The eastern part of the temple had a many-sided (five from within and five outside) apse. The walls of this apse, as in the first church, merged into the longitudinal wall. At the western side there was a *narthex*. A baptistery was built south of the *narthex*. The temple floor was richly decorated with mosaics. Builders used multicoloured natural stones in the shape of 0.5-1 cm^2 cubes. The mosaic was completed in the *opus tessellatum* technique, and is famous for its ornaments and composition related to Christian symbolism. Some fragments of a Greek inscription have also been found. Researchers disagree on the date of the temple construction or the period when the mosaic was created. Moreover, the Greek inscription has been interpreted in various ways. There is a number of conflicting opinions. One opinion is that the inscription mentions the name of the great martyr *Orentius*. This idea is supported by a number of researchers (Леквинадзе 1970, 174-178; Иеромонах Дорофей 2005, 93-101). Some historians see in this writing a Georgian name, *Oreli* (Каухчишвили 1977, 218-241; Шервашидзе 1978, 169-193). A third option was suggested by L. G. Khroushkova – instead of the names of Orentius or Oreli, she interpreted the inscription as *Aurelius*. Without challenging any of the offered versions, we would like to note that the inscription lacks some letters and consequently there have been different mutually exclusive interpretations. Having repeatedly seen the original mosaic in Tbilisi, and also having measured the area of the missing letters, we have come to the conclusion that Lekvinadze was the researcher closest to the truth.

Both the time of erection of the church and that of the mosaic laying remain disputable. It is thought that the church could have been built in the middle of the 4th century. Despite the different interpretations, we consider that the floor mosaic was also laid in the 4th century, with later restoration at the

beginning of the 5th century. This opinion does not contradict the archaeological materials excavated from the church. The lowermost layers contained pottery dating to the 2nd-3rd centuries; the middle layer contained coins of Antoninus Pius and Constantia, and also pottery of the 3rd-4th centuries, which basically corresponds to our suggestion. In the top layer, ceramic material of the 6th -7th centuries was excavated.

After a fire in the 5th century, the third church was built on the same spot, and even bigger in size. Church # 3 is an example of a classical three-nave basilica. It is a unique temple of Hellenistic design. The central nave was separated from the lateral ones by five pairs of columns and, as in classical cathedrals, was longer and wider than the laterals at the expense of a projecting pentahedral apse. At its western side, the church had a classical *narthex*. Three independent doorways led from the *narthex* into each nave. The church (28.4 m x 14.6 m) is similar in plan to the basilica of John Studios, and is also reminiscent of the *Chalkoprateia* basilica. The construction of the third church can be referred to the middle of the 5th century. In any case, the church was built before the erection of a defensive wall of a *canabae*. This wall passed too close to the south wall of the church. Church # 3 went to ruins in the 6th century.

At the same time (6th century), the fourth church was attached to it from the western side (**fig. 4**). This was a one-nave temple with a trihedral apse to the east, and a wide narthex to the west. The internal space of the church was symbolically divided by a pair of strongly projecting pilasters. Probably the cross-section arches leaned against them. Such a form was not characteristic for Abkhazia, and, it appears, was also alien to the Capital school of religious architecture. However the tradition of a trihedral apse is quite commonly found in the design of many monumental religious constructions in Constantinople. Probably, in church # 4 we see a creative interpenetration of different styles hatched in the territory of the Byzantine Empire. In *Pityos* (Pitsunda) some more temples existed. Among them, a double church of the 6th century with two pentahedral apses, unique for Abkhazia, generates the greatest interest (**fig. 5**). This church was studied by researcher T. M. Mikeladze (Микеладзе 1963, 125-131). The external size of the church is 28.5 x 14.5 meters. In recent years, historian L. G. Khroushkova has been engaged in supplementary examination of this monument, but her results have not yet been published.

As the well-known *Notitia Dignitatum* mentioned, at the end of the 4th century a Roman military garrison was located in *Ziganis* (Gudaa). Also, one of the brothers of St. Orentius, Cyriacus, died and was buried in *Ziganis*. Archeologists have excavated the remnants of the walls of a fortress, and a small baptistery (Закарая / Леквинадзе 1974, 139-152). The latter was a smaller construction (10 x 6 meters) with a little apse. Near the baptistery Prokonnessian marble tiles were found. Marble tiles must have been used for a significant reason, and they were certainly related to the importance of this place. The church, to which this baptistery could have been attached, has not yet been found.

One more church was excavated by S. M. Shamba in *Gienos* (Ochamchira) in the 1980s (Шамба / Шамба 1985, 19-22). The church was completely ruined. It was a one-nave construction with a wide semicircular apse on the eastern side. Outside, at the sides of the church closer to the apse, two symmetric premises and one more extension which covered the southern and western parts were added. The outer size, with all the extensions, measures 23 x 19.5 meters. The church was built in the 4th-5th centuries. Near the church at the western and northern sides the walls of a fortress were located, but they have not yet been excavated.

Apart from *Pityos*, the greatest interest, in our opinion, lies in the temple complex investigated in the fortress of Sebastopolis in the early 80s, early 90s and at the beginning of the third millennium. At the beginning of the 1980s, under the supervision of M. M. Gunba, systematic archeological excavations began in the fortress. Later, L. G. Khroushkova headed the diggings. As a result, a ruined octagonal church was found (Хрушкова 2000, 195-259) (**fig. 3**). Excavation of the greater part of the church revealed that this is a unique construction, not only for Abkhazia, but also for all of the Orthodox Caucasus. The main axes of the church coincided with the points of the compass, and the basic part of the church had an octagonal form. To the octahedron, narthexes of identical form and size, also coinciding with the points of the compass, were adjoined. In general, the construction was similar in plan to a cross with four identical ends. In the middle of the octahedron an octagonal tholobate on eight supports with a dome that was once towered. At the eastern side, beneath the dome on the floor, fragments of a wall with a semicircular apse-exedra have remained. Extensions on the west and east sides have not yet been excavated.

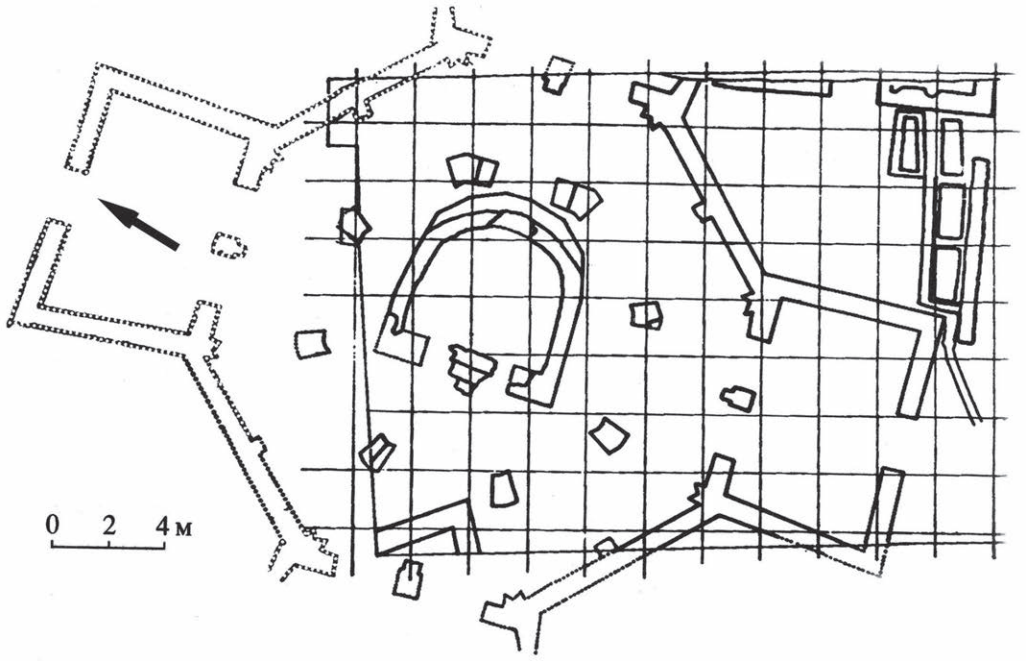


Fig. 3. *Sebastopolis*, plan of church (after Хрушкова)

In the eastern part of the church a gravestone stele with a Greek inscription was discovered. The stele is devoted to soldier-legionnaire Orestes. The creation of this unique construction according to L. G. Khroushkova can be dated to the 4th-5th centuries. The church was probably destroyed during the first half of the 4th century during the period of the Iranian-Byzantine wars in the time of Justinian the Great. Nearby, south-east of this octagonal church, a three-nave basilica with a protruding pentahedral apse was excavated in 2001-2002. This basilica was investigated by historians D. S. Bzhania and Y. V. Gorlov. The church is remarkable with its richly decorated mosaic floor, made of large pieces of marble and ceramic plates and displaying geometrical motifs. The dating of the building, as suggested by Bzhania and Gorlov, is from the 5th to the beginning of the 6th century.

In the coastal zone of *Trachea* (New Athos), no early churches have been revealed yet, though undoubtedly the remnants of buildings for public worship will be excavated in the future. Concerning coastal *castella*, there is a stronghold in the village of Tsandripsh, unmentioned in written sources and badly destroyed. To the west of the ruins of the walls of a fortress, a three-nave church with trihedral apses protruding to the east is visible (**fig. 7**). The central apse is pentahedral, and the laterals are trihedral. At the western side a narthex with attached vestibule is located. This church is unique, and not only for Abkhazia. It is prolonged in its eastern part

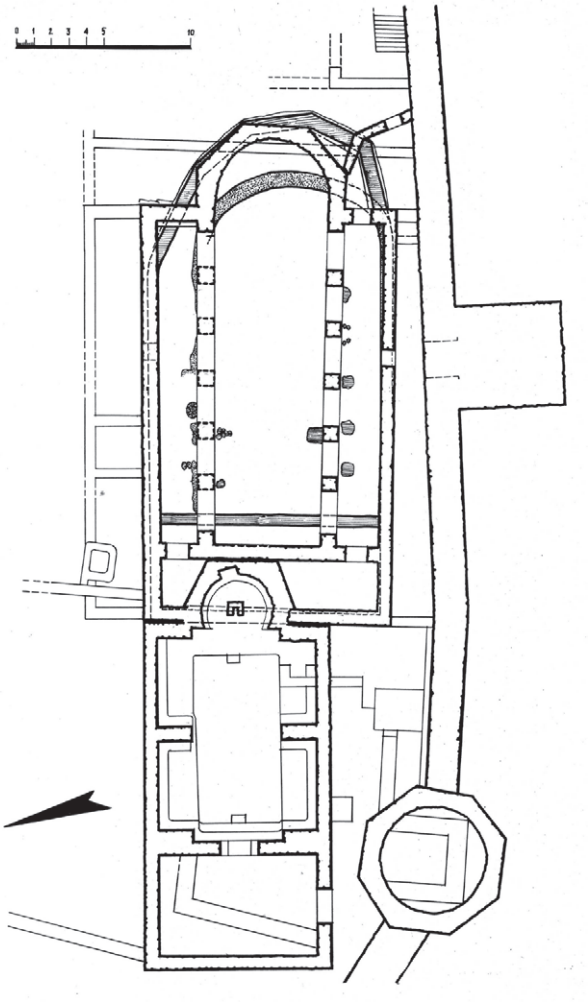


Fig. 4. *Pityos*, general plan of churches built at different times (after Апакидзе)

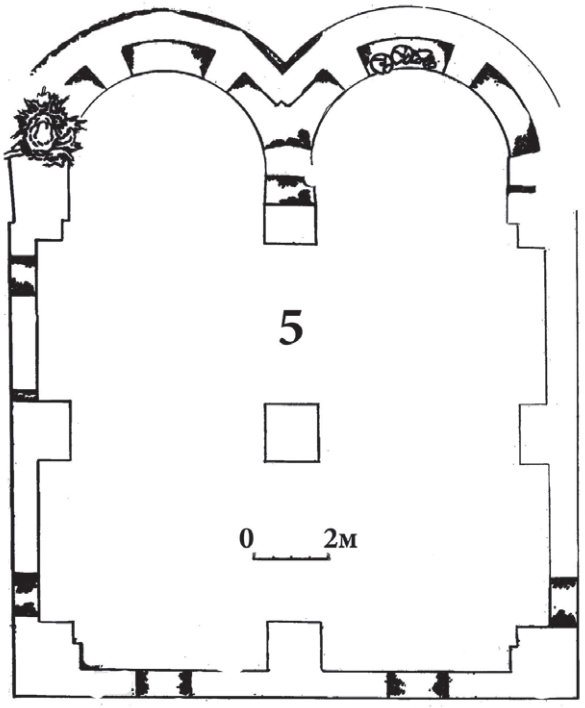


Fig. 5. *Pityos*, plan of double church (after Микеладзе)

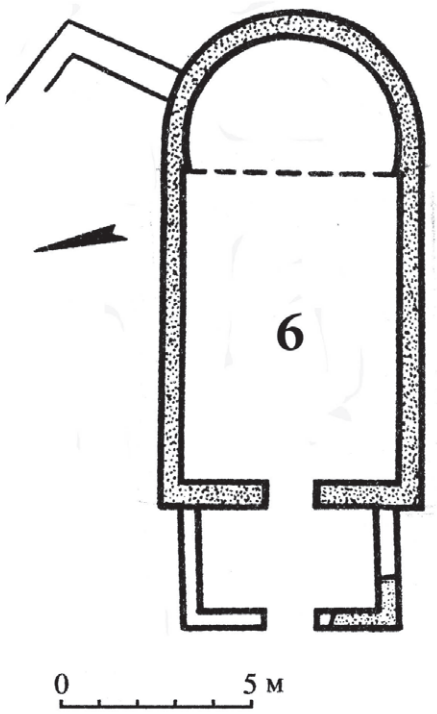


Fig. 6. Hashupsa, plan of church (after Хрушкова)

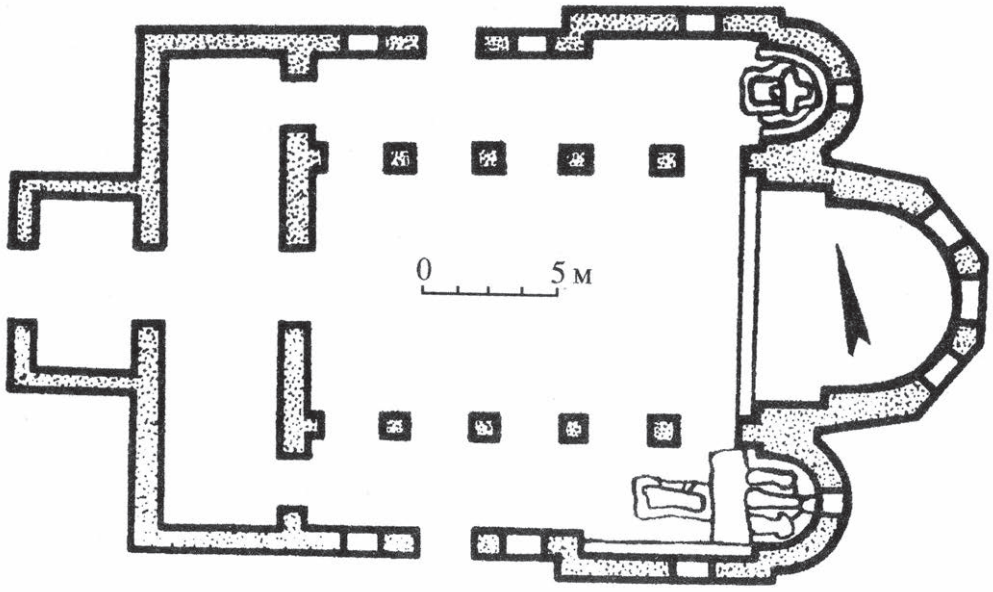


Fig. 7. Tsandripsh, plan of basilica (after Хрушкова)

and gives the construction a T-shaped form. In the apse of the northern nave there was a baptistery, which is also unique in Abkhazia. Numerous details made of marble from Prokonnessos have been found here. Based on this, the investigator of the monument L. G. Khroushkova considers it possible that this church could have been constructed by the order of Emperor Justinian for the Abasgians, and Procopius of Caesarea wrote about it. Khroushkova dates the church towards the end of the war between Byzantium and Abasgia, which was after the middle of the 6th century.

Thirty kilometres to the north of Tsandripsh, in the gorge of the river Hashupsa at a hilltop, a stronghold with the same name is located. The monument has not yet been studied. In a fortress on the top plateau, a number of ruins have remained. Among them, a hall church with a semicircular protruding apse in the east and a vestibule in the west can easily be seen (**fig. 6**). Neither the church, nor the fortress

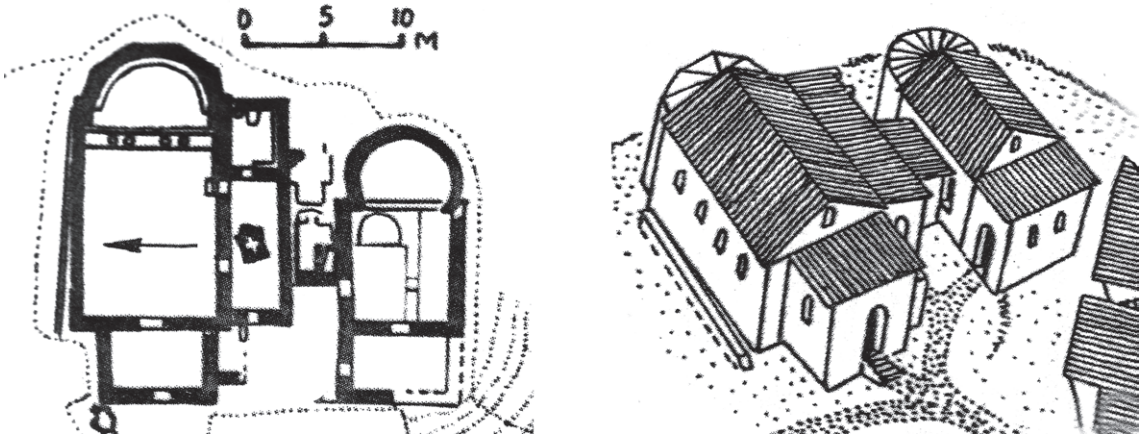


Fig. 8. *Tsibilium*, plan of churches and reconstruction (after Воронов)

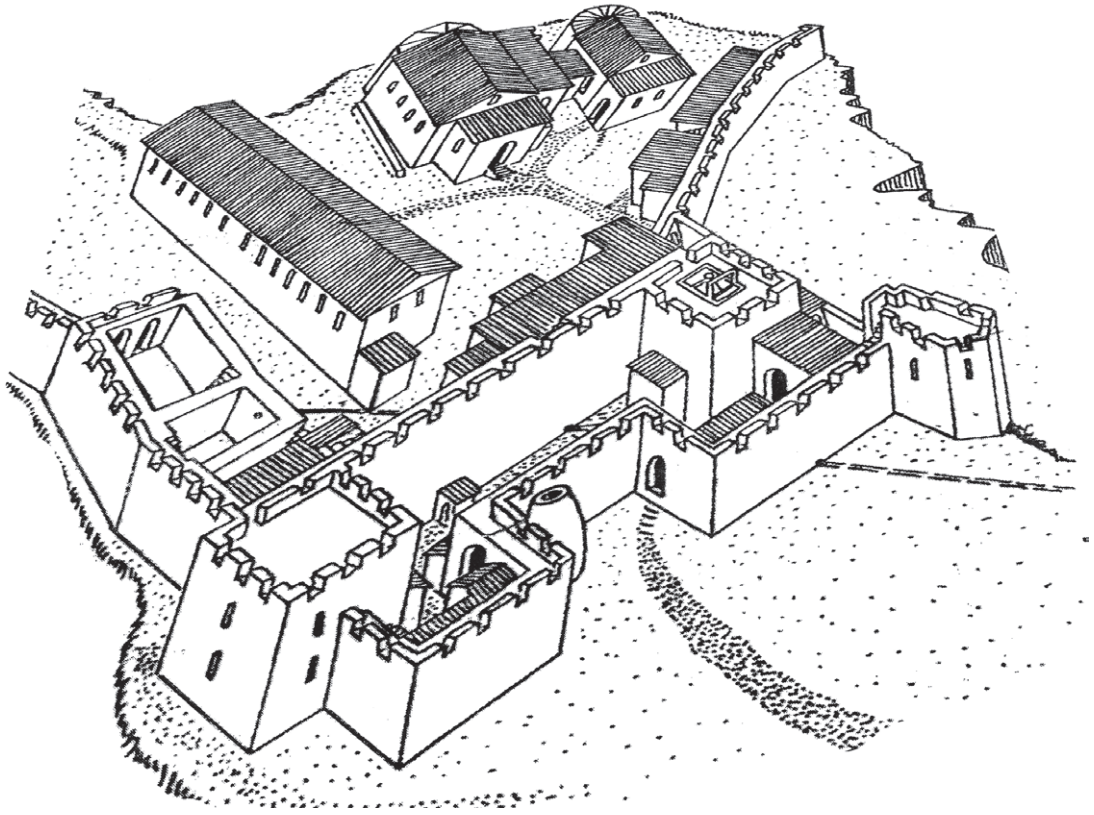


Fig. 9. *Tsibilium*, reconstruction of fortresses (after Воронов)

has yet been studied, but presumably the date to the 6th century. The fortress was probably constructed at an earlier time than the church.

Forty kilometres from *Sebastopolis*, in the north-eastern part of Abkhazia, is the site of *Tsibilium* (Tsebelda), well known from written sources. On a massive mound of rock by the river Kodor, the large (by Abkhazian standards) defensive fortress of Tsibilium was built. It locked the entrance to a coastal zone of the Empire for its enemies – nomads of the Northern Caucasus. Walls, towers, a bath, tanks for water, and all internal structures of the fortress were installed according to the full requirements of the Empire. A church was constructed in the fortress on a prominent plateau (**figs. 8, 9**). The fortress and church date to the 6th century, during the reign of Justinian (Воронов, Бгажба 1987, 116-132).

Bibliography

Василевский, З. В. 1887. Хождение Апостола Андрея в стране мирмидонян. – Журнал Министерства Народного Просвещения 22, 52.

Воронов, Ю. Н. 1976. Гиенос. – Советская археология 4, after «Научное наследие», том 1. Сухум, 2006, 314-323.

Воронов, Ю. Н. / Бгажба, О. Х. 1987. Крепость Цибилиум – один из узлов Кавказского лимеса Юстинианов ской эпохи. – Византийский временник 48, 116-132.

Закарая, П. П. / Леквинадзе, В. А. 1974. Археологические раскопки в Гудаве в 1971 году. – Археологическая экспедиция государственного музея Грузии, том 3. Тбилиси. 139-152.

Иеромонах Дорофей (Дбар) 2005. История христианства в Абхазии в первом тысячелетии. – Новый Афон, 93-101, 129.

Каухчишвили, Т. С. 1978. Греческая надпись Бичвинтской мозаики. – In: Великий Питиунт, том 3. Тбилиси. 218-241.

Комеч, А. И. 1987. Древнерусское зодчество конца X-XI веков. – Москва, 7-8.

Леквинадзе, В. А. 1970. О древнейшей базилике Питиуса и ее мозаиках. – Вестник древней истории 2, 174-178.

Леквинадзе, В. А. 1969. Понтийский лимес. – Вестник древней истории 2, 75-93.

Микеладзе, Т. К. 1963. Двухапсидная церковь Бичвинта. – Материалы по археологии Грузии и Кавказа, том 2, 125-131.

Петровский, С. В. 1898. Сказания об апостольской проповеди по северо-восточному Черноморскому побережью. – Записки императорского одесского общества истории и древностей, 21, 1-184.

Хрушкова, Л. Г. 2002. Раннехристианские памятники Восточного Причерноморья IV-VII века. Москва.

Шамба, С. М. / Шамба, Г. К. 1985. Раскопки древнего Гюэноса. – Археологические открытия в Абхазии в 1981-82 году. Тбилиси. 19-22.

Шервашидзе, Л. А. 1978. Пицундская мозаика. – Великий Питиунт, том 3. Тбилиси. 169-193.

Suram Sakania, Art Historian
Abkhazian Research Institute in Humanities
44 Aidgylara St.
Abkhazia, Sukhum
suram.sakania@rambler.ru

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Pagans, Christians and Barbarians at the Late Roman Cemeteries of Štrbinci and Zmajevac (NE Croatia)

Branka MIGOTTI

1. Introduction

As transpires from the title, this contribution covers the themes of two conference sections: *Burial rites* and *Rome and Barbaricum – aspects of interaction*. This is because it appears that any kind of Late Roman material in the wider area of the *limes* can be most efficiently discussed against the background of ethnic and cultural interactions between the provincial Romans and Barbarians[1]. The present discussion is based on the site of Štrbinci in NE Croatia, situated some 50 km west of the Croatian part of the Danube *limes*, with the material mostly, although not exclusively, coming from my own excavations of a Late Roman cemetery there. The site is presumed to be the location of the Roman roadside settlement of Certissia, but this has not been finally proven (Migotti 2012a). So far 175 graves holding extended inhumations have been found, arranged in loose sub-regular rows with mostly NW-SE orientation[2]. The comparative material has been sourced from the late Roman cemetery at Zmajevac, Roman *Ad Novas*, a *castellum* on the *limes*, excavated by Slavica Filipović of the Museum of Slavonia in Osijek, and also yielding 175 graves. These were mostly, but not exclusively, extended inhumations (see below), and were arranged in loose sub-regular rows with SW-NE orientation. The cemetery at Zmajevac has only been published in a short form as an exhibition catalogue (Filipović 2010), inhibiting therefore a complete insight into the material. Nevertheless, the evidence from both sites is sufficient for the possibility of their comparison in a given chronological and spatial context, that is, the 2nd half of the 4th and an uncertain section of the 5th century, in the wider limes area (**fig. 1**).

2. Chronological, Political-geographical and Historical-cultural Context

The starting point for this discussion is based on Jaroslav Tejral's study (1999, 220-222) in which he established two chronological and cultural levels of late Roman cemeteries in Pannonia: 1. type Ságvár, dated to the 4th century and terminating around 400, situated in the interior, and characterised by purely provincial material with no Barbarian finds; 2. type Csákvár, dated to the end of the 4th century and the first third or so of the 5th century, situated mostly on the *limes* or some important inland routes, and showing evident traces of new, Barbarian material. However, as all generalisations, this one seems to be too neat and clear to be completely reliable, that is, applicable in all its elements and to all sites in question. It should be viewed as a research direction rather than a firm chronological and cultural frame for the material in question, the more so as the majority of Ságvár type cemeteries contain at least some traits of those of type Csákvár (cf. Steinklauber 2002, 185). The sorest point seems to be the presumed end of Ságvár type cemeteries around 400, explained by Tejral as the result of the surrender of *Pannonia Valeria* to the Barbarian peoples, which should have brought prosperity to the borderland of the province of Pannonia on account of its inland area (Tejral 1999, 223). This presumption, however,

[1] The word *Barbarians* (ethnic Barbarians) as opposed to *barbarians* (uncultured brutes) has been used in this paper with the intention to stress the difference between the characterisation in terms of political ethnography versus cultural anthropology.

[2] Migotti / Perinić 2001; Migotti 2004; Migotti 2007; Migotti 2009; Migotti / Leleković 2013; excavations in 2011 and 2012 have not yet been published.

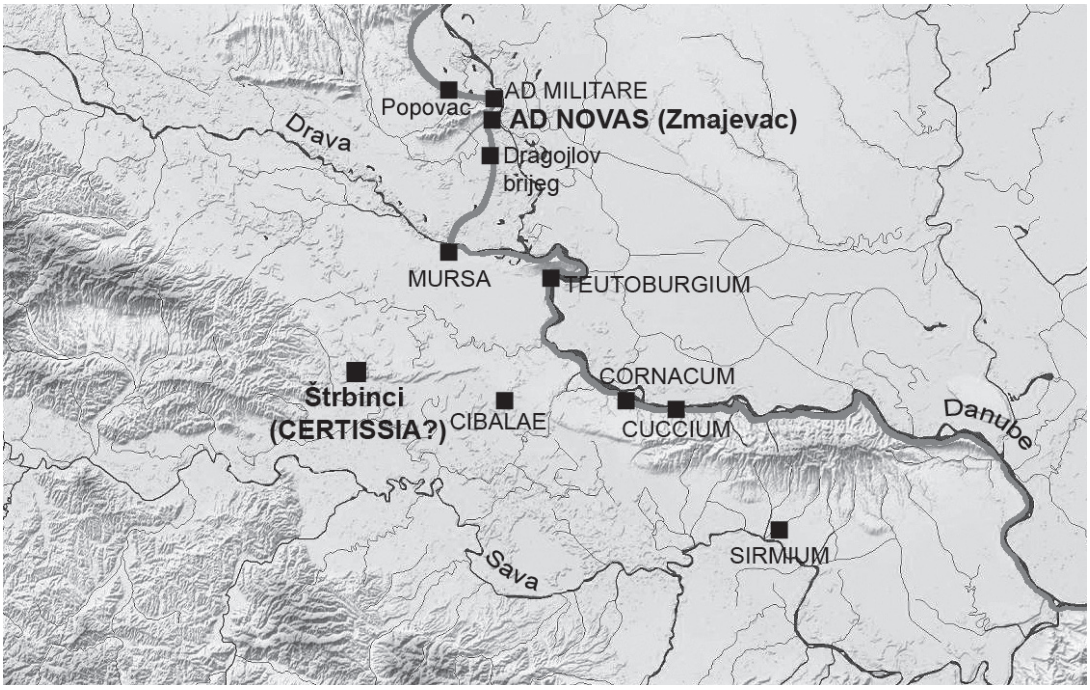


Fig. 1. The Croatian part of the Danube *limes*[3]

loses some of its persuasion if we bear in mind that the settlement of Csákvár itself grew around a provincial-Roman core (Salamon / Barkóczi 1971, 71). Furthermore, the suggestion for the end of Ságvár type cemeteries mostly rests on numismatic evidence, with the latest examples dating from the Valentinian period (378), while it has by now become widely accepted that this does not automatically exclude a site from lasting into the 5th century (cf. Tejral 1997, 322, *passim*; Schmidt 2001, 397; Schachinger 2006, 98; Migotti 2012b, 18). Indeed, many of the grave goods from the Ságvár cemetery were in the revision by W. Schmidt (2001, 386-405, 420) dated to the 4th century and lasting into the 5th. Based on the above scheme, Štrbinci should be ascribed to type Ságvár, and Zmajevac to type Csákvár, both in terms of the geopolitical position and the material. While basically true in both terms, such classification does not fit completely in the proposed chronology, given that both cemeteries have yielded coins with the latest issues dating from the year 378, testifying to roughly the same chronology. Also, it should be noted that both sites have produced chance finds of 5th- and in the case of Štrbinci even 6th-century coins. Therefore, it remains to compare the cultural profiles of the two sites, in order to establish whether there is any difference in the grave goods in terms of expected Barbarian finds.

The historical framework of the Barbarian presence in the Croatian part of Pannonia from the 3rd to 7th centuries has been ascertained through literary sources (Rapan Papeša 2012). Arguably, there is sufficient material evidence to corroborate this data. It would go beyond the scope of the present paper to try to establish precise ethnic appurtenances of the archaeological material, all the more so as the finds are not so many and not yet sufficiently studied and systemised. Instead, this paper will aim at identifying general Barbarian traces in the material, as opposed to characteristic Roman provincial finds. In the given context, it is bound to create an insight into a society composed of Romanised (integrated, acculturated) Barbarians and "Barbarised" autochthonous Roman provincials, as bearers of a mixed borderland culture; inevitably, the issue of the Barbarian ethnic presence, trade and/or just indirect influences, mostly remain in the sphere of speculation (cf. Salamon / Barkóczi 1971, 75; Sági 1981, 94-119; Bernhard 1982, 75; Vaday 1989, 189-192; Kazanski 1997, 290, *passim*; Tejral 1997, 321; Böhme 1997, 93; Gottschalk 1999, 91; Tejral 1999, 235; Ivanišević / Kazanski 2002, 124-127; Steinklauber 2002, 186; Glaser 2004, 92, *passim*; Lenz 2005, 400-414).

There is a body of evidence, which, according to the majority of commentators, can serve as

[3] Map in fig. 1 was made by T. Leleković, fig. 2.2b. was made after Schulze-Dörrlamm 1986, fig. 2.4. after Harhoiu 1994, figs. 3 and 4 were sourced from Filipović 2006, and the remainder are from the Photo-archive of the Croatian Academy of Sciences and Arts.

a certain or presumed indicator of either direct or indirect (via cultural influences) Barbarian presence at late Roman Pannonian cemeteries. Given the space limitation, it is not possible to enter into any discussion on the accuracy of such claim for individual finds, such as: incinerations, N-S orientation of graves, crouched inhumations, particular shapes and grave construction featuring wooden parts and side niches, unworn dress accessories, weapons, some types of ceramic dishes, some types of brooches and belt buckles, iron artefacts, especially brooches and buckles, (iron) brooches and belt buckles in female graves, shoe buckles, leather purses, beads as decoration of purses and clothes, some types of beads, especially amber and polyhedral carnelian, and especially in male graves, some types of pendants, such as wild-boar teeth, wooden buckets, scissors, tweezers, flints, combs, bracelets with conical terminals, etc. (Salamon / Barkóczi 1971, 55-75; Rau 1972, 144-156; Vágó / Bóna 1976, 196-206; Bernhard 1982, especially p. 75; Schulze-Dörrlamm 1986; Gottschalk 1999, 85; Istvánovits 1993, particularly 139-141; Böhme 1996; Kazanski 1997; Tejral 1997; Bernhard 1999; Gottschalk 1999, 82-91; Tejral 1999, 235-236, *passim*; Ivanišević / Kazanski 2002, 101-124; Steinklauber 2002, 186-187; Glaser 2004, 84-100; Lenz 2005, 386-414).

3. Finds from Štrbinci and Zmajevac

As transpires from the abovementioned generalities of both cemeteries, they are quite similar in the general outlook, and this also applies to small finds. Nevertheless, some differences do exist, and they will be pinpointed and commented in the further discussion, in order to establish the place of these two cemeteries in the cultural-chronological scheme of J. Tejral. First, the evidence for the finds with possible Barbarian associations and lacking pronounced religious components will be brought, followed by the material with more clear religious components, irrespective of possible ethnic affiliations. However, it goes without saying that it is in most cases impossible to draw a clear line between these categories in the context of funerary evidence, inherently imbued by ritual observations.

3.1. Finds with certain, probable, or possible ethnic (Barbarian) affiliations

Štrbinci

It should be stated at the outset that this cemetery has failed to produce any blatantly Barbarian finds, and has yielded instead only those with possible Barbarian associations. Most diagnostic among iron artefacts are brooches and belt buckles. The D-form of the buckle loop from grave 13 is thoroughly provincial, while possible Barbarian affiliation comes from the fabric and the fact that it was, together with a copper alloy strap end, deposited by the head, i.e. not worn in burial (**fig. 2.1**). By implication of fabric, 9 iron bracelets and 12 rings (graves 15, 19, 29, 45, 62, 87, 95, 103, 113, 116, 121, 125, 131) might be accorded Barbarian associations. This, however, is not very likely, given the vast and complex cultic, apotropaic and social connotations of iron jewellery in Roman civilisation (Stout 1994, 78; Migotti / Perinić 2001, 152; Glaser 2004, 90-91). A small copper-alloy belt buckle from a child's grave 65 (**fig. 2.2a**) was made as a simplified and stylised imitation of more sumptuous chip-carved belt sets, which earlier used to be considered as worn exclusively or mostly by German soldiers in the Roman army (**fig. 2.2b**). Today they are rather viewed as worn also by provincial Romans, although perhaps better suited to Barbarian tastes (Bernhard 1982, 105; Schulze-Dörrlamm 1986, 473; Gottschalk 1999 , 85; Tejral 1999, 27-231, Abb. 8: 4; Steinklauber 2002, 187; Migotti 2007, 178-181).The same holds true for a copper-alloy belt buckle with three rivets on the mount from grave 149 (**fig. 2.3**), which counts among provincial forms, but is often found also in Barbarian contexts of the 4th century (**fig. 2.4**), probably giving rise to one of the leading shapes of sumptuous Barbarian belt buckles of the 5th and 6th centuries (Keller 1971, 60, Abb. 23: 1; Lányi 1972, 158, Abb. 52: 1; Sági 1981, 37, Abb. 21: 65/2a; Sommer 1984, 19, Taf. 1: 1; Rau 1972, 188, Fig. 82; Schulze-Dörrlamm 1986, 503-504, Abb. 25: 5; 610, Abb. 16; Tejral 1997, 338, 351, Abb. 17: 9, Abb. 29: 11; Kazanski 1999, 300, fig. 6: 10; 304, fig. 9: 12; Tejral 1999, 251, Abb 25; 270, Abb. 38: 1). The Štrbinci cemetery has further yielded 3 pieces of full-cast copper-alloy bracelets with conical ends (graves 19 and 126) (**fig. 2.5**). The origin of this artefact in Roman provincial culture of the 4th and 5th centuries has been much debated, but has still remained obscure. Nevertheless, it appears that their beginning should be found in the Sarmatian circle (Rau 1972, 151; Vaday 1989, 49-52; Migotti / Perinić 2001, 153, n. 25; Ivanišević / Kazanski 2002, 118-119; Glaser 2004, 90, 92; Kosack 2004, 11-13, Abb. 4: 3; Carnap-Bornheim 1999, 47, 57-59; Kazanski 1999, 307).

Zmajevac

Unlike Štrbinci, where all graves are of usual provincial type, Zmajevac has yielded Barbarian elements of grave forms and body positioning: a pit with holes for wooden posts along the sides (**fig.**

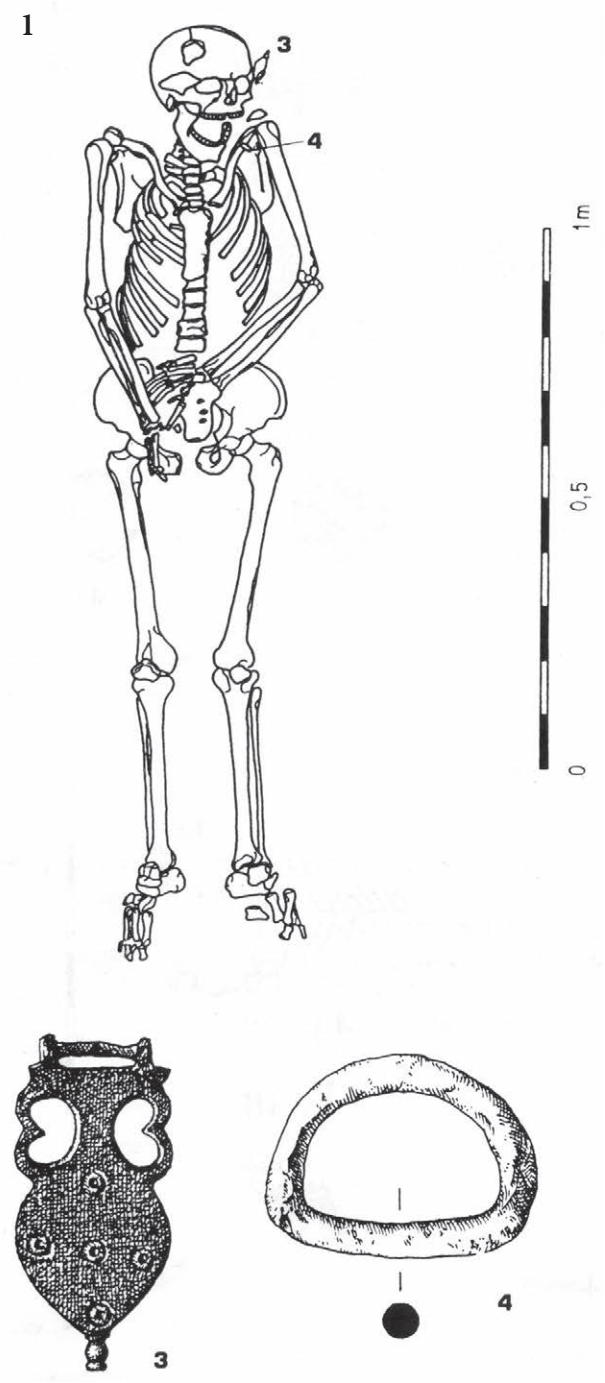


Fig. 2.1. Štrbinci, grave 13

3), an oval-rounded pit (**fig. 4**), as well as pits with a niche along one of the long sides (not illustrated), and also crouched inhumations (Filipović 2006; Filipović 2010, 19, 36, 38-39)[4]. The most conspicuous among the small finds is a silver brooch with a bent foot, found in a child's grave (# 60) made of tiles, that is, in the Roman fashion. The same grave has yielded, among many other jewellery items, three penannular silver pendants (two of a pure crescent shape and one shaped as a pelta-crescent) which are also claimed Barbarian affiliation by some authors; perhaps only the pelta shape is "suspicious" in this regard (cf. Salamon / Barkóczi 1971, 47, Abb. 11: 68: 8; Kazanski 1997, 285, fig. 1: 7-11; Ivanišević / Kazanski 2002, 19; Bierbrauer 1994, 79, fig. I.103; Müller 2010, 338, Taf. 91: 90/11, 13). Further, there is an iron distaff[5] found in association with a bone spindle-whorl in grave 67, while the oval-rounded grave (# 155), itself on an uncommon type, produced an iron pair of tweezers. A bone two-row comb, as found in grave 19, counts among much-discussed and controversial grave finds. Although this particular shape is considered by some as Roman provincial, the idea of the comb as a grave good seems to stem from the Barbarian circle (Salamon / Barkóczi 1971, 63-64; Schulze-Dörrlamm 1986, 613, Abb. 20; 659, Abb. 82; Tejral 1999, 222; Bóna / Nagy 2002, 98-99, Abb. 45; Ivanišević / Kazanski 2002, 121-122; Steinklauber 2002, 185; Glaser 2004, 91; Kosack 2004, 13, Abb. 4: 1; Migotti 2012, 20, n. 185; Rapan Papeša 2012, 431-433). Finally, grave 46 produced a glass decorated with clusters of blue drops. Such vessels were produced by Pannonian glass workshops, but were most often found in Barbarian contexts of the later 4th and 5th centuries (Rau 1972, 158, Fig. 48: 14; Ajbabin 1994, 126, fig. II.31.; Böhme 1997, 93, Abb. 67: 15; Stuppner 1997, 218-220; Tejral 1999, 222, 229, 236-237). To conclude: unlike Štrbinci, Zmajevac did yield some specific Barbarian finds, but they were all found in association with objects / constructions of typical Roman provincial culture.

3.2. Finds with pronounced religious affiliations

Štrbinci

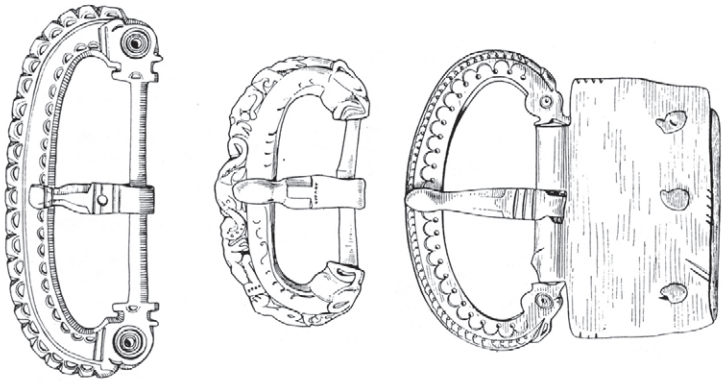
It should be noted that this cemetery has not produced a single artefact associated with classical religion in the narrow sense. Instead, what we have is evidence of strong magic-apotropaic associations, coupled with rare manifestations of Christian religion. As was shown in the example of Zmajevac, grave finds illustrating spinning and weaving are quite often associated with the Barbarians (Migotti 2010). Only one such artefact, and fairly singular among grave finds – a weaving tablet (**fig. 5.1**),

[4] On parallels for various abovementioned shapes in provincial Roman and Barbarian contexts see Vágó / Bóna 1976, 158-160; Sági 1981, 100-103; Bóna / Nagy 2002, 56-65, Abb. 25: 53, Abb. 30: 73, Abb. 31: 74; Bierbrauer 1994, 57, fig. I.50.

[5] There is some hesitation concerning the interpretation of tapering iron rods as distaffs: Burger 1979, 13; Sági 1981, 102; Müller 2010, 231.

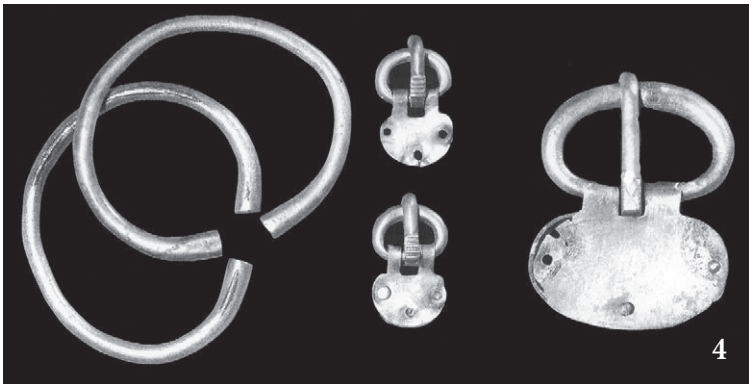


a



b





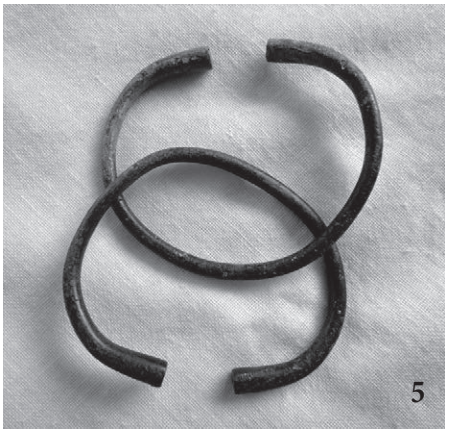


Fig. 2.2a. Štrbinci, copper-alloy belt buckle, grave 65
Fig. 2.2b. Chip-carved buckles, 4th-5th c., various British sites
Fig. 2.3. Štrbinci, copper-alloy belt buckle, grave 149
Fig. 2.4. Silver bracelet and buckles, 2nd half of the 5th c. (Romania)
Fig. 2.5. Štrbinci, copper-alloy bracelets, grave 126

stems from male grave 7 as a sole good, except for a coin. While Barbarian associations here are less likely, the find can tentatively be interpreted as indicative of occupation or else as a metaphor for the weaving the threads of life, which fits both classical Roman and Christian religious semantics (Migotti 2010). Similarly, a pair of dice as the sole find in male grave 8 should hardly be taken as representative of a professional gambler; it should be rather interpreted as a religious metaphor for the life fortunes and destiny (Migotti 1998, 110). Four graves (# 14, 40, 58, 66) have yielded small amorphous pieces of lead as most probably apotropaic finds, on account of the symbolism of lead in Roman antiquity (Migotti 2007a, 182-183, n. 72). The most curious among them is a lump of lead in the shape of an egg half, found together with a silver earring, on the chest of a female deceased in grave 14; even the earring in such position should be explained as symbolic. Two graves (# 62 and 95) each yielded a ring made of lead and iron, which certainly bore enhanced apotropaic meaning, while grave 62 also



Fig. 3. Zmajevac, grave 143



Fig. 4. Zmajevac, grave 155

yielded an iron bracelet. In grave 104 a 3rd-century lead coin was the only find. There is also an item for which I could find no parallel: the pit of an adult man (grave 48) was on one side lined by 11 flattened lead rods of the total length of 1.40 m (**fig. 5.2**), representing possibly the idea of a *pars pro toto* of a lead coffin. In grave 81 a fairly massive iron nail was found in the area of the jaw, possibly interpretable in line with the belief that the soul should be stopped escaping the body through the mouth (cf. Ságі 1981, 108). Penannular pendants were already mentioned in connection with Zmajevac. Two such finds stem from a child's grave at Štrbinci, one copper alloy and one silver (**fig. 5.3**). Among other things, the grave has yielded fragments of glass and gilded copper alloy diadem and a bulla. While the bulla is in Roman civilisation a social prerogative of boys, the crescent has been customarily considered as its girls' counterpart (Migotti 2007b). Once again, this find reveals fragility of general assumptions; or rather it points towards modified socio-religious concepts between early Rome and Late Antique provinces. Interestingly, the same combination has been noted at Zmajevac in grave 60. As for lunular pendants, their previously mentioned ethnic background is highly questionable; they should be ascribed to a broad lunar-solar religious conception known equally in Rome, in the provinces and in the Barbaricum. Two child graves (# 45 and 84) has each yielded fragments of a chain mail (**fig. 5.4**), bearing a complex ethnic, cultural and religious connotations, and a most demonstrable apotropaic function (Migotti 2007c). In both cases the fragments were wrapped in a piece of cloth and deposited with other grave goods of also apotropaic nature, such as amber beads and big multicoloured glass beads, a bulla, a wild boar's tooth, etc. Judging from the published material, such finds are not frequent in Pannonian Roman provincial graves, including those of type Csákvar. On the other hand, they are often found in Barbarian cemeteries from the 1st century to the end of Antiquity, from Scandinavia to the Crimea, whether as whole chain mail tunics in warrior graves or as fragments of chain mail in graves of various genders. Such finds seem to have been transmitted to Pannonia through the The Przeworsk Culture by mediation of the Sarmatians, most probably as a cultural influence and not actual presence (Tejral 1997, 340, Abb. 18 (Wulfen); Tejral 1999, 245-248; Dobrzańska 2001; Grane 2008, 71-72, 78). Some of the beads and pendants are accorded special apotropaic and magic powers, either on account of the material or colour, or both. These are: amber, carnelian, limestone, bone, gold-in-glass beads, as well as big multicoloured glass beads and pendants (Migotti 2009, 155-163; cf. also Tempelmann-Mączynska 1985, 145, *passim*). Significantly, all these types are very widespread

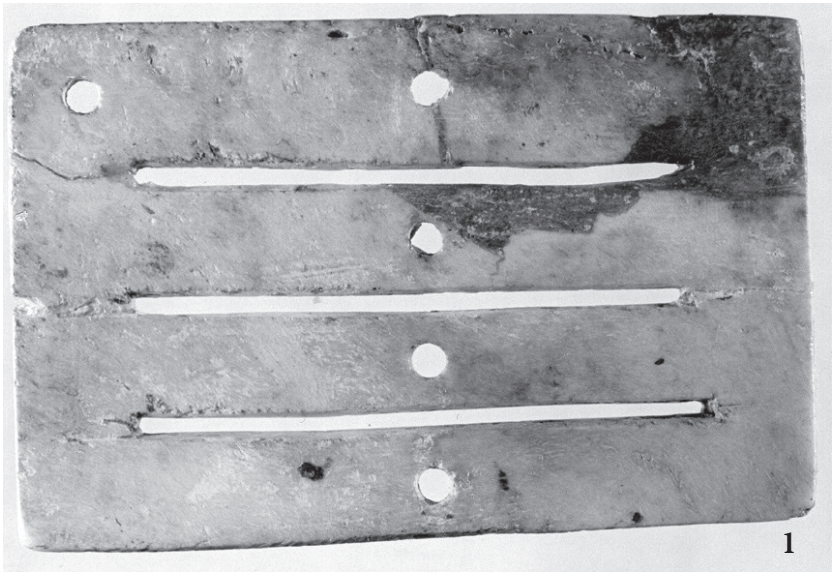












Fig. 5.1. Štrbinci, bone weaving tablet, grave 7
Fig. 5.2. Štrbinci, lead rods, grave 48
Fig. 5.3. Štrbinci, silver penannular pendant, grave 134
Fig. 5.4. Štrbinci, fragment of an iron chain mail, grave 45
Fig. 5.5. Štrbinci, gable fresco, grave 5
Fig. 5.6. Štrbinci, gold-sandwich glass, grave 45

among the Barbarians, especially the Sarmatians (Vaday 1989, 97-106). Predictably, the issue of the cultural influence or actual trade remains unresolved, but trade seems more likely in the case of amber and carnelian beads, due to the exotic fabric of these artefacts. Here belong also hollow tube-like glass pendants, whose metal predecessors containing apotropaic texts incised on gold and silver plates stem from the Egyptian-Black Sea coast cultural circle (Sommer 1983; Steinklauber 2002, 133, 186; Migotti 2004, 192-194); a copper alloy specimen was found in grave 145 at Zmajevac. While one wild boar's eye-tooth (grave 45) and three pig's incisors (graves 121, 131, 133) were certainly apotropaic grave goods, their possible Barbarian associations can only be tentatively suggested (cf. Steinklauber 2002, 133-134; Kosack 2004, 12-13).

On a crossbow brooch from grave 28 a sign of *crux decussata* was incised at some point after manufacture. As is well known, this motif can mean anything from a technical mark to apotropaic-magic to Christian symbol. Only two finds are blatantly Christian. One is a fresco with a sketchy and stylised depiction of the garden of paradise with a vase flanked by two peacocks and a Chi-Rho above their heads, all on the background of the sky featuring three stars and two suns (Migotti 1997) (**fig. 5.5**). What we have here is a theologically sophisticated message of salvation and resurrection, but executed clumsily and with a marked traits of Solar-Christian syncretism. The other find is a gold sandwich-glass featuring a family of four surrounded by the inscription: *Vivatis felicis* (sc. *felices*) *in Deo* (**fig. 5.6**). It comes from the grave whose many other goods show magic-apotropaic traits: big multicoloured beads, a wild boar's tooth placed between the legs of the deceased girl, fragment of a chain mail, and two additional bottoms of glass vessels, which is a most unusual find in a Pannonian Late Roman context (Migotti 2002; Migotti 2004,165-172) .

Zmajevac

In addition to beads and pendants of the same kind as at Štrbinci, the cemetery at Zmajevac has yielded two copper alloy belts, one of them gilded (grave 86), with rectangular mounts featuring classical heroes and Biblical motifs prophets: Mars, Aktaíôn?, Heracles, Daniel?, Moses?, Jonah? This, therefore, is a typical example of the classical Roman and Christian or Jewish religious syncretism.

Conclusion

Although neither of the two discussed cemeteries has been completely excavated, even at this stage it is possible to comprise them as two cemeteries of roughly the same chronology but a slightly different cultural profile. Štrbinci, in the rear of the *limes*, shows purely provincial traits with scarce Barbarian associations that can be explained in terms of cultural influences and possibly trade in some cases, while Zmajevac, as part of the *limes* system, reveals a more pronounced Barbarian *facies*, with even a presumed presence, although not massive, of ethnic Barbarians. Presumably, these differences were not the result of a chronological gap, but of the various distance from the *limes.* Nevertheless, the material in both cemeteries is similar, as they both belong to the level of 4th- and 5th-centuries society of culturally mixed „Barbarised" Romans and Romanised (integrated or acculturated) Barbarians. Arguably, the question of the Barbarian presence or trade, or just cultural influences, mostly remains obscure. In terms of religion, both sites obviously held communities with a pronounced pagan and Christian syncretism imbued with apotropaic concepts.

Bibliography

Ajbabin, A. 1994. I Goti in Crimea (secoli V-VII). In: Bierbrauer, V. / von Hessen, O. / Arslan, E. A. (eds.) I Goti. Milano.110-135.

Bernhard, H. 1999. Germanische Funde in römischen Siedlungen der Pfalz. In: Fischer, T. / Precht, G. / Tejral, J. (eds.) Germanen beiderseits des spätantiken Limes. Spisy Archeologického ústavu AV ČR Brno 14, Köln – Brno. 15-46.

Bernhard, H. 1982. Germanische Funde der Spätantike zwischen Straßburg und Mainz. – Saalburg Jahrbuch 38, 72-109.

Bierbrauer, V. 1994. I Goti dal I al IV secolo. In: Bierbrauer, V. / von Hessen, O. / Arslan, E. A. (eds.). I Goti. Milano. 22-107.

Bierbrauer, V. / von Hessen, O. / Arslan, E. A. (eds.) 1994. I Goti. Milano.

Bona, I. / Nagy, M. 2002. Gepidische Gräberfelder am Theissgebiet I. Monumenta Germanorum Archaeologica Hungariae, Vol. 1. Budapest.

Böhme, H. W. 1997. Söldner und Siedler im spätantiken Nordgallien. In: Wieczorek, A. / Périn, P. / von Welck, K. / Menghin, W. (eds.). Die Franken – Wegbereiter Europas. 5. bis 8. Jahrhundert n. Chr. Berlin / Mainz (1996). 91-101.

Burger, A. 1979. Das spätrömische Gräberfeld von Somogyszil. Budapest.

von Carnap-Bornheim, C. 1999. Kaiserzeitliche germanische Traditionen im Fundgut des Grabes des „Chef militaire" in Vermand und im Childerich-Grab in Tournai. In: Fischer, T. / Precht, G. / Tejral, J. (eds.). Germanen beiderseits des spätantiken Limes. Spisy Archeologického ústavu AV ČR Brno 14, Köln / Brno. 47-61.

Dobrzańska, H. 2001. Contacts between Sarmatinans and the Przeworsk Culture community. In: Istvánovits, E. / Kulcsár, V. (eds.). International Connections of the Barbarians of the Carpathian Basin in the 1st-5th centuries A.D. Aszód – Nyíregháza. 101-115.

Filipović, S. 2010. Kasnoantička nekropola u Zmajevcu – Mocsolás / A Late Antique Necropolis in Zmajevac – Mocsolás. Exhibition Catalogue. Osijek.

Filipović, S. 2006. Lokalitet: Várhegy – Mosolás (Zmajevac) – Hrvatski arheološki godišnjak 2 (2005), 22-23.

Fischer, T. / Precht, G. / Tejral, J. (eds.) 1999. Germanen beiderseits des spätantiken Limes. Spisy Archeologického ústavu AV ČR Brno 14, Köln / Brno.

Glaser, F. 2004. Christentum zur Ostgotenzeit in Noricum (493-536). – Mitteilungen zur Christlichen Archäologie 10, 80-101.

Gottschalk, R. 1999. Zur etnischen Einordnung einiger spätantiker Gräber des Rheinlandes. In: Fischer, T. / Precht, G. / Tejral, J. (eds.). Germanen beiderseits des spätantiken Limes. Spisy Archeologického ústavu AV ČR Brno 14, Köln / Brno. 81-91.

Grane, T. 2008. South Scandinavian *foederati and auxiliarii?* In: Kocsis, L. (ed.). The Enemies of Rome. Proceedings of the 15th International Roman Military Equipment Conference. – Journal of Military Equipment Studies 16, 69-80.

Harhoiu, R. 1994. La Romania all'epoca degli Ostrogoti. In: Bierbrauer, V. / von Hessen, O. / Arslan, E. A. (eds.). I Goti. Milano. 154-163.

Istvánovits, E. 1993. Das Gräberfeld aus dem 4.-5. Jahrhundert von Tiszadob-Sziget – Acta Archaeologica Academiae Scientiarum Hungaricae 45, 92-146.

Ivanišević, V. / Kazanski, M. 2002. Le necropole de l'époque des Grandes Migrations à Singidunum. – Singidunum 3, 101-157.

Kazanski, M. 1999. Les tombes des chefs militaires de l'époque hunnique. In: Fischer, T. / Precht, G. / Tejral, J. (eds.). Germanen beiderseits des spätantiken Limes. Spisy Archeologického ústavu AV ČR Brno 14, Köln / Brno. 293-316.

Keller, E. 1971. Die spätrömische Grabfunde in Südbayern. Münchner Beiträge zur Vor- und Frühgeschichte, Band 14.

Kosack, W. 2004. Zwei altkoptische Talismane aus dem römischen Gräberfeld Windisch-Oberburg. – Gesellschaft pro Vindonissa Jahresbericht 2003, 11-15.

Lányi, V. 1972. Die spätantiken Gräberfelder von Pannonien. – Acta Archaeologica Academiae Scientiarum Hungaricae 24, 53-212.

Lenz, K. H. 2005. Germanische Siedlungen des 3. bis 5. Jahrhunderts n. Chr. in Gallien. Schriftliche Überlieferung und archäologische Befunde. – Bericht der Römisch-Germanischen Komission 86, 349-444.

Migotti, B. 2012a. Die rätselhafte Inschrift über die christliche Stadt Certissia. – Mitteilungen zur Christlichen Archäologie 18, 9-20.

Migotti, B. 2012b. Introduction and Commentaries. In: Migotti, B. (ed.). The Archaeology of Roman Southern Pannonia. The state of research and selected problems in the Croatian part of the Roman province of Pannonia (= BAR International Series 2393). Oxford. 1-27.

Migotti, B. (ed.) 2012c. The Archaeology of Roman Southern Pannonia. The state of research and selected problems in the Croatian part of the Roman province of Pannonia (= BAR International Series 2393). Oxford.

Migotti, B. 2010. Weaving in Roman antiquity: between a female virtue and economic reality. – Instrumentum 31, 30-31.

Migotti, B. 2009. Kasnoantičko groblje na Štrbincima kod Đakova – iskopavanja u 2004. i 2005. – Arheološki radovi i rasprave 16, 107-224.

Migotti, B. 2007a. Kasnoantičko groblje na Štrbincima kod Đakova – iskopavanja u 2002. i 2003. – Arheološki radovi i rasprave 15, 125-326.

Migotti, B. 2007b. Rimska bula u Panoniji. – Vjesnik Arheološkog muzeja u Zagrebu 40, 187-219.

Migotti, B. 2007c. Ulomci karičastog oklopa kao amuleti na kasnorimskom groblju Štrbinci kod Đakova. / Fragments of a Chain Mail as Amulets in the late Roman Cemetery at Štrbinci near Đakovo. – Prilozi Instituta za arheologiju u Zagrebu 23, 203-212.

Migotti, B. 2004. Kasnoantička nekropola na Štrbincima kod Đakova – iskopavanja u 2001. – Arheološki radovi i rasprave 14, 141-246.

Migotti, B. 2002. Two Gold-Sandwich Glasses from Štrbinci (Đakovo, Northern Croatia). Zagreb.

Migotti, B. 1998. Vrednovanje arheološke građe u svjetlu rimskodobnog i ranokršćanskog horizonta Panonije. In: Migotti, B. / Šlaus, M. / Dukat, Z. / Perinić, Lj. (eds.). Accede ad Certissiam. Antički i ranokršćanski horizont arheološkog nalazišta Štrbinci kod Đakova. Zagreb. 89-115.

Migotti, B. 1997. An early Christian fresco from Štrbinci near Đakovo. – Hortus Artium Medievalium 3, 213-223.

Migotti, B. / Perinić, Lj. 2001. Nekropola na Štrbincima kod Đakova u svjetlu kasnoantičkoga horizinta Panonije. – Arheološki radovi i rasprave 13, 103-204.

Migotti, B. / Leleković, T. 2013. Iskopavanja kasnoantičkog groblja na Štrbincima kod Đakova u 2007. i 2008. godini. – Arheološki radovi i rasprave 17, 227-299.

Müller, R. 2010. Die Gräberfelder vor der Südmauer der Befestigung von Keszthely-Fenékpuszta. Budapest / Leipzig / Keszthely / Rahden.

Rapan Papeša, A. 2012. Early Mediaeval Barbarian Elements in Late Antique Southern Pannonia. In: Migotti, B. (ed.). The Archaeology of Roman Southern Pannonia. The state of research and selected problems in the Croatian part of the Roman province of Pannonia (= BAR International Series 2393). Oxford. 415-439.

Rau, G. 1972. Körpergräber mit Glasbeigaben des 4. nachchristlichen Jahrhunderts im Oder-Weichsel-Raum. – Acta Praehistorica et Archaeologica 3, 109-214.

Sági, K. 1981. Das römische Gräberfeld von Keszthely-Dobogó. Budapest.

Salamon, Á. / Barkóczi, L. 1971. Bestattungen von Csákvár aus dem Ende des 4. und dem Anfang des 5. Jahrhunderts. – Alba Regia 11 (1970), 35-76.

Schachinger, U. 2006. Der antike Münzumlauf in der Steiermark (= Österreichische Akademie der Wissenschaften. Phil.-hist. Klasse. Denkschriften 341). Wien.

Schmidt, W. 2001. Spätantike Gräberfelder in den Nordprovinzen des römischen Reiches und das Aufkommen christlichen Bestattungsbrauchtums.Tricciana (Ságvár) in den Provinz Valeria. – Saalburg Jahrbuch 50 (2000), 213-441.

Schulze-Dörrlamm, M. 1986. Romanisch oder germanisch? Untersuchungen zu den Armbrust- und Bügelknopffibeln des 5. und 6. Jahrhunderts n. Chr. aus den Gebieten westlich des Rheins und südlich der Donau. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 33, 593-720.

Sommer, M. 1984. Die Gürtel und Gürtelbeschläge des 4. und 5. Jahrhunderts im Römischen Reich (= Bonner Hefte zur Vorgeschichte 22). Bonn.

Sommer, M. 1983. Ein gläserner Amulettanhänger aus Mayen und die röhrenförmigen Amulettbehälter in Europa und dem Schwarzmeergebiet. – Pellenz Museum 2, 57-84.

Steinklauber, U. 2002. Das Spätantike Gräberfeld auf dem Frauenberg bei Leibnitz, Steiermark. In: Steinklauber, U. (unter Mitarbeit von Grollegger, E. / Puhm, A. / Schachinger, U. / Schweder, B.). Das spätantike Gräberfeld auf dem Frauenberg bei Leibnitz, Steiermark. Fundberichte aus Österreich. Materialhefte. Reihe A, Heft 10. Wien. 21-406.

Stout, A. M. 1994. Jewelry as a Symbol of Status in the Roman Empire. In: Lynn, J. / Bonfante, S. (eds.). The world of Roman Costume. Madison / London. 77-100.

Stuppner, A. 1997. Die Glasfunde des Oberleiserberges 1997. In: Tejral, J. / Friesinger, H. / Kazanski, M. (eds.). Neue Beiträge zur Erforschung der Spätantike im mittleren Donauraum. Spisy Archeologického ústavu AV ČR Brno 8. Brno. 215-226.

Tejral, J. 1999. Die spätantiken militärischen Eliten beiderseits der norisch-pannonischen Grenze aus der Sicht der Grabfunde. In: Fischer, T. / Precht, G. / Tejral, J. (eds.). Germanen beiderseits des spätantiken Limes. Spisy Archeologického ústavu AV ČR Brno 14. Köln / Brno. 217-292.

Tejral, J. 1997. Neue Aspekte der frühvölkerwanderungszeitlichen Chronologie im Mitteldonauraum. In: Tejral, J. / Friesinger, H. / Kazanski, M. (eds.). Neue Beiträge zur Erforschung der Spätantike im mittleren Donauraum. Spisy Archeologického ústavu AV ČR Brno 8. Brno. 321-362.

Tejral, J. / Friesinger, H. / Kazanski, M. (eds.). 1997. Neue Beiträge zur Erforschung der Spätantike im mittleren Donauraum. Spisy Archeologického ústavu AV ČR Brno 8. Brno.

Tempelmann-Mączynska, M. 1985. Die Perlen der römischen Kaiserzeit und der frühen Phase der Völkerwanderungszeit im mitteleuropäischen Barbaricum. Mainz am Rhein.

Vágó, E. / Bóna, I. 1976. Die Gräberfelder von Intercisa. Der spätrömische Südostfriedhof. Budapest.

Branka Migotti
The Croatian Academy of Sciences and Arts
Division of Archaeology
Ante Kovačića 5
HR-10000 Zagreb
branka.migotti@gmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Eastern Necropolis of *Viminacium* – Latest Excavations

Snežana GOLUBOVIĆ / Miomir KORAĆ

Research of the eastern necropolis of *Viminacium* actually began in 1997, when some graves were encountered at the Pirivoj site (Golubović 2008a). After that, graves were found in two more locations further east from the legionary camp: Kod Koraba (Golubović 2008b; Bogdanović 2010) and Nad Klepečkom (**fig. 1**). Generally, the whole area was endangered by the expansion of the "Drmno" open-pit mine of coal, which caused the rescue excavations. With the latest explored site Nad Klepečkom, rescue investigations have lasted from 2008 until now.

According to the research method, geophysical surveys were performed first at all locations, followed by trenches designed for the places where anomalies of geomagnetic and geoelectric field were distinguished. The archaeological excavations were planned based on this survey. Throughout the years of excavations, the route of an aqueduct, a necropolis with inhumation and cremation burials, the suburbs, and, in late 2011, the remains of a *villa rustica* have been detected and then explored.

Besides the remains from the Roman period, numerous findings from the prehistoric and medieval periods were found at the same location.

The last and most recently explored site Nad Klepečkom was located in the broader zone of *Viminacium*, some 800 m to the east of the military camp, and excavations brought to light 111 cremation and 93 inhumation burials. Like in all researched parts of *Viminacium* cemetery till now, here as well both types of burials were detected, covering the period from the 1st until the 3rd century AD.

Similarly to the southern part of the Viminacium cemetery (Jordović/Zotović 1990; Golubović/Korać 2009), in the eastern part biritual burials apparently coexisted throughout the entire period of use of the necropolis.

Within the basic typological division of cremation burials, eight grave types can be defined.

The most numerous are, in fact, the variations of Mala Kopašnica – Sase (MKS) grave type. Among cremation burials, the most common ones at the cemeteries of Viminacium are simple or two-level burial pits with heavily burned red or grey sides.

1. Simple rectangular or elliptical burial pits (MKS) with burnt sides and burnt or unburnt bottom. The average dimensions of the ground plan were 1.90 x 1.10 m, while the depth was 0.40 – 0.50 m. These simple grave pits, usually rectangular with rounded angles, were often filled with earth, thus forming small mounds.

2. Two-level burial pits (MKS), similar in shape to the previous type, but with a smaller inner pit. The largest one had an upper level 3.4 x 2.5 m, and inner 2.50 x 0.50 m. The average dimensions of the ground plan of inner level were 1,00 x 0,60 m, while the depth was 0.50 – 0.70 m. In both cases, the thickness of the burnt sides measured 2 to 5 cm.

3. Two-level burial pits with a funerary structure in the second level: the inner level built of several brick-rows connected with mortar or mud. After plastering, the sides of the grave pits were burnt, including the mortar or mud, with the whole grave structure. A variation within the studied cemetery includes a single cover of *tegulae* (**fig. 2**).

4. Two-level burial pits with a gradually narrowing inner level (MKS).

5. Two-level burial pits with pavement of tiles at the upper level bottom (MKS).

6. Three-level burial pits were quite rare and just a few have been found till now (MKS).

7. Tombs entirely built of bricks, without burnt sides.

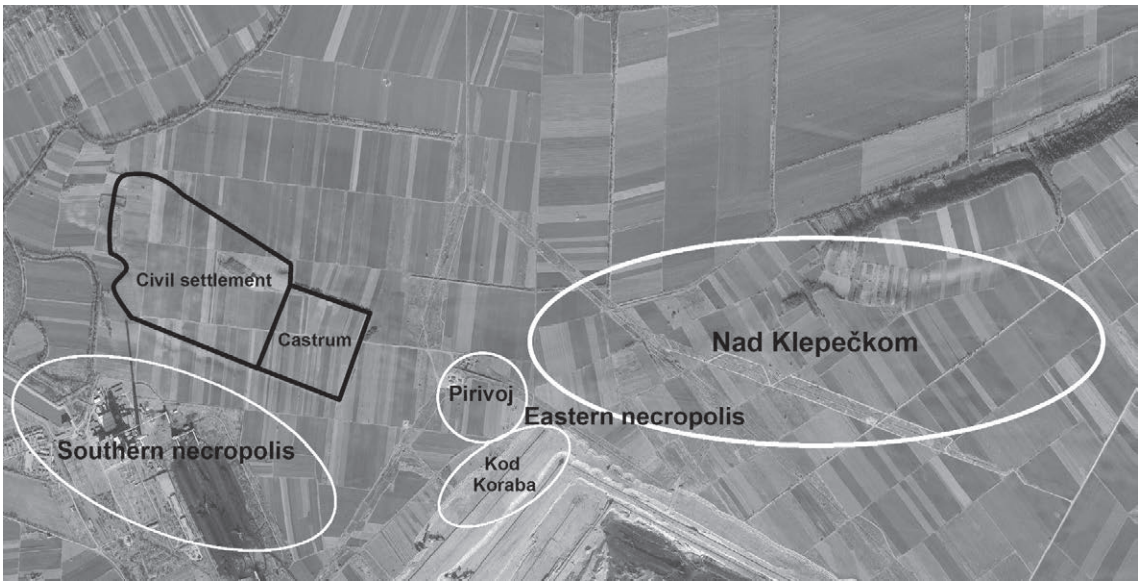


Fig. 1. Aerial photo with the position of the *Viminacium* cemeteries



Fig. 2. Grave with a single cover of *tegulae* in the inner level (site Nad Klepečkom – G1-77)

8. Lead *ossuarium* within a funerary structure of tiles (**fig. 3**).

The type with burnt sides that has one, two or three levels, better known in Serbian literature as Mala Kopašnica – Sase type according to the typology defined by M. Garašanin and named after the eponymous sites (Garašanin 1968, 6), arouses much interest, which resulted in lot of discussion about the term, the origin of form, ethnicity etc. (Garašanin 1968; Срејовић 1965, 63; Гетов 1970, 1–9). It illustrates a typical cremation from the 1st till the 3rd century that appears in the territories of south-eastern Pannonia, Upper Moesia, even partly Dacia and Thracia in the east, as well as in eastern Dalmatia. Only some of these graves were dated into the 4th century (Jovanović 1984, 209).

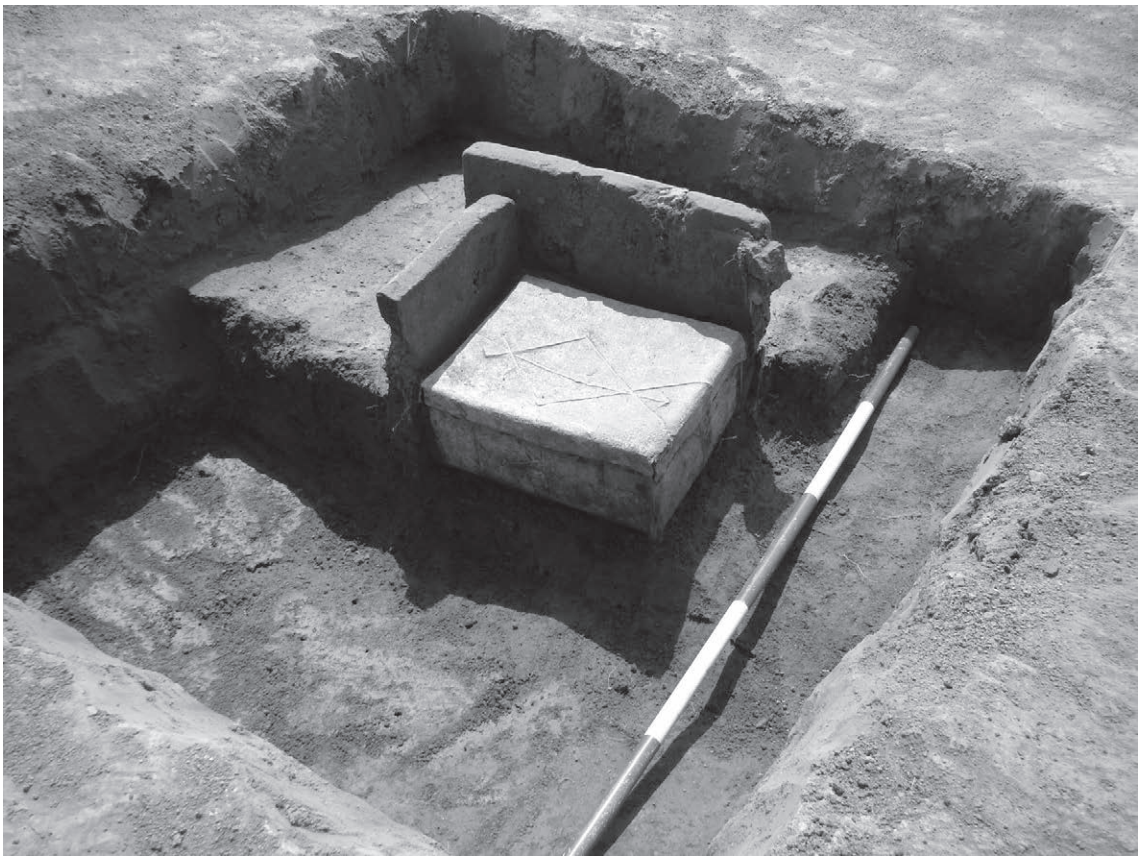


Fig. 3. Lead *ossuarium* in the construction of tiles (site Nad Klepečkom – G1-82)

The analysis of all the graves of the Mala Kopašnica – Sase type shows that the variation of two-level graves with a funerary structure, just like the ones with three levels, chronologically appears and remains in use together with all the other types and the variations of this grave type.

Since in almost all burial pits of any type iron nails were found in debris from the pyre, it has been concluded that the bodies of the deceased were cremated at the stakes together with wooden coffins or stretchers, and supposing, only in burial garment. On the pyre, ceramic and glass vessels were burnt along with food of animal or vegetable origin, that was served during the burial ceremony. The burnt objects differ from those placed later as grave goods due to their burning traces and deformities. The intensity of burning, visible from the different colour of the sides and the amount of bones gathered from the common stake, could vary according to the financial status of the deceased.

The analysis of grave goods put after placing the cremated remains into the burnt grave pits shows no difference in comparison with the southern necropolis. The usual repertoire consisted of pottery, lamps, glass vessels, coins. Other common finds include clothing, costume parts, jewellery, coins and glass objects that were burned along with the deceased: usually one iron and one silver ring, one bronze knee fibula, bone and bronze needles, and also some deformed thin bronze sheets which probably belong to belt sets, buttons etc. In few cases, wooden trunks were burned on the *ustrina*, of which only deformed parts of bronze or iron planking, handles and nails have been preserved. After the objects collected from the *ustrina* were placed in a grave, other grave goods would be placed as well on the bottom of the grave levels. In the two- or three-level graves of the Mala Kopašnica – Sase type there were no strict rules in the arrangement of grave goods. They could be laid at the bottom of the lower level, together with the stake remains, but also at the bottom of the upper one (or more in the case of three-level grave pits). In the other parts of the Roman empire where these kind of graves are found, for example at a necropolis in *Mursa*, the grave goods were placed at the bottom of the upper level exclusively, while the remains from the *ustrina* were placed at the bottom of the lower level (Göricke-Lukić 2000, 95).

Standard inventory is found in the graves: jars, bowls, pots, plates, beakers, censers. The usual three jars were almost regularly accompanied by a lamp.

The repertoire of lamps included oil-lamps known as *Firmalampen* ('factory lamps'), especially popular at *Viminacium*, with stamps FORTIS, FESTI, OCTAVI, PROBUS, APRIO F etc.

The bronze coins cover the period from the end of the 1st till the middle of the 3rd century. Glass *balsamaria* were found deformed because they had been burnt together with the body of deceased, but some were also laid additionally as grave goods. The other findings were various kind of ornaments, cosmetic and medical instruments, bronze mirrors, small boxes, keys, gambling chips and dices.

In two cases medical boxes with instruments were found, which could be a proof for the burial of an ancient physician. Weapons and tools were rare in cremation graves at the southern necropolis and were not found at all at the eastern; in one grave a special set of statuettes made of mortar were placed as grave goods.

No luxurious urns designed for the funerary custom were found in the eastern cemetery, just like in the southern ones. The only exception is a lead *ossuarium*, found at the site Nad Klepečkom. In the funerary structure made of tiles, with one of them serving as a cover, a lead urn was revealed, its lid and sides decorated with geometrical motives. Inside were the bone remains of a cremated person, an elderly male (maturus), and a silver coin (Iulia Mamaea), which dates the grave into the middle of the 3rd century.

Within the basic typological division of the inhumation burials, there are seven grave types:

1. Simple grave pits in which the deceased body was placed directly, most likely covered in sheets.

2. Simple grave pits only with a cover of tiles.

3. Simple grave pits surrounded with pieces of stone.

4. Burial pits plastered with bricks or *tegulae* – they can be paved and covered with bricks and *tegulae*.

5. Constructed graves with several layers of horizontally placed whole or fragmented bricks bonded with lime or mud mortar. They were usually paved with bricks or *tegulae*, while their cover was sometimes flat, made of bricks or *tegulae*, and sometimes with a gable-roof.

6. Brick-made tombs with barrel vault roofs (**fig. 4**). The inside was plastered with hydrostatic mortar. To this group of constructed graves also belongs the tomb (five individuals found inside), with fresco painting on the walls and a floor of hexagonal decorative bricks.

7. White marble sarcophagus.

Inhumation burials appear in all parts of the Viminacium necropolis, just like in the whole territory of *Moesia Superior* by the end of the 1st century. The earliest grave with skeletal remains at this cemetery is dated with a coin of Nero. Naturally, we are dealing with coins that circulated for a long period of time, but we still could take into account that the oldest inhumations already appeared at the end of the 1st century. In the cemeteries of *Moesia Superior* (*Municipium DD*, *Naissus*, *Ulpiana*, *Scupi*, even partly at *Viminacium*) the graves with rich inventory were located in a separate part of the town-necropolis. However, in the explored part of the eastern cemetery, the graves with rich inventory were found together with those without any, or with a small number of grave goods. Children were buried in simple grave pits and in brick-made graves. These, in fact, were the burials with the majority of grave goods. According to the anthropological analysis of skeletal remains, both males and females were buried at the cemetery. The inhumations were mostly extended supine burials, with arms laid next to the body or crossed over the pelvis of the deceased. Most burials, almost 50%, were made supine east-west, with the head at the western end of the grave; while the rest of burials were oriented S-N, N-S, SW-NE and E-W.

Brick-constructed graves appeared at the beginning of the 2nd century. They were built or consisted of bricks or tiles laid without any binding material (mortar). Presumably, the diversity of grave constructions reflects the social-economic status of the deceased, while the selection of materials represent local characteristics, brick being preferred to stone, as can be observed in the grave pits partially covered with bricks.

In the case of the site Nad Klepečkom, plain grave pits make up 50% of all the inhumations. These burials can be dated from the end of the 1st to the middle of the 3rd century according to the findings. Generally, inhumation burials contained less grave inventory than cremation ones, although the repertoire was almost the same. Three jars, pots, beakers, oil-lamps and glass vessels could be found in all grave types, just like parts of costume and jewellery, bronze needles and, in two cases, iron knives. The coins where found usually in the hand or in the mouth of deceased.

The grouping of graves, mostly the cremations, surrounded by walls made of pieces of stone (green schist, limestone and mortar), was first observed at Pirivoj when the complex of the Mausoleum was explored. However, the graves excavated at Nad



Fig. 4. Tombs made of bricks with barrel vault roofs (site Nad Klepečkom – G-44 and G-45)



Fig. 5. Graves with cremation surrounded by a wall (site Nad Klepečkom)

Klepečkom site (**fig. 5**) are mostly without artefacts or with a quite modest inventory. Nevertheless, this feature is characteristic for the eastern part of the *Viminacium* necropolis, and since excavations will continue in northeast direction, we could expect more such occurrences.

Bibliography

Bogdanović, I. 2010. Rezultati arheološko-geofizičkih istraživanja na lokalitetu Kod Koraba (Istočna nekropola Viminacijuma). – Arheologija i prirodne nauke 5, Arheološki institut Beograd – Centar za nove tehnologije, 83-110.

Göricke – Lukić, H. 2000. Sjeveroistočna nekropola rimske Murse. Zagreb/Osijek.

Garašanin, M. 1968. Razmatranja o nekropolama tipa Mala

Kopašnica – Sase. – Godišnjak 6, Centar za balkanološka ispitivanja, Akademija nauka i umjetnosti Bosne i Hercegovine, knjiga 4, 5-34.

Golubović, S. 2008a, Arheološka istraživanja na lokaciji Pirivoj, Viminacijum. – Arheološki pregled 4 (2006), 95-98.

Golubović, S. 2008b, Arheološka istraživanja na lokaciji Kod Koraba, Viminacijum. – Arheološki pregled 4 (2006), 91-94.

Jovanović, A. 1984. Rimske nekropole na teritoriji Jugoslavije. Filozofski fakultet – Centar za arheološka istraživanja, Beograd.

Korać, M. / Golubović, S. 2009. *Viminacium* Više Grobalja, Tom 2. Arheološki institut, Beograd.

Гетов, Л. 1970. Погребални обичаи и гробни съоръжения у Траките през римската епоха (I-IV). – Археология 12, 1, 1-9.

Зотовић, Љ. / Јорђовић, Ч. 1990. Viminacium 1, Некропола Више Гробаља. Археолошки институт Београд – Републички завод за заштиту споменика културе, Београд.

Срејовић, Д. 1965. Римске некрополе раног царства у Југославији. – Старинар 13-14, 49-85.

Dr. Snežana Golubović
Archaeological Institute
Serbian Academy for Science and Arts,
Kneza Mihaila 35
SRB-11000 Belgrade
arheosneska@gmail.com

Dr. Miomir Korać
Principal Research Fellow
Archaeological Institute
Serbian Academy for Science and Arts,
Kneza Mihaila 35
SRB-11000 Belgrade
misko@mi.sanu.ac.rs

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Dog Burials from the Cemeteries of the Roman City of *Viminacium* (Moesia Superior, Kostolac, Serbia)

Sonja VUKOVIĆ-BOGDANOVIĆ / Mladen JOVIČIĆ

Introduction

Ever since the dog was domesticated (c. 14 000 years ago), a special bond between dogs and people existed. Dog burials, that are as old as dog domestication is, have been practiced and archaeologically detected in many regions, cultures and societies (Crockford 2000; Morey 2006; 2010). Within Roman settlements and cemeteries throughout the Empire, numerous dog burials were excavated. The literature on the subject is extensive (e. g. De Grossi Mazzorin / Minniti 2001; 2006; MacKinnon / Belanger 2006; Morey 2006; 2010).

Romans believed that dogs had special powers and that those animals were capable of transporting human spirits to the other world after death. Besides being companions in the Underworld, dogs sacrifice was used in different rituals, such as rituals of purification and rituals that were dedicated to chthonic gods (Toynbee 1973).

In the course of extensive excavations of the *Viminacium* cemeteries, dog burials were found in different contexts: as individual intentional burials, as burials with grave goods, in wells, and they were also included in human sepultures. Unfortunately, during the earlier excavations of *Viminacium*, animal burials were not properly recorded and carefully analyzed. In this paper, we will review dog burials from earlier excavations of the *Viminacium* cemeteries according to available data, while we will study in detail four dog burials from renewed excavations. In order to investigate dog burials from the *Viminacium* cemeteries, we will study the context of burials, archaeozoological data (bone morphometry, position and preservation of skeletons, taphonomy), historical sources and other data that deal with ritual roles of dogs. We will try to further understand the symbolic meanings of those burials.

Viminacium: History and Archaeology

Viminacium is situated (**fig. 1**) on the right bank of the river Mlava near its confluence with the Danube, near present day Kostolac in Serbia. It was founded as a military camp where the Legion *VII Claudia* was stationed from the middle of the 1st century to the Late antiquity. Next to the camp, a city developed. After Domitian had divided the province of Moesia to Upper and Lower Moesia in AD 86, *Viminacium* became the capital of the province of Upper Moesia (*Moesia Superior*) (Spasić-Đurić 2009, 21). *Viminacium* received the status of *municipium* during the reign of Hadrian in AD 117. The city received the status of colony in AD 239, during the time of Emperor Gordian III (Mirković 1986, 21-59). In the period after the reforms of Diocletian in the 4th and the 5th century AD, the city was the capital of the province of Moesia I (*Moesia Prima*).

According to excavations, outlines of the camp and the city of *Viminacium* were defined, while the cemeteries were detected to the South and East of the city (**fig. 1**). Archaeological excavations, conducted by the *Institute of Archaeology* in Belgrade (Serbia) since 1977 have mainly been focused on the area of necropolis and, to the present day, more than 14 000 human graves have been excavated (Bogdanović 2010, 147-174; Korać / Golubović 2009; Korać et al. 2009, 90-95; Redžić / Danković 2012; Зотовић / Јордовић 1990).

Dog Burials from *Viminacium* Cemeteries

In the course of previous excavations of *Viminacium* cemeteries (before 1997) several dog burials have been discovered.

At the area of the southern necropolis (site *Više grobalja*), within the sacrificial area (called Kulina[1]) a dog skeleton was found. Three dog burials were

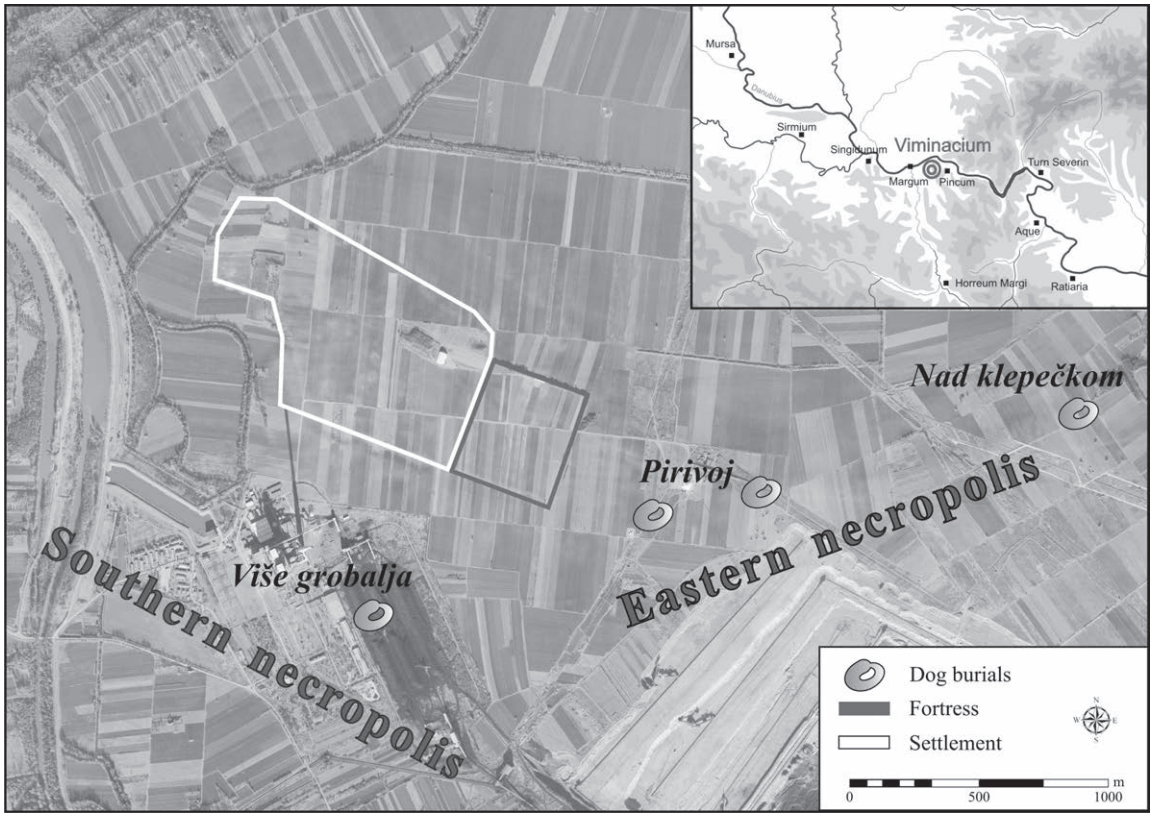


Fig. 1. Location of *Viminacium* and location of dog burials within *Viminacium* area

found in the layer above the sacrificial area, while four more dog burials were found in the layer below (Зотовић / Јордовић 1990, 16-23).

Throughout the area of the southern necropolis several dog burials were recorded above children's graves and not a single example above adults' graves, so it has been assumed that these dogs have been placed there to be guardians of the deceased children (Зотовић / Јордовић 1990). The remains of dogs were also found in two well graves at the area of the southern necropolis of *Viminacium* (sites *Pećine* and *Brest*) (Golubović 2008, 116-117). These graves are related to Gallic population of *Viminacium*, and at this point it is interesting to note that the skeletons of horses were also found in well graves. The bones were found in layers that represent a ritual feast, and it is believed that they were dedicated to the chthonic gods. One dog burial that was found at the area of necropolis on the site of *Pećine* is particularly interesting. The dog was placed on the left side with fragments of pottery from two different vessels (Golubović 2004, 91). The researcher suggested that this funeral is associated with the cult of Hermes but she did not ignore the possibility that it was a funeral of a pet which is not uncommon for a large city type necropolis from this period.

As minor attention was paid to animal bones throughout earlier investigations of *Viminacium*, proper archaeozoological and archaeological data on this subject are very few. Unfortunately, these bones were discarded, so we could not study them. In this paper we are studying dog burials from recent excavations of *Viminacium* necropolis. They include four dog burials from different locations and in different contexts. One skeleton was found in the area of the southern necropolis, at the site called *Više grobalja*, while the remaining three dog burials were found within the eastern necropolis of *Viminacium*. Two of them were found at the site called *Pirivoj*, while the last skeleton was found at the site called *Nad Klepečkom* (**tabl. 1-3**).

Burial of a Juvenile Small-Sized Dog with Two Terracotta Lamps

In the course of 2008, during a rescue excavation at the area of the southern necropolis of *Viminacium* (site *Više grobalja*) a skeleton of a dog was found buried with two terracotta lamps (**fig. 2/1, fig. 3/1**).

[1] *Kulina* is a sacrificial area of necropolis that had been formed during ritual feast that took place at the time of human burials and in the period after. In the cultural layer animal bones including remains of the horse skeleton were found.

The dog skeleton was located circa 10 cm beneath a lower layer of human cremation grave that, according to pottery and coin finds, dates back to the first half of the 2nd century AD.

The first terracotta lamp, that was placed by the dog, belongs to the type of lamps with volutes and angular nozzle (Loeschcke I B; Iványi I 2), while the other belongs to the type of lamps with volutes and rounded nozzle (Loeschcke IV, Iványi II). Both lamps found in the territory of *Viminacium* date back to the second half of the 1st and to the 2nd century AD (Korać 1995, 81-82).

When found, the dog skeleton was poorly preserved due to machine activity above the ground. The dog was oriented east-west with its head to the east.

As for age, all the permanent teeth, which erupt until the 7th month in dogs (Silver 1969), were fully erupted. However, proximal radius and distal metapodials, that fuse between the 5th and 8th month (Habermehl 1975), were not fused. According to that data, it can be assumed that the dog was a juvenile one, not younger than 7 months and not older than 8 months.

Since the majority of bones were broken and most of the epiphyses were not fused, long bones were immeasurable. However, the bones are slender and of small size so it is obvious that the dog is of small size and that it would not reach a considerably bigger size. Although it was broken, we reconstructed the length of the mandible, which is circa 100 mm, and it places the dog in the small sized group (Shigehara 1994, after Hasebe 1952). As it was a juvenile animal, its mandible would certainly grow, but it would not reach a considerably longer length.

Studies of morphology of dogs from Roman period sites revealed that in the Roman period, at least two types of small dogs coexisted: dwarf hounds with short, thick and sometimes twisted limbs and midget type dogs with straight slender limb bones and with paedomorphic crania (juvenile appearance) / shortening of the palatine (Baxter 2010). The limbs of the *Viminacium* dog are straight and slender, and it's wither height falls within the small dog range. Unfortunately, the cranium is very fragmented, so we could not study its morphology. According to the length and shape of the limbs we can suppose that this was a midget, toy dog, probably similar to the modern Maltese breed. It probably corresponds to the *Melitaei* dogs, which were first mentioned by the ancient Greek author Callimachus (264 BC), who wrote about the healing powers that these dogs had in easing stomach pain (Salisbury 2012, 118). Other ancient authors, such as Pliny the Younger, talked about the special qualities of Maltese dogs, such as beauty, intelligence and high status (MacKinnon / Belanger 2006, 43).

In the Roman period, lamps were usually put in the graves of the deceased in order to light up their journey to the Underworld. However, burying animals with lamps was not a common custom and we did not find any analogue cases of putting lamps into animal graves. An association between dog burials and pottery was reported in some Roman sites, such as the Passewaaijse Hogeweg (Eastern Dutch River area) dog burial that was placed above vessel shreds (Groot 2009, 127) and the dog burial with the feeding bowl from Mayen in Germany (Grünewald 2009). Grave goods in the *Viminacium* dog burial suggest the special treatment this dog had and the special relationship and appreciation from the person that buried it.

It is uncertain whether the dog burial accompanied the human that was found above it. If it was connected to the human, it probably represented a companion in the journey to the Underworld, or just the loving pet of a buried master. Connected or not with the human burial, this dog surely had a special funerary treatment by its masters.

Dog Burial within a Human Cremation Grave

The second burial was discovered in 2010 during the rescue excavations at the locality *Nad Klepečkom*, in the area of the eastern necropolis of the city. It was found within the central grave of a family grave (**fig. 2/2-3, fig. 3/2**) parcel that, according to other finds, dates back to the first half of the 3rd century. Enclosed grave parcels were common in the Roman world (type *area maceria cincta)* (Toynbee 1982, 73-94).

The central grave was a stepped cremation burial, with a walled lower floor. This type of grave construction is one of the most common forms of cremation burials (Golubović / Korać 2008, 110-111) known as "*Mala Kopašnica-Sase*". A dog was found in the lower floor lying on broken bricks: the grave was robed not long after the funeral and in the course of looting the dog was moved: its head was dislocated, while postcranial skeleton is in anatomical position.

The dog skeleton was oriented north-south, with its head to the north. The skeleton belongs to an adult dog: all the teeth had erupted and are light worn and the epiphyses were fused. It was surely older than 2 years, when vertebral epiphyses close (Habermehl 1975). The average wither height of this dog is 50.4 cm (after Harcourt 1974) and it falls

Atlas	Pirivoj, Trench 22	Pirivoj, Trench 29
GB	79.1	93.9
GL		39.9
BFcr	45	48.6
BFcd	34	
Lad	18.5	
H	29.7	32.3

Axis	Više grobalja	Pirivoj, Trench 22	Pirivoj, Trench 29
LCDe		48.7	63.4
LAPa		52.2	
BFcr		32.6	37.9
BPtr			48.2
SBV	14.7	23.5	28.9
BFcd		18.7	

Scapula	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	dex.	sin.	dex.
SLC		31.5	30.4
GLP	10.2	37.3	36.8
LG	5.5	32.4	32.7
BG	18.4	22.3	22.5

Humerus	Više grobalja	Pirivoj, Trench 22		Pirivoj, Trench 29	
side	sin.	sin.	dex.	sin.	dex.
GL			182.9	194	194
SD	9.6	13.4	13	17.8	16
Bp				41.3	39.4
Dp				0	48.4
Bd		37.4	32.6	41.5	40.9
BT		24.5	25.5		
Dd		28.7	28.5	31.3	31.9

Radius	Više grobalja	Pirivoj, Trench 22		Pirivoj, Trench 29
side	sin.	sin.	dex.	sin.
GL			175.9	192
SD	8.5	13.3	15.5	16
Bp	11	20.2	20.4	23.8
Dp		13.4	12.4	15.5
Bd				31.1
Dd				16.9

Table 3. Postcranial measurements (mm), after Driesch (1976)

Ulna	Više grobalja		Pirivoj, Trench 22	Pirivoj, Trench 29
side	sin.	dex.	sin.	sin.
GL				
LO		21.3	31.4	37.5
DPA		16.4		31.4
SDO	13.7	13.5	22.2	25.9
BPC		9.9	17.7	21.9

Pelvis	Pirivoj, Trench 22		Pirivoj, Trench 29
side	sin.	dex.	dex.
GL	147.1		
LA	25.7		26.9
LAR	24.3		
LS			56.8
SH	20.4	20.5	
SB	11.1	10.8	

Femur	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	dex.	sin.	dex.
GL	193		
SD	14.9	16.4	16.8
Dp	21	23.2	22.9
Bp	43.3	44.7	42.5
Bd		39.1	39.2

Tibia	Više grobalja	Pirivoj, Trench 22		Pirivoj, Trench 29	
side	dex.	sin.	dex.	sin.	dex.
GL		209	198.9		
SD	9.9	14.4	13.7	16	0
Bp				42.1	42.3
Dp				48.2	0
Bd		26.6	26.4	28	32.5
Dd		18.5	17.3	19.9	19.9

Astragalus	Pirivoj, Trench 22		Pirivoj, Trench 29	
side	dex.	sin.	dex.	sin.
GL	29.1		32.3	31.9
Dm		29		

Calcaneus	Više grobalja	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	dex.	sin.	dex.	sin.
GL	28.2	47.6	53.3	53.6
APB		18.5	20.9	20.6

Table 3. Continued

Metacarpus I	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	sin.	sin.	dex.
GL	23.9	26.9	27.2
Bp		6.3	7.5
Dp		7.1	7
Bd		7.8	7.4
Dd		7.2	6.8

Metacarpus II	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	sin.	sin.	dex.
GL	61.3	71	70.2
SD	7	8.3	8.1
Bp		11.6	9.5
Dp		14.5	15
Bd		11	10.9
Dd		10.8	11.1

Metacarpus III	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	sin.	sin.	dex.
GL	70	0	79
SD	7.1	0	8.6
Bp	7	0	11.7
Dp	11	0	15.3
Bd	8.9	10.9	10.9
Dd	10.6	12.5	12.2

Metacarpus IV	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	sin.	sin.	dex.
GL	69	78.8	78.7
SD		8	7.9
Bp		10.1	10.5
Dp		14.4	14.7
Bd		10.5	10.4
Dd		12.1	12.1

Metacarpus V	Više grobalja	Pirivoj, Trench 22		Pirivoj, Trench 29	
side	dex.	sin.	dex.	dex.	dex.
GL		59.3	58	67.3	67.1
SD		7.3		8	9
Bp	7.1			13.4	13.9
Dp				13.3	15.2
Bd				11.3	11.6
Dd				11.1	11.3

Table 3. Continued

Metatarsus II	Pirivoj, Trench 29	
side	sin.	dex.
GL	78.1	0
SD	7.5	8.4
Bp	10.1	9.1
Dp	12	17.2
Bd	10.4	0
Dd	10.8	0

Metatarsus III	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	sin.	sin.	dex.
GL	75.7	87.2	87.3
SD	7.4	8.6	8.4
Bp	8.6	12.1	12.4
Dp		17.3	17.3
Bd		10.8	11
Dd		12	11.9

Metatarsus IV	Pirivoj, Trench 29	
side	sin.	dex.
GL	88.9	89.4
SD	7.7	7.6
Bp	11.2	11.2
Dp	15.4	15.2
Bd	10.3	10.2
Dd	11.8	11.4

Metatarsus V	Pirivoj, Trench 29	
side	sin.	dex.
GL	80.2	78
SD	6.8	7
Bp	12.8	0
Dp	14	14.3
Bd	9.6	10.6
Dd	10.7	10.6

Carpale 2	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	sin.	dex.	sin.
GB	8	11.4	11.4
GL	9.8	9.7	9.3

Table 3. Continued

Carpale 3	Pirivoj, Trench 29	
side	dex.	sin.
GB	12.6	11.2
GL	11.2	11.4

Carpale 4+5	Pirivoj, Trench 22	Pirivoj, Trench 29
side	sin.	
GB	14.9	
GL	12.7	

Naviculare	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	dex.	dex.	sin.
GB	9	11.2	11.3
GL	9.6	19.4	20.3

Ulnare	Pirivoj, Trench 29	
side	sin.	dex.
GB	14.6	15.1
GL	25	25

Pisiforme	Pirivoj, Trench 22	Pirivoj, Trench 29
side	sin.	sin.
GB	12.1	13.4
GL	18.3	21.7

Scapholunatum	Više grobalja	Pirivoj, Trench 22	Pirivoj, Trench 29	
side	sin.	sin.	dex.	sin.
GB	15.4	25.2	18.1	17.7
GL	8.8	15.5	31.1	30.4

Tarsale 3	Pirivoj, Trench 29	
side	dex.	sin.
GB	12.6	11.9
GL	11	10.9

Tarsale 4+5	Pirivoj, Trench 29	
side	dex.	sin.
GB	18.2	18
GL	21.9	21.4

Table 3. Continued

Patella	Pirivoj, Trench 29
side	sin.
GB	23.7
GL	13.9

Table 3. Continued

in medium sized dogs category (Shigehara 1994, after Hasebe 1952).

Burying dogs inside human graves is reported in many cultures, from prehistory, and also, in the course of the Roman period. Those burials probably represented either animals sacrificed in order to be guardians of the tomb, or faithful companions of the deceased that follow the fate of their masters (De Grossi Mazzorin 2001). The dog buried on the lower level of the cremation grave in *Viminacium* was probably put there to be a companion to the afterlife of his master. As it was buried within the central grave of a family parcel, this dog can be also interpreted as a status animal.

Burial of a Skinned Dog in the Proximity of Human Burials

At the site called *Pirivoj*, at the area of the eastern necropolis of *Viminacium*, in the proximity of the human cremation and inhumation graves, a dog skeleton was found in 2006 (**fig. 2/4-5, fig. 3/3**). In this part of the necropolis, burying was continuously practiced from the beginning of the 2nd until the end of the 3rd century AD. The layer in which the dog was found dates back, according to other finds, to the 2nd century AD.

The skeleton was dislocated in three parts: its skull, cervical vertebrae and scapula were found separately from the remaining vertebrae and hind limbs, while the upper limbs were also dislocated. As all the parts were still in their anatomical position, we suggest that the skeleton has been moved from its original position during disintegration of the body, while there was still flesh on the bones.

In the very vicinity of this dog, one human juvenile skeleton was found, while circa 1.6 m to the south, a horse and an adult human skeleton have been discovered. Both horse and human remains were dislocated: limbs of the horse were found separately from the skull, vertebrae and ribs, while the skull of the human was missing. The dislocated horse and human burials in the proximity of dog remains raise the question whether both the dog and the horse were buried together with the human. If they did not belong to the same unit, they are surely contemporary, and were probably disturbed during the cleaning and preparation for the next burial. There is also a possibility that the dog was connected to the human juvenile skeleton.

As all the teeth are erupted and epiphyses are fused, we can conclude that this was an adult dog, surely older than 2 years when vertebral epiphyses close (Habermehl 1975). The average wither height of this animal is 59.8 cm (after Harcourt 1974) and it places the dog among large sized dogs (Shigehara 1994, after Hasebe 1952). On long bones' ends and in the inner parts of vertebrae, traces of insect's borings have been detected.

On the plantar side of both anterior and posterior first phalanges, transversal butchering marks were detected. Cut marks on the first phalanges of this animal indicate that the animal had been skinned before the burial. Butchering of dogs was not a common custom in the Roman period, as dogs were not usually eaten. When found, cut marks on dog bones and the association of dog remains within sacred places usually indicate that these dogs were sacrificial (Wilkens 2006). Butchering marks are also very rare on dog bones from *Viminacium*. At the small Roman settlement Asthall (Britain), in association with a human juvenile skeleton, bones from fore and hind dog feet with cut marks were detected. The authors suggested that the human skeleton was covered by the dog skin (Booth et al. 1996).

Skinning of the dog from *Viminacium* was either part of some ritual connected to the burial of the people buried in this place or some kind of offering (see next part).

A Deposit of a Dog Skeleton and a Horse Skull

The fourth dog burial was found during the rescue excavation of the area located at the necropolis to the east of *Viminacium* (site *Pirivoj*) in 2007. (**fig. 2/6, fig. 3/4**) Although some effort was made to interpret this part of the necropolis as a sacrificial area of the necropolis or simply a dump, the function of this place remains unclear. According to ceramics and other artifacts, cultural layers date back to the 2nd and 3rd century AD. Animal bones were among the most frequent finds (Vuković 2010). A dog skeleton was found in a pit together with a horse's skull. The skeleton was oriented north-west – south-east, with its head to the north-west. The horse's skull was placed above the dog's hind limbs, to the east of the dog.

It was probably a very old animal: permanent teeth are worn out, and the loss of both lower forth

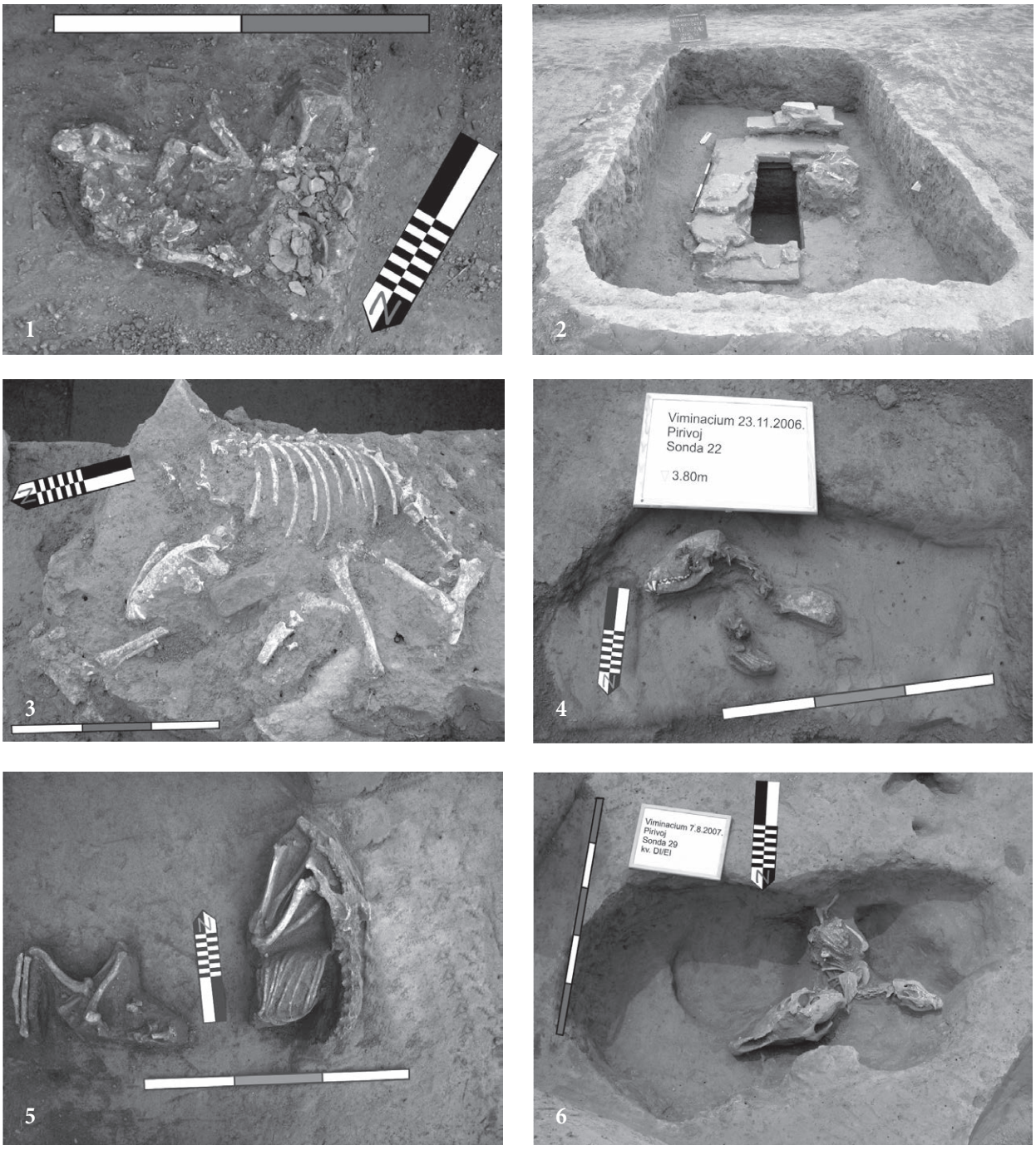


Fig. 2. Dog burials from *Viminacium* cemeteries: **1.** Burial of a juvenile small-sized dog with two terracotta lamps (Više grobalja); **2-3.** Dog burial within a human cremation grave (Nad Klepečkom); **4-5.** Burial of a skinned dog in the proximity of human burials (Pirivoj, trench 22); **6.** A deposit of a dog skeleton and a horse skull (Pirivoj, trench 29)

premolars is observable. This dog was very robust. The average wither height of this dog is 64.5 cm (after Harcourt 1974) and it places this animal among large-sized Roman dogs (Shigehara 1994, after Hasebe 1952). As a *baculum* (os penis) of this animal has been found we can conclude it was a male specimen.

A big male dog and a horse's skull were deliberately buried in a pit at the area that was interpreted as the dump or sacrificial area of the necropolis and they probably represent ritual deposit. There are also analogies in other parts of the Empire of combined deposits of a horse and a dog, such as Passewaaijse Hogeweg (Eastern Dutch River area), where an older male dog was buried in a ditch together with a horse's skull (Groot 2009, 133). This deposit is probably the remaining of an offering ritual to some deity (see next part).

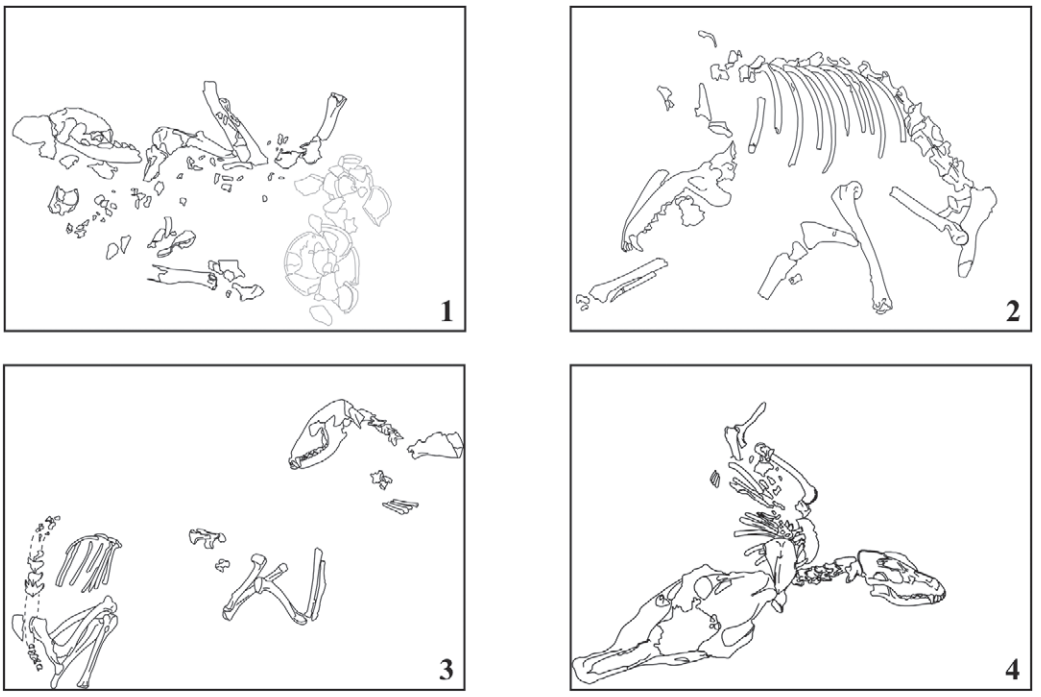


Fig. 3. Drawings of *Viminacium* dog burials: 1. Burial of a juvenile small-sized dog with two terracotta lamps (Više grobalja); **2** Dog burial within a human cremation grave (Nad Klepečkom); **3** Burial of a skinned dog in the proximity of human burials (Pirivoj, trench 22); **4** A deposit of a dog skeleton and a horse skull (Pirivoj, trench 29)

To Whom Were *Viminacium* Dogs Offered? Ritual Aspects of Dog Burials from the *Viminacium* Cemeteries

Within the *Viminacium* cemeteries, dog burials were found in different contexts: as individual burials with or without grave goods, as burials connected to human burials and as special deposits combined with other animals. Different forms of *Viminacium* dog burials indicate they had a different symbolic meaning. Although every single burial represents a special activity and has a particular meaning, they can be roughly classified, as Mazzorin and Minniti (De Grossi Mazzorin / Minniti 2006, 64) suggested, into two types: the first one that is connected to the daily life of the dogs' master and the role of the dog as a pet and companion to the Underworld, and the second one that refers to the ritual sacrifice of dogs to the chthonic gods.

In the first type of burials dogs were usually buried in order to be companions and guardians in the afterlife of their masters. Their burials can also be explained by the fact that owners were distressed by the loss, so they buried their pet. The careful burial of pet remains certainly reflects the important social role that dogs played in human society and some people consider dogs equal to people (Morey 2010, 150). Among burials from the *Viminacium* cemeteries, a dog that was buried with two lamps and a dog that was buried within human cremation grave can be considered as this type of burial. The same goes for the burials of dogs that were found above children's graves in the southern necropolis of *Viminacium*. Pliny the Younger (Plin. *Epist.* 4, 2) wrote that sometimes Roman children were buried with beloved pets.

However, the burial of a skinned dog and the dog that was buried with a horse's skull from the southern necropolis may be characterized as a second type of dog burials connected with ritual activities. When dealing with animal remains and especially associated bone groups (ABG) (Morris 2011), it is very difficult to distinguish between ritual (offerings, feasting and sacrifice) and functional deposits (butchering waste, natural death, remains of a meal, etc.). There are works that deal with associated bone groups/special animal deposits and try to recognize criteria for distinguishing ritual activities from simple rubbish (e.g. Groot 2009; 2012; Morris 2011; Pluskowski 2012). We argue that the two deposits from *Viminacium*: a skinned dog and a pit with a dog's skeleton and horse's skull are not simple functional deposits. Firstly, skinning of dogs was not a common custom neither in *Viminacium* nor in other parts of the Empire. Dogs were usually not eaten by Romans, so we would not expect butchering marks on their bones. The fact that the



Fig. 4. Skeletal parts of *Viminacium* dogs: **1-2** a mandible and a radius of a small sized dog (Više grobalja); **3-4** a mandible and a baculum (*os penis*) of a big male dog (Pirivoj, trench 29); **5** a femur with traces of insect's borings of a skinned dog (Pirivoj, trench 22)

skinned dog was found in the vicinity of human skeletons also suggests that it was probably connected to some of the burial customs and activities. Weathering and gnawing marks were not found on it, so we can presume that it was buried soon after depositing and that it was not simply thrown as rubbish. Otherwise, we would expect that other dogs would have disseminated its body parts, or atmospheric conditions (such as rain, sun, frost, etc.) could have an effect on bones. A big male dog skeleton and a horse's skull, which were found at the area of the eastern necropolis, were likely deliberately put there. There are no traces on bones which would indicate the cause of death, so it is not sure whether those animals were killed for a purpose or whether they suffered natural death. As this combined deposit is a repeated pattern (it was found in a few other sites throughout the Empire) we should ascribe it to ritual activity that is repetitive and follows the rules (Groot 2012). If both the skinned dog and the deposit that consists of a dog skeleton and a horse's skull are remains of a ritual activity, we raise a question to which kind of ritual did they belong to? To which gods were they offered?

In ancient mythology, dog is associated with the gods of the underworld Hades, Serapis and Hecate, and acts as the guardian of the entrance to the Underworld as the three-headed dog Cerberus (Toynbee 1973, 123). In addition to these, the dog appears in mythology and iconography of other ancient deities and is related to their chthonic aspect, such as Ennodia, Artemis, Zeus, Apollo Pythios, Hercules and Hermes (Trantalidou 2006, 111-114). Besides the chthonic aspect, dogs had iatric character. In ancient times it was thought that dogs were able to cure, and were therefore sacred in the cult of Asclepius and presented as an attribute to other gods of the underworld or healing – Mother Goddess, Nehalennia, Epona, Siron and Nodens (Toynbee 1973, 123).

As noted, the ritual sacrifice of dogs was well known during the Roman period. Throughout the Empire, numerous examples that are associated with dog sacrifices have been found (De Grossi Mazzorin / Minniti 2006, 64). In the territory of Italy, dogs were sacrificed to the goddesses Hecate, Mater Matuta and Geneta Mana, which are described in historical sources by Pliny the Elder (Plin. *Nat. Hist.* 29, 58) and Plutarch (*Quaest. Rom.*, 52, 277). Pliny mentions that during the sacrifice to Genita Mana, dog meat was still served at banquets in the honor of these gods. *Tabulae Iguvinae* from the period of the 2nd and the 1st century BC described a ritual in which the dog was cooked, then the meat was distributed to the followers who were praying and then ritually ate meat and committed libation (Wilkens 2006, 133). They describe an old tradition whose purpose was not known to contemporaries (Chilardi 2006, 37).

It is also possible that dog burials from *Viminacium* are remains of a purification ritual. It is known that dogs participated in purification rituals that allowed passage. Dogs were considered unclean, their sacrifice became a catharsis and they served as agents of purification. Purification was achieved by rubbing one's body against that of a dog, after which he or she became ritually pure and had the right of passage to the underworld or a social class (De Grossi Mazzorin / Minniti 2006, 63-64).

According to that data, it is reasonable to suggest that the skinned dog and the dog and the horse from the *Viminacium* cemeteries were sacrificed to chthonic deities, and the solution is likely to be found within Hecate, Artemis and Ennodia.

Hecate is the goddess of the Underworld, and the iconography shows her with a dog, but the very Hecate can be displayed as a female dog or a woman with a dog's head (Trantalidou 2006, 114-115). Hecate is the protector of crossroads, she is the goddess of earth, sea and sky and she is called *Trimorphos*. This goddess is often depicted with three heads. She united the functions of both good and evil, caused and eliminated harm, and because of that she had a protective role. Hecate is also a



Fig. 5. First phalanges with skinning marks on their plantar side of a dog buried at the eastern necropolis (Pirivoj, trench 22)

chthonic deity known as *Philoskylakos*, a dog lover (Nonn. *Dionysiaca*, 44, 195). The animal that is primarily devoted to her and that was sacrificed for her is a dog. Ancient writers mention that young dogs were offered to Hecate during the purification ceremony (Plutarch in *Quaest. Rom.*; Pausan. 3, 14.9-10). So, dogs from necropolis of *Viminacium* could have been sacrificed to Hecate. However, the presence of Hecate's cult in the territory of Upper Moesia was probably of minor importance. Only a few monuments from this territory are dedicated to Hecate and it is thought that they have been put up as a result of the religious practices of immigrants. The cult is present under the influence of Thrace, where it is known to have been practiced since the Hellenistic period (Племић 2011, 119-127). So far, the cult of Hecate in the territory of *Viminacium* has not yet been confirmed archaeologically.

One of the three forms of Hecate is Artemis, and sometimes she was identified with Hecate and called Artemis-Hecate (Chilardi 2006, 36). Olympic Artemis and chthonic Hecate were both associated with the moon, the night, the world of darkness, magic and childbirth. The sacrifice of dogs and other animals to Artemis-Hecate was done at night and can be associated with the chthonic ritual, which is celebrating Artemis' dark side. Both Artemis and Hecate are known as *Skylakitis*, dog-lover, protector of dogs, and *Skylakotrophos*, nurse of puppies (*Orph. hymn.* I, 5; XXXVI, 12). The cult of Diana/Artemis in the territory of Upper Moesia is well confirmed. According to some opinions, Diana represented the native religious horizon in the central Balkan area, or *interpretatio Romana* of the indigenous deities of nature (Jovanović 2007, 31). In the territory of *Viminacium*, one votive altar dedicated to Diana was found and one marble statue of the goddess which probably stood in a sanctuary or home shrine (Zotović 1996, 132).

The skinned dog from the eastern necropolis was probably sacrificed to the chthonic Diana, or Artemis-Hecate, while the joint burial of a dog and a horse's skull is a more delicate question as it is more difficult to explain. Both dogs and horses were sacred animals of the goddess Ennodia, and this goddess was shown in the company of these two animals (Trantalidou 2006, 112). Ennodia is, like Hecate, goddess of roads and crossroads, goddess of death, necropoleis and funerary customs (Sophocl. *Antig.* 1199). Ennodia was associated with Hecate and Artemis as *Artemis Pheraia*. So, through this syncretism of Artemis-Hecate-Ennodia, a horse could be a sacrificial animal, and a joint burial of a complete dog and a horse's skull could be allocated to these goddesses. The practice of sacrificing dogs and horses is also related to the Celtic gods, as horses and dogs are linked to the Celtic goddess Epona. Horse and dog bones were found in the sacrificial layer inside the well graves from *Viminacium*, and this form of burial is related to Gaul's population (Golubović 2008, 116-117). Presence of Celtic deities in *Viminacium* is attested by a single find of a relief that depicts Epona sitting on a throne (Gavrilovic 2013). Epona is known as a patronence of horses, a goddess of fertility, possibly as an iatric deity and a guardian of the dead. To conclude, this joint burial of a horse skull and a dog could represent an offering to Diana, Hecate or Epona.

Conclusion

In the course of the excavations of the *Viminacium* cemeteries several dog burials were found. Dogs

	Vise grobalja	Pirivoj, Trench 29
Total length: Akronion - Prosthion (1)		22.9
Basicranial axis: Basion - Synsphenion (4)		53
Basifacial axis: Synsphenion - Prosthion (5)		152
"Snout" length oral border of the prbits - Prostion (12)		99.5
Median palatal length: Staphylion - Prosthion (13)		118
Length of the horizontal part of the palatine: Staphylion - Palatinoorale (14)		40.8
Length of the carnassial (P4)	16.7	19.7
Greatest breadth of the carnassial (P4)	7.9	10.7
Greatest diameter of the auditory bulla (22)		26.9
Greatest mastoid breadth: Otion - Otion (23)		75.8
Breadth dorsal to external auditory meatus (24)		75.1
Greatest breadth of the occipital condyles (25)		43.6
Greatest breadth of the basis of the paraoccipital processes (26)		57.8
Height of the foramen magnum: Basion - Opisthion (28)		19.6
Greatest neurocranium breadth: Euryon - Euryon (29)		53.8
Greatest palatal breadth (34)		74.6
Least palatal breadth (35)		43.7
Breadth at the canine alveoli (36)		46.6
Greatest inner height of the orbit (37)		34.9
Skull height (38)		73.4
Skull height without sagital crest (39)		62.3
Height of the occipital triangle: Akrokranion - Basion (40)		56.7

Table 1. Cranial measurements (mm), after Driesch (1976)

that were found in association with human graves, such as a dog found within a human cremation grave at the area of Eastern necropolis and dog skeletons that were placed above children's graves from the Southern necropolis, most likely represented beloved pets and companions to the Underworld of their masters. Same goes for intentionally buried dogs, such as a dog that was buried with two terracotta lamps, which stands out as a rare example of burying animals with grave goods.

There are a few particular burials which are likely remains of offerings to chthonic deities. A skinned dog found at the area of the Eastern necropolis and a joint burial of a dog and a horse's skull, from the same part of the necropolis, were presumably offered to Hecate, Diana or Epona. There is also a possibility that a skinned dog was used as sacrificial offering in the purification ritual of some deceased humans.

Particular social relationships between dogs and people existed in the Roman city of Viminacium. This bond is reflected by different burials that were discussed in this paper. Studying dog and other animal burials from *Viminacium* widens the knowledge not only on animal-man relationships, but also on the beliefs, customs and religion of people that inhabited the Roman city of *Viminacium*.

Acknowledgments

We are grateful to Prof. Dr. Vesna Dimitrijević (Faculty of Philosophy, Belgrade) and Mr. Ivan Bogdanović (Institute for archaeology, Belgrade) for their useful comments in reviewing the paper. This paper is the result of the following projects founded by the Ministry of Education and Science of the Republic of Serbia:

IRS – *Viminacium*, Roman city and military legion camp – research of material and non-material of inhabitants by using the modern technologies or remote detection, geophysics, GIS, digitalization and 3D visualization (III 47018);

Bioarchaeology of Ancient Europe – Humans, Animals and Plants in the Prehistory of Serbia (III 47001).

[2] Celtic graves, that date to the period of the Celtic occupation of *Viminacium*, prior to the Roman occupation (4th and 3rd c. BC), were found at the area of the Southern necropolis (sites Pećine, Rudine and Repnjak) (Jovanović 1984; Tapavički-Ilić 2007; Јовановић 1985).

	Vise grobalja		Pirivoj, Trench 22		Pirivoj, Trench 29	
side	**sin.**	**dex.**	**sin.**	**dex.**	**sin.**	**dex.**
Length: the condyle process - aboral border of the canine alveolus (4)			125.4			
Length from the indentation between the condyle process and the angular process - aboral border of canine alveolus (5)			121.5			
Length: the aboral border of the alveolus of M3 - aboral border of canine alveolus (7)					106.1	
Length of the cheektooth raw (9)				78.8	85.9	85.4
Length of the molar raw (10)			37.5	38.5	41.9	41.6
Length of the premolar raw (11)	31		41.6	39.9	34.4	34.9
Length of M1 (13)	18.9	18.9	22.9	23.1	27.2	26.2
Breadth of M1 (13)	7.8	7.5	9.9	9.6	10.8	10.3
Greatest thickness of the body of the jaw (below M1) (17)	8.6	9.2	12.6	12.1	14.4	14.2
Height of the vertical ramus (18)			57.7		68.2	69.3
Height of the mandible behind M1 (19)			25.3	26		
Height of the mandible in front of M1			23.5	23.5	28.5	32.4
Height of the mandible between P2 and P3 (20)				20.8		

Table 2. Mandible measurements (mm), after Driesch (1976)

Ancient Authors

Nonn. = Nonnus. Dionysiaca III, Books 36-48 (Translated by W. H. D. Rouse). Harvard, 1940.

Orph. hymn. = Taylor, T. The Hymns of Orpheus. Los Angeles, 1981.

Pausan. = Habicht, C. Pausanias' Guide to Ancient Greece. Berkeley / Los Angeles, 1998.

Plin. Ep. = The Letters of the Younger Pliny. Harvard, 1890.

Plin. Nat. hist. = C. Plinius Secundus. Naturalis Historia (ed. Karl Friedrich Theodor Mayhoff). Lipsiae, 1906.

Plutarch. Quaest. Rom. = Plutarch. Moralia, vol. IV. Roman Questions. Harvard, 1936.

Sophocl. Antig. = Sophocles. Antigone (translated by Diane J. Raylor). Cambridge, 2011.

Bibliography

Зотовић, Љ. / Јордовић, Ч. 1990. Viminacium 1. Некропола Више гробаља. Београд.

Јовановић, Б. 1985. Некропола на Пећинама и старије гвоздено доба Подунавља.- Старинар 36, 13-17.

Племић, Б. 2011. Споменици Хекатиног култа у римским провинцијама на тлу Србије. – Гласник Српског археолошког друштва 26, 119-127

Baxter, I. L. 2010. Small Roman dogs. – BoneCommons, Item #901, <http://www.alexandriaarchive.org/bonecommons/items/show/901> (accessed January 17, 2013).

Bogdanović, I. 2010. Rezultati arheološko-geofizičkih istraživanja na lokalitetu „Kod Koraba" (Istočna nekropola Viminacijuma) / Results of Archaeological and Geophysical Research at Kod Koraba Locality (Eastern Necropolis of Viminacium). – Arheologija i prirodne nauke 5 (2009), 83-110.

Booth, P. / Cark, K. M. / Powell, A. 1996. A Dog Skin from Asthall. – International Journal of Osteoarchaeology 6, 382-387.

Chilardi, S. 2006. Artemis Pit? Dog Remains from a Well in the Ancient Town of Siracusa (Sicily). In: Snyder, L. M. / Moore, E. A. (eds.). Dogs and People in Social, Working, Economic or Symbolic Interaction. Oxford. 32-37.

Crockford, S. J. 2000. A Commentary on Dog Evolution: Regional Variation, Breed Development and Hybridization with Wolves. In: Crockford, S. J. (ed.). Dogs through Time: An Archaeological Perspective; Proceedings of the 1st ICAZ Symposium on the History of the Domestic Dog; Eighth Congress of the International Council for Archaeozoology (ICAZ98), August 23-29, 1998, Victoria, B.C., Canada (= BAR International Series, 889). Oxford. 295-312.

De Grossi Mazzorin, I. 2001. L'uso dei cani nei riti funerari. Il caso della necropoli di età imperiale a Fidene – via Radicofani. In: Heinzelmann, M. / Ortalli, J. / Fasold, P. / Witteyer, M. (eds.). Culto dei morti e costumi funerari romani. Roma Italia settentrionale e province nord-occidentali dalla tarda Repubblica all'età imperiale. Wiesbaden. 77-82.

De Grossi Mazzorin, I. / Minniti, C. 2006. Dog Sacrifice in the Ancient World: A Ritual Passage? In: Snyder, L. M. / Moore, E. A. (eds.). Dogs and People in Social, Working, Economic or Symbolic Interaction. Oxford. 62-67.

De Grossi Mazzorin, I. / Minniti, C. 2001. Caratterizzazione archeozoologica: le sepoltre di cani. In: Di Manzano, P. (ed.). Ad deverticulum. Scavi archeologici lungo la bretella Nomentana-GRA. Roma. 81-93.

Gavrilovic, N. 2013. Relief of Epona from Viminacium - Certain Considerations about the Cult of Epona in Central Balkans. In: Spickermann, W. (Hrsg.). Keltische Götternamen als individuelle Option? Akten des 11. internationalen Workshops "Fontes Epigraphici Religionum Celticarum Antiquarum" vom 19. 21. Mai 2011 an der Universität Erfurt. Rahden/Westf. 250-261.

Golubović, S. 2008. Grobovi u obliku Bunara sa nekropola Viminacijuma. Beograd.

Golubović, S. 2004. Sahranjivanje u Viminacijumu od I do IV veka. Unpublished PhD thesis, University of Belgrade, Faculty of Philosophy.

Golubović, S. / Korać, M. 2008. Creamation Burials at Viminacium (I-III c. AD). In: Sîrbu, V. / Ştefânescu, R. (eds.). Funeary Practices in Central and Eastern Europe (10th c. BC – 3rd c. AD). Brăila / Braşov. 109-117.

Groot, M. 2012. Dealing with Deposits in the Dutch River Area: Animals in Settlement Rituals in the Roman Period. In: Pluskowski, A. (ed.). The Ritual Killing and Burial of Animals: European Perspectives. Oxford. 137-151.

Groot, M. 2009. Animals in Ritual and Economy in a Roman Frontier Community: Excavations in Tiel-Passewaaij. Amsterdam.

Grünewald, M. 2009. Eine römische Hundebestattung mit zugehörigem Fressnapf aus Mayen. – Archäologisches Korrespondenzblatt 39, 251-261.

Habermehl, K. H. 1975. Die Altersbestimmung bei Haus- und Labortieren. Berlin / Hamburg.

Harcourt, R. 1974. The Dog in Prehistoric and Early Historic Britain. – Journal of Archaeological Science 1, 151-175.

Jovanović, A. 2007. Ogledi iz antičkog kulta i ikonografije. Beograd.

Jovanović, B. 1984. Les sépultures de la nécrpole céltique de Pećine pres de Kostolac. – Etudes Celtiques 21, 64-93.

Korać, M. 1995. Žišci sa teritorije Viminacijuma. Unpublished PhD thesis, University of Belgrade, Faculty of Philosophy.

Korać, M. / Golubović, S. 2009. Viminacium. Više grobalja 2. Belgrade.

Korać, M. / Golubović, S. / Mrđić, N. 2009. Itinerarium Romanum Serbiae. Road of Roman Emperors in Serbia. Belgrade.

Mackinnon, M. / Belanger, K. 2006. In Sickness and in Health: Care for an Arthritic Maltese Dog from the Roman Cemetery of Yasmina, Carthage, Tunisia. In: Snyder, L. M. / Moore, E. A. (eds.). Dogs and People in Social, Working, Economic or Symbolic Interaction. Oxford. 38-43.

Mirković, M. 1986. Inscriptions de la Mésie Supérieure, vol. II. Viminacium et Margum. Beograd.

Morey, D. F. 2010. Dogs: Domestication and the Development of a Social Bond. Cambridge.

Morey, D. F. 2006. Burying Key Evidence: The Social Bond between Dogs and People. – Journal of Archaeological Science 33, 158-175.

Morris, J. 2011. Investigating Animal Burials: Ritual, Mundane and Beyond. Oxford.

Pluskowski, A. 2012. Introduction: The Ritual Killing and Burial of Animals in the Past. In: Pluskowski, A. (ed.). The Ritual Killing and Burial of Animals: European Perspectives. Oxford. 1-7.

Redžić, S. / Danković, I. 2012. Istraživanja funerarnih celina na lokaciji Nad Klepečkom. In: Bikić, V. / Golubović, S. / Antonović, D. (eds.). Arheologija u Srbiji: Projekti Arheološkog instituta u 2011. godini. Beograd. 54-57.

Salisbury, J. 2012. The Beast Within: Animals in the Middle Ages. London.

Shigehara, N. 1994. Morphological Changes in Japanese Ancient dogs. – Archaeozoologia 6, 79-94.

Silver, I. A. 1969. The ageing of domestic animals. In: Higgs, E. (ed.). Science in Archaeology. London. 283-302.

Spasić-Đurić, D. 2009. Viminacijum – glavni grad rimske provincije Gornje Mezije. Požarevac.

Tapavički-Ilić, M. 2007. Keltski grobovi sa Rudina u Starom Kostolcu. – Гласник Српског археолошког друштва 23, 245-252.

Toynbee, J. M. C. 1982. Death and Burial in the Roman World. London.

Toynbee, J. M. C. 1973. Animals in Roman Life and Art. Baltimore / London.

Trantalidou, K. 2006. Companions from the Oldest Times: Dogs in Ancient Greek Literature, Iconography and Osteological Testimony. In: Snyder, L. M. / Moore, E. A. (eds.). Dogs and People in Social, Working, Economic or Symbolic Interaction. Oxford. 96-120.

Vuković, S. 2010. Ostaci životinja sa jugozapadnog dela lokacije Pirivoj (Viminacijum). – Arheologija i prirodne nauke 5, 57-82.

Wilkens, B. 2006. The Sacrifice of Dogs in Ancient Italy. In: Snyder, L. M. / Moore, E. A. (eds.). Dogs and People in Social, Working, Economic or Symbolic Interaction. Oxford. 132-137.

Sonja Vuković MA
Faculty of Philosophy,
Laboratory for Bioarchaeology
Čika Ljubina 18-20
SRB-11000 Belgrade
sonja.vukovic@gmail.com

Mladen Jovičić MA
Institute of Archaeology
Knez Mihailova 35
SRB-11000 Belgrade
mladen_jovicic@yahoo.com

Rome and Barbaricum

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Native Settlements on the North Side of Hadrian's Wall: New Evidence for Their History

Nick HODGSON

Archaeologists have always had a problem in understanding the impact of Hadrian's Wall on the lives of the local people who farmed the land in the northern frontier zone of Roman Britain. It has been written (Breeze / Dobson 2000, 215) that understanding of Hadrian's Wall 'will never be complete until it can be set in the context of the peoples it controlled and divided… the story of the native population is unwritten, only to be found on sites poor in material remains and especially artefacts, sites which it is impossible to date closely'. The written sources from the Roman period tell us hardly anything about the lifestyle of the local people and their relations with the Roman army. Even where the *Vindolanda* writing tablets describe the fighting habits of the *'Brittunculi*' – 'wretched little Brits' – these could be from anywhere in north Britain, and conceivably from far north of Hadrian's Wall.

When researchers have turned to the settlement sites of the Roman and pre-Roman Iron Age in the region to answer the question of how the Romans got on with the natives, these have failed to provide an answer: the basic problem has been that these sites have been impossible to date closely because they produce very few artefacts. With the very few Roman objects being the only datable ones it has looked very much as if life went on in these Iron Age farmsteads as it had done before the Romans came, with minimal adoption of Roman-style 'material culture'. In eastern England the story seemed very much the same for sites north of the Wall (in Northumberland) and to the south (in County Durham): until recently no signs of the trappings of Roman provincial culture appeared to either side of the Wall.

On the south-east Northumberland coastal plain, immediately north of the Wall in the Newcastle area, the indigenous settlements showed up in air photographs in considerable numbers as early as the 1960s. The predominant settlement form in the north-east appeared to be a small rectilinear enclosure containing roundhouses. This site type is inextricably linked with the name of Professor George Jobey of Newcastle University, the so-called 'one-man Royal Commission' who pioneered their investigation in the 1960s and 1970s. To him we owe the image of an ubiquitous and recurring site type with rectilinear enclosure ditches (sides typically 40-50 m long) containing a few roundhouses, sometimes a large central house. The buildings were of timber on the coastal plain, sometimes of stone in the uplands. Finds were few and typically consisted of sherds of handmade pottery in the crude local Iron Age tradition, a very few Roman pottery sherds, glass bangles, stone tools and potboilers, and quern stones.

Jobey arrived at the view that the rectilinear enclosures flourished in the Roman period under a *pax Romana*, and this view has prevailed ever since. At first Jobey thought that these settlements had been founded in the Roman period. By the 1970s he was finding evidence for phases of pre-Roman Iron Age activity at sites in the North Tyne valley, excavated in advance of flooding by the Kielder reservoir. But it remained his view that the settlements only attained their final and most developed form, sometimes with use of stone construction, under Roman rule (see Jobey 1966 and 1982 for summaries of his views in the 1960s and 1980s respectively). Since Jobey's time, air-photographic survey (e.g., Gates 2004) has discovered many more sites of later Iron Age type very close to Hadrian's Wall, particularly in the central sector, and these have naturally been assumed to be contemporary with it, the homes of people who lived with the Wall in their midst, who were little affected by Rome materially, but who benefited from the peace, communications and

markets that the Roman military presence offered. This view fitted well with another that gained prominence in the 1960s/70s: that Hadrian's Wall with its multiple milecastle gateways, rather than forming a military obstacle, was intended primarily to regulate the economic movements of the indigenous population that lived on either side of the Roman frontier. Despite the continuing recent aerial discoveries, the 1980s and 1990s saw hardly any excavation or research on the 'Jobey sites', and our views on the indigenous people and their relationship with Rome had to be based on the archaeological evidence recovered in Jobey's time.

This situation has now changed. This is not due to any deliberate programme of archaeological research, but because of the rise of commercial archaeology. Since 1990 planning policy in England has obliged developers to fund the excavation of sites threatened with destruction by their projects. The Northumberland coastal plain north of Newcastle is a prime area for the opencast mining of coal, and as energy prices have risen there have been many initiatives to open surface mines. This has led to the discovery and excavation of several late Iron Age settlement sites since 2000, as has the pressure of housing development on the northern fringes of Newcastle.

The last 10 years has at last yielded new information about native settlement north of the Wall, thanks largely to this large-scale developer-funded archaeology (**figs. 1, 3**). The settlements are extremely poorly preserved, being heavily plough-damaged, and often have to be investigated under extremely difficult conditions. But the fact that much larger areas are now stripped and examined than was ever the case in the 1960s/70s has led to a much more detailed picture, and, crucially, the financial resources made available through developer-funding mean that it is now possible to date sites which are poor in artefacts, by means of extensive programmes of radiocarbon dating.

Between 2002 and 2008 TWM Archaeology excavated three Iron Age earthwork-enclosure complexes at East Brunton, West Brunton, Newcastle Great Park (a housing and commercial development 6 km north of the Wall) and at Blagdon Park (12 km north), in advance of surface mining (**fig. 2**). As well as these three settlements several lesser and unenclosed sites and pit alignments were excavated, giving the most complete sample so far of the Iron Age landscape in the area immediately north of the Wall. The detailed results of these investigations have now been fully published (Hodgson et al. 2012). This volume complements an important report published by Jennifer Proctor of Pre-Construct Archaeology who extensively excavated another late Iron Age site at Pegswood (near Morpeth, 22 km north of the Wall), in 2000 (Proctor 2009).

For the sites reported in Hodgson et al. 2012, over 60 radiocarbon dates allow the chronology of the settlements to be much more closely understood than before. The scientific dates have been analysed and combined in Bayesian models by Derek Hamilton (full details in Hodgson et al. 2012). The radiocarbon evidence shows that the earthwork-enclosures were formed around 200 BC as the latest phases on roundhouse settlements continuously occupied since the late Bronze Age, when the landscape was already subdivided by pit-defined boundaries. In the chronology of these developments lowland Northumberland and Tyne and Wear can now be seen to mirror the Iron Age of much of eastern England between Yorkshire and the Wash. The late Iron Age settlements were not the isolated single enclosures we usually think of, but the substantial earthworks often occurred in concentric arrangements or even in pairs, indicating more than one leading family in a settlement (a development possibly arising from partible inheritance). These substantially enclosed settlements often had outworks and subsidiary enclosures attached (**fig. 3**). The radiocarbon dates make it clear that all of these developments occurred before the Roman conquest of the region. They were not caused by economic development under Roman rule.

The new site types and their dates show that on the coastal plain of Tyne and Wear and Northumberland we are dealing with a late pre-Roman Iron Age society with more variation in wealth and status than previously thought: it looks as if the substantial earthwork enclosures represent the social elite, while contemporary small unenclosed roundhouse settlements (not previously known in the region) and agglomerations of small-ditched enclosures (like Pegswood) may have been dependent on the more substantial enclosures. In the region to date it is only the substantial enclosures that have evidence for iron-working, sometimes in specialist areas: perhaps the social elite at these sites monopolised this activity. At all social levels there was a centuries-long tradition of building timber roundhouses. These were so substantially founded that even on badly ploughed sites their external wall foundation trenches, and particularly the drainage gullies that surrounded them to collect water from the conical thatched roofs, leave a strong archaeo-

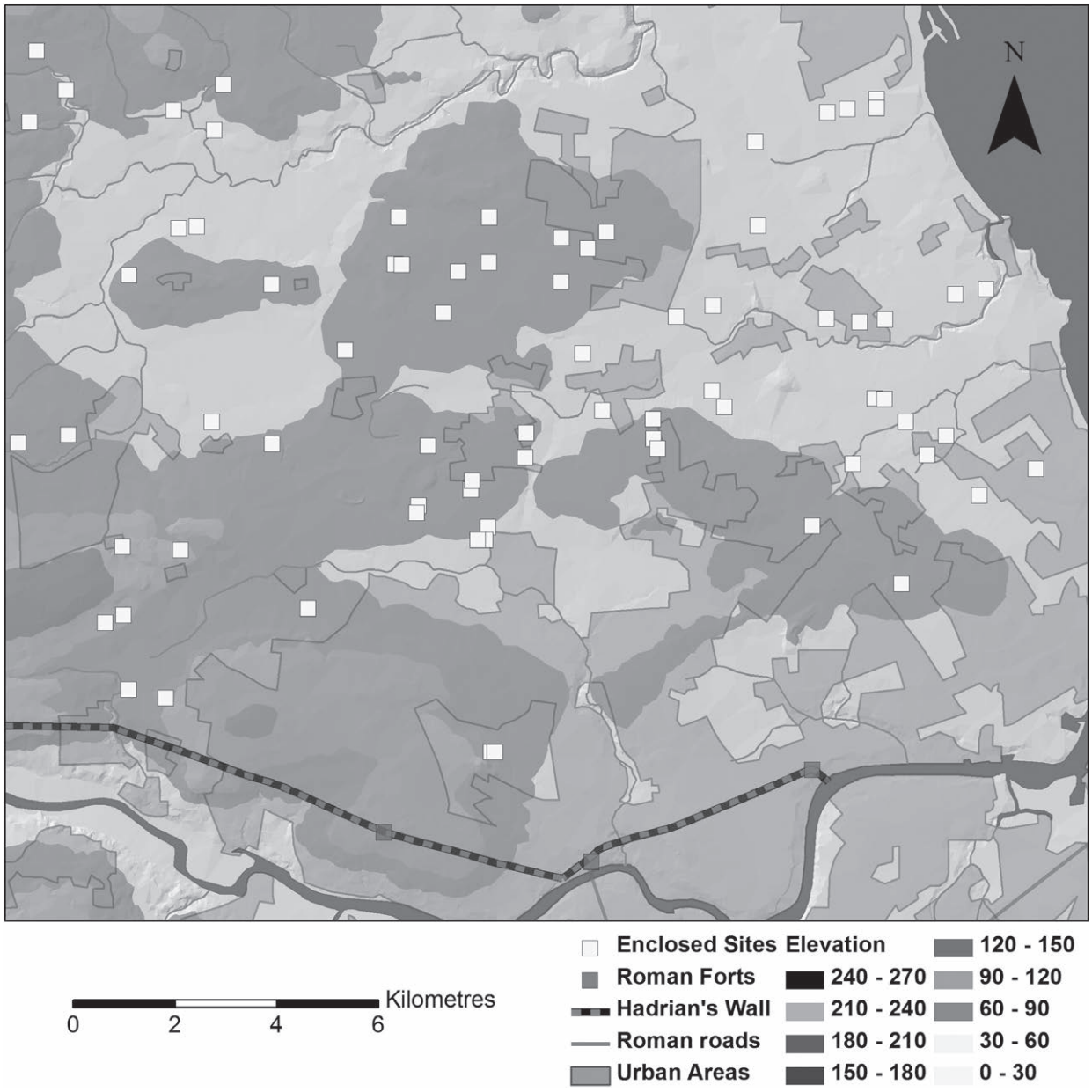


Fig. 1. The dense pattern of indigenous settlement enclosures north of Hadrian's Wall in the Newcastle area. Most of the sites are known from aerial photography (Map by James Bruhn)

logical signature. The biggest roundhouses of all occurred in the substantially enclosed settlements: the largest of these, at East Brunton, had a diameter as great as anywhere in southern Britain. There is evidence that these great houses were two-storeyed, with cattle accommodated on a low-ceilinged ground floor and the human inhabitants (presumably members of a leading family) on an upper or mezzanine floor.

Rather than flourishing in the Roman period, all these sites came to an abrupt end relatively early in the Roman period. Abandonment did not come with the first contact with the Roman military (in this region in the 70s AD): we can tell this from radiocarbon dates which suggest occupation continuing into the second century AD and the occurrence of Kilbride-Jones Type two glass bangles, a late first century AD type probably made from melted down Roman glass and an example of a hybrid 'frontier material culture' arising from contacts between the Roman army and the local people. There is a possibility that objects like this might have arrived at the sites before the formal Roman conquest of the region, and this is true of the tiny amounts of Roman pottery found at settlements of this kind (though none was found at the sites described in this arti-

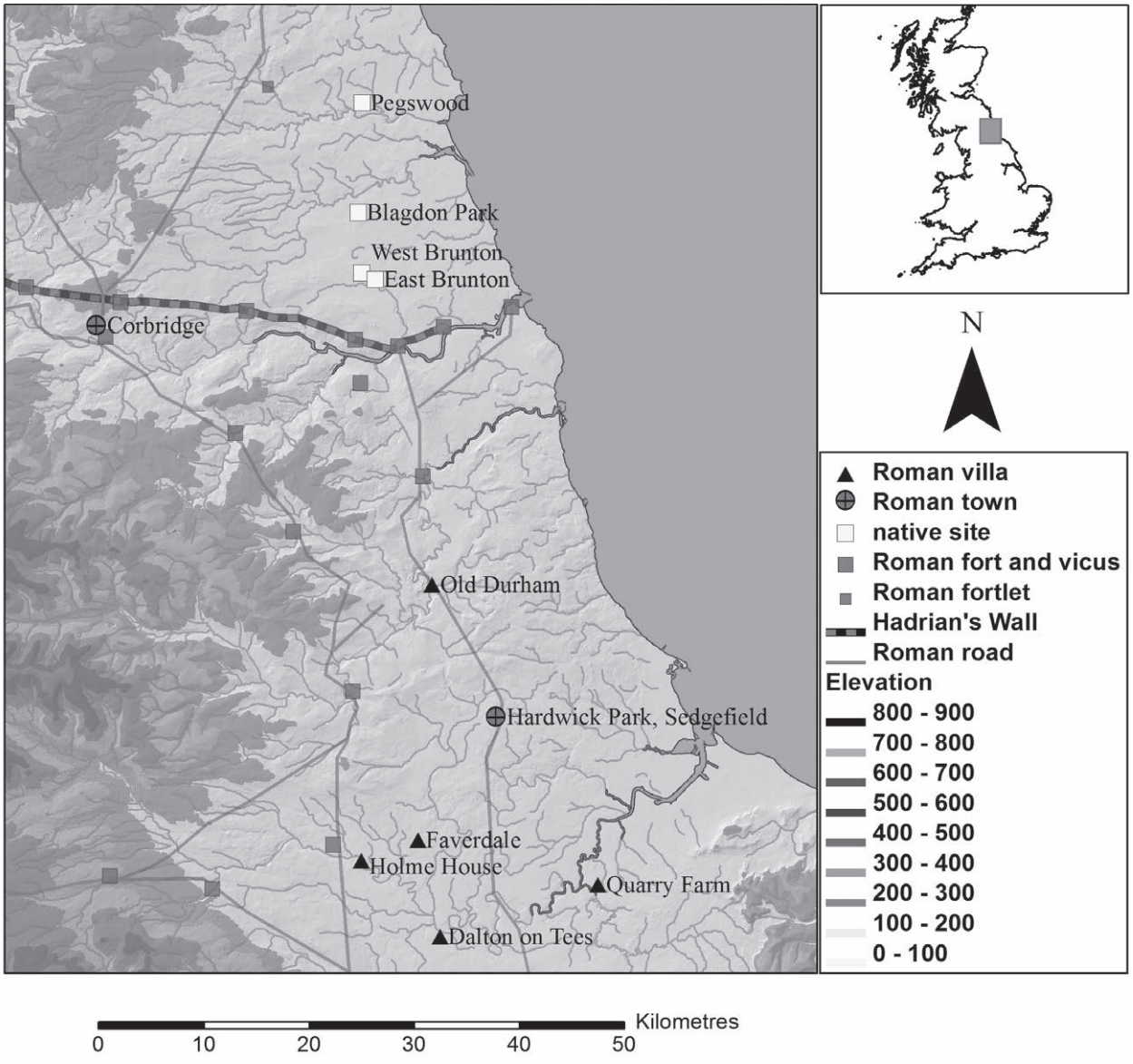


Fig. 2. The location of the recently excavated indigenous sites north of the Wall. Contrast the economic development indicated by villas in the County Durham area south of the Wall (Map by James Bruhn)

cle). There is also evidence that in the lower Tyne Valley the traditional agriculture of the region was still being practised on the eve of the construction of Hadrian's Wall, around AD 120, for active Iron Age cultivation regimes have been found and excavated beneath the construction levels of the Wall and its forts. This suggests that traditional life had gone on for the 50 years between the conquest of the 70s and the decision to build Hadrian's Wall in the 120s.

But radiocarbon dates from East Brunton, West Brunton, Blagdon Park 2 show that occupation ceased by some date in the second century AD. At these three sites close to Hadrian's Wall abandonment was total; at Pegswood (22 km north) the settlement that had evolved over centuries was abandoned and replaced by a much smaller non-settlement enclosure, possibly a stock-corral.

This new evidence, although obviously a preliminary sample, calls for a re-assessment of the question of whether most of dense distribution of Iron Age settlements that we can map were occupied contemporaneously with the Wall. It has long been recognised that Roman material occurring on the sites investigated by Jobey was, with very few exceptions, not later than second century in date. Jobey himself was reluctant to concede that these sites were not occupied in the later Roman period, arguing that Roman material was only available in smaller quantities after AD 200. But it is the near absence of earlier third century pottery, of the pe-

riod when the Wall-forts and their civilian settlements (*vici*) were at the peak of their material prosperity, that is most telling. There are also native sites outside the northeast, south of the Wall in Cumbria, that produce fourth century Roman material, and one exception in Northumberland, the site at Huckhoe, 10 miles north of the Wall, that has produced third and possibly fourth century pottery. This shows that the absence of evidence at the other sites is significant.

It also now clear that south of the Wall traditional life did not go on as before. Several Roman villas and a previously unsuspected settlement like a southern small-town have recently been found in the County Durham area (**fig. 2**). The recently published excavations at Faverdale, near Darlington (Proctor 2012) reveal the rapid development in the Hadrianic period (around 120-140) of a roundhouse settlement into an enclosure complex making conspicuous use of Roman pottery, metalwork and building technologies: it seems inescapable that either a member of the indigenous elite or some immigrant entrepreneur was profiting from their role in the supply infrastructure of the Wall and its garrisons. These discoveries suggest that Hadrian's Wall was no mere backcloth against which rural life went on much as before. They point to a major social dislocation occurring north of the Wall, and the creation of a supply-network and rudimentary Roman provincial society to its south. The Wall represents a sharp line of distinction between the two different kinds of development.

The current trend in ancient-historical writing on Roman frontiers is not to see frontiers as sharp lines of separation: rather frontiers are currently interpreted as zones of gradual transition into economic marginality. According to such theories, the actual frontier line (in the case of Hadrian's Wall, the Wall itself) is an arbitrary line for the purposes of border control, and the populations on either side of the line will have more in common with each other than with the imperial power maintaining the border. One of the most influential exponents of this view was C. R. Whittaker in his book *Frontiers of the Roman empire: a social and economic study* (1994). This belief found some support when the archaeological evidence from the Wall zone seemed to point to continuing traditional way of life, little different whether north or south of the Wall – to quote Breeze and Dobson (2000, 249-50) 'real people of the land, who lived with the Wall in their midst, who seemed little affected by Rome materially, but nevertheless enjoyed or endured the *pax Romana*, with peace,

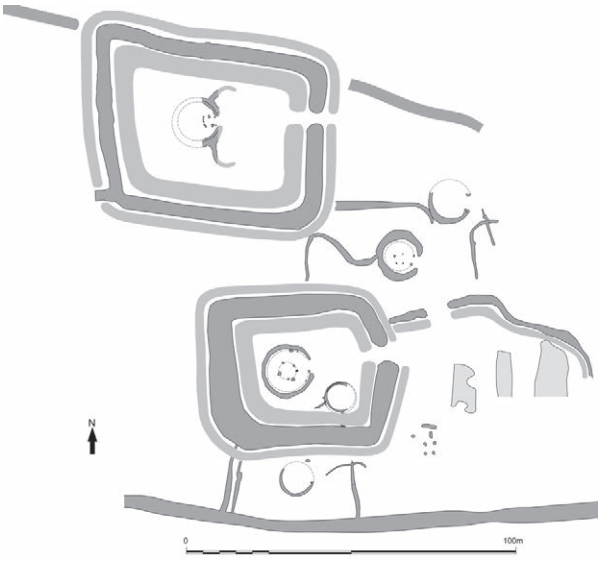


Fig. 3. At West Brunton (6 km north of Hadrian's Wall) a pair of later Iron Age enclosures represent a typical enclosure complex of the type emerging around 200 BC and abandoned when Hadrian's Wall was built. The dark tone represents enclosure ditches, lighter tone accompanying banks

communications and markets as never before'. That the Wall had a destructive effect on traditional Iron Age society to the north, and protected a nascent provincial society to the south, is a starkly different model, but one that must be seriously considered in the light of emerging archaeological evidence. With this kind of development immediately to its rear, Hadrian's Wall would not be alone among Roman frontiers: it has long been known that on parts of the Roman frontier in south-western Germany, Roman city territories and large numbers of small villa estates ran right up to the running frontier barriers, so that a colonised landscape was enclosed and protected by the frontier.

It is uncertain at present whether some settlements north of Hadrian's Wall were abandoned as an act of policy – the imposition by imperial authorities of a cleared zone 10 miles wide, say, north of the frontier line – or whether the former dense settlement pattern simply could not be sustained in the zone between the permanent Roman frontier and new power groups further north. We sense the emergence of a different kind of society in Scotland, in response to the permanent presence of the Roman imperial frontier in the form of Hadrian's Wall, from the documented emergence of new tribal names like the Maeatae, and eventually, the Picts, and from the renewed importance of centres such as Traprain Law, near Edinburgh (for social change in Scotland north of the Wall, see Hunter 2007).

These developments seem to have left the population of the coastal plain north of the Wall in an exposed position. Depopulation was not necessarily total, but a monumental building tradition of earthwork enclosures, and the sequences of substantially founded timber roundhouses that leave such an unmistakeable archaeological signature, clearly came to an end quite suddenly. It may be that somehow the presence of the Wall fatally weakened the agricultural wealth and stability of social bonds that had allowed a complex society to express itself in earthwork enclosure and substantial roundhouse building.

These discoveries about the fate of the indigenous population north of the Hadrian's Wall also cast doubt on the view of the Wall as primarily a facility for the control of movement by civilians, whether merchants, local farmers or local people visiting their kin on the other side of the Wall. Conversely, rapid creation of villa estates not far south of the Wall compels reconsideration of the Wall as a practical defensible barrier against raiders from the north – something suggested quite independently by the recent discovery of a hitherto unknown system of obstacles between the Wall and its frontal ditch (Bidwell 2005; Hodgson 2009, 25-27). Raiders need not have come from the area close to the Wall, but from areas far out of reach of immediate Roman retaliation, in Scotland. Immediately north of the frontier, on the Northumberland coastal plain, the presence of the Wall brought an agrarian civilisation of long standing to an end.

Bibliography

Bidwell, P. 2005. The systems of obstacles on Hadrian's Wall: their extent, date and purpose. – Arbeia Journal 8, 53-75.

Breeze, D. J. / Dobson, B. 2000. Hadrian's Wall. Fourth ed. London.

Gates, T. 2004. Flying on the frontier: recent archaeological air photography in the Hadrian's Wall corridor. In: Frodsham, P. (ed.). Archaeology in Northumberland National Park (CBA Res. Rep. 136). York. 236-245.

Hodgson, N. 2009. Hadrian's Wall 1999-2009: a summary of excavation and research prepared for the Thirteenth Pilgrimage of Hadrian's Wall, 8-14 August 2009. Kendal.

Hodgson, N. / McKelvey, J. / Muncaster, W. 2012. The Iron Age on the Northumberland Coastal Plain: excavations in advance of development 2002-2010 (Tyne & Wear Archives & Museums Archaeological Monograph No. 3). Newcastle upon Tyne.

Hunter, F. 2007. Beyond the Edge of the Empire – Caledonians, Picts and Romans. Rosemarkie.

Jobey, G. 1982. Between Tyne and Forth: some problems. In: Clack, P. / Haselgrove, S. (eds.). Rural Settlement in the Roman North. Durham. 7-20.

Jobey, G. 1966. Homesteads and settlements in the frontier area. In: Thomas, C. (ed.). Rural Settlement in Roman Britain (CBA Res. Rep. 7). London. 1-14.

Proctor, J. 2012. Faverdale, Darlington: excavations at a major settlement on the northern frontier zone of Roman Britain (PCA Monograph 15). London.

Proctor, J. 2009. Pegswood Moor, Morpeth: a later Iron Age and Romano-British Farmstead settlement (PCA Monograph 11). London.

Whittaker, C. R. 1994. Frontiers of the Roman Empire: a social and economic study. Baltimore / London.

Nick Hodgson
Archaeological Projects Manager
Tyne & Wear Archives & Museums
Arbeia Roman Fort and Museum
Baring Street
UK-NE33 2BB South Shields
Nick.Hodgson@twmuseums.org.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Barbaricum in Britannia? The Fosse Way as a Frontier to Coin Use

Philippa WALTON

Introduction

The Portable Antiquities Scheme is one of the most significant recent innovations in British archaeology. Since 1997, it has created a database of more than 850,000 archaeological objects dating from prehistory to AD 1700, which have been offered for recording by members of the public. This database (http://finds.org.uk/database) provides an invaluable resource for those studying the material culture of England and Wales and numerous projects have been undertaken which integrate its material (cf. Worrell et al. 2010). Roman coins represent the largest single category of object recorded by the PAS, accounting for nearly a fifth of all finds recorded. The size of this dataset and its wide geographical spread allow patterns of coin use to be studied, not only at the level of the individual site, but also on a regional and provincial basis. This paper will explore the evidence for regional differences in coin use within the province of *Britannia* and will specifically examine the concept of a north-south divide.

Using the results of this comparison, I will briefly ask what they may reveal about life for those living in both the north and south during the Roman periods and evaluate the role of landscape features in creating a 'virtual' frontier in Roman minds.

The Dataset

In September 2012, more than 140,000 Roman coins had been recorded by the Portable Antiquities Scheme. A basic distribution map of all coins recorded (**fig. 1**), gives the impression that coin loss was, to a great extent, uniform throughout the province. However, such a map does not distinguish between stray losses of single coins and large assemblages. Whereas stray losses may indicate the arrival of one person who happened to have and mislay a Roman coin at some point during the 400 years of Roman rule, larger assemblages are more likely to represent habitual coin use. For this reason, I will focus on an investigation of assemblages of twenty or more coins recorded by the PAS alongside a comparative dataset of coins from published excavations[1].

The Distribution of Coin Assemblages

Figure 2 illustrates the distribution of assemblages of 20 or more coins recorded by the PAS combined with the comparative dataset. Their distribution pattern is very different to that of all coins recorded by the Portable Antiquities Scheme and a stark north-south divide becomes apparent. The Fosse Way, a Roman road running between the legionary fortresses at Exeter and Lincoln, acts as an approximate dividing line between two zones. The southern zone accounts for 80% of all the assemblages recorded with a wide variety of site types, including urban, rural, military or civilian represented. The largest assemblages also fall within this zone. Meanwhile, the northern zone is represented by far fewer assemblages, with those that do exist originating almost exclusively from military installations and their associated urban foundations. North Lincolnshire and East Yorkshire are something of an anomaly, with numerous assemblages recorded along the course of the region's Roman roads. These assemblages appear almost to have escaped around the northern-most end of the Fosse Way.

Biases in the Data

It is absolutely clear that fewer Roman coins have

[1] See Walton (2012) for a full listing of comparative coin assemblages.

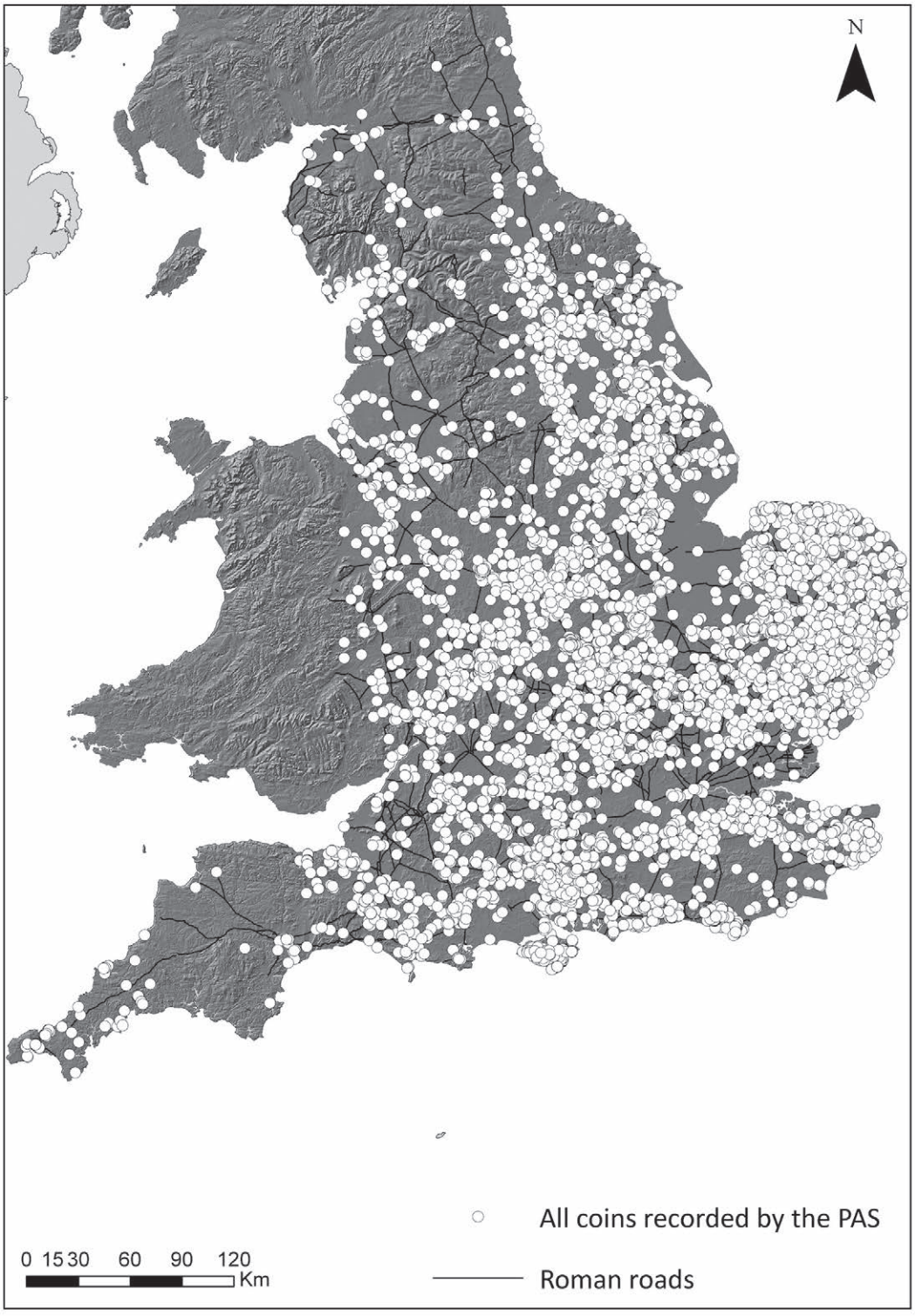


Fig. 1. The distribution pattern of all Roman coins recorded by the Portable Antiquities Scheme.

been recorded in the northern zone, when compared with the southern zone. This is likely to be related directly to the numbers of coins both used and lost in the north during the Roman period. However, before advancing beyond observation to interpretation, it is worth noting that there are some biases inherent in the PAS material which may adversely affect distribution patterns. For example, finds recorded by the PAS are predominantly the result of metal detecting. Due to national park and scheduled monument designations in the northern zone, industrial disturbance

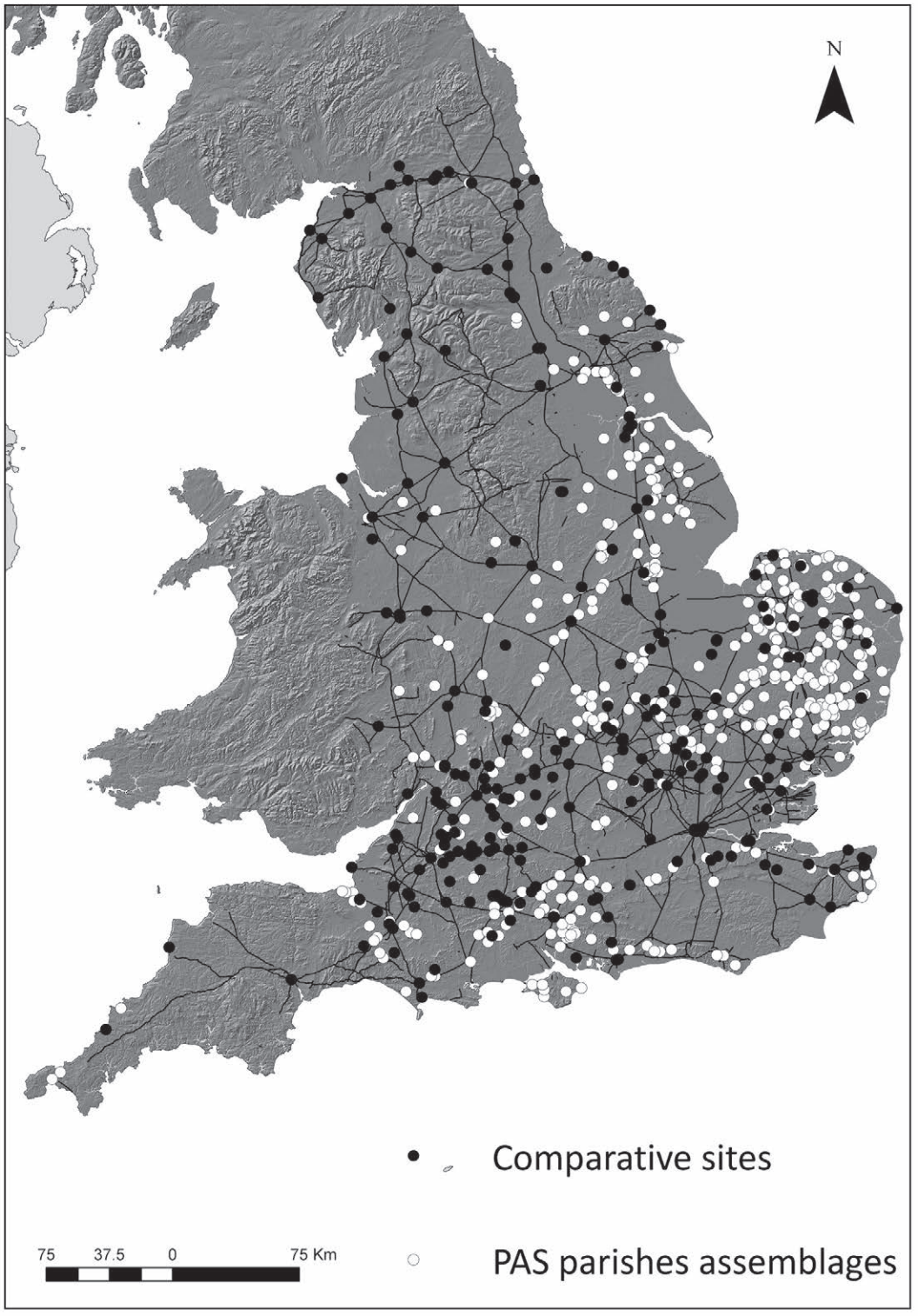


Fig. 2. The distribution pattern of all assemblages of Roman coins

of land in the nineteenth and twentieth centuries and upland terrain, the majority of detector users choose to enjoy their hobby elsewhere. The southern zone, with large areas given over to arable agriculture provides a focus for much metal detecting activity. We cannot therefore be absolutely certain that what is recorded is representative of what was actually lost. Even so, some fundamental differences can be observed, not only in the quantity of coins recorded north and south of the Fosse Way, but also in the chronology and denominational composition of assemblages.

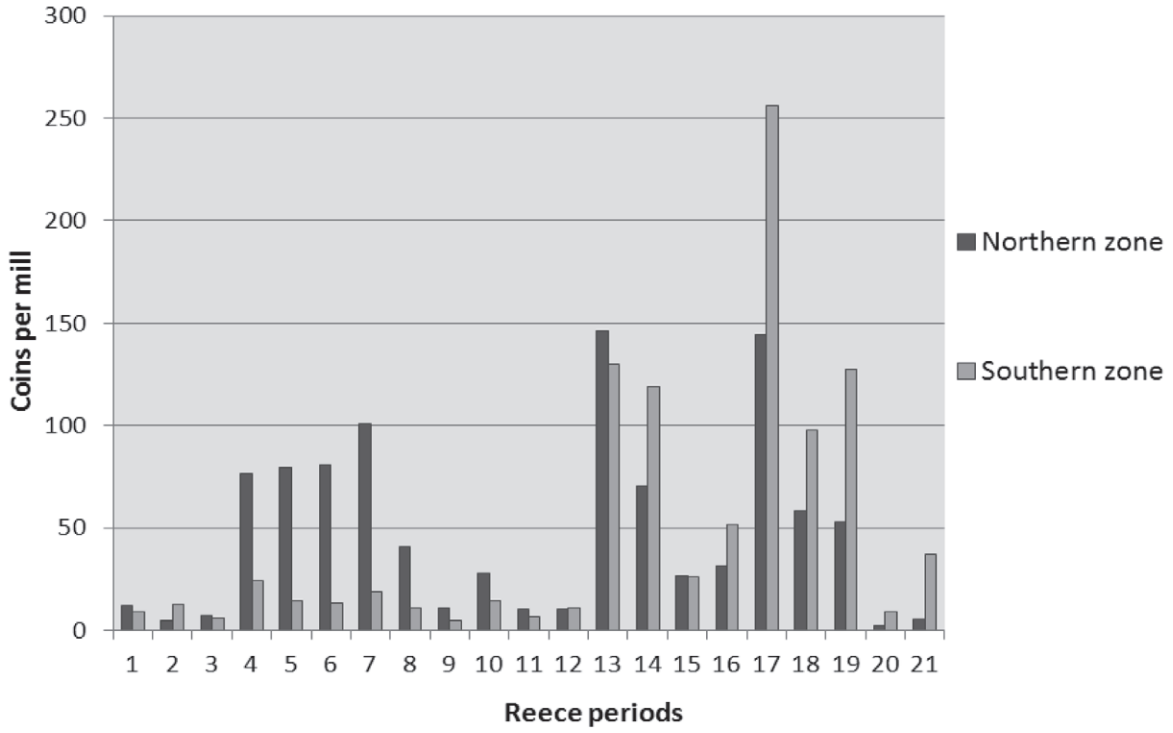


Fig. 3. A Reece histogram comparing the chronology of coin loss north and south of the Fosse Way

The Chronology of Coin Loss in Northern and Southern Britain

Following the chronological framework of Reece periods to organise the data (Reece 1972), average per mill values for coin loss in the northern zone have been calculated and compared with values for the southern zone. They are presented as a histogram in **figure 3**. There are obvious differences in the proportions of coins recorded in each of the zones. In the north, there are higher levels of early coin loss, with 45% of all coins recorded there dating to the first to early third century AD (Period 1 to Period 11). The values for Periods 4 to 8 (AD 69 to 180) are particularly high. In contrast, only 14% of all coins recorded in the southern zone date to the first to early third century AD. Instead, the values are consistently higher in the late third century and throughout the fourth century AD.

The Denominational Composition of Coin Loss in Nortehrn and Soutehrn Britain

It is not only the volume and chronology of coinage which varies between northern and southern Britain but also the proportions of each denomination lost. Throughout the first to third century AD, the silver *denarius* is the dominant denomination north of the Fosse Way and bronze denominations, whilst present in northern Britain, are far more scarce. For the sake of brevity, only a distribution map of silver and bronze coinage issued during the Flavian period (Reece period 4) is presented here (**fig. 4**) More than 50% of Period 4 issues found in northern Britain are silver whilst in southern Britain, nearly 60% are bronze issues. Whilst it is relatively easy to observe that there are larger quantities of first to third century coinage in northern Britain and that the higher value *denarius* is the dominant denomination, it is far more difficult to provide plausible interpretations for the patterning. However, several suggestions can be made.

Accounting for Difference: Military Losses in the Frontier Zone

The presence of the army in northern Britain will have provided much of the stimulus for coin loss. It is generally agreed that the main coin users in the early Roman period were the Roman army and administration (Davies / Gregory 1991, 71; Guest 2008, 139; Lockyear 2000, 403, 413) so this would account for the high volumes of first to third century coin loss in an area which experience extensive military campaigning. Furthermore, scholars have noted that military provinces such as Britain, Upper and Lower Germany and Pannonia receive more silver coinage than civilian ones such as Gaul and Italy and that individual sites with a military character tend to have higher proportions of high value coins than established civil sites (Hobley 1998, 128).

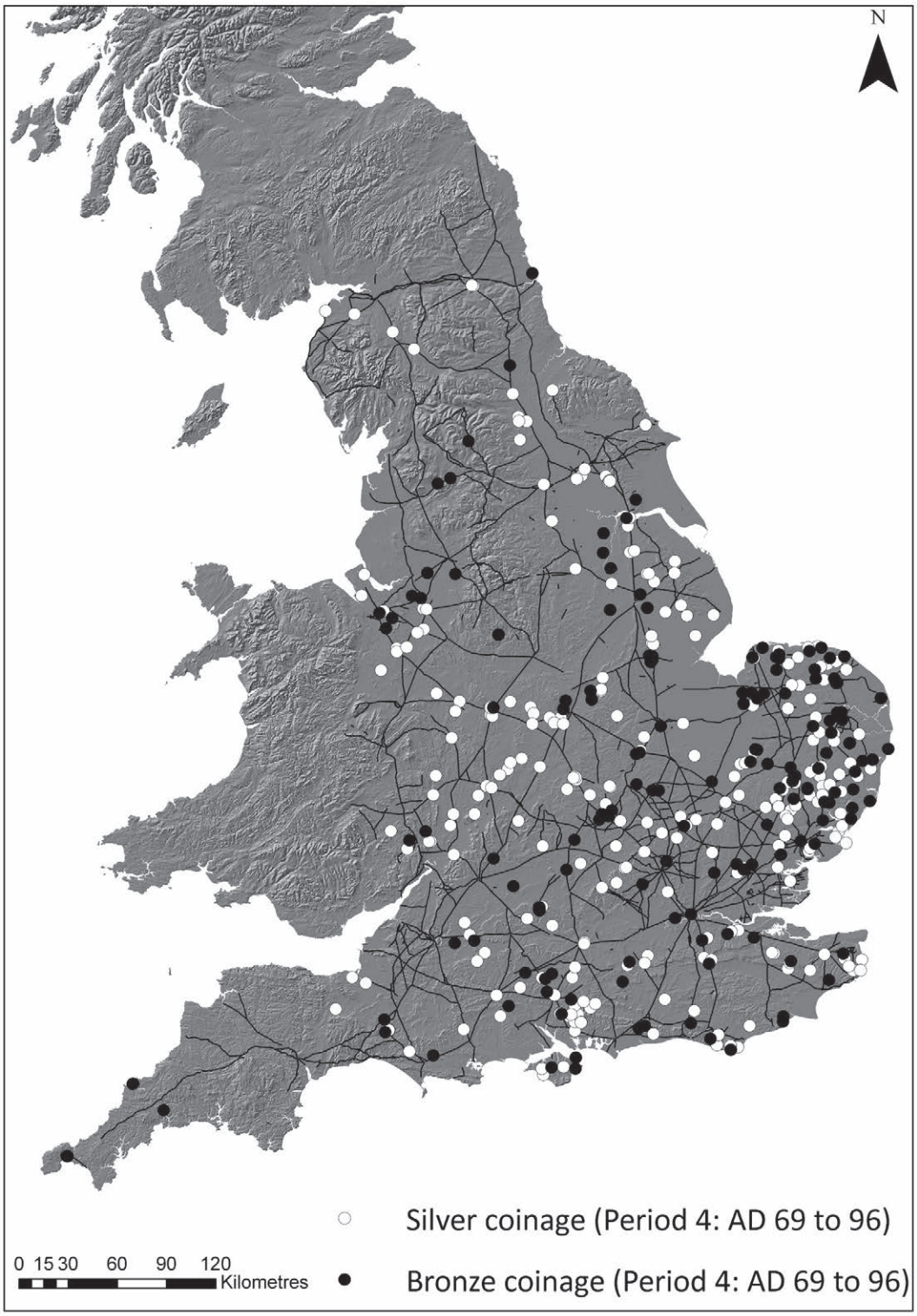


Fig. 4. The distribution pattern of silver and bronze coinage during the Flavian period (Reece period 4)

Therefore, the regional variation of denominations exhibited by the PAS material may reflect the division of the province into military and civilian zones, each with its own pattern of coin supply and usage. The military north was supplied predominantly with *denarii* to enable the payment of the army. These *denarii* were accompanied by some *dupondii* and asses to facilitate low value transactions within the military community but were not intended for wider circulation.

This dominance of the *denarius* in northern Britain and its association with the military is also supported by the evidence of the *Vindolanda* tablets. The *Vindolanda* tablets comprise a range of docu-

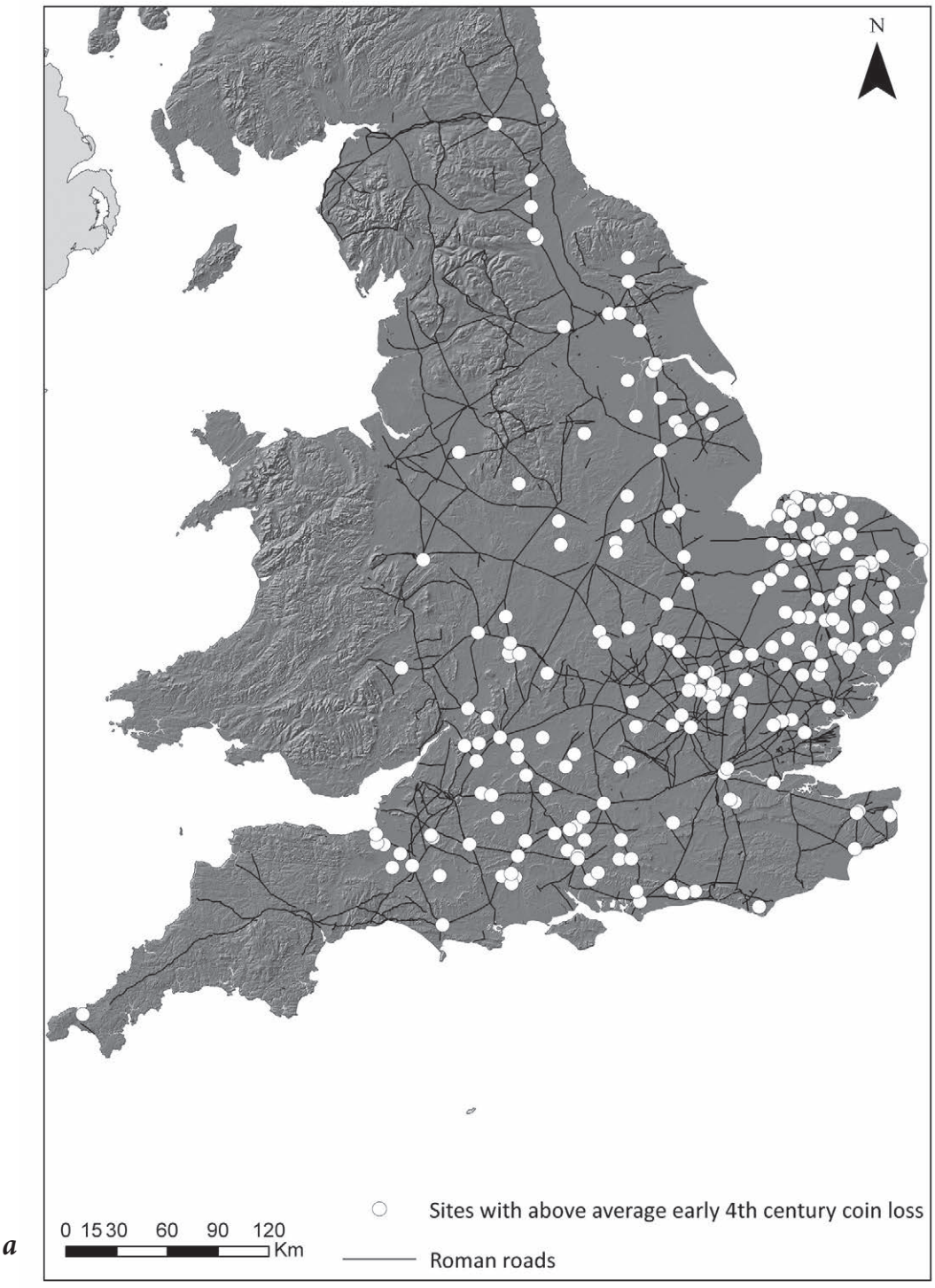
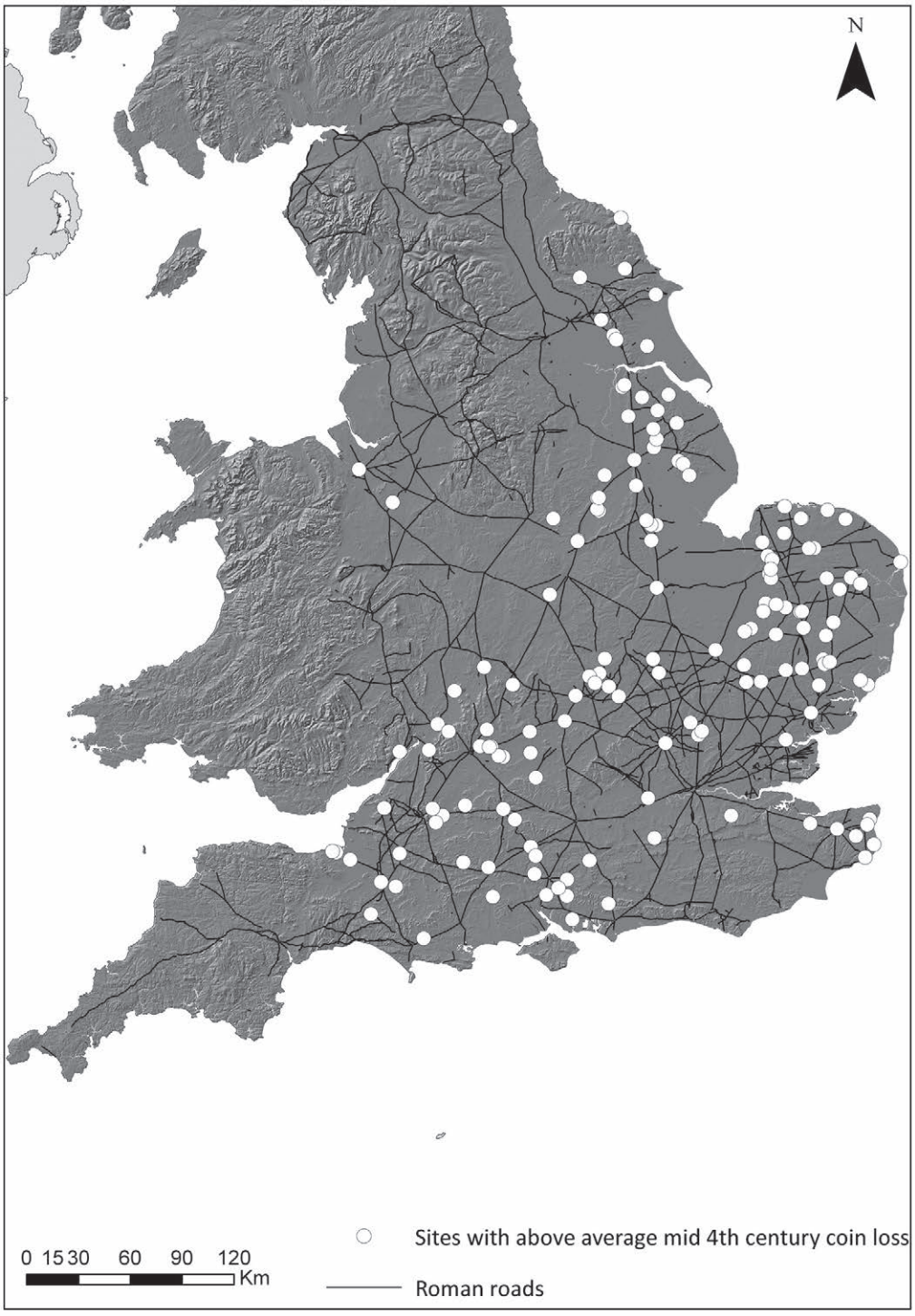


Fig. 5. The distribution pattern of assemblages with above average coin loss in the early, mid and late fourth century AD

ments excavated from the fort there and include receipts, letters and inventories. Of 28 published tablets which record amounts of money by denomination, 27 employ the *denarius* as the main unit of accounting, even expressing lower denominations as fractions of the *denarius* rather than as *sestertii* or *dupondii* (Bowman / Thomas 1974; Bowman / Thomas et al. 1983; Bowman / Thomas et al. 1994; Bowman / Thomas 2003) In fact, the *as* is the only bronze denomination used and is listed in 10 receipts in conjunction with *denarii* or in one example alone. This is despite the fact that the *sestertius* is usually considered to be the usual denominational unit for accounting throughout the Empire (Reece 1987a, 32; van Heesch 2007, 80). The adoption of the *denarius* for accounting purposes and presumably actual payment at *Vindolanda* is therefore significant.



b

Fig. 5. Continued

Accounting for Differnce: The Native Attitude to Coinage

It is also possible that the high percentage of *denarii* in northern Britain represents the native attitude to Roman coinage in an area with no previous experience of money. Indeed, the PAS data is unlikely to have come from specific military contexts, instead originating on rural sites which interacted with the army and Roman administration. The presence of predominantly silver coinage on such sites may therefore represent recognition of their intrinsic value as silver objects rather than their use within a monetary system. Such an attitude is mentioned by Tacitus who noted that in first century Germany, the native population picked out precious metal coinage in their dealings with the Romans (Tacitus *Germania* 5, 3-5)

The dominance of the *denarius* has also been recognised as a phenomenon in regions on the



Fig. 5. Continued

fringes of the Empire. For example, in Scotland, large hoards of silver denarii, such as that from Falkirk, have been discovered during the excavation of native settlements. Rather than being seen as evidence for trade, they have been interpreted as targeted bribes by the Roman administration to troublesome areas which were then retained as status symbols within local society (Hunter 2007, 218). Perhaps, northern Britain in the first to third centuries should be interpreted as behaving in a similar way – an area inside the province, but acting more like *Barbaricum* where coinage is used as money, only by the army but trickles down to the local population where it is employed in other ways.

North and South in the Third and Fourth Centuries AD

In this paper, patterns of early Roman coin loss have

been used to illustrate regionality in coin use in the first and second centuries. But how, if at all, do things change in the late Roman period? The traditional theory is that changes in the denominational composition of Roman coinage in the late third century AD resulting in a plentiful supply of low value coinage, accompanied by a boom in economic production and prosperity (Moorhead 2001, 94ff) brought coinage within the reach of rural populations for the first time. Instead of functioning as a unit of taxation and a mechanism for paying the army and administration, it was embraced by the rural marketplace and used in everyday exchange throughout the province (Millett 1990, 169; Esmonde Cleary 1989, 96; Mattingly 2006, 497; Reece 1988, 102). However, the Portable Antiquities Scheme data does not appear to support such an argument. Instead, the distribution pattern of assemblages with above average coin loss[2] for the fourth century AD has much in common with that of earlier periods, indicating that there was no widespread adoption of coinage in the north. As in the early Roman period, assemblages are almost entirely restricted to the southern zone.

Within this pattern, it is possible to identify some chronological variation, when these assemblages are divided into those with above average early, mid and late fourth century profiles. Indeed, as the fourth century progresses, there is a clear decline in the number of sites using coins and a contraction in their geographical extent. **Figure 5** illustrates this decline. Assemblages with above average coin loss for the late third and early fourth century AD are located throughout the countryside, even away from major road networks. However, by the mid fourth century, there are fewer sites and there is a significant shrinkage in their distribution. By the end of the Roman period, assemblages are almost completely restricted to sites located on major communication and transport routes, particularly at nodal points such as cross-roads.

Conclusion

This short paper has illustrated the distinctive patterns of coin loss for northern and southern Britain at different points during the Roman period and has highlighted the fact that there is little evidence for habitual coin use in most of northern Britain, except in military installations and their immediate hinterland. This discovery has tremendous implications for our understanding of Romano-British society. Indeed, through its coins the Roman north appears only tenuously 'Roman' and has more in common with its barbarian neighbours outside of the Empire. The Fosse Way, a physical marker in the Roman landscape, appears to act as something of a boundary between these two zones. Did the inhabitants of Roman Britain acknowledge that the road acted as a frontier beyond which something changed? It is impossible to be certain. However, the evidence suggests that although not an impermeable frontier, the Fosse Way acted as a sort of buffer zone beyond which Roman coinage rarely reached. This road appears almost to create a province within a province.

Bibliography

Bowman, A. / Thomas, J.D. 2003. The Vindolanda writing-tablets (Tabulae Vindolandenses). Volume III. London.

Bowman, A., Thomas, J.D. / Adams, J. N. 1994. The Vindolanda writing-tablets (Tabulae Vindolandenses). Volume III. London.

Bowman, A., Thomas, J. D. / Adams, J. N. / Tapper, R. 1983. Vindolanda: the Latin writing-tablets. London.

Davies, J. / Gregory, T. 1991. Coinage from a Civitas: A survey of the Roman Coins found in Norfolk and their Contribution to the Archaeology of the Civitas Icenorum. – Britannia 22 , 65-102.

Esmonde-Cleary, S. 1989. The Ending of Roman Britain. London: B.T. Batsford Ltd.

Guest, P. 2008. Coins. In: Booth, P. / Bingham, A-M. / Lawrence, S. (eds.). The Roman Roadside Settlement at Westhawk Farm, Ashford, Kent, Excavations 1998-1999. Oxford. 135-139.

Guest, P. 2008a. The Early Monetary History of Wales: Identity, Conquest and Acculturation. – Britannia 39, 35-38.

van Heesch, J. 2007. Some Aspects of Wage Payments and Coinage in Ancient Rome, First to Third Centuries CE. In: Lucassen, J. (ed.). Wages and Currency. Global Comparisons from Antiquity to the Twentieth Century. International and Comparative Social History Vol. 10. Bern. 77-96.

Hobley, A.S. 1998. An examination of Roman Bronze coin distribution in the Western Empire AD 81-192. BAR International Series 688, Oxford.

Hunter, F. 2007. Silver for the barbarians: Interpreting Denarii hoards in Northern Britain and beyond. In: Hingley, R. / Willis, S. (eds.). Roman Finds: Context and Theory. Proceedings of a conference held at the University of Durham. Oxford. 221-224.

Lockyear, K. 2000. Site finds in Roman Britain: A comparison of techniques. – Oxford Journal of Archaeology 19, 4, 397-423.

[2] Values which are double or more the PAS Mean value for that period. See Walton (2012) for further discussion of this method.

Mattingly, D. 2006. An Imperial Possession. Britain in the Roman Empire. London.

Millett, M. 1990. The Romanization of Britain. An essay in archaeological interpretation. Cambridge.

Moorhead, T.S.N. 2001. Roman Coin finds from Wiltshire. In: Ellis, P. (ed.). Roman Wiltshire and after. Papers in honour of Ken Annable. Devizes. 85-105.

Reece, R. 1987. Coinage in Roman Britain. London.

Reece, R. 1988. My Roman Britain. Cirencester: Cotswold Studies.

Walton, P. J. 2012. Rethinking Roman Britain: Coinage and Archaeology. Moneta Monograph 137. Wetteren.

Worrell, S. / Egan, G. / Naylor, J. /Leahy, K. / Lewis, M. 2010. A Decade of Discovery. Proceedings of the Portable Antiquities Scheme Conference 2007. BAR British Series 520. Oxford.

Dr Philippa Walton MA Cantab, PhD UCL
Department of Portable Antiquities and Treasure,
The British Museum
UK-London
pwalton@thebritishmuseum.ac.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Interpreting Celtic Art on the Roman Frontier – the Development of a Frontier Culture in Britain?

Fraser HUNTER

Introduction

Britannia is unusual among frontier provinces because the indigenous art style of the area (so-called Celtic art) exercised a strong influence on art and material culture in the frontier zone. The phenomenon is well-known, but explanations for this Romano-British art tend to see it as a debasement of earlier traditions focussed on the creation of 'trinkets' for the new Roman market (Henig 1995, 103; Megaw / Megaw 2001, 230). In an earlier paper I reviewed the broad range of evidence, and suggested that these hybrid forms of art can tell us about much more complex processes of adaptation in the new circumstances of the frontier zone (Hunter 2008). This paper will explore this in more detail, to show something of the different processes involved.

Celtic Art in Roman Britain

Britain is unusual in a European perspective, as the floruit of so-called 'Celtic art' is a late one, dating to the period c.100 BC – AD 200 (the terminology has been hotly-contested recently, part of a wider debate about the validity of 'Celts' as a concept; see Fitzpatrick 1996; Megaw / Megaw 1996, 1998; Sims-Williams 1998; James 1999; Collis 2003). Studies of Celtic art normally focus on the early and middle La Tène periods (a trend started by Jacobsthal 1944) which are often seen as the time of most artistic creativity. The later La Tène period is depicted, rather unfairly, as a period of more mechanical mass-production of less creative objects, rather negatively influenced by the impact of Rome. This is a caricature, but there is a broad trend on the Continent for the art of the later La Tène period to be strongly influenced by Roman art, creating new hybrid forms which are less recognisably 'Celtic' to our eyes (for a critique, see Hunter 2006).

Britain is an exception. Recent work has emphasised that the vast bulk of Celtic art is late Iron Age and Roman in date (Garrow 2008; Garrow / Gosden 2012, fig. 3/10), a phenomenon which has been linked to a need for creating clear and vivid expressions of local identity in the face of the threat of Rome (Hunter 2007, 289): such a response finds many parallels in the anthropological literature (e.g. Hodder 1982, 186-187; Jones 1997, 113-115, 123-124). Focussing on the first two centuries AD, the main concentrations of this material are in hotspots of opposition to Rome: the south-west of England and southern Wales (the area attributed to the Durotriges and the Silures); East Anglia (the land of the Iceni); northern England (the troublesome Brigantes) and southern Scotland; and north-east Scotland, where the Caledonian tribes dwelt (Davis / Gwilt 2008, 177-178).

Yet opposition to Rome was only part of the story. This art became embedded in life on the frontier, where it was produced and used throughout the later first and second century (Hunter 2007, 292). The objects involved are classic Iron Age status items: swords, chariot gear, personal ornaments, feasting and drinking equipment. These were embedded in the local Iron Age (for instance, there is evidence of manufacture and use on the hillfort of Traprain Law in SE Scotland; Burley 1956, 220; MacGregor 1976, # 26-9, 101-8). But they were also part of life on Roman forts in the frontier zone. Between 30% and 60% of finds come from Roman forts (Hunter 2007, 292) while virtually every excavated fort in the area produces examples. A number have also produced manufacturing evidence (Hunter 2007, 294, #5). These 'Celtic' items were a small but persistent part of visual culture on the Roman frontier. It is this aspect which interests me here: how did this hap-

pen, and what did it mean? Does this represent the emergence of a frontier culture, shared across the frontier zone and distinctive from other areas?

My focus is on the metalwork of central Britain, the area from the river Humber to the Firth of Forth. Here a variety of styles can be identified (MacGregor 1976, 184; Hunter 2008, 134-135) which I shall treat together. Three main processes can be recognised:

- Iron Age objects decorated with Celtic art found on Roman sites
- Roman-style objects decorated with Celtic art
- Hybrids

I suggest that different processes lie behind different groups of material. These can be explored by looking at some of the main groups.

Swords

A distinctive group of swords and scabbards found predominantly in northern Britain have fallen into an academic crack, rather too late for most Iron Age scholars but barely considered by Roman military equipment specialists (Piggott 1950, Group IV; Stead 2006, Groups F and H; MacGregor 1976, 79-83). Yet such weapons were widely used in the first century AD in both Iron Age and Roman hands. This was a British style which was adopted by some elements of the Roman army. The type's origins are unclear, but Roman associations indicate its use did not extend beyond the first century AD. The process is not a simple one, and merits a more detailed study; our understanding is still incomplete. Here I shall restrict myself to some observations on the interaction of form, decoration, distribution and context.

The clearest factor is regional variation. The distribution is an odd one, with the bulk of finds from Humber to Forth and an outlier group in south-west England (**fig. 1**). This is mirrored by differences of style (**fig. 2**). While geometric decoration is found across the country, styles derived from Celtic art are very different: the northern ones use relief trumpet decoration, the southern ones incised enamelled designs and pointillé decoration. These reflect pre-existing regional differences in art styles: in other words, the same forms of weapons are decorated according to local habit. Yet there is a marked difference in the contexts they come from (**fig. 3**). If we make a broad distinction between Roman contexts (almost all military) and others (bundling together stray finds, hoards and Iron Age sites), the southern-style fittings are exclusively from Roman sites, with none from an indigenous context; the form seems alien to the southern British Iron Age. In contrast, the northern-style fittings with Celtic art are rare on Roman military sites; they are found predominantly in hoards and occasionally on Iron Age sites.

At one level this may look like a shared style across wide areas, but on further investigation it is more complex. The same form of sword fitting may have been used in both Roman and non-Roman contexts but the style was different. In the north, it was unusual to have swords decorated with Celtic art on Roman sites, although the forms of hilts and scabbard fittings mirrored local traditions. In the south, they were a hybrid type alien to local practice and so far found only in Roman military contexts. We could construct many different scenarios to explain this, but further work is required prior to extended discussion (see Hunter forthcoming). The key point at the moment is the transformations which these Iron Age objects went through in moving into a more military context. This was not simple adoption of a local form from the local population.

Vehicles

The other dominant category in Roman contexts is harness gear: bridle bits, terrets, strap fasteners and mounts, often highly decorative (**fig. 4**). These come not from ridden horses but from draught animals and associated vehicles: we are looking here at chariots and wagons. It is easy to be seduced by the beauty of some of the objects, but to understand the process behind their adoption we must remember their use. These represent the archaeological evidence for technology transfer. It has long been recognised that the wheel-making skills and vehicle-manufacturing technology of Iron Age Europe were exceptional; the predominance of Celtic loan words for vehicle-related terms in Latin implies that these skills were acquired from the Iron Age world (Wild 1976; Piggott 1983, 230-233). These objects represent physical evidence of that process – the production and use not just of the metal fittings, but behind them the lost wagons and chariots. The subsequent development of hybrid forms of terrets and bridle bits which show the influence of Roman styles (e.g. Spratling 1971; Hutcheson 2004, 126, # 27) indicate that this remained a living tradition during the Roman period.

Jewellery

Different processes again are seen in aspects of personal ornament. The torc was the symbol of the Celt in classical art, but in Roman Britain it was re-invented and transformed. So-called beaded torcs, copper-alloy hoops with a detachable beaded front

portion, seem to have late Iron Age origins but became predominant in the Roman period, from the mid-first to the later second century AD, across a wide area of northern and western Britain; indeed, they are only rare or absent in the extreme south and east of the country (Hunter 2010). Iron Age torcs had been rare and prestigious items of precious metal; these beaded torcs are less exclusive but no less distinctive, transforming the earlier status symbol into a more widely available ornament across much of the province (in military, rural, and urban contexts) and beyond, in 'barbarian' society. It is not yet clear if they were specifically male or female ornaments, but they became part of Romano-British life across a large area of the province and beyond its northern border.

Romano-British brooches show another aspect of this phenomenon. Many types have long been recognised as hybrid forms in their decoration (e.g. Collingwood 1930), especially but not exclusively in the frontier zone (Hunter 2008, Table 8. 3). This phenomenon can be explored in more detail through one well-known type – the dragonesque brooch. Dragonesques are one of the pin-ups of Celtic art (e.g. Megaw / Megaw 2001, cover), but they are not a 'Celtic' type. They arise from the mixing of local artistic traditions with the Roman idea of the plate brooch in the decades around the Roman conquest, part of this explosion of new decorative styles which was mentioned above (Hunter 2010). They are a classic hybrid form. Their distribution focuses in eastern Britain, spanning the frontier zone, with Yorkshire their heartland. Yet this masks considerable variety in how they were used. There are two basic styles, those with enamelled decoration and



Fig. 1. Distribution of sword and scabbard fittings derived from Iron Age traditions in the first-early second century AD. Large dots are decorated with northern styles of Celtic art; squares denote decoration with southern-style Celtic art

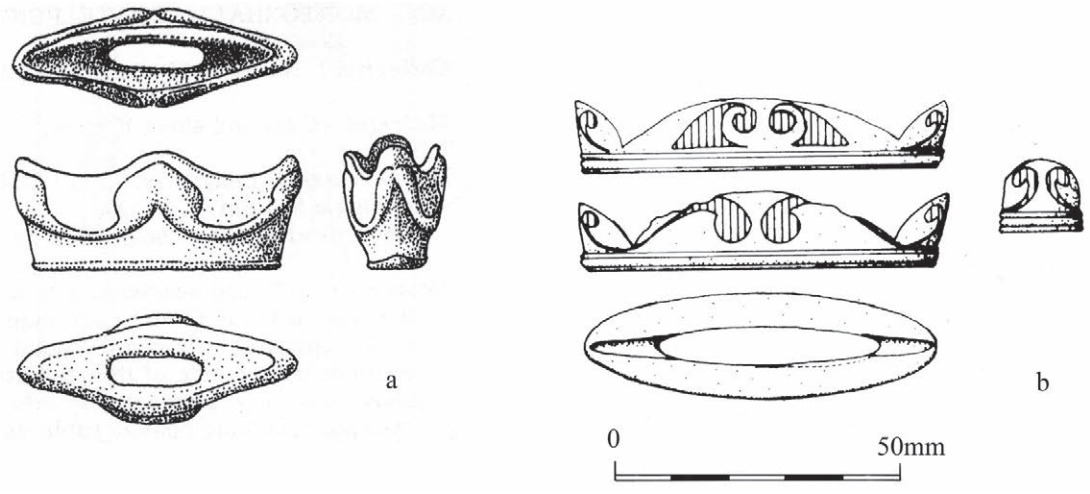


Fig. 2. Different styles of hilt guard. a) Middlebie (Dumfriesshire), decorated in northern British style (MacGregor 1976, #149); b) Hod Hill (Dorset), decorated in southern British style (Stead 2006, fig. 107, # 248)

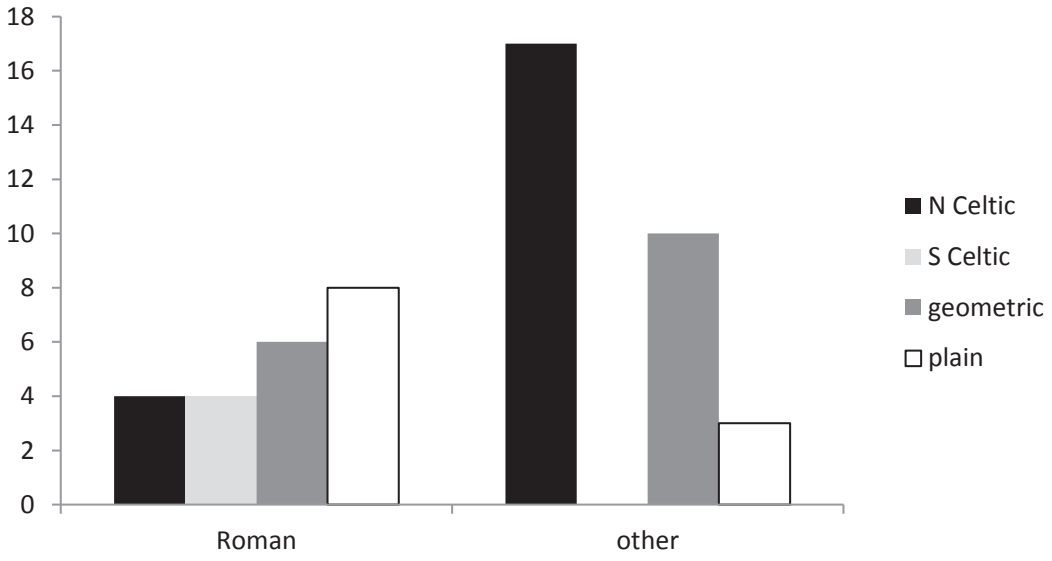


Fig. 3. Variation in decoration style in different contexts

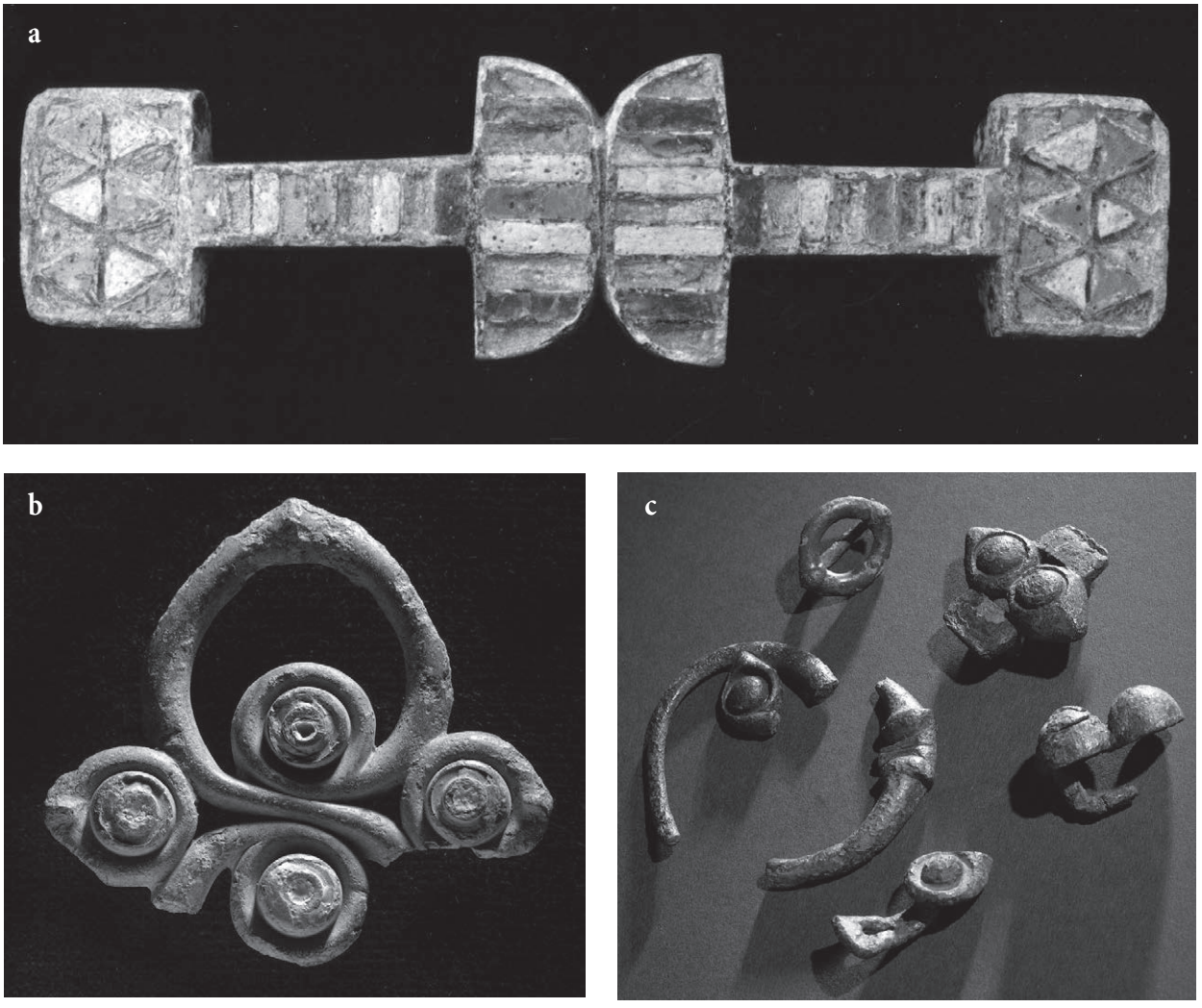


Fig. 4. Celtic-style harness gear from Roman forts and camps. a) harness strap junction from Inchtuthil (length 103 mm); b) harness strap junction from Ward Law, Dumfriesshire (width 60 mm); c) selection of harness fittings from Newstead, Roxburghshire (object on left is 61 mm long). © National Museums Scotland

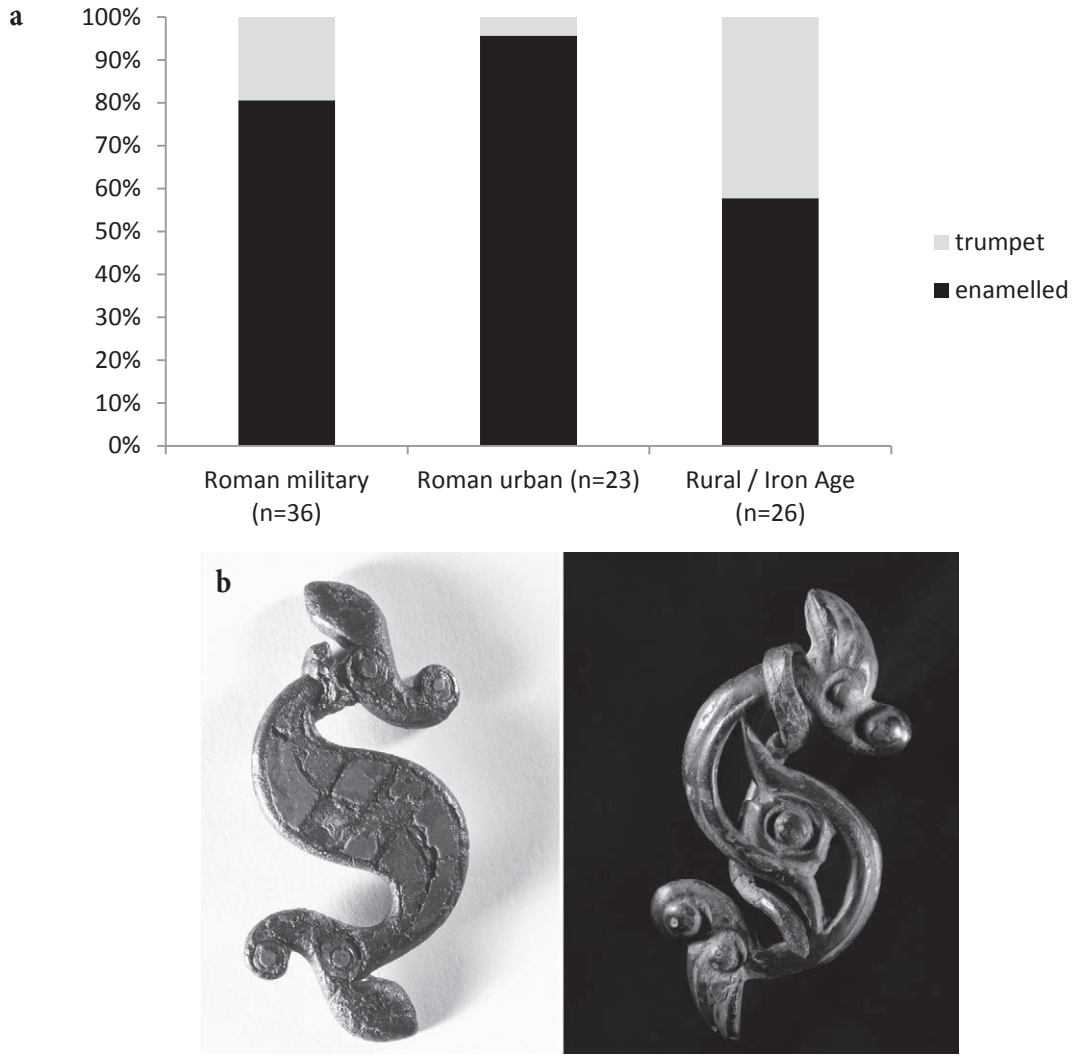


Fig. 5. a) variation in proportion of dragonesque brooch style in different contexts; b) the two main styles. Left, enamelled (from Lamberton Moor, Berwickshire); right, with trumpet decoration (from Well, Yorkshire). © National Museums Scotland

those with swirly, trumpet-based decoration. The former were preferred on Roman military and urban sites, while on rural sites within the province and Iron Age sites beyond it, the types with Celtic-style decoration were just as common (**fig. 5**; Hunter 2010, 101-102). At one level this looks like a shared style across the broad frontier zone, but when we investigate we find that different groups of people were making slightly different choices in what they chose to wear, projecting subtly different messages as a result.

Vessels

The process of applying Celtic art motifs to Roman-style objects is nicely illustrated by the case of enamelled vessels. These were a distinctively Romano-British style, and many of them used Celtic-derived motifs (**fig. 6**; Hunter 2008, 141-142; Hunter 2012). Yet the process was not a simple one of direct copying. Often the designs were modified: for instance, Classical-derived vegetal friezes acquired an indigenous-style swirl or curl. This was no simple copying, but careful reinvention. Two examples illustrate this nicely. On the Elmswell plaque (E Yorkshire), an enamelled Classical plant scroll in one field is mirrored by a repoussé swirling pattern in another, while on the Ilam pan (Staffordshire), the design incorporated both a Celtic-style triskele and a classical plant scroll, depending how one looked at it (Hunter 2012). This represents a very subtle fusion of different traditions, creating something new and distinctive as a result, but one which different viewers could read in different ways.

Beyond Britannia – What Is 'Celtic'?

How were these objects seen beyond Britannia? The enamelled vessels were widely exported, but it is likely that they were desired as luxury goods for

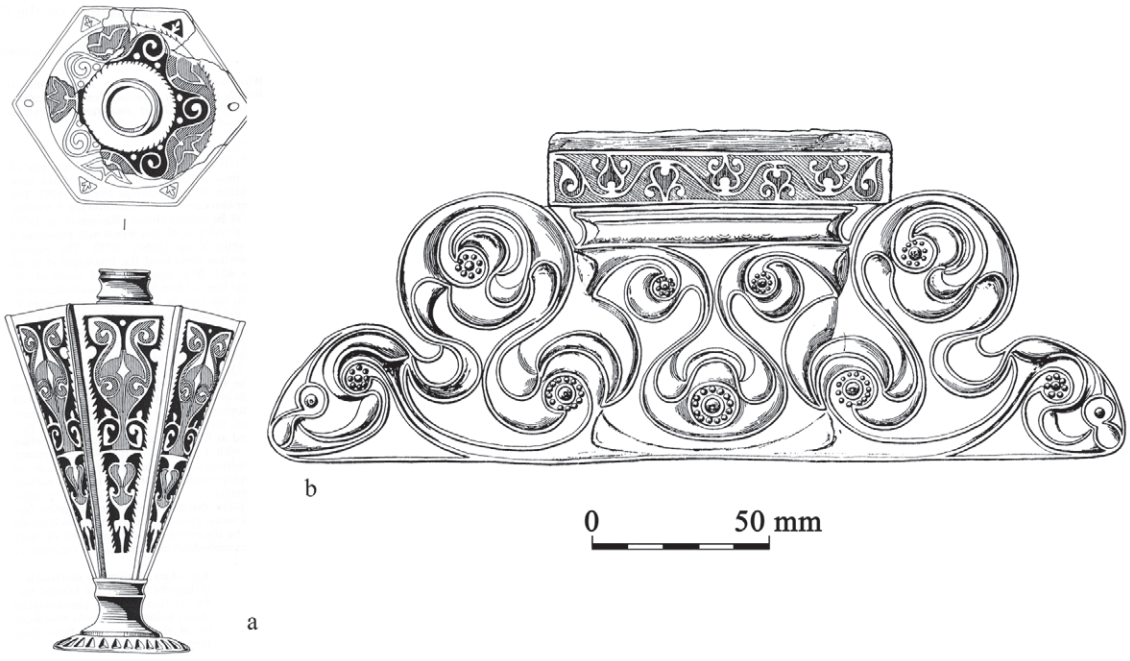


Fig. 6. Vessels and vessel fittings with Celtic-style decoration. a) flask from Corbridge, Northumberland (Casey / Hoffmann 1995, 24); b) the Elmswell (Yorkshire) plaque (Jope 2000, Pl. 222/b)

their technical virtuosity rather than some fondness for their 'Celtic style'. British brooches on the Continent are likely to have been seen as a British or frontier style – the idea of them as Celtic is our imposition, not a contemporary one. Likewise, the development of Trompetenmuster ornament looks to us like a continuation of Celtic art, but it was probably seen as variants of plant-scrolls and other vegetal motifs. Common especially in the frontier regions across the Empire, this became a generally popular style – the idea of it as 'Celtic' is again something we impose.

This seems to be true also for the later Celtic art of the post-Roman period in western and northern Britain and Ireland. Rather than any survival of La Tène art in these areas, beyond the evil reach of Rome, Lloyd Laing (2005) has convincingly shown how the motifs and designs came from provincial art, especially within Britannia. Their subsequent development in the post-Roman world represents an inheritance from provincial Roman art which was hybridised with other influences such as Germanic animal art, not some long-running Celtic artistic spirit. Here we see no surviving tradition, but a reinvention and development of art styles which developed in Britannia.

Conclusions

'Celtic' or Romano-British styles of art became part of life across the British Limes, in indigenous contexts beyond the Wall, in military, rural and urban contexts behind it. At one level this suggests the development of a frontier culture, but the picture is more complicated. Different groups of objects tell us about different processes of adoption and adaptation, while more subtle contextual analysis indicates that different groups were making different cultural choices in the use of apparently similar material. The frontier zone was a culturally creative area in Britain, where new styles and shapes of objects were made and used as part of the process of adjusting to and affecting life on the Limes.

Bibliography

Burley, E. 1956. A catalogue and survey of the metalwork from Traprain Law. – Proceedings of the Society of Antiquaries of Scotland 89 (1955-6), 118-226.

Casey, P. J. / Hoffmann, B. 1995. Excavations on the Corbridge Bypass, 1974. – Archaeologia Aeliana (fifth series) 23, 17-45.

Collingwood, R. G. 1930. Romano-Celtic art in Northumbria. – Archaeologia 80, 37-58.

Collis, J. 2003. The Celts: origins, myths and inventions. Stroud.

Davis, M. / Gwilt, A. 2008. Material, style and identity in first century AD metalwork, with particular reference to the Seven

Sisters hoard. In: Garrow, D. et al. (eds.). Rethinking Celtic art. Oxford. 146-184.

Fitzpatrick, A. P. 1996. 'Celtic' Iron Age Europe: the theoretical basis. In: Graves-Brown, P. / Jones, S. / Gamble, C. (eds.). Cultural Identity and Archaeology: the construction of European communities. London. 238-255.

Garrow, D. 2008. The time and space of Celtic art: interrogating the 'Technologies of Enchantment' database. In: Garrow, D. et al. (eds.). Rethinking Celtic art. Oxford. 15-39.

Garrow, D. / Gosden, C. 2012. Technologies of enchantment? Exploring Celtic art: 400 BC to AD 100. Oxford.

Garrow, D. / Gosden, C. / Hill, J. D. (eds.) 2008. Rethinking Celtic art. Oxford.

Henig, M. 1995. The Art of Roman Britain. London.

Hodder, I. 1982. Symbols in Action. Cambridge.

Hunter, F. forthcoming. Iron Age swords and Roman soldiers in conquest-period Britain. In: Grane, T. / Pauli Jensen, X. (eds.). ROMEC XVIII. Proceedings of the 18th conference on Roman military equipment. Copenhagen.

Hunter, F. 2012. Frontier finds, frontier art – views of enamelled vessels. In: Breeze, D. (ed.). The First Souvenirs: enamelled vessels from Hadrian's Wall. Kendal. 85-106.

Hunter, F. 2010. Changing objects in changing worlds: dragonesque brooches and beaded torcs. In: Worrell, S. / Egan, G. / Naylor, J. / Leahy, K. / Lewis, M. (eds.). A Decade of Discovery: Proceedings of the Portable Antiquities Scheme Conference 2007. Oxford. BAR British Series 520. 91-107.

Hunter, F. 2008. Celtic art in Roman Britain. In: Garrow et al. (eds.). Rethinking Celtic art. Oxford. 129-145.

Hunter, F. 2007. Artefacts, regions, and identities in the northern British Iron Age. In: Haselgrove, C. / Moore, T. (eds.). The Later Iron Age in Britain and beyond. Oxford. 286-296.

Hunter, F. 2006. Art in later Iron Age society. In: Haselgrove, C. (ed.). Celtes et Gauloises, l'archéologie face à l'histoire 4: les mutations de la fin de l'âge du Fer. Glux-en-Glenne. 93-115.

Hutcheson, N. C. G. 2004. Later Iron Age Norfolk: metalwork, landscape and society. Oxford BAR British Series 361.

Jacobsthal, P. 1944. Early Celtic Art. Oxford.

James, S. 1999. The Atlantic Celts: ancient people or modern invention? London.

Jones, S. 1997. The archaeology of ethnicity. London.

Jope, E. M. 2000. Early Celtic Art in the British Isles. Oxford.

Laing, L. 2005. The Roman origins of Celtic Christian art. – Archaeological Journal 162, 146-16.

MacGregor, M. 1976. Early Celtic Art in North Britain. Leicester.

Megaw, J. V. S. / Megaw, M. R. 1996. Ancient Celts and modern ethnicity. – Antiquity 70, 175-181.

Megaw, J. V. S. / Megaw, M. R. 1998. 'The mechanism of (Celtic) dreams?': a partial response to our critics. – Antiquity 72, 432-435.

Megaw, R. / Megaw, V. 2001. Celtic Art: from its beginnings to the Book of Kells. Second edition. London.

Piggott, S. 1983. The earliest wheeled transport from the Atlantic coast to the Caspian Sea. London.

Piggott, S. 1950. Swords and scabbards of the British early Iron Age. – Proceedings of the Prehistoric Society 16, 1-28.

Sims-Williams, P. 1998. Celtomania and Celtoscepticism. – Cambrian Medieval Celtic Studies 36, 1-35.

Spratling, M. G. 1971. Bronze terret. In: Webster, P. V. Melandra Castle Roman fort: excavations in the civil settlement, 1966-1969. – Derbyshire Archaeological Journal 91, 58-118 (113-115).

Stead, I. M. 2006. British Iron Age Swords and Scabbards. London.

Wild, J. P. 1976. Loanwords and Roman expansion in northwest Europe. – World Archaeology 8, 1, 57-64.

Dr Fraser Hunter
National Museum of Scotland
Chambers St.
UK-Edinburgh EH1 1JF
f.hunter@nms.ac.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Late Roman Influences in Germanic Artwork

Jonas H. SIGURDSSON

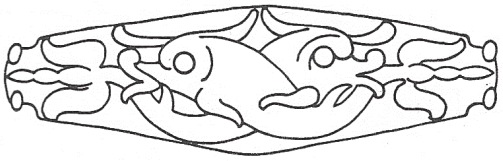
It is a well known fact that Roman artwork had far-reaching influences outside the borders of the Empire.

These influences are visible for the first time at the end of the Late Antiquity, in the Germanic Iron Age. Despite the centuries-old relationship and close contacts with Roman culture, the free Germanic tribes, with a few exceptions, never came to absorb classical art. These few exceptions are preserved primarily in durable precious metal items from grave finds. The change in style is visible in the personal objects worn by the Germanic elite, such as pendants and fibulae.

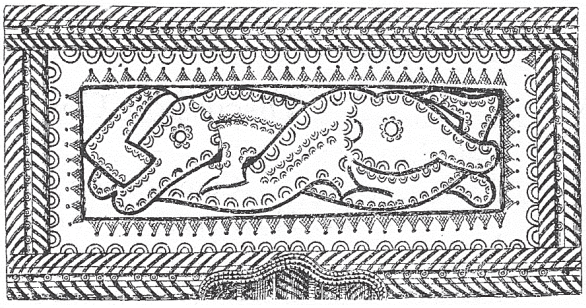
In the late 4th century AD, the northern Germanic tribes started producing artifacts with the use of the provincial Roman chip-carving technique, heavily influenced by Late Roman material culture (Inker 2006, 1). Across Germany, Holland and England these types of artifacts were decorated in the so-called Saxon Relief Style. At the same time in Scandinavia, in the late 4th century AD the earliest type of animal art called Sösdala-style was being used, and although this style does not incorporate the chip-carving technique, the motifs were clearly inspired by images on Roman artifacts.

Besides the well-established fact of the Germanic people producing "counterfeit money" worn as pendants, which in the 5th century AD evolved into bracteates, actual artifacts that show the alteration from Roman into Germanic objects are very rare. The provincial Roman bronze mount from Svenning in northern Norway shows two crossing dolphins. The image of crossing dolphins is also known from other artifacts, the best example being the gilded silver square-headed fibula from Roligheten, also in Norway (Bakka 1969, 94-95). It could be that the image from Roligheten was a barbaric imitation of a Roman motif, much like the one from Svenning (**fig. 1**).

Shortly after the introduction of the Sösdala-style, Scandinavian animal art takes the next evolutionary step with the Nydam-style (Voss 1955, 152-154) by combining Roman-inspired motifs with the chip-carving technique. The inspiration for the Germanic use of the chip-carving technique properly comes from Late Roman provincial ornaments, particularly the wide chip-carved military belt used by soldiers of the Roman army in the late 4th century AD (Haseloff 1981, 133 ff.). However, not only was the chip-carving technique copied, but also many of the chosen motifs seem to be Roman in origin. The production of items with Germanic animal artwork started during the late 2nd and early 3rd century AD (Todd 2004, 132), but the clearly unique and cohesive expression seen in the Germanic animal art is first introduced in the late 4th and early 5th century AD.



Roman bronze mount found in Svenning, Overhalla, Nord-Trøndelag. Drawing by E. Bakka 1969 .



Detail of head-plate of silver brooch found in Roligheten, Hedeum, Vestfold.

Fig. 1. Two crossing dolphins (after Bakka 1969, 95); the figures are proportional to each other in scale

Animal art motifs come from many different sources, but the imported Roman artifacts must have been a great inspiration for the Germanic tribes. In general, the use of human and animal images is rare before this time. Depictions like the ones from Homer's *Iliad* on Roman silver cups from the 1st century AD grave in Hoby, Denmark, might have served as an inspiration for the portrayal of such images.

Along the Roman frontier at the Rhine and Danube in the second half of the 4th century AD there are numerous finds of metal objects decorated with chip-carved ornaments. This is especially true for military bronze belt fittings. The distribution map published by Horst Wolfgang Böhme in 1986 (**fig. 2**) clearly shows that these chip-carved bronzes are found in a relatively high concentration at Late Roman fortified sites along the Rhine and Danube frontier. The highest concentration of chip-carved bronzes is found in the area between the Rhine and the Seine, from which it may be concluded that this zone was their actual place of origin. It is possible that the chip-carved bronzes found outside this area were the result of Roman troop movements inside the Roman Empire, and of Germanic mercenaries returning home with their personal equipment. Based on the number of finds of Roman chip-carved bronzes in Scandinavia, this could not have been a common practice. The discovery of Roman chip-carved bronzes in Scandinavia is thus almost unheard of, and only two exceptions are the finds from Fosse in southern Norway and Svenning near Trondheim (**fig. 1**).



Fig. 2. Distribution of chip-carved belt fittings in Europe (after Böhme 1986, 31)

The Case of the Tåstrupgård-grave from Zeeland, Denmark

This partly plundered female grave from the mid- to late 5th century AD has several interesting grave goods, which were inspired by Roman-produced items.

One of the most important finds from the grave is a fragment of a silver square-headed fibula head-plate, with dimensions 2.7 x 2.25 cm. In the center there is a crouching human figure with slightly bent legs. The ornament was first cast and afterwards further elaborated by the use of chip-carving technique, stamped ornamentation and gilding.

The spirals along the edge are definitely inspired by Roman artwork and done in the chip-carving technique. Furthermore, the use of the naturalistic-looking human figure in the center of the head-plate is almost without parallels. The spirals are not connected, an element that becomes more frequent, the closer one gets to Salin's Style I (Kristoffersen / Magnus 2010, 75). This type of artwork can be characterized as Nydam-style and dated from the mid- to late 5th century AD. From Norway there are two other graves, Røysum grave A, (Diinhoff / Kutschera 2002, 10) and Riskedal (Reichstein 1975, Taf. 33 / 6), both containing square-headed bronze fibulae with almost the exact same motif on their head-plates as that of the Tåstrupgård head-plate. On these we can see that there are actually two human figures sitting across from each other, with slightly bent legs, one hand on the back and the other extended forward holding something. The precise meaning behind this picture is unclear. In a Roman context the body positions of human figures in the center might be inspired by images like the ones on the *denarius* of Constantine the Great, with an illustration on its reverse of sitting Romulus and Remus, facing each other with slightly bent legs. Another likely possibility is that the image comes from a Late Roman provincial military belt plate. This is supported by the use of similar stylistic elements. The belt plates often make use of decorations within squares in order to enclose essential elements of the geometric or vegetative ornamentation and, in rare cases, imagery of humans and animals are incorporated. These decorations with Roman scenes on the belt fittings are only comparable to Roman art (Inker 2006, 4). The composition with square compartmentalization of ornamentation elements starts simultaneously in Germania and is thus also visible on the early square-headed fibulae, especially the ones decorated in the Sösdala-style and the Nydam-style.

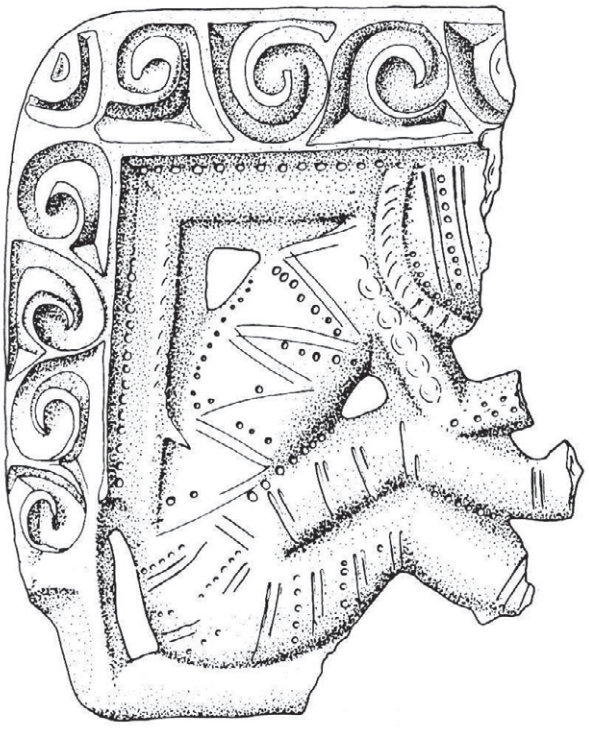


Fig. 3. Gilded silver square-headed fibula from the Tåstrupgård grave, Denmark (after Haseloff 1986, 69, Abb. 1)

Likewise, the narrow foot of the square-headed fibula and the cast lanceolated strap-ends of provincial military belts resemble one another in several ways. This likeness extends to the overall placement of ornamentation elements. In the center they both have a geometric or vegetative-ornamented triangle pointing towards a circular object/knob (e.g. a human head) at the tip. On either side of both the fibulae foot and the belt strap-ends there are usually border animals in rounded relief.

The lanceolated strap-end (**fig. 4**) from Bremen-Mahndorf has three border animals. These are four-legged crocodile-like creatures with open snouts, and the legs of the middle animal are visible. The scales on the body are made with the use of stamped ornamentation. The first two animals are following each other towards the tip, and the third one heads to the opposite direction. At the tip is depicted a human. One find comparable to this piece is the square-headed fibula (**fig. 5**) from Lunde, Lista, Norway. The exact same composition with a border animal is visible on this narrow fibula foot, although the third animal is only recognizable by its beak. The animals have closed beaks and thus resemble birds rather than crocodiles, but on the head-plate of the same fibula there are animals with open beaks similar to



Fig. 4. Provincial Roman military strap-end made of bronze, from Bremen-Mahndorf (after Bullinger 1969, Taf. 13 / 3)



Fig. 5. Square-headed fibula from Lunde, Lista, Norway, made of gilded silver (after Haseloff 1981, Taf. 6 / 2)

those on the strap-end. Furthermore, at the tip of the fibula foot there is no human head like on the strap-end, but instead, what looks like a crocodile head seen from the front.

What distinguishes the Germanic objects from the Roman ones is, among other things, the location of the motifs on the chip-carved head-plates, for example on the previously mentioned plates form Tåstrupgård, Lunde and Roligheten. On these Germanic plates humans and animals are placed in the center, while on Roman items this space would only be decorated with spirals and palmettes (Haseloff 1981).

Other Items from the Tåstrupgård-grave that Show Influences from the Roman World

The previously mentioned grave from Tåstrupgård also had an exquisite gold pendant. This type of pendant properly has its inspiration from the Roman *lunula*-shaped pendants (Svoboda 1952, 102-103).

A very fragmented glass vessel was also found in the Tåstrupgård-grave. Due to the fragmented state, it was impossible to determine the glass type. However, since Scandinavia does not have its own production of glass, it is almost certainly imported from the Roman Empire.

However, like the other items from the Tåstrupgård grave that show a contact with the Roman Empire, this glass vessel was apparently also reworked into a part-Germanic and part-Roman artifact. At some point during the use of the glass it shattered, but subsequently it was refitted by using gilded silver rivets connected by gold foil. From northern Europe there are 17 published and 1 unpublished registered refitted glass vessels with rivets and foil (Straume 1987, 48 ff.; Straume 1977, 273; Lislerud / Stene 2007, 127 ff.)

Conclusion

At the beginning of the 5th century AD in barbaric Scandinavia not only was the Roman chip-carving technique used, but also Roman images were incorporated into the designs. The early Germanic square-headed fibulae could be viewed as the reuse of different parts of provincial military belt fitting equipment. This reuse of belt fittings or de-

signs can be seen in the similarities between both the belt plates and fibula head-plates, and the belt strap-end and the fibula foot.

The production of these "Roman-like objects" went on more or less for a lifetime, after which the images were slowly distorted by the next generations of locally trained craftsmen. This transformation from the early Germanic art, such as Nydam-style to Salin's Style I, happened around the turn of the 6th century AD, more or less at the same time as the **collapse** of the Western Roman Empire. When the Western Empire collapsed, so did the frontier culture, and it was then that the Germanic animal artwork got a life of its own.

Bibliography

Bakka, E. 1969. A Roman bronze mount from Trøndelag – Norwegian archaeological review 2, 94-95.

Böhme, H. W. 1986. Bemerkungen zum spätrömischen Militärstil. In: Roth, H (ed.). Zum Problem der Deutung frühmittelalterlicher Bildinhalte, Akten des 1. Internationalen Kolloquiums in Marburg a.d.Lahn, 15.bis 19. Februar 1983. Sigmaringen. 25-49.

Böhme, H. W. 1974. Germanische Grabfunde des 4. bis 5. Jahrhunderts zwischen unterer Elbe und Loire: Studien zur Chronologie und Bevölkerungsgeschichte. München.

Bullinger, H. 1969. Spätantike Gürtelbeschläge: Typen, Herstellung, Trageweise und Datierung. Brugge.

Diinhoff, S. / Kutschera, E. 2002. Dei arkeologiske undersøkingane ved Leikanger sommaren 2001. – Systrendingen 10, 1, 3-13.

Forrsander, J. E. 1937. Provinzialrömisches und Germanische. Stil-studien zu den schonischen funden von Sösdala und Sjörup. In: Rydbeck, O. (ed.). Meddelanden från Lunds universitets historiska museum. Lund. 11-100.

Haseloff, G. 1981. Die germanische Tierornamentik der Völkerwanderungszeit: Studien zu Salin's Stil I, 1-3. Berlin.

Haseloff, G. 1986. Bild und Motiv im Nydam-Stil und Stil I. In: Roth, H (ed.). Zum Problem der Deutung frühmittelalterlicher Bildinhalte, Akten des 1. Internationalen Kolloquiums in Marburg a.d.Lahn, 15.bis 19.Februar 1983. Sigmaringen. 67-110.

Inker, P. A. 2006. The Saxon Relief Style (= BAR British Series 410). Oxford.

Kristoffersen, S. / Magnus, B. 2010. Spannformete kar: utvikling og variasjon. Stavanger.

Lislerud, A. / Stene, K. 2007. Lille Børke – boplass fra eldre jernalder med spor etter rituelle praksiser. – Varia 62 (= Arkeologiske undersøkelser 2001-2002), 119-134.

Reichstein, J. 1975. Die kreuzförmige Fibel, zur Chronologie der späten römischen Kaiserzeit und der Völkerwanderungszeit in Skandinavien, auf dem Kontinent und in England. Neumünster.

Shetelig, H. 1949. Classical Impulses in Scandinavian Art from the Migration Period to the Viking Age. Oslo.

Straume, E. 1987. Gläser mit Facettenschliff aus skandinavischen Gräbern des 4. und 5. Jahrhunderts n. Chr. Vojens.

Straume, E. 1977. Glasgefässe mit Reparatur in norwegischen Grabfunden der Völkerwanderungszeit. – Marburger Studien zur Vor- und Frühgeschichte 1, 273-282.

Svoboda, B. 1953. Poklad Bysantského Kovotepce V Zemianském Vrbovku. – Památky Archeologické 44, 33-108.

Todd, M. 2004. The Early Germans. Padstow.

Voss, O. 1955. The Høstentorp Silver Hoard and Its Period: A study of a Danish find of scrap silver from about 500 AD. – Acta Archaeologica 25, 171-219.

Jonas H. Sigurdsson MA
Wittenberggade 35, st. th.
DK-2300 Copenhagen
sig.jonas@yahoo.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

New Roman Finds from the East Bank of the Lower Rhine in Germany – or Where Did They Put the Border?

Clive BRIDGER

Abstract

In 2015 volume Deutschland 8 of the "Corpus der römischen Funde im europäischen Barbaricum" should appear, mostly comprising the Rhineland directly east of the River Rhine. From an area of only 770 km² between the Dutch border in the north, Westphalia in the east and a little way south of the River Lippe in the south some 198 sites have provided a wide scope of Roman finds. This stretch of the Limes was chronologically the longest of all Rome's frontiers / borders in the West, i.e. from *c.* 19 BC to *c.* AD 420, and the finds directly east of the river reflect this: the earliest date to the early 1st century BC, the latest to the first half of the 5th century AD. Irritatingly, apart from the Roman military sites and the central places to the west of the river, the material culture of this part of the Limes reveals little difference between the west and east banks. Indeed, we may have to consider whether the Rhine formed a fixed border here at all.

Introduction

In 2015 all Roman finds of the Rhineland from the area east of the River Rhine should be published in volume Deutschland 8 of the "Corpus der römischen Funde im europäischen Barbaricum" (CRFB) under the aegis of the Römisch-Germanische Kommission of the Deutsche Archäologische Institut in Frankfurt am Main. The area covers the region *extra limitem* between the end of the Upper German Limes near Koblenz and the German-Dutch border within the state of the Rhineland-Palatinate and the Northrhine part of Northrhine-Westphalia[1]. Whereas regions far from the Limes often boast relatively few finds of Roman origin, this is not the case in the immediate proximity of this stretch of the Empire's border. Here we find numerous sites with numerous finds which found their way over the river during at least 450 years.

Within this region the author was entrusted with those parts of the Kreise Kleve and Wesel to the east of the Rhine between the Dutch border in the north, Westphalia to the east and Duisburg to the south, an area of some 770 km² and one comprising the pre-1973 Kreise of Rees and Dinslaken. Although it was known that small parts of the area lay in Roman times on a different bank of the Rhine, it was decided to keep the present-day river as the defining feature to the west. Finds coming from the river itself or from adjacent gravel-pits were not included, as these could have originated from other provenances. In all, 198 sites with Roman finds were identified (**fig. 1**). This marks almost a tripling of the sites previously published[2]: An overview appearing in 1987 showed 73 sites with Roman finds, whereby the finds were not actually published (Kunow 1987). Of those six proved to contain no Roman finds[3], so that only 67 were included in the new study. Since then around a dozen new sites have been located, but the vast majority of sites had been known previously (**fig. 2**) (cf. Kempa 1995). However, only around 16% of the sites with Roman finds have been (partly) excavated, most are known only from field-walking, gravel-pits

[1] For Westphalia see Berke 2009.

[2] A brief research history of the area will appear in volume CRFB D8.

[3] Kunow 1987, 67 ## 135, 175, 187, 198, 204, 206; # 188 lies today in Westphalia (cf. Berke 2009, 200 XI-04-5/1.1).

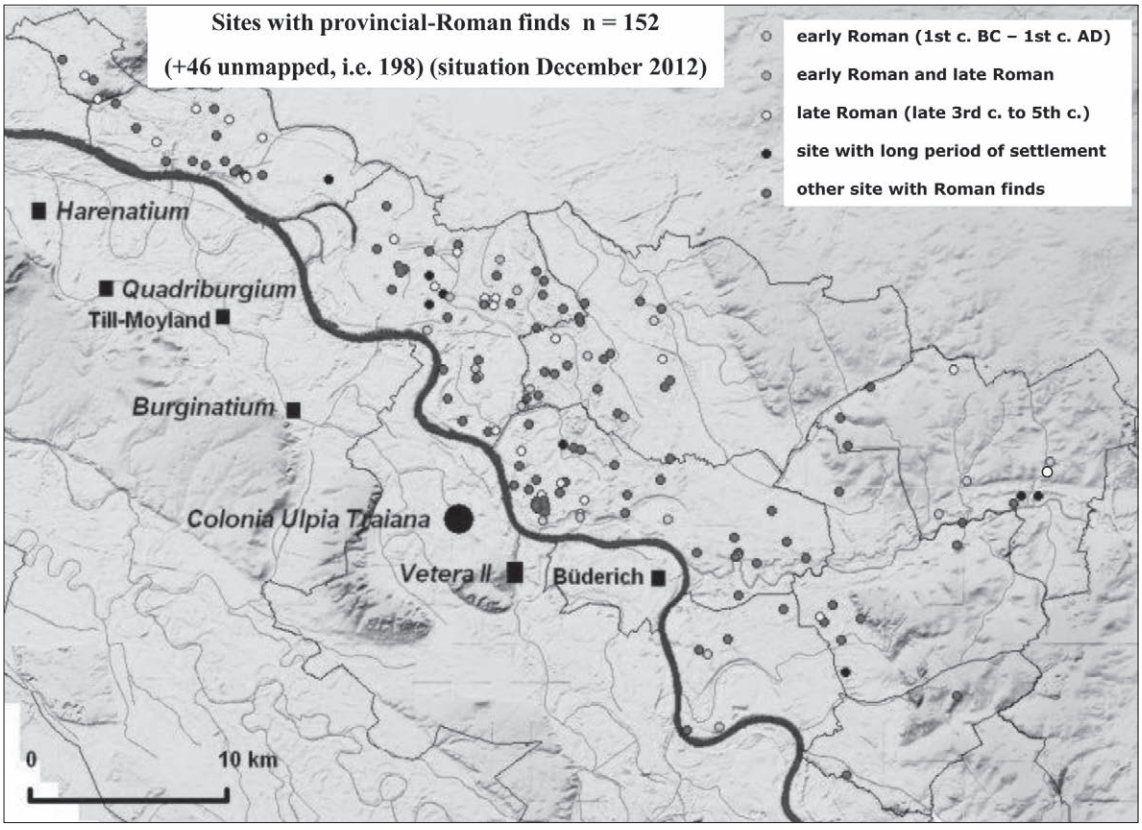


Fig. 1. Kreis Kleve and Wesel east of the Rhine with sites producing Roman finds; west of the Rhine the most important Roman sites

and chance finds, so information on settlement patterns and chronology is lacking in most cases. Around 105 sites in all provide some chronological evidence, whereby some contain both Early and Late Roman material without necessarily proving a continuity of settlement[4].

The Early Roman Period

There are some dozen sites with Early Roman finds, i.e., dating to the 1st c. BC or the first quarter of the 1st c. AD (**fig. 3**), whereby in seven cases only coins or other single finds of this period have been found. The other five sites are native settlements displaying early access to Roman finds. The oldest object comprises several fragments of a Dressel 1A/C amphora from the *Baetica* found in the filling of a ditch at a late La Tène site in Rees-Haldern (Schletter 2011, 89) and predating the mid-1st c. BC. The other four sites date to the Augustan period: A small Germanic cemetery in Hamminkeln-Mehrhoog contained Roman fibulae and a complete Arettine platter of L. Titius Critius (Janssen 1980), while another cemetery nearby had an early bowl-fibula of type Nijmegen. Similar brooches and thin-walled Belgic ware were found in Rees-Haldern and pottery of the Haltern period in Wesel-Bislich. It is conspicuous that almost all of these sites are to be found north of, but quite close to the River Lippe.

A similar pattern applies to 27 further sites producing finds of the 1st c. AD, whereby we can detect an expansion south of the Lippe but not very much further northwards. The most well-known site is that of Voerde-Mehrum. The settlement dates to about AD 40 – 130 (Brand 2010), while the some 20 known cremation burials date mostly to the mid-1st c. Despite recent thinking that the site with its famous chieftain's grave discovered in 1888 might have lain west of the Rhine (Gechter / Kunow 1983), new geological evidence suggests that it was in fact situated east of the river and, thus, in the *Germania Magna*.

The presence of stamped tiles of the 6th and 22nd legion, as well as of the *Transrhenana* in Emmerich-Elten, Rees-Haldern and Wesel, do not necessitate the direct presence of Roman troops there. In Wesel-Flüren six *phalerae* were found, but it is uncertain whether they derive from a former riverbed. However, the ditches of at least three temporary camps in Wesel-Bislich destroyed by gravel-extraction were irrefutably set out by the Roman military:

[4] It was not part of the author's remit to look at the Germanic material from the same sites.

Period / Cause	pre-1892	1892 - 1918	1919 - 1945	1946 - 1959	1960 - 1963	1964 - 1984	1985 - 2010	unknown	Total
Fieldwalking			19	3	42	10	6		80
Excavation			8	1		5	1		15
Gravel, sand, clay extraction	2		2	1	1	5	1		12
Building	4			2		9	1		16
Illegal activities							3		3
Air photography						1			1
Others	2		5	3		2			12
Unknown	33	3	12	3				8	59
Total	41	3	46	13	43	32	12	8	198

Fig. 2. Table showing the periods and causes for discovering the sites

camp I comprised a 91 x 120 m rectangle with four accesses 4.8 to 6.5 m wide and a ditch at least 1.6 m deep; camp II was only partly documented, measuring at least 92 x 53 m with a 14.4 m wide access; camp III was 92 m wide and over 88 m long. From the mid-2nd c. the site was used as a native cemetery (Frank 2012, 10-11), so presumably the camps date to the 1st c.; for what purpose (practice camps, protection of a bridgehead or ford or road) we can only speculate.

The Middle Imperial Period

Three sites have produced finds of the 1st to 3rd c., while four others reach into the 4th c. and a further two even into the 5th c. Two of these sites, in Hünxe-Bruckhausen and Schermbeck-Bricht, have provided large amounts of pottery and coins, but hitherto no features. A further 29 sites have produced finds solely of the 2nd and 3rd c., while nine others reach into the 4th c. and three more into the 5th c. The latter are in Hamminkeln-Wittenhorst, Emmerich-Praest on the hillock of the Blouswardt (Janssen 1978) and in Rees-Groin. In conjunction with the many Germanic sites without Roman finds these sites represent an intensive settlement of the area in proximity to the Rhine during the *Pax Romana* and correspond to the highpoint of Roman settlement west of the river during the 2nd c. The preferred imports seem to have been decorated Samian: whereas there are only 12 sherds of the 1st c. from southern Gaul, there are at least 69 sherds or complete vessels from eastern Gaul, especially from Sinzig and Trier, these mainly coming from graves. One of the finest single finds is the bronze statuette of a lioness (?) from Emmerich-Hüthum (Horn 1980). At a site in Rees-Haffen were found a bronze terret decorated with a boxer's head and a triangular scale with three holes. These may well have been for recycling, as on other sites in the neighbourhood; crucibles have been found on sites in Emmerich and Emmerich-Praest. The only epigraphic find in the area, the gravestone of Flavia Iustina from Voerde-Spellen, dates to around AD 100 or a little later.

The Late Imperial Period

A further 21 sites contained finds of the 3rd and 4th c., and five others included finds of the 5th c. All of these sites lie north of the Lippe and close to the Rhine. A hoard of 36 coins found in 1880 near the railway station of Hamminkeln-Mehrhoog dates relatively homogeneous with a youngest coin of AD 276 at the latest[5]. This may well indicate a connection with the presumed destruction of the *Colonia Ulpia Traiana* and the legionary fortress of *Vetera* II in Xanten in 275/6.

Contrary to the situation west of the Rhine, where we detect a dearth of settlements of the 4th and 5th c. (Bridger 2008, 620-622), there seems

[5] Bonner Jahrbücher 74, 1882, 190 # 11.

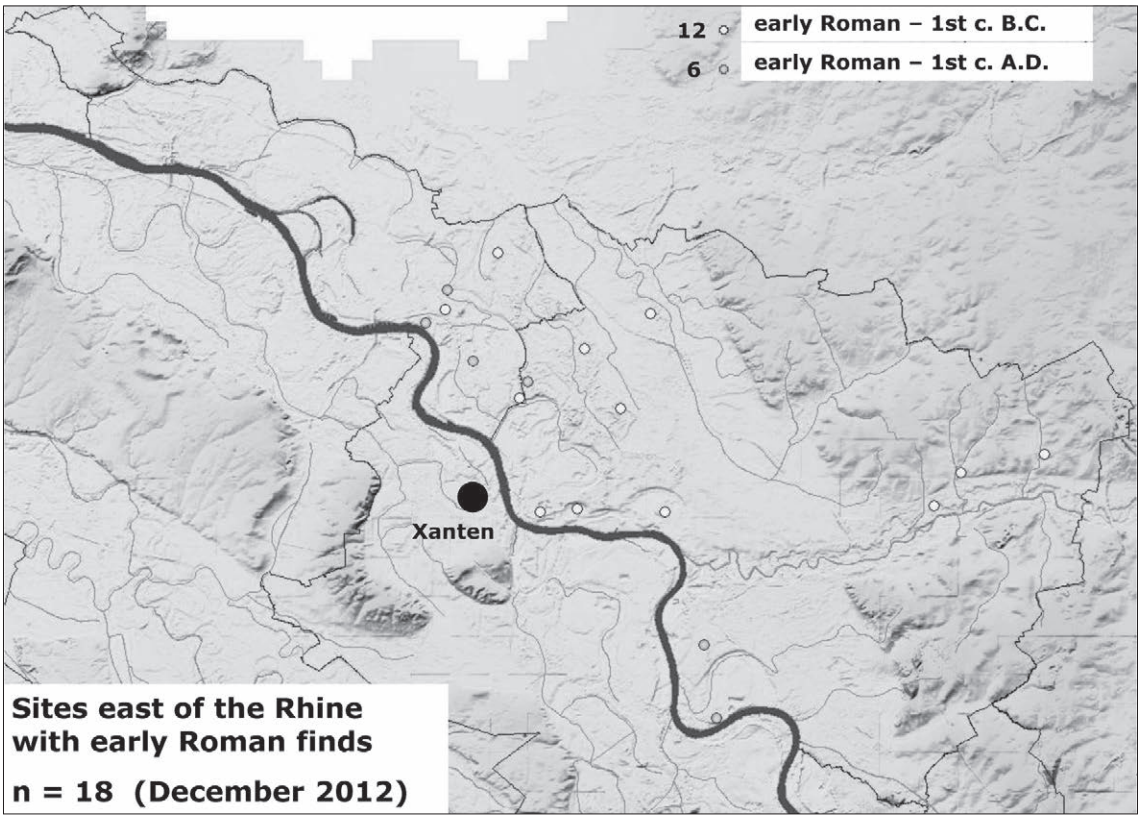


Fig. 3. Kreis Kleve and Wesel east of the Rhine with sites producing Early Roman finds

to be a relatively high number of such east of the river (**fig. 4**). Of these 46 seem to have existed at least since the 1st c., whereas three others have only produced Early Roman finds and two others only finds of the 2nd c., which may reflect a lack of continuity at the site or just a lack of corresponding Roman finds (cf. Kempa 1995). The majority of the later sites are represented by a few sherds of Mayen ware, whereby a concentration lies between Wesel-Bislich and Hamminkeln-Mehrhoog. Whereas the whole area has produced relatively few coins of the 3rd c., many exist from the 4th c., especially from Hünxe-Bruckhausen and Schermbeck-Bricht (**fig. 5**). Two exceptional finds result from a close interplay with the Roman army. In 1937 a long-sword was found by chance in Emmerich-Vrasselt (Stoll 1938). It was of damascene steel with an ivory pommel and handle decorated in gilded silver, chip carving and niello. In close proximity, at the site of Blouswardt mentioned above, the clay cast for a Late Roman belt-fitting of Vieuxville type was discovered (Janssen 1978, 104-108), proving that a metal-worker east of the Rhine was manufacturing high-quality products for the Roman army around AD 400.

Of these sites 22 also contain Merovingian finds[6]. This, of course, does not mean that a continuity of settlement can be assumed for all of the sites; this must still be assessed. A continuity does seem to exist on one site in Rees-Haffen, but, for instance, the residual Roman finds of the 1st to 5th c. from the large Frankish cemetery of Wesel-Bislich have yet to be interpreted (Bogaers / Rüger 1974, 105).

Conclusions

We may conclude from the above that the settlement pattern of Roman times in the northern section of the foreland to the Limes east of the Lower Rhine, i.e. between the confluence of the River Ruhr and the Batavian area, differs markedly from the area further south. In the latter area there is a marked west-east, Roman-Germanic settlement divide, as we find further south. In the north, however, we detect a much more homogeneous picture: apart from the central and secondary places and military sites, we see a largely Germanic settlement with corresponding finds both sides of a furcative Rhine. With its series of flat streams and islands the river did not present a definitive border, rather a corridor

[6] My thanks go to Christian Röser for the information from his hitherto unpublished MA thesis.

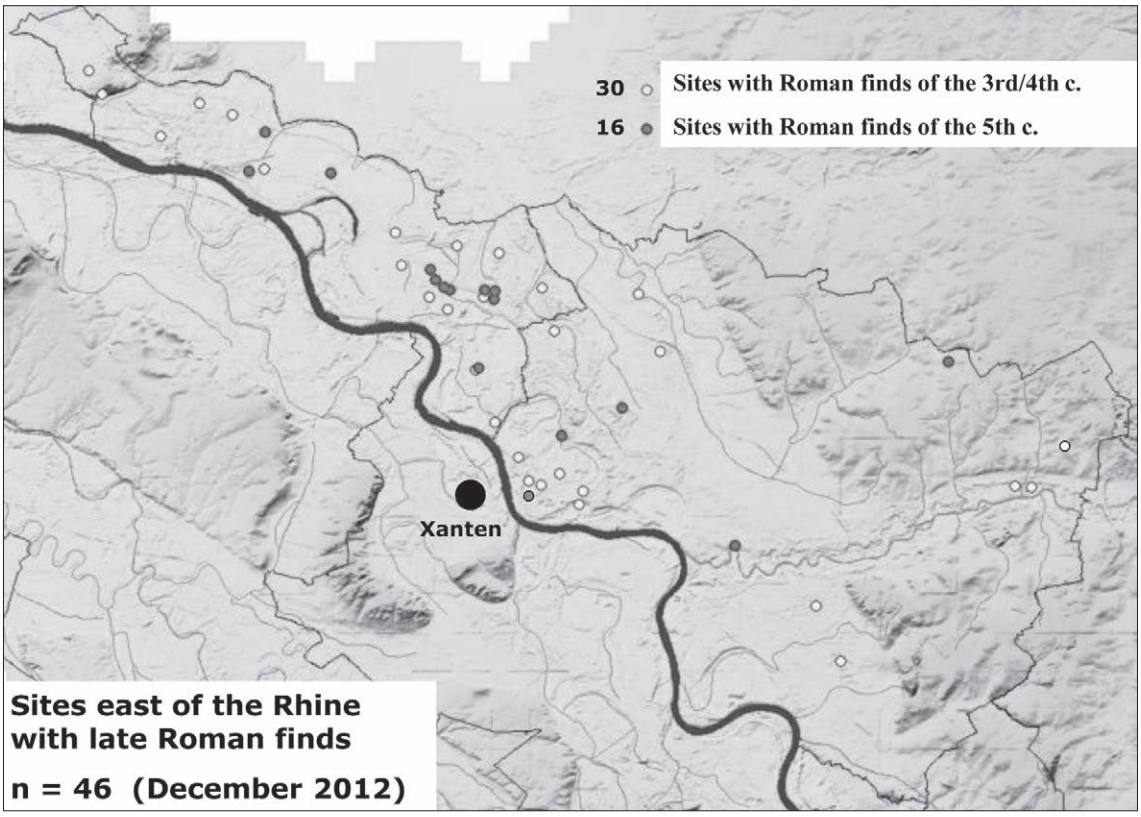


Fig. 4. Kreis Kleve and Wesel east of the Rhine with sites producing Late Roman finds

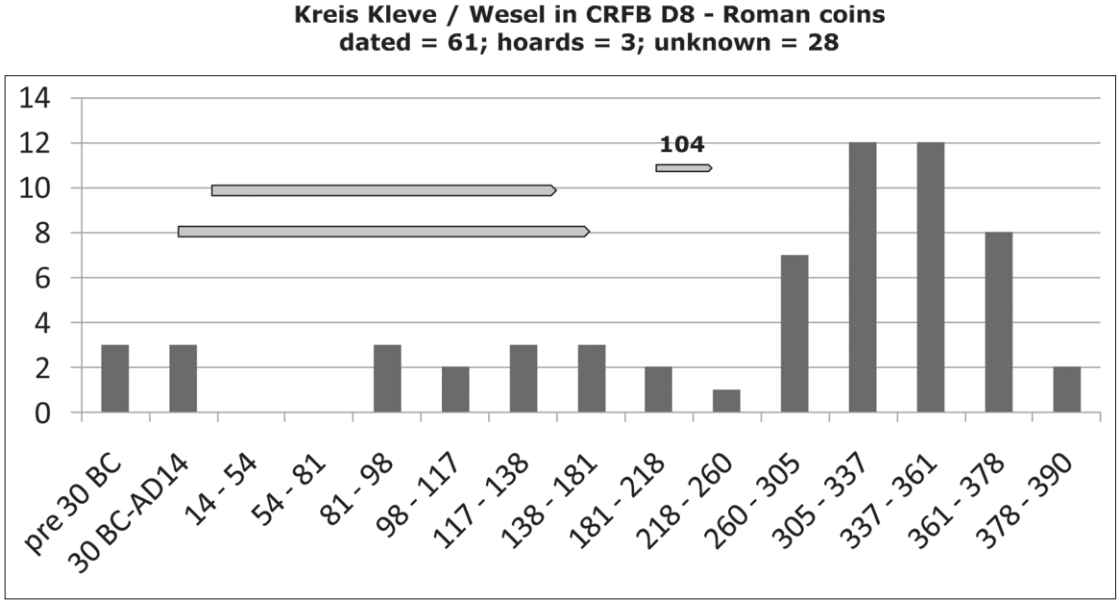


Fig. 5. Table of the periods of Roman coin-issues and numbers found in the area under review

of communication. It is thus difficult to judge where exactly the fiscal-legal border of the Roman administration was set, i.e. where exactly the Romans established their border here.

Acknowledgements:

1, 3, 4) C. Bridger using the software MapInfo
2) C. Bridger using the software Excel
5) C. Bridger using the software Word

Bibliography

Berke, S. 2009. Land Nordrhein-Westfalen, Landesteile Westfalen und Lippe. (= Corpus der römischen Funde im europäischen Barbaricum Band Deutschland 7). Bonn.

Bogaers, J. E. / Rüger, C. B. 1974 (Hrsg.). Der Niedergermanische Limes, Materialien zu seiner Geschichte. (= Kunst und Altertum am Rhein 50). Köln.

Brand, C. 2010. Auswertung der Funde aus der germanisch-römischen Siedlung von Mehrum. – Archäologie im Rheinland 2009, 67-69.

Bridger, C. 2008. Die civitas Traianensis – das römische Umland von Xanten. In: Müller, M. / Schalles, H.-J. / Zieling, N. (Hrsg.). Colonia Ulpia Traiana. Xanten und sein Umland in römischer Zeit. Mainz. 607-626.

Frank, K. 2012. Römisches Militär in germanischen Gräbern im Vorfeld des Niedergermanischen Limes? In: Henrich, P. (Hrsg.). Der Limes vom Niederrhein bis an die Donau. 6. Kolloquium der Deutschen Limeskommission. (= Beiträge zum Welterbe Limes 6). Stuttgart. 9-19.

Gechter, M. / Kunow, J. 1983. Der frühkaiserzeitliche Grabfund von Mehrum. – Bonner Jahrbücher 183, 449-468.

Horn, H. G. 1980. Eine Tigerstatuette vom Niederrhein. – Bonner Jahrbücher 180, 611-620.

Janssen, W. 1980. Brandgräber der ausgehenden Latènezeit aus Mehrhoog, Gemeinde Hamminkeln, Kreis Wesel. – Materialhefte zur Ur- und Frühgeschichte Niedersachsens 16, 147-168.

Janssen, W. 1978. Ein Brunneninhalt der römischen Kaiserzeit aus der Grabung Blouswardt in Emmerich-Praest, Kreis Kleve. In: Ausgrabungen im Rheinland '77. Das RLMB Sonderheft. Bonn. 95-108.

Kempa, M. 1995. Haffen. Eine vor- und frühgeschichtliche Siedlung im Altkreis Rees. – Rheinische Ausgrabungen 39. Köln.

Kunow, J. 1987. Das Limesvorland der südlichen Germania inferior. – Bonner Jahrbücher 187, 63-78.

Röser, C. 2008. Merowingerzeitliche Fundplätze im Altkreis Rees. Unpubl. MA-thesis. Bonn.

Schletter, H.-P. 2011. Eine befestigte Siedlung des 1. Jahrhunderts v. Chr. in Rees-Haldern. – Archäologie im Rheinland 2010, 87-89.

Stoll, H. 1938. Ein Schwert spätrömischer Zeit aus Vrasselt bei Emmerich. – Germania 22, 247-250.

Clive Bridger BA, MA, DrPhil
LVR – Amt für Bodendenkmalpflege im Rheinland
Außenstelle Xanten
Augustusring 3
DE-46509 Xanten
Clive.Bridger-Kraus@lvr.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Germanic Settlement Structure in the Middle Danube Region as a Complex System of Agent-Based Modeling*

Marek VLACH

Keywords: Roman Period, Middle Danube region, Germanic settlement structure, Agent Based Modeling, archaeological demography

Introduction

The paper briefly outlines one of possible applications of the methodological tool known as the Agent-Based Modeling (ABM) in the broad range of scientific methods applied within the research of Germanic society of the Middle Danube region. The main concern dwells in establishment of a digital model, which would reflect available archaeological knowledge and estimates about the Germanic settlement structure and possible demographic development from the 1st century AD up to the period of Marcomannic wars. Similar attempts of archaeological demography are sometimes arguable, mostly due to the limited input proxies from archaeological record (Petersen 1975) and available methodological tools. Discussed method provides alternative ways to approach various archaeological issues containing structural features, such as population dynamics (Renfrew 2009) and many others.

Methodology

The method belongs to the group of computer simulations and its main principles are based on the complex systems, non-linear dynamics and artificial intelligence (Kovarik 2012). The theory of complex systems and complexity has been introduced into archaeology previously and mediated new perspectives to scientific issues (Dornan 2002). This approach considers some elaborate systems of the physical world to be complex systems. Behavior and structure of such systems can be explained through understanding of all their components and their mutual interactions. Thus, they cannot be described and understood through the simplistic reduction to their individual components. From the perspective of development in time, complex systems are characterized by nonlinear behavior (Beekman / Baden 2005). Complex systems are mostly in non-equilibrium state and oscillation around its equilibrium is managed by positive and negative feedbacks (Doran 1970), through which the system is self-organized. This aspect generates possibility of emergence of new system properties (e. g. development of additional level of social hierarchy; cp. Turchin / Gavrilets 2009). Full development of the method allowed by advances in IT technologies during the 1990s. Since then it has been used within the wide range of natural (e. g. biology, physics, chemistry) and social sciences (e. g. economy, sociology and psychology).

Generally, theories and theoretical models expressed in language are rarely precise in all aspects, especially quantitative ones. One of the important features of model building is that it forces one to formulate and concretize input parameters (Kovarik 2012). This process reveals gaps in archaeological data and its logic. As well as a theoretical model, a digital one is simplified representation of studied context but less detailed and less complex (Manson 2001). The importance dwells in features, which are considered to be vital and structural for understanding concrete modeled issue. The method serves as a framework for testing and validation of

* The paper originated within the frame of the grant project GA ČR č. 404/09/1054 and the bilateral project of the Institute of Archaeology of the Academy of Sciences, Brno and the Austrian Institute of Archaeology, Vienna # M300011201.

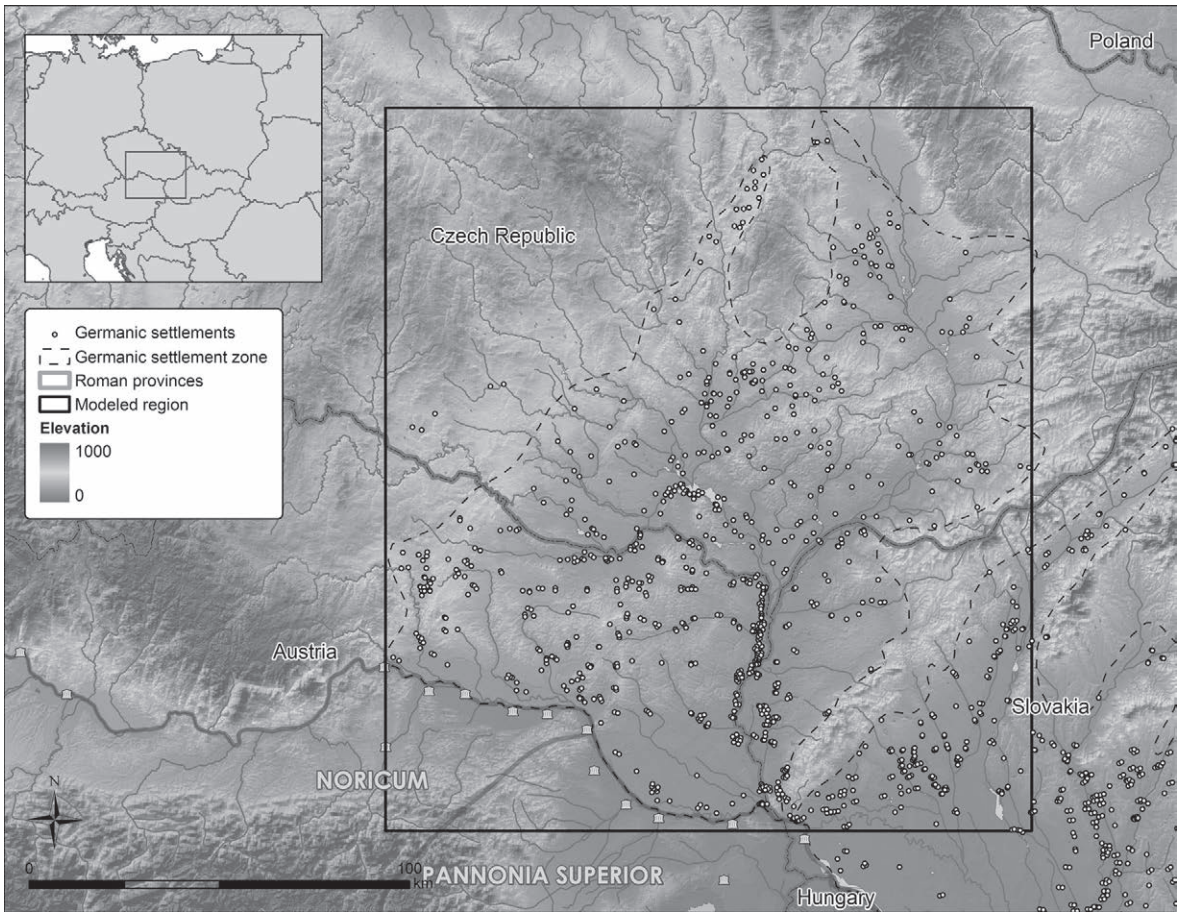


Fig. 1. The Middle Danube region with localization of the modeled area

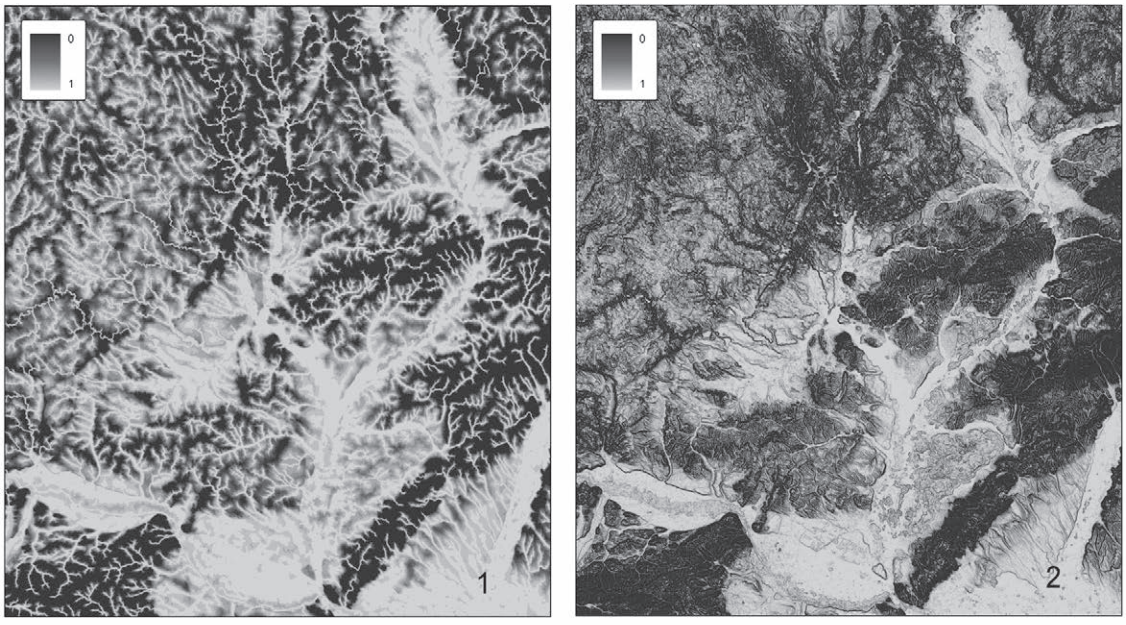


Fig. 2. The basic information layers for derivation of "preference" layer in real numbers (1-hydrology cost distance, 2-slope gradient)

theoretical concepts rather than to precisely recreate certain reality.

The main feature of ABM is use of digital entities called agents (Epstein / Axtell 1996; Epstein 1999; Dornan 2002), which dispose of predefined set of properties and behavior rules. They may change during the interaction with other agent and the model environment, which provides essential

spatial framework and may represent geographical or other context (e. g. congnitive space). Under given rules during iterative simulation modeled system develops and may produce unexpected behavior (depending on its complexity and foreseeability) or a new property of the system.

Model Building

The initial phase of model building aims demographic aspects of the barbarian territories of the Middle Danube region. Available evidence from the first two centuries AD generally show substantial increase of the settlement structure (Droberjar 1997). During the 1st century the evidence is generally scarce (cp. Tejral / Pieta / Rajtár 1995) with increasing tendency towards the 2nd half of the 2nd century, when the settlement structure covers nearly all the lowland areas up to 300 meters above the sea level (**fig. 1**). Still there persist some uncertainties about the initial phases of the Germanic settlement activities in the Middle Danube region. Ongoing increasing tendencies in development are mostly explained through the immigration processes from western areas of the Elbe cultural region and also south-western Slovakia (Tejral 1977). Such events within the region are also reflected in the written sources. So far, inadequate attention was paid to the demographic conditions within the studied region. However, quantitative aspects of archaeological record are mostly insufficient for direct calculations and some vital parameters of model have to be based on devised estimates.

The model of the settlement structure was created in freeware NetLogo, developed by U. Wilenski[1] (Sklar 2007). The program consists of environment, agents, control features and simple programming language Logo. In the model the agents represent individual settlements and burial grounds and environment is simplistic derivation of physical geography of the modeled region (area 32.000 sq km, cell resolution 200x200 m; **fig. 3**). It covers the main lowland areas of the Middle Danube region settled during the Roman Period (**fig. 1**). Due to computation capacities and geographical context coherence the modeled region does not include extensive lowlands of the south-western Sloviaka to the east of the Lesser Carpathians.

The environment of the model is structured as a simplified representation of real geographical context, based on principles of predictive modeling (Kamermans 2000; Verhagen 2007). The whole area contains continuous data of overall predicted preference for settlement foundation (using fuzzy logic). This data layer was assembled simply using variables of slope gradient and least cost distance from reconstructed rivers as these proved most influential in spatial displacement pattern (**fig. 2**). Naturally, other factors were does not involved in the process (religion, decisions of social elites etc.), but such aspects can be hardly modeled. Despite we lack representative amount of evidence on settlement activities from alluvial landscapes, based on paleoecological research, there were sufficient conditions without significant flood hazards. Although this environment was still under steady development and probably rendered less fertile soils (Brown 1997).

The basic demographic parameters of the agents/settlements are derived from archaeological record, mainly count of households based on terrain evidence (Droberjar 1997). Regrettably, we lack sufficient data from excavated Germanic settlements for proper demographic proxies. Also some forms of indigenous architecture may not be registered archaeologically at all. Most excavated settlements do not allow better estimates, than between approximately 5 and 20 households, although the largest excavated settlement in Moravia from Vyškov yielded 34 households. Clearly the most important issue is how many households existed simultaneously, which is mostly difficult to discern. Size of the settlement was outcome of large scale of social aspects, environmental conditions and their development in time. Every settlement – agent in the model possesses necessary economical hinterland based on its calculated population size. The area was based on estimated needs of a standardized family household unit for food production, animal fodder and wood consumption (Dreslerová 1995). Size of one household unit was set to mean 5 persons, as it is assumed for most periods of prehistory (Schacht 1981). Settlement population has direct influence on size of necessary subsistence hinterland, which tends to spatially structure surrounding landscape. Some relevant data may be provided by well prospected regions, such as the Mušov region at the middle course of Thaya (Stuchlík 2002). There was observed 1 to 2 km distance between neighboring settlements. Comparable data for settlement density come also from other regions (Lenz / Berke / Heussner 1999; Zimmermann / Holpert / Wendt 2009). Some additional information for model is provided through anthropological analyses, especially life expectancies

[1] http://ccl.northwestern.edu/netlogo/ with references, visited on January 9.

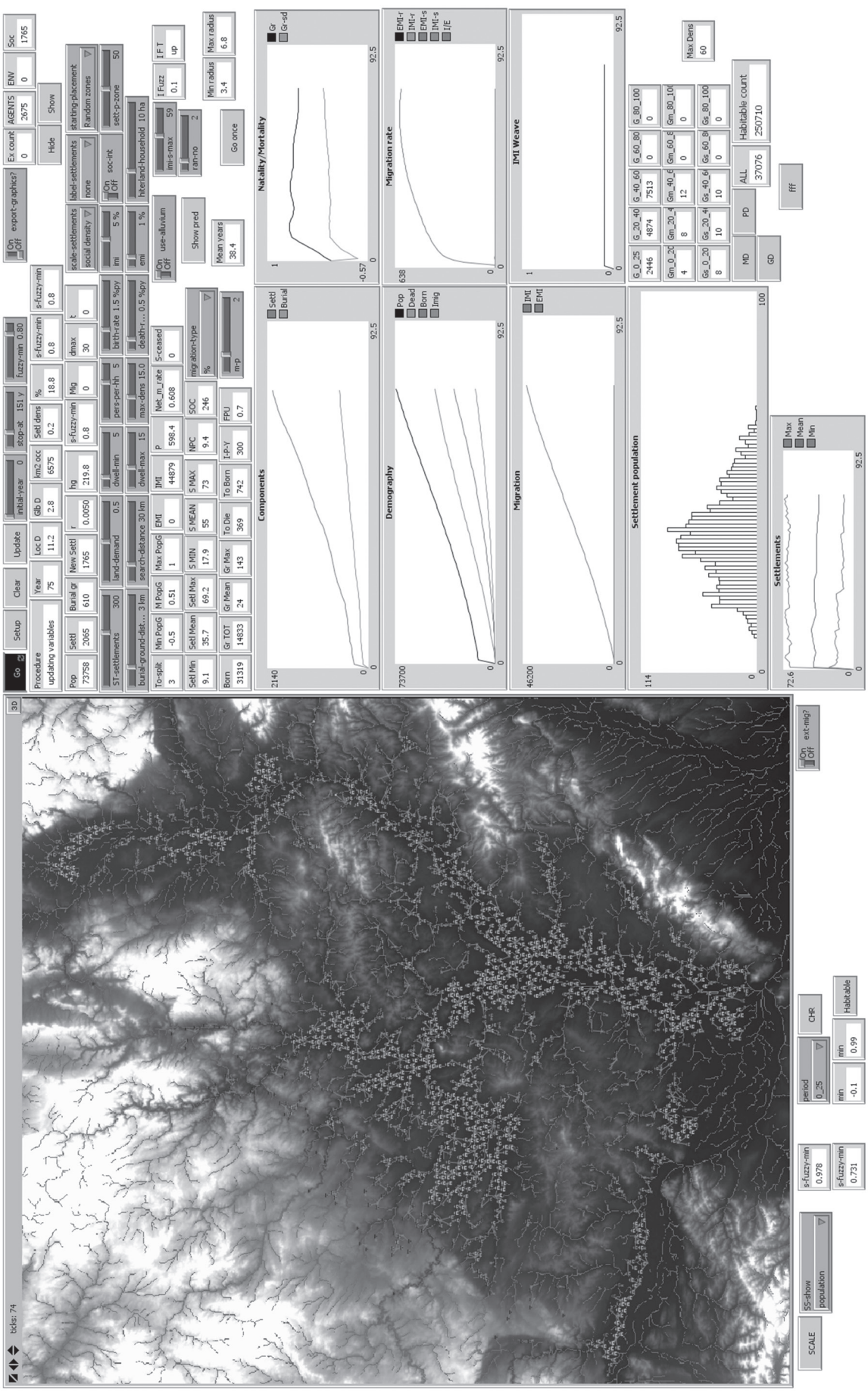


Fig. 3. View of the model framework: On the left visualization of the modeled environment. On the right model controls, variable monitors and plots

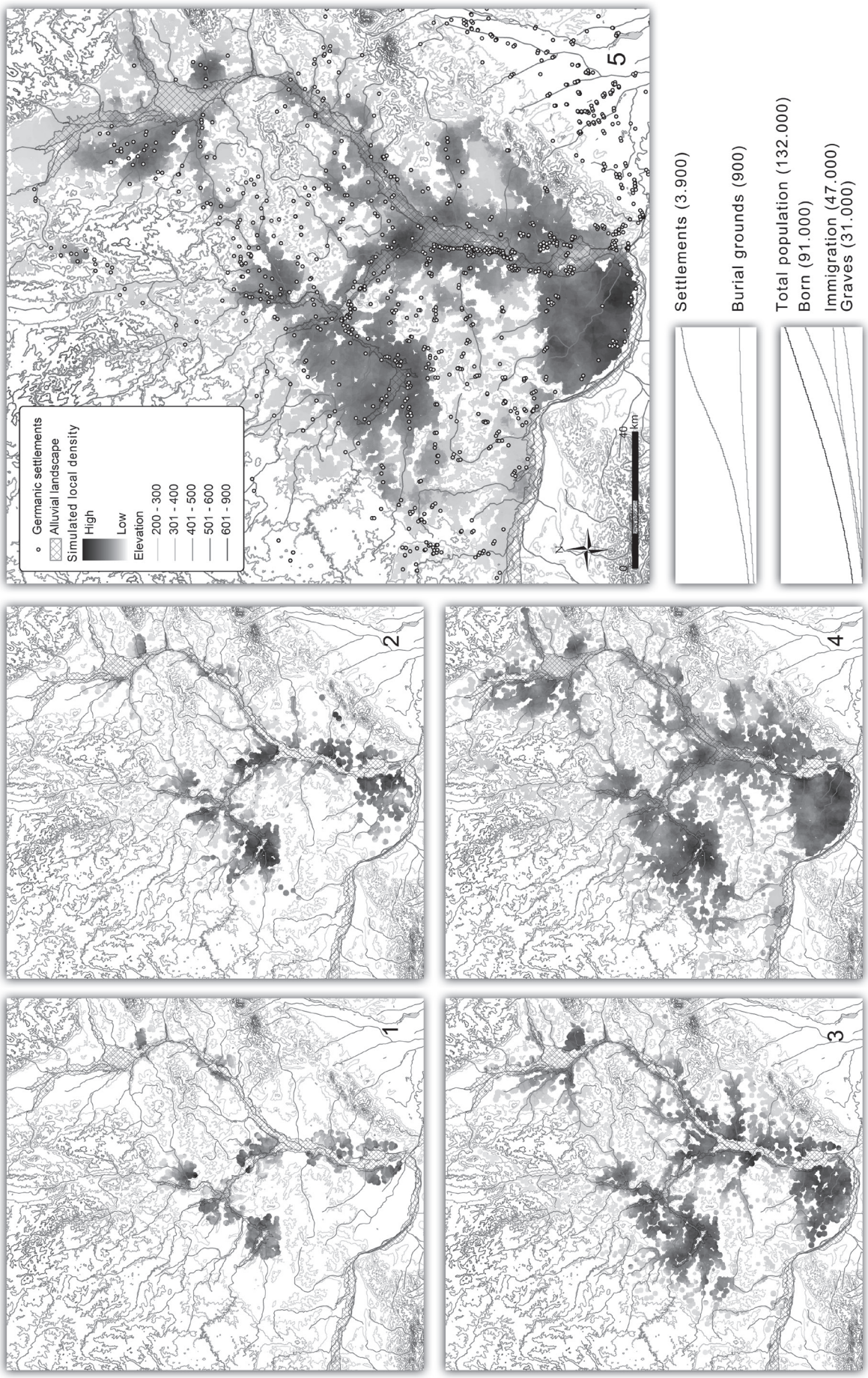


Fig. 4. Sequenced results of one of the simulated scenarios (5-comparison of results and known evidence) with relative density scales. Total simulation time: 100 years. Maximum settlement size: 15 households. Hinterland per household: 5 ha. Maximum intrinsic growth: 0.5% per year

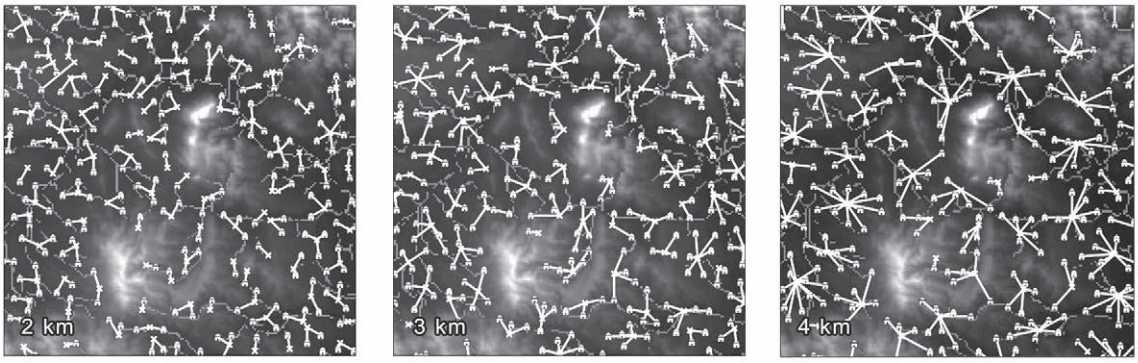


Fig. 5. Example of influence of three various search distances (2, 3 and 4 km) for allocation of burial ground (cross icon) from settlements (house icon)

and derived sizes of burying populations (Acsádi / Nemeskéri 1970; Neustupný 1983).

During the simulations the whole system develops based on natality, mortality and migrations. It is widely accepted that the communities of prehistory regulated their size through the specific set of rules which prevented overpopulation and hitting limit of environment sustainability, called carrying capacity (Petersen 1975). Compared to its original Malthusian conception, it is rather seen as a reflection of specific sociocultural behavior and such critical threshold was not probably reached (Wood 1998; Read / LeBlanc 2003). For example, in 100 years 1% of unbounded annual population growth leads to eight times greater population size, which would inevitably change structure of the society significantly (Neustupný 1983). On the other hand, biological dispositions of high intrinsic growth of any human population (e.g. populating areas with low densities) depends on cultural and at some rate on environmental constraints. Corresponding principles were also implemented into the model and once a threshold value is reached, its growth stops and other rules prevail. Once a settlement reaches its maximum population limit, it splits into a new settlement. Search algorithm is applied for the most convenient location considering environmental conditions and existing settlement structure.

The other group of agents represents burial grounds which also tend to spatially influence settlement structure and they also record population mortality development. According to theoretical models based on long lasting larger burial grounds, there was implemented principle of regional necropolises, used by couple of settlements in the area. The total time of each simulation was set to 100 years (representing roughly the period 60-160 AD). The starting conditions were set to the areas with higher densities of evidence from the 1st century AD.

Preliminary Population Estimates

There were performed series of model simulations with various settings for variables of subsistence hinterland size, intrinsic population growth, maximum household limit per settlement and immigration rate. Model simulation with mean estimates (range 5-15 households per settlement, 5 ha hinterland per household) produced population roughly between 100 and 150 thousands, with averages between 10-15 of the local population density and 4-6 of the global density (**fig. 4**). Simulated scenarios with the minimal subsistence requirements (3 ha per household) and elevated immigration and population growth produced the highest values of all the population parameters. The simulated population varied between 200 and 240 thousands, while the local population density exceeded average of 20, which seems to be higher than generally accepted for the Iron Age settlement structures (Zimmermann / Holpert / Wendt 2009). Also the global population density of 9 exceeds basic estimations, considering the nature of fully rural settlement structures. It is noteworthy that the same value is estimated for the Danube provinces in 164 AD (Frier 2000). Proportion of depopulation of neighboring regions is surely another vital question. There also seem to be large discrepancies within the area of Vienna Basin, where the evidence of settlement activities is scarce.

Some insight into structuring of Germanic burial grounds may provide application of different catchment distances for burying populations, assuming they could have been used by more than only one (**fig. 5**) Naturally, other aspects of religious nature also played role in this matter.

The numbers are so far preliminary results of the first stage of modeling process. Further revision, implementation of other factors and verification towards the archaeological data will be needed. The results of simulations are based on structural features and regularities within archaeological data and the simulation cannot reflect random events, which could have influence development significantly. E. g. there is a question of Roman military activities during Domitian's reign in the very area.

Conclusions

Simple example of applied method shows wide range of possible benefits for the theoretical research. Presented model and tested scenarios are still the first step in iterative process of model critique, validation, verification a further expansion based on other theoretical questions. Apart from questions of population dynamics, there are none the less numbers of interesting theoretical issues like goods distribution network, wealth inequality and social stratification, emergence of specialized production centers and many more. Within the archaeological record we lack data for numbers of processes and features, which have to be supplemented with estimates. Their validation and effect on behavior of studied system can be realized through iterative simulation of various model settings and scenarios.

Bibliography

Acsádi, G. / Nemeskéri, J. 1970. History of Human Life Span and Mortality. Budapest.

Beekman, C. 2005. Agency, Collectivities and Emergence: Social Theory and Agent Based Simulations. In: Beekman, C. / Baden, W. W. (eds.). Nonlinear Model for Archaeology and Anthropology. Ashgate. 51-78.

Beekman, C. / Baden, W. W. 2005. Nonlinear Models for Archaeology and Antropology. In: Beekman, C. / Baden, W. W. (eds.). Nonlinear Model for Archaeology and Anthropology. Ashgate. 1-12.

Brown, A. G. 1997. Alluvial Geoarchaeology: Floodplain Archaeology and Environmental Change. Cambridge.

Doran, J. 1970. System Theory, Computer Simulation and Archaeology. – World Archaeology 1/3, 289-298.

Dornan, J. L. 2002. Agency and Archaeology: Past, Present and Future Directions. – Journal of Archaeological Method and Theory 9, 303-329.

Dreslerová, D. 1995. A settlement-economic model for a prehistoric microregion: settlement activities in the Vinoř stream basin during the Hallstatt period. In: Kuna, M. / Venclová, N. (eds.). Whither Archaeology? Praha. 145-160.

Droberjar, E. 1997. Studien zu den germanischen Siedlungen der Älteren römischen Kaiserzeit in Mähren. Fontes Archaeologici Pragenses 21. Praha.

Epstein, J. M. 1999. Agent-based computational models and generative social science. – Complexity 4/5, 41-57.

Epstein, J. M. / Axtell, R. 1996. Growing Artificial Societies: Social Science from the Bottom Up. Washington D.C.

Frier, B. W. 2000. Demography. In: Bowman, A. / Garnsey, P. / Rathbone, D. (eds.). The Cambridge Ancient History 11. Cambridge. 787-816.

Renfrew, C. 2009. Demography and Archaeology. – Human Biology 81, 381-384.

Kamermans, H. 2000. Land evaluation as predictive modelling: a deductive approach. In: Lock, G. (ed.). Beyond the Map. Amsterdam. 124-146.

Kovarik, K. 2012. Agents in Archaeology – Agent Based Modeling (ABM) in Archaeological Research, In: Koch, A / Kutzner, T. / Eder, T. (eds.). Geoinformationssysteme – Beiträge zum 17. Münchner Fortbildungsseminar 2012. Berlin. 238-251.

Lenz, K. H. / Berke, H. / Heussner, B. 1999. Siedlungen der römischen Kaiserzeit auf der Aldenhovener Platte. Rheinische Ausgrabungen 54. Köln.

Manson, S. M. 2001. Simplifying complexity: a review of complexity theory. – Geoforum 32, 405-414.

Neustupný, E. 1983. The Demography of Prehistoric Cemeteries. – Památky archeologické 74/1, 7-34.

Petersen, W. 1975. A Demographer's View of Prehistoric Demography. – Current Anthropology 16/2, 227-245.

Read, D. W. / LeBlanc, S. A. 2003. Population Growth, Carrying Capacity and Conflict. Current Anthropology 44/1, 59-85.

Schacht, R. M. 1981. Estimating Past Population Trends. – Annual Review of Anthropology 10, 119-140.

Sklar, E. 2007. Software Review: NetLogo, a Multi-agent Simulation Environment. – Artificial Life 13, 303-311.

Stuchlík, S. (ed.) 2002. Oblast vodního díla Nové Mlýny od pravěku do středověku. Spisy Archeologického ústavu AV ČR Brno 20. Brno.

Tejral, J. 1977. Die älteste Phase der Germanischen Besiedlung zwischen Donau und March. In: Symposium Ausklang der Latène-Zivilisation und Anfänge der germanischen Besiedlung im mittleren Donaugebiet. Bratislava. 307-342.

Tejral, J. / Pieta, K. / Rajtár, J. (eds.) 1995. Kelten, Germanen, Römer: Von Ausklang der Laténe-Zivilisation bis zum 2. Jahrhundert. Spisy Archeologického ústav AV ČR Brno 3. Brno-Nitra.

Turchin, P. / Gavrilets, S. 2009. Evolution of Complex Hierarchical Societies. – Social Evolution & History 8/2, 167-198.

Verhagen, P. 2007. Case Studies in Archaeological Predictive Modelling. Leiden.

Wood, J. W. 1998. A Theory of Preindustrial Population Dynamics Demography, Economy and Well-Being in Malthusian Systems. – Current Anthropology 39/1, 99-135.

Zimmermann, A. / Holpert, J. / Wendt, K. P. 2009. Estimations of Population Density for Selected Periods between the Neolithic and AD 1800. – Human Biology 81, 357-380.

Mgr. Marek Vlach
Institute of Archaeology of Academy of Sciences
Královopolská 147
CZ-61200 Brno
vlach@iabrno.cz

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Basis of the International Research Project of the Roman Military Camps in the Barbarian Territory to the North of *Carnuntum*[1]

Stefan GROH / Balázs KOMORÓCZY / Marek VLACH / Helga SEDLMAYER

Keywords: Roman temporary camps, Middle Danube region, Marcomannic wars, field methodology, environmental analyses

Introduction

The Roman temporary camps represent unique sources of archaeological information. The first breakthrough was brought by the areal prospection in Lower Austria. At the end of the 80s of the previous century also began an era of systematical areal prospection within the states of the former Communist bloc, which led to the discovery of numbers of linear features interpreted as relicts of fortifications built by the Roman army in Slovakia and Moravia (lastly e.g. Tejral 2009). Currently, a couple of dozens verified Roman temporary camps are known (**fig. 1**), sometimes inaccurately denoted as marching camps.

In Lower Austria to the north of the Danube, the most frequently accounted camps are: in Bernhardsthal; the spacious camp in clearway of *Carnuntum* north to the Danube in Engelhartstetten; and those in Kollnbrunn and Plank am Kamp (summarized in Stuppner 2008), detected via aerial prospection. The part of Slovakia to the west of the Lesser Carpatians belongs to the same settlement zone, thus to the same operational area of the Roman army, where are known camps from Suchohrad and Závod (lastly summarized in Rajtar 2002). On the basis of characteristic finds and general logic of terrain configuration, we can also expect the presence of additional Roman military sites on numbers of locations along the lower reach of the river Morava and the middle reach of the river Dyje. Within the Czech Republic Roman military installations are described and known from the region of southern and central Moravia (Komoróczy 2009). Apart from evidence from around the Roman military base at Mušov, there are camps situated on the distinguished communication corridors and also in the clearway of the Moravina Gate, at the peripheral zone of the Germanic settlement area. Nevertheless, many of detected linear features are so far unverified and it will be necessary to explore their interpretation possibilities. In addition to the unverified linear features, the presence of other military camps can be indicated by a continuously growing number of finds of Roman military equipment and weaponry, coming mainly from field prospections. Scientific research of the Roman temporary camps in various parts of the Roman Empire and outside its borders has also reached various stages. For example, in England, due to the attention paid to other military installations and other factors, there is limited knowledge from the actual terrain context of the camps (Jones 2011).

Theory and Methodology Issues

It is necessary to point out that temporary camps in the Middle Danube region are so far an insufficiently studied group of archaeological sources of information. Unequal conditions, field methods and output presentation strongly influence the actual state of knowledge and limit both range and depth of possible historical interpretations. Spatial displacement of the Roman temporary camps and other evidence of the Roman military presence in

[1] The paper originated within the frame of the bilateral project of the Institute of Archaeology of the Academy of Sciences, Brno and the Austrian Institute of Archaeology, Vienna # M300011201.

the barbarian territories to the north of the Danube are distinctly incomplete. Many uncertainties also persist in the case of the camps convincingly identified as Roman, concerning mainly the character of fortification and possible build-up. Such are: the context of foundation, function and differentiated perspectives of duration of their use. Virtually the only studied element of the camps is the fortification ditch, usually through limited excavations. Already published examples show unexceptional forms of *fossa fastigata* (Bálek / Šedo 1998). Nevertheless, detailed analyses of their fillings have not yet been conducted. The discovered situations generally reveal stratigraphy units characteristically deepening from the interior side and containing secondarily redeposited subsoil. Such sediment components are interpreted as a remnant of an earthen rampart. Some profile sketches show particularly heterogeneous stratigraphy sequence, but without detailed analyses of sedimentological processes, they are unable to help the explanation and, subsequently, the interpretation and dating. Even less information is available about the construction of the rampart. Convincing evidence of the use of turfs in their construction is missing. Further attention is required by the occasionally registered terrain feature in the form of a posthole or a small groove on the interior side of ditch (Bálek / Šedo 1998; Vlach 2008), which may be a relic of some sort of a palisade wall. According to this assumption, the aboveground construction might have consisted of frontal palisade wall holding earth-wooden wall. This would also invoke a revision of common concepts, calculating with minimal construction requirements and limited duration of use of such military installations.

Large scale excavations were conducted only at the gate area of the camp at Ivaň. Aerial prospection has previously shown here a standard *titulum* which is also registered at other camps within the region. The excavation revealed the remains of a wooden gate construction (Bálek / Droberjar / Šedo 1994). The gate seems to be of lesser size than usual, at least comparing to already known gates of the military base Hradisko Mušov (Komoróczy 2009). But the use of wooden construction techniques in the case of a camp with generally temporary parameters seems to be important evidence for revision of the question about the duration of such camps. Due to the absence of terrain evidence from the inner areas of the camps, the question about the presence of other architecture here cannot be more concrete now. The examples form Ingolstadt and Weissenburg show clearly that without field excavations, the presence of inner build-up area cannot be directly ruled out (Hüssen 1991; 1995).

In scholarly literature some uncertainty persists also in terms of the date of the camps. There are exceptions in cases, where the foundation of the camp was documented in the settlement area of a Germanic community. Uncovered archaeological features and contexts refer generally to the 2nd half of the 2nd century AD. Such situations are known form Bernhardsthal (Adler 1989), Mušov-Na pískách (Komoróczy 1999) or Brno-Modřice (Komoróczy 2002). Not all the camps have been necessarily used simultaneously, but so far we are missing evidence for a date outside the frame of 172 and 180 AD, while the length of use in particular cases could have varied distinctively as well. Up until now, there has been provided no terrain evidence supporting interpretation as marching camps, established only for one or a couple of nights. Within the context of the Marcomannic wars the length of use of some military sites could have been even the same as the duration of the offensive phases of the conflict. Thus, they may differ from the central military base in Mušov in primary purposes and strategic intentions, rather than in duration of use.

Since the first discoveries of Roman camps in the region, many scientists have spoken out their interpretations, often connected with an overall conception and character of the period of the Marcomannic wars to the north of Danube. Many of the interpretations were constructed based on analyses of very limited information sources, obtained under unequal conditions and using various methods. So far, field verifications were aimed mainly at confirming the presence of V-shape ditches and more thorough methodological approach was not involved. However, their attestations and indications may provide important clues for our understanding of the intentions of Roman military leadership and the spatial and environmental context of particular camps as well. Among different sources of information, environmental data plays a unique role. For example, some of the camps stretch over considerable areas, and it is crucial to discern structural features of paleoecological development of their environment during the Roman period – whether the construction required large scale deforestation or the areas were already cultivated by the local population. Implementation of large spectrum of environmental analyses has also the potential to specify time of use, based mainly

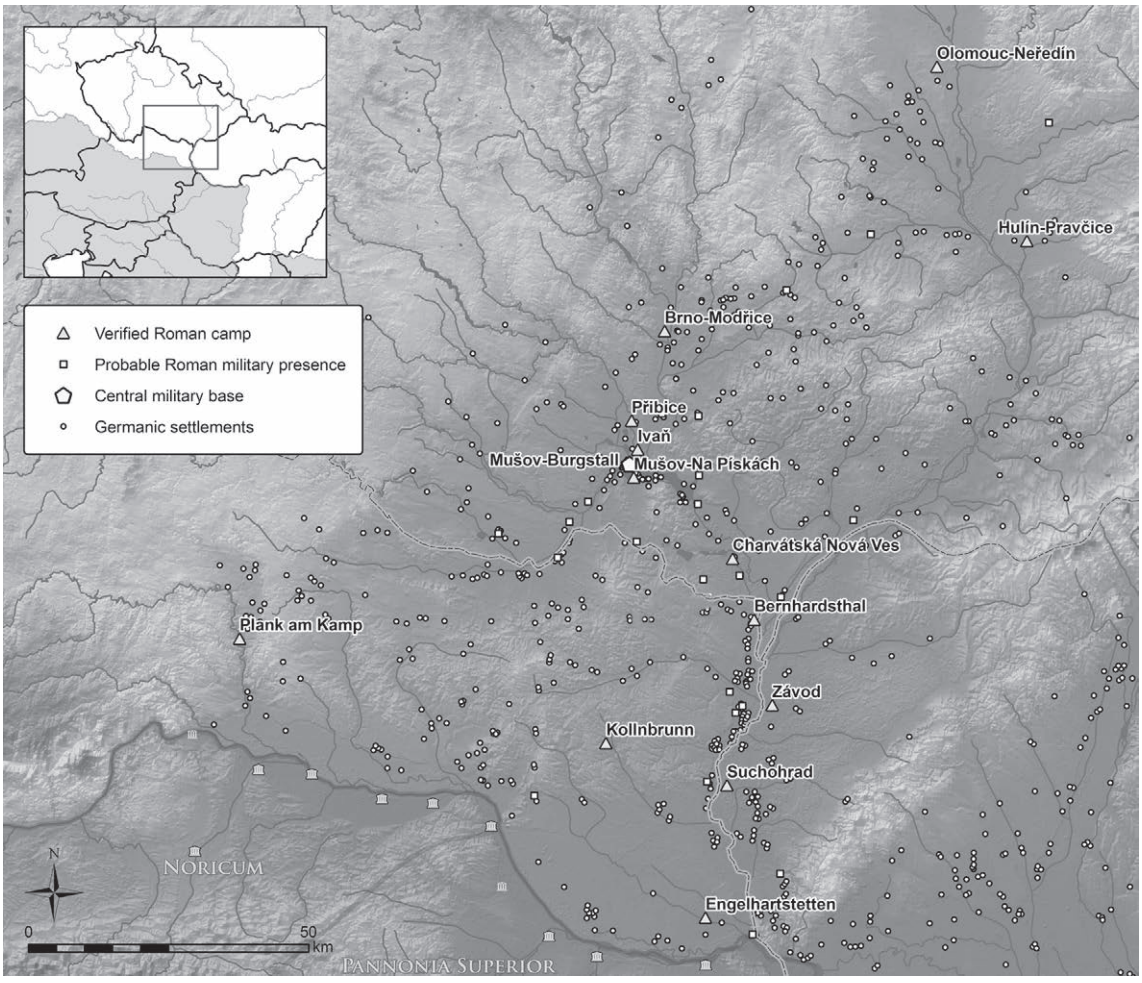


Fig. 1. The Middle Danube region with spatial distribution of the verified Roman camps, places of presumed Roman military activities and Germanic settlements

on micromorphological analyses which enable uncovering traces of ditch cleaning and other features of sedimentation dynamics (Courty / Goldberg / Macphail 1989). Paleobotanical analyses may enlighten the composition of local vegetation and also help discern tree species used in presumed wooden constructions.

An increasing number of evidence from Moravia, south-west Slovakia and Lower Austria to the north of Danube has put some of the existing theoretical models and interpretations into new perspective. On the other hand, the more evidence is available, the more obvious it is how vague and incomprehensive our sources of information are. Facing this fact, many issues are problematic and their solutions questionable, while we are unable to discern the chronological conditions of the particular camps and their possible simultaneous existence. Parallel situations come from some sites with more registered components of the same kind, pointing out development and differentiation of the Roman strategic intentions (**fig. 2**). The decoding of such archaeological structures disposes of the extraordinary potential of historical utterance about individual time horizons of the Roman military activities in the studied regions and spatial, strategic and political aspects of their impact here.

Research Project

The endeavor to resolve vital methodological and theoretical issues and to broaden the interpretation possibilities through the interdisciplinary approach has led to the cooperation of the Institute of Archaeology of the Academy of Sciences CZ, Brno, and the Austrian Institute of Archaeology, Vienna. The systematic terrain research of Roman camps was successfully resumed in Moravia (suspended in the 1st half of the 1990s), and in Lower Austria such activities have not been yet realized on a larger scale.

The pilot research within the cooperation took place in Engelhartstetten during the seasons 2010



Fig. 2. The Roman temporary camps in Přibice (after Bálek / Droberjar / Šedo 1994, Abb. 6)

and 2011 and included a series of non-destructive and destructive archaeological investigations (**fig. 3**; Groh / Komoróczy 2011). Terrain excavations have been preceded by a large scale geophysical prospection aimed to precisely localize the fortification relics and possibly to find out any traces of the inner build-up area. The results of prospection provided the necessary background for the planning of subsequent small scale excavations carried out within the communication zones of the both western gates. Comparative terrain excavation methods were applied when approaching the layers extraction. During the process, all movable and immovable archaeological features were documented using total station measurement and photogrammetry. This allowed the establishment of a digital documentation system using GIS. From the excavated features and traversal profiles there were also a number of samples collected, designed to be used in various environmental analyses, including palynology, geochemistry (Pollard / Barr / Stern / Young 2007) and micromorphology (Goldberg / Macphail 2006). All the excavated volume of ditch filling was also processed through flotation, in order to recover small finds and to obtain representative and spatially structured environmental data for macro-botanical analyses. Due to the lack of



Fig. 3. Engelhartstetten. Terrain situation of the traversal section of the Roman fortification ditch within the gate area

datable archaeological material, radiocarbon dating method was applied. Our first applications imply significant perspectives in the case of studied archaeological components. Regrettably, there is still an insufficient amount of available dates from analogical archaeological contexts, or protohistoric contexts in general, for more thorough comparison. Systematical metal detector prospections were also done, with the intention to retrieve additional archaeological data. The performed activities at Engelhartstetten revealed clearly that the conditions of foundation, spatial extent and other specific features of the Roman camps generate unique opportunities for the application of field methods, other than those usually employed in terrain research of the common archaeological components from the Roman period in the barbarian territories, almost exclusively settlements and burial grounds. At the same time, there has emerged the necessity for the application of compatible sets of methods on other available components of similar nature, in order to be able to discern structures within the comparable sets of archaeological data.

Consequently, the combined research efforts to further develop field methodology and to clarify some of and theoretical issues have led to the formation of the Czech-Austrian project, complemented with the partnership of research teams from the Römisch-Germanischen Kommission, Frankfurt am Main, and the Institute of Archaeology of the Slovak Academy of Sciences, Nitra. The project aims to apply a wide range of non-destructive and destructive field methods to amplify the interpretation possibilities of individual camps from the studied region.

Key Issues

Due to stated reasons, scientific research nowadays generates more detailed questions to its sources of information. There are still dwelling fundamental issues, the solution of which is essential for understanding and interpretation of the topic. Do all the camps come from the period of Marcomannic wars? Is it possible to obtain more precise information about the duration of use and other aspects form their actual archaeologized state? Are there any structural characteristics showing regularities and inner principles? The currently launched scientific project aims to reveal the possible answers to such vital questions.

Bibliography

Adler, H. 1989. Bernhardsthal. In: Kandler, M. / Vetters, H. (eds.). Der römische Limes in Österreich. Ein Führer. Wien. 244-247.

Bálek, M. / Šedo, O. 1998. Příspěvek k poznání krátkodobých táborů římské armády na Moravě. – Památky archeologické 89, 159-184.

Bálek, M. / Droberjar, E. / Šedo, O. 1994. Die römischen Feldlager in Mähren (1991-1992). – Památky archeologické 85, 59-74.

Courty, M. A. / Goldberg, P. / Macphail, R. 1989. Soils and Micromorphology in Archaeology. Cambridge.

Goldberg, P. / Macphail, R. I. 2006. Practical and Theoretical Geoarchaeology. Malden-Oxford-Carlton.

Groh, S. / Komoróczy, B. 2011. KG Engelhartstetten, MG Engelhartstetten, VB Gänserndorf. – Fundberichte aus Österreich 49, 269.

Hüssen, C.-M. 1995. Römische Lager an der Donau in Ingolstadt-Zuchering. In: Czysz, W. / Hüssen, C.-M. / Kuhnen, H.-P. / Sommer, C. S. / Weber, G. (eds.). Provinzialrömische Forschungen. Festschrift für Günter Ulbert zum 65. Geburtstag. Espelkamp. 95-110.

Hüssen, C.-M. 1991. Das Holzkastell auf der „Breitung" in Weißenburg in Bayern. In: Maxfield, V. A. / Dobson, M. J. (eds.). Roman Frontier Studies 1989. Proceedings of the 15th International Congress of Roman Frontier Studies. Exeter. 191-195.

Jones, R. H. 2011. Roman Camps in Scotland. Edinburgh.

Komoróczy, B. 2009. Marcomannia. Der Militärschlag gegen die Markomannen und Quaden – ein archäologischer Survey. In: Varusschlacht im Osnabrücker Land GmbH – Museum und Park Kalkriese. 2000 Jahre Varusschlacht, Konflikt. Stuttgart. 114-125.

Komoróczy, B. 2002. Das römische temporäre Lager in Modřice (Bez. Brno-venkov). In: Kuzmová, K. / Pieta, K. / Rajtár, J. (eds.). Zwischen Rom und dem Barbaricum. Festschrift für Titus Kolník zum 70. Geburtstag. Nitra. 129-142.

Komoróczy, B. 1999. Zpráva o výzkumu fortifikace římského krátkodobého tábora a objektů sídliště z doby římské na lokalitě Mušov-Na Pískách v letech 1995–1996. – Přehled výzkumů 39 (1995-1996), 165-196.

Pollard, M. / Barr, C. / Stern, B. / Young, M. M. 2007. Analytical Chemistry in Archaeology. Cambridge.

Rajtár, J. 2002. Nuove testimonianze archeologiche delle guerre dei Marcomanni a nord del medio Danubio. In: Buora, M. / Jobst, W. (eds.). Roma sul Danubio. Da Aquileia a Carnuntum lungo la via dell' ambra. Udine. 99-120.

Stuppner, A. 2008. Stand der archäologischen Forschungen zu den römischen Vormarschtrassen und Befestigungsbauten in Österreich. In: Kühlborn, J.-S. et al. (eds.). Rom auf dem Weg nach Germanien: Geostrategie, Vormarschtrassen und Logistik. Bodenaltertümer Westfalens 45. Mainz. 49-67.

Tejral, J. 2009. Troop movements to the north of Carnuntum. Archaeological evidence. In: Morillo, A. / Hanel, N. / Martín, E.

(eds.). Limes 20. 20th International Congress of Roman Frontier Studies. Anejos des Gladius 13, Vol. 3. Madrid. 1421-1436.

Vlach, M. 2008. Římský krátkodobý tábor a nové nálezy z doby římské z Charvátské Nové Vsi. In: Droberjar, E. / Komoróczy, B. / Vachůtová, D. (eds.). Barbarská sídliště. Chronologické, ekonomické a historické aspekty jejich vývoje ve světle nových archeologických výzkumů. Spisy Archeologického ústavu AV ČR Brno 37. Brno. 461-468.

Univ.-Doz. Mag. Dr. Stefan Groh
Austrian Archaeological Institute, Vienna
Franz Klein-Gasse 1
AT-1190 Vienna
stefan.groh@oeai.at

Mgr. Balázs Komoróczy, Ph.D.
Institute of Archaeology of Academy of Sciences
Čechyňská 363/19
CZ-60200 Brno
komoroczy@iarub.cz

Mgr. Marek Vlach
Institute of Archaeology of Academy of Sciences
Čechyňská 363/19
CZ-60200 Brno
vlach@iarub.cz

Mag. Dr. Helga Sedlmayer
Austrian Archaeological Institute, Vienna
Franz Klein-Gasse 1
AT-1190 Vienna
helga.sedlmayer@oeai.at

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Celtic or Roman? Late La Tène-Style Scabbards with Copper-Alloy or Silver Openwork Plates

Janka ISTENIČ

1. Introduction

This article discusses a group of scabbards and associated swords from roughly the second half of the 1st century BC. Elaborate copper alloy or, rarely, silver openwork (*opus interrasile*) plate on the front of the scabbard is the most distinctive feature of the group.

The group was first discussed by Joachim Werner in his fundamental paper (Werner 1977). He pointed to their wide distribution particularly among the Celtic and Germanic tribes, proposed their Norican origin and dated them to the Augustan period.

Detailed publications of scabbards with non-ferrous openwork plates and associated swords from Germany (Büchel, Wederath-Belginum, Badenheim) and Luxemburg (Göblingen-Nospelt), as well as an in-depth survey by Astrid Böhme-Schönberger followed much later (Böhme-Schönberger 1998; Haffner 1995; Metzler / Gaeng 2009, 243-249, fig. 65/22a).

A thorough interdisciplinary research of the group, based on the examination of a sword and its sheath from the River Ljubljanica (**fig. 1**) and three swords with associated sheaths from graves from present-day Slovenia (**figs. 2–4**), was carried out. Reports on the findings of the investigation were published in Istenič 2010 (detailed description of the individual objects and general interpretation of the findings); Šmit et al. 2010 (characterisation of metals); and Istenič et al. 2011 (metallographic and scanning electron investigation of the laddered chape of the scabbard from the Ljubljanica). Only the salient points regarding the interactions between the Romans and barbarians in the last decades BC and beginning of the 1st century AD shall be the topic of the present paper.

2. Objectives

There was no consensus regarding the origin of the discussed swords and scabbards. In addition to the thesis of their Norican origin (e.g. Werner 1977 and Böhme-Schönberger 1998, 240, 243), several authors of later publications suggested they were manufactured in various regions, including the regions inhabited by the *Norici* and *Treveri* (e.g. Haffner 1995, 150-151; for details see Istenič 2010, 122-123).

Examining the Polish examples, Łuckiewicz (Łuckiewicz 2000, 370-375) suggested that scabbards with bronze openwork plates were imported (Celtic), whereas the ones with an iron fitting with a much simpler decoration (i.e. net-like decoration), were Germanic. The latter were defined as a group by Böhme-Schönberger (Böhme-Schönberger 1998, fig. 7) and later studied by Czarnecka (Czarnecka 2002).

The metallographic analysis of the sword from Büchel showed that its quality was in no way superior to that of the common Celtic swords (Schwab 2005, 334), challenging an important argument for locating the production of this group in the Norican region. Werner (Werner 1977, 386) and several others (most recently Böhme-Schönberger 1998, 240) assumed that richly decorated scabbards contained first-rate swords, which they associated with the high-quality Norican iron (*ferrum Noricum*) mentioned in Pliny.

The copper-alloy of the openwork scabbard plates was characterised in the case of the scabbard from Büchel (it is alloy of copper, zinc, tin and lead; Schwab 2005, 332), and grave 78 at Zemplín (it is brass with 18% zinc; Longauerová / Longauer 1990).

The evidence regarding brass was extremely interesting as in the 1st century BC the use of brass in Europe was closely related to the Romans. An ex-

ception to the said seems to be the thin pure brass foils on the two stamps of the Isleworth sword from the River Thames, dated to the second half of the 3rd – 2nd century BC (Stead 2006, 32-34, 168, 228, 48-49, fig. 62, Cat. # 76). They suggest that in decoration of very rare pre-Roman objects tiny amounts of brass, supposedly produced in Anatolia, were used (Craddock / Cowell 2006).

It is generally assumed that it was the Romans who spread the use of brass through Europe (Craddock et al. 2004; Istenič / Šmit 2007). The close link between the use of brass and the Romans is even more relevant for pure brass, i.e. undiluted brass, which was produced intentionally, by cementation, and typically contained about 20 % zinc and very little lead and tin (cf. Jackson / Craddock 1995, 93-94).

The Romans started to produce and use brass about 60 BC (Istenič 2005, 189-190, 198-201; Istenič / Šmit 2007). Published analyses suggest that from the Augustan period, brass was widely used in coinage, Roman military equipment and brooches (Istenič 2009, 238, fn. 12, 13). In the early period the use of brass seems to be linked primarily to the imperial coinage and the Roman army, both of which were controlled by the central administration (Istenič 2009, 242).

3. Research Strategy, Analytical and Research Methods and Techniques

In our view, an in-depth examination of objects of the group from Slovenia, which would include characterisation of copper-alloy applied to the scabbards and/or swords, could provide important evidence for the interpretation of the whole group.

Two techniques were used to examine the composition of the non-iron metals from which the scabbards and swords were made. Energy dispersive X-ray fluorescence spectroscopy (XRF), carried out at the National Museum of Slovenia (NMS), was applied to the unprepared surface of the objects and provided only an estimate of the metal composition. Proton induced X-ray emission spectrometry (PIXE) was used on unprepared and prepared areas (Šmit et al. 2010) and provided far more accurate characterisation of the metal. A detailed description of the techniques is found in Šmit et al. 2005 (Šmit et al. 2005, 214-215).

4. Analytical Results

Copper alloy was characterised on four (out of five known) scabbards and associated swords of the group from Slovenian sites. The results are presented in **table 1.**

The proportion of zinc in analysed brass is between *c.* 16 and 22 %.

5. Observations and Discussion

Scabbards' openwork plates are very skilfully made and suggest that these weapons were artefacts of high quality and probably also of prestigious character; this is obvious in the items which were made entirely of copper alloy (**list 1 / 14, 16c, d**) and particularly in the ones in which silver was applied instead of copper alloy (**list 1 / 8, 25**) or in combination with copper alloy (**list 1 / 24, 26**).

Regarding their length, the scabbards and swords fall into two sub-groups:

a) c. 70 cm long scabbards (Wesołki gr. 3, items from Slovenia and an unknown site; **list 1 / 13a, 18-21, 25**) and c. 82 cm long swords with pointed tips, which resemble *gladii* (items from Wesołki gr. 3 and Slovenia; **list 1 / 13a, 18-21**);

b) c. 80 cm long scabbards (items from Göblingen-Nospelt, Büchel, Wederath, Badenheim, Stara Wieś, Belozem; **list 1 / 1, 3-5, 11, 24**) and 90-95 cm long swords with a long and pointed tip (from Zemplín gr. 78, 128 and the Danube; **list 1 / 16b, d, 22**) or with a short tip (from Büchel and Wederath; **list 1 / 3, 4**).

Table 1. Scabbards and associated swords from Slovenian sites

Site	Scabbard	Sword
The river Ljubljanica	brass: front plate, openwork plate	brass: knob lining, campanulate hilt end
Strmec above Bela Cerkev	brass: whole scabbard	knob lining and campanulate hilt end not preserved
Verdun Gr. 37	brass: front plate; openwork plate not preserved	brass: knob lining; campanulate hilt not preserved
Verdun Gr. 131	brass: front plate; copper alloy: openwork plate (not characterised)	brass: front plate; copper-alloy: campanulate hilt end (not characterised)

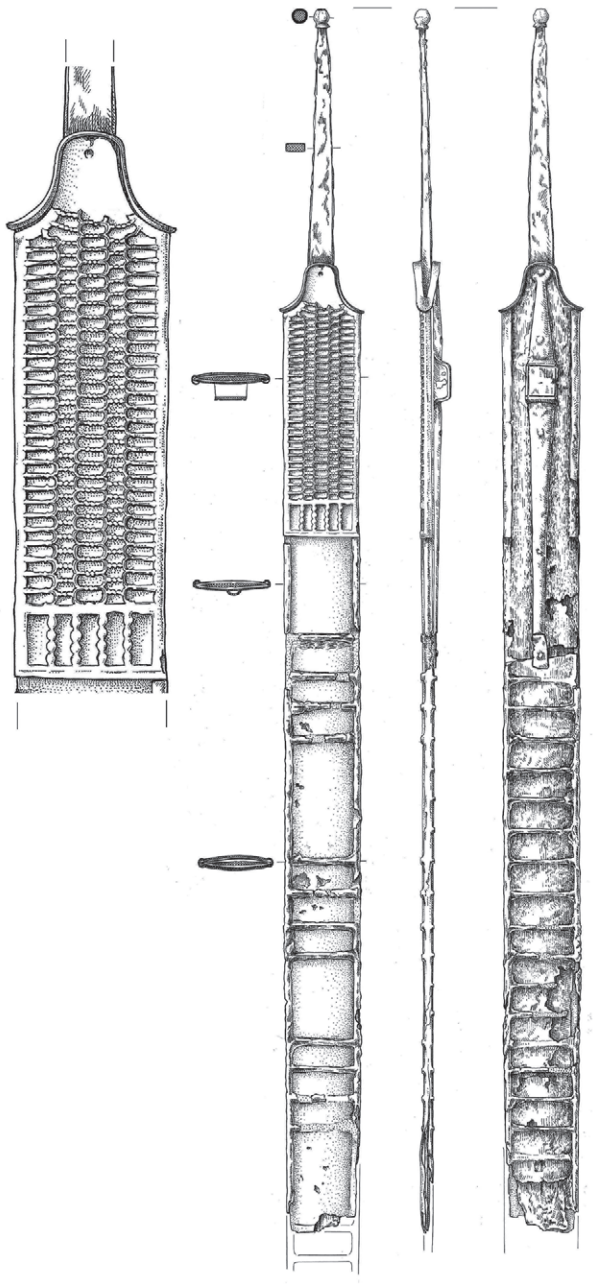


Fig. 1. The Ljubljanica sword in its scabbard. Scale 1 : 4, detail 1 : 2. Drawing by D. Knific Lunder

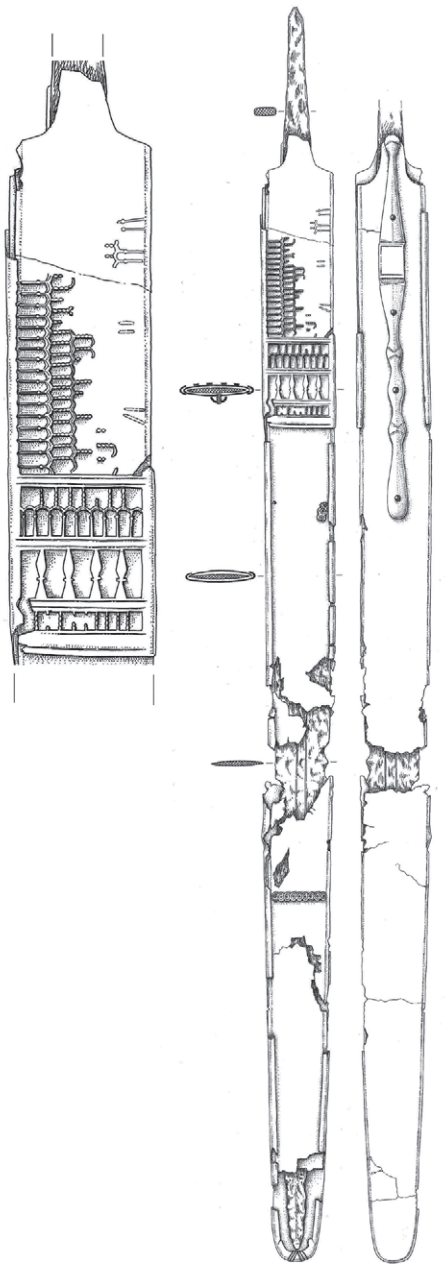


Fig. 2. Strmec above Bela Cerkev, sword in its scabbard (reconstruction of the original shape). Scale 1 : 4, detail 1 : 2. By I. Murgelj, NMS

There are two sub-groups of scabbards regarding their form and the applied metals:

a) scabbards with a laddered chape, made in combination of iron and copper alloy; they have a spur-shaped end (items from the Stara Wieś, Ciecierzyn, Büchel, Ljubljanica, Verdun; **list 1 / 3, 11, 12 18, 20**) and in one case a boat-shaped end (Badenheim; **list 1 / 5**);

b) scabbards without a laddered chape, made of non-ferrous metals (copper-alloy or/and silver); scabbard's ends are rounded (items from Witaszewicze, Zemplín gr. 128 and perhaps 108, Strmec, Belozem and the two scabbards from unknown sites; **list 1 / 14, 16c, d, 19, 24-26**).

Graves in which the discussed scabbards and swords were found suggest that their wider time span is La Tène D2. Grave B from Göblingen-Nospelt, which provides the only reliable narrow dating for this type of scabbard, would suggest a more precise time-span for their main period of use between 40/30 and 15 BC. The scabbard from grave 131 at Verdun which cannot be earlier than late Tiberian would support this dating (Istenič 2010, 140-142).

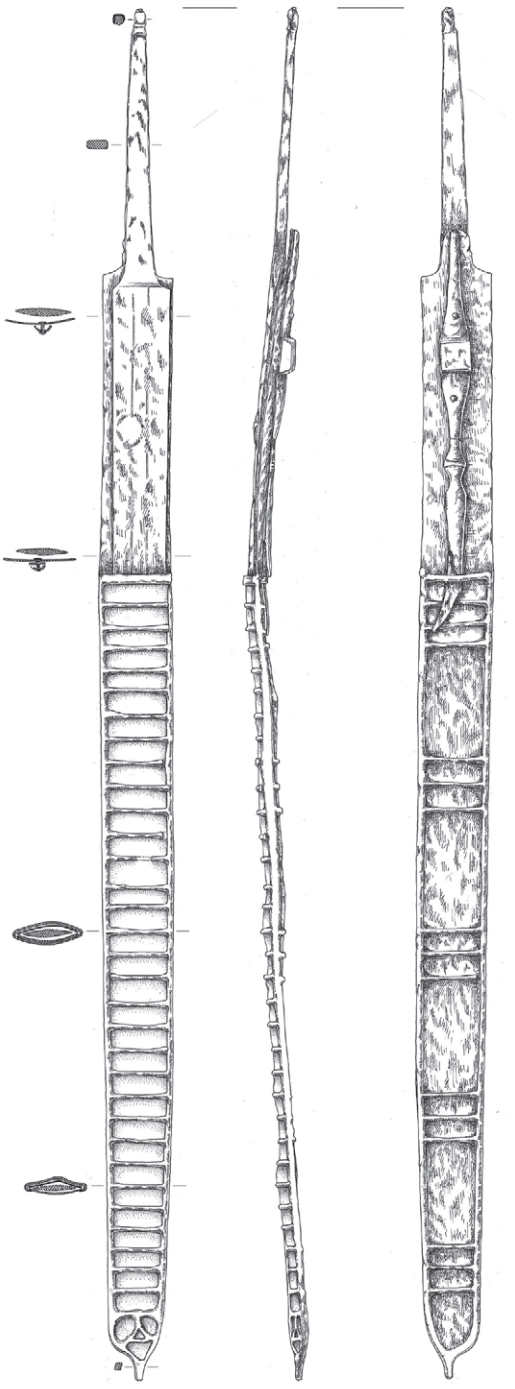


Fig. 3. Verdun, grave 37, sword in its scabbard. Scale 1 : 4. Drawing by I. Murgelj, NMS

The distribution of the discussed scabbards indicates areas inhabited by Celtic and Germanic tribes; one or two examples come from the Thracian area. Distinctly high concentrations (five examples) appear in the wider area of the Moselle and on the territory of central and south-eastern Slovenia; also notable are the finds from Magdalensberg, Zemplín and Poland (**fig. 5**; **list 1**).

30 of 34 scabbards of the group or their fragments come from graves, which suggests that their distribution may be related to the distribution of the graves with weapons of that period. It would seem, however, that inside the Roman Empire, these swords and scabbards were mainly used in the wider areas of the Moselle, the Middle Rhine and eastern Alps, which were inhabited by the *Treveri*, *Norici* and *Taurisci*. In the early Augustan period, these regions were already part of the Roman state or in close friendship with it. In the regions which never became part of the Roman Empire, the swords and scabbards under discussion appear in the wide territory inhabited by various tribes called *Germani* by the Romans; the scabbard and its associated sword from Belozem (and perhaps also the example **list 1 / 25**) suggest their sporadic occurrence in Thracian tribes.

The scabbards and swords of the group clearly exhibit Celtic/La Tène characteristics, as indicated by their construction and technique of decoration. The possible Roman influences are the long and narrow blades and pointed ends, which appear on some of the blades, as well as the decoration motif of arcades (Istenič 2010, 142-143).

Considering the obvious links of these scabbards and swords to Celtic tradition, the results of copper-alloy characterisations were surprising. Copper alloy of eight items was analysed. In seven of them (from Zemplín, grave 78, Wederath, Badenheim[1] and four from Slovenia) it proved to be pure brass (i.e. brass with about 20% zinc), indicating that brass ingots were used for their manufacture rather than melted brass objects; when brass is melted, the proportion of zinc is namely reduced (cf. Nieto 2004). On the scabbard from Büchel, brass diluted by tin and lead (most probably obtained by melting brass and bronze objects together) was applied (cf. Schwab 2005, 332, tab. 2).

The interpretation of the use of pure brass in the scabbards and swords under discussion is made difficult by the fact that elemental composition of only very few Late La Tène metal objects has been published. Two swords of the group, which bear a name stamp on their blade, provide additional evidence: the swords from grave 20 at Wesołki, and from Grave 78 at Zemplín (**list: 1 / 13c, 16b**). The names most probably refer to the makers of the swords; in the first case (stamp ALLIVS.PA), the person

[1] The author would like to thank Dr. Roland Schwab (Curt-Engelhorn-Zentrum Archäometrie, Mannheim) for the information regarding the composition of copper alloy of the scabbards from Wederath and Badenheim.

had a Latin name, while in the second case (stamp VTILICI) this seems possible, but not certain.

The distribution of the scabbards under discussion (**fig. 5**), concentrated in Celtic and Germanic regions, does not necessarily reflect relations between the Celts and their eastern neighbours, as has been presumed. In our view, it seems more likely that they reflect Roman contacts with the Celts and other peoples of the newly conquered regions, as well as the ones from the Barbaricum, in the last decades BC and the beginning of the 1st century AD.

The *Treveri* had had intense links to the Roman army as early as Caesar's Gallic wars (alternately as allies and enemies). Rich cavalry graves from Göblingen-Nospelt, including grave B with the sword and scabbard under discussion, are related to the members of *Treveri* aristocracy (Metzler / Gaeng 2009, 513-519, 521), which commanded their military forces within the Roman army.

The link of the *Taurisci* to the Roman army during the middle and late Augustan period and also later is indicated by the graves with Roman-type military equipment from Verdun (Breščak et al. 2002, 139, 141-142, cat. # 74, 82) and Mihovo (Windl 1975, pls. 21/1-5, 28/1-3, 43/1-5, 51/15-19, 61/5-7). In our opinion, the grave with the sword and scabbard of the discussed group from Strmec above Bela Cerkev and grave 37 from Verdun also belonged to Tauriscan warriors, who were presumably members of the ruling class with military-political relations with the Romans. In addition to the discussed swords and scabbards, they used their traditional weapons and attire and were buried with La Tène type pottery (cf. Božič 1999, 211). Considering the narrower date-span of the scabbards in question, the most probable dating of the said graves would seem to be between 40/30 and 15 BC. This would be consistent with the new situation which developed in the South-Eastern Alps after Octavian's Illyrian wars (35-33 BC).

The leaders of Thracian tribes, and their warriors, took part in the civil wars following Caesar's death (in the battle of *Philippi* 42 BC with 3000 cavalrymen on each side, and in the battle of *Actium* 31 BC), and after the middle Augustan period, when a vassal kingdom was established there, its men fought on Roman side in many wars, including the Dalmatian-Pannonian war of AD 6-9 (Danov 1979, 121-132).

The use of pure brass in the discussed scabbards and swords, which in form and appearance exhibit Celtic characteristics, indicate they were produced in a milieu of intense Celto-Roman relations. A Latin name stamp on one of the swords suggests that

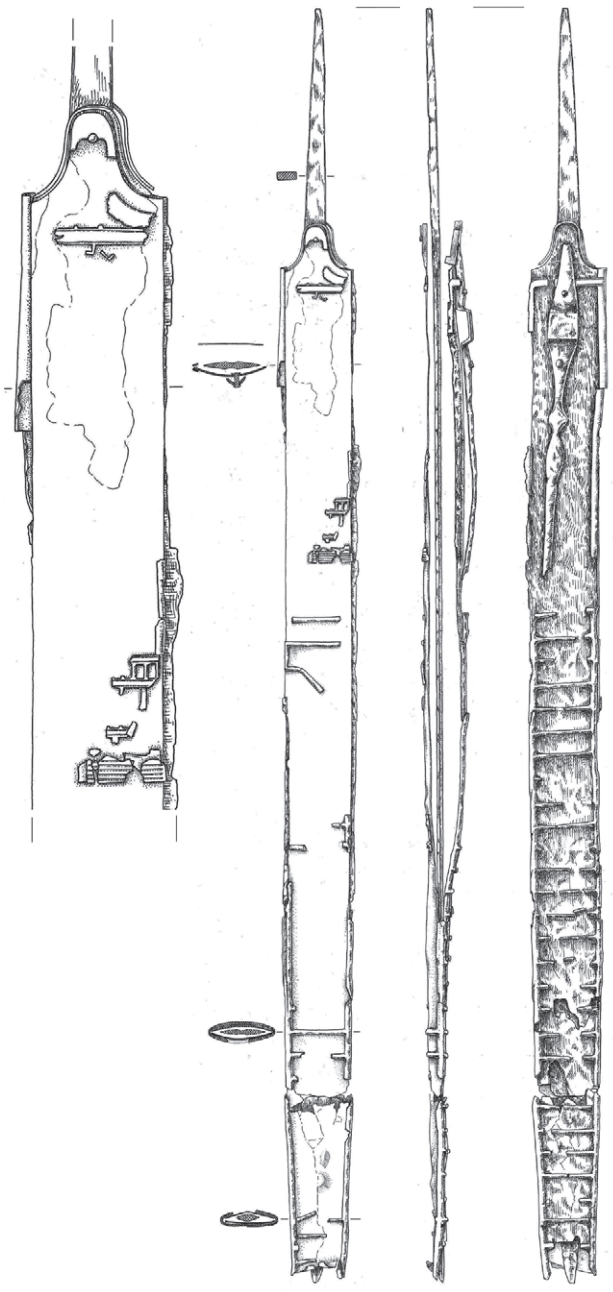


Fig. 4. Verdun, grave 131, sword in its scabbard. Scale 1 : 4, detail 1 : 2. Drawing by I. Murgelj, NMS

Romans took part in their manufacture. They were made in Celtic tradition, but with materials used in the production of Roman weapons (brass). These observations, as well as the distribution of these weapons lead us to the assumption that their production and distribution were in Roman hands. They were intended for cooperating Celts and others, who valued Celtic swords. The Romans distributed these weapons as gifts and trade goods. Their presence at Zemplín and on sites in Poland might reflect Roman gifts in the regions along the Amber Route.

The manufacture of the discussed weapons pre-

sumably took place in a region from where a wide distribution of products to the territories indicated by their find-spots (**fig. 5; list 1**) can be expected, and where the relations between the Celts and the Romans were close. In our opinion, the eastern part of *Gallia Cisalpina*, the province which became part of Italy in 42 BC, seems to best meet the described requirements.

The two lengths of the scabbards and swords suggest that the longer ones were made for cavalrymen, while the shorter ones were intended for infantrymen. This assumption is in accordance with grave B from Göblingen-Nospelt and grave 129 from Zemplín, in which relatively long scabbards and swords of the discussed group were associated with spurs (Metzler / Gaeng 2009, fig. 65/70a, b; Budinský-Krička / Lamiová-Schmiedlová 1990, pl. 18/1, 2). It is also supported by the fact that only the longer items come from the territory of the *Treveri* and that all the four scabbards and swords from the territory of the *Taurisci* fall in the subgroup of shorter items (**list 1 / 19-21**).

6. Conclusions

Scabbards with openwork copper-alloy or silver plates make up a relatively homogenous group of La Tène-style weapons, which, according to the available information, add up to 34 examples. Thirty come from graves, two from rivers and two from unknown sites. They were manufactured and used roughly between 40/30 and 15 BC.

The use of pure brass, established for seven items (four from Slovenia, two from Germany and one from Slovakia), and a stamp bearing a Roman name on the sword from Wesołki, indicate strong links between their production and the Romans. It follows from our research that their production (perhaps in eastern *Gallia Cisalpina*) and distribution were under Roman control.

List 1

A list of Late La Tène-style scabbards with non-ferrous openwork plates or their fragments and swords related to them.

For each object the latest publication with an illustration is cited, as well as others, when relevant for determining the scabbard and/or sword, their find-spot or the character of the non-ferrous metals.

For scabbards only the non-ferrous metal is given; items made (presumably) only of non-ferrous metals are marked "no iron".

For swords, equally, only non-ferrous metal is mentioned, where it survives, i.e. if a campanulate hilt-end or a knob-lining survives.

Luxemburg

1. Göblingen-Nospelt, grave B; scabbard (copper alloy) and sword (copper alloy).

Metzler-Gaeng 2009, 80, 84, 243-244, figs. 65/22a, 213, 215/1.

2. Titelberg, eastern cemetery and Celto-Roman sanctuary; part of the scabbard with openwork plate (copper alloy) and sword.

Metzler-Gaeng 2009, 248-249, figs. 214, 215/2.

Germany

3. Büchel, grave; scabbard (gunmetal) and sword.

Haffner 1995, 137-142, 148, figs. 2, 3, 9/1, folding plate 1; Schwab 2005.

4. Wederath, grave 784; scabbard (copper alloy) and sword.

Haffner 1995, 141-143, figures 4, 9/2, folding plate 1.

5. Badenheim, grave; scabbard (brass) and sword.

Böhme-Schönberger 1998, 218-223, fig. 11-13, Beilage 4; Istenič 2010, 143.

6. Groβ Romstedt, grave; fragment of a scabbard's openwork plate (copper alloy) and a sword's blade.

Czarnecka 2002, 97, # 6; Werner 1977, 381-382, fig. 11/2.

7. Schkopau, cemetery; fragment of the upper part of a scabbard with openwork plate (copper alloy).

Schmidt / Nitzschke 1989, 93, E 7, pl. 78/7.

Sweden

8. Eggeby, barrow; openwork plate (silver).

Böhme-Schönberger 2001, 79-80, fig. 1.

Poland

9. Kopaniewo, grave 10; fragment of a scabbard with an openwork plate (copper alloy).

Werner 1977, 377, fig. 6.

10. Rządz, cemetery; fragment of an openwork plate (copper alloy).

Werner 1977, 382-383, fig. 11/1.

11. Stara Wieś, grave 1; scabbard (copper alloy) and sword (copper alloy).

Kaszewska 1977, 119, # 21, fig. 3.

12. Ciecierzyn, grave 118; scabbard (copper alloy) and sword.

Martyniak et al. 1997, 28, t. 117/1, 2.

13a. Wesołki, gr. 3; scabbard (copper alloy) and sword.

Dąbrowska / Dąbrowski 1967, 14, sl. 7/8; Kokowski 2003, 107, sl. 16; Czarnecka, pers. comm.

13b. Wesołki, grave 50; scabbard's openwork plate and spur-like chape-end (copper alloy).

Dąbrowska / Dąbrowski 1967, 56, fig. 57/1, 8; Łuckiewicz 2000, 370, table 1, fig. 13/1, 8.

13c. Wesołki, grave 20; sword (copper-alloy knob) with stamp ALLIVS.PA.

Dąbrowska / Dąbrowski 1967, 28, fig. 23 / 6, pl. 8/2.

14. Witaszewice, grave 147/1937; fragments of scabbard (no iron, copper alloy) and sword.

Werner 1977, 391-392, fig. 18; Kaszewska 1977, 108, 120, # 46, fig. 1/3-5; Łuckiewicz 2000, 370, table 1, 376, fig. 17.

15. Kamieńczyk, gr. 301; scabbard (only iron?) and sword.

Dąbrowska 1997, 62, 90, pl. 138/4, 201/1; Bochnak / Czarnecka 2004-2005, 29, fig. 4.

According to the published evidence, the scabbard (now lost) had an iron high-quality *opus interrasile* plate. It would be the only scabbard with an iron openwork plate, which is of the same quality and decorated with the same motifs as the copper alloy plates.

Slovakia

16a. Zemplín, grave 77; two fragments of an openwork plate (copper alloy).

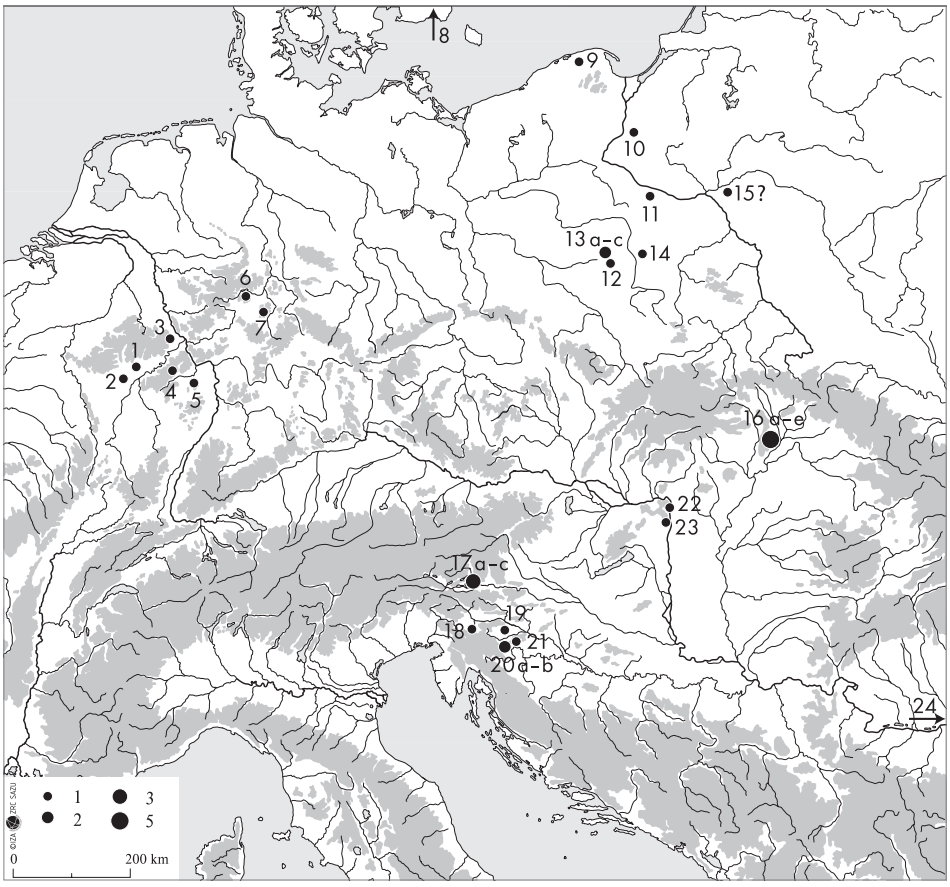


Fig. 5. Distribution of scabbards with non-ferrous openwork plates or their fragments. For details see **List 1**

Budinský-Krička / Lamiová-Schmiedlová 1990, 253, 255, pl. 11/10, 11.

16b. Zemplín, grave 78; sword with a stamp VTILICI and remains of a scabbard (copper alloy).

Budinský-Krička / Lamiová-Schmiedlová 1990, 255, fig. 20a, pl. 11/20; Lamiová 1993, 25, 27, fig. 18, 19, 25; Pleiner 1993, 97.

16c. Zemplín, gr. 108, a fragment of the upper scabbard part with openwork plate and a fragment of its end (copper alloy, no iron).

Cosack 1977; Budinský-Krička / Lamiová-Schmiedlová 1990, 260-261, pl. 15/30, 31; Böhme-Schönberger 1998, 227, 233, 234, 237, fig. 3.

16d. Zemplín, grave 128; sword and two fragments of a scabbard – of an openwork plate and of a chape (copper alloy, no iron).

Budinský-Krička / Lamiová-Schmiedlova 1990, 265, pl. 18/11, 13.

16e. Zemplín, grave 136; small fragment of openwork plate (copper alloy).

Budinský-Krička / Lamiová-Schmiedlova 1990, 267, pl. 18/27.

Austria

17a–c. Magdalensberg, Lugbichl, cemetery; fragments of three openwork plates (copper alloy).

Deimel 1987, 263-264, pl. 69/6-8.

Slovenia

18. The River Ljubljanica, near Bevke; scabbard (brass) and sword (brass).

Istenič 2010, 124-127, figs. 2-3.

19. Strmec above Bela Cerkev, grave 1; scabbard (brass, no iron) and sword.

Istenič 2010, 127-131, figs. 4-7.

20a. Verdun, grave 37; scabbard (brass) and sword (brass).

Istenič 2010, 131-133, figs. 8-9.

20b. Verdun, grave 131; scabbard (brass) and sword.

Istenič 2010, 133-135, figs. 8-11.

21. Mihovo, grave 1657/8; scabbard (copper alloy) and sword; Istenič 2010, 136-137, fig. 12.

Hungary

22. The Danube, near Pomáz and Szentendre, single find; scabbard (copper alloy) and sword.

Hunyady 1942/1944, 115, pl. 44/5, 5a, b; Bóna 1963, 253, pl. 38/4; Hellebrandt 1999, 35-36, t. 4/4.

23. Nagytétény, grave; scabbard (copper alloy) and sword.

pers. comm. András Márton.

Bulgaria

24. Belozem, barrow; scabbard (copper alloy and silver, no iron) and sword.

Werner 1977, 372, fig. 3/1, 378, 379, fig. 8.

25. Unknown site, perhaps in Bulgaria, auction at Christie's, sale 5524, lot 126; scabbard (silver, no iron).

Böhme-Schönberger 1998, 230, fn. 42; http://www.christies.com/LotFinder/lot_details.aspx?pos=8&intObjectID=4265305&sid (date of accession 8.1.2013)

26. Unknown site, auction at Christie's 14.4.2011, sale 6060, lot 255; scabbard (copper alloy and silver, no iron) and fragments of sword.

http://www.christies.com/lotfinder/LotDetailsPrintable.aspx?intObjectID=5425424 (date of accession 8.1.2013)

Bibliography

Bochnack, T. / Czarnecka, K. 2004-2005. Iron scabbard-plates decorated in openwork technique (opus interrasile) in Central Europe. Celtic import or locally made copy? – Anodos 4-5, 25-34.

Böhme-Schönberger, A. 2001. Das silberne Zierblech von Eggeby. – Fornvännen 96, 79-88.

Böhme-Schönberger, A. 1998. Das Grab eines vornehmen Kriegers der Spätlatènezeit aus Badenheim. – Germania 76, 217-256.

Bóna, I. 1963. Beiträge zur Archäologie und Geschichte der Quaden. – Acta Archaeologica Academiae Scientiarum Hungaricae 15, 239-307.

Božič, D. 1999. Die Erforschung der Latènezeit in Slowenien seit Jahr 1964. – Arheološki vestnik 50, 189-213.

Breščak, D. / Galović, I. / Gregl, Z. / Križ, B. / Radovčić, J. / Škoberne, Ž. 2002. Revived cultures: archaeological excavations in the Gorjanci/Žumberak Hills from prehistory to the early Middle Ages. Ljubljana.

Budinský-Krička, V. / Lamiová-Schmiedlová, M. 1990. A late 1st century BC – 2nd century AD cemetery at Zemplín. – Slovenská archeólogia 38/2, 245-344.

Craddock, P. T. / Cowell, M. / Stead, I. 2004. Britain's first brass. – Antiquaries Journal 84, 339-346.

Czarnecka, K. 2002. Die Schwertscheiden mit dem Gittermusterornament in Mitteleuropa um die Zeitwende. In: Carnap Bornheim, C. et al. (eds.). Bewaffnung der Germanen und ihrer Nachbarn in den letzten Jahrhunderten vor Christi Geburt. Akten der Internationalen Tagung in Nałęczów, 23. bis 25. September 1999. Lublin. 93-106.

Dąbrowska, I. / Dąbrowski, K. 1967. Cmentarzysko z okresów późnolateńskiego i wpływów rzymskich w Wesółkach, Pow. Kalisz. Wrocław / Warszawa / Kraków.

Danov, C. M. 1979. Die Thraker auf dem Ostbalkan von der hellenistischen Zeit bis zur Gründung Konstantinopels. In: Aufstieg und Niedergang der römischen Welt 2/7. Berlin / New York. 21-185.

Deimel, M. 1987. Die Bronzekleinfunde vom Magdalensberg. Klagenfurt.

Haffner, A. 1995. Spätkeltische Prunkschwerter aus dem Treverergebiet. In: Wegner, H.-H. (ed.). Berichte zur Archäologie an Mittelrhein und Mosel 4. Trier. 137-151.

Hellebrandt, M. 1999. Celtic finds from Northern Hungary. Budapest.

Hunyady, I. 1942/1944. Die Kelten im Karpatenbecken. Budapest.

Istenič, J. 2010. Late La Tène scabbards with non-ferrous openwork plates. – Arheološki vestnik 61, 121-164.

Istenič , J. 2009. Roman military equipment and the beginnings of the Roman use of brass in Europe. – Xantener Berichte 16, 237-242.

Istenič, J. 2005. Brooches of the Alesia group in Slovenia. – Arheološki vestnik 56, 187-212.

Istenič, J. / Kosec, L. / Perovšek, S. / Gosar, M. / Nagode, A. 2011. Research on a laddered chape from a Late La Tène scabbard with an openwork fitment from the River Ljubljanica. – Arheološki vestnik 62, 317-337.

Istenič, J. / Šmit, Ž. 2007. The beginning of the use of brass in Europe with particular reference to the southeastern Alpine region. In: La Niece, V. / Hook, D. R. / Craddock, P. T. (eds.). Metals and mines: studies in archaeometallurgy. London. 140-147.

Jackson, R. P. J. / Craddock, P. T. 1995. The Ribchester Hoard: A Descriptive and Technical Study. In: Raftery, B. (ed.). Sites and Sights of the Iron Age. Oxford. 75-102.

Kaszewska, E. 1977. Problem der keltischen Besiedlung in Mittel und Nordpolen. In: Chropovský, B. (ed.). Symposium Ausklang der Latène-Zivilisation und Anfänge der Germanischen Besiedlung im mittleren Donaugebiet. Bratislava. 107-122.

Kokowski, A. 2003. Die Przeworsk-Kultur. In: Die Vandalen. Nordstemmen. 77-184.

Lamiová, M. 1993. Zemplín. Košice.

Longauerová, M. / Longauer, S. 1990. Structural analysis of a scabbard and a ring mail from Zemplín. – Slovenská archeológia 38, 349-354.

Łuczkiewicz, P. 2000. Zur späteisenzeitlichen Bewaffnung in Polen. Stand der Forschung. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 47, 355-437.

Martyniak, G. / Pastwiński, R. / Pazda, S. 1997. Cmentarzysko kultury przeworskiej w Ciecierzynie, gmina Byczyna, woj. opolskie. Wrocław.

Metzler, J. / Gaeng, C. 2009. Goeblange-Nospelt, une nécropole aristoratique trévire. Luxembourg.

Nieto, S. 2004. Monnaies arvernes (Vercingétorix, Cas) en orichalque. – Revue Numismatique 160, 5-25.

Schmidt, B. / Nitzschke, V. 1989. Ein Gräberfeld der Spätlatènzeit und der frührömischen Kaiserzeit bei Schkopau, Kr. Merseburg. Berlin.

Schwab, R. 2005. Untersuchung eines spätkeltischen Prunkschwertes von Büchel, Kreis Cochem-Zell. In: Wegner, H.-H. (ed.). Berichte zur Archäologie an Mittelrhein und Mosel 10, (= Trierer Zeitschrift Beiheft 29). Trier. 327-336.

Šmit, Ž. / Istenič, J. / Gerdun, V. / Milić, Z. / Mladenović, A. 2005. Archaeometric analysis of Alesia group brooches from sites in Slovenia. – Arheološki vestnik 56, 213-233.

Šmit, Ž. / Istenič, J. / Perovšek, S. 2010. PIXE analysis of Late La Tène scabbards with non-ferrous openwork plates (and associated swords) from Slovenia. – Arheološki vestnik 61, 165-173.

Stead, I. M. 2006. British Iron Age swords and scabbards. London.

Werner, J. 1977. Spätlatène-Schwerter norischer Herkunft. In: Chropovský, B. (ed.). Symposium Ausklang der Latène-Zivilisation und Anfänge der Germanischen Besiedlung im mittleren Donaugebiet. Bratislava. 367-401.

Windl, H. 1975. Das latène- und kaiserzeitliche Gräberfeld von Mihovo, Unterkrain (Dolenjsko). Unpublished PhD thesis. University of Vienna.

Dr. Janka Istenič
The National Museum of Slovenia
Prešernova 20
SI-1000 Ljubljana
janka.istenic@nms.si

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

German Elements on the Northern Lower Danube Border during the Late Roman Period

Dorel BONDOC

Translated by *Dr. Mihaela Pena*

It is very well-known that in the Late Roman period, the Roman rule was reinstalled to the north of the Lower Danube (Tudor 1943, 134-149; 1973, 149-161; Toropu 1976, 13-38; Gudea 1982, 93-111; Toropu 1986, 45-60; Davidescu 1989; Benea 1996, 70-113; Bondoc 2002, 167-172; 2009, 27-167). Even if it was not a restoration of the former Dacia province, new fortifications were built or old ones were repaired by the river, and a lot of finds like stamped bricks or tiles, coins, fibulae, weapons, pottery and others, come from these sites (Bondoc 2009, 34-90).

Some discoveries are in contrast with the previous ones, because of their origins and owners. In many cases it is easy to recognize the artifacts belonging to the Germanic culture. Here I will bring the objects of Germanic origin, found in locations only near the line of the Danube[1].

According to the politico-military events of the time, I approched the issue in four distinct periods of time: I – the fourth century (between the reigns of the emperors Constantine the Great and Valentinian / Valens); II – late fourth century / early fifth century; III – the second half of the fifth century; IV– the sixth century.

Catalogue

I. The Fourth Century

The fourth century represents the period of the massive penetration of the Germans as *foederati* in the Roman army, especially beginning with the reign of Emperor Constantine the Great, after their defeat in AD 332 (Schmidt 1969, 227). The Germanic artifacts that can be accurately determined as dating from this century consist mostly of fibulae (**fig. 1**), with semi-round shaped head and rhomboidal-shaped foot (Almgren 1923, 78-79, 87; Ambroz 1966, 79-91; Diaconu 1973, 257-275).

Two of these fibulae come from *Sucidava* (Tudor 1948, 197, fig. 41/16; Toropu / Tătulea 1987, 99, fig. 23/1-2), one from *Drobeta* (Berciu 1939, 378, fig. 284), Lişteava[2] and Potelu (Toropu 1976, Pl. 18/8), and one has an unknown place of discovery[3], but it was surely discovered in Oltenia. All of them have been connected to the Gothic *foederati* (Toropu 1976, 113-114). It is important to mention in this respect that *Sucidava* and *Drobeta* were in the Late period two of the most important Roman fortified points on the Danube and the fibulae were inside these fortifications.

II. Late Fourth Century – Early Fifth Century

In the context of the permission granted to the Visigoths to settle south of the Danube by Emperor Valens, of their revolt and of the disaster suffered by the Roman army in AD 378 at *Hadrianopolis*, the Danube border situation as well as of the entire Balkan Peninsula, became extremely delicate (Mirković 2007, 94, Abb. 86). The Roman authorities were faced with huge problems, due to the presence on the territory of the Empire of a very large number of Goths. As a result of the Hunnish threat, the Goths were, however, pacified through a new *foedus*.

[1] For the all territory of Romania, see Harhoiu 1998.

[2] Unpublished.

[3] Unpublished.

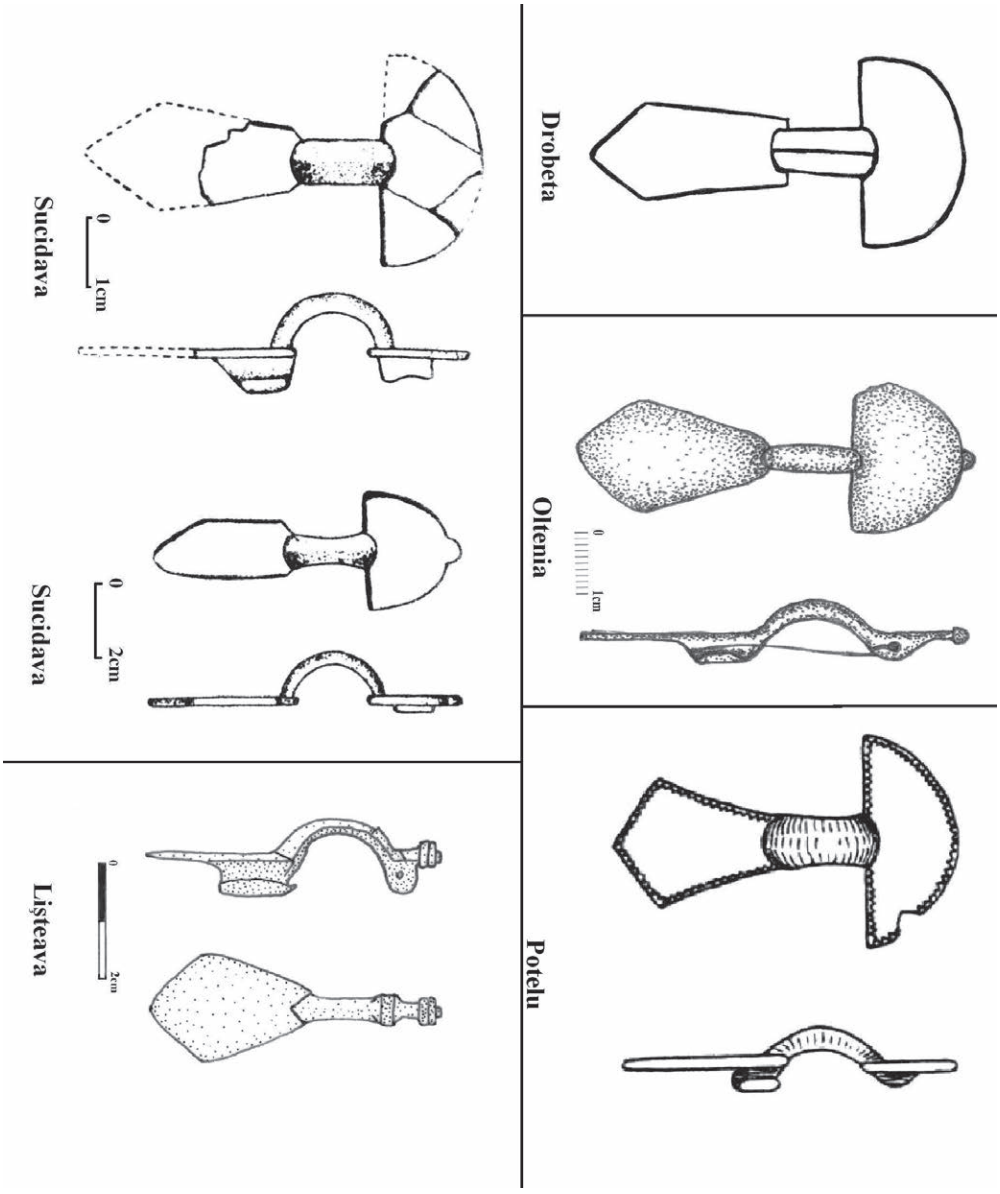


Fig. 1.

In the "bridgeheads" fortifications to the north of the Danube archaeological evidence was found of the Germans inside the Roman garrisons. It is about fibulae, bone combs, weapons and military equipment parts (**fig. 2**). All these originate from the inside or the immediate vicinity of some late Roman fortifications: *Dierna*-Orşova (Bishop / Coulston 2006, 221, fig. 139/5), *Drobeta* (Harhoiu 1998, 173, # 35), Hinova (Davidescu 1989, fig. 26/a-b, 19/g; Stângă 1998, Pl. 76/1-3, 78), Desa[4] and *Sucidava* (Tudor 1941, 372, fig. 8/f; 1965, 90, fig. 20; Toropu / Tătulea 1987, 146, fig. 53).

This could show the massive incorporation of the Goths in the Roman army, operation meant to supplement losses in the battle of Hadrianopolis.

A range of objects consisting of richly ornamented buckles, belt appliques and end-straps (**fig. 2**), deserve special mention. Best known are the ones found in the fortifications of *Sucidava* and Hinova. The complex of symbols used to decorate or engrave different objects in Kerbschnitt tehnique draws our attention: spirals, rosettes, volutes and other vegetal, zoomorphic and geometric motifs (Bishop / Coulston 1993, 177-179; Oldenstein 2007, 197-198).

All these motifs are found in abundance and in a variety of compositions unusual to the Roman artistic style (Roes 1955, 142). A map of the discoveries of this kind (Tejral 1999, 254, Abb. 26/1) shows

[4] Unpublished.

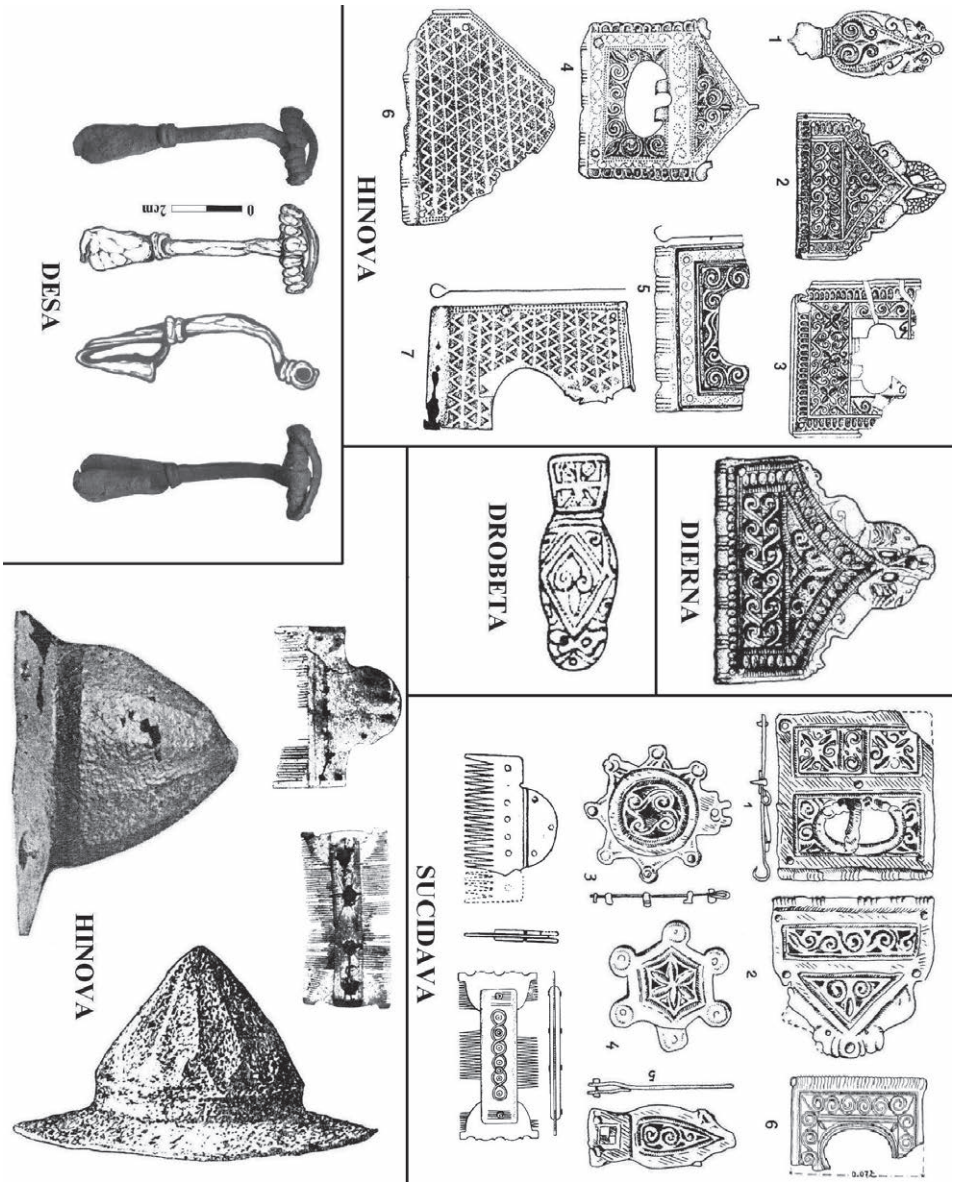


Fig. 2.

a massive concentration of objects of this type on the northern border of the Empire, hence, the conclusion that it is about Germanic artifacts.

There is not, however, a unanimity of views in this regard (Bishop / Coulston 1993, 179; 2006, 223-224). With needed caution in assigning to an ethnical group of such a large number of discoveries, it allows, however, their cataloging as Germanic-style objects (Feugère 2002, 196).

The discovery of such pieces of military equipment (Carnap-Bornheim 1999, 54-56) within the late Roman fortifications shows, however, the presence of the Germanic *foederati* inside these garrisons.

III. The Second Half Of The Fifth Century

This period corresponds to the total absence of Roman rule north of the Danube, after the collapse of the border of this river as a result of the Hunnic attacks. The territory north of the Lower Danube was occupied by the Huns, Ostrogoths and Alans.

We have information on our subject from several locations in the vicinity of the Danube (**fig. 3**): the island of Sapaja, Banatska (Stara) Palanka, Bistreţ, Orlea and *Sucidava*.

After the liquidation of the Roman rule, population of Eastern Germanic origin settled in the fortification on the island of Sapaja (Dimitrijević 1984, 61, T. 4/2), from which a few weapons, fibulae, combs, jewelry and tools are known.

Germanic artifacts (fibulae, ornaments, pieces of military equipment) were reported in the vicinity of the island of Sapaja, on the northern shore of

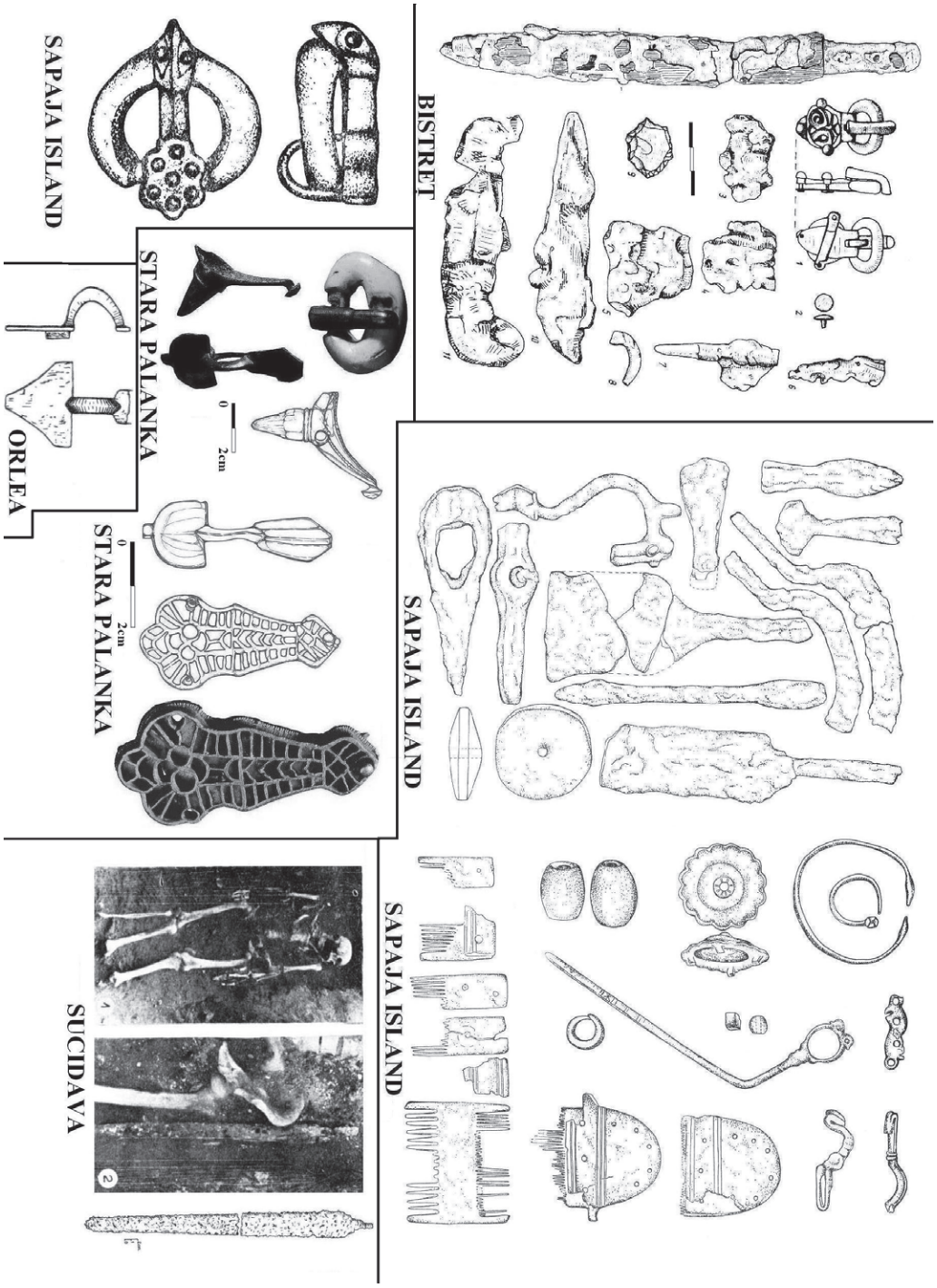


Fig. 3.

the Danube, in Stara Palanka (Kovačevič 1960, Tab. 17/76; Kazanski 2009, 389, fig. 112/5)[5].

An inhumation tomb of a Germanic warrior was discovered in the area of Bistreţ (Marcu 1987, 184-191). The inventory of the tomb contains an iron sword, a silver buckle, two bronze rivets, a steel together with a piece of flint, a link and a knife.

In the locality Orlea a fragment from a fibula with arched body and triangular-shaped foot was found (Toropu 1976, Pl. 18/7; Harhoiu 1998, 183, # 64)[6].

Finally, we present the latest information (in the the current state of research!) at *Sucidava*. A German warrior was buried along with his sword in the pe-

[5] The photos after www.muzejvrsac.org.rs.

[6] Unfortunately, the context of the discovery is unknown.

rimeter of the Late Roman fortification (Toropu / Tătulea 1987, fig. 32/1-2). The tomb was incorrectly dated in the second half of the fourth century (Toropu / Tătulea 1987, 94-95): the manner of burial, the presence of the short sword (Amon 2004, 179, # 26, Pl. 17/2) and the existing annalogies allow its dating to the second half of the fifth century.

IV. The Sixth Century

In the context of the disappearance of the power of the Huns (AD 454), beginning with the reign of Emperor Anastasius (AD 491-518) and especially during the reign of Justinian I (AD 527-565), the Roman rule was reinstalled on the Danube. This river became once again the northern border of the Empire, and some fortifications were rebuilt on its north shore (Toropu 1986, 56-59; Bondoc 2009, 177-192).

Germanic artifacts from this period have been reported up to now only in two locations along the line of the Danube – Kuvin and *Sucidava* (**fig. 4**), but this small number may reflect the current state of research and publications.

In Kuvin was found a rectangular plate buckle decorated with spirals, completed in the right side in a stylized eagle head (Kovačević 1960, Tab. 17/77; Rusu 1959, 522-523, Abb. 12)[7]. The archaeological context of the find is not known, but it certainly belonged to an important person of Germanic origin. These artifacts are usually attributed to the Gepids (Kazanski 2010, 127-139).

From *Sucidava*, I have to mention two discoveries. First, it is a grave under the foundations of the sixth century Christian basilica, located within the fortification (Tudor et al. 1980, 357-363). The osteological analysis carried out on the skeletal bones (Vasile 2006, 437-450) revealed unequivocally that it is an individual of the Nordic type (Vasile 2006, 441). The conclusion that he was a German, is the most likely at this point. The only Nordic populations who passed on to north of the lower Danube in the late Roman period were the Germanic ones.

The other discovery in *Sucidava*, this time a more spectacular one, occurred in 2003: two Germanic silver fibulae were found, 28 and 28.3 cm long respectively, on the surface of which gold plates decorated with cherry-coloured almandines were applied (Toropu et al. 1996, 7-14; Bondoc 2009, 365).

The tendency to date the two fibulae to the second half of the fifth century is natural (Harhoiu 1998, 99), but the discovery in the same archaeological level of a gold coin issued by Emperor Justinian (Moisil 2009, 84, # 18) proves unequivocally that they date from the sixth century[8]. The possibility that the two fibulae had been produced earlier, in the second half or in late fifth century (Ambroz 1966, Pl. 16), and remained in use until the sixth century, cannot be neglected.

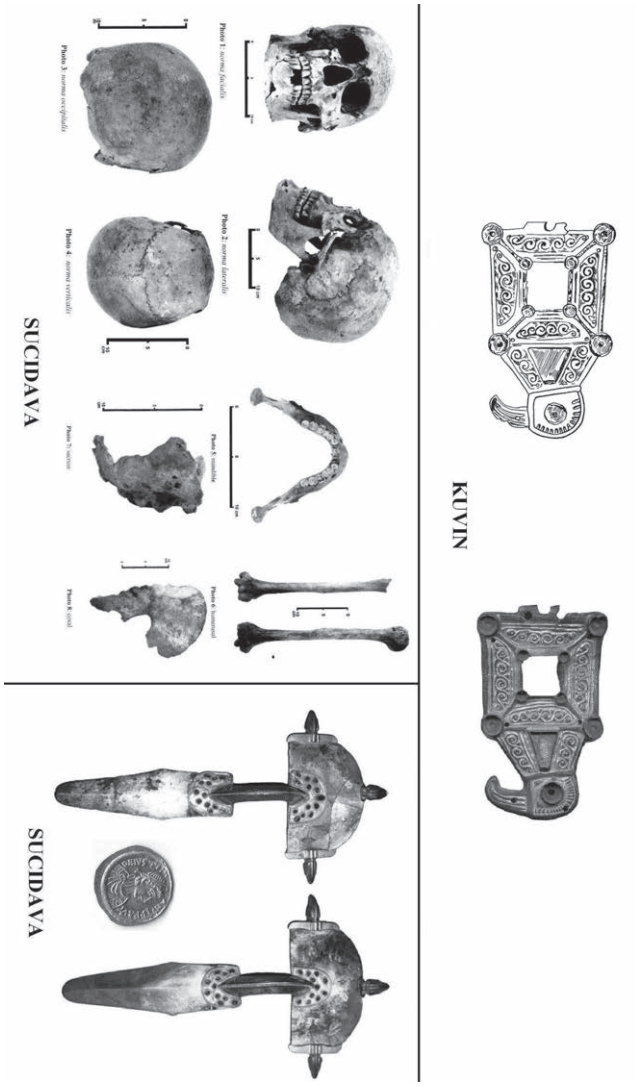


Fig. 4.

*

The four digital fibulae from the locality Izvoarele could document a strong Germanic presence at this point on the line of the Danube (Bondoc 2009, 288, Pl. 44). The manner these fibulae were made, their decoration in the Kerbschnitt technique and the available analogies allow us to

[7] The photo after www.muzejvrsac.org.rs.

[8] For a similar dating of a Germanic grave with similar brooches, from *Potaissa* (Turda), see Bărbulescu 2008, 97.

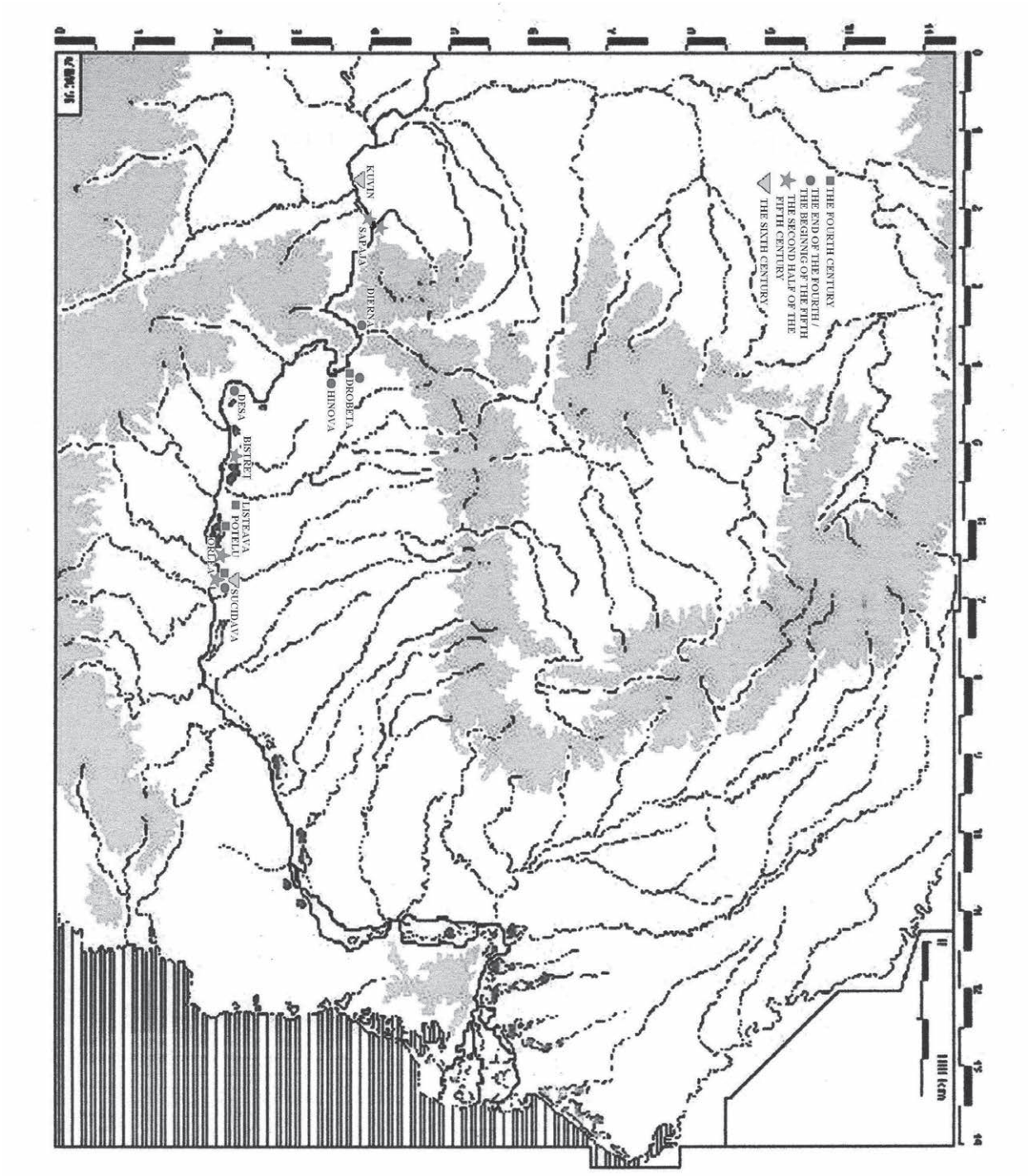


Fig. 5.

date them to the sixth century. In this case, because we deal with random finds, a more precise dating is not possible.

Discoveries of this kind have been made on the Danube River in the following locations: *Dierna*/ Orșova – two fibulae (Madgearu 1998, 57, # 37-38 with bibliography), *Drobeta* – two fibulae (Davidescu 1980, 218; Tudor 1976, 134, # 102), Izvoarele – four fibulae (Bondoc 2009, 288, Pl. 44), Orlea – three fibulae (Madgearu 1998, 57, # 34-36 with bibliography) and Desa (Popescu 1945, 505, fig. 11/121; Madgearu 1998, 54, # 13 with bibliography).

Because their origin (German, Byzantine, Slavic) has not yet been definitively established, the digital fibulae I mentioned above will not be included in this catalogue.

*

As we have already mentioned, findings of Germanic type have occurred on the northern Lower Danube (**fig. 5**), within or near Late Roman fortifications

(Kuvin, Sapaja Island, Banatska / Stara Palanka, *Dierna* / Orşova, *Drobeta*, Hinova, Desa, Bistreţ, *Sucidava*), or in the vicinity of the line of the Danube (Lişteava, Potelu, Orlea).

There are not only isolated objects, but also graves or dwellings, so we have effective presence of the Germans to the north of the Lower Danube during the Late Roman period. Some of them must have been *foederati* inside the Roman garrisons (*Drobeta*, Hinova, *Sucidava*) or outside (*Dierna*, Desa).

From the fourth century (between the reigns of Constantine the Great and Valentinian / Valens) we have six finds (**fig. 1**). All of them are fibulae.

From the period between the late fourth century – early fifth century there are five finds (**fig. 2**): objects of military equipment, weapons, combs and fibulae.

From the second half of the fifth century we have registered five discoveries (**fig. 3**): weapons, tools, combs, weapons, brooches, jewellery and military equipment; there are other finds, like those from Vădastra (Harhoiu 1998, 193, # 95) and Cioroiu Nou (Toropu 1976, 83, 208; Harhoiu 1998, 170, # 27), but these are too far from the line of the Danube.

From the sixth century, only two discoveries have been registered up to now (**fig. 4**): fibulae, buckles and a grave with no inventory.

The importance of the foreign allies in the Late Roman army on the Lower Danube as well as the significant presence of Germans in its structure have been pointed out once again in this case. With a few exceptions, the accurate ethnic origin (Visigoths, Ostrogoths, Gepids, etc.) of the finds cannot be determined. When we talk about Germanic groups to the north of the Lower Danube, we refer mainly to parts of confederations (Musset 2002, 242, 247; Bărbulescu 2008, 100). In this context, the attempts to establish the ethnic origin of the finds may lead to mistakes.

Alongside the Germanic artifacts, in some fortifications or in their vicinity fragments of Hunnish kessels have been found (Nestor / Nicolaescu-Plopşor 1937, 178-179; Tudor 1965, 87, fig. 18; Davidescu 1989, 71, fig. 25/e). This is another proof of the massive penetration of barbarians in the Roman army in the late period.

Bibliography

Almgren, O. 1923. Studien über nordeuropäische Fibelformen. – Mannus 32.

Ambroz, A. K. 1966. Fibuly juga europejskoj casti SSSR. – Archaeologija SSSR D1/30.

Amon, L. D. 2004. Armamentul şi echipamentul armatei romane din Dacia sud-carpatică. Craiova.

Bărbulescu, M. 2008. Mormântul princiar germanic de la Turda / Das germanische Fürstengrab von Turda. Cluj-Napoca.

Benea, D. 1996. Dacia sud-vestică în secolele III-IV. Timişoara.

Berciu, D. 1939. Arheologia preistorică a Olteniei. – Arhivele Olteniei 18, 101-103, ian.-iunie şi 104-106, iul.-dec.

Bishop, M. C. / Coulston, J. C. N. 2006. Roman military equipment. From the Punic Wars to the fall of Rome. Oxford, second edition.

Bishop, M. C. / Coulston, J. C. N. 1993. Roman military equipment. From the Punic wars to the fall of Rome. London, first edition.

Bondoc, D. 2009. The Roman rule to the north of the Lower Danube during the late Roman and early Byzantine period. Cluj-Napoca.

Bondoc, D. 2002. "Bridge heads" on the northern border of the Dacia Ripensis province between the 4th-5th centuries. In: The Roman and Late Roman City. The International Conference, Veliko Turnovo, 26-30 July 2000. Sofia. 167-172.

Carnap-Bornheim, C. 1999. Kaiserzeitliche germanische Traditionen im Fundgut des Grabes des "Chef militaire" in Vermand und im Childerich-Grab in Tournai. In: Fischer, T. / Precht, G. / Tejral, J. (eds.). Germanen Beiderseits des Spätantiken Limes. Köln / Brno. 47-61.

Davidescu, M. 1989. Cetatea romană de la Hinova. Bucureşti.

Davidescu, M. 1980. Drobeta în secolele I-VII. Craiova.

Diaconu, Gh. 1973. Über die fibel mit halbkreisförmiger kopfplatte und rautenförmigem fuss aus Dazien. – Dacia NS 17, 257-275.

Dimitrijević, D. 1984. Sapaja, rimsko i srednjovekovno utvrcenie na ostrvu kod Stare Palanke (Sapaja, fortification romaine et medievale dans l'île près de Stara Palanka). – Starinar 33-34, 29-62.

Feugère, M. 2002. Weapons of the Romans (trans. D.G. Smith). Gloucestershire.

Gudea, N. 1982. Despre graniţa de nord a provinciei Moesia I şi sectorul vestic al frontierei de nord a provinciei Dacia Ripensis de la 275 la 378 e.n. – Drobeta 5, 93-111.

Harhoiu, R. 1998. Die frühe Völkerwanderungszeit in Rumänien. Bukarest.

Kazanski, M. 2010. Les gepides en Gaule. In: Măgureanu, A. / Gáll, E. (eds.). Între stepă şi Imperiu. Studii în onoarea lui Radu Harhoiu. Bucureşti. 127-139.

Kazanski, M. 2009. L'époque hunnique au nord de la Mer Noire. In: Spinei, V. (ed.). Archéologie des peuples barbares. Bucureşti / Brăila.

Kovačević, J. 1960. Varvarska kolonizacija Južnoslovenskii oblasti. Novi Sad.

Madgearu, A. 1998. Continuitate şi discontinuitate la Dunărea

de jos în secolele VII-VIII. Bucureşti.

Marcu, D. 1987. Un mormânt de înhumaţie descoperit la Bistreţ, jud. Dolj. – Studii şi cercetări de istorie veche şi arheologie 38, 2, 184-191.

Mirković, M. 2007. Moesia Superior. Eine Provinz an Mittleren Donau. Mainz.

Moisil, D. 2009. Descoperiri monetare antice din România şi din zona Balcanilor. – Cercetări numismatice 15, 79-86.

Musset, L. 2002. Invaziile. I. Valurile germanice. Bucureşti.

Nestor, I. / Nicolaescu-Plopşor, C. S. 1937. Hunnische Kessel aus der Kleinen Walachei. – Germania 21, 178-182.

Oldenstein, J. 2007. Die spätromische Armee. In: Attila und die Hunnen. Herausgegeben vom Historischen Museum der Pfalz Speyer. Stuttgart. 195-207.

Popescu, D. 1945. Fibeln aus dem Nationalmuseum für altertümer in Bucureşti. – Dacia. Recherches et découvertes archéologiques en Roumanie 9-10 (1941-1944), 485-505.

Roes, A. 1955. Merovingian Fibulae. In: Ruysch, W. D. (ed.). Antiquity and Survival 1, # 2. Paris. 138-154.

Rusu, M. 1959. Pontische gürtelschnallen mit adlerkopf (VI-VII Jh. u. Z.). – Dacia NS 3, 485-523.

Schmidt, L. 1969. Die Ostgermanen. München.

Stângă, I. 1998. Viaţa economică la Drobeta în secolele II-VI. Bucureşti.

Tejral, J. 1999. Die spätantiken militärischen Eliten beiderseits der norisch-pannonischen Grenze aus der Sicht der Grabfunde. In: Fischer, T. / Precht, G. / Tejral, J. (eds.). Germanen Beiderseits des Spätantiken Limes. Köln / Brno. 217-292.

Toropu, O. 1986. Sucidava şi ripa nordică a limesului danubian în epoca romană târzie şi paleobizantină. – Oltenia. Studii şi comunicări 5-6, 45-60.

Toropu, O. 1976. Romanitatea târzie şi străromânii în Dacia traiană sud-carpatică. Craiova.

Toropu, O. / Tătulea, C. 1987. Sucidava Celei. Bucureşti.

Toropu, O. / Gherghe, P. / Bâciu, F. 1996. Şantierul arheologic Sucidava-Celei. – Analele Universităţii din Craiova, seria Istorie I.1, 7-13.

Tudor, D. 1976. Obiecte de metal din Drobeta, descoperite în săpăturile lui D. C. Butculescu (1883) şi Gr. G. Tocilescu (1896-1899). – Drobeta 2, 117-137.

Tudor, D. 1973. Preuves archéologiques attestant la continuité de la domination romaine au nord du Danube apres l'abandon de la Dacie sous Aurelien (III^{e}-V^{e} siècles). – Dacoromania 1, 149-161.

Tudor, D. 1965. Sucidava. Une cité daco-romaine et byzantine en Dacie. Bruxelles.

Tudor, D. 1948. Sucidava III. Quatrième (1942), cinquième (1943) et sixième (1945) campagnes de fouilles et recherches archéologiques dans la forteresse de Celei, département de Romanaţi. – Dacia. Recherches et découvertes archéologiques en Roumanie 11-12 (1945-1947), 145-208.

Tudor, D. 1943. Constantin cel Mare şi recucerirea Daciei Traiane. – Revista Istorică Română 11-12 (1941-1942), 134-149.

Tudor, D. 1941. Sucidava II. Seconde (1937) et troisième (1940) campagnes de fouilles et recherches archéologiques dans la forteresse de Celei, département de Romanaţi. – Dacia. Recherches et découvertes archéologiques en Roumanie 7-8 (1937-1940), 359-400.

Tudor, D. et al. 1980. Şantierul arheologic Sucidava-Corabia. – Materiale şi cercetări arheologice 14, 357-363.

Vasile, G. 2006. The anthropological analysis of a skeleton discovered at Sucidava-Celei (Olt County). – Cercetări arheologice 13, 437-450.

Dr. Dorel Bondoc
The Museum of Oltenia
RO-Craiova
dorelbondoc@yahoo.com
bondoc_ro@hotmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Presence of Rome in *Barbaricum*: Archaeological Evidence of the Interaction between Romans and Barbarians in the Târgşoru Vechi Area

Bogdan CIUPERCĂ / Andrei MĂGUREANU / Alin ANTON

The main archaeological interest at Târgşoru Vechi originally was not the Roman age (1st-3rd centuries AD). In 1956, it concerned medieval ruins and since the 1960s – the Chernyakhov culture cemetery. Still, by archaeological research of these two main sites, features dated to the La Tène and Roman ages were also discovered. Later, when the Roman bath was found partially covered by a medieval church, archaeologists turned their attention to the Roman period.

The archaeological reserve at Târgşoru Vechi is situated 9 km northwest from Ploieşti, in the proximity of the village of the same name. Placed on the right side of the road from Ploieşti-Strejnic to Târgşoru Vechi, the archaeological site is crossed by the Leaota River, now clogged up.

The Leaota River, one of the many tributaries of the Prahova River, crossed the piedmont plain of Ploieşti, in the north part of Wallachia. This river banks offered proper conditions for habitation since oldest times, especially in the area of present day Târgşoru Vechi village. Maybe, this is one of the reasons that one of the many episodes of interaction between the Dacians and the Romans around the beginning of the 2nd century occurred here.

Although insufficiently published, such sites demonstrate several problems, such as the way the Dacians helped the Romans build the fort, how locals and newcomers existed together, and why the Romans built forts north of Wallachia. Thus, we need to reassess the discoveries and attempt to answer some questions like: Where was the Roman fort and what did it look like? What is the chronological relation between the fort, the Dacian settlement (from the late La Tène period) and the 'free Dacian' settlement (**fig. 1/1**).

We will try to analyze all the archaeological information that we have related to those three components: Dacians from the La Tène period, Romans and "free Dacians" from the Roman period.

La Tène Period (2nd Century BC – 1st Century AD)

Unfortunately, Dacian features that can be dated before the Roman conquest are almost unknown. Only some brief notes record such discoveries.

In 1956, when the very first trench was surveyed, the first elements of a Dacian habitat were discovered. Despite that in a succinct note this settlement was considered to be "large and rich" (Diaconu et al. 1959, 619-629; Constantinescu et al. 1961, 632-636), it was never mentioned again and no further research was conducted in this settlement area.

As a consequence, the chronology of this Dacian settlement remains uncertain: 2nd – 1st centuries BC and, probably, 1st century AD, based on the archaeological materials found, especially pottery and some tools. A brief, but important mention is that in neither of the cases of La Tène structures was a burnt layer found. This, together with the fact that no Roman imports were found in these La Tène structures, make a date before the beginning of the 1st century AD (before the Roman presence in the Wallachian plain in any case) a reliable one.

The Roman Structures (1st – 2nd Centuries AD)

As already mentioned, in 1956, the first trench, marked A I, was placed perpendicularly across the medieval enclosure, which was still visible on the ground. The purpose of this trench, 163 m long and 1.5 m wide, was to identify more clearly the archae-

ological potential of the site, where fieldwalking previously had identified "the most numerous and representative archeological materials" (Diaconu et al. 1959, 620).

This was the moment when the first finds, mostly pottery dated to the Roman period, appeared in the *e-f* and *g-h* sectors of the trench AI/1956. But the most important were the bricks with a legionary stamp. Among the numerous fragments of anepigraphic ordinary bricks (Diaconu et al. 1959, 625: square or hexagonal bricks, the last ones possibly medieval) were also found stamped bricks of the *legio XI Claudia P. F.* Unfortunately, most of them were discovered in the fill of medieval pits (Diaconu et al. 1959, 625, fig. 5).

The single archaeological complex in the researched area was a platform of river stones illustrated by a section drawing from the sector *e-f*. According to this drawing, the estimated thickness of this platform was almost 0.40 m and was 6 m long at least. This complex was interpreted either like a construction within the text, or like a pavement in the figure legend (Diaconu et al. 1959, fig. 2). Summing up the discoveries, the researchers believed that it was a pavement related to a construction (Diaconu et al. 1959, 624), dated to the Roman period according to the sherds discovered among the river stones.

An inhumation grave with a Roman date under this stone platform (Diaconu et al. 1959, 621, 624) also raises a series of questions. This grave, found 0.75 m deep, was covered by sandstone blocks, like a small mound, and its chronology was based on a sherd, un-illustrated: a fragment of a stamp, rectangular, the only letter still visible being "N".

To about 8 m east from this stone platform, a new archaeological complex was identified and, based on its characteristics, the researchers relate those two. This time the platform was made of river stones and gravel, it was 6 m long and 0.20-0.30 m thick. It is either upon dark yellow soil, or disturbs the La Tène layer.

The fact that even in this very first campaign, stamp bricks of *legio XI Claudia P. F.* were found, make archaeologists believe that in the area was the "place" of this legion. At that moment, it was considered that all Roman findings suggest a date around the beginning of the 2nd century AD, during the military campaign of Trajan.

In 1957 and 1958, new trenches brought new data about Roman inhabitation. The new information, which changed the 1956 ideas, was published in a report in 1959.

Based on the archaeological campaigns from 1957-1958 (trenches I A2, I A4, I A5 and I A6), the archaeologists were certain that a Roman fort was to be found in the area. They also considered that the platforms identified in 1956 belonged to a moment subsequent to the existence of the fort, being built with materials taken from the fortification, especially bricks and *tegulae* with mortar remains (Constantinescu et al. 1961, 638).

A new campaign brought a new chronological suggestion. In 1959, the platform was considered Roman, again, and based on data from trench I A9 it was dated at the end of the 1st and the beginning of the 2nd century AD (Diaconu / Constantinescu 1962, 537).

This chronological idea was also maintained when a monograph of Sântana de Mureş – Chernyakhov cemetery was published in 1965 – an occasion to summarize all the data about Roman discoveries from Târgşoru Vechi (Diaconu 1965, 11). Some important chronological observations were that the Roman fortification can be precisely dated with the help of coins of emperors Nerva and Trajan and 10 stamped bricks of *legio XI Claudia P. F.*

In 1960 and 1961, new evidence of Roman presence was discovered (Diaconu 1965, pl. II, pl. IV: all information is according to the published illustration). In the region of the Sântana de Mureş – Chenyakhov cemetery, in area 6 C, next to its southwest limit, a pit was found under the grave M 185. A new pit appeared in the south part of area 12 A, under the grave M 141, while a third one was explored in the west corner of area 14 A, under the grave M 269. Other four pits were found in areas 11 A and 15 A.

Besides the pits, two special archaeological structures were also found.

First, in trenches I A9 – I A10 and in areas 6 A and 9 A, a large structure, irregular oval in shape was identified, main axes measuring 6.50 x 3.20 m. This large pit (according to the illustration legend) had a northeast – southwest main orientation and contained a large amount of stone.

The second archaeological structure was, according to the map legend published in 1965, a kiln. This was discovered in areas 9 A and 11 A and had both an oven and an access pit, 5.80 m long and 2.30 m wide, main axis having a north-south orientation.

But the most important Roman structure was discovered in the 1970s. It was the years when the Roman bath was discovered, especially the 1976-1978 campaigns (Tzony / Diaconu 1979, 263). The short report published in 1979 reveals that important

parts of the bath like the *praefurnium*, a room with hypocaust and cold-water basins were identified.

In the same campaigns, another important structure was explored, which also remains unpublished. It is a building of the Roman fort, with an apse on one side (Tzony / Diaconu 1979, 263). It was noticed that a stone pavement was connected to this building. A chronological idea about the date of this complex was given by archaeological materials found among the stones, all suggesting the end of the 1st century AD (Tzony / Diaconu 1979, 264).

The report from 1979 sketched "some problems that must be followed in the future. First of all, the research in the area of the Roman fort must be increased, in order to establish its characteristics (made of earth or stone), plan of fortification, construction technique, relation between the fort and the bath, and the connection between the Roman structures and the Geto-Dacian layer, which can demonstrate a similar situation to that at Drajna" (Tzony / Diaconu 1979, 264).

Unfortunately, these goals remained, for different reasons, just an intention. Not even the structures already discovered and researched were published.

Summing up all the published information and mapping all the structures that can be dated to the Roman period (except for the Roman bath), we can see that they are concentrated in a small area, northeast of the Leaota River, measuring 10 000 m^2 (100 x 100 m).

Position of the Fort

The intention to mark the correct position of the fort, based on the spatial distribution of bricks and *tegulae* next to Roman bath, takes no count of the structures identified in different trenches. The fort area was hypothetically marked as a square of 70 x 70 m, crossed on a north-south axis by a modern road and with its sides orientated to the cardinal points.

Based on this placement of the fort, at the end of the 1980s, a reroute of the modern road was suggested, in order to avoid the Roman monument and to fully integrate it in the protected area of the archaeological reserve.

Nevertheless, in a recent article it has been noted that "we know of the existence of an earth fortification, at Târgşor, but its precise dimensions and shape have not been identified, yet" (Zahariade / Lichiardopol 2006, 128).

This goal, to locate the exact position and dimension of the fort, was the starting point for a new research, this time based on aerial and satellite photography, captured either from private flights from Strejnic airport, or from online sources like Google Earth, Bing Maps or Yahoo Maps, together with ground photos (Măgureanu / Ciupercă / Anton 2012, 169-171).

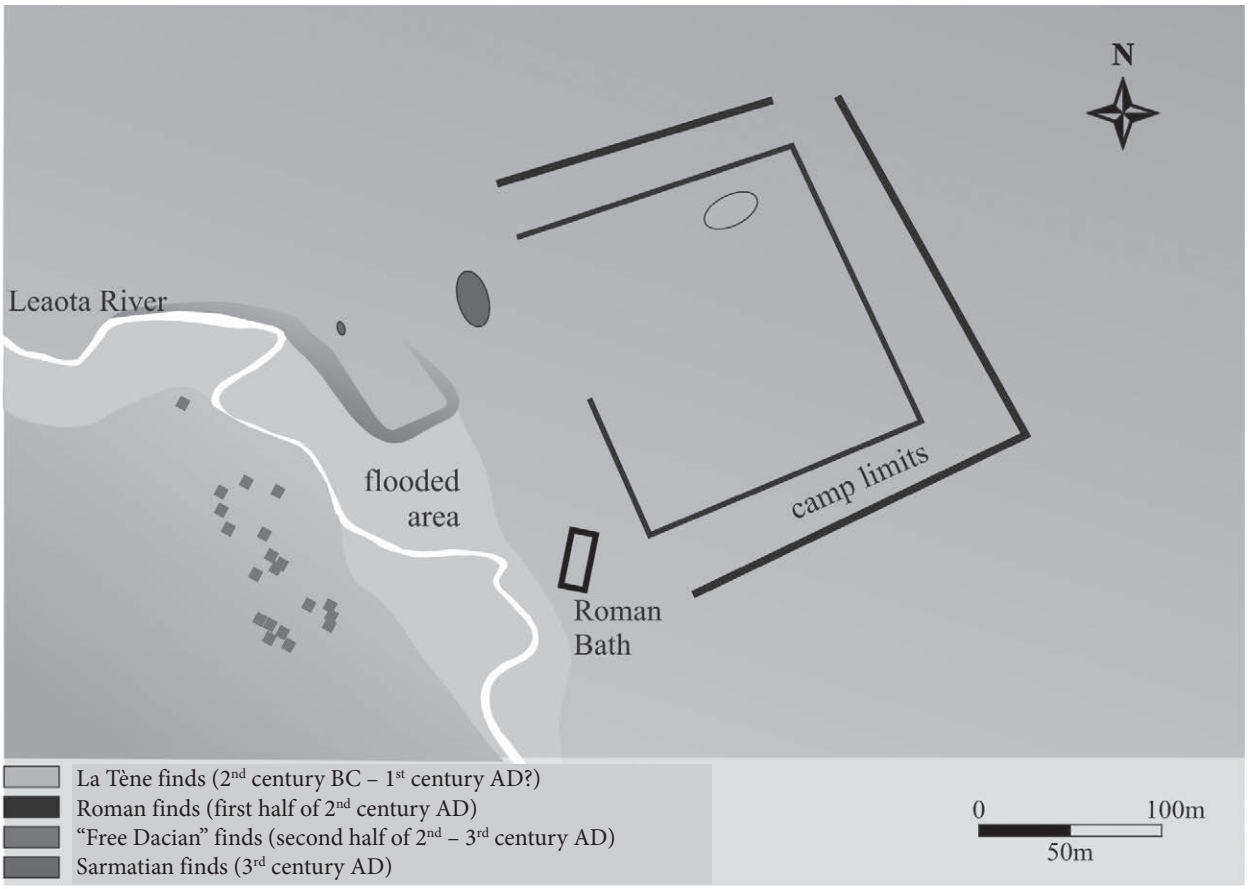
The overlaying of all the data had a surprising result: a square perimeter framed by another one, this time with three sides, placed to the north, east and south from the first perimeter. The fact that to the west there is no side of the second perimeter is more probably due to the Leaota River and its floodplain (**fig. 1**).

This situation, of a fort that has a double earth fortification on three sides, is not a singular one. It was already known from various forts. We can quote some good analogies, without intention to fully discuss this problem. In this respect we can mention the case of the *castella* at Rucăr (fig. 7b) and Putineiu (Bogdan-Cătăniciu 1997, 105 and fig. 76-77), or the fort at Bistreț (Tudor 1978, 216, fig. 46). Other forts, like those at Băneasa or Urluieni, have double sides as well (Tudor 1978, 216, fig. 44.5; Marcu 2009, 181, pl. 40).

Based on what the photos suggest, for the fort of Târgşoru Vechi, internal dimensions of 170 x 170 m from *vallum* to *vallum* can be suggested. Of course, those dimensions have only a guidance character and do not represent an absolute measurement. The fort itself was smaller, taking into consideration that after the *vallum* there is an area of some 2 m wide, so-called berm, and after that the walls of the fort (for example in case of Mălăieşti and Cincşor, the berm is 2 m wide, at Râşnov it is 2.25 m; cf. Ţentea et al. 2012, 130; Damian et al. 2007, 44, 50-51).

Those dimensions, even if they seem to delimitate a large perimeter, are in fact very similar to those of forts from Bumbeşti (Tudor 1978, 221; Marcu 2009, 120: 167 m east side, the only one preserved intact), Purcăreni (Tudor 1978, 240; Marcu 2009, 213: 160 m west side, the only one preserved intact), Mălăieşti (Ţentea et al. 2012, 130: 160 m north-south axis) and others (Teodor 2006, 231, fig. 11).

The correct dimensions of a fortification are important, because the relation between the area of a fort and the quantity of troops suggests that a different perimeter, a bigger one, implies the capacity to protect a larger garrison than the one presumed for a fort of only 70 x 70 m (dimensions of the old perimeter proposal). If our interpretation of the available data is correct, then we can no longer speak about a *castellum* at Târgşoru Vechi, as previously supposed according to the available information at that time (Bogdan-Cătăniciu 1997, 49, note 86).



1

2



Fig. 1. 1 Roman period (1st-3rd century finds); 2 ground photo of the Roman fort (2012)

Military Troops at Târgşoru Vechi

Based on the brick stamps (**fig. 2**) found at Târgşoru Vechi (Zahariade / Lichiardopol 2006), all the military troops were part of the army of *Moesia Inferior* (for recent discussions on the Roman army in Wallachia, see: Bogdan-Cătăniciu 1997, Petolescu / Matei-Popescu 2008, Matei-Popescu 2010), Wallachia being under the authority of this province's *legatus* (Matei-Popescu / Ţentea 2006, 79).

At Târgşoru Vechi, the best known unit is *legio XI Claudia Pia Fidelis*, part of the army of *Moesia Inferior* (for a full discussion of its activities in the Lower Danube region, see Matei-Popescu 2010, 261-264). In the first years of the 2nd century AD, this legion arrived at *Oescus* and was shortly involved in the Dacian wars. Soon, as the typology of stamps shows (at Târgşoru Vechi were found bricks of type A: *LEG XI CPF* in *tabula ansata*, see Matei-Popescu 2007, 297), *vexillationes* of this legion were dispatched to several forts in Wallachia: Drajna de Sus, Pietroasele, Târgşoru Vechi, Voineşti, and, after a while, to forts in Oltenia: *Buridava* and *Romula* (Matei-Popescu 2010, 263; Stăicuţ 2010, 211-213). It seems that this withdrawal from Wallachia took place in the 118-119 AD (Barnea / Ştefan 1974, 23).

During recent research, Dan Lichiardopol found a brick with a special stamp. Despite its fragmentary state, it was considered to be a stamp of *legio I Italica* (Zahariade / Lichiardopol 2006, 123, fig. 2f). This stamp represents a singular discovery but nonetheless it records that a detachment of this legion was here, considering the composition of troops attested at Drajna de Sus, as well.

There is also another unit coming from the army of *Moesia Inferior*, which is well confirmed in the fort at Târgşoru Vechi: *cohors I Flavia Commagenorum equitata sagittariorum* (Matei-Popescu / Ţentea 2006, 87; for a complete bibliography on this unit: Matei-Popescu 2010, 206, note 1780). As the stamped bricks show, *vexillationes* of this troop were part of the garrison of the forts at Jidova, Drajna de Sus and Voineşti. This fact was at the base of the hypothesis that all those forts were used at the same time (Bogdan-Cătăniciu 1997, 113), being built under Trajan probably simultaneously (Petolescu 2002, 24).

Cohors I Flavia Commagenorum was one of the units that participated in the Dacian wars. Soon, after a short stay in Wallachia, it was relocated to the *limes Alutanus,* as the brick stamps confirm, as part of the army of *Dacia Inferior* (Petolescu / Matei-Popescu 2008, 361 and Table 1). Detachments of this unit were to be found in the forts at *Acidava*, *Romula* and Slăveni (Tudor 1958, 273) as a strategy that involved the abandonment of the forts in Wallachia and repositioning of the troops on the *limes Alutanus*.

It is interesting to note that in the forts in Wallachia were found stamps both of *legio XI Claudia Pia Fidelis* and of *cohors I Flavia Commagenorum*. One explanation can be that a *figlina* from Drajna de Sus produced bricks for the forts at Târgşoru Vechi, Mălăieşti, Voineşti sau Rucăr (Zahariade / Dvorski 1997, 50). On the other hand, this fact can be a suggestion either of a collaboration of those two troops, or of successive garrisons, but this is another discussion.

Anyway, their presence in Wallachia's forts seems to have had the purpose to block the routes from the mountains to the South (Zahariade / Dvorski 1997, 18; Bogdan-Cătăniciu 1997, 49-50; Petolescu 2002, 23, 24; Matei-Popescu 2010, 268), Târgşoru Vechi fort being part of the defensive line, next to Drajna and Mălăieşti (Zahariade / Dvorski 1997, 65; Petolescu 2010, 163), abandoned under Hadrian in accordance with his military strategy.

At least, this role of defending Wallachia against a possible threat from the north was more probably only one of the reasons to build the forts. Another motive was to protect the main roads along the Teleajen River that connect the south and north sides of the Carpathian Mountains. This was a clearer motivation after the forts at Breţcu and Hoghiz, that controlled the South-East Transylvania, were built (Petolescu 2010, 164). In order to cross the mountains, Romans used more probably the Tabla Buţii pass, which was used till the Middle Ages.

Free Dacian Settlement (2nd – 3rd Centuries AD)

While the Roman structures are on the left bank of the Loeta River, the free Dacian settlement is placed on the right bank. Its chronology in the 2nd – 3rd centuries is based predominantly on metal finds (several types of fibulas), bone combs and Roman coins.

In 1962, the archaeological investigations in the area of the right bank of the Leaota River began. Since then, over 6000 m^2 in 30 trenches and 35 squares have been excavated. The results consist of 20 dug-in buildings dated to the Roman period (2nd – 3rd centuries AD).

There is a standard settlement for the epoch in the North-Danubian area, with simple structures without fireplaces inside, pits (garbage and storage ones) and open-air hearths between the buildings. There are

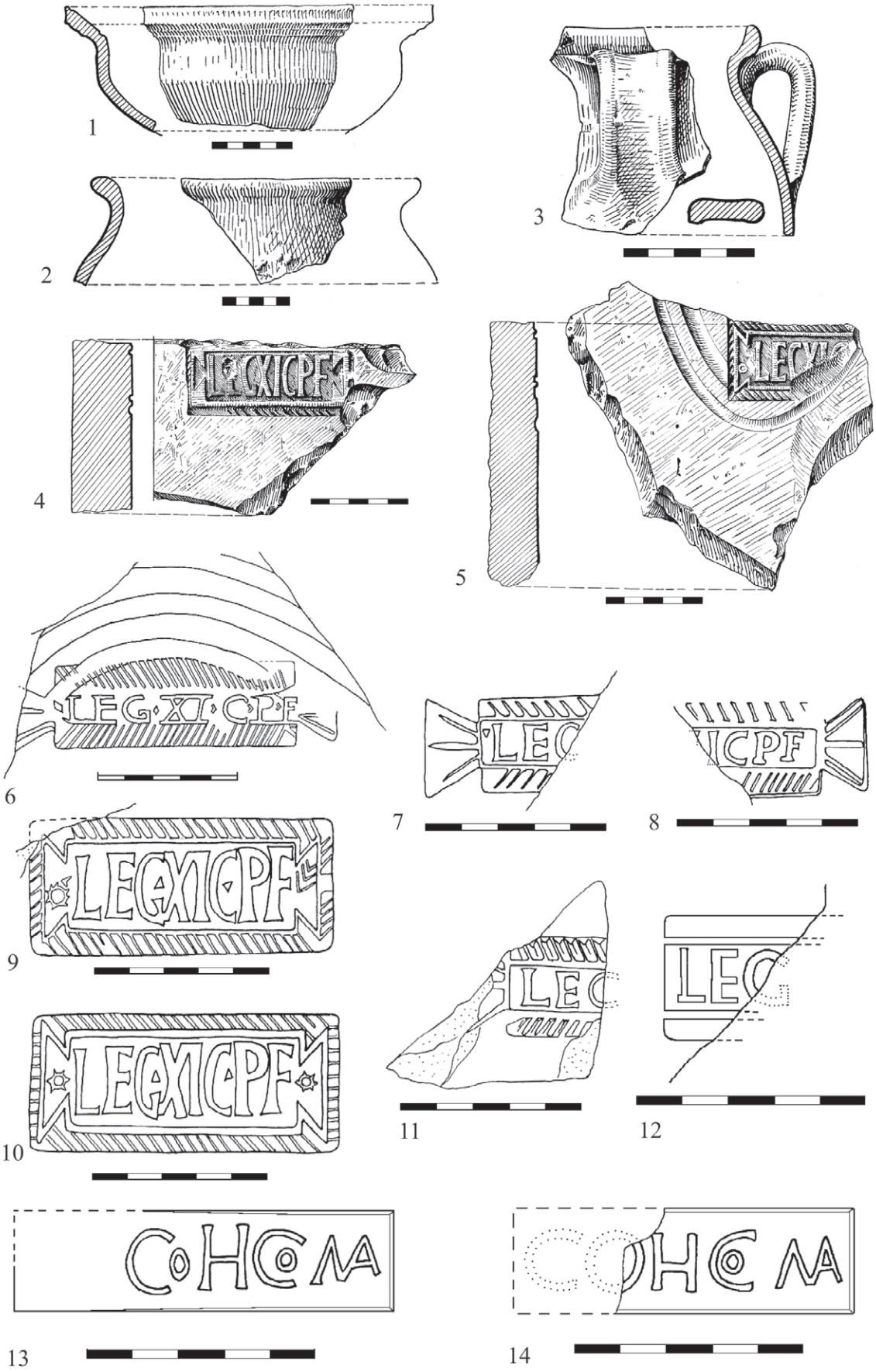


Fig. 2. Târgşoru Vechi, Roman period finds: 1-3) pottery (after Diaconu 1965, pl. V), 4-14 stamps of Roman troops (4-5 after Diaconu 1965, pl. VI; 6-14 after Zahariade / Lichiardopol 2006, fig. 2/f; fig. 4/c-d, f-h; fig. 5/e-f)

rectangular dwellings with a dug-in floor, with a surface between 2.30 x 1.50 m and 3.90 x 3.30 m.

The dwellings seem to have been arranged in groups, around an empty space that probably had a special role for the community daily life (Diaconu 2009, 28-29). The spatial analyses of the settlement suggest that there was more than one habitation level, and the distance between some buildings was less than 1 meter. This observation is not sustained, unfortunately, by other kind of data, because there is no overlapping between the dwellings and there are no stratigraphic layers that can be used in order to observe a succession in time of different archaeological structures of this settlement.

Unlike the La Tène epoch settlement, in these dwellings Roman imports were found in a surprising variety, next to local characteristic pottery (**fig. 3**). The same mixture of materials, of Roman and Dacian origin, was found both in the area of the fort and the Roman bath, proving, according to some opinions, a cohabitation of Dacians in the neighborhood of the Roman fort (Diaconu 2009, 28). The same situation was documented in other Roman forts, as is the case with the major fort at Drajna (Diaconu 2003, 192; Ștefan 1945-1947, 115-147).

Sarmatian Cemetery (3rd Century AD)

The first graves of this cemetery were explored during the earliest archaeological campaigns, on the left bank of the Leaota River, 150-200 m east from the "free Dacian" settlement, but in the shadow of the Roman fort. This cemetery is better published (Niculescu 1993, 197-220; Niculescu 2003, 177-205) and we will mention just some characteristics. Till present day, there have been documented 36 inhumation graves, ascribed to the Sarmatians due to the details of the ritual (head to the north) and funerary objects (pottery, fibulas, beads, mirrors, etc.) found next to the deceased. About 50% of the graves were looted in antiquity. Placed in simple rectangular pits, some of the deceased have artificially deformed skulls.

Conclusions

The first conclusion is related to a certain dynamic of the habitation of space in the 1st – 3rd centuries AD. The existence of Dacian fortifications attracted Roman attention by building forts in the surrounding areas (**fig. 4**); the presence of the Roman forts resulted in the establishment of the "free Dacian" settlements, especially after Hadrian withdrew from the Wallachian plains – a fact that can be related to the Sarmatian presence as well (Niculescu 2003, 186).

As we can observe, in the space between the Carpathian Mountains and the Danube, for the late La Tène (1st century BC – 1st century AD), there were a lot of *davae* placed usually in proximity to the river (main communication routes) dispersed in the entire territory (Turcu 1979; Conovici 1985).

The picture changed in the second half of the 1st century AD, when *davae* were no longer placed near the Danube, but in the hills area. This can be an argument of the Roman policy of creating a "no man's land" in the Danube region (Bichir 1984, 96; Petolescu 2010, 80). Most of these fortifications controlled important routes that linked the Danube with the intra-Carpathian area: Tinosu and Coada Malului controlled Prahova and the corridor Rucăr – Bran; Făget, Gura Vitioarei and Homorâciu controlled the Teleajenul Valley and the Tabla Buții pass.

It can easily be observed that all three Roman forts (Târgșoru Vechi, Mălăiești, Drajna de Sus) were placed in the vicinity of late La Tène fortifications, used till the dawn of the war that brought the Roman legions in the Wallachian plains. For example, the Roman fort at Târgșoru Vechi is some 10 km north-east from Tinosu and in a similar distance from Coada Izvorului, controlling the area between the Prahova and the Teleajen Rivers, one of the most important ancient route crossings. In the case of the Mălăiești Roman fort, we can note that it was placed at the junction of the Vărbilău and the Teleajen Rivers in the surrounding area of Dacian fortifications at Făget (5 km north-east) and Gura Vitioarei (7 km north-east). Drajna de Sus Roman fort, the largest of all three, was placed only 4 km south-east from the Dacian fortification at Horomâciu and 12 km north-east from that at Gura Vitioarei, having under surveillance the important Tabla Buții pass.

After the Romans withdrew, the space was immediately occupied by the settlements of the "free Dacians" in the hills area, and by Sarmatians in the plain region (Harhoiu / Spânu / Gáll 2012, 30, fig. 2).

A detailed view of these dynamics can be observed at Târgșoru Vechi, by analyzing the position of the 1st-3rd century discoveries related to the Leaota River. It is easy to see that the Roman fort had a different position than that of the "free Dacian" settlement, but the same as the late La Tène Dacian settlement and the Sarmatian cemetery.

First we should note that the Roman fort occupied the area of a Dacian settlement. This fact points to the idea that Romans were alone in the Târgșoru Vechi area at the moment when they built the fort. Also, Sarmatian graves were in the close vicinity of the west side of the fort and it is possible that future

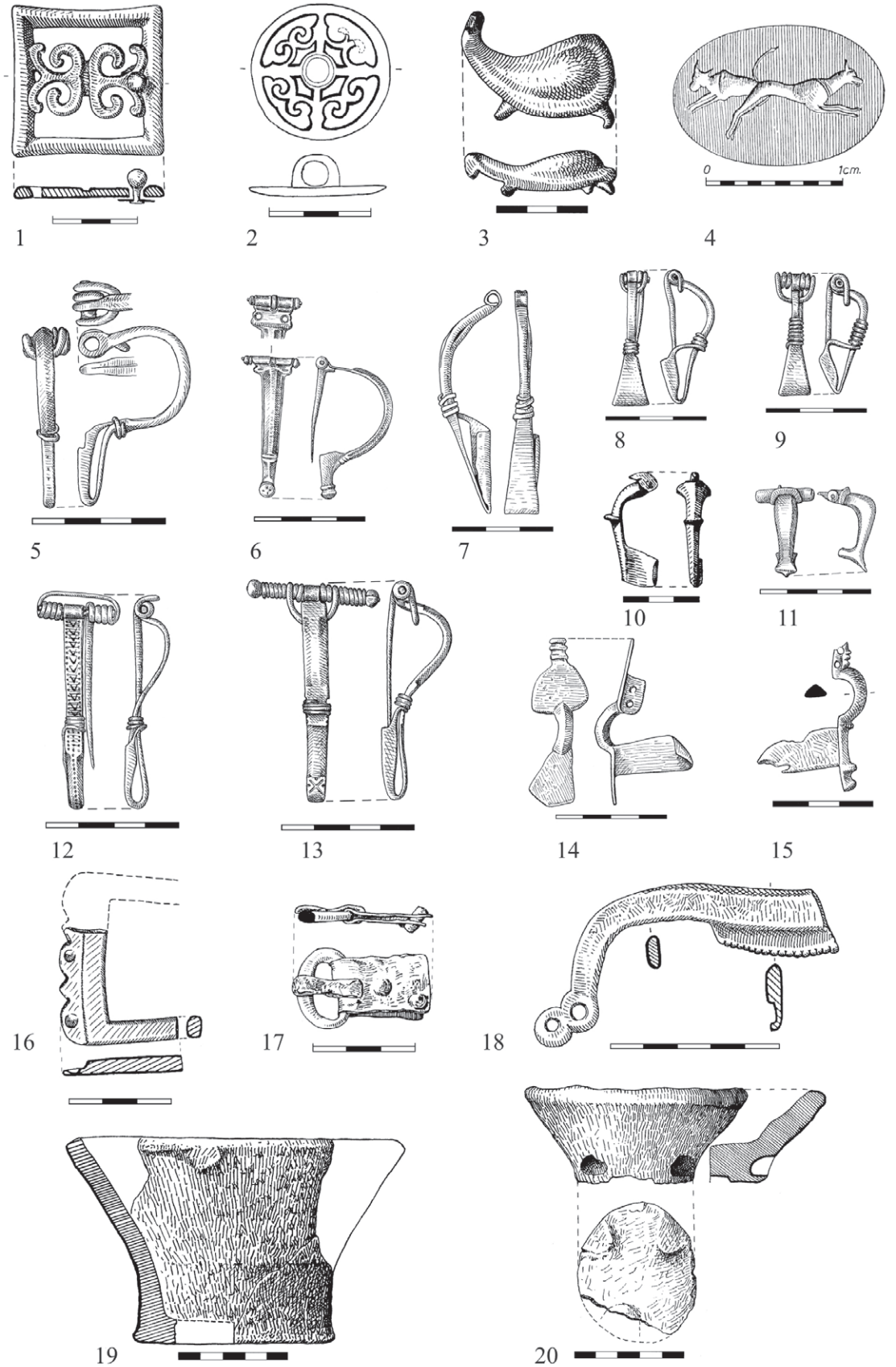


Fig. 3. Târgşoru Vechi, "free Dacian" settlement: 1 fragment of a buckle, 2 phalera, 3 applique, 4 gem stone, 5-15 fibulas, 16-17 buckles, 18 horse curb, 19-20 pottery (after Petculescu 1999, 897, pl. 2/21, 22; pl. 3/10, 19, 20; Diaconu 1965, pl. VII/1, 7; pl. VIII/1, 2, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18; Diaconu 2009, fig. 2/1, 2, 3, 5, 8, 10; fig. 3/1, 2, 3, 13; fig. 5/5, 7, 9; fig. 6/2)

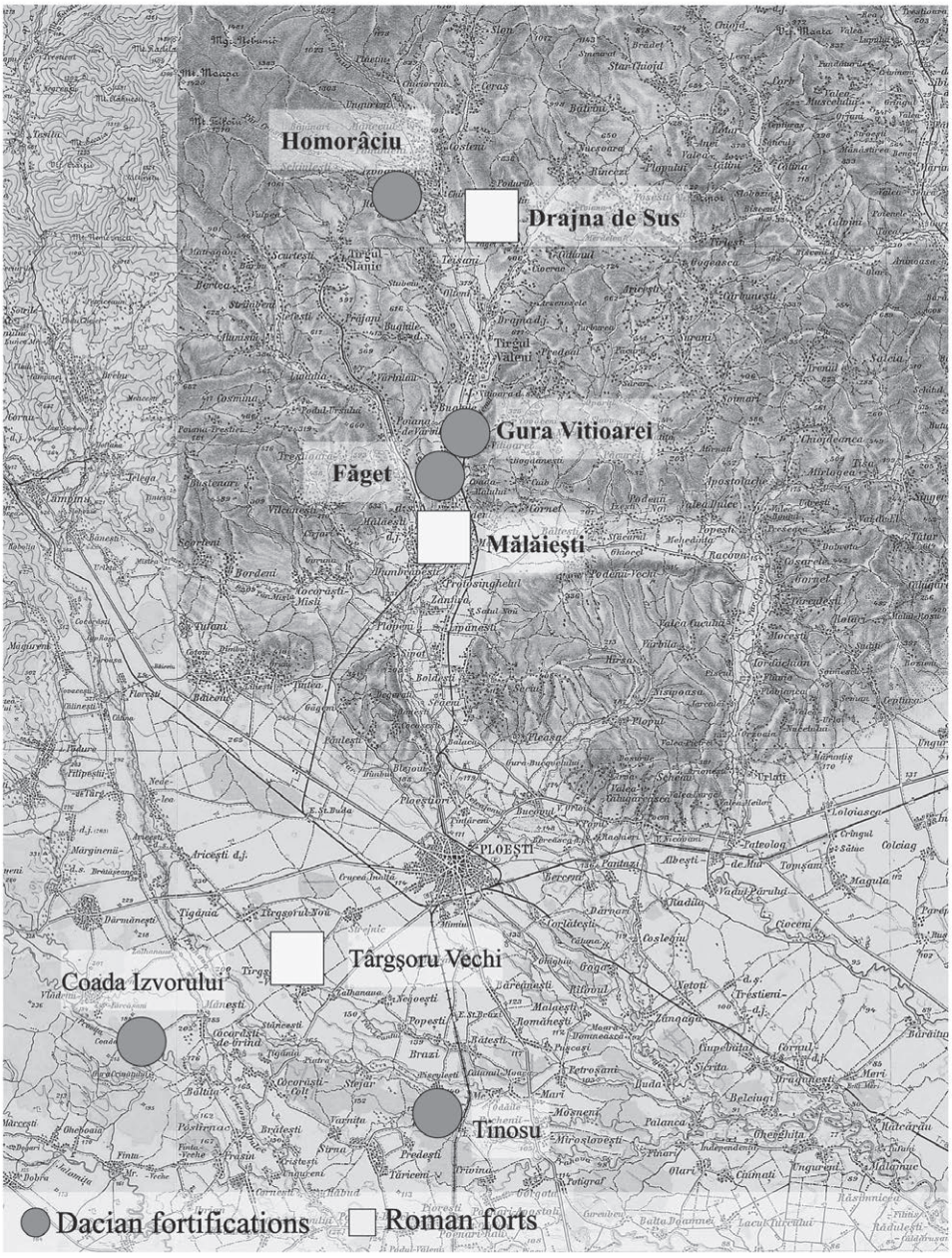


Fig. 4. Distribution of Dacian fortifications and Roman forts (Prahova County)

archaeological research will prove an effective overlapping between those two archaeological sites (fort and cemetery). This close vicinity would be impossible if the fort was still active, so, the presence of the Sarmatians should be dated sometime after the Romans departed.

The "free Dacian" 2nd-3rd century settlement was developed, as we already mentioned, to the west of the fort, on the other bank of the Leaota River. The natural barrier between fort and settlement can sustain the idea of coexistence for a while of those two. Another argument is the presence of Dacian pottery in the Roman fort area, as well as the presence of Roman military equipment and other objects in the "free Dacian" settlement. What we can say for sure is that the settlement existed after the Romans had abandoned their fort.

Moreover, the fact that Sarmatian graves let the river between the area of the "free Dacian" settlement and their cemetery, can suggest at least a partial contemporaneity of those two groups.

Therefore, the simple notion of dynamics of population – one comes, while the other goes, at least from the point of view of the archaeological discoveries from Târgșoru Vechi, appears to be far more complex. If someone comes, it does not necessarily mean that the other goes. It is not necessary to imagine just conflict situations between antago-

nistic populations. The picture is more complicated and, in some circumstances, the main characters can coexist, which, in certain instances, seems to be the case at Târgşoru Vechi.

Bibliography

Bichir, Gh. 1984. Geto-dacii din Muntenia în epocă romană. Bucureşti.

Bogdan-Cătăniciu, I. 1997. Muntenia în sistemul defensiv al Imperiului Roman. Alexandria.

Conovici, N. 1985. Aşezări fortificate şi centre tribale geto-dacice din Muntenia (sec. IV î.e.n – I e. n.). – Istros 4, 71-87.

Constantinescu, N. / Diaconu, Gh. / Popescu, D. / Teodorescu, V. 1961. Şantierul arheologic Târgşor. – Materiale şi Cercetări Arheologice 6, 632-636.

Diaconu, Gh. 2009. Dacia în epoca primelor migraţii (secolele al II-lea – al IV-lea d. Hr.). Bucureşti.

Diaconu, Gh. 2003. Târgşor – un sit milenar. Studii de istorie şi arheologie. Ploieşti.

Diaconu, Gh. 1965. Târgşor. Necropola din secolele III-IV e. n. Bucureşti.

Diaconu, Gh. / Morintz, S. / Rosetti, D. V. / Cantacuzino, Gh. 1959. Săpăturile de la Târgşoru Vechi. – Materiale şi Cercetări Arheologice 5, 619-629.

Diaconu, Gh. / Constantinescu, N. 1962. Şantierul arheologic Târgşor. – Materiale şi Cercetări Arheologice 8, 537-545.

Harhoiu, R. / Spânu, D. / Gáll, E. 2011. Barbari la Dunăre. Cluj-Napoca

Matei-Popescu, F. 2010. The Roman army in Moesia Inferior. Bucureşti.

Matei-Popescu, F. 2007. Participarea legiunilor din Moesia Inferior la expediţiile dacice ale lui Traian. In: Nemeti, S. et al. (eds.). Dacia Felix. Studia Michaeli Bărbulescu oblata. Cluj-Napoca. 290-300.

Matei-Popescu, F. / Ţentea, O. 2006. Participarea trupelor auxiliare din Moesia Superior şi Moesia Inferior la cucerirea Daciei. In: Teodor, E. S. / Ţentea, O. (eds.). Dacia Augusti Provincia. Crearea Provinciei. Actele simpozionului desfăşurat în 13-14 octombrie 2006. Târgovişte. 75-120.

Măgureanu, A. / Ciupercă, B. / Anton, A. 2012. Considerations on Târgşoru Vechi Roman fort. In: Morintz, A. S. / Kogălniceanu, R. (eds.). Survey in archaeology, often a neglected science. Proceedings of the II Archaeological symposium, October 23rd-26th, 2011. Giurgiu. 165-186.

Niculescu, A. Gh. 2003. Die sarmatische Kultur im Zusammenhang der kaiserzeitlichen archäologischen Funde aus Muntenien – unter besonderer Berücksichtigung der Funde von Tîrgşor. Mit einem Beitrag von Nicolae Mirițoiu: "Sarmatische Gräber mit künstlich deformierten Schädeln in Muntenien". In: von Carnap-Bornheim, C. (ed.). Kontakt – Kooperation – Konflikt. Germanen und Sarmaten zwischen dem 1. und dem 4. Jahrhundert nach Christus. Neumünster. 177-205.

Niculescu, A. Gh. 1993. The cremation graves from the cemetery of Tîrgşor (third-fourth centuries AD). – Dacia 37, 197-220.

Petculescu, L. 1999. Roman military equipment in Barbaricum in the proximity of the Dacian limes. In: Gudea, N. (ed.). Roman Frontier Studies. Proceedings of the XVIIth International Congress of Roman Frontier Studies. Zalău. 895-905.

Petolescu, C. C. 2010. Dacia. Un mileniu de istorie. Bucureşti.

Petolescu, C. C. / Matei-Popescu, F. 2008. The presence of the Roman army from Moesia Inferior at the North of Danube and the making of the Dacia Inferior province. In: Piso, I. (ed.). Die Römischen Provinzen. Begriff und Gründung (Colloquium Cluj-Napoca, 28. September – 1. Oktober 2006). Cluj-Napoca. 357-367.

Ştefan, Gh. 1945-1947. Le camp romain de Drajna de Sus, Dep. de Prahova. – Dacia 11-12, 115-144.

Teodor, E. S. 2006. Prima amenajare a castrului de la Răcari (jud. Dolj). In: Teodor, E. S. / Ţentea, O. (ed.). Dacia Augusti provincia. Crearea provinciei. Actele simpozionului desfăşurat în 13-14 octombrie 2006. Târgovişte. 219-235.

Tudor, D. 1978. Oltenia Romană. Bucureşti.

Tzony, M. / Diaconu, Gh. 1979. Raport asupra cercetărilor arheologice de la Târgşoru Vechi (jud. Prahova). – Materiale şi Cercetări Arheologice 13, 263-264.

Zahariade, M. / Dvorschi, T. 1997. The Lower Moesian army in northern Wallachia (AD 101-118). An epigraphical and historical study on the brick and tile stamps found in the Drajna de Sus Roman fort. Bucureşti.

Zahariade, M. / Lichiardopol, D. Componenţa şi structura armatei romane în nordul Munteniei, între anii 101-117. In: Teodor, E. S. / Ţentea, O. (eds.). Dacia Augusti provincia. Crearea provinciei. Actele simpozionului desfăşurat în 13-14 octombrie 2006. Târgovişte. 121-134.

Bogdan Ciupercă PhD.
County Museum of History and Archaeology
RO-Prahova
bogdanciuperca@yahoo.com

Andrei Măgureanu PhD.
Institute of Archaeology "Vasile Pârvan"
Romanian Academy
RO-Bucharest
arheologiemedievala@yahoo.com

Alin Anton
County Museum of History and Archaeology
RO-Prahova
anton_alin_pl@yahoo.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Northern Barbarians in Strabo's "Geography": Tradition and Reality

Liubov GRATSIANSKAYA

The opposition of the Greek, and later the Roman, to the barbarian is apprehended by the modern scientists as an unchangeable moral-ethical stereotype functioning practically during the whole period of Antiquity. Among the main trends of its semantics the moralizing aspect is usually stressed. But it is quite clear that during such a long period of literary development the description of the real barbarian meets with the stereotype image of the barbarian on the pages of the literary works. And it is natural that both are liable to change. It is worth noting as well that plot and ideological continuity are characteristic of this literature, so that both images may vertically move along the chronological scale. At the same time there might occur alternations both in the stereotype itself and in the real features of the barbarian world. At last, stereotype is practically transcendent in the wild limits between plus and minus. All these moments determine the possible quantity of variations and the possibilities of obtaining historical (factological) information and the data for the history of ethno-ethical concept in antiquity.

Not all the stages of this opposition (or correlation) are equally developed historiographically. The terminal and boundary epochs naturally are most interesting: they provide possibilities for studying such processes as the origin of the stereotypes, the limits of their functioning, the alterations in the old and the appearance of the new elements of the stereotype. I should not discuss in detail all the stages in the functioning of the barbarian stereotype as well as its types. I shall stress on only several moments, not enough investigated in my opinion, reflected in one of the most important pieces of Greek literature, the "Geography" of Strabo.

The beginnings of the idealizing tendencies in the description of the distant barbarian are often linked to Homeric poetry by modern scholars. They follow the ancient commentators of Homer, whose opinions reached us mainly through Strabo's passages on Homer. It should be pointed out that I consider as idealizing both tendencies in depicting the barbarians: the so-called "mild primitivism" and "strict primitivism", the more appropriate naming of which seems to be "positive" and "negative" idealizations.

It is not worth stopping on the impossibility of tracing the origin of the idealizing tendencies in barbarian description to Homer. It is sufficient to say that even Thucydides emphasized the lack of counter opposition of the Hellene and the barbarian in Homer (Thuc. 1,3,2-3). One can add only that ascribing the positive ideal barbarian to the Homeric poems should be necessarily supplemented by the creation of the same pedigree for the image of the negative idealized barbarian, its prototype being able to be recognized in the description of Homeric Cimmerians or Laestrygonians.

But it should be remembered that the ancient commentators had no doubts about this ascription. It is evident, for example, from the following reasoning of Strabo (8,3,3): it is quite necessary to achieve coincidence between my own description and that of Homer, because the reader, being acquainted with the Homeric descriptions from early childhood and trusting them completely would be able to comprehend and trust Strabo's (and everyone's else) new information only on the condition that it does not contradict Homer. Taking into account firstly that Strabo's ethnographic description is not his only aim being an equal component of the historical-geographical description of the *oikoumene,* together with flora, fauna, landscape, oro- and hydrographical situation, climate etc., and secondly, the uniformity of his presentation of the

material, which arises from the purpose of Strabo's composition (I have argued this elsewhere), **it is natural to suppose that Strabo's reasoning if summarized and broadened, might illustrate and define his principles of ethnographic description** as well intended for educating a beginning politician (Strab. 1,1,22-23 etc.). Strabo submits all the aspects of his description to the common scheme, serving his purpose. The reader got used to stereotyped descriptions from childhood. They percept stereotyped information better: the systematic information is useful for education.

By the time of Strabo's literary activity, there were two common stereotypes, positive and negative, with obligatory structural elements and variants: the barbarian is to be either good or bad. The barbarian, who lives nearer to the civilized Greek and Roman world, is better than the one geographically distanced from it. The latter is malicious and perfidious. The more favorable natural conditions and climate are, the milder the barbarian is. Both geographical, climatic and temperature minimums and maximums presuppose the barbarians' wildness, poorness and fierceness. The nomads are wilder and more warlike than the farmers. The highlanders are wild, while the inhabitants of plains are gentle.

These stereotyping tendencies in the systematic description of a barbarian go back partly to Strabo's creative transformation of Plato's three grades of civilization (the inhabitants of highlands, of slopes and of plains), partly to the idea that the vicinity of a sea influences the human character (Strab. 13,1,25) and partly to Posidonius' ideas that climate and temperature influence the manner, appearance and activities of people (Reinhardt 1921, 74; Müller 1972, 315).

These features characterize a barbarian as, so to say, naturally-stereotypical. But it should not be neglected that at the same time Strabo also develops another image of a barbarian, that is the Ephorus' concept of the so-called ethically-stereotypical barbarian, Scythian and Sauromatian (Strab. 7,3,9), simple-minded, just and meek, living a nomadic life, who can serve as an example of positive idealization.

Still, Strabo tries to back that image with the authority of Homer.

Thus, the "Geography" of Strabo comprises in a unified hierarchical system stereotypical characteristics of a barbarian, but belonging to various stereotypes, created in different times and under different conditions. The discussion of the rightfulness of their combination is quite worthless, as it is a given fact. Another thing is important: the exposition of stereotypical elements in any description of a barbarian shows the necessity to regard its reliability as to the facts with great care. On the other hand, this situation provides material for the investigation of Strabo's theoretical ethno- and geographical ideas: *a priori* dependence of the appearance, essence and activities of the barbarians on the geographical milieu.

So, the highlanders in all parts of the *oikoumene* are wild, warlike, cruel, poor, inclined to robbery and piracy, dirty and indomitable (Strab. 3,3,8 – the inhabitants of the Pyrenees; 4,6,8 – Ligures [cf. 4,6,4]; 4,6,6 – Lepontii, Tridentini, Stonii and other Northern Italian mountaineers; 4,6,7 – Salassi; 4,6,8 – Raetians and Vindelici; 5,2,7 – the mountaineers of Corsica and Sardinia; 7,4,2 – the Tauri; 7,5,12 – the Coralli, Bessi and others [cf. 7, frg. 47]; 11,2,12 – Achaeans, Zygii and Heniochi; 11,2,19 – Soani [cf. 11,3,3]; 11,7,1 – the mountaineers near the Caspian sea [cf. 11,13,3]; 11,13,6 – Paraetacenni [cf. 16,1,17-18]; 12,2,7 – Cappadocian mountaineers; 12,3,18 – Heptacometae; 12,8,8-9 – the mountaineers of Troad; 14,5,6 – the mountaineers of Cilicia; 16,1,18 – Cossaeans; 16,2,18 – Itureans and Arabs and many others).

But it often happens so that the material at hand, especially that taken from the literary sources, does not agree with the stereotypical presentation. Then Strabo, picturing ethnographical details, tries to estimate them stereotypically: some serve as examples of wildness, barbarity and shamelessness, qualities inherent only to mountaineers, while contrasting evidence Strabo correlates with another stereotype of a barbarian open-hearted and honest (e.g. Strab. 3,4,15-20 – Iberians).

The same unattractive qualities belong to barbarians, inhabiting the far ends of the oikoumene, especially the North (Strab. 4,2,5 – Gauls; 4,5,4 [cf. 2,5,8 – the inhabitants of Ierne] etc.). Strabo even does not believe in Pytheas' neutral ethnographic information concerning the inhabitants of Thule (Strab. 4,5,5) as this information does not correlate with his stereotype of Northern barbarians. He states that people living in the very Northern parts of the oikoumene and at the shores of the Ocean are always the most warlike (Strab. 4,4,2). Strabo is really confused by the information that Phrygians, Lydians and Carians are peaceful though they live to the **north** (from the Taurus mountain) whereas the Pamphylians and Cilicians do not lack the robbery inclinations, though they live to the south (Strab. 12,7,2).

Similar unpleasant features are inherent to all nomads: they are not fit for anything, need guard (Strab. 6,4,2) and always attack their neighbours (Strab. 7,2,2; 7,4, 2; 11,8,3 etc.).

According to Strabo wildness, crudity of temper and uncivilized standards of life may originate from several causes: living in mountains, being nomads, living in places with poor soil and bad climate (Strab. 17,2,1; [cf. 2,5,8. 26.29]; 11,7,1; 17,1,3; 17,3,14 etc.), and most importantly, living far from the civilized Greek-Roman world (Strab. 3,3,8; 4,6,7; 4,1,5; 6,1,12.14; 11,2,4; etc.). In the semantically contrasting variant favorable conditions in the country determine the mildness of its inhabitants (e.g. Strab. 3,2,4-11 and 15 – Turdetania).

Strabo does not limit himself by stating the real status of the people described. Having for example some information about the warlike character or nomadic life of some people, he adds according to stereotype unsubstantial fables about poverty of the soil or immoderacy of the climate in the country he describes (Strab. 3,4,15 and 14; 16,1,18 etc.).

The discrepancy of the two barbarians, real and stereotypical is always specially mentioned: Strabo is surprised by the warlike Maeotae, living around the Maeotis, though they are not nomads but farmers (Strab. 11,2,4); he refuses to accept as valid the explanation, supplied by Posidonius, of robbery ways and nomadic life of Cimbri as if determined by a flood, because it does not correlate with the stereotype (Strab. 7,2,10); he feels perplexed by the predatory life of the Iberian Artabrians in spite of the fertility of their soil and he tries to explain it by the fact that the Artabrians loaned their manners from the neighbouring mountaineers, who live on poor soils in poverty (Strab. 3,5,2); having come to know that fertile lands to the west of Carthage are inhabited by nomads which contradicts the stereotype, Strabo explains their nomadism by another unfavourable circumstance: the existence of a lot of wild animals there (Strab. 2,5,33. Cf. 17,3,15).

An interesting example of contradictory description presents the passage on Hyrcania. Demonstrating the welfare of this country, Strabo supplies many facts, probably authentic, in a stereotype form: corn thrives from the grain, fallen from ear; the bees swarm in trees and honey flows from the leaves (Strab. 11,7,2. Cf. 2,1,14). Then there comes a remark that neither the land, nor the sea nearby are used properly and that the sea is not navigable. The explanation of these phenomena is quite stereotypical: the cause lies in the fact that Hyrcania was always ruled by barbarians. The Macedonian rule was quite short. The vicinity of Hyrcania is crowded by barbarians and robbers. **All this is followed by a factual description of the transportation of Indian goods by sea from Hyrcania to Caucasian Albania** (Strab. 11,7,3).

If Strabo has some information about bad climate or poor soil – somewhere – it prompts him to write about the fierceness of the inhabitants of that country (Strab. 17,3,15 – theory; 5,2,7; 11,2,12.19; 11,13,3.6; 17,1,17; etc.).

One of the central ideas of the "Geography" transmitted quite stereotypically is that of the universal, peace-making, elevating and civilizing influence of the Roman-Hellenic world on the barbarians. For Strabo, a barbarian is any non-Greek, non-Macedonian and non-Roman (Strab. 4,1,5-; 6,1,2.10; 6, 3,3; ,7,4,4; 11,7,3; 12,8,4; 13,1,1 etc.). The barbarians are not bad in themselves, but any barbarian is worse than a Roman or a Greek, whose influence makes a barbarian not barbarian (Strab. 4,1,5 – on the favourable influence of Massaliotes upon the nearby barbarians; Strab. 4,1,5; 4,6,4; 6,1,12.14 etc. – on the ennobling influence of the Romans and Roman culture upon barbarians). It can be also said that the stereotype of barbarism appears to be no ethnical concept, but an ethical one.

The role of the natural-stereotypical barbarian is rather significant in Strabos's descriptions of distant regions. But it should not be forgotten that in the descriptions of Northern barbarians the main place is occupied by the image of an ethically-stereotyped barbarian, the Scythian and the Sauromatian, taken from Ephorus (Strab. 7,3,7-9). This stereotype presupposes positive emotional comprehension and estimation of positive features characteristic of the Northern barbarians: their generosity, ingeniousness, honesty in business transactions, natural "Cyclopic" way of life, courage, etc. Homer again appears to be the main authority for Strabo. But the Northern barbarian is basically a nomad. They live in places with unfavorable soil and climate conditions which is very bad according to the first stereotype. The geographer feels these contradictions and tries to reconcile them. That is the way the following schematic descriptions of the Northern barbarians appear: bad-neutral-good (Strab. 6,4,2 – 5 – Gauls; 3,3,7-8 – the inhabitants of Pyrenees; different descriptions of the Northern barbarians in Book 7 – Getae and others; 7,4,6 – the Crimean nomads; 11,4,1.3-8 – the Caucasian Albanians; 11, 8,2-8 – Saka and Massagetae; 11,11,3-8 – Bactrians and Sogdians etc.).

So, the Strabonian ethnographical descriptions present a specific result of the half-a-millennium-long development of the image of barbarians in ancient thought and literature. Though the geographer is theoretically against stereotyping (Strab. 3,4,17), the stereotypical basis of most parts of his ethnographical descriptions is evident, especially when he expresses his estimations. This basis formed over a long period of time and contradictory in many aspects, required the creation of diverse ideological and factual argumentation for its assertion, as an ancient author could not reject it at all. The ethnographical materials of Strabo, the distinctive feature of whose work is the confrontation of theoretical declarations and practical descriptions, are presented as part of this argumentation. This is especially important when one uses them as a historical source. Deviations from these stereotypical images (mentioned or not by the geographer himself) give us the most historically adequate information.

Bibliography

Müller, K. E. 1972. Geschichte der antiken Ethnographie und ethnologischen Teoriebildung: Von den Anfängen bis auf die byzantinischen Historiographen, 1. Wiesbaden.

Reinhardt, K. 1921. Poseidonios. München.

Prof. Dr. Liubov Gratsianskaya
Department of Ancient History,
Institute for Oriental and Classical Studies,
Russian State University for the Humanities (RSUH)
RU-Moscow
lingua_latina@mail.ru

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Roman Army and the Kingdom of Meroe

Lindsay ALLASON-JONES

The ancient kingdom of Meroe (part of modern Sudan, also referred to as the Kingdom of Kush in its early period) is rarely mentioned in the classical literature (for a full list of classical sources on Meroe, see Shinnie 1967, 13-22), and, until recently, it has received scant attention from archaeologists interested in the Roman Empire and certainly none from Roman military equipment specialists. In the 1950s, for example, Sir Mortimer Wheeler could dismiss Meroe as "the decayed capital of Nubia", interesting only as a supplier for the market town of Ptolemais (Wheeler 1955, 142. For other modern references to Kush and Meroe, see Mommsen 1885, Vol. 2, 274-8; Rostovtzeff 1957, Vol. 1, 298-307). Wheeler showed more interest in the relationship between Rome and the Axumites in Ethiopia and most archaeologists, both before and after Wheeler, have followed his lead. Yet, as Stanley Burstein has pointed out, the Kingdom of Meroe and its forerunner, the Kingdom of Kush, shared a frontier with Roman Egypt for over three centuries (Burstein 1998) and there is literary evidence that the frontier saw military action during this period. This paper assesses this activity and, using an on-going study at Newcastle University on the material culture of Roman date in the National Museum in Khartoum, considers the artefactual evidence for this activity.

The first classical reference to Meroe which has survived comes from Herodotus in the 5th century BC (The Histories Books II and III). During his visit to Egypt he travelled south to the First Cataract, to the town of Elephantine (**fig. 1**), which he described as being on the frontier of Egypt and Ethiopia, the latter being a name often given to the land of Meroe by the ancient writers. He acquired his knowledge of the country beyond this frontier at second hand but what he said was reasonably accurate. He mentions, correctly, that at the Fourth Cataract "one must land and travel along the bank of the river for 40 days because sharp rocks, some showing above water and many just awash, make the river impracticable for boats" (Herodotus II, 89). He then says one has to travel for a further 12 days by boat before reaching "a big city named Meroe". This distance is a slight exaggeration but no more than travellers to exotic locations are usually allowed. His initial comments were confined to mentioning that the inhabitants "worship Zeus and Dionysius alone of the gods".

Later, in Book III, Herodotus tells a stirring tale of spies being sent by the Persian king, Cambyses, to find out the military strength of the country under the guise of explorers looking for the Table of the Sun, which legend had it was in a meadow on the outskirts of the city of Meroe (Herodotus III, 18-25). The story went that this meadow was always full of meat left there by the magistrates every night so that any visitor could eat there by day. Cambyses' spies took gifts to the King of Meroe, but he was not fooled by this solicitous behaviour and told them a tale about how his people lived to be 120 owing to their diet of boiled meat and milk, that his country was very powerful, and that it was useless for the Persians to invade. Cambyses was not totally convinced by this argument but found the terrain very hard going as he advanced south and he abandoned his expedition.

The difficulty of transporting more than a few people at a time up river or across the desert may explain why Meroe continued to flourish unmolested. Indeed, it seems to have been largely forgotten about by the classical world until Diodorus Siculus referred to it in the 1st century BC (Diodorus Siculus I, 33). Diodorus added to contemporary knowledge rather inaccurately by stating Meroe was an island – a not uncommon description as the area was surrounded on three sides by rivers – and by informing his public that the king of Meroe was ritually murdered by his priests when the time came for a change of monarch. This practice, Diodorus tells us, continued until the time of King Ergamanes, a con-

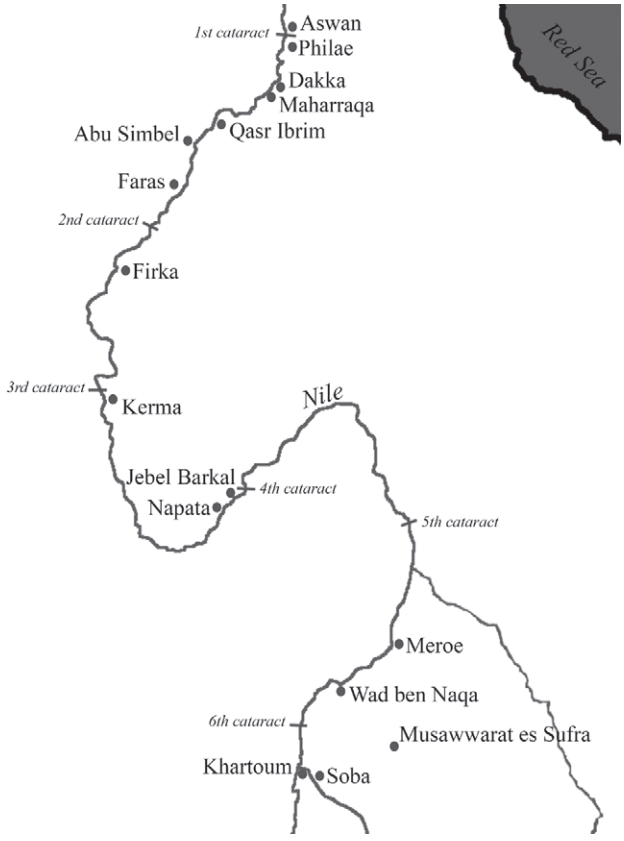


Fig. 1. Map of the Nile Valley showing sites referred to in this paper

temporary of Ptolemy II of Egypt, who – it is emphasized – had some Greek learning and a knowledge of philosophy – enough, apparently, to make him think that being murdered by one's priests was unacceptable.

The classical literature provides no further information until the geographer Strabo, who did not visit the area himself but relied on the data he collected from travellers he met whilst in Egypt between 25 and 19 BC (Strabo I, 2). He recorded that Meroe was up river of the confluence of the Nile and the Astaborus (or the Atbara, as it is known today). He recorded, erroneously, that no rain fell in Meroe, that the people lived on millet from which they brewed beer, that most of the people were nomads and that the only fruit trees were date palms. All these geographical details accompany the first real piece of military information: Strabo's account of the war between Rome and Meroe whilst Gaius Petronius was Prefect of Egypt, that is, between 25 and 21 BC (Strabo XVII, I.54). The story is also related by Pliny and Cassius Dio (Pliny, Nat. Hist. VI, 35.181; Cassius Dio 54.V. 4-6).

According to Strabo, the Meroites took advantage of the withdrawal of a large part of the Roman frontier garrison from Aswan for the campaign in Arabia, by attacking "the garrison of the three cohorts at Syene and by an unexpected onset took Syene and Elephantine [Aswan] and Philae, and enslaved the inhabitants and also pulled down the statues of Caesar" (Strabo XVII, I.53-4). The discovery in 1911 of the head of Augustus found under the doorway of a temple at Meroe (Building M292) may be archaeological evidence of this event. The head was placed so that anyone entering or leaving the temple would trample over it (Török 1990, 184). Was this success beginners' luck or were the Meroites a more formidable enemy than the literature suggests? It is regrettable that we know so little of the armies of Kush and Meroe, although Strabo was of the opinion that the Kushites quickly left the field of battle during the battle at Pselchis because they were badly led and poorly armed (Strabo XVII.I, 54. For a synopsis of the current evidence, see Welsby 1996, 39-50).

Gaius Petronius clearly thought the threat was serious and he set out with "less than 10,000 infantry and 800 cavalry against 30,000 men", and he forced the Meroitic army to flee back to Pselchis (modern Dakka) (Strabo XVII, I.53-4). He then, not unreasonably, sent ambassadors to ask why the war had started in the first place and to negotiate a settlement.

The reasons seem to have been a series of historical misunderstandings. During the reign of Ptolemy IV, he and the king of Meroe, Arkemani, had negotiated a gentleman's agreement as to where their mutual frontier was (Adams 1977, 338). When the Romans started to encroach on Egyptian territory, the later Ptolemys had little time to worry about their southern frontier, but the Meroitic rulers refrained from taking advantage of this. Some informal Meroitic settlement took place and an administrative and military outpost was established at Qasr Ibrim (now surrounded by the waters of Lake Aswan but in Roman times a desert promontory), but the relationship between Meroe and Egypt seems to have remained amiable.

This rather vague arrangement was not to the taste of the Roman authorities and the first Prefect of Egypt, Cornelius Gallus, made it a priority to march a large force south to meet the envoys of Meroe at Philae. They negotiated a mutual frontier at Aswan and the whole of the Meroitic kingdom was accorded the status of a Roman protectorate. This was very much in keeping with Augustus' policy of ringing his empire with client states (Res Gestae 26). However, it is unlikely that the Meroitic envoys were fully

aware of what they had done. They felt no need of protection and they seem to have thought that they had merely re-established the *status quo*. It was not long before they realised their mistake but a strong Roman force at Aswan prevented them from doing much about it. It was only when this garrison was withdrawn in 23 BC that they had their chance.

After the first skirmish, Petronius demanded the return of prisoners and booty but the Meroites procrastinated and Petronius attacked again, capturing Pselchis and Qasr Ibrim and razing Napata to the ground. He then withdrew leaving a garrison of 400 men, with two years' food supplies, at Qasr Ibrim. When the two years were nearly up, the Meroites attacked again under the leadership of their Queen. This ruler is referred to, as are other queens of Meroe, as the Candace. The literary descriptions of her are remarkably similar to the contemporary descriptions of Boudicca (Strabo XVII, I.54; cf Cassius Dio, Roman History Epitome LXII, 2.4); the Romans clearly preferred their female opponents to be formidable women although this may have had little link to reality.

Once again, Petronius took to the field and the Candace was forced to make terms. Her envoys were made to travel to the imperial court at Samos off the coast of Turkey to sue for peace. Yet, despite this apparent humiliation, the terms were merely that as long as the Meroites kept the peace they would no longer be expected to pay tribute (Strabo XVII, I.54). It would appear from the texts that the Meroites had lost every battle but had still managed to win the war.

It is possible that the Roman victory may not have been as impressive as the military historians would have us believe. It is, for example, likely that the size of the army in the field was greatly exaggerated, as is a common habit in military affairs. At that time there were only two legions in Egypt and the province was hardly settled enough for a commander to risk putting the bulk of his force on one frontier. We can probably cut the numbers given for both armies to about 10% and by looking beyond the propaganda in the accounts given by Strabo, Pliny and Cassius Dio, reduce the so-called war to a frontier skirmish.

On the other hand, the treaty left the Romans with a defendable frontier at Maharraqa, access to the gold mines in the Wadi Allaqi and control of the strategically important desert routes. Their sorties into Meroitic territory may have convinced them that the area was not worth bothering about or that the logistical problems of controlling such a territory were greater than the likely benefits or that the Meroites were too strong to be successfully subjugated and it would be better to keep them independent but friendly. Many historians have taken the first answer to be the reason for the Roman withdrawal; the current author prefers to take the latter view. After all, although Petronius is recorded as reaching as far as Napata, there is no reference to Roman troops reaching the city of Meroe itself, which may indicate the strength of the Merotic resistance.

Relations between Rome and Meroe certainly continued, although the written evidence is limited, the most intriguing being a scrap of papyrus first published by Volgiano in 1940 with a further note in Journal of Roman Studies for 1950 by Turner, which seems to say "The Ethiopians are in line; the Romans advance, the infantry under the command of a certain Rufus, cavalry under a certain Trogus" (Turner 1950); this appears to refer to a mere skirmish, not a major battle and may be dated to 61 AD. Other than that, there is an inscription to Fortuna at Musawwarat es Sofra which reads: "Good Fortune. To [our] Lady the Queen with wishes for success for many years to come [….]tus arrived from the city on the 15th day of the month of April"; unfortunately, the inscription was taken to Berlin in the 19th century where it was destroyed during the Second World War (Eide / Hägg / Pierce / Török 1998, # 297: *CIL* III.83). There are also accounts by Pliny and Seneca of military expeditions searching for the source of the Nile, one of which may include the event in the Milan papyrus just referred to (Seneca VI, 8.3; Pliny VI, 35); there is even a reference in The Acts of the Apostles to Philip baptizing "a man of the Ethiopians, a eunuch of great authority under Candace, queen of the Ethiopians" (Acts of the Apostles 8.26-40); and occasional comments in Roman literature, such as Juvenal's description of the women of Meroe having breasts bigger than their fat babies (*Sat*. 13.162-3). There are no further hints of Meroe being a client kingdom of Rome or a sworn enemy, but the literary references indicate that while Meroe was not well known to the average Roman, the name of the country and its vague geographical location were common knowledge.

Meroe itself was an ideal place for a capital city. It is within the annual rain belt and the agricultural land around it is capable of sustaining a very large population. There was also an important supply of iron ore in the region, together with the timber needed to work it. Furthermore, the site is on the ancient caravan routes from the Red Sea as well

as on a navigable stretch of the River Nile. All this would have made Meroe a very attractive prize to the Romans with their need for iron and the exotic goods which were traded along the caravan routes – an ostracon (*O. Bodl.* 3001+3002) refers to *epiteretai eidon* (tax collectors) responsible for the collection of transit taxes for goods coming into the Roman Empire from Nubia – but also meant that Meroe was well placed to become wealthy, powerful and well-armed.

The extent of the Meroitic Empire was impressive, although its exact boundaries remain vague. No traces of Meroitic settlement have been found north of Maharraqa, while Meroitic sites have been found as far south as Jebel Moya and Abu Geili, 200 km to the south of modern Khartoum. To the east, the sites peter out in the inhospitable region of the Red Sea Hills, whilst on the west bank of the Nile the sites huddle close to the river. This western limit may be an accident of survey but the desert conditions to the west of the Nile would not have encouraged settlement during a period of stable prosperity and it is probable that there are few sites to be found in that area.

Excavations which have taken place on Meroitic sites have tended to concentrate on the cemeteries and temples. This is hardly surprising given that most of the archaeologists working there, until recently, were trained in the Egyptian tradition and were particularly fascinated by the fact that the kings and nobles of Meroe were buried under pyramids. Unfortunately, this Egyptological bias in scholarship led to a view that the Meroitic civilization was merely substandard Egyptian and the quality of the Meroitic elements was largely ignored. It is this attitude, coupled with the limited literary evidence, which has led to the belief that Meroe was not an important neighbour as far as Rome was concerned and could be regarded as a backwater.

However, the objects from the excavations – if looked at with the eye of a Romanist rather than an Egyptologist – tell a very different picture: a picture of active trading between Meroe and almost every province of the Roman Empire from the 1st century BC to at least the 4th century AD. The artefacts which have survived tend to be luxury goods, as is appropriate for grave goods, so it is difficult to know if they were simply being traded or if they were diplomatic gifts from the Roman Empire to its neighbours. An iron finger ring from Firka, for example, with a very large carnelian intaglio showing the profile of an emperor, either Commodus or Marcus Aurelius, may well be a diplomatic gift (Khartoum National Museum Acc. # 3163; Kirwan 1939, 9, Pl. 9).

Some of the objects come from mainland Italy, such as a bronze lamp with opposing elephant's heads from Pyramid West 102 at Meroe (Khartoum National Museum Acc. # 1947; Harvard African Studies VIII, 77, Pl. 33) and a silver porringer with gilded stamped decoration on the handles from Pyramid North 18A at Meroe (Khartoum National Museum Acc. # 1827; Wenig 1978, fig. 77; cf Walters 1899, # 2516). The Meroitic mark on the base of the porringer was originally identified as a maker's mark but it is now accepted as an owner's mark. A small bronze box with a scene in relief from Faras was originally described by its excavator as a Meroitic marriage box (Khartoum National Museum Acc. # 1500; Harvard African Studies VIII, 77, Pl. 33) as it contained gold rings of undoubted Meroitic manufacture when found, but a closer look reveals the relief scene to be a Dionysiac Procession which contains figures which can be compared with those on the 4th century Mildenhall platter (Potter / Johns 1992, Pl. 47) or with 2nd to 4th century sarcophagi in Italy and Germany (Matz 1968-1975).

These artefacts notably lack any military flavour; other artefacts, however, appear to come from the western provinces; for example, a bronze finger ring with a glass intaglio from Faras could have been found at any site in Britain or Germany (Khartoum National Museum Acc. # 881; Griffiths 1924, Pl. 49, # 24) as could a bronze bracelet from Murshid, decorated with coiled spirals (Khartoum National Museum Acc. # 18663). These smaller items may have been gifts but suggest the personal possessions of individuals, whether civilian traders or other visitors to the region; it is not possible to attribute them convincingly to any of the military personnel who participated in the expeditions described by Strabo, Cassius Dio, Seneca or Pliny.

There are at least four *paterae* or *trullae* which may be military (for example, Wad ben Naga: Khartoum National Museum (no accession number); Meroe: Khartoum National Museum Acc. # 22960). Every soldier on campaign would have carried one of these but they were also used in domestic contexts as well as for pouring libations in religious ceremonies.

There are several ramshead skillet handles (Meroe: Museum of Fine Arts, Boston, Acc. # Res. 2873 (two examples); Khartoum National Museum Acc. # 2463 and 1825), which have also been found throughout the Empire in military contexts, such as at Segedunum Roman fort at the end of Hadrian's Wall (unpubl.). The skillets themselves have not

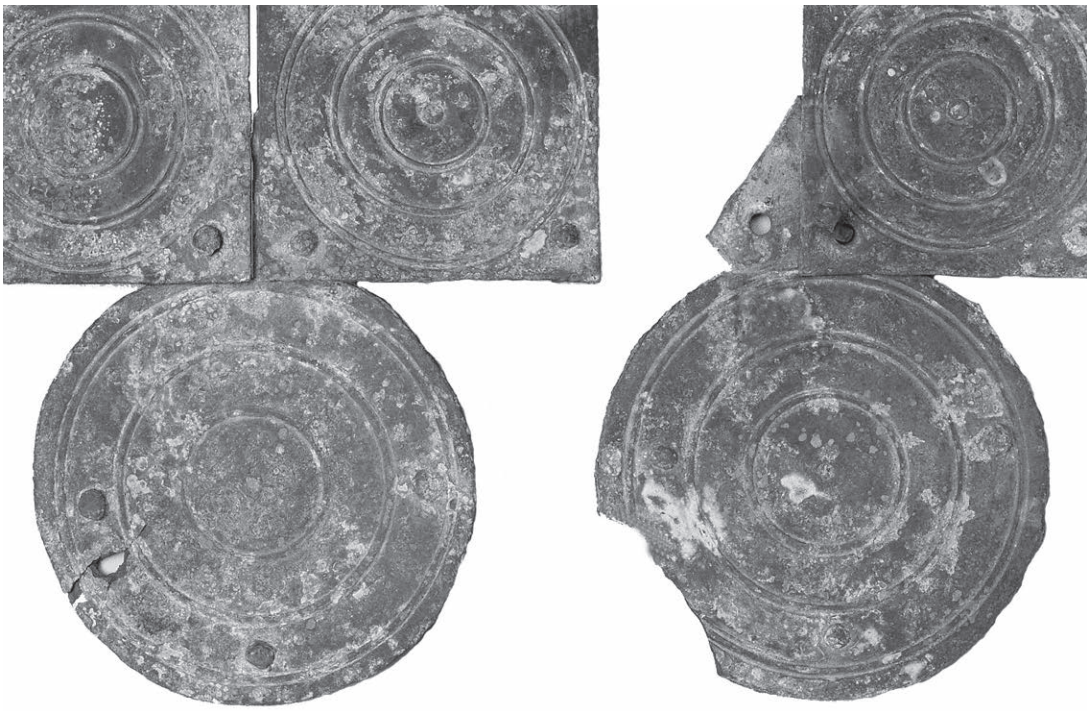


Fig. 2. Saddle plates from Meroe, now in the Museum of Fine Art, Boston (Photograph © 2013 Museum of Fine Art Boston)

been found, suggesting that it was the symbolism of the rams' heads which were important to the tombs' occupants, rather than the utility of the skillets.

The most convincing items that may be attributed to military activity form a set of silvered bronze saddle plates, which were found in West Tomb 114 at Meroe and are now in the Museum of Fine Arts in Boston (Museum of Fine Arts, Boston, Excavation Reference # 22.1.564a-e). The set consists of fourteen square and two circular plates and a buckle (**fig. 2**) The square plates are decorated with lathe-turned incised lines and measure 60 x 60 mm; each has a circular hole drilled in each corner, some of which still contain a dome-headed rivet. The circular plates are 82 mm in diameter, also decorated with lathe-turned circles on one face and are each pierced by three dome-headed rivets. The buckle is D-shaped and of diamond section and has a folded sheet of bronze attached to its straight edge. There is also a plain disc, with incised lines only around the edge, which emerges from the rim of a square plate which is decorated by concentric circles. Parallels to such plates can be seen on the tombstone of Marcus Sacrius Primigenius from Cologne (Bishop 1988, fig. 8) and Mike Bishop refers to examples from Doorwerth, Newstead, Heddernheim, Hüfingen, Castleford, Neuss, Rheingönheim, Aislingen, Baden, Haltern, *Salona* and *Vindonissa* in his 1988 paper on cavalry equipment in the Roman army in the 1st century AD (Bishop 1988, Table 3). These are certainly military in origin but like all the objects discussed so far could also be used in a civilian or religious context. If an iron finger ring with the head of an emperor on a carnelian intaglio could be given as a political gift and the silver porringer could be imported as a luxury item, there is nothing to say that the *paterae* and harness plates do not fit into similar categories.

The most southerly Roman milestone, dated to 103-7 AD, was found on the west bank of the Nile at Abu Tarfu, 67 km to the south of *Philae* (Eide / Hägg / Pierce / Török 1998, # 220) and no Roman forts have been found south of Qasr Ibrim, but in desert conditions a temporary encampment leaves few traces. Throughout the Empire, however, excavations rarely produce enough military equipment to confirm a military presence, even if there is a large and solid fort to convince us that the Romans were present in military force. Even on Hadrian's Wall, many forts produce few pieces of armour or weapons (Allason-Jones 2001). There is, however, one small piece of evidence from Meroe that may provide material evidence for the military activity mentioned by the classical writers. The walls of the temple where the head of Augustus was found are decorated with frescos of victory scenes showing bound captives; one helmeted figure looks very like a Roman soldier (Török 1990, 184).

The average Roman emperor wished to expand the Empire and it was a rare emperor, such

as Hadrian, who called a halt to this expansion. Eventually, however, the frontiers reached areas where there was little point in carrying on, either because of a natural barrier or because the difficulty of the terrain made an advance less than cost-effective or because the advancing army found an unbeatable foe. The Roman government occasionally admitted the first two, rarely if ever admitted to the last. In the Meroites they appear to have met their match, preferring to keep their neighbours happy with material goods but officially pretending that they did not even exist. Over the years archaeologists working in the kingdom of Meroe have presumed the objects found there were all local or from Egypt. The evidence is beginning to build up to support the evidence in the classical literature that there was considerable interaction between Rome and Meroe and that some members of the Roman army gazed upon the Nile at the kingdom's capital.

Bibliography

Adams, W. Y. 1977. Nubia: Corridor to Africa. London and Princeton.

Allason-Jones, L. 2001. What is a military assemblage? – Journal of Roman Military Equipment Studies 10 (1999), 1-4.

Bishop, M. C. 1988. Cavalry equipment of the Roman army in the first century A. D. In: Coulston, J. C. (ed.). Military Equipment and the Identity of Roman Soldiers: Proceedings of the Fourth Roman Military Equipment Conference (BAR 394). Oxford. 67-196.

Burstein, S. M. 1998. The Roman withdrawal from Nubia: a new interpretation. – Symbolae Osloenses: Norwegian Journal of Greek and Latin Studies 73, 1, 125-132.

Eide, T. / Hägg, T. / Pierce, R. H. / Török, L. 1998. Fontes Historiae Nubiorum. Bergen.

Goodman, M. 1997. The Roman World: 44 BC – AD 180. London.

Griffiths, F. L. 1924. Oxford Excavations in Nubia. – Liverpool Annals of Archaeology and Anthropology 11, 3-4, 115-180.

Kirwan, L. P. 1939. The Oxford University Excavations at Firka. Oxford.

Matz, F. 1968-1975. Die dionysischen Sarkophage (4 vols.). Berlin.

Mommsen, T. 1885. The Provinces of the Roman Empire (trans. W. P. Dickson). London.

Potter, T. W. / Johns, C. 1992. Roman Britain. London.

Rostovtzeff, M. 1957. The Social and Economic History of the Roman Empire. Second edition P. M. Fraser. Oxford.

Shinnie, P. 1967. Meroe. New York.

Török, L. 1990. Augustus and Meroe. – Orientalia Suecana 38-39 (1989-90), 184.

Turner, E. G. 1950. Papyrus 40 'Della Paccolta Milanese. – Journal of Roman Studies 40, 57-59.

Volgiano, A. 1940. Un papiro storico Greco della raccolta Milanese e le champagne dei Romani in Etiopia. Milan.

Walters, H. B. 1899. Catalogue of the Bronzes in the British Museum. London.

Welsby, D. A. 1996. The Kingdom of Kush: The Napatan and Meroitic Empires. London.

Wenig, S. 1978. Africa in Antiquity: the catalogue. New York.

Wheeler, R. M. 1955. Rome beyond the Imperial Frontiers. London.

L. Allason-Jones
BA, MLitt, FSA, FSAScot, FMA, FRSA
Visiting Lecturer at Newcastle University
UK
lindsay.allason-jones@newcastle.ac.uk

Interdisciplinary Researches

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Was am Ende übrig bleibt… – Römische Bronzestatuen am Limes und im Hinterland in den Provinzen *Germania inferior*, *Germania superior*, *Belgica* und *Raetia*

Claudia SARGE

„…Statuen wurden an Seilen von den Postamenten herabgezogen und auf dem Boden fortgeschleift. Beilhiebe zerschmetterten ...die Beine der unschuldigen bronzenen Gäuler, bald schmolzen in den knatternden, von Blasebälgen angefachten Feuern der Gussöfen das vom Volk angebetete Haupt und aus seinem Antlitz wurden Töpfe, Pfannen und Nachtgeschirre verfertigt."

So drastisch beschreibt Juvenal in seinen Satiren die systematische *damnatio memoriae* des Seianus im Jahr 31 n. Chr. und das traurige Schicksal seiner Bronzestatuen (Juv., *Sat.* 10.56-64, Übers. Friedländer 1979, 67).

Ähnlich dürfte es auch weiteren Großbronzen römischer Kaiser, hochrangiger Persönlichkeiten oder von Göttern widerfahren sein, die ehemals in den Militärlagern und Zivilsiedlungen, Tempeln und Heiligtümern der Nordwestprovinzen aufgestellt waren. Ihre Überreste lassen heute nur noch erahnen, in welcher Pracht die oft monumentalen, teilweise vergoldeten Standbilder einst erstrahlten.

Insbesondere aus den Kastellen des obergermanisch-rätischen Limes liegt eine sehr große Anzahl von Statuenresten aus Bronze vor. Auch wenn sich diese Fragmente oft nur schwer im Detail bestimmen lassen, sind sie dennoch eine bedeutende Objektgruppe, die der archäologischen und historischen Forschung aus dem Limesgebiet bekannt ist.

Anlässlich des von der Volkswagenstiftung geförderten Forschungsprojektes „Römische Großbronzen am UNESCO-Weltkulturerbe Limes" wird diese Fundgruppe, die bisher zu großen Teilen als vergessener Altbestand in den Magazinen der Museen lagerte, erstmals systematisch zusammengestellt und ausgewertet.

Projektpartner sind das Archäologische Landesmuseum Baden-Württemberg, das Institut für Archäologische Wissenschaften der Goethe-Universität Frankfurt a.M. und das LVR-Landes-Museum Bonn. Zahlreiche Kooperationspartner an Museen, Landesdenkmalämtern, Universitäten und Forschungsinstitute unterstützen das Projekt.

Für die Analyse des Fundmaterials kommen neben den traditionellen archäologisch-historischen auch archäometrische Methoden zur Anwendung. Ziel ist die systematische Erfassung aller Großbronzenfragmente der Provinzen *Germania inferior*, *Germania superior*, *Belgica* und *Raetia* von der militärisch geprägten Grenzlinie sowie den zivilen Siedlungen aus dem Hinterland.

Fundverteilung

Aus dem gesamten Untersuchungsgebiet konnten bislang etwa 5200 Statuenfragmente aus rund 130, teils unbearbeiteten, teils unvollständig, teils alt publizierten Fundplätzen identifiziert werden, wobei es sich sowohl um Einzelfunde als auch um größere Fundkomplexe handelt (**Abb. 1**).

Damit haben sich im Laufe der Projektarbeit die bekannten Stücke von Großbronzen in diesem Raum annähernd verzehnfacht.

Die Fundorte, aus denen Statuenfragmente stammen, sind sehr vielfältig. Neben Fundplätzen militärischen Charakters, wie Legionslager, Kastelle oder Kastellvici, lassen sich zivile oder religiös geprägte Kontexte aufführen. Dazu gehören urbane Siedlungen, *vici*, *villae*, Tempel, Gräber, aber auch Depots, Handwerkplätze oder gar Fundorte in der *Germania Magna*.

Die römische Gesellschaft wurde einst in allen

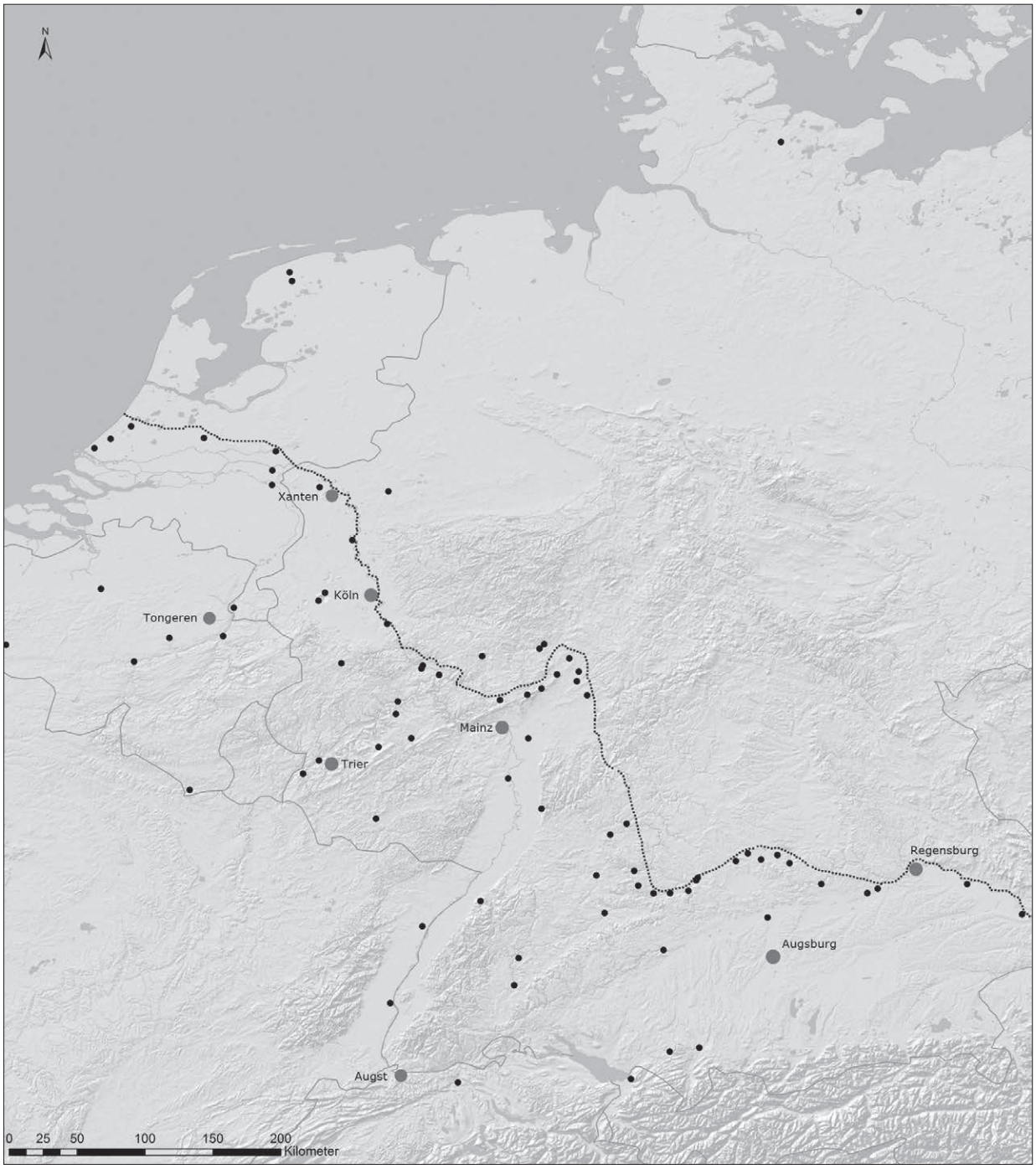


Abb. 1. Fundverbreitung von Bronzestatuen im Untersuchungsgebiet (Karte: © C. Sarge)

Lebensbereichen von Bildnissen begleitet (Lahusen 2010, 109-166). Die hohe Anzahl von Fundplätzen mit Überresten von Bronzestatuen zeigt, dass diese neben (Wand-)Malereien oder Steinskulpturen einen großen Teil dieser Bildervielfalt ausmachten. Das Größenspektrum der bronzenen Standbilder reicht von unterlebensgroßen Figuren bis hin zu weit überlebensgroßen, monumentalen Statuen.

Ein Ziel der Untersuchungen im Großbronzenprojekt ist die systematische Erfassung aller Fragmente in einer über das Internet zugänglichen Datenbank[1]. Diese beinhaltet alle wichtigen Informationen zu den Bronzefragmenten, weiterhin die archäometrischen Analysen. Neben den Kerndat-

[1] http://www.grossbronzenamlimes.de/database/.

en zu den einzelnen Objekten lassen sich darüber auch Vergleichsfunde und weiterführende Literatur abrufen.

Fundspektrum

Im Zentrum der Untersuchung stehen zunächst die Deutung der Großbronzenfragmente sowie die mögliche Rekonstruktion bzw. Ansprache der ursprünglichen Statuen.

Der Erhaltungszustand der Funde ist dabei sehr unterschiedlich. Neben einer Vielzahl von klein- und kleinstteiligen Fragmenten, die gar keine oder keine sichere Ansprache ermöglichen, existiert eine Fülle von Bruchstücken, die dem menschlichen Körper zugeordnet werden können, wie Hände und Füße, zuweilen aber auch nur Finger, Zehen oder Haarlocken. Eine Zuweisung dieser Körperteile zu bestimmten Statuentypen bzw. konkreten Personen oder Gottheiten ist schwierig, da sie oft zu unspezifisch sind.

Es gibt nur wenige Fragmente, die aufgrund ihrer Größe und Darstellung ausreichend Möglichkeit zum Vergleich bieten. Als Beispiel sei hier ein Haarfragment aus dem Bonner Legionslager genannt (**Abb. 2**), das große Ähnlichkeit mit einem Bronzebildnis des Marc Aurel aus Dunaszekcsö (HU), dem antiken *Lugio*, zeigt.

Große Fragmente allein sind jedoch noch kein Garant für die Möglichkeit einer präzisen Ansprache und Einordnung, wie ein über 30 cm breites Gewandstück aus Tongeren (B), verdeutlicht (Faider-Feytmans 1979, 100, Kat. # 129, Taf. 62, 129; Sarge / Van den Vonder 2014, 56-57).

Auffällig an diesem überwiegend konvex geformten Objekt sind, neben den bogenförmigen, gegenläufigen Falten und der senkrechten Gewandfalte entlang der rechten Bruchkante, vor allem der bereits in der Antike von Vergoldung bogenförmig ausgesparte obere Randbereich (**Abb. 3**). Dies spricht dafür, dass hier auf der Oberfläche ein anderes Gussteil auflag wie beispielsweise ein Gewandbausch. Die konvexe Form des Fragmentes findet sich an Statuen im Bereich der Hüfte bzw. auf der Rückseite in Gesäßhöhe.

An bislang 14 Fundorten lassen sich Reiterstandbilder nachweisen oder zumindest nach der Anlage der Fragmente vermuten. Auch wenn sie im Verhältnis zur Gesamtzahl der überlieferten Statuen eine kleine Gruppe bilden, sind sie nördlich der Alpen damit weit häufiger als bisher angenommen.

Die Standbilder, in denen Pferde eine Rolle spielen, sind in ganz unterschiedlicher Art und Weise



Abb. 2. Haarfragment, aus dem Bonner Legionslager (LVR-LandesMuseum Bonn, Foto: C. Sarge)

überliefert.

Herausragend sind dabei besonders die Pferdeköpfe, wie z. B. aus Augsburg oder Braives (B) (Menzel 1969, 32 ff., # 46, Taf. 15/1; Giumlia-Mair 1999, 255-270; Bakker 1985, 104-105; Hahn 2014, 49-51; Faider-Feytmans 1979, 101, Kat. # 133). Aufzuführen sind aber auch Teile von Satteldecken bzw. Schabracken, wie beispielsweise dem Exemplar aus dem Rheinland, dessen genauer Fundort aber unbekannt ist (Knauer 1992; 1995; Menzel 1986, 74, Kat. # 174, Taf. 86).

Weiterhin finden sich neben Hufen, wie z.B. aus Kempten (Giumlia-Mair 2002, 96; Heckmann 2014, 44f.; Krämer 1957, 122, Taf. 10/7.8; Bakker 1985, 104; Menzel 1969, 33, # 49, Taf. 15/2) recht häufig Teile des Schweifes, wie beispielsweise aus Trier (Menzel 1966, 96, Kat. # 234, Taf. 71/234) oder Bonn (Morscheiser / Sarge 2014, 125-127, Abb. 2a).

Zahlreiche Fragmente im Untersuchungsgebiet stammen von meist überlebensgroßen Götterstatuen. Viele stammen aus Tempelanlagen oder deren Umgebung, andere können allein aufgrund ihrer Attribute oder Ausführung als Götter angesprochen werden. Nur selten stehen Funde der Bronzestatuen in Verbindung mit Inschriften, welche zur Bestimmung und Ansprache der einstigen Statue zusätzlich herangezogen werden können. Die umfangreichen Inschriften auf der Jupitersäule in Mainz bilden eine der wenigen Ausnahmen (Corpus Inscriptionum Latinarum XIII 11806). Die Hauptinschrift, eine Weihung an Jupiter, nennt neben den Stiftern auch den Anlass der Aufstellung der Säule.

Panzerstatuen bilden im Untersuchungsgebiet die wohl renommierteste Gruppe von Bronzestatuen.

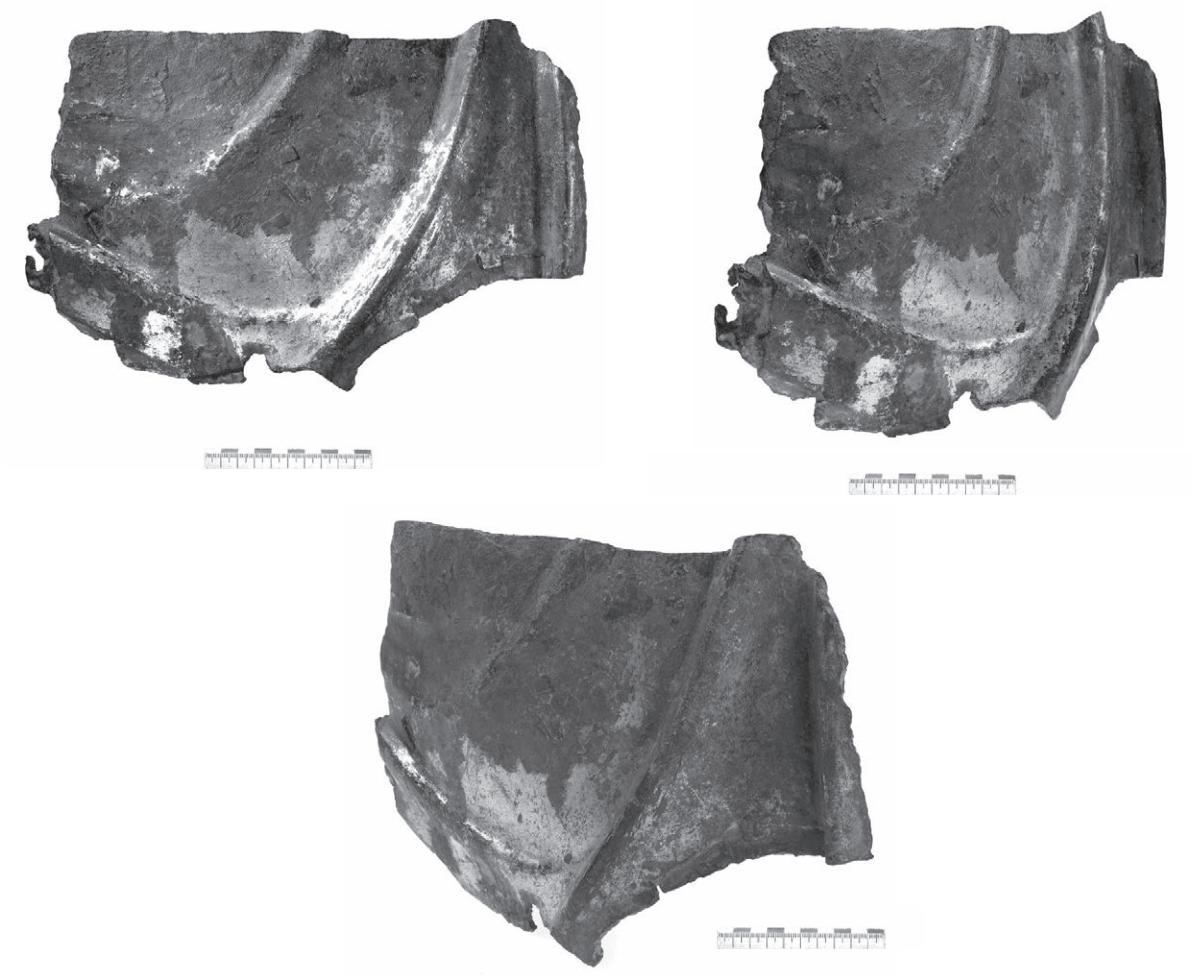


Abb. 3. Gewandfragment aus Tongeren
(Provinciaal Gallo-Romeins Museum Tongeren, Foto: J. Vogel)

Aufgrund der leicht erkennbaren Fragmente der Panzerung, wie Teile von Pteryges, Panzerlaschen oder verzierten Brustpanzern, wundert es nicht, dass sie in der Vergangenheit im Mittelpunkt der Interessen standen.

Verbindungstechniken und Polychromie

Die Analysen zur Herstellungstechnik und Archäometrie sind gleichfalls Bestandteil des Projektes. Untersucht werden z. B. die angewendeten Gusstechniken, Formenbau und Teilgussverfahren, die Kaltarbeit, Montage und Farbigkeit sowie die Pflege und Reparatur der Großbronzen.

Auch wenn die Untersuchungen noch nicht abgeschlossen sind, zeichnen sich doch erste Tendenzen ab. So scheinen sich beispielsweise die in den nördlichen Provinzen gefundenen Statuen vielerorts aus einer höheren Anzahl von einzelnen Gussteilen zusammenzusetzen als dies im italischen Gebiet üblich ist (**Abb. 4**). Auffällig ist ebenso, dass vor allem im raetischen Gebiet Funde mit Tauschierungen aus Kupfer oder Silber vorkommen (**Abb. 5**). Im niedergermanischen Raum hingegen ist diese Art der Polychromie nicht nachgewiesen. In allen untersuchten Provinzen sind vergoldete Statuenreste belegt, aber auch hier zeichnet sich eine Auffälligkeit ab: Aus den Militäranlagen stammen keine vergoldeten Fragmente, deren ursprünglicher Aufstellungsort zweifelsfrei in militärischen Kontext zu setzen ist. Wesentlich häufiger stehen die Reste vergoldeter Statuen in einem zivilen und besonders häufig im religiösen Umfeld.

Zerstörungsspuren

Viele der Statuenfragmente zeigen Spuren über die Art ihrer Zerstörung und ihr späteres Schicksal. An einigen Objekten finden sich Einschusslöcher, möglicherweise von Geschossbolzen, so z. B. am Kopf des Gordian III. aus Niederbieber. Des Weiteren zeichnen sich häufig Hammer-, Hebel- und Schlagspuren oder gar Zangenabdrücke ab (**Abb. 6**).



Abb. 4. Fragment aus Rainau-Dalkingen mit deutlich sichtbarer Gussverbindung zwischen den einzelnen Gussteilen, weitere originale Gussteilränder an den Seiten erkennbar (ALM Rastatt, Foto: S. Heckmann)

Einer der seltenen Nachweise für einen speziellen Recyclingversuch findet sich eindrucksvoll in Form von Kratzspuren auf der Oberfläche eines vergoldeten Rückenfragmentes aus Groß-Gerau in Hessen. Die Kratzer zeigen den vergeblichen Versuch, das wertvolle Gold abzuschaben (**Abb. 7**).

Die einzelnen Zerstörungsphasen können gut rekonstruiert werden: Der erste Schritt umfasst den eigentlichen Bildersturm, bei dem gegen das Antlitz der Statue vorgegangen und die Figur vom Sockel gerissen wird. Danach folgt die weitere Zerteilung der Statue und später das systematische Zerkleinern als Vorbereitung für den Gusstiegel zur Weiterverarbeitung des wertvollen Materials (Lahusen 2010, 59).

Ebenso unterschiedlich haben wir uns den Personenkreis vorzustellen, der an der Zerstörung der Bronzestatue beteiligt war. Sicher wird es Personen geben haben, die an allen Phasen beteiligt waren. Ein großer Teil wird zu dem wütenden Pöbel gehört haben, die sie vom Sockel riß, aber nicht unbedingt zu Kleinstteilen weiterverarbeitete, um sie einzuschmelzen. Darum werden sich andere gekümmert haben.

Die Untersuchung der Fragmente von Bronzestatuen und die umfangreichen Diskussionen zwischen den verschiedenen Fachleuten erbrachten viele neue Erkenntnisse und Beobachtungen. Sie werfen jedoch gleichfalls viele neue Fragen auf. Man kann davon ausgehen, dass im Römischen Reich in allen Bereichen – von großen urbanen Zentren bis hin zu kleinen abgelegenen Heiligtümern

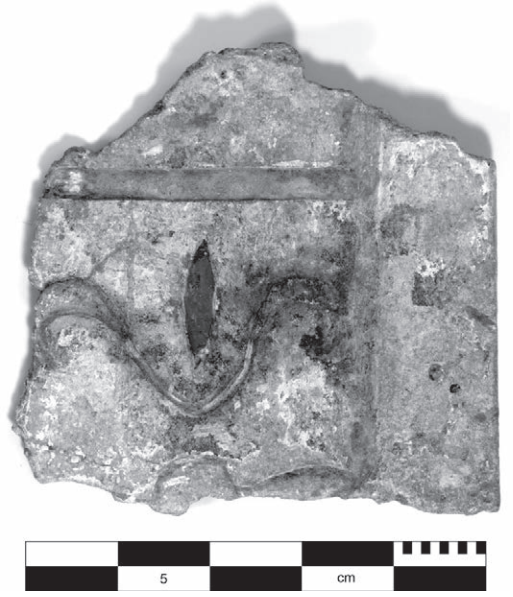


Abb. 5. Fragment mit polychromen Tauschierungen aus Straubing (Gäubodenmuseum, Foto: S. Heckmann)

– Bronzestatuen gestanden haben können. Die Qualität der Figuren ist dabei kein Marker für die „Wichtigkeit" des Aufstellungsortes. Darüber hinaus zeichnen sich immer mehr Unterschiede in der Herstellungstechnik zwischen einzelnen Regionen ab, die es in Zukunft weiter zu untersuchen gilt.

Summary

Especially from the forts along the Upper German-Raetian Limes a large quantity of bronze statue re-

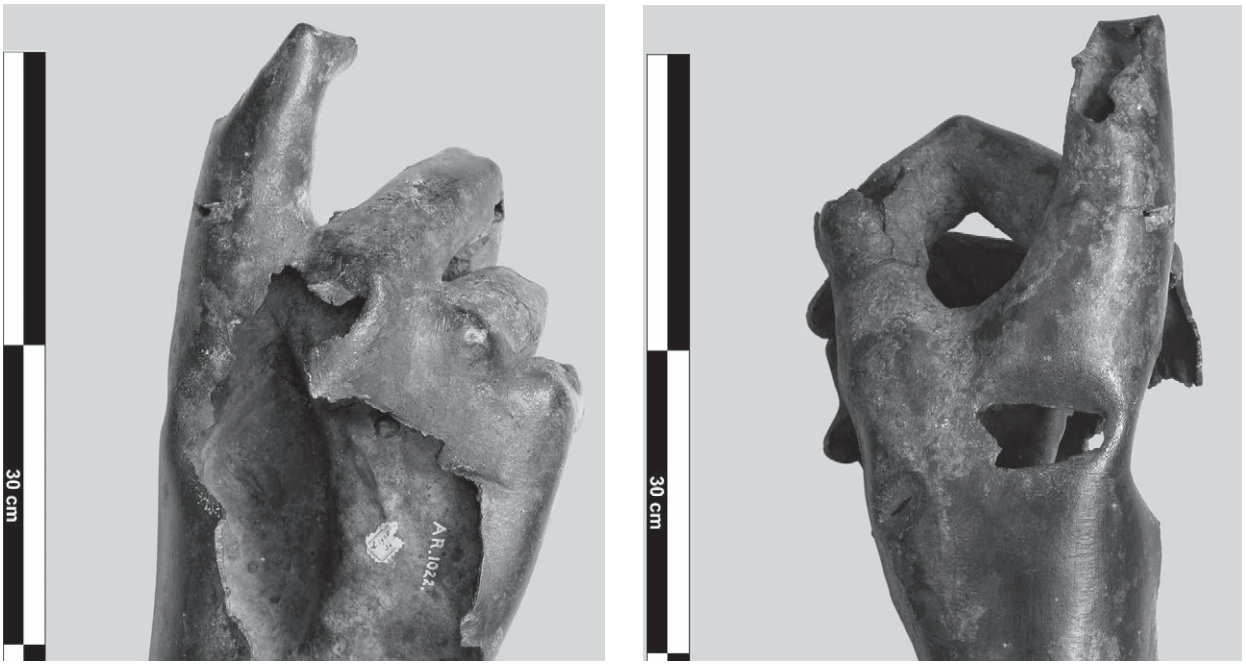


Abb. 6. Auf der Hand von Voorburg (NL) zeichnen sich verschiedenartige Zerstörungsspuren ab. Neben Hieb- und Schlagspuren finden sich gleichfalls Ermüdungsbrüche, wie z. B. am Zeigefinger (Rijksmuseum van Oudheden Leiden, Foto: C. Sarge)

mains has been passed on to us. Even though most of these fragments can only be determined with difficulties in detail, they nevertheless represent an important group of archaeological objects for historical research from the limes area.

In the context of the research project "Römische Großbronzen am UNESCO-Weltkulturerbe Limes", funded by the Volkswagen foundation, this group of finds is now being systematically examined for the first time.

Project partners are the "Archäologisches Landesmuseum Baden-Württemberg", the institute for archaeological sciences of the Goethe University of Frankfurt am Main and the "LVR LandesMuseum Bonn".

Distribution of Finds

Nearly 5200 fragments of bronze statues from approximately 130 sites have been identified. Some of these finds are yet unpublished, whilst others are only incompletely published or have been published a long time ago. The material basis comprises both of solitary finds and larger find complexes. So far, the overall amount of known pieces of bronze statues in this area has increased ten times during the course of the project.

The contexts the statue fragments were found in are manifold. They originate both from military facilities like forts, camps or military *vici*, but also quite often from civilian or religious sites like *vici*, municipal settlements, temples, *villae*, cemeteries- or hoards. Even find spots in the *Germania Magna* can be added. The size spectrum of the bronze statues varies from sub-lifesize to substantially larger-than-life monumental statues.

Spectrum of Finds

Due to their fragmentary state the statue pieces hold various difficulties for interpretation. Centre of the examination are the interpretation of the fragments as well as the possible reconstruction respectively designation of the original statues.

A large number of objects can be assigned to the human body, i.e. hands and feet, at times just fingers, toes or hair curls. An assignment of these parts of the body to a certain statue type or an individual or deity is difficult, not to say impossible for they are too non-specific.

Up to now, at 14 locations equestrian statues can be verified or at least suspected. Although they constitute a small group in terms of quantity compared to other statue types, equestrian statues occur far more frequently north of the Alps than perceived in the past.

A substantial amount of fragments once belonged to mostly larger-than-life statues of deities. Many of them were found in sanctuaries or their vicinities, others may be addressed as or suspected to be gods due to their attributes or implementations. Unfortunately, the remains of bronze statues



Abb. 7. Deutlich zeichnen sich Kratzspuren auf dem Rückenfragment aus Groß-Gerau ab, ein vergeblicher Versuch die Vergoldung abzuschaben (Landesamt für Denkmalpflege Hessen, Außenstelle Darmstadt; Foto: LVR-LandesMuseum Bonn)

are hardly ever found together with any epigraphical record, i.e their inscriptions, providing an additional indicator for the statues identification and attribution.

Joining Techniques and Polychromy

Even though not all examinations have been completed yet, certain tendencies can be observed. The statues found in the northern provinces seem to consist of a higher number of single castings than their counterparts in *Italia*.

Finds from *Raetia* are often adorned with inlays of copper and silver.

This specific type of polychromy, on the other hand, does not appear in *Germania inferior*. Gold-plated statue remains have been found in all examined provinces mainly in civilian or religious contexts.

Marks of Destruction

Lots of statue fragments show marks providing information about how they had been destroyed and how they have been processed thereafter. Some objects bear holes, possibly caused by projectiles as bolts or arrows, i.e. to be seen at the head of Gordian III from Niederbieber.

Furthermore traces of hammers, chisels and grippersand scratch marks can be found frequently.

The intensive preoccupation with the topic and extensive discussions between experts from different fields of study during the last years have provided new observations and yielded additional knowledge. At the very same time lots of new questions have been raised thereby.

It may well be assumed that bronze statues were omnipresent in all areas of the Roman Empire – even the northern provinces – be it in urban centres, military facilities or some remote and sanctuaries.

The artistic or technical quality of a statue is no indicator for the "importance" of the site where it once was erected.

Furthermore an increasing number of regional differences in manufacturing techniques can now be discerned, which require further investigation.

Bibliographie

Bakker, L. 1985. Reste monumentaler Kaiserstatuen und der Pferdekopf aus der Wertach. In: Fasold, P. (Hrsg.). Die Römer in Schwaben. 2000 Jahre Augsburg. Arbeitshefte des Bayerischen Landesamtes für Denkmalpflege 27. München. 104-105.

Faider-Feytmans, G. 1979. Les Bronzes romains de Belgique. Mainz

Friedländer, L. 1979. Darstellungen aus der Sittengeschichte Roms in der Zeit von Augustus bis zum Ausgang der Antonine, 3. 2. Neudruck der Ausgabe Leipzig 1923. Aalen.

Giumlia-Mair, A. 2002. Technique and composition of equestrian statues in Raetia. In: Mattusch, C. C. / Bramer, A. / Knudsen, S. E. (Hrsg.). From the Parts to the Whole. Acta of the 13th International Bronze Congress held at Cambridge, Massachusetts, May 28 – June 1, 1996. Volume 2. Portsmouth, Rhode Island. 92-97.

Giumlia-Mair, A. 1999. Studi tecnici sulla testa del cavallo romano da Augusta Vindelicum. In: Formigli, E. (Hrsg.). I grandi bronzi antichi. Le fonderie e le tecniche di lavorazione dall'età arcaica al Rinascimento. Atti seminari di studi ed esperimenti, Murlo, 24 – 30 luglio 1993 e 1 – 7 luglio 1995. Siena. 255-270.

Hahn, M. 2014. Der bronzene Pferdekopf aus Augsburg. In: LVR-LandesMuseum Bonn, Archäologisches Landesmuseum Baden-Württemberg, Museum Het Valkhof Nijmegen (ed.). Gebrochener Glanz. Römische Großbronzen am UNESCO-Welterbe Limes. Begleitbuch zur Ausstellung. Bonn. 49-51.

Heckmann, S. 2014. Ein (?) zerschlagenes Reiterstandbild aus Kempten. In: LVR-LandesMuseum Bonn, Archäologisches Landesmuseum Baden-Württemberg, Museum Het Valkhof Nijmegen (ed.). Gebrochener Glanz. Römische Großbronzen am UNESCO-Welterbe Limes. Begleitbuch zur Ausstellung. Bonn. 44-45.

Knauer, E. 1995. Bruchstück einer bronzenen Satteldecke in Bonn. Nachtrag. – Bonner Jahrbücher 195, 439-446.

Knauer, E. 1992. Bruchstück einer bronzenen Satteldecke in Bonn. – Bonner Jahrbücher 192, 241-260.

Krämer, W. 1957. Cambodunumforschungen 1953-I. Die Ausgrabung von Holzhäusern zwischen der 1. und 2. Querstraße (= Materialhefte zur Bayerischen Vorgeschichte 9). Kallmünz.

Lahusen, G. 2010. Römische Bildnisse. Auftraggeber – Funktionen – Standorte. Darmstadt.

Menzel, H. 1986. Die römischen Bronzen aus Deutschland, 3. Bonn. Mainz.

Menzel, H. 1969. Römische Bronzen aus Bayern. Augsburg.

Menzel, H. 1966. Die römischen Bronzen aus Deutschland, 2. Trier. Mainz.

Morscheiser, J. / Sarge, C. 2014. Monumentale Statuen aus Bonn. In: LVR-LandesMuseum Bonn, Archäologisches Landesmuseum Baden-Württemberg, Museum Het Valkhof Nijmegen (ed.). Gebrochener Glanz. Römische Großbronzen am UNESCO-Welterbe Limes. Begleitbuch zur Ausstellung. Bonn. 125-127.

Sarge, C. / Van den Vonder, I. 2014. Das Heiligtum der Vagdavercustis auf dem Kalkarberg bei Kalkar. In: LVR-LandesMuseum Bonn, Archäologisches Landesmuseum Baden-Württemberg, Museum Het Valkhof Nijmegen (ed.). Gebrochener Glanz. Römische Großbronzen am UNESCO-Welterbe Limes. Begleitbuch zur Ausstellung. Bonn. 56-57.

Claudia Sarge, M.A.
Goethe-Universität Frankfurt
Institut für Archäologische Wissenschaften Abt. II
Grüneburgplatz 1
DE-60629 Frankfurt/Main
Sarge@GrossbronzenamLimes.de
http://www.GrossbronzenamLimes.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

It Looks like Waste … but are Valuable Archaeological Artefacts

Annette FRÖLICH

Performing excavations most archaeologists experience to unearth a lot of small items often categorized as recent waste. But, when we excavate such artefacts, which we perceive as a modern mix, can we then be sure that the excavated items are not really valuable archaeological artefacts? Even from the same archaeological periods as all other items from the actual excavation?

Thorns and Needles

The archaeologists who excavated an offering bog, Illerup Ådal, geographically localized in Jutland, the Danish peninsula (**fig. 1**), found more than 200 thorns (**fig. 1**), and interpreted those thorns as toothpicks (Ilkjær 1993, 335).

Studying the literature on excavations in Denmark, I succeeded in finding a report from an excavation performed in the 1880s at the Danish island Bornholm (**fig. 1**) (Vedel 1886, 133), where the excavator unearthed a needle case containing four thorns. The needle case was found in an interment female grave together with the deceased woman's tools. The grave was dated to the 4th century AD. The thorns were then interpreted as pins for sewing.

In addition to these examples it can be added that in both of the Danish offering bogs Illerup Ådal and Vimose (**fig. 1**) (Engelhardt 1869, 10, Pl. 1; Ilkjær 1993, 333) had found sewing-needles, designed exactly as equivalent needles in use today. The excavated artefacts from these offering bogs dates to the Danish Roman Iron Age, which dates from the birth of Christ to 375 AD (Hansen 1993, 169). Both needles have a special shape of the needle-eye (**fig. 1**) (Ilkjær 1993a, Taf. 336). Why needles and thorns in the offering bogs? Furthermore the excavated thorns were not just thorns; they were all about the same size approx. 5 cm and were without bark. The thorns and needles may be dated to the Iron Age like the surrounding artefacts found in the excavation contexts and may have had a special use and function. But which?

Function and Use

By studying the illustrated excavation context of the thorns from Illerup Ådal (Ilkjær 1993, 92-93), and the actual thorns (Ilkjær 1993a, Taf. 337), I found that the fine thorns without bark had a smooth surface and most of them were from sloe, they were quite stiff and not easy to bend. In addition, these specially adapted thorns were found close together with a trepanation saw and an awl. This context gave the solution; the thorns had been used as surgical tools.

During the history medical doctors have known the importance of closing a wound. The best treatment of a traumatic wound was, and still is, to close a wound as fast as possible to prevent complications, for example infections. To learn how such operations were performed in previous times, we have mainly two sources of knowledge, old surgical textbooks and ethnoarchaeological reports.

Ethnographical Descriptions

An ethnologist writes (Acherknecht 1967, 635) "There is no tribe on record which does not in some way or another treat wounds". In 1884, the Scottish physician R. W. Felkin from Edinburgh, published a report from his traveling in Central Africa during the years 1878–80 and 1880–81, where he witnessed a Caesarean section, performed by local male inhabitants (1884, 928). Both mother and child survived. Felkin describes the operation in detail and also how the wound was closed by "seven thin iron spikes, well polished, like acupressure needles, being used for the purpose, and fastened by strings made from bark cloth" (1884, 929). The description of the closed wound is illustrated in the drawing shown on **figs. 1** and **2**.

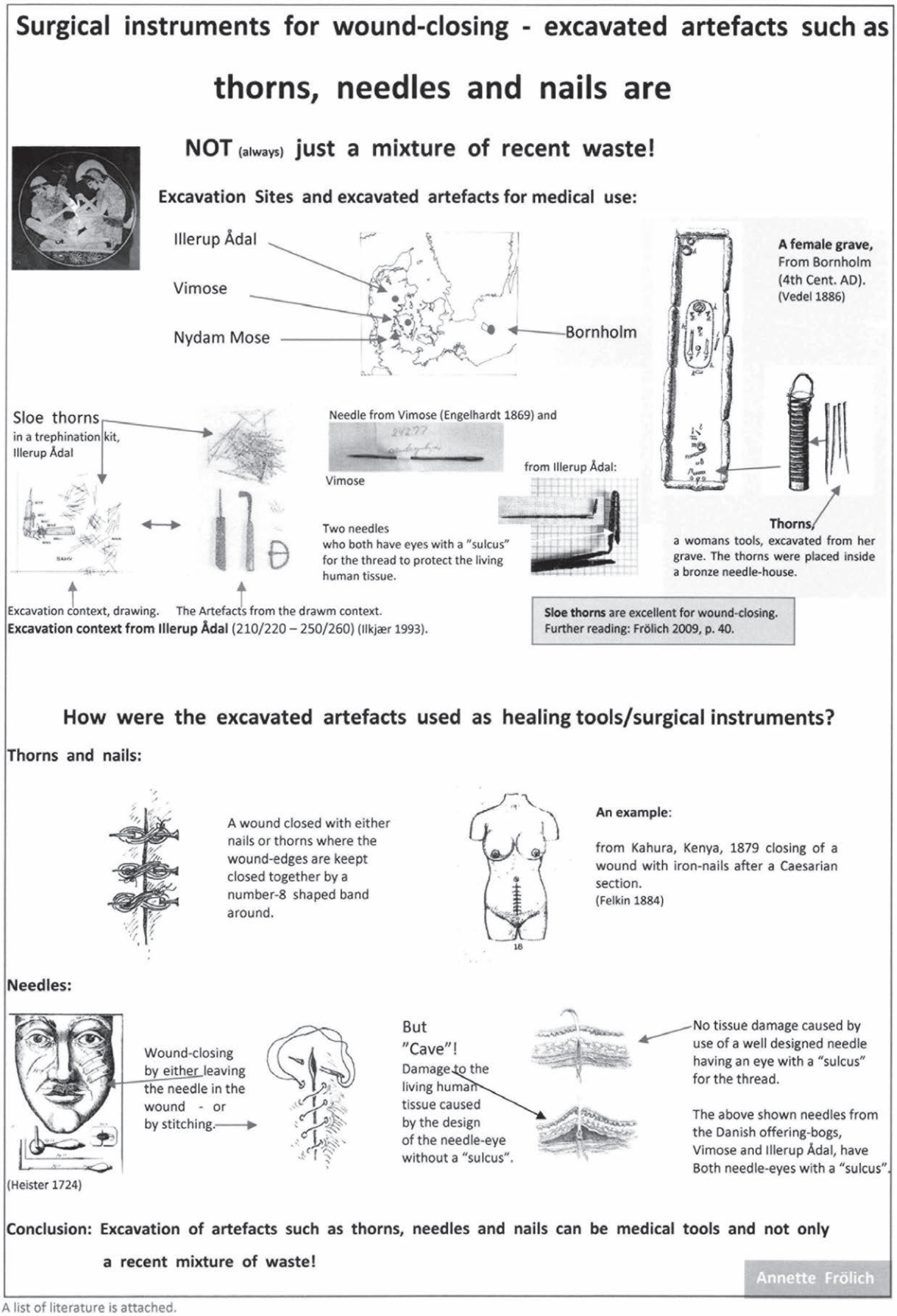


Fig. 1. Author's poster from the XXII Limes Congress in Ruse. With illustrations from: Felkin 1884, fig. 18; Heister 1724, Tab. XI; Ilkjær 1993, 92-93; Vedel 1886, 120, 133, and the author's drawings

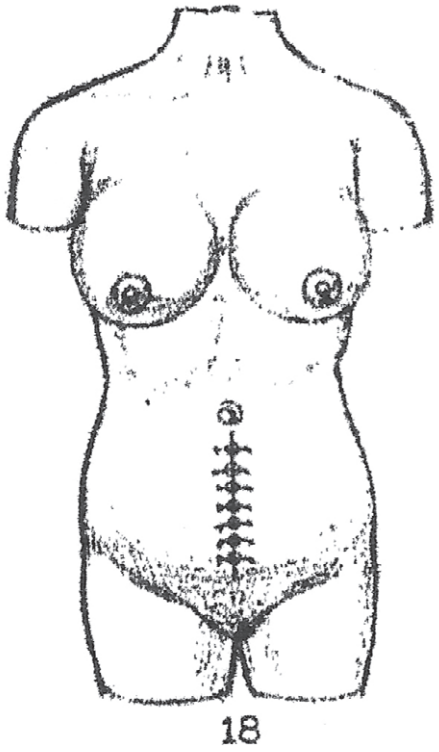


Fig. 2. Closing of a wound with iron-nails after a Caesarian section, Kahuraq Kenya (after Felkin 1884, fig. 18)

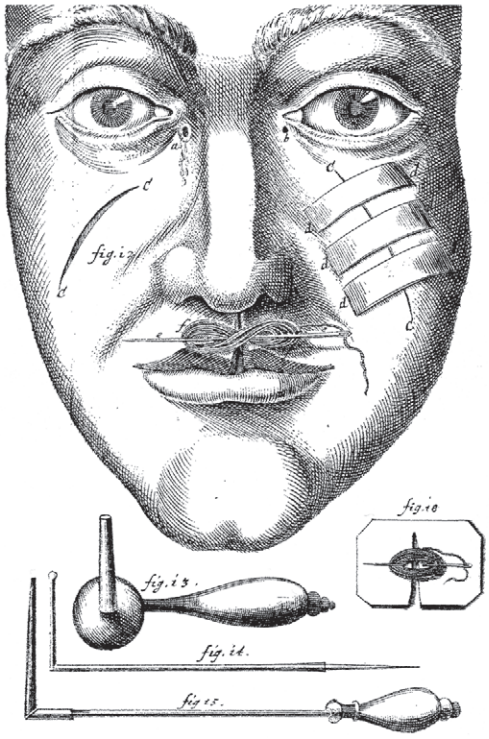


Fig. 3. Wound-closing by leaving the needle in the wound (after Heister 1724, Tab. XI)

He also reports the healing of the wound and how and when the "spikes" were removed. The wound was found to heal without any kind of complication nor infection.

Some years later, in 1910, another ethnographical report is published, "Die Masai", describing an East African population, where it is mentioned that among the population are "Wundärzte", local medical knowledgeable people who treat wounds (Merker 1910, 190). These "Wundärzte" closes the wounds with thorns. The method was to use an awl to make a hole in both sides of the wound-edge, withdraw the awl and quickly replace it with a needle-shaped thorn. The local people used thorns from acacia.

Also Ackerknecht mentions wound closing with thorns (1971, 96). Generally the wound-edges with the thorns were kept together by binding – in the shape of the number 8 – around the thorns or "spikes" used for the closing, illustrated on **fig. 1**. For such binding are mentioned materials as dried tendons (Buchan 2006, 5), cloth (Felkin 1884, 929), flax (Schmid 1673, 206, fig. 187) and silk (von Brunn 1928, 104).

The thorns excavated from Illerup Ådal, as mentioned above, have been investigated and most of them are from sloe, which cannot be just accidental, because wood from sloe releases a chemical substance which converts to cyanide when it becomes wet and

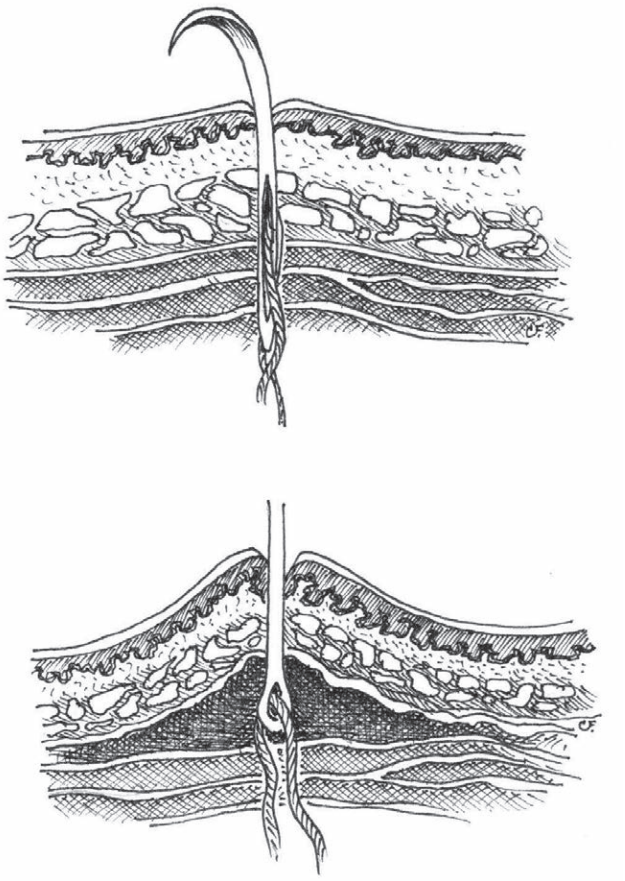


Fig. 4. No tissue damage caused by the use of a well designed needle (above); damage to the tissue caused by the design of the needle-eye without a "sulcus" (below) (author's drawing)

thereby may prevent infection (Cooper et al. 1984, 205; Frölich 2009, 40; Hegi 1906–1931, 1105; Roth et al. 1984, 588). A similar release is possible from acacia which belongs to the same botanical family.

Historical Descriptions

Luckily we have preserved old surgical textbooks. Reading those, we learn how and with which instruments our ancestor surgeons treated wounds. They used both "nails" and stitched wound-edges together. The wound closing method is shown on **fig. 1** and more clearly on **fig. 3** (Heister 1724, Tab. XI). It is repeatedly described through centuries in the surgical literature (Heister 1724, Tab. XI; Majno 1991, 365-368; Schmid 1673, 9, fig. 9; 206, fig. 187). The surgeon uses a needle but leaves it in the wound, in the same way as reported by Felkin and Merker. Such a method leaves most often well healed wounds without bad complications and ugly scars. Looking at the needles excavated from the two mentioned offering bogs, Vimose and Illerup Ådal, both of these needles have very slender eyes. The shape of these needle-eyes is very important when used for surgery, which is visualized on **fig. 1** and more distinct in **fig. 4,** where the damage a bulky needle-eye can cause in human tissue is shown. A bulky needle-eye withdraws the layers in the skin. Such a withdrawing can cause bleeding and damage the healing of the skin.

Conclusion

From a surgical point of view interpretation of archaeologically excavated thorns and needles, especially needles designed with the same eye-shape which have been excavated from the Danish offerings bogs, dating to the Roman Iron Age, are certainly not just waste, but valuable archaeological artefacts informing us about medical knowledge from that period from where they came into the soil we today excavate as archaeologists.

Bibliography

Ackerknecht, E. H. 1971. Surgery and its Paradoxes. In: Walser, H. H. / Koelbing, H. M. (eds.). Medicine and Ethnology, Selected Essays. Stuttgart. 95-114.

Ackerknecht, E. H. 1967. Primitive Surgery. In: Brothwell, D. / Sandison, A. T. (eds.). Diseases in Antiquity, A Survey of the Diseases, Injuries and Surgery of Early Populations. Springfields, Illinois. 635-650.

Buchan, A. D. 2006. Primitive Surgery. An Overwiew. BAR International Series 1512.

Cooper, M. R. / Johnson, A. W. 1984. Poisonous Plants in Britain and their Effects on Animals and Man. London.

Engelhardt, C. 1869. Fynske Mosefund Nº II. Vimose Fundet. Kjøbenhavn.

Felkin, R. W. 1884. Notes on Labor in Central Africa. – Edinburgh Medical Journal 29, 922-930.

Frölich, A. 2009. Jernalderens lægekunst. Jernalderen i Nordeuropa. Højbjerg.

Hansen, U. L. 1993. Yngre romersk og ældre germansk jernalder. In: Hvass, S. / Storgaard, B. (eds.). Da klinger i muld… 25 års arkæologi i Danmark. København. 177-180.

Hegi, G. 1906 – 1931. Illustrierte Flora von Mittel-Europa. Mit besonderer Berücksichtigung von Deutschland, Oesterreich und der Schweiz. München.

Heisters, D. L. 1724. Chirurgie, In welcher Alles, was zur Wund-Artzen gehöret, Nach der neuesten und besten Art gründlich abgehandelt und in vielen Kupffer-Tafeln die neuerfundene und dienlichste Istrumenten Nebst den bequemsten Handgriffen der chirurgischen Operationen und Bandagen deutlich vorgestellet werden. Zweyte Auflage viel vermehrt und verbessert. Núrnberg.

Ilkjær, J. 1993. Illerup Ådal 3. Die Gürtel. Bestandteile und Zubehör. Jutland Archaeological Society Publications 25, 3. Textband. Aarhus.

Ilkjær, J. 1993a. Illerup Ådal 4. Die Gürtel. Bestandteile und Zubehör. Jutland Archaeological Society Publications 25, 4. Tafelband. Aarhus.

Majno, G. 1991. The Healing Hand. Man and Wound in the Ancient World. Cambridge, Massachusetts/London.

Merker, M. 1910. Die Masai. Ethnographische Monographie eines ostafrikanischen Semitenvolkes. Berlin.

Roth, L. / Daunderer, M. / Kormann, K. 1984. Giftpflanzen Pflanzengifte. Vorkommen. Wirkung. Therapie. Allergische und Phototoxische Reaktionen. München.

Schmid, J. 1673. Instrumenta Chirurgica. Augspurg.

Vedel, A. E. 1886. Bornholms Oldtidsminder og Oldsager. Kjøbenhavn.

von Brunn, W. 1928. Kurze Geschichte der Chirurgie. Berlin.

Annette Frölich MA
Vilvordeparken 11
DK-2920 Charlottenlund
acfroelich@dadlnet.dk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Roman Gems from the *Limes* in the Collection of the Archaeological Museum in Zagreb (Croatia)

Iva KAIĆ

In the glyptic collection of Archaeological Museum in Zagreb there is a small group of unpublished engraved gems found at the sites along the Danubian *limes* in present-day Croatia and Serbia[1]. These sites were a part of the Roman provinces of *Pannonia Inferior* and *Moesia Superior*. The gems belong to stray finds acquired by the Museum at the end of the 19th century and the beginning of the 20th century. They belong to the Roman production of the Imperial period (1st – 3rd century AD) and depict motifs closely related to military life and beliefs. Six intaglios found at Dalj, Novi Banovci (*Pannonia Inferior*) and Kostolac (*Moesia Superior*) are presented here (**fig. 1-6**).

A carnelian (**fig. 1**) depicting a horseman with plumed helmet riding a galloping horse in profile towards the left was found at Dalj (*Teutoburgium*)[2]. He is holding two spears and a Celtic shield. It is dated to the 1st century AD. Direct iconographic and stylistic parallels can be found on a carnelian from the Nürnberg collection (Weiss 1996, 112-113, # 259, pl. 36), as well as on a carnelian from the Ashmolean Museum (Henig / MacGregor 2004, 79, # 7.27). During the 1st century AD, *ala II Hispanorum Aravacorum* was stationed in *Teutoburgium* (Sanader 2003, 141; Radman-Livaja 2012, 176, pl. 1). In the 2nd century it was replaced by *ala I praetoria civium Romanorum* followed by *ala I civium Romanorum*, which remained there until the mid-3rd century AD (*Ibid.*).

Three intaglios (**fig. 2-4**) were found in Novi Banovci (*Burgenae*). A rare variant of standard iconography is shown on the carnelian (**fig. 2**) with Roma seated on a cuirass but holding a branch in her outstretched arm instead of Victoriola[3]. A direct iconographic parallel can be found on a nicolo from Naix-aux-Forges (Guiraud 2008, 100, # 1113, pl. 4), while some similar iconographic as well as stylistic and technical characteristics can be seen on a carnelian from the München collection (Brandt et al. 1972, 91, # 2695, pl. 251). A branch is an attribute borrowed from *Pax*, the personification of peace, shown on the coins of the 2nd – 3rd century AD holding an olive branch and a sceptre (Simon 1994, 208, # 30-38; Guiraud 2008, 100, # 1113). This intaglio is dated to the 2nd century AD.

Another not so commonly represented motif is shown on yellow jasper (**fig. 3**), dated to the 2nd – 3rd century AD. It is engraved with the Dioscuri and a female figure[4]. The Dioscuri stand frontally,

[1] The glyptic collection of the Archaeological Museum in Zagreb, which consists of around 450 engraved gems, has never been entirely published. The first descriptive catalogue of 127 engraved gems, which were by then acquired, was published by F. Maixner in 1881 (Maixner 1881; 1881a). In 1941 M. Šeper published his doctoral thesis on magical gems from Jugoslavia which, among the gems from the museum collections from Split, Sarajevo and Belgrade, included three magical gems from Archaeological museum in Zagreb (Šeper 1941, 10, # 7, 10; 12-13, # 15; 13, # 16). In 1958 I. Degmedžić published four engraved gems with zodiac symbols from Sisak (*Siscia*) (Degmedžić 1958, 23-35). Four intaglios and two cameos with portraits were published in 1987 (Jevtović (ed.) 1987, 141, # 37; 162, # 77; 189, # 128; 190, # 131; 204, # 158; 205, # 161 – author A. Rendić-Miočević). Several golden rings with engraved gems were published in 1993 (Rendić-Miočević (ed.) 1993, 160-164, # 213, 214, 216-219, 226, 228, 229 – author D. Nemeth-Ehrlich). Seven engraved gems from the Archaeological Museum in Zagreb were published in monograph dedicated to Stari Grad (*Pharos*), where they were originally found (Rendić-Miočević. / Kirigin 1995, 130-131, # 3-9).

[2] Inv. # A-15973; 10 x 13 x 4 mm.

[3] Inv. # A-290; 12.3 x10.7 x 3.5 mm.

[4] Inv. # A-16103; 14.6 x 17 x 3.2 mm.



Fig. 1. Carnelian with horseman from *Teutoburgium*



Fig. 2. Carnelian with Roma from *Burgenae*



Fig. 3. Jasper with the Dioscuri and a female figure from *Burgenae*



Fig. 4. Glass intaglio with legionary standards from *Burgenae*

facing each other, with stars on top of their heads. In raised hand they are holding a spear; in the lowered hand draped with *chlamys* they are holding a sword. Between them, a female figure stands frontally, dressed in a long *chiton*, holding her hands down. Her head is surmounted by a crescent moon. A certain iconographic resemblance can be found on the intaglio from S. S. Lewis' collection in Cambridge (Henig 1975, # 135, pl. 9). It shows the Dioscuri on horses and a female figure standing between them. The female figure is holding a sceptre and has a crescent moon over her head. There are also three intaglios from *Carnuntum* with a crescent moon in the middle above the Dioscuri (Dembski 2005, 96, # 447-449, pl. 44). The moon in combination with a female figure might indicate goddess Luna. The motif itself could suggest astrological symbolism (the Dioscuri together as *Gemini* and female figure as Luna). The female figure could also represent Helen, the sister of Castor and Pollux, which has been identified with Luna (Detienne 1957, 132 ff.). The Dioscuri, in the Roman conception, were connected with the battle victory and regarded as protectors of the army, especially cavalry (Albert 1892, 261-263). There is evidence that *ala I civium Romanorum* was stationed in *Burgenae* in the 2nd century AD, and *cohors I Thracum civium Romanorum pia fidelis* during the 2nd and 3rd centuries AD (Radman-Livaja 2009, 189-190, fn. 1; Radman-Livaja 2012, 176, 179, pl. 1).

On the intaglio of glass imitating sardonyx (**fig. 4**) set in an iron ring, three legionary standards are depicted, with an eagle standing on top of each[5]. The left and right eagles are shown in profile, while the eagle in the middle stands with its head facing front and the body in three-quarter view to left. It can be dated to the 1st century AD.

Two engraved gems (**fig. 5, 6**) have been found in Kostolac (*Viminacium*). One is a sardonyx (**fig. 5**)

[5] Inv. # A-16184; 12 x 9 mm. Set in an iron ring; form according to Henkel 1913, 135, # 1468, pl. 56.



Fig. 5. Sardonyx with Hercules from *Viminacium*



Fig. 6. Jasper with an eagle from *Viminacium*

with Hercules standing frontally with his head facing right[6]. His left outstretched hand is wrapped in lion's skin, in his lowered right hand he is holding a club. A close parallel can be found on a sardonyx from Corbridge (Henig 2007, 145, 228, # 428, pl. 14). Hercules was a hero popular among Roman soldiers, and the gems engraved with his depictions were often found at military sites (*Ibid*., 30).

The other one is a red jasper (**fig. 6**) with an eagle standing right on the altar, with its head turned to the left, holding a wreath in its beak[7]. To the right of the eagle is a star. The iconographic and stylistic parallels can be found on carnelian from Hannover (Schlüter et al. 1975, 241, # 1260, pl. 171) and on brown jasper from the Hungarian National Museum collection (Gesztelyi 2000, 74, 150, # 216).

The gems presented here, though without archaeological context, can in a certain measure provide an insight into the glyptic material connected with the limes sites from Croatian and Serbian parts of *Pannonia Inferior* as well as *Moesia Superior*. Taking into consideration the military character of the sites were they were found and the motifs depicted, these engraved gems could be connected with soldiers as their potential owners.

Bibliography

Albert, M. 1892. Dioscuri. In: Daremberg, E. / Saglio, E. (eds.). Dictionnaire d'antiquités grècques et romaines 2/1. Paris. 249-265.

Brandt, E. / Gercke, W. / Krug, A. / Schmidt, E. 1972. Antike Gemmen in deutschen Sammlungen. Band I: Staatliche Münzsammlung München. Teil 3: Gemmen und Glaspasten der römischen Kaiserzeit sowie Nachträge. München.

Degmedžić, I. 1958. Rimske geme iz Siska sa simbolima zodijaka. In: Bach, I. (ed.). Tkalčićev zbornik 2. Zagreb. 23-35.

Dembski, G. 2005. Die antiken Gemmen und Kameen aus Carnuntum. Wien.

Detienne, M. 1957. La légende pythagoricienne d'Hélène. – Revue de l'histoire des religions 152/2, 129-152.

Gesztelyi, T. 2000. Antike Gemmen im Ungarischen Nationalmuseum. Budapest.

Guiraud, H. 2008. Intailles et camées de l'époque romaine en Gaule (territoire français): vol. 2. Paris.

Henig, M. 2007. A Corpus of Roman Engraved Gemstones from British Sites (3rd edition). Oxford.

Henig, M. 1975. The Lewis Collection of Engraved Gemstones in Corpus Christi College, Cambridge. Oxford.

Henig, M. / MacGregor, A. 2004. Catalogue of the Engraved Gems and Finger-Rings in the Ashmolean Museum II. Roman. Oxford.

Henkel, F. 1913. Die römischen Fingerringe der Rheinlande und der benachbarten Gebiete. Berlin.

Jevtović, J. (ed.) 1987. Classical Portraits in Yugoslavia. Beograd.

Maixner, F. 1881. Intagliji u zemaljskom muzeju zagrebačkom. – Viestnik Hrvatskoga arkeologičkoga družtva 3/3, 75-84.

Maixner, F. 1881a. Intagliji u zemaljskom muzeju zagrebačkom.

[6] Inv. # A-453; 12.5 x 9.6 x 4.8 mm.

[7] Inv. # A-457; 17.9 x 12.6 x 2.4 mm.

– Viestnik Hrvatskoga arkeologičkoga družtva 3/4, 108-121.

Radman-Livaja, I. 2012. The Roman Army. In: Migotti, B. (ed.). The Archaeology of Roman Southern Pannonia. The State of Research and Selected Problems in the Croatian Part of the Roman Province of Pannonia. Zagreb. 159-189.

Radman-Livaja, I. 2009. Lorica Segmentata Fittings from Burgenae. – Xantener Berichte 16, 189-194.

Rendić-Miočević, A. (ed.) 1993. Arheološki muzej u Zagrebu: izbor iz fundusa. Zagreb.

Rendić-Miočević, A. / Kirigin, B. 1995. Nakit i geme. In: Jeličić Radonić, J. / Rauter Plančić, B. (eds.). Pharos – antički Stari Grad: u povodu 2380. obljetnice utemeljenja. Zagreb. 130-131.

Sanader, M. 2003. The Ripa Pannonica in Croatia. In: Visy, Z. (ed.). The Roman Army in Pannonia. An Archaeological Guide of the Ripa Pannonica. Pécs. 135-142.

Schlüter, M. / Platz-Horster, G. / Zazoff, P. 1975. Antike Gemmen in deutschen Sammlungen. Band IV. Hannover, Kestner Museum. Wiesbaden.

Simon, E. 1994. Pax. In: Ackermann, H. C. / Gisler, J.-R. (eds.). Lexicon iconographicum mythologiae classicae VII. Zürich / München. 203-212.

Šeper, M. 1941. Antikne geme-amuleti nazvane gnostičkim gemama. Zagreb.

Weiss, C. 1996. Antike Gemmen in deutschen Sammlungen. Band V. Die antiken Gemmen in Sammlung Friedrich Julius Rudolf Bergau im Germanischen Nationalmuseum, Nürnberg. Nürnberg.

Iva Kaić
Department of Archaeology
Faculty of Humanities and Social Sciences
University of Zagreb
Ivana Lučića 3
HR-10000 Zagreb
ikaic@ffzg.hr

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Images of Venus on Gems from *Novae*[1]

Grażyna BĄKOWSKA-CZERNER

Novae was one of the important military settlements along the Lower Danube. The First Italic Legion stationed there had a great influence on the development of the province of Moesia Inferior. As a result of the work by the Polish and Bulgarian archaeological expeditions conducted in *Novae*, among numerous monuments, a considerable number of gems showing various images, symbols, and inscriptions were also found (Novae 1980-1994). The majority have military character referring to the policy of the Empire and showing deities and symbols emphasizing victory and prosperity. However, gems with images of other themes of religious or magic nature can also be found. On the carved scenes of four gems stored in the Historical Museum of Svishtov, the image of the goddess of love Venus appears. However, the content of these representations is not devoted to the theme of love but, as on most of the gems from *Novae*, refers to military victory.

The imperial political propaganda is related to representations of *Venus Victrix* (Pollini 1996, 757-785). The armed goddess has an oriental origin (Budin 2003, 3, 31-32). The cult of the armed Aphrodite was well known. Its testimonies are found as early as the Archaic period (Budin 2003, 3, 31-32). Information about very old cult figures of the armed Aphrodite is provided by Pausanias (III, 15.10). The concept of this type of representation refers to the myth of Aphrodite and Ares (Balil 1981, 229; Flemberg 1991, 23-26). In Rome, the theme of the armed goddess becomes popular in the first century BC, but a statue of *Aphrodite Nikephoros* venerated by the Samnites, known as "the goddess, bringer of victory", was brought to Rome already in the year 292 BC (Flemberg 1991, 27). Venus was the protectress of Sulla and of Pompey the Great, who dedicated a temple to her honour (Schilling 1954, 296-301). She was the personal goddess of Caesar, worshipped as the *Genetrix* of the *gens Iulia* (Schilling 1954, 301-318). Dio Cassius (XLIII, 43.3) mentions the ring with an image of the goddess, which Caesar wore. Venus occurs already on the coins of Caesar and Octavian (Schilling 1954, 432-435, Pl. 29-31). The armed goddess appeared under the Flavian emperors (Balil 1981, 228, n. 15). Her cult gained importance in the times of Hadrian, Marcus Aurelius, and the Severan dynasty. *Venus Victrix*, the Roman goddess of war, performed the role of protectress of the Emperor against his enemies (Daszewski 1989, 123). Throughout the Empire, the goddess has become a symbol of Roman power, military success, and civic peace.

At the site of *Novae* few gems with the image of *Venus Victrix* were found (Dimitrova-Milcheva 1961, 36-37, # 30-31). They are usually made from different varieties of chalcedony and like with most of the gems with the image of *Venus Victrix* carnelian predominates. Among the gems, one stands out with its fine workmanship (**fig. 1**). The intaglio is well preserved. It represents a standing young woman shown in the rear view half turned to the left. The body is strongly curved resembling the letter S, thus referring to the sculptures by Praxiteles and Scopas. The head is shown in a left profile, slightly inclined to the front. The elegant hair is tied in a bun on the neck and probably decorated with a diadem. The hairstyle resembles that of the Julio-Claudian dynasty (Bartman 1997, 58-65, 144;

[1] I am indebted to the head of the Polish-Bulgarian Archaeological Expedition Dr. A. B. Biernacki for the possibility to publish the gems. I would also like to thank the Polish Academy of Arts and Sciences, the Lanckoroński Foundation. Their scholarship enabled me to stay and study in the libraries of Rome.



Fig. 1. *Novae*. Gem # 1. Venus Victrix (Photograph: Andrzej B. Biernacki)

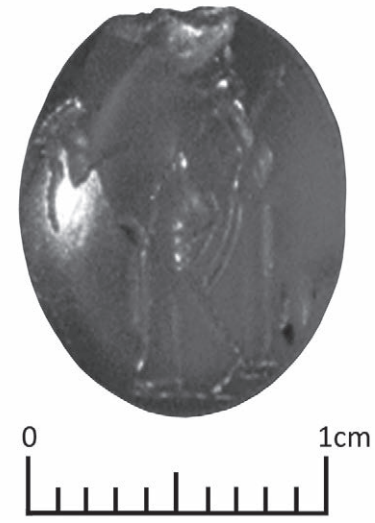


Fig. 2. *Novae*. Gem # 2. Venus Victrix (Photograph: Andrzej B. Biernacki)

Vollenweider 1979, 195, # 205). Venus, playing with Cupid, shown on a gem dated to the first century BC[2] has a similar hairdo. The goddess is gazing at the plumed helmet, which she keeps ahead in her left raised hand. The right hand, in which she is holding a coat and a spear, is leaned on a low column. The weight of the body rests on the right leg, the left one is slightly raised, tilted back, her toe touching the ground. The naked goddess holds the coat that fell, thus covering only the upper part of her legs. The robe is arranged in gentle folds, emphasizing the figure of the goddess. The contrast between the naked body and the robe drapery is clearly visible, so characteristic of the Hellenistic period. Venus and the obliquely set spear held by her create a beautiful, well-balanced composition. Before the goddess, at her feet, there is a shield. The composition, the careful drawing, and the elaborate details indicate a high quality workshop. The spear and shield have marked decorations. The gem is made of hematite. The intaglio is slightly damaged in the upper part. It can be dated to the first century. The scene layout is similar to that of the gem from Vienna (Zwierlein-Diehl 1978, # 1465) and to one of the gems from the Yüksel Erimtan Collection (Arslan 2000, 27, # 3). The scene shown on the gem resembles images on the coins of Octavian issued after the victorious battle of *Actium* (Vollenweider 1984, 230; Schilling 1954, 435, Pl. 31, # 7). On a coin a shield is placed on the opposite side (Flemberg 1991, 435, Pl. 31, # 7), resting against the column, similar to gem # 2 (**fig. 2**). The ground line is marked. The intaglio made of carnelian is heavily damaged in the upper part. It differs from gem # 1 not only in composition but also in workmanship. The drawing is not as detailed and is less carefully made. The gem probably dates from the first – second century. The layout reminds that on the gem from Vienna (Zwierlein-Diehl 1978, # 1460).

A careless schematic image of *Venus Victrix* is depicted on gem # 3 (**fig. 3**). Now the shield is placed again before the goddess but not as on gem # 1. It is positioned higher and lies on its outer side, while the inner side is turned towards the goddess (similar: Weiss 1996, 97, # 208). The intaglio, made of carnelian, damaged in the upper part, is also barely legible at the height of the face. The ground line is marked. The gem can be dated to the second – third century.

Representations of the armed Venus appear also in sculpture (Daszewski 1989, fig. 1), mural paintings, floor mosaics, on bronze mirrors (Flemberg 1991, 27), vases (Daszewski 1989, fig. 6), oil lamps (Bernhard 1955, 298, # 214), and coins. An armed woman is represented on a gem from *Eretria* dated to the third century BC (Flemberg 1991, 58). Sometimes the scene is slightly modified. The details may vary: Eros, a palm branch or an apple may appear. On one of the gems the goddess is shown in three quarter back view, holding the armaments of Mars and playing with Cupid. The column is missing from the scene. The theme of Aphrodite sup-

[2] Gem published in: Ancient Jewelry. Christie's Special Exhibition Gallery. Auction. Wednesday, 7 December 2011. New York. 54, # 390.



Fig. 3. *Novae*. Gem # 3. Venus Victrix (Photograph: Andrzej B. Biernacki)



Fig. 4. *Novae*. Gem # 4. Venus Anadyomene accompanied by Aphros and Bythos (Photograph: Andrzej B. Biernacki)

porting her elbow on a low pillar or trunk appears on the fifth century BC Alkamenes' sculpture – Aphrodite of the Gardens (Balil 1981, 227, n. 3). A low column (or trunk) accompanies the images of Aphrodite on mosaics from North Africa and Cyprus (Karageorghis 2005, 64-65, fig. 58). On the mosaic of Nea Paphos a standing half-naked goddess is shown, her elbow resting against a pillar. In her left hand she holds a spear. Perhaps the image of *Venus Victrix* on gems comes from the Hellenistic statue type, dating back to the fourth – third century BC and more recently, towards the end of the second century BC or later (Pollini 1996, 774). Perhaps the statue of Venus of Arles refers to it – it has a similar pose, turn of the head, and hairstyle (Pollini 1996, 774; Flemberg 1991, 56-58). As mentioned above, on a coin of Octavian (Flemberg 1991, 435, Pl. 31, # 7) the shield is located behind a pillar as on part of the gems with an image of *Venus Victrix* and on the described intaglio # 2 of *Novae*. Such placement of the shield is logical if the scene repeats a scheme of a statue (Guiraud 1985, 400, n. 8).

Venus was the patroness of war, guardian of soldiers, but above all she had great power as the goddess of love. On one of the gems found in *Novae* the image of *Aphrodite Anadyomene* appears (**fig. 4**). This known motif associated with the work of Apelles, the greatest painter of Antiquity, occurs in sculpture, relief, painting and terracotta, on lamps, coins, and gems.

However, the representation on the gem from *Novae* is exceptional. The scene depicts the birth of the goddess who emerges from the sea foam as described by Hesiod in his Theogony (Hes. *Theog.* 188-202). A beautiful naked woman is standing on a shell supported by two sea creatures. In her raised hands the goddess holds her wet hair while squeezing water from it. She leans her head slightly sprained to the right, looking down at the sea or the birth attendant creatures. The weight of the body is resting on the left leg, and the right one is slightly bent. This position with the load on the left leg is characteristic of representations of the goddess drying her hair (Gąssowska 1977, 96). The left hip is strongly curved and thus, the body layout resembles the shape of the letter S. The figure is slim, symmetrical, and full of elegance. Aphrodite is carried across the sea on a shell by two Ichthyocentaurs. One is Aphros, the personification of the Sea-Foam, and the other Bythos, the personification of the Sea-Depths (Balty 1986, 174; 1986a, 176-177). Creatures, barely visible on this gem, have lobster claws usually on their heads, human torsos, and fish bodies. From these, legs with horse hooves and sometimes fins grow out. The bodies are twisted, closely intertwined. On the gem from *Novae* the layout of the bodies that carry the shell repeats its shape. The figure on the left side of the goddess is probably Aphros. It seems that he has a beard and is holding something in his raised hands, maybe a shell, an oar, or a rudder as in other images alike (Icard-Gianolio 1997, 76-77, # 32-45).

A similar iconographic scheme appears on the mosaic from *Zeugma* in Commagene: the goddess is sitting on a shell carried by Aphros and Bythos (Darmon 2005, 1290-1291). Aphros is shown on the right. The names of the characters are written above. The birth of Aphrodite is also accompanied by Erotes and a dolphin. The mosaic dates to the

first – second century. Images of Aphrodite accompanied by Ichthyocentaurs also appear on mosaics from North Africa (Icard-Gianolio 1997, 80, # 88/a-b). This motif is encountered from the first to the fifth century, but it was most popular from the second to the fourth century (Lassus 1963, 175-191).

A mosaic showing the birth of Aphrodite, accompanied among others by Bythos, was also found in Cyprus (Daszewski 1985, 49-52, Pl. 9-10). This motif also appears in Egypt, among other things, on Coptic textiles (Del Francia 1984, 209-221). The scenes repeat a Hellenistic classical scheme, but they are enriched with new details. The most important element is the shell referring to the sea birth. The shell is carried by two Tritons, and Aphrodite is shown on it. The marine environment is marked by the presence of dolphins and Nereids. The scene shows the triumph of Venus, the goddess of the sea, known as *Venus Pelagia* (Schmidt 1997, 220, fig. 313). According to *reinterpretatio christiana,* this topic refers to the ascent of the soul to heaven (Del Francia 1984, 21).

Aphrodite on a shell, accompanied by Tritons, is also encountered on a wall painting (Icard-Gianolio 1997, 81, # 91), on a bronze application (Icard-Gianolio 1997, 81, # 92b) as well as on a silver plate holder (Icard-Gianolio 1997, 81, # 92a). Images of *Aphrodite Anadyomene* accompanied by Triton, a symbol of the sea, are encountered in sculpture. An example is a group from Dresden and the Louvre (Moreno 1994, 712, fig. 878; Icard-Gianolio 1997, 80, # 87b). The inspiration for the representation of *Aphrodite Anadyomene* was a painting by Apelles. To this image refers a famous statue of Aphrodite from Cyrene (Mariani 1915, 11-16, fig. 3-4). The representation of the goddess drying her hair was very popular during the time of the Roman Empire. A big impact on this had a painting by Apelles brought to Rome by Augustus (Plin. *Nat. Hist.* XXXV, 9).

Images of *Aphrodite Anadyomene* are often encountered on gems from the period of the Roman Empire. Usually the goddess is depicted alone, sometimes with a dolphin, Eros, Erotes, or Triton. These gems are made of carnelian, plasma, chalcedony, nicolo, or sardonyx. Shades of red predominate. Of red colour is also the intaglio from *Novae*. There are also images of *Aphrodite Anadyomene* accompanied by magical inscriptions. These gems refer to the magic of love. They are usually made of lapis lazuli (Delatte / Derchain 1964, 183-190, # 241-250).

The image of the goddess of love accompanied by Aphros and Bythos on the gem from *Novae* is exceptional. The described gem probably dates to the second – third century. The intaglio is well preserved, the drawing and the composition are carefully crafted, and the subject is original. A beautiful, closed composition – the shell and raised hair of the goddess – repeats the shape of the gem. A similar composition is depicted on the gem from Hanover (Schlüter et al. 1975, 163, # 800). Here, the scene is closed at the bottom by Erotes on dolphins. The scene which is represented on the gem from *Novae* refers to the triumph of the goddess of the sea. Aphrodite, as the patroness of the sea routes, had numerous temples in the Mediterranean (Gąssowska 1977, 160). Venus was the patron of Augustus. Triton helped the Argonauts to win (*Argonautica Orphica*, 1335-1336). The great triumph of Augustus in the naval battle of *Actium* should also be noted. The gem found in the military camp of *Novae* symbolized the maritime victory of the Roman army.

The gems found in *Novae* are a reflection of the new trends emerging in Roman art. Both representations refer to the works of the great ancient Greek artists. We see how these works underwent changes depending on the social and political attitudes and how known iconographic schemes were adapted and used in Rome for propaganda purposes. Two of the four gems can be described as exceptional: intaglio # 1 because of the high quality of workmanship and # 4 with a scene unparalleled on other gems. The described monuments represent two iconographic schemes. In both cases the goddess of love is portrayed as the goddess triumphant, celebrating the victories of Octavian Augustus. This type of military success propaganda continued afterwards and is clearly traceable till the third century.

The gems with the image of the goddess of love found in the Roman military camp[3] speak about political and religious propaganda of the Roman Empire, which is so clearly visible in the art from the period of Octavian Augustus (Guiraud 1986, 335-345). Roman army contributed to the Romanization of Moesia Inferior bringing the new cults popular among soldiers into the province. This is proven by the iconography of the gems, similar to the coins (Dąbrowa 2009, 65-76). Certainly, Venus, as the goddess of victory, occupied a paramount position in the religious life of the inhabitants.

[3] Many gems with the image of *Venus Victrix* were also found in other Roman legionary camps, among these is *Carnuntum*. See: Dembski 2005, 76-77, Pl. 23-24, # 233-241.

Bibliography

Arslan, M. 2000. Ancient gems and finger rings from Asia Minor. The Yüksel Erimtan Collection. Ankara.

Balil, A. 1981. Relieve de bronce con representacion de Venus Victrix hallado en Mataro (Barcelona). – Zephyrus 32-33, 227-229.

Balty, J. Ch. 1986. Bythos II. In: Lexicon Iconographicum Mythologiae Classicae (LIMC) III. Zürich / München. 174.

Balty, J. Ch. 1986a. Aphros II. In: Lexicon Iconographicum Mythologiae Classicae (LIMC) III. Zürich / München. 176-177.

Bartman, E. 1997. Portraits of Livia. Imaging the imperial woman in Augustan Rome. Cambridge / New York.

Bernhard, L. 1955. Lampki starożytne. Warszawa.

Budin, S. L. 2003. The origin of Aphrodite. Bethesda.

Charbonneaux, J. 1966. Venere. In: Enciclopedia dell'Arte Antica VII. Roma. 1121-1128.

Darmon, J. P. 2005. Le programme idéologique du décor en mosaïque de la maison de la Télétè dionysiaque, dite aussi de Poséidon, à Zeugma (Belkis, Turquie). In: Morlier, H. (ed.). La mosaïque gréco-romaine IX, 2. Rome. 1279-1300.

Daszweski, W. A. 1989. Aphrodite from Paphos and from Egypt. In: Tatton-Brown, V. (ed.). Cyprus and the East Mediterranean in the Iron Age. Proceedings of the Seventh British Museum Classical Colloquium, April 1988. London. 121-131.

Daszewski, W. A. 1985. Dionysos der Erlöser: Griechische Mythen im spätantiken Cypern (= Trierer Beiträge zur Altertumskunde 2. Kulturgeschichte der antiken Welt). Mainz am Rhein.

Dąbrowa, E. 2009. Colonial coinage and religious life of Roman colonies. In: Wolff, C. L'armée romaine et la religion sous le Haut-Empire Romaine. Lyon. 65-76.

Del Francia, L. 1984. Un tessuto copto con nascità di Afrodite. In: Bonacasa, N. / Di Vita, A. (eds.). Alessandria e il mondo ellenistico-romano. Studi in onore di Achille Adriani. Roma. 209-221.

Delatte, A. / Derchain, Ph. 1964. Les intailles magiques gréco-égyptiennes de la Bibliothèque Nationale. Cabinet des Médailles et Antiques (IMGE). Paris.

Dembski, G. 2005. Die antiken Gemmen und Kameen aus Carnuntum (= Archäologischer Park Carnuntum – Neue Forschungen, Band 1). Wien.

Dimitrova-Milcheva, A. 1961. Antique engraved gems and cameos in the National Archeological Museum in Sofia. Sofia.

Flemberg, J. 1991. Venus Armata. Studien zur bewaffneten Aphrodite in der griechisch-römischen Kunst. Stockholm.

Gąssowska, B. 1977. Polycharmos z Rodos jako twórca pomnika Afrodyty Anadyomene. Wrocław.

Guiraud, H. 1986. Images de propagande sur des intaillies à l'époque augustéenne en Gaule: à propos d'une intailles d'auterive. In: Pailler, J. M. (ed.). Pallas Mélange offerts à Monsieur Michel Labrousse. Toulouse. 335-345.

Guiraud, H. 1985. Venus Victrix: à propos d'une intaille d'époque romaine, de Murviel-lès- Montpellier. – Revue Archéologique de Narbonnaise 18, 399-403.

Icard-Gianolio, N. 1997. Tritones. In: Lexicon Iconographicum Mythologiae Classicae (LIMC) VIII. Zürich / Düsseldorf. 75-85.

Karageorghis, J. 2005. Kypris. The Aphrodite of Cyprus. Ancient sources and archaeological evidence. Nicosia.

Lassus, J. 1962. Vénus Marine. In: Picard, M. G. / Stern, M. H. (eds.). La mosaïque gréco-romaine. Paris. 175-191.

Mariani, L. 1915. L'Aphrodite di Cirene. Roma

Moren, P. 1994. Scultura ellenistica II. Roma.

Novae 1980-1994. Novae – Sektor zachodni. Sprawozdanie tymczasowe z wykopalisk Ekspedycji Archeologicznej Uniwersytetu im. Adama Mickiewicza w Poznaniu. – Archeologia 31, 33, 35, 37, 39, 41, 43, 45.

Pollini, J. 1996. The "Dart Aphrodite": A new replica of the "Arles Aphrodite Type", the cult image of Venus Victrix in Pompey's theater at Rome, and Venusian ideology and politics in the Late Republic – Early Principate. – Latomus, Revue d'Études Latines 55, 757-785.

Schilling, R. 1954. La religion romaine de Vénus depuis les origines jusqu'au temps d'Auguste. Paris.

Schlüter, M. / Platz-Horster, G. / Zazoff, P. 1975. Kestner-Museum Hannover, Museum für Kunst und Gewerbe Hamburg. Antike Gemmen in Deutschen Sammlungen, IV. Wiesbaden.

Schmidt, E. 1997. Venus. In: Lexicon Iconographicum Mythologiae Classicae (LIMC) VIII. Zürich / Düsseldorf. 192-230.

Vollenweider, M. L. 1984. Deliciae Leonis. Antike geschnittene Steine und Ringe aus einer Privatsammlung. Mainz am Rhein.

Vollenweider, M. L. 1979. Catalogue raisonné des sceaux cylindres, intailles et camées. Vol. II. Les portraits, les masques de théatre, les symboles politiques. Mainz am Rhein.

Weiss, C. 1996. Die antiken Gemmen in Deutschen Sammlungen. Die antiken Gemmen der Sammlung Friedrich Julius Rudolf Bergau im Germanischen Nationalmuseum. Nürnberg.

Zwierlein-Diehl, E. 1978. Die antiken Gemmen des Kunsthistorischen Museums in Wien II. Die Glasgemmen. Die Glaskameen. Nachträge zu Band I. Die Gemmen der späteren römischen Kaiserzeit, Teil I: Götter. München.

Dr. Grażyna Bąkowska-Czerner
Jagiellonian University,
Chair in Comparative Studies in Civilizations
PL-Kraków
grazyna.bakowska-czerner@uj.edu.pl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Roman Military Brick Stamps on the Danubian *Limes* in Croatia

Vinka BUBIĆ

A study of various Roman military brick stamps can result in useful information, not only on Roman military history, but also on Roman trade routes and the economic and cultural development of a province or a city. J. Szilágyi began the systematic study of Roman military brick stamps, which had been found at various ancient sites across Pannonia. In 1933 he published a typological classification of stamps. M. P. Katančić (1782, 92-94) and J. Brunšmid (1895, 174-175; 1900, 24) had been the first to write about Roman military brick stamps from the Croatian part of Pannonia. However, numerous stamps from the Museum of Slavonia had remained unpublished until 1965 when they were finally analyzed by M. Bulat. They came mainly from the Osijek area, but M. Bulat had no record of the exact location or the circumstance of discovery. In his later papers (Bulat 1969, 41-42; 1977, 76, 78-81; 1984, 117; 1989, 13, 25), which deal with the historical development of *Mursa*, he continued to systematically publish brick stamp finds from the area. In 2007, after a revision of the archaeological material on hold in the Museum of Slavonia, S. Filipović and E. Podrug published the remaining brick stamps, including those from the current excavations in Osijek. These papers, as well as a paper on Roman brick stamps from Sotin written by M. Ilkić in 2005, were the starting point of this study. The aim is to recall the issue of Roman military units at the Croatian part of the Danube *limes* based on brick stamp finds.

The *limes* in Croatia is 188 km long and it mostly follows the course of the river Danube from Batina Skela (*Ad Militare*) to Ilok (*Cuccium*). It consists of several forts, watchtowers and smaller fortifications (**fig. 1**)[1]. In addition to Batina Skela and Ilok, we are familiar with several other forts along the Croatian part of the Danube *limes* – Zmajevac (*Ad Novas*), Dalj (*Teutoburgium*) and Sotin (*Cornacum*). And with more or less certainty, several other watchtowers or smaller fortifications have been located – *Aureus mons*, Dragojlov brijeg, Lug (*Albanum*?), Vardarac (*Donatianae*?), Kopačevo, Nemetin (*Ad Labores*), Sarvaš, Bijelo Brdo and Aljmaš. Numerous papers about these sites, the Croatian Danube *limes* and the *limes* in general have been published, as well as a website with all relevant information about the *limes* in Croatia[2].

By analyzing the distribution of Roman military brick stamps along the Danube *limes* in Croatia, one can find that a great number of legions and auxiliary units left their mark there. This includes the *Classis Pannonica*, a fleet of the Roman Empire which controlled the middle course of the Danube, from *Castra Regina* to *Singidunum*. From 35 BC the fleet was stationed in *Aquincum*. At the time of Emperor Vespasian (AD 69-79) it was reorganized and renamed as the *Classis Flavia Pannonica* (Starr 1960, 140). A tile stamp with the *CLFP* lettering has been found in Štrbinci (*Certissia*) near Đakovo[3]. Štrbinci is an important site from Late Antiquity situated in Slavonia. Archaeological excavations of the late 4th century cemetery there have been carried out since 1993. Traces of the ancient settlement have been confirmed by a great number of pottery finds, metal items and glassware, dated from the 1st to the

[1] Cf. Sanader 2003a, 135-143; 2003b, 463-464; 2006, 153-156; 2008, 93-95; 2010, 224-231.

[2] Official website: <http://www.dunavskilimes-amo.com.hr/unesco.html>.

[3] Szilágyi 1933, 84; Bulat 1965, 17, # 46, Pl. IV/6. Six tiles belonging to this fleet have been found in Novi Banovci (Brunšmid 1901, 166-167) and one in Zemun (CIL III 10675).

6th century (cf. Gregl 1994, 181-190; Migotti et al. 1998, 73-78).

The *Legio II Adiutrix* was levied by the emperor Vespasian. A large amount of brick stamps have been found in *Aquincum* and are dated to the beginning of the 2nd century (Dušanić 1988, 85-86, 91; Milošević 1971, 109-110; Szilágyi 1933, 24-35, Pl. V-VIII; Šaranović-Svetek 1990, 61). Sixteen brick and tile stamps bearing the mark of this legion have been found in Batina Skela (Bulat 1984, 117, fig. 1 (2); Filipović / Podrug 2007, 36-37, # 1-3; 42-44; Pinterović 1971, 58; 1978, 111, f. 95). Furthermore, M. Bulat (1965, 11, # 18; 19, # 54) published two stamps that belong to this legion as well. One was found in Osijek (*Mursa*) while the origin of the other one remains unknown, but it bears the stamp *[LE]GIIADPF* which has been interpreted as *Legio II Adiutrix Pia Fidelis*. Vespasian granted the honorary title of *Pia Fidelis* to this legion as a reward for its loyalty in the Civil War of AD 68/69 (Ritterling 1925, col. 1456).

Mursa was one of the major cities located in the broader area of the Danube limes. At the beginning of the 1st century, the Romans built an auxiliary camp there. It is assumed that the legionary camp was built at the turn of the 1st century, under Domitian, or during Trajan's wars with the Dacians. After the Dacian Wars, the legionary camp grew into a civilian settlement. In AD 133 Hadrian granted the status of a colony to *Mursa* (Pinterović 1977, 89-90; Pinterović 1978, 49-56). It was a period of architectural revival for the city. According to documented inscriptions (CIL III 3288, 3290, 3292), Hadrian may have been the owner of large imperial brick workshops there. This has been confirmed by the large amount of bricks and tiles found in *Mursa* and its wider area[4].

The significant number of bricks and tiles from Batina Skela stamped with the marks of the *Legio II Adiutrix* can be explained by the transfer of the legionary unit from *Aquincum* to *Ad Militare* where brick workshops had been organized; as well as by the participation of the legionary unit in various construction projects. On the other hand, bricks could have been produced in *Aquincum* and then transported to Batina via the Danube (Bulat 1989, 13; Filipović / Podrug 2007, 42; Pinterović 1978, 53-54). This would mean that the soldiers were not present during the construction work there. Apart from the remains of the Late Roman fort *Ad Militare*, we can also presume the existence of an auxiliary camp in Batina, constructed at the end of the 1st century, and a civilian settlement as well (Bulat 1969, 40-41; 1970, 42; Klemenc 1961, 17; 1963, 59; Pinterović 1968, 74; Sanader 2003a, 137).

At the beginning of the 2nd century, the *Legio X Gemina* came to *Aquincum* to replace the *Legio II Adiutrix*. The largest assemblage of bricks and tiles belonging to this legion has been found at *Carnuntum*, where the legion was stationed in AD 63-68, and at *Vindobona*, where it was stationed permanently in AD 118/119 (Wilkes 2000, 110; Szilágyi 1933, 44-62, Pl. IX-XIV). Two brick stamps with the lettering *LEGXGPF* are deposited in the Museum of Slavonia (Bulat 1965, 11, # 16-17, Pl. II/1; Szilágyi 1933, 57, Pl. XIII/145). They have been dated to AD 102-107, during the time of Trajan's Dacian wars. At that time the *Legio X Gemina* may have been stationed in *Aquincum,* and some of its units were active in *Mursa* (Alföldy 1959, 9, 18-19; Klemenc 1961, 19; Ritterling 1925, col. 1277-1279, 1736, 1788-1789; Sanader 2003b, 466; 2008, 97, 99-101). Apart from these bricks, several tombstones of soldiers have been found in *Mursa*[5]. A brick stamp from the vicinity of Nuštar with the letters *LEGXGEPF* is on hold at the Vukovar Museum (Pinterović 1969, 60).

The *Legio VII Claudia* was stationed at *Viminacium* from the second half of the 1st century (probably from AD 65) (Ritterling 1925, col. 1614-1629; Wilkes 2000, 109). The existence of a brick workshop has been confirmed there. Some of its units may have done construction work at *Sirmium*. A brick stamp bearing the mark of this legion (on hold in the Museum of Slavonia), originates from *Sirmium*, according to M. Bulat (1965, 11, 13, # 19, Pl. II/4; 21). Based on the letters and the *tabula ansata* shape of the stamp, he dates this brick to the turn of the 1st century (**fig. 2**).

In AD 93 *Legio XIV Gemina* came to Pannonia, replacing *Legio XXI Rapax* which had been probably stationed in *Mursella* (Petrijevci) (Alföldy 1959, 126; Pinterović 1969, 61; Ritterling 1925, col. 1736; Wilkes 2000, 112). A brick stamp with the letters *LEGXIIIIGMV* (CIL III 3755) was found there in the 18th century. However, the issue whether this legion was stationed at the camp in *Mursella* is un-

[4] Pinterović 1956, 63. For instance, a tile stamp with the text *[…]HAD* has been found in Sremska Mitrovica. A. Milošević (1971, 98) explains it as an import from *Mursa*.

[5] For example, the tombstone monument of *Caius Iulius Verecundus*, a soldier of *Legio X Gemina*. The monument was dated to the turn of the 1st century (Klemenc 1928, 271).

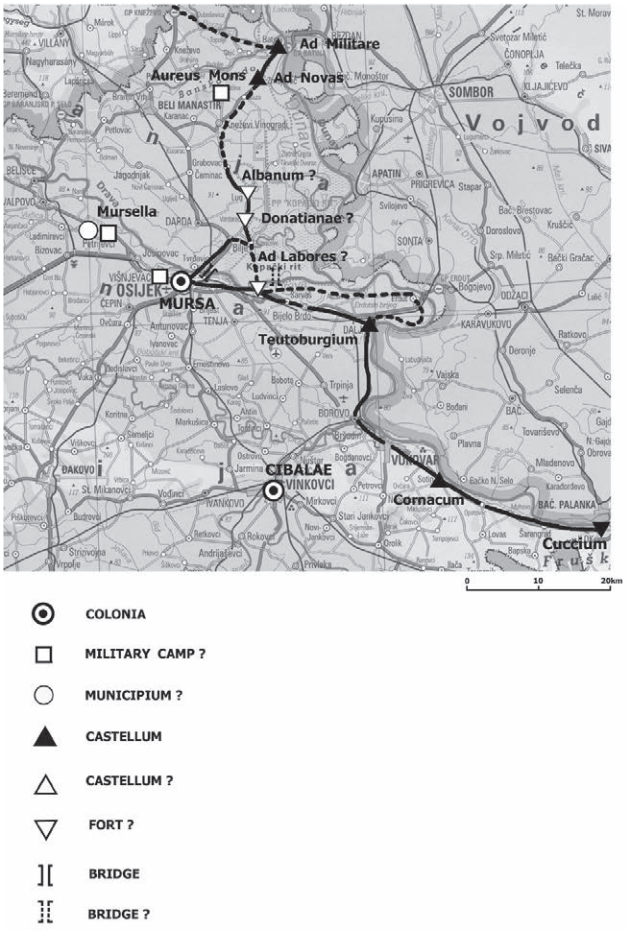


Fig. 1. Map of the Danubian *limes* (after Sanader 2008, 103)

certain. Especially since the placement of *Mursella* in the area of Petrijevci is still questionable[6]. In AD 101 this legion went to *Vindobona* to replace the *Legio XIII Gemina*, and in AD 118 it was transferred to *Carnuntum*. A few votive monuments erected by soldiers of the *Legio XIV Gemina* have been recorded at Topusko (*Ad Fines*). It is most likely that one of its units had been sent there to carry out construction work (Brunšmid 1895, 158; Wilkes 2000, 112).

A central brick workshop of the *Exercitus Pannoniae Inferioris* was probably located in Novi Banovci in Serbia. Brick and tile stamps with the letters *EXERPANINF* were produced there by the *Legio V Iovia* (Brunšmid 1901, 167; Bulat 1965, 21; Šaranović-Svetek 1990, 62). These bricks have emerged in *Sirmium* in the layers dated to the period after the Marcomannic Wars (AD 166-180). According to A. Milošević, the construction activity of the *Exercitus Pannoniae Inferioris* might have started after these Wars and it might have lasted until the end of the 3rd century when Diocletian undertook an administrative reform of the Empire (Dušanić 1988, 88; Milošević 1971, 106). Three brick stamps have been found in Osijek (Bulat 1965, 14, # 29-31, Pl. III/4) and nine brick stamps are known from Sotin (Ilkić 2005, 20-22, 33-35, # 1-8; Szilágyi 1933, 85). Brick and tile stamps have been found at numerous sites in *Pannonia Inferior*, along the Danube *limes* and its hinterland, as well as at the sites of *Pannonia Superior* (Brunšmid 1901, 166; Milošević 1971, 106; Szilágyi 1933, 84, Pl. XXIII/9). Therefore we can conclude that the brick workshops of the *Exercitus Pannoniae Inferioris* supplied some important construction works in Pannonia during the 3rd century. *Cornacum*, an auxiliary camp and a civilian settlement developed in the 1st century was included as well, according to a large assemblage of bricks found.

In the second half of the 3rd century, under Emperor Gallienus (AD 253-268), *Legio V Macedonica* left Dacia and was transferred to Ptuj. A tile stamp with the mark of this legion is on hold at the Museum of Slavonia, and it probably originates from this period (Bulat 1965, 13, # 20, Pl. II/5; Wilkes 2000, 108-109).

The *Legio VI Herculia* was founded in the late 3rd century and it was partially stationed in Dalj (Ritterling 1925, col. 1956). The *Notitia Dignitatum* (*Not. dign. occ.* XXXII, 45) mentions *Teutoburgium* as a *castellum* and the seat of the *praefectus* of the *Legio VI Herculia*. A stamp with the mark of this legion has been recorded there (Bulat 1965, 13, Pl. II/9)[7] and in Batina Skela (Sanader 2003a, 137; 2008, 104; Szilágyi 1933, 42) as well. Two brick stamps with the legion's mark have been found in Zmajevac where a fort with a garrison has been recorded, belonging to the *Equites Dalmatae* and the *Auxilia Novensia* (Pinterović 1969, 58-59; Sanader 2003a, 138; 2008, 105). A brick from Osijek is on hold at the Archaeological Museum in Zagreb and three other bricks are in the Museum of Slavonia. The original finding place of another four bricks remains unknown, but M. Bulat assumes they must have been produced at one of the legion seats (Bulat 1965, 13, # 21-27, Pl. II/6-8,10, III/1-2; Szilágyi 1933, 42). During the reign of Valentinian, *Mursa* might have served as a permanent camp for this legion

[6] Pinterović 1969, 62; Sanader 2003b, 466; 2008, 99-101. There is epigraphic evidence of *Mursella* (CIL III 10243), but the finding place of the inscription is unknown.

[7] With the letters *[…]HRCX.*



Fig. 2. Brick with the stamp *LEGVIICL* (after Bulat 1965, Pl. II/4)

(Katancius 1782, 84, 97; Pinterović 1969, 61). A tile stamp with the letters *LEGVIH* was found in the 18th century in Petrijevci (Bulat 1977, 79; Pinterović 1969, 63). A brick stamp with the text *[LVI]HRCX* has been registered south of Nemetin (Bulat 1965, 13, # 28, Pl. III/3), and in the area of Sotin eight bricks and a *tegula* have been found (Ilkić 2005, 22-23, 36-38, # 10-18; Szilágyi 1933, 42, Pl. IX/7-9). Brick stamps of *Legio VI Herculia* have been found in *Sirmium* and A. Milošević dates them to the turn of the 3rd century (Milošević 1971, 101). This could also be applied to the Croatian part of the Danube limes.

The *Legio I Norricorum* was founded at the end of the 3rd century. *Ad Iuvense* in *Noricum Ripense* served as its permanent camp (Milošević 1971, 102; Pinterović 1978, 111; Šaranović-Svetek 1990, 61-62). A brick stamp with the lettering *FIGULINAS IVENSIANASL[EGNOR]* has been found in the area of Sotin, and another one in Ilok (Szylágy 1933, 23; Ilkić 2005, 21-22, 35, # 9). Two unpublished brick finds have been found in Borovo near Vukovar. They are on hold in the Archaeological Museum in Zagreb (**fig. 3**)[8]. The occurrence of these brick finds at the Croatian part of the Danube limes is an exception. They probably reached *Pannonia Inferior* via the trade routes.

During the 2nd century the *Cohors II Asturum et Gallaecorum* was situated at the southern part of the limes of *Pannonia Inferior*. Tile stamps with text *COHIIAST* have been found in Batina Skela and this place might have served as its main seat (Bulat 1977, 76; Pinterović 1971, 58; Szilágyi 1933, 92; Šaranović-Svetek 1990, 62). Several brick and tile stamps belonging to this cohort have been found in *Sirmium*, together with some coins from the second half of the 2nd century (Milošević 1971, 105-106). This can also be applied to the brick stamps from the Croatian part of the limes.



Fig. 3. Brick from Borovo, *Legio I Norricorum* (Archaeological Museum in Zagreb, photo I. Radman-Livaja)

In AD 100 the *Cohors I Thracum Civium Romanorum* was placed in *Moesia Superior*, and after AD 110 in *Pannonia Inferior* (Brunšmid 1911, 24-27, 33). Its camp might have been located in Novi Banovci where the biggest amount of brick and tile stamp finds comes from (Brunšmid 1895, 175; 1901, 166-167; Dušanić 1988, 87; Szilágyi 1933, 93, Pl. XXV/62-71). In AD 167 the cohort received the honorary title *Augusta*. A tile stamp bearing its mark has been found in Štrbinci[9], and one brick comes from Sotin[10].

[8] # 17181 and # 17182. Thanks to the affability of the director of the Archaeological Museum in Zagreb, Jacqueline Balen, PhD, I was allowed to examine the brick stamps collection. I also owe a debt of gratitude to the senior curator, Ivan Radman-Livaja, PhD, for taking the photographs.

[9] It is on hold in the Museum of Slavonia in Osijek (Bulat 1965, 14, # 33, Pl. III/5; Migotti 1998, 16).

[10] It is part of a private collection (Ilkić 2005, 23, 39, # 19).

Cohors II Aurelia Dacorum Antoniniana was levied by the emperor Marcus Aurelius between AD 170 and 180 (or even earlier). Twenty one tile and two brick stamps with the letters *CIIAVRDANT* have been found in Sotin. There are several versions of these stamps, depending on the type of the inscription field and the ligatures: letters *AVR* and *ANT*; *VR* and *ANT* usually form the ligatures. The abbreviation *ANT* suggests an honorary title *Antoniniana*, so these tiles and bricks could be dated to the reign of Caracalla (AD 211-217) or Elagabalus (AD 218-222) (Brunšmid 1901, 143-145; Ilkić 2005, 24-26, 39-46, # 20-41; Szilágyi 1933, 109, Pl. XXXI/48). Since they have only been found in the Sotin area, this cohort might have stayed there during the 3rd century.

Brick stamps with the marks of the *Cohors VII Breucorum* are chronologically divided into two main groups: one dated to the 2nd century (the early stage of production), and another dated to the first half of the 3rd century when stamp letters had the addition of *AN(T)* (Bulat 1965, 21-22). Namely, in AD 212-222 the cohort gained the honorary title *Antoniniana*. In the Museum of Slavonia 16 bricks and tiles are on hold, 12 of which come from the Osijek area. The original finding location of another four bricks is unknown (Bulat 1965, 14-17, # 35-45, Pl. III/7-11, IV/1-5; Filipović / Podrug 2007, 37-39, # 4-8; 45-46; Szilágyi 1933, 88, Pl. XXIII/23; 89, Pl. XXIV/28,35). Three tiles and five brick stamps have the abbreviation *AN*. A large number of stamps[11] found do not directly indicate that the units participated in construction projects in all these places, but it suggests an export of bricks and tiles from *Lugio*, the cohort's permanent station from the mid-2nd to the mid-3rd century.

Bricks and tiles of the *Cohors III Alpinorum* have been found in *Mursa* (CIL III 3759), Batina Skela (Bulat 1965, 14, # 34; 22) and Popovac (CIL III 3759)[12]. Based on the gravestone of a soldier, which was found in *Vetus Salina*, they are dated to the 3rd century. Furthermore, a stamp from *Sirmium* has been found in the same stratum with coins from the 3rd century (Milošević 1971, 104).

Our knowledge of the fortification system along the Croatian part of the Danube *limes* is mainly based on literary and epigraphic sources, as well as on artifacts that have no record of the context of their discovery. This paper brings up the issue of Roman military brick stamps distributed along the *limes* and includes the brick stamps from Štrbinci, Osijek, Petrijevci and Popovac, despite the fact these are located in the hinterland. In this way one gets a better perspective of these sites which were focused on the *limes* for military-economic and organizational reasons. A find of brick and tile stamps bearing the mark of a certain military unit does not mean that the finding location served as the permanent residence of that unit. Legions and cohorts were often moved far from their seats because of construction work needs. This is the reason why Roman military brick stamps do not have the same value as other finds, but they can sometimes confirm or question previous assumptions. Yet, systematic research is still needed to obtain a clearer picture.

Bibliography

Alföldy, G. 1959. Die Truppenverteilung der Donaulegionen am Ende des I. Jahrhunderts. – Acta Archaeologica Academiae Scientiarum Hungaricae 11, 113-141.

Brunšmid, J. 1911. Rimski vojnički diplom iz Siska. – Vjesnik Hrvatskog arheološkog društva 11, 23-39.

Brunšmid, J. 1901. Arheološke bilješke iz Dalmacije i Panonije IV. – Vjesnik Arheološkog muzeja u Zagrebu 5, 87-168.

Brunšmid, J. 1900. Colonia Aelia Mursa. – Vjesnik Arheološkog muzeja u Zagrebu 4, 21-42.

Brunšmid, J. 1895. Arheološke bilješke iz Dalmacije i Panonije I. – Vjesnik Arheološkog muzeja u Zagrebu 1, 148-183.

Bulat, M. 1989. Mursa: Osijek u rimsko doba. Osijek.

Bulat, M. 1984. Neki noviji antički nalazi iz Slavonije i Baranje. – Arheološka istraživanja u istočnoj Slavoniji i Baranji. Izdanja Hrvatskog arheološkog društva 9, 117-128.

Bulat, M. 1977. Stanje istraživanja antičkih naselja u Slavoniji. – Antički gradovi i naselja u južnoj Panoniji i graničnim područjima. Materijali 13, 63-88.

Bulat, M. 1970. Gradac, Batina Skela – naselje od srednjobrončanog do željeznog doba i rimski logor. – Arheološki pregled 12, 42-43.

Bulat, M. 1969. Topografska istraživanja Limesa u Slavoniji i Baranji. – Osječki zbornik 12 (= Simpozij o istraživanju Limesa u SFRJ održan u Osijeku 11. svibnja 1968), 39-52.

[11] Stamps belonging to this cohort have also been found in Batina Skela (Bulat 1977, 76), Popovac (CIL III 3757) and other sites in Pannonia (Szilágyi 1933, 88-91, Pl. XXXII-XXXIV; Šaranović-Svetek 1990, 52, 57, 59, 62, 66; Dušanić 1988, 87).

[12] D. Pinterović (1969, 58) has identified Popovac as the Roman fort of *Antiana*, but M. Ilkić (2008, 201-203) considers that it is still not reliable to say whether Popovac has been ancient settlement *Quadriburgum*, *Antiana* or *Aureus Mons*.

Bulat, M. 1965. Rimske opeke i crijepovi s pečatima u Muzeju Slavonije. – Osječki zbornik 9-10, 7-24.

Dušanić, M. 1988. Rimske opeke sa žigom sa panonskog limesa (odsek Cuccium – Taurunum). – Starinar 39, 85-97.

Filipović, S. / Podrug, E. 2007. Neobjavljene rimske opeke i tegule s radioničkim pečatima iz Muzeja Slavonije. – Osječki zbornik 28, 35-55.

Gregl, Z. 1994. Kasnoantička nekropola Štrbinci kod Đakova (Istraživanja 1993. g.). – Opuscula archaeologica 18, 181-190.

Ilkić, M. 2008. Popovac – lokalitet "Tuneli". – Vjesnik Arheološkog muzeja u Zagrebu 41, 199-208.

Ilkić, M. 2005. Pečati na antičkim opekama i krovnim crepovima iz Sotina (Cornacum). – Vjesnik Arheološkoga muzeja u Zagrebu 38, 19-54.

Katancius, P. 1782. Dissertatio de columna milliaria ad Eszekum reperta. Eszeki.

Klemenc, J. 1963. Der pannonische Limes in Jugoslawien. In: Novak, G. (ed.). Quintus Congressus Internationalis Limitis Romanis Studiosorum. Zagreb. 55-68.

Klemenc, J. 1961. Limes u Donjoj Panoniji. In: Grbić, M. (ed.). Limes u Jugoslaviji I. Zbornik radova sa simposiuma o Limesu 1960. godine. Beograd. 5-34.

Klemenc, J. 1928. Nov rimski vojnički natpis iz Murse. – Vjesnik Hrvatskog arheološkog društva 15, 271-275.

Migotti, B. / Šlaus, M. / Dukat, Z. / Perinić, Lj. 1998. Accede ad Certissiam: antički i ranokršćanski horizont arheološkog nalazišta Štrbinci kod Đakova. Zagreb.

Milošević, A. 1971. Roman Brick Stamps from Sirmium. In: Popović, V. (ed.). Sirmium I. Archaeological Investigations in Syrmian Pannonia. Beograd. 95-118.

Pinterović, D. 1978. Mursa i njeno područje u antičko doba. Osijek.

Pinterović, D. 1977. Što znamo o urbanom razvoju Murse? – Antički gradovi i naselja u južnoj Panoniji i graničnim područjima. Materijali 13, 89-104.

Pinterović, D. 1971. Batina – praistorijski i antički nalazi. – Arheološki pregled 13, 55-58.

Pinterović, D. 1969. Problemi u istraživanju Limesa na sektoru Batina Skela – Ilok. – Osječki zbornik 12 (= Simpozij o istraživanju Limesa u SFRJ održan u Osijeku 11. svibnja 1968), 53-66.

Pinterović, D. 1968. Limesstudien in der Baranja und in Slawonien. – Archaeologica Iugoslavica 9, 55-82.

Pinterović, D. 1956. Prilog topografiji Murse. – Osječki zbornik 5, 55-94.

Ritterling, E. 1925. Legio. In: Real-Encyclopädie der Classischen Altertumswissenschaft, XII. Stuttgart. 1211-1829.

Sanader, M. 2010. On the Problem of Topography of the Croatian Part of the Danube Limes Based on Recent Archaeological Excavations. In: Radman-Livaja, I. (ed.). Finds of the Roman Military Equipment in Croatia. Catalogue of the Exhibition. Zagreb. 221-231.

Sanader, M. 2008. Rimske legije i njihovi logori u hrvatskom dijelu panonskog limesa. In: Petrač, B. (ed.). Imago provinciarum. Zagreb. 93-102.

Sanader, M. 2006. Die Grenze in Kroatien. In: Klose, G., Nünnerich-Asmus, A. (eds.). Grenzen des römischen Imperiums. Mainz. 153-156.

Sanader, M. 2003a. The Ripa Pannonica in Croatia. In: Visy, Zs. (ed.). The Roman Army in Pannonia. An Archaeological Guide of the Ripa Pannonica. Pécs. 135-142.

Sanader, M. 2003b. Rimske legije i njihovi logori u hrvatskom dijelu panonskog limesa. – Opuscula archaeologica 27, 463-468.

Starr, C. G. 1960. The Roman Imperial Navy 31 BC – AD 324. Cambridge.

Szilágyi, J. 1933. Inscriptiones Tegularum Pannonicarum (= Dissertationes Pannonicae 2). Budapest.

Šaranović-Svetek, V. 1990. Ciglarstvo kao značajna privredna grana na području jugoslavenskog dela provincije Donje Panonije. – Rad vojvođanskih muzeja 32, 41-80.

Wilkes, J. 2000. Roman Legions and Their Fortresses in the Danube Lands (First to Third Centuries AD). In: Brewer, R. J. (ed.). Roman Fortresses and Their Legions. London. 101-121.

Vinka Bubić MA
University of Zagreb
Faculty of Humanities and Social Sciences
Department of Archaeology
Ivana Lučića 3
HR-10000 Zagreb
vibubic@ffzg.hr

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Roman Hoard of Iron Objects – *Notae* from the Upper Moesian *Limes*

Jelena Lj. CVIJETIĆ

In the vicinity of Velika Krsna near Smederevo, one of the greatest hoards of iron objects in Serbia was found by chance at the end of 1979[1]. There were over one hundred and fifty findings of agricultural and handicraft objects, out of which only a few were published and it was in the catalogue "Art work of base metals on the territory of Serbia since Late Antiquity till 1690" where the name of Mala Krsna near Požarevac was quoted by mistake as the archaeological site of the hoard (Миловановић 1985-1986). Among other objects in the catalogue, two iron *notae* (*signacula*) were mentioned which were characterized as wood brands and arbitrarily determined to originate from the 6th – 7th century. Having looked into the hoard, having analysed the brands and compared with the materials from the neighbouring territories we reached some conclusions which will be presented on this occasion.

Brands from Krsna present lonely findings of this type on the territory of Serbia for the time being, and the closest analogies we find on the territory of *Dacia* Province. Their common characteristic is that they were made of iron, by technique of hot forging, that they consist of long conic tube provided with wooden shaft and with oblong frame with letters.

The inscription *MENẸ* (originally read as *NM*) (**fig. 1**), on the brand long 45 cm, and dimensions of frame: 15.5 x 7.5 (6.5) cm, letters height 5-6 cm, was achieved by alloying of the first and the second letter as well as the third and the fourth letter which was formed on the frame of the brand after the letter *N*, where three short horizontal hastae can be noticed.

On the second *signacula* of slightly smaller dimensions than the first one (42.5 x 15.8 x 8cm, letter height 6 cm) (**fig. 2**), the inscription *DOC* can be noticed, without use of ligatures, 6 cm high.

We can only talk about the usage of this type of *signacula* which are without any explanation originally identified as brands for wood (Миловановић 1985-1986, 59-60), based on the material they had been made of, their dimensions and inscriptions, and according to the data provided by historical resources and the representations, some more solid conclusions can be made.

All in all more than forty iron *signacula* were found so far on the territory where Roman Empire extended across in the ancient times. They are of different dimensions and were found mostly in the Danube region but also in the western provinces of Roman Empire. As to their usage, several opinions were given. In the first papers on this subject which were published at the end of the 19th – beginning of the 20th century, iron *signacula* were treated as brands for bricks without taking into account their dimensions as well as the absence of confirmation on such findings. By more detailed analysis, however, it became known that big iron signaculae could have rather been used for branding bovine cattle, which is suggested by their construction, dimensions, and the appearance which have not substantially changed till present time.

The problem can be best observed in that sense on the example of Dacian *signacula*. Interestingly, on the territory of Dacia where several iron *signacula* were found with the shortened title formula, and much as we know, not a single brick with this brand was confirmed. On the contrary, a great number of bricks are known with the brand of the 5th Macedonian legion whose brands were not

[1] I thank Prof. M. Vujović for drawing my attention to these *notae* as well as colleague N. Šošić from National Museum in Smederevska Palanka for the permission for publishing them.

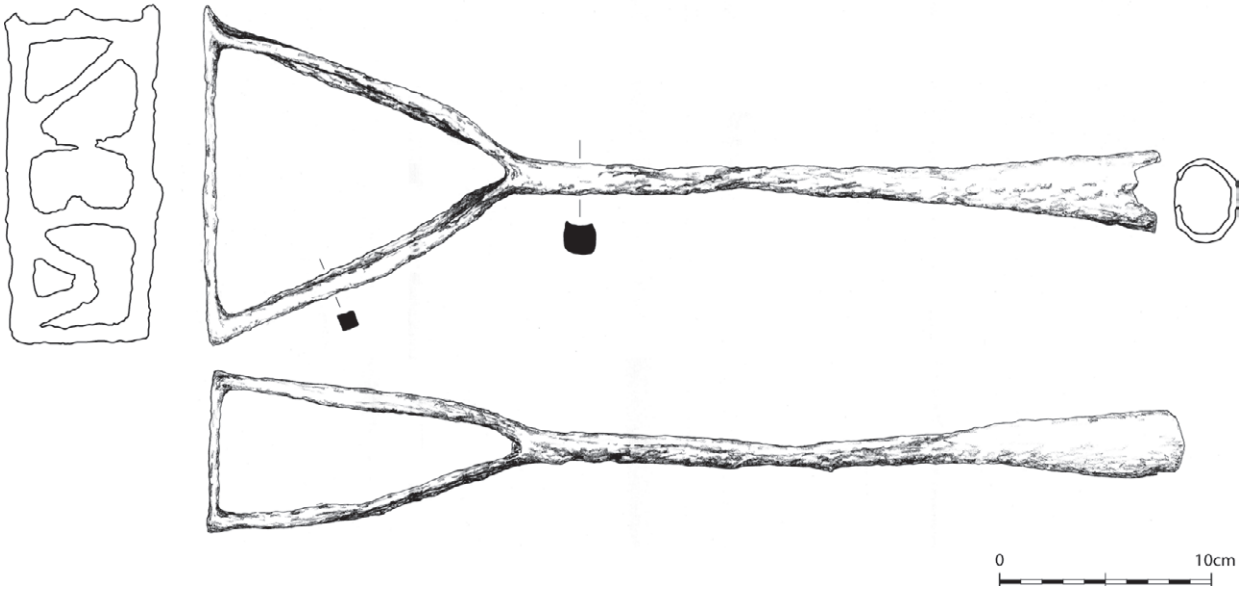


Fig. 1. Iron *nota* with the letters *MENẸ*

found. Another interesting thing is that out of about ten *signacula* from Dacia that have been found up to now, only one was positively confirmed that it had been used for branding bricks. It is a bronze brand (with dimensions 6 x 2 cm), with the sign *Tib C(G?)*, of the brickworks which is positively confirmed to have produced bricks on the territory of *Ulpia Traiana Sarmizegetusa* (Isac 1991, 61, Nr. 9, fig. 6). Dimensions of the iron *signacula*, which are significantly larger than the average brands on the bricks, also contradict this assumption. The manner in which the iron *signacula* had been made suggests that they had been heated at high temperatures, and if we have in mind that bricks had been branded while still fresh, there had been no need for red-hot brands. Although there are confirmations that bricks had been branded with metal, bronze stamps, they could have also been made of other, much cheaper materials such as stone or wood. In favour of this assumption there are also data acquired by chemical analyses of the composition of bricks which were carried out on a larger sample from several brickworks, where traces of wood were established on the imprints (Spitzlberger 1968, 109).

As to the manner of marking the wood throughout the Roman period we have no substantial data, since the wooden objects themselves have not been preserved. We can talk about the manner of wood working only according to the presentation on tombs, but they as well have not given us the answer to the question of how their marking had been carried out. In that sense it is possible to talk about two aspects of marking wood, by metal *signacula* or much simpler by colour, similar to the way of marking nowadays.

Our opinion is, therefore, that brands of this type had first been used for branding bovine cattle. The custom of branding had been performed as far back as the ancient empire in Egypt, which is indicated by the presentation in Egyptian wall painting as well as the findings of the brands from that time (Eggebrecht 1975, 850, 851). Greeks as well as Romans also had custom of branding bovine cattle (Sokolowski 1969, 105) as well as people, primarily slaves[2]. Presentations of branded animals appear throughout the Roman period on numerous mosaics in the western provinces of the Empire. The manner in which bovine cattle (horses, beeves as well as camels) had been branded was described by many writers, one of which is Isidor of Seville, who wrote: *Character est ferrum caloratum quo notae pecudibus inuruntur...* (Isid. *Orig*. XX, 16,7). He says, among other things, that with a heated iron brand the name of the breeder or owner of the head of cattle was printed on the loins, back legs or neck of the animal. Sometimes the imprint was a mono-

[2] Branding of people had equally long tradition as branding of animals as it appears, and thus the first substantial data are found in the Code of Hammurabi. This custom known from times immemorial in the east, transferred to the Apennines during the Republican period. In this way branding by hot-red iron brands was primarily carried out on people and this is mentioned by Philo (*De spec. leg.* I, 58).

gram or a text of magical character whose purpose was to protect the animal from diseases. In that way the proprietary right was protected and the quality guaranteed at the same time.

Throughout the Roman period horses specially raised for competitions and games in circuses and arenas had special treatment. Not only historical sources speak about this but also the inscriptions on tombs as well as numerous mosaic presentations from *Hispania* and North Africa (Lopez Monteagudo 1991; Dunbabin 1999; Blàzquez Martinez 2001; Baratta 2007).

On a mosaic from Barcelona, which was discovered during the research of a *villa* in the second half of the 19th century (Barral 1978; Blàzquez 1993; Blàzquez Martinez 2001), races of quadrigas were presented. Next to the horses, the names of the horses are presented such as *Peplos*, *Famosus*, *Regnator*. On their bodies brands are recognized such as *Concordi et Niceti*, which refers to their owners or breeders. Marcianus, a celebrated driver of quadrigas is presented on the most famous mosaic from Merida in Lusitania (*Emerita Augusta*). Interestingly, only one horse, obviously the best one, has its name written, *Inluminator* (Dunbabin 1999, 320, fig. 316). Two brands can be noticed on its body, *Get* and *uli*, which indicates his origin from *Gaetulia* i.e. Libya, which confirms once again the quality of African horses.

Among others, another mosaic from Africa records the popularity of races and horses for competitions with the text: *Vincas, non vincas, te amamus Polydoxe* (CIL VIII 10889). Their popularity had not abated throughout the whole of the 4th century, and we find confirmation for this with John Chrysostom in his homilies *Contra circenses ludos et theatra* (PG 56, 263-270), and later in a revised version by Theophanes the Recluse, who counsels and fervently speaks, criticising people who neglected their Christian duties because of horse races.

Finally, it appears that the *signacula* from Serbia also served primarily for branding bovine cattle. It is indicated by their dimensions, the material they had been made of, as well as the fact that signs *MENE* and *DOC(---)* have not been attested either on bricks or other objects with brands. The inscriptions can be interpreted as abbreviated personal names of the owners or breeders of the head of cattle in the nominative or genitive. If we accept that there had been

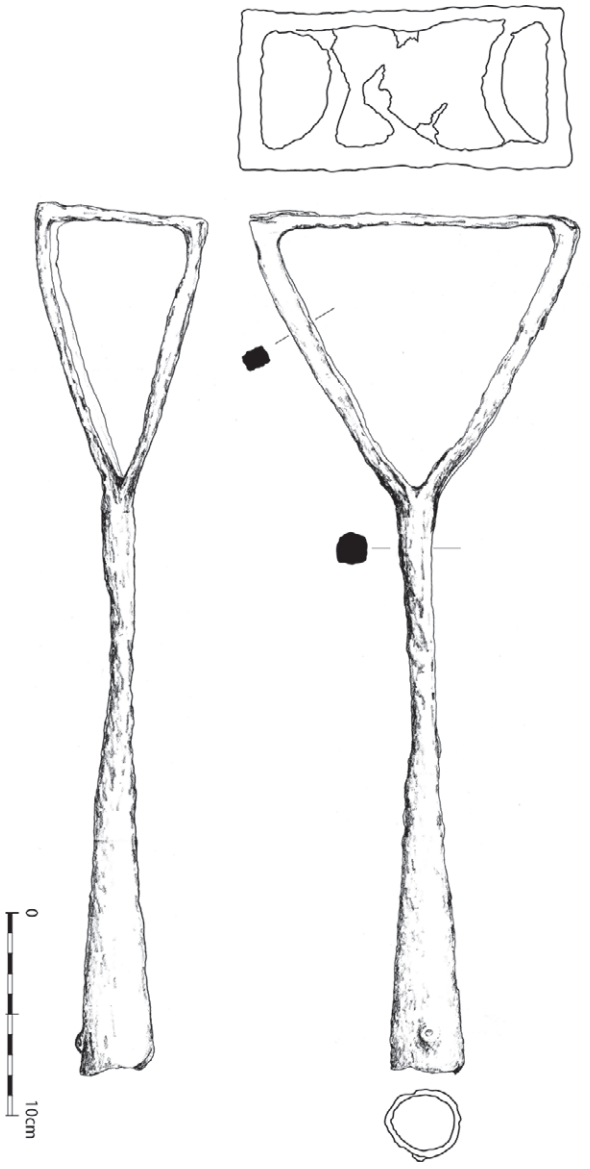


Fig. 2. Iron *nota* with the letters *DOC*

letter E on the frame of the first *signaculum*, the name could be solved as *Menenius*. The shortened *DOC* could be shortened from *Doctus* or *Docimus*, bearing in mind that *cognomina* starting with these letters are not numerous.

It is hard to say when these *signacula* were made, since their form has not changed significantly throughout the centuries. The additional problem is that it was impossible to determine chronologically the other tools from the hoard as well, except one marking tool which falls under type B according to the typology by Ivana Popović, and which appears

[3] At the beginning of the 3rd century, all the free population of the Roman Empire obtained civil law through the Edict of Caracalla, and thus differences among population were erased, especially in the provinces. In that sense emphasising the origin and Roman citizenship became completely futile. This is evidenced in a great number of grave inscriptions from the Balkan provinces.

from the end of the 3rd century on the territory of Italy and not before the 4th century on the territory of central Balkan provinces (Поповић 1988, 106).

The analysis of the stamp leads to the conclusion that during the first two centuries AD the whole name formula is written, with sometimes leaving out the *praenomen* (Baratta 2007, 100), while during the later period only one name was used, usually the *cognomen* of the owner or breeder, which is common for inscriptions from the 3rd and 4th century[3]. Bearing in mind the fact that on a few early Byzantine samples the inscriptions were derived in Greek alphabet, most often as a monogram, like on the example of a brand from Kazanlak (Gerasimov 1959, 340, fig. 3) which is determined to be from the 5th – 6th century, we can conclude that the *signacula* from Serbia belong to an earlier period, most likely the 3rd or 4th century. It is indicated by a single-element nominal formula as well as palaeographic characteristics of the text, primarily the letter O which was made of twofold broken lines (Петровић 1975, 65). However, palaeographic characteristics should be taken with caution, since they are not reliable reference for determining the date of inscriptions, especially on metal objects.

The findings from the hoard in Krsna primarily indicate that on that stretch a larger economy, a farm had existed where, among others, bovine cattle had been bred. Breeding of cattle for towing or horses is suggested by the findings of metal parts of carts with omega head and such findings were confirmed in the neighbouring provinces. The vicinity of *Viminacium* with the remains of the amphitheatre where fights and games took place for the crowds suggests that horses might have been bred in Krsna for that purpose or yet for the needs of the Seventh Claudian Legion.

If we accept such a chronological determination of the brands, we come to the conclusion that holding of the hoard could have most likely taken place during the second half of the 4th century at the time of the raid of hordes of barbaric tribes on this territory.

Bibliography

Baratta, G. 2007. Una particolare categoria di signacula: marchi per legno, pellame ed animali. In: Mayer, M. / Baratta, G. / Guzmán Almagro, A. (eds.). Acta XII Congressus internationalis epigraphiae Graecae et Latinae. Barcelona. 99-108.

Barral, X. 1978. Les mosaïques romaines et médiévales de la regio Laietana (Barcelone et ses environs). Barcelona.

Blázquez Martinez, J. M. 2001. El Circo Máximo de Roma y los mosaicos circenses de Barcelona, Gerona e Italica. In: Sánchez, F. J. (ed.). El Circo en Hispania Romana. Merida. 197-215.

Blázquez Martinez J. M. 1993. Mosaicos romanos de España. Madrid.

CIL = Corpus inscriptionum Latinarum. Berlin.

Dunbabin, K. 1999. The mosaics of Greek and Roman World. Cambridge.

Gerasimov, T. 1959. Anciens outils de fer à marquer. – Bulletin de l'Institut archéologique bulgare 22, 339-342.

Isac, D. 1991. Signacula aus Dakien. – Saalburg Jahrbuch 46, 57-64.

López Monteagudo, G. 1991. Inscripciones sobre caballos en mosaicos romanos de Hispania y del Norte de Africa. – L'Africa Romana 9, 965-1011.

Sokolowski, F. 1969. Lois sacrées des cités grecques. Paris.

Spitzlberger, G. 1968. Die römischen Ziegelstempel im nördlichen Teil der Provinz Raetien. – Saalburg Jahrbuch 25, 65-184.

Миловановић, Д. 1985-1986. Уметничка обрада неплеменитих метала на тлу Србије од позне антике до 1690. године. Београд.

Петровић, П. 1975. Палеографија римских натписа у Горњој Мезији. Београд.

Поповић, И. 1988. Античко оруђе од гвожђа у Србији. Les outiles antiques en fer de Serbie. Belgrade.

Jelena Cvijetić Ph.D.
Department of Archaeology
University of Belgrade, Faculty of Philosophy
Čika Ljubina 18-20
SRB-11000 Belgrade
jcvijeti@f.bg.ac.rs

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Novae (Moesia II) under the Tetrarchy to the Sole Reign of Constantine I (AD 294-330). Coin Finds and History

Kamen DIMITROV

The ancient site of Novae was located 4 km east of Svishtov, Bulgaria. It was founded as a Roman legionary fortress of the Lower Danubian *Limes* by Claudius I (*c.* AD 45), in the proximity of older Thracian settlements. From AD 69 to the mid-5th c. AD *Legio I Italica* sojourned in Novae. After *c.* AD 250 (under Aurelian?) to the 610s the fortress developed as a late-Roman and early-Byzantine city. Since 1960 Novae has been regularly explored by Bulgarian and Polish archaeologists from the National Archaeological Institute at BAS –Sofia, the Museum of History – Veliko Tarnovo, the University of Warsaw and the Adam-Mickiewicz University in Poznan. The fortifications, the headquarters building (the *Principia)* of *Legio I Italica,* the *Thermae legionis,* the Episcopal complex, the *Valetudinarium,* the *Scamnun tribunorum* and a large villa *extra muros* west of Novae have been excavated and thoroughly studied (Novae 2008). The total of the coins dated to AD 294-330 is **547**:

147 – in the hoard from the *principia* considered as savings *ad signa* (Kunisz 1987; Sarnowski 1985b, 537-539; Димитров 2011, 150, 169-173).

4 – hoarded in the glass furnace on the palaestra of the *Thermae legionis* (Dimitrov 2013, 257).

4 – in a hoard found in the hypocaust under *caldarium* I of the *Thermae legionis* (Dimitrov 2008, 47-50 # 145, 180-181, 258).

2 – in a hoard from the *Scamnun tribunorum* (Dimitrov 2008, 55 # 3-4).

390 – single finds found either during the excavations or occasionally in the area of Novae Dimitrov 1980, 203-205, fig. 1; 1998, 102-108 # 1-17; 2013, 255; Ciolek / Dyczek 2011, 107-139 # 216-238, 248, 251-260, 263, 337; Димитров 2008, 439 # 102-106; Димитров 2011, 183-186 # 49-67).

I. AD 294-305/6. A total of 106 coins are dated to this period:

1) the 4 *folles* from the glass furnace-hoard;

2) one *follis,* 9 pseudo-*antoniniani* and one imitation of *argenteus* from the *Principia*-hoard;

3) one pseudo-*antoninian* from the *Thermae / caldarium* I-hoard;

4) two *argentei,* 40 *folles* and 48 pseudo-*antoniniani* found as single coins.

The C/Y index (= Coin per Year) is 8.83. The issues of Heraclea predominate (17 *folles* and 46 pseudo-*antoniniani* or 59% of the total of 106 coins). They are followed by the production of another Propontic mint – Cyzicus (3 *folles* and 8 pseudo-*antoniniani*). Many other mints are represented as well: Aquileia and Antioch (4 *folles* each), Thessalonica (1 *argenteus* and 3 *folles*), Serdica (3 *folles*), Nicomedia (1 *argenteus* and 1 *follis*), Trier, Ticinum, Rome, Siscia and Alexandria (one *follis* each). The huge number of pseudo-*antoniniani* – 58, nine of them found in the *Principia*-hoard, raises the impression that this type of coins penetrated in Novae as payments for the militaries before being largely used in daily transactions[2].

II. AD 305/6-310/11. Fifty three *folles* belong to this period:

1) 13 in the *Principia*-hoard;

2) 40 single pieces.

The C/Y index is 8.83. The production of Thessalonica and Nicomedia (4 coins each) prevails in the *Principia*-hoard material, while most of the single coins belong to Cyzicus (15 or 38% of the total of 40 single pieces) and Heraclea (12 or 30% of the

[1] For general statistics, see Dimitrov 1980, 200; Kunisz 1988.

[2] Contra: Depeyrot 1992, 45.

same total). Other mints, represented by one to four coins, are Siscia, Serdica, Antioch and Alexandria.

III. AD 310/11-317. 215 *folles* can be attributed to this period:

1) 124 pieces from the *Principia*-hoard;

2) one piece from the *Scamnun tribunorum*-hoard;

3) 90 single pieces.

The C/Y of 30.71 is by 3.5 times higher than the one of the previous period due to the huge number of coins in the *Principia*-hoard and obviously to the unusually extensive coin influx to the garrison. The production of Heraclea dominates both as material in the *Principia*-hoard and as single material (48 coins in the hoard and 32 single coins), or 37% of the total of 215. Seventy seven of them are dated to AD 312-313/4. Similar is the case of Thessalonica and Nicomedia. Thessalonica is represented by 45 pieces (28 in the *Principia*-hoard and 17 single coins), i.e., 21% of the total of 215. Thirthy-six of them belong to AD 312-313. In the third place comes the output of Nicomedia with 28 coins (18 in the *Principia*-hoard and 10 single coins), i.e., 13% of the total of 215, 14 of them being struck in AD 312-313 and another 12 – in AD 313-317. From this pattern can be deduced that Heraclea and Thessalonica supplied the garrison of Novae exclusively in AD 312-313/4, and that a considerable part of the coins were launched on the local market. Nicomedia also took part in this process, but unlike the first two mints she continued supplying the city to AD 317. The presence of Siscia is likewise to be commented. Her production is represented by 4 pieces in the *principia*-hoard and 11 single ones, 12 out of these (15 pieces) being struck in AD 313-317. Obviously, Siscia also took a considerable part in the shipments to Novae in the later part of the period thus supporting Nicomedia.

IV. AD 317-324. A total of 109 coins belong to this period:

1) one *centenionalis* and one ⅛ *centenionalis* in the *Thermae / caldarium* I-hoard;

2) 72 *centenionales,* 11 *folles,* 20 ⅛ *centenionales* and 4 imitations of *centenionales* found as single finds.

The C/Y index is 15.57. The specifications of the material require the production of the western and central mints to be examined apart from the eastern ones. After the reform of Constantine in AD 318 they struck only *centenionales,* a new coin of value of 100 *denarii* or 4 times above the value of the pre-reform *follis.* The new coins predominated in Novae: 73 pieces or 67% of the total of 109. Their quick acceptance on the market is confirmed by 4 imitations: 3 of the VICTORIA-LAETAE-PRINC-PERP type (Bastien 1985, Table 41.1) and one of the VOT-XX- MVLT-XXX type. Most abundant are the *centenionales* from Siscia (22 or 20% of the total of 109), followed by the output of Thessalonica (16 or 15% of 109) and by the one of Trier (9 coins). At the same time the eastern mints struck chiefly *folles* (AD 317-320) and ½ *folles* (AD 321-324), i.e., ¼ and ⅛ *centenionales*. In Novae the former are 11 in number, or 10% of the total of 109, and the later – 21 or 19% of 109. The issues of Heraclea prevail with 18 coins or 16.5% of 109. Three of them are *centenionales* of the PROVIDENTIAE- AVGG three-turrets gate-type.

V. AD 324-330. This period is represented by 84 *centenionales:*

1) 2 pieces – in the *Thermae / caldarium* I-hoard;

2) 82 single pieces.

The C/Y is 14. Most numerous are the issues of Cyzicus (21 or 25% of the total of 84) followed by those of Heraclea (20 or 24% of 84) and Thessalonica (10 or 12% of 84). Siscia, Constantinople and Nicomedia are represented by 7 coins each, Rome – by 3, Arles and Trier – by one each. The most common is the type PROVIDENTIAE AVGG (CAESS) from the previous period, the three-turrets reduced to two.

The above patterns of the coin finds provide some help to clarify the history of Novae against the background of the political, military and financial development of the Late Roman Empire. A ground military reform started in Moesia II after the establishment of the Tetrarchy to continue to the time of Constantine I (c. AD 316-324). The strength of the legion was reduced from 6000 to some 1000-2000 men. Till the mid-5th c. AD Novae remained the camp of *Legio I Italica*. Some detachments were dislocated far from Novae as noted in *Notitia dignitatum* (Jones 1970, 31-32; Sarnowski 1985a, 127; 1999). The troops were initially supplied with *folles* and pseudo-*antoniniani* from Heraclea and probably with older pre-tetrarchic *antoniniani* (Kunisz 1987, 55). The raise of the prices and taxes in AD 301-308 required payments in huge amounts of coins. This is a possible reason why the savings *ad signa* have been probably spent. Under the rule of Aurelian the fortress walls were enlarged as to encircle the civilian settlement east of Novae (Чичикова 1975, 38). By the same time a civilian structure appeared on the site of the former *valetudinarium.* In conformity with the reduction of the

legion's strength the surface of the *Thermae legionis* was partially used for glass production. One atelier was active in the *palaestra* by the first years of the 4th c. AD. It is firmly dated by the four-folles-hoard found in the rubbish layer of the glass furnace on the *palaestra.* The coins were struck from AD 295/6 to 305/6. There are several quotations on Diocletian's visits in the diocese of Thrace in AD 293-294. Novae is absent in the list of the visited settlements (Velkov 1977, 24). One may suppose some decline of the importance of the city by this time, probably due to the civil war between Diocles/Diocletian and Numerian in AD 284 (Димитров 2008, 431). There is no evidence for damages of Novae from the barbaric invasions in AD 295-296. The city is not mentioned in connection to Diocletian's journey on the Lower Danube frontier in AD 303, when the emperor inspected some previously-damaged fortresses (Velkov 1977, 24-25).

Numerous weight reductions of the *follis* have taken place by AD 316/7. They are clearly visible in the hoard from the *Principia* as well as in many other deposits in Moesia II. Successive hoarding of older and heavier issues are thus attested. The coin supply to Novae during these years depended on the hostilities between the rivaling emperors as well. The exclusively rich financing of the garrison of Novae in AD 312-313/4 with issues of Heraclea and Thessalonica, then controlled by Licinius, may be explained with preparations for his campaign against Maximinus Daza. After Maximinus's defeat (30.8.313) and the annexation of the mint of Nicomedia which contributed to the coin influx to Novae, it may equally refer to a generous politics of Licinius toward the Danubian legions for their participation in the war (cf. Jones 1970, 32). Thessalonica probably filled the gap in the supply caused by the temporary occupation of Heraclea by Maximinus. After September 313/314 to 317 Novae was supplied chiefly with coins from Nicomedia and Siscia. During these years Siscia obviously remained under Licinius' control to be lost in favor of Constantine after the *bellum Ciballense.* The western issues from AD 313-316, and especially those from Rome, speak of good relations between Licinius and Constantine, thus supporting the "later" date of the war in AD 316/317 (Димитров 2011, 152 with references). It seems that Novae was one of Licinius' main bases in Moesia II and that *Legio I Italica* operated on his side. Other military units could sojourn at Novae in relation to the conflicts with Maximinus and Constantine requiring supplementary investments as well.

In AD 316-324 the military reform in Moesia II was completed. As frontier troops *Legio I Italica,* being of reduced strength, was accorded a lower financing. The funding for military equipment was canceled as it was now directly provided by the imperial *ergasterii* as Marcianopolis. A cohort of the legion camped at Sexaginta Prista. All these conditions may have contributed no new incomes to be added to the savings *ad signa* after AD 317 (Димитров 2011, 153 with references). The Constantinian monetary reform in AD 318 introduced the *centenionalis* at a value of 100 *denarii* or the quadriple of the pre-reform *follis*. It brought about a massive hoarding of older coins all around the Empire (Depeyrot 1992, 53-57). Under these unfavorable conditions the older *folles ad signa* at Novae were no longer spent. They were most probably hidden on the roof of the headquarters building (Poulter 1994, 145) to be illegally melted down or dispensed later (Димитров 2011, 153). The *bellum Ciballense* set the border between the territories of Constantine and Licinius along the river of Utus (Osam), some 30 km west of Novae. The city still remained "Licinian" and received eastern *folles* and half-*folles* from Heraclea, the only Licinian Balkan mint. The relations with the Constantinian realm flourished as well. The main coin traffic to Novae consisted of *centenionales* from Siscia (Pannonia) and Thessalonica (Macedonia), now under Constantinian control. This particular pattern was probably due to an agreement between the rivaling emperors for a joint care of the important legion fortresses on the Limes, which were then not in good condition. A similar suggestion is supported by the campaign of Constantine against Rausimod in early AD 323 to defend the Danubian possessions of Licinius east of Utus (Velkov 1977, 27-28). The financial situation in Novae in AD 317-324 actually prepared the area for the monetary unification of the Empire under the sole reign of Constantine.

The first few years of Constantine's sole rule were peaceful for the Lower Danubian Limes. The care of the emperor led to fortification works and to the building of an imposing stone bridge over the Danube by Oescus in AD 328. This could probably have been an element of a large plan to re-conquer trans-Danubian Dacia (Velkov 1988, 166 with reference). One may only imagine how great the role of Novae would be in a similar project as it was under Trajan (Absil 2000, 229-232). Soon after the elimination of Licinius Constantine started another one – to rebuild and refound Byzantion as Constantinople and proclaim her as the new capital of the Empire (RIC 7, 72). This act

would be of great importance for Novae in the centuries to come. The coin supply of the city in AD 324-330, consisting exclusively of *centenionales,* was effectuated from three geographic areas: the Propontis (Cyzicus, Heraclea, Constantinople, Nicomedia), Macedonia (Thessalonica), and Pannonia (Siscia). This pattern secured money to Novae even in case of troubles in some of the above areas. Here we come across a practice from the time of Aurelian when this system worked perfectly[3].

Bibliography

Димитров, К. 2008. Към въпроса за развитието на комплекса extra muros (сектор VIII A) на Нове в Долна (Втора) Мизия. In: Phosphorion. Studia in honorem Mariae Cicikova. София. 429-451.

Димитров, К. 2011. Антични и ранновизантийски монети от сектор XI (principia) в Нове (Долна и Втора) Мизия.-In: Varia Thracica. Studia in honorem Mariae Cicikova. София. 140-216.

Чичикова, М. 1975. Укрепителната система и градоустройството на Нове според последните археологически проучвания. – Векове 2, 36-43.

Absil, M. 2000. Legio I Italica. In: Les légions de Rome sous l'Haut-Empire. Actes du Congrès de Lyon (17-19 septembre 1998). Lyon (= Collection du Centre Romaines et Gallo-Romaine Nouvelles série # 20). 227-238.

Bastien, P. 1985. Imitations of Roman Bronze Coins A.D. 318-363. – American Numismatic Society Museum Notes 30, 143-177.

Ciolek, R., Dyczek, P. 2011. Catalogue. In: Dyczek, P. (ed.). Novae. Legionary Fortress and Late Antique Town Volume 2. Coins from Sector IV. Warsaw, 49-233.

Depeyrot, G. 1992. Le système monétaire de Dioclètien à la fin de l' Empire Romain. – Revue belge de Numismatique 138, 31-106.

Dimitrov, K. 2013. The thermae legionis in Novae (Lower Moesia and Moesia Secunda): numismatic evidence and historical probabilities.In: Studia Classica Serdicensia том II. Сборник в чест на професор Руска Гандева (1911-2001), 244-261.

Dimitrov, K. 2008. Introduction; Chapter II. The Hoard (1994) and the Coin Circulation; Catalogue. In: Biernacki, A. B., Dimitrov, K. D. The Coin Hoard from the Thermae Legionis and the Monetary Circulation in Novae 330-348 AD. In: Novae. Studies and Materials, III. Poznan / Sevastopol. 15, 33-88.

Dimitrov, K. 1998. Poznorimskie i wczesnobizantyjskie monety z odcinka IV w Novae z lat 294-612. – Novaensia 11, 99-112.

Dimitrov, K. 1980. La circulation monétaire à Novae au IV siècle. – Pulpudeva 3, 199-205.

Jones, A. H. M. 1970. Le declin du monde antique 284-610. Paris.

Kunisz, A. 1988. Remarques sur la circulation des folles sur le territoire de la Bulgarie au cours des trois premières décennies du IVe siècle. In: Kos, P. / Demo, Z. (eds.). Studia numismatica Labacensia Alexandro Jelocnik oblata. Ljubljana. 141-154.

Kunisz, A. 1987. Le trésor d'antoniniens et de folles des "Principia" de la légion de *Novae* (Bulgarie). Warsawa.

Novae 2008. Derda, T. / Dyczek, P. / Kolendo, J. (eds.). Novae. Legionary Fortress and Late Antique Town. Volume 1. Warsaw.

Poulter, A. G. 1994. Novae in the 4th Century A. D.: City or Fortress? A Problem with a British Perspective. Limes a cura di Guiancarlo Susini. Bologna. 140-148

RIC 7. The Roman Imperial Coinage, vol. 7. London, 1966-1967.

Sarnowski, T. 1999. Die Principia von Novae in spaeten 4. und fruehen 5. Jh.-v. In: Buelow, G. / Milcheva, A. (eds.). Der Limes an der unteren Donau von Diocletian bis Heraklios. Vortraege der Internationalen Konferenz Svistov (1.-5. September 1998). Sofia. 57-63.

Sarnowski, T. 1985a. Die legio I Italica und der untere Donauabschnitt der Notitia Dignitatum. – Germania 63, 1. Halbband. 107-127.

Sarnowski, T. 1985b. Bronzefunde aus dem Stabsgebaeude in Novae und Altmetalldepots in den roemischen Kastellen und Legionslagern. – Germania 63, 2. Halbband. 521-540.

Velkov, V. 1977. Cities in Thrace and Dacia in Late Antiquity. Studies and Materials. Amsterdam.

Velkov, V. 1988. Konstantin der Groesse in Thrakien und Moesien. In: Velkov, V. Geschichte und Kultur Thrakiens und Moesiens. Gesammelte Aufsatze. Amsterdam.

Assoc. Prof. Kamen Dimitrov PhD
Institute for Balkan Studies with
Center for Thracology "Prof. Al. Fol" at BAS
19A Hadzhi Dimitar St.
BG-Sofia 1000
kamendimitrov@abv.bg

[3] I could study the coins from the excavations in sectors I, VIII A and X-B at Novae being a regular member of the Bulgarian team from 1975 to 2000 incl., headed by Mrs Ass. Professor Maria Cicikova (to 1986), Professor Alexandra Milceva (to 1996) and Ass. Professor Evgenia Guencheva (from 1996 on), all from the National Archaeological Institute in Sofia. I owe the opportunity to explore the most recent finds in VIII A to Dr Pavlina Vladkova from the Regional Historical Museum at V. Tarnovo. The coins from sectors II to X-P and XI were studied and included in the present work thanks to the kindness of Professor Tadeush Sarnowski and Professor Piotr Dyczek from the University in Warsaw and of Dr Andrej Biernacki from the Adam Mickiewicz University in Poznan. Mr Pety Donewski, Director of the Historical Museum "Aleko Konstantinov" at Svistov and the late Plamen Draganchev, keeper, offered me the chance to complete the work with the coins from the Museum's general collection. May all these colleagues accept once again my feelings of deepest gratitude. For a financial support of my participation in the Congress my thanks go to the American Research Center in Sofia (ARCS).

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Interdisziplinäre Forschungen im Auxiliarkastell von Breţcu im südöstlichen Siebenbürgen

Alexandru POPA

Zusammenfassung

Das Kastell Breţcu liegt vor dem Oituz-Pass im südöstlichen Siebenbürgen und sicherte eine der wichtigsten Verbindungen vom Karpatenbecken in das Barbaricum und zu den antiken Städten des nordwestlichen Schwarzmeergebietes. Seit einigen Jahren werden dort interdisziplinär angelegte Forschungen betrieben. Die geophysikalische Untersuchungen (Geomagnetik und Georadar) brachten aussagenkräftige Messbilder zur Struktur und zum Erhaltungszustand der Kastellbefunde. Darüber hinaus wurde eine Pilotstudie zur mobilen Kartierung des Phosphatgehaltes innerhalb des Kastells durchgeführt. Die geophysikalischen und geochemischen Messungen haben ein großes wissenschaftliches Potential dieser Fundstelle aufgezeichnet, um die immer noch zahlreiche Fragen zur Archäologie und Geschichte der römischen Provinz Dacia beantworten zu können.

Einleitung

Trotz einer über 100 Jahren langen Forschungstradition sind die Ostgrenzen der Provinz Dacia nie grundlegend und in ihrer Gesamtheit untersucht worden. Wie bekannt, hat es in Siebenbürgen bzw. in Rumänien nie eine Institution gegeben, die eine systematische Forschung am Limes koordiniert oder getrieben hätte (analog beispielsweise der „Reichs-Limeskommission" in Deutschland oder der „Österreichische Limeskommission"). Die Anfänge der mehr oder wenigen systematischen Limesforschungen in Ostsiebenbürgen lassen sich jedoch in der Zeit vor dem ersten Weltkrieg nachweisen. Nach den ersten Publikationen, die auf Felduntersuchungen des 19. und frühen 20. Jhs. basierten (Buday 1927; Christescu 1929; 1935; Panaitescu 1929), rückten leider andere Fragestellungen in den Vordergrund rumänischer Altertumsforschung. Im Laufe der Zeit sind zwar mehrere Grenzkastelle archäologisch untersucht worden, aber die Ergebnisse dieser Untersuchungen fanden nie einen Platz in den zusammenfassenden Studien über die gesamte Provinzgrenze oder zu den einzelnen Abschnitten (Borza 1941-1944; Cantacuzino 1941-1944; Christescu 1937; Ferenczi 1939; Wagner 1938).

Einen deutlichen Fortschritt bilden in der wissenschaftlichen Dokumentation des dakischen Limes die Publikationen von N. Gudea. Mit ihrem katalogartigen Charakter fassen diese Studien die wichtigsten bekannten Informationen zu den Befestigungsanlagen der Provinzgrenzen Dakiens zusammen und bieten dem Leser nicht nur eine Einführung in die Problematik, sondern darüber hinaus einen systematischen Überblick. Sowohl die frühere rumänischsprachige (Gudea 1977) als auch die spätere deutsche (Gudea 1997) Version dieser Studie genügen jedoch in der Quellenkritik und der Methodik nicht mehr modernen Forschungsansprüchen, denn auch Gudea musste sich weitgehend auf den höchstunterschiedlichen Dokumentationsstand der 70 Jahre stützen. Erhebliche Probleme gab es sowohl bei den Vermessungen als auch beim Vergleich der Stratigraphien und damit in der übergreifenden Entwicklungsgeschichte. Außerdem sind die im Auswertungsteil der neuesten Arbeit formulierten Fragestellungen und ausgearbeiteten Antworten nicht mehr aktuell (Gudea 1997, 1-16). Durch die neuesten Publikationen der Altgrabungsergebnisse, wie z.B. von Orheiul Bistriţei (Protase 2008), Gherla (Protase / Gudea / Ardevan 2008) oder Ilişua (Gaiu 2006), erweiterte sich der Kreis archäologisch dokumentierter Kastellanlagen in Dakien.

Diese Veröffentlichungen veränderten jedoch den Forschungsstand nicht wesentlich, weil auch sie auf Grabungen der 50 und 60 Jahre des 20 Jhs. basierten, deren Aufschlüsse nicht mehr nachprüfbar sind. Allgemein betrachtet lässt sich festhalten, dass die Erforschung römischer Befestigungsanlagen aus dem östlichen Teil der römischen Provinz Dakien bislang stark vernachlässigt worden ist. Eine gründliche, mit dem neuesten Stand der modernen Dokumentationstechniken durchgeführte Untersuchung und eine Interpretation der Daten zu den römischen Grenzanlagen im Osten der Provinz Dakien stellen ein wissenschaftliches Desideratum dar. Insbesondere vor dem Hintergrund der durch Welterbestatus der britischen und deutschen Limites mit dem provinzübergreifende Vergleichsforschungen stimuliert wurden. Es erschien uns forschungsrelevant, ein Projekt ins Leben zu rufen, um in kommender Zeit den Ostabschnitt der dakischen Grenze grundlegend zu untersuchen[1].

Lage des Fundplatzes

Der römische Stützpunkt von Breţcu befindet sich am südöstlichen Zipfel Siebenbürgens, vor dem Oituz-Pass, der eine der wichtigsten Verbindungsmöglichkeit über die Karpaten in Richtung unterer Donau darstellt (**Abb. 1**). Für die römische Kaiserzeit hat die bisherige Forschung hier einen Knotenpunkt der Handelsstrasse aus Pannonien zum Schwarzmeergebiet postuliert, die die Verbindungen zwischen Jazygen und Roxolanen ermöglichte (Christescu 1929, 100; Paulovics 1944, 100). Der genaue Verlauf dieser Strasse ist derzeit noch unbekannt, und deren Existenz ist nur als Hypothese anzunehmen (Fodorean 2006, 286).

Bisherige Forschungen

Die als römisches Auxiliarkastell interpretierte Befestigung steht an einer strategisch günstigen Stelle, die den Eingang in die Senke „Pârâul Negru" sicherte. Der unter dem Namen „Cetate" (deutsch „Befestigung")[2] bekannte Fundplatz befindet sich nord-östlich der Ortschaft Breţcu (ehem. Bereck), auf dem rechten Ufer des gleichnamigen Baches, an den Füssen des Berges „Stejar".

Die erste Erwähnung der Fundstelle von Breţcu kommt in der Arbeit von L. Ferdinando Marsigli vor, wo sich auch die erste Planskizze des Kastells vorfindet (Marsigli 1726, 59-60 XXVI). Mehr Informationen zum Fundplatz (mit Angaben zur Größe, Form und Struktur des Kastells) finden sich in der Arbeit von Orbán Balasz, der auch die Position des Kastellbades identifizieren konnte. Die von ihm anhand der Ziegelstempel bestimmte Truppenbelegung des Kastells bleibt bis heute noch aktuell – COHORS I HIS(panorum) und COHORS I BRAC(araugustanorum) (Orbán 1869-1873, III 124).

1874 wurde das Auxiliarkastell bei Breţcu mit der ptolemäischen *Angustia* identifiziert (Gooss 1873/74, 7.50; Vgl. auch Vulpe 1931, 260). Der gleiche Autor erwähnt drei Jahre später auch eine Grabung an diesem Fundplatz (Gooss 1877, 113). Die ersten systematischen Untersuchungen konnten erst 1925 durch Em. Panaitescu durchgeführt werden, deren Dokumentation heutzutage nicht mehr zugänglich ist. Von den Grabungen 1925 sind nur ein lückenhafter Bericht mit Größenangaben sowie der Plan des Kastells übrig (Panaitescu 1929, 76-82) (**Abb. 2**). Bis zum zweiten Weltkrieg fanden an der Fundstelle keine Ausgrabungen statt. Die in dieser Zeit entstanden Publikationen basieren grundsätzlich auf Beobachtungen ohne archäologische Eingriffe in die Erde, wie z. B. die dem Ostdakischen Limes gewidmete Publikation von Paulovics (1944, 76).

1950 wurden die archäologischen Ausgrabungen unter der Leitung von M. Macrea wieder aufgenommen. Der nach einem Jahr veröffentlichte Forschungsbericht beinhaltet die vorläufige Grabungsergebnisse sowie der Feldbegegnungen im umliegenden Gebiet. Es wurde eine Nord-Süd-Ausrichtung des Kastells mit der *porta decumana* nach Norden und *porta praetoria* nach Süden festgestellt. Die Größe des Kastells beträgt 178 x 141 m (Macrea u. a. 1951, 288). Das Verteidigungssystem beinhaltete laut Macrea eine doppelte Umwehrungsmauer, bestehend aus zwei 1-1,20 Meter starken Mauer-„Schalen" und einem Umwehrungsgraben, dessen drei Seiten (Westen, Norden und Osten) nachgewiesen werden konnten. Die fehlende Südseite des Grabens erklärte der Autor damit, dass deren Rolle vom Bach Breţcu übernommen wurde. An den Ecken der Befestigung wurden runde Türme

[1] Ein Vorbericht zum gesamten Forschungsprojekt, das die gesamte Ostdakische Strecke umfasste, erschien 2010 Popa / Cociş / Klein / Gaiu / Man 2010a. Zum Projektteam gehörten neben dem Autor auch Nina Schücker (Frankfurt am Main), Sorin Cociş und Szabolcz Ferencz (Cluj-Napoca), Christina Klein, Ali Ismaeil und Christian Cajar (Kiel), Corneliu Gaiu (Bezirksmuseum Bistriţa), Nicoleta Man (Bezirksmuseum Mureş), sowie eine Studentengruppe (Chişinău), unter der Leitung von Sergiu Musteaţă. Allen Allen diesen Kollegen bin ich zum Dank verpflichtet.

[2] Die Fundstelle ist auch als "Cetatea doamnei Venetur" („Befestigung der Herrin Venetur") bekannt – vgl. Paulovics 1944, 76.

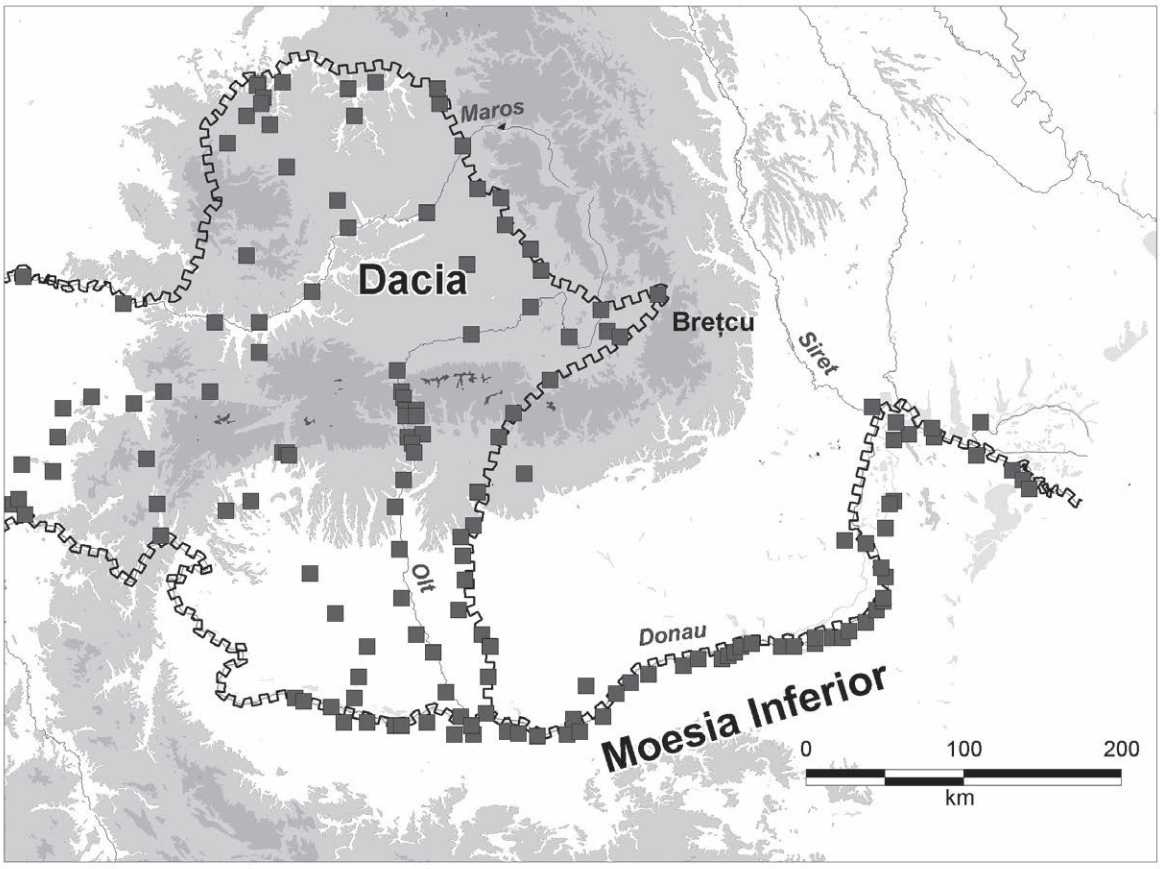


Abb. 1. Brețcu. Lage der Fundstelle und die römische Militärlager in Dakien (Datenbestand nach Gudea 1997, Kartierung A. Popa)

und an den Seiten vier Toranlagen festgestellt, jede von denen aus zwei rechteckigen Türmen bestehend. Die im Inneren des Kastells gesuchte *principia* konnte nicht lokalisiert werden (**Abb. 3**). Kleine Sondierungsgrabungen wurden im Kastellbad durchgeführt. Westlich vom Kastell konnte die anliegende Zivilsiedlung durch Begegnungen untersucht werden. Die archäologischen Funde – sowohl aus den Grabungen als auch aus den Feldbegegnungen – wurden in der Publikation jedoch nur erwähnt (wie z. B. Eisengegenstände, Glas, gestempelte Ziegel und Fragmente handgearbeiteter Keramikgefäße – siehe Macrea u. a. 1951, 288-292).

Im Jahre 1980 wurde die erste monographische Publikation des Kastellplatzes durch Nicolae Gudea veröffentlicht (Gudea 1980, 255-365). Die aus sieben Kapiteln bestehende Arbeit basierte ausschließlich auf die Grabungen von 1925 und 1950, sowie auf intensiven Literaturrecherchen. Trotz begrenzter Feldforschungen an der Fundstelle konnte Gudea eine Reihe neuer Forschungshypothesen aufstellen. Die erste davon ist die Existenz einer Holz-Erde-Phase des Kastells, dessen Erdwall nach der Vermutung des Autors eine Fläche von 170 x 135 Meter umschließt (Gudea 1980, 274) (**Abb. 3**). Auf eigenen Feldbegegnungen basierend wird die Hypothese aufgestellt, dass zur Umwehrung der Steinphase nicht nur ein, sondern zwei Graben gehört haben sollten. Gudea kommt zum Schluss, dass die Befestigung von Coh. I Hispanorum irgendwann in den Jahren 106-110 gebaut wurde (Gudea 1980, 293). Die Steinerbauung des Kastells wird anhand der Entsprechungen in anderen Provinzen um die Mitte des 2. Jhs. postuliert. Es werden vom Autor jedoch auch die später zu datierenden Analogien erwähnt. Die innere „Schale" der Umfassungsmauer wird in der Mitte des 3. Jhs. datiert. Das Ende des Kastells wird anhand indirekter Argumente (wie des Münzschatzes von Poiana Sărată[3] oder der allgemein-historischen Erwägungen zur gesamten Provinz Dacia) in die Mitte des 3. Jhs. oder in die Zeit der „offiziellen" Räumung dieser Provinz am Ende des dritten Viertel des 3. Jhs. Datiert (Gudea 1980, 300). Außerdem postulierte Gudea, dass das

[3] Bei der Überprüfung der Informationen zu diesem Münzschatz anhand der ursprünglichen Publikation (Gooss 1877, 125), stellte sich heraus, dass dieser unvollständig ist und für die Datierungen eines relative weit entfernten Kastells schlecht zu gebrauchen ist.

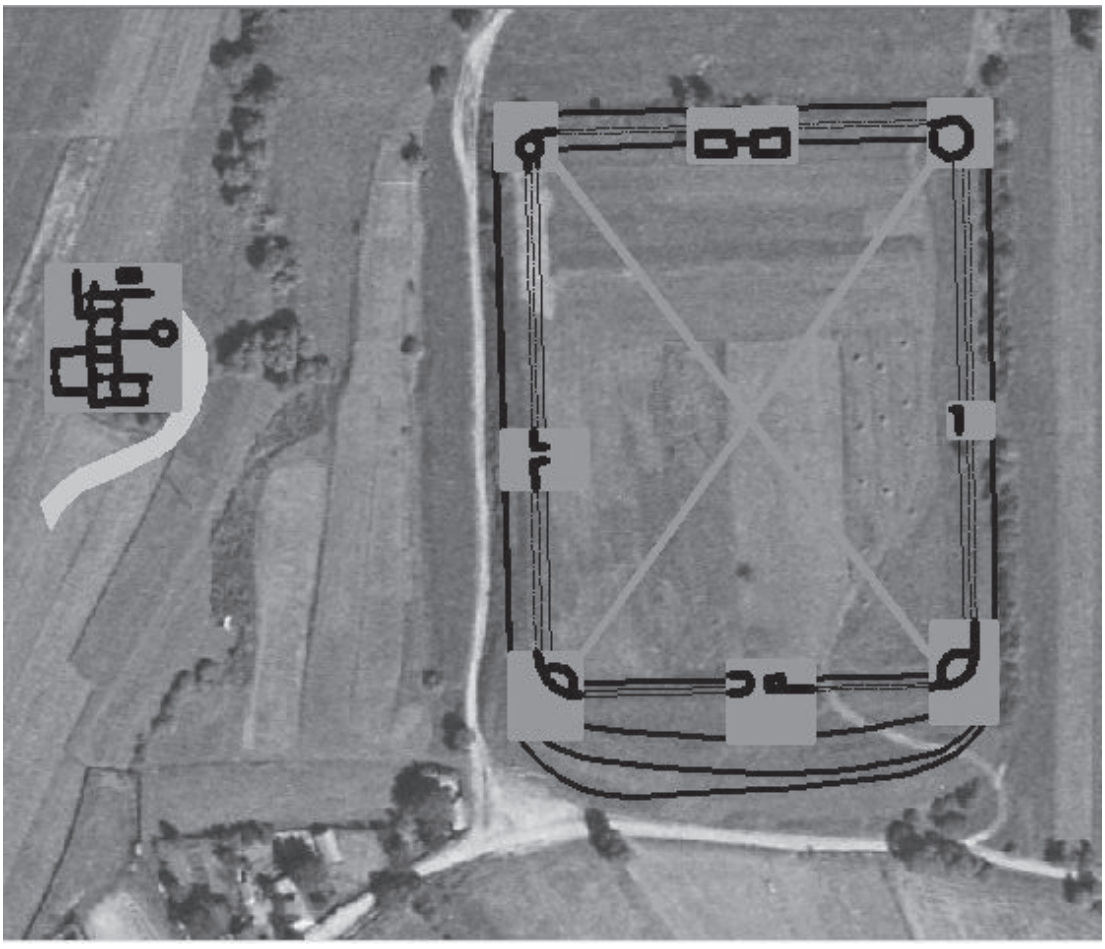


Abb. 2. Breţcu. Plan der Grabungsschnitten von Panaitescu und Macrea (Umzeichnung auf dem aktuellen Orthophotoplan)

Auxiliarkastell von Breţcu in den Jahren 106-120 n.Chr. der Provinz Moesia inferior zugeordnet wurde. Die Truppenbelegung des Kastells, die der Autor anhand der Ziegelstempel und der damals bekannten Militärdiplome rekonstruierte, sieht folgendermaßen aus: als erste scheint in Breţcu die *Cohors I Hispanorum quingenaria equitata* nachgewiesen zu sein; diese Truppe hat das Kastell angeblich gebaut und war hier bis zum Ende der Provinz stationiert. Bei der zweiten Truppe aus Breţcu handelt es sich laut Gudea um *Coh I Brac(araugustanorum*), die 134-140 n.Chr. dort stationiert wurde (Gudea 1980, 292-295). Das damals zugängliche archäologische Material ist für chronologische Rekonstruktionen unzuverlässig. Nicolae Gudea vermerkte jedoch die relativ erhöhte Anzahl der Amphorenfragmente im Vergleich zu anderen bereits untersuchten Kastellen der Provinz Dacia. Dies erklärte er mit der geographischen Lage an der Handelsstrasse in und aus der Richtung Schwarzmeer, „wo diese Amphoren produziert waren“ [4].

Nach der Erscheinung der Studie von N. Gudea wurde in Breţcu eine kleine Grabung im Jahre 1995 durchgeführt. Die Ergebnisse dieses an der Nordseite der Umwehrungsmauer angelegten Grabungsschnitts sind uns nur aus einem Vortrag bekannt (Voişian 2008).

Geomagnetik

Für die geophysikalische Kartierung wurde ein lokales Koordinatensystem verwendet. Die kontinuierliche Ortsbestimmung während des geophysikalischen Messvorgangs erfolgte mit einem DGPS der Firma Leica. Für die geomagnetische Kartierung wurde ein Magnetometer-Array mit 6 Fluxgate-Sonden der Firma „Dr. Förster“ eingesetzt. Die Auflösung der Magnetometer-Sonden beträgt etwa 0,5 nT. Die Ergebnisse sind in den Abbildungen als Graustufenbilder mir einer flächenhaften Bildauflösung von 0,20 x 0,20 m, dargestellt. Niedrige Messwerte, die einer geringeren Magnetisierung des Untergrundes entsprechen, werden in hellen

[4] Gudea 1980, 301-306. Dass die Truppenbelieferungen beim römischen Militär von anderen Faktoren als die geographische Lage bzw. die Nähe zu einer Handelsstrasse beeinflusst waren, muss an dieser Stelle nicht neu bewiesen werden.

Graustufen dargestellt, während hohe Messwerte mit dunklen Graustufen korrespondieren (**Abb. 4**).

Das Gelände des Kastells von Breţcu ist heutzutage Eigentum der Gemeinde und wird als Heuwiese verpachtet. Zur Zeit der Messungen war die Fläche frisch gemäht und beim trockenen Wetter dementsprechend leicht zugänglich. Insgesamt wurde in Breţcu eine Fläche von etwa 2 Ha geomagnetisch erfasst. Die Umwehrung des Kastells konnte wegen der hohen Mauern nur topographisch vermessen werden; wegen der starken Geländeneigung wären geomagnetische Messungen nicht zuverlässig. Auf zwei kleinen Flächen in der Mitte und in der südöstlichen Ecke konnte je eine Georadar-Messung durchgeführt werden.

Im Innenbereich des Kastells konnten dessen Bestandteile identifiziert werden. Es lässt sich dabei eine „klassische" Einteilung in drei funktionale Streifen beobachten, die über das Straßennetz miteinander verbunden sind. Die *via principalis* erreicht eine Breite von 6-8 Meter. Die *via praetoria* und *via decumana* sind dagegen nicht so deutlich sichtbar und lassen sich auf eine Breite von etwa 4 Meter abschätzen.

In der Mitte der Anlage befindet sich die fast quadratische *principia*, mit einer Seitenlänge von zirka 26 m. Die innere Raumeinteilung dieses Gebäudes ist ohne Weiteres nicht zu rekonstruieren. Westlich davon lässt sich ein *horeum*, mit einer Gesamtfläche von zirka 8 x 17 Meter vermuten. Das Gebäude westlich vom Getreidespeicher könnte als *praetorium* identifiziert werden. Die Größe (25 x 25 Meter) lässt diese Annahme anhand der Parallelen in anderen Kastellen der Provinz Dacia zu (Isac u. a. 1994). Östlich der Principia finden sich vermutlich zwei weitere Gebäude, deren funktionale Zuweisung anhand des Geomagnetikplans nicht möglich erscheint. Ob diese Wirtschaftsgebäude ein *valentidunarium* oder ein zweites *praetorium* darstellen, werden erst die zukünftigen Untersuchungen zeigen.

Beeindruckend sind die Anzahl und die Größe der Mannschaftsbaracken. Dem Geomagnetikplan nach sind es zehn Mannschaftsbaracken im nördlichen Teil und mindestens weitere acht oder sogar zehn auf der Südseite. Die Innenstruktur der Baracken kann nur anhand des Magnetometerplans bedingt rekonstruiert werden.

Georadar

Neben der klassischen Prospektionsmethode Geomagnetik wurde in Breţcu auch das Georadar flächenhaft eingesetzt. Das Georadar liefert die höchste vertikale Auflösung, da es sich im Gegensatz zu

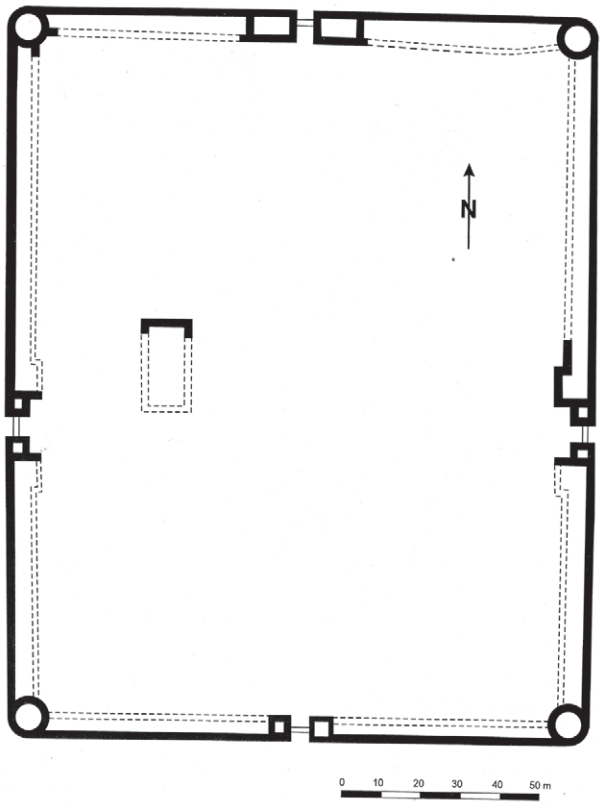


Abb. 3. Breţcu. Plan der Kastellanlage nach N. Gudea (Umzeichnung nach Gudea 1997)

der vorhergehend beschriebenen Potentialmethode Geomagnetik um ein Reflexionsverfahren handelt. Für die Messungen wurde eine zwei Kanal-Apparatur eingesetzt, als Antenne wurde ein 200 MHz System erprobt.

Untersucht wurden zwei unterschiedliche Bereiche. Im ersten Fall bestand die archäologische Fragestellung darin, an einer relativ abgeflachten Stelle die Struktur der Umwehrung zu überprüfen (**Abb. 4**). In den aufgezeichneten Radarprofilen sind die beiden, von der älteren Forschung bereits erwähnten „Mauer-Schalen" der Umwehrung zu erkennen, die sich in einem Abstand von etwa 4 Meter voneinander befinden. Außerdem lässt sich im Bild die *via sagularis* gut erkennen, die eine Breite von etwa 6-8 Meter erreicht und mit einem Bau im Kastellinneren grenzt.

Eine zweite Georadarmessung wurde etwa in der Mitte des Kastells auf einer Fläche von über 700 qm durchgeführt. Die archäologische Fragestellung bezog sich auf das Verfolgen der Gebäudemauer in die Tiefe, in einem Bereich nordöstlich der Principia. Im Unterschied zum Umwehrungsbereich zeichneten sich die archäologischen Befunde weniger deutlich ab. Auch für die Strukturen, die im Geomagnetikplan sichtbar sind, reicht die Auflösung der gemessenen

Georadardaten nicht aus, um die Bebauung rekonstruieren zu können oder zumindest das bestehende Geomagnetikplan zu ergänzen (**Abb. 4**). Trotz dieser Schwierigkeiten bei der Visualisierung der Daten zeigen bereits diese vorläufigen Ergebnisse, dass das Verfahren in den Ostkarpaten einsetzbar ist.

Phosphatenmethode

Der Hauptzweck der Phosphorbestim-mung in Breţcu bestand in der Kontrolle der Funktionalitätsinterpretationen der durch Geophysik gewonnenen Befundgrundrisse, insbesondere für die Baracken[5]. Die Messungen wurden mit Hilfe eines mobilen Röntgenfluoreszenzanalysators XL3t 900 der Firma Niton durchgeführt worden. Für die bevorstehenden Messungen des Phosphorgehaltes wurde von der Gerätvertriebs- und Service-Firma „Analyticon-Instruments" ein dafür angepasster empirischer Kalibrierungsmodus erstellt, bei dem alle anderen Elemente nicht gemessen wurden.

Der erste Schritt bestand in der Bestimmung des pH Wertes des zu untersuchenden Bodens, weil die zuverlässige Messung des Phosphat-Gehaltes nur bei einem pH-Wert von über 6 möglich ist (Klamm / Weber / Wunderlich 1998, 307). Diese Testproben wurden bei der Fa. Agrofor in Wettenberg bestimmt[6]. Das Messergebnis zeigte, dass die Proben einen pH-Wert von 6,20-6,40 (H_2O) aufweisen und dass der Fundplatz Breţcu dementsprechend für die Phosphorkartierung geeignet ist. Zur Vorbereitungsphase gehörten auch die Testmessungen an den Bodenproben, die im Vorfeld bei der Firma Agrofor durch andere Methoden untersucht wurden.

Entsprechend der archäologischen Fragestellung des Projektes wurden Bohrungen im nördlichen und im südlichen Kastell-Teil durchgeführt. Ausgehend vom Verlauf der geomagnetischen Anomalien betrug der Messraster 0,5 m bzw. 1 m. Außerdem wurden im Kastell ein Lang- und zwei Querschnitte in doppelter Reihe angelegt, mit einer Entfernung von 5 m zwischen den Bohrungen. Darüber hinaus wurden Referenzproben nördlich und westlich des Kastells entnommen. Insgesamt wurden 453 Bohrungen getätigt. Jede Bohrung wurde mit der Totalstation in das bereits bestehende lokale Koordinatensystem eingegliedert.

Die eigentliche Probenentnahme erfolgte mit Hilfe des Pürkhauer-Bohrers. Im Vorfeld sind jedoch mehrere Bodenprofile mit dem Riverside-Bohrer erstellt worden, um einen Überblick zur Bodenstruktur des Fundplatzes zu gewinnen. Dabei konnten von C. Haită aus Bukarest vier Bodenfazies festgestellt werden. Die entnommenen Bohrkerne wurden in mehreren (ca. 10 cm hohe) Horizonte gegliedert. Für die Messungen mit dem RFA wurden die untersten vier ausgewählt. Die Bestimmung des P-Gehaltes erfolgte mit eingeschalteter Helium-Spülung. Insgesamt wurden 1805 Messungen durchgeführt. Die gemessenen Werte streuen zwischen 67 und 3852,35 ppm, obwohl über 64% der Werte in dem Bereich zwischen 400-800 ppm liegen.

Für eine angemessene graphische Darstellung bzw. Interpretation der erzielten Messergebnisse wurden die Daten mittels Triangulation interpoliert. Der entstandene Grid stellt eine Kartierung der Messwerte dar und erlaubt einen Vergleich mit dem bereits vorhandenen Magnetometerplan und mit den Radargrammen aus Breţcu.

Die Messfläche "A" stellt einen Querschnitt durch die fünfte Baracke (gezählt von Osten) dar, die sich gegenüber der *porta decumana* im Norden des Kastells befindet. Die vorläufigen Ergebnisse weisen eine Korrelation zwischen Geomagnetik-Werten und Phosphor-Gehalt auf, vor allem in den untersten zwei Bodenhorizonten (**Abb. 5**).

Die Messfläche „B" wurde in der südlichen Kastellhälfte angelegt und bildet ein Querschnitt durch die Barackenreihe vom Osten nach Westen (**Abb. 6**). Der durch Interpolation entstandene Plan dieser Messfläche zeigt, dass sich im untersuchten Bereich mindest vier Zonen mit unterschiedlichen Phosphorkonzentrationen abzeichnen. Diese korrelieren mit der Struktur einer Mannschaftsbaracke: im Gassenbereich zwischen zwei Baracken wird die höchste Phosphorkonzentration erreicht und diese nimmt in Richtung Innenbereiche linear ab, so dass im vermutlichen Wohnraum die kleinsten Werte nachgewiesen wurden. Somit lässt sich die Hypothese aufstellen, dass die länglichen Baracken aus der südlichen Kastellhälfte als Mannschaftsbaracken benutzt wurden. Die nördliche Messfläche („A") zeigt ein anderes Muster. Hier verteilt sich der Phosphor gleichmäßiger, zeichnet jedoch an einigen Punkten relativ hohe Gehaltwerte. Eine klare Abgrenzung der hier anhand der Kastell-Planimetrie vermuteten Jaucherinnen lässt sich nach diesen Messungen noch nicht beobachten.

Diese Phosphorkartierung wurde als Pilotstudie konzipiert und durchgeführt. Sie soll-

[5] Ein erster Vorbericht zu dieser Untersuchung wurde 2010 veröffentlicht – siehe Popa u.a. 2010b. Zur Fragestellung vgl. auch die Studie von Weston 1995.

[6] Ich danke Herrn Oliver Wegener, dem Inhaber der Firma Agrofor für die erfolgreiche Zusammenarbeit an diesem Projekt.

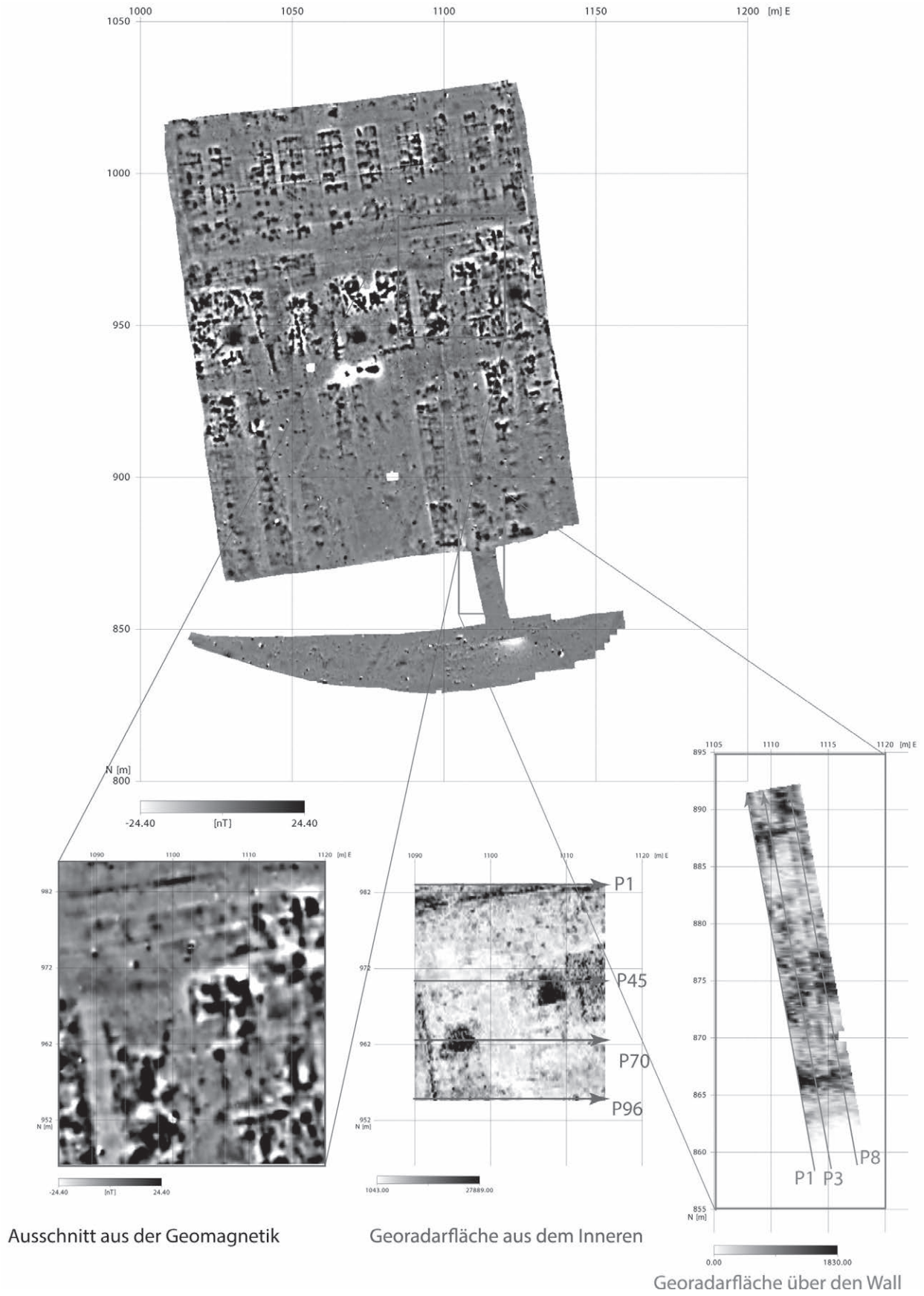


Abb. 4. Breţcu. Ergebnisse der Geomagnetik- und Georadarmessungen

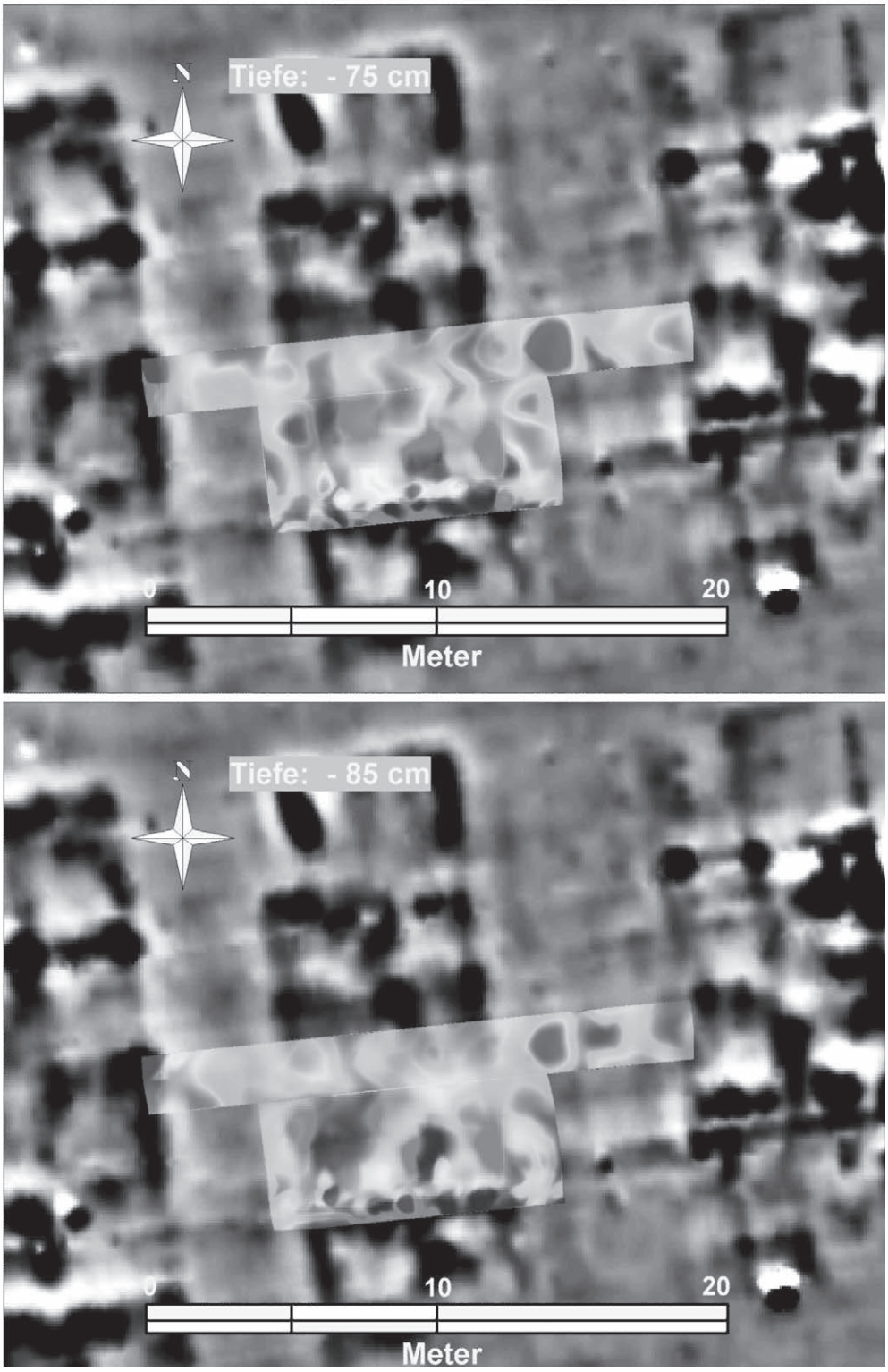


Abb. 5. Breţcu. Phosphorkartierung in der Messfläche A. Interpolation des Phosphatgehaltes in den Horizonten -75 und -85 cm

te dazu beitragen, eine neue Forschungsstrategie für Anlagen im Umfeld des Limes zu entwickeln. Auf die Frage der Archäologie, ob unter der antiken Laufoberfläche ein Raster unterschiedlicher Phosphor-Konzentrationen zu verzeichnen ist, scheinen uns die von mobilen RFA gemessenen Phosphorgehaltwerte eine positive Antwort zu geben. Der besondere Wert dieser Methode besteht in der Gelegenheit, zerstörungsfreie, effizient arbeitende Verfahren kombiniert einzusetzen, um die Struktur und Funktion der archäologischen Fundstellen bestimmen zu können. Die dabei gewonnenen Daten besitzen einen wissenschaftlichen Wert, der sich auch in die Praxis des lokalen bzw.

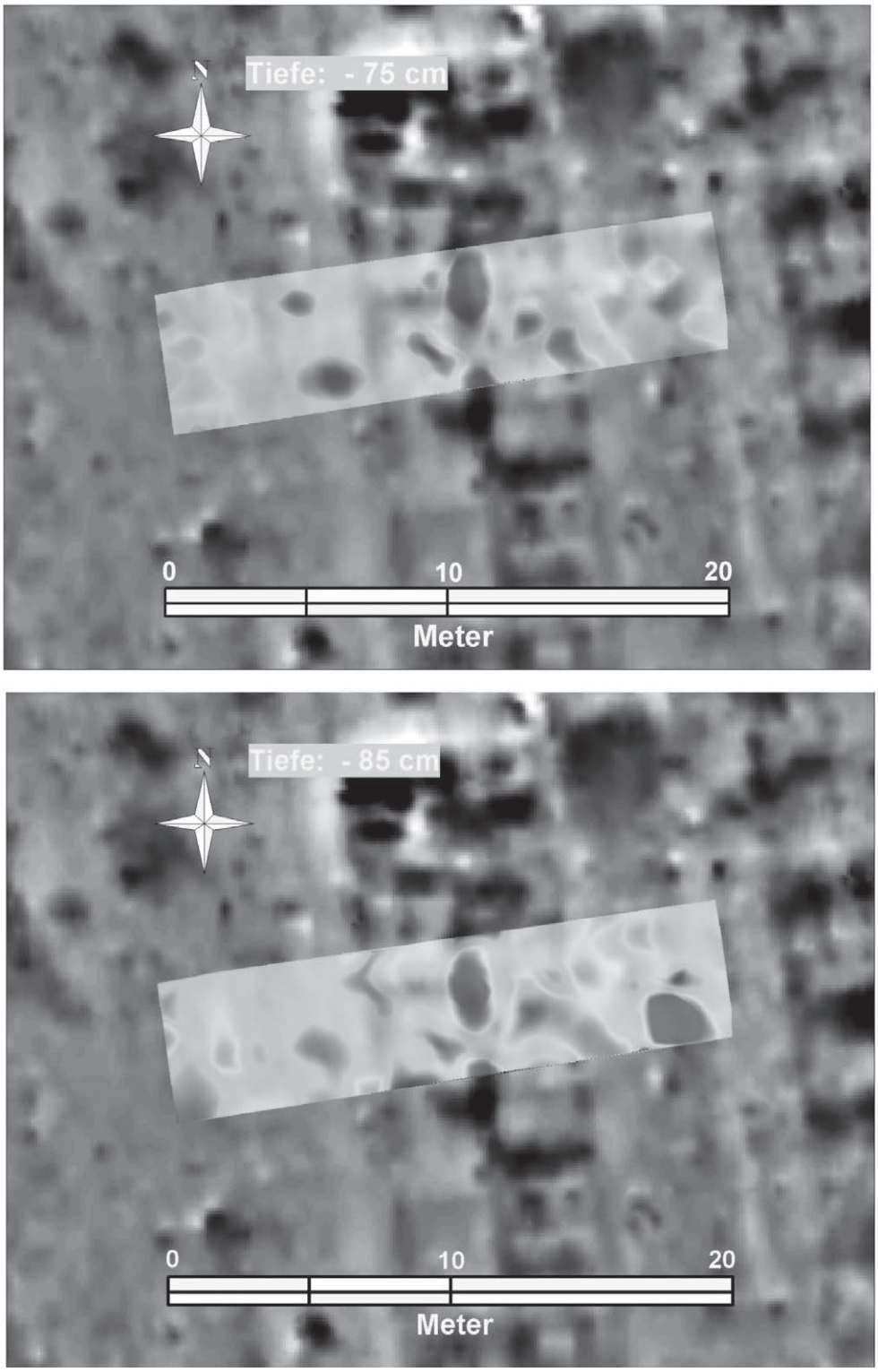


Abb. 6. Breţcu. Phosphorkartierung in der Messfläche B. Interpolation des Phosphatgehaltes in den Horizonten -75 und -85 cm

nationalen Kulturerbe-Managements transferieren lassen.

Zusammenfassend lässt sich festhalten, dass trotz einer über 100 Jahre alten Forschungstradition die archäologischen Hinterlassenschaften dieses Kastells fast unbekannt sind. Die geophysikalischen Messungen haben jedoch ein großes wissenschaftliches Potential dieser Fundstelle aufgezeichnet, das durch eine gute Erhaltung der Befunde bestimmt ist. Die Aufgabe der zukünftigen Forschungen besteht darin, diese Befunde sowohl mit zerstörungsfreien Methoden als auch mit gezielten kleinräumigen archäologischen Eingriffen zu untersuchen, um die immer noch zahlreiche Fragen zur Archäologie

und Geschichte dieses besonderen Fundplatzes der römischen Provinz Dacia beantworten zu können.

Danksagung

Ich danke allen meinen Kollegen von der Römisch-Germanischen Kommission in Frankfurt, vom Institut für Archäologie und Kunstgeschichte in Cluj-Napoca, vom Nationalmuseum der Ostkarpaten in Sfântu Gheorghe und vom Nationalen Museum der Geschichte Rumäniens in Bukarest, die das Projekt mit Rat und Tat unterstützt haben. Ein Teil der Untersuchungen wurden im Rahmen des Forschungsprojektes PN-II-ID-PCE-2011-3-0652 "Graniţa romană în Estul Provinciei Dacia" der rumänischen National Authority for Scientific Research durchgeführt.

Bibliographie

Borza, A. 1941-1944. Informations nouvelles sur le camp romain de Cenad. – Dacia 9-10, 551-555.

Buday, A. 1927. Vitás kérdések: Limes problémák. – Dolgozatok 3, 123-129.

Cantacuzino, G. 1941-1944. Le grand camp romain situé près de la commune de Băneasa (dép. de Teleorman). – Dacia 9-10, 441-472.

Christescu, V. 1937. Istoria militară a Daciei Romane. Bucureşti.

Christescu, V. 1935. Le "castellum" romain de Săpata-de-Jos. – Dacia 5-6, 435-437.

Christescu, V. 1929. Viaţa economică a Daciei romane. Piteşti.

Ferenczi, I. 1939. A Székely Nemzeti Múzeum elözmenyeihez és az olasztelki romai táborhelyröl. Das römische Castellum von Tălişoara. – Székelgség 9, 66-72.

Fodorean, F. 2006. Drumurile din Dacia romană. Publicaţiile Institutului de Studii Clasice 7. Cluj-Napoca.

Gaiu, C. 2006. Ilişua – castrul traianic. In: Teodor, E. S. / Ţentea, O. (Hrsg.). Dacia Augusti Provincia. Crearea provinciei. Actele simpozionului desfăşurat în 13-14 octombrie 2006 la Muzeul Naţional de Istorie a României. Bucureşti. 207-218.

Gooss, C. 1877. Archaeologisch-Epigraphische Mitteilungen aus Österreich-Ungarn 1, 125.

Gooss, C. 1873/74. Programm des evangelischen Gymnasiums in Schässburg. Schässburg.

Gudea, N. 1997. Der dakische Limes. Materialien zu seiner Geschichte. – Jahrbuch des Römisch Germanischen Zentralmuseums Mainz 44, 2, 497-609 (491-113).

Gudea, N. 1980. Castrul roman de la Breţcu. Încercare de monografie. – Acta Musei Porolissensis 4, 255-365.

Gudea, N. 1977. Limesul Daciei romane de la Traianus (106) la Aurelianus (275). – Acta Musei Porolissensis 1, 97-113.

Isac, D. / Hügel, P. / Andreica, D. 1994. Praetoria in dakischen Militäranlagen. – Saalburg Jahrbuch. Bericht des Saalburg Museums 47, 40-64.

Klamm, M. / Weber, T. / Wunderlich, C.-H. 1998. Zur Phosphatmethode in der Archäologie – Reflektometrische Bestimmung von Phosphat auf archäologischen Grabungen. – Jahresschrift für Mitteldeutsche Vorgeschichte 80, 305-323.

Macrea, M. / Buzdugan, L. / Ferenczi, G. / Horedt, K. / Popescu, I. / Russu, I. I. 1951. Despre rezultatele cercetărilor întreprinse de şantierul arheologic Sf. Gheorghe – Breţcu. – Studii şi cercetări de istorie veche şi arheologie 2, 1, 285-311.

Marsigli, L. P. D. 1726. De antiquitatibus Romanorum ad ripas Danubii. Danubius Pannonico-Mysicus: observationibus geographicis, astronomicis, hydrographicis, historicis, physicis perlustratus et in sex tomos digestus, 2. Amstelodami.

Orbán, B. 1869-1873. A Székelyföld leirása 1-4. Buda.

Panaitescu, E. 1929. Le limes dacique. Nouvelles fouilles et nouveaux résultats. – Bulletin de la Section Historique de l'Académie Roumaine 15.

Paulovics, I. 1944. Dácia keleti határvonala és az úgynevezett "dák" ezüst kincsek kérdése. Cluj.

Popa, A. / Cociş, S. / Klein, C. / Gaiu, C. / Man, N. 2010a. Geophysikalische Prospektionen in Ostsiebenbürgen. Ein deutsch-rümänisch-moldauisches Forschungsprojekt an der Ostgrenze der römischen Provinz Dacia. – Ephemeris Napocensis (Cluj) 20, 101-128.

Popa, A. / Lăzărescu, V. / Dobos, A. / Zăgreanu, R. 2010b. Vorläufige Ergebnisse der Phosphatkartierung im römischen Kastell von Breţcu. – Revista Bistriţei 23, 69-74.

Protase, D. 2008. Castrul roman de la Orheiul Bistriţei. Cluj-Napoca.

Protase, D. / Gudea, N. / Ardevan, R. 2008. Din istoria militară a Daciei roman. Castrul roman de interior de la Gherla (Aus der Militärgeschichte des römischen Dakien. Das römische Binnenkastell von Gherla). Timişoara.

Voişian, V. 2008. Despre săpăturile Muzeului Naţional de Istorie a Transilvaniei din anul 1995-96 la Breţcu, judeţul Covasna. – Sesiunea Anuală a Muzeului Naţional a Carpaţilor Răsăriteni, Noiembrie 2008 Sfântu Gheorghe.

Vulpe, R. 1931. Angustia. – Révue Archéologique 11.

Wagner, W. 1938. Die Disklokation der römischen Auxiliarformationen in den Provinzen Noricum, Pannonien, Moesien und Dakien von Augustus bis Gallienus. Berlin.

Weston, D. 1995. A Magnetic Susceptibility and Phosphate Analysis of a Long House Feature on Caer Cadwgan, near Cellan, Lampeter, Wales. – Archaeological Prospection 2, 19-27.

Priv.-Doz. Dr. habil. Alexandru Popa
Nationalmuseum der Ostkarpaten,
Gábor Áron Str. 16
RO-Sf. Gheorge, Judetul Covasna
Tel./Fax: +40267314139,
Mobil +4077177800 +4915781693937
www.mncr.ro alex.popa@mncr.ro

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Supplying the *Limes* Garrison in the Dobrogea

Stephen MATTHEWS

That part of the Roman province of lower Moesia that lies within the modern Dobrogea has been subject to rather more archeological survey than other parts of the lower Danube provinces. This is due to the presence of the Black Sea *poleis* and many epigraphically attested, if not always located, *vici*. Recently the opportunity has arisen to view settlement density over the wider region through the cIMeC database of archaeological sites, maintained by the Romanian Institute of Cultural Memory. In this paper I will look to quantify the arable need of the Roman military on this part of the frontier against that of the evident civilian settlement. Then, on the evidence of those sites where excavation reports are available, I will offer figures for suggested agricultural activity at different types of settlement. Having used the cIMeC material as a baseline augmented by written studies I shall total the number of Roman period sites visible and suggest what this may represent in terms of arable land. From this work I venture that a significant 66% of the arable activity necessary to feed the military is still apparent in the archaeological record at a remove of two thousand years. There is much supposition in what follows, but it is hoped that although the numbers can be contested, the ideas that I propose will in the future be used to construct an increasingly accurate model of the role of the agricultural community in supporting the military.

With two legions in the region (*V Macedonica* and *XI Claudia*) in the second century, one at *Troesmis* another at *Durostorum*, I will use a nominal figure of 6,059 troops including military servants for each. Yet, *Durostorum* is just outside the survey region, lying across the Romanian border with modern Bulgaria, so that not all of its hinterland benefits from being catalogued on cIMeC. My first assumption is, therefore, that only one quarter of this legion's needs were provided from within the survey region, and so only 1,515 men of that garrison were to be fed from the survey region. The auxiliary garrison in the mid second century is well documented on *diplomata*, and half of all known units are evident in the Dobrogea (Roxan 1978, 72-73; Zahariade / Gudea 1997, 76-82; Spaul 1994, 2000; Holder 2006, 81)[1]. The resulting number of auxiliaries supposed derives from these *diplomata*. The fleet estimate of 800 men is based on the sexagenary rank of the fleet prefect and a belief that two-thirds of the Moesian fleet served in the Dobrogea.

One Legion at *Troesmis*	= 6,059 men
One quarter of the legion at *Durostorum*	= 1,515 men
2 *alae* and 6 *cohortes*	= 4,965 men
Fleet element	= 800 men
Total	= 13,339 men

So, for my argument I will assume that 13,339 military men were to be fed. The known military sites in the region are shown, together with the Black Sea *poleis*, on **fig. 1**.

Today a fighting man requires 3,600 calories a day (Aylward et al. 2005, 31). The Roman soldier was shorter, on average older, and in this particular case in garrison and so less active; his requirement

[1] RMD 399 (RMD 165) AD 145 gives five *alae* and 11 *cohortes* in the lower province, and this closely agrees with RMD 50 of c. AD 157; they provide the standard list of units for the mid second century; Garrisons were *ala Vespasiana Dardanorum* at *Arrubium*, *ala II Hispanorum Aravacorum* at *Carsium; cohors II Mattiacorum* at *Sexaginta Prista*, outside of the study area but with detachments at *Dinogetia* and Barbosi, *I Claudia Sugambrorum veterana* (*eq*) at *Sucidava*, *I Cilicum sagittariorum* at *Tropaeum Traiani* and *Sacidava*, *I Germanorum* (*cR*) at *Capidava* with detachments at Constanta, *I Lusitanorum Cyrenaica* (*eq*) at *Cius* with detachments at *Tropaeum Traiani*, and *II Flavia Brittonum* (*eq*) with detachments at *Aegyssus*.

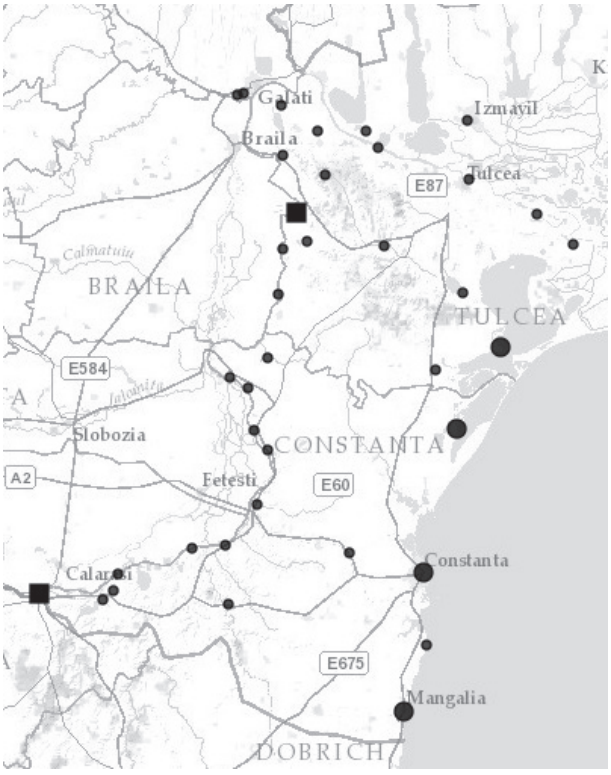


Fig. 1. Military sites in the region of the Black Sea *poleis*

was probably around 2,900 calories. Polybius (6.39) gives a military grain ration, which if of bread wheat of a specific density recorded by Pliny (*NH* 18.66) of 75 kg/hl would have weighed 0.809 kg, this would have provided 93% of those daily calories required (Engels 1978, 123; Foxhall / Forbes 1982, 48-49, 74; Groenman-van Waateringe 1997, 263; Goldsworthy 1998, 291-2; Roth 1999, 9-12, 66). I assume a predominantly bread diet and thus only arable needs here[2]. Thirteen thousand three hundred and thirty nine (13,339) men would have required 3,939 metric tonnes *pa*. Columella (*Rust.* 2.3-4), gives a four-fold return from a sowing density of 5 *modii/iugerum*, so 20 *modii/iugerum*, which equates to 685 ltrs/ha or more usefully by weight 514 kg/ha if bread wheat of the specific density cited above; less a quarter seed corn, this equals an average yield of 385 kg/ha, (Cic. *Verr.* 2.3 and Varro *Rust.* 1.44 give higher yields but were probably reporting exceptional cases; Duncan-Jones 1982, 370-371 suggested 402 kg/ha, Sallares 1991, 374-375 proposed 375 kg/ha). Applied to the needs of the garrison this represents the product of 10,230 ha, doubled to allow for alternate fallowing, so that 20,461 ha of arable land would have been required to feed the supposed garrison. In individual terms this represents 1.534 ha of land per soldier. Columella (*Rust.* 2.12.1, 2.12.7-9) and Varro (*Rust.* 1.50.3) and medieval records (Clark 1987, 420) all suggest that a single farm labourer could be expected to have worked about 6ha *pa*, although he might only harvest 3 ha, which accords with the idea of alternate fallowing, (White 1965, 105; Duncan-Jones 1982, 329-330; Spurr 1986, 136-139). Assuming that the labourer ate as well as a soldier, and he certainly would have required as many calories, he himself also required the product of 1.534 ha. Thus, a single labourer would have tilled a surplus of 4.466 ha and, therefore, 4,582 farm-workers would have been required to work the land feeding the garrison and required a further 7,028 ha to feed themselves. So to feed both the soldiers and their agricultural workers 27,489 ha would have been required.

One can try and quantify the civilian population but it is close to impossible to suggest who might have been simply self sufficient and who might have provided a surplus. There would of course have been the service providers to the military: the merchants, shopkeepers, innkeepers, etc., inhabiting the urban settlements in direct support of the military who were in no way involved in agriculture. There would have also been military families, although how many of these there were next to any garrison is as yet not fully understood. Therefore, the argument for their food needs becomes increasingly tenuous, so that I shall avoid it and consider only the needs of the military and then reduce the agricultural activity seen to account for this and other unknowns.

Against this need, I sought to look for the supply sources. The cIMeC database aims to show every archaeological site in Romania; it can be searched according to county, period and type of site among other criteria. Yet it became apparent that not every site suggested by researchers over that last 30 years was recorded on cIMeC. Against cIMeC, Baumann (1983) especially, and also Bărbulescu's (2001) comprehensive study look to have been overly optimistic about the quantity of *villa* sites in particular in the region, so that I include sites reported in these sources with some caution. Panaite (2004, 190) clearly warns against Baumann's readiness to classify all stone remains as *villae*. Furthermore cIMeC, being a database of sites, by its very nature did not record those *vici* or *komai* epigraphically attested but not certainly located. Where cIMeC did not align with other narratives, by excluding isolated finds, industrial sites, roads and aqueducts if obviously serving a settlement centre, and treating each

[2] My ongoing doctoral thesis considers other foodstuffs as well.

discrepancy on a case-by-case basis, a total of 312 settlements were considered relevant in the region.

On both the database and secondary sources there was a wide range of descriptors for types of sites and, however artificial it may be, it became necessary to categorize the sites according to their potential output as *vici*, *villae*, or individual farmsteads.

Within the region, 49 village type sites, *vici*, *komai* and at least one *civitas* capital are in evidence, although not all can be tied to physical sites. Their existence is often attested through honorific inscriptions to magistrates and members of the *ordo*. Many of these inscriptions report the presence of Roman citizens, veterans and members of certain Thracian tribes being *consistentes* – that is settled in communities[3]. Both these factors imply populations running to several hundreds if they were in need of such governance. At the supposed *vicus* site of Fântânele, the most extensively excavated farm, house α, was of 353 m^2 in area, which could have housed a staff of possibly 10 (Suceveanu 1998, 58). Although some houses here are smaller, there are also some as yet uncertain dwellings, so that if each of the other 16 certain dwellings at Fântânele nominally housed similar staffs, then 160 workers could have worked 960 ha. This represents a radius of 1.75 km of arable from the *vicus* centre – in no way a huge tract of land. At the *vicus* site of Teliţa-Amza dwellings were predominantly of single-family size; however, having sampled an area of 500 m^2 and adjusted the density of housing according to the chronology of the buildings, the excavator Baumann (2003, 164-165, 171-173) suggested a second century population of 2,240. Assuming nuclear families of four with 1.7 workers each, this would result in 952 farm workers. If they all worked 6 ha each, that would result in 5,712 ha under the plough for this single *vicus*, which, although it sounds a lot, only represents a radius of 4.26 km, and so still a manageable area of land. I will, however, err on the side of caution and follow the lower suggested figure of 960 ha. Additionally there were the *canabae,* military *vici,* and *municipia* adjacent to the military camps, 10 in total[4]. Conrad (2006, 322) has reported how, outside of this study area, upriver at *Novae* a dense distribution of small farms very close to the fortress was apparently providing for the military's needs. Following his work, I will further allocate a surplus produced from those civilian sites adjacent to the garrison to the same value as the rural *vici*, the product of 960 ha.

Of all the sites, 18 are categorized by either cIMeC or the published sources as rural *villae*. This term is of course problematic when considering the Dobrogean *villae*, although there may be Mediterranean features, they were rarely large country seats for the nobility, rather substantial buildings, where the surface area or the layout suggest a staff and landholdings beyond the single-family unit. At Horia, a *villa* close to the traditional definition possessed a *pars rustica* attached as an annex, with probable granary and arable farm implements among the finds (Baumann 1983, 117-120). This *villa*, extending beyond 900 m^2 in area, was large enough to house a staff; how many is open to conjecture, but 10-20 workers and so 60-120 ha seems reasonable (continuing with the idea that a man worked 6ha). Another *villa* at Niculiţel, although larger, almost half a hectare, 0.459 ha, in area, with a central courtyard enclosed on three sides by large open aisled halls, has been suggested as a cattle farm because of the size and shape of the rooms, the presence of cisterns for harvesting rainwater, and many cattle bones, (Baumann 1979, 133, 140-141; 1983, 100-105; cf. Panaite 2004, 188, 190, who notes that many supposed *villae* including this site might have equally been *mansiones)*. The domestic quarters here of 105 m^2 and 115 m^2 could have also housed a staff of 10-20 (Baumann 1983, 105). Even if predominantly a cattle farm, mixed farming ought still to be considered because arable implements were found on site and cattle were highly beneficial in manuring arable fields. Therefore, again 60-120 ha could have been under cultivation here.

Of course this is speculative, but it is with reference to these sites that I allocated a figure of 120 ha arable for each of the 18 *villae* in the survey area. This is a figure that aligns with emerging ideas from the northwest provinces where although large grander *villae* can be seen to have had more extensive areas of influence, smaller farm type sites are interspersed around them, so that each site has a working area of about 120 ha (Schucany 2011, 277-279; Jeneson 2011, 269; Gaitzsch 2011, 286-292).

Finally, the most common description on the cIMeC database was in Romanian – 'aşezare', simply site or settlement. In those cases where there is no

[3] CIL 3.6167 (= ISM 5.157), 3.7533 (= ISM 2.141), 3.1421426, 3.14441; ISM 1.138, 1.324, 1.326-332, 1.343-347, 1.349, 5.141, 5.154; AE 1988.986-990.

[4] *Durostorum*, Adamclisi, *Axiopolis*, *Capidava*, *Carsium*, *Troesmis* – both a *canabae* and *municipium*, Barbosi, *Noviodunum*, and Tulcea.

or little indication of size, I assumed only a single-family occupation and allotted a mere 10.2 ha of arable land to each, derived from the amount of land that 1.7 men working 6 ha each could command.

Before calculating the potential output from these sites to the military, I had to consider that Black Sea *poleis* were consumers as well. Here it was necessary to differentiate between which of those sites might have directly supported their *polis* and which might have supplied the military. I suggest that sites within a 15-20 km radius of the *poleis* provided for them; but that those further afield provided to the *limes* zone. Hansen and Nielsen (2004, 932-933, 940) give putative areas of territory for Histria, and Callatis of 500 km^2, equating to a radius of 18 km and for Tomis of 200-500 km^2 equating to a radius of 11-18 km. There is some epigraphic evidence for two distinct administrative organizations, a *civitas* and a *regio* at *Histria* that has been discussed at length elsewhere, which might indicate that only some of the land tied to the *polis* was farmed in direct support of it[5]. All the known sites are marked on **fig. 2**. Of the 312 sites considered, 212 (in darker grey) are reasoned to have been providing for the *limes* zone, while 100 (in lighter grey) are more likely to have supplied the *poleis*, and their agricultural potential is not included in the argument for the garrison. This total includes a group of Roman period sites in around modern Galaţi on the far side of the Danube, where a bridgehead settlement existed (Tentea / Oltean 2009, 1515 ff). This enclave is the only extension of Roman settlement across the frontier obvious through cIMeC.

Of the 212 *limes* facing sites, there are 34 supposed as *vici*, *komai*, and urban settlements, 15 are *villae* and 163 are isolated sites. Assuming 960 ha for the *vici* and urban sites, 120 ha for *villae*, and 10.2 ha for the isolated sites, this equals a total of 36,103 ha of arable visible in the archaeological record.

34 *vici*, *komai*, and urban sites at 960 ha each	= 32,640 ha
15 *villae* at 120 ha each	= 1,800 ha
163 isolated sites at 10.2 ha each	= 1,663 ha
Total	= 36,103 ha

This figure can be seen to be heavily dependent on the supposed output of the *vici*, which aligns with an idea put forward 30 years ago by Poulter (1980, 729 ff.), before some of these individual *vici* were even known, that they were established and settled deliberately by the imperial authorities in support of the military garrison. This becomes even more credible when their proximity to the road network is considered, something which space precludes here. On a cautionary note, 10 of these *vici* do not appear on cIMeC, illustrating how even such a comprehensive dataset of sites cannot work in isolation of the epigraphic record.

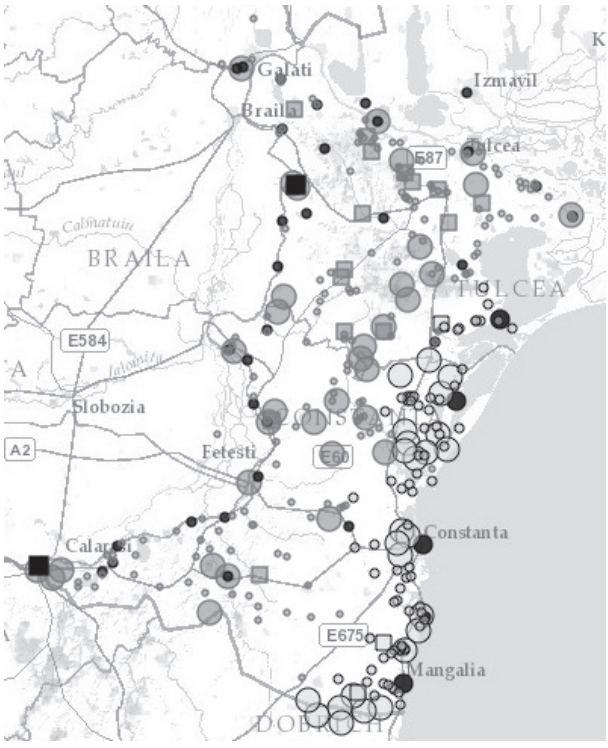


Fig. 2. All known sites

As already stated, it is difficult to suggest what part of the agricultural activity that we can see was simply self-sufficient and not producing a surplus. However, away from the *poleis* the military was the only major consumer. And it is likely that those sites visible in the archaeological record represent the upper end of the settlement hierarchy, so that these sites are those most likely to have produced a surplus. Another unknown is the continuity of occupation of the sites under review; in some, but not all cases, cIMeC shows occupation before and after the Roman period, but it is still only possible to guess what part were in use at any one time. Therefore, to mitigate these unknowns, I shall halve the suggested arable available figure of 36,103 ha to 18,052

[5] ISM 1.68 The Horothesia of Laberius Maximus defines the boundaries of Histria's region; a combination of the more influential interpretations would make for an arc 30 km from the town. But other inscriptions of ISM I.329, 5.123 show that the *civitas* and the *regio* were distinct, which leads to the idea of another demarcation between the smaller *chora* and larger *regio*; Suceveanu (1977 38 fn 78; 1998 161); Alexandrescu et al. (1986, 249); Lungu et al. (1990, 168); Bărbulescu (2001, 32-35, 39).

ha (although I could equally increase them by a factor, as demographers are wont to do to allow for the perceived recovery rate). Thus, for the perceived needs of the military men and their attendant farm workers, the 18,052 ha suggested provides 66% of the 27,489 ha calculated as necessary above. To expect to see very much more activity from a distance of 2,000 years is unrealistic.

Although the above is speculative I believe it is possible to quantify the garrison of the Dobrogea with some certainty and to posit a requirement in terms of arable land to feed this garrison and the farmers that supported them. To try and quantify the scale of agriculture practised, the excavations of a variety of farm sites have been considered to suggest the likely number of occupants. The figures assumed, 120 ha for *villae* and 960 ha for *vici*, are reasonable average figures, but clearly if there were fewer agricultural workers then less land would have been worked. The calculations point to the *vici* and *komai* having provided the bulk of the agricultural potential, reaffirming Poulter's suggestion that they were the major suppliers to the military. I have tried to be pessimistic throughout: I assume alternate fallowing and so double the quantity of land required to feed the military, and I have assumed that only half the known sites provided their surplus to the military. Yet, at a remove of two millennia, mainly utilizing online material, to be able to argue for 66% of the required land being visible makes it certain that much more was available in antiquity, both to the military and to the civilian community. Furthermore, such a figure surely points to the garrison being supplied in the main from the local community.

Bibliography

Alexandrescu, E. / Avram, A. / Bounegru, O. / Chiriac, C. 1986. Cercetari Perieghetice in Teritoriul Histrian (II). – Pontica 19, 243-247.

Aylward, J. M. / Harrington, M. S. / Zanchi, J. A. 2005. An army marches on its stomach. – Defence Management Journal 29, 31-34.

Bărbulescu, M. 2001. Viaţa rurala în Dobrogea Romană (Sec. I-III p. Chr.). Constanta.

Baumann, V. H. 2003. Noi săpături de salvare în aşezarea rurală antică de la Teliţa-Amza, jud. Tulcea. – Peuce 1 (14), 155-232.

Baumann, V. H. 1983. Ferma Romană din Dobrogea. Tulcea.

Baumann, V. H. 1979. La villa Rustica de Niculiţel (Dep de Tulcea). – Dacia NS 23, 131-146.

Clark, G. 1987. Productivity Growth without Technical Change in European Agriculture before 1850. – The Journal of Economic History 47, 2, The Tasks of Economic History, 419-432.

Conrad, S. 2006. Archaeological Survey on the Lower Danube Results and Perspectives. – Black Sea Studies 4. Surveying the Greek Chora. The Black Sea Region in a Comparative Perspective, 309-331.

Duncan-Jones, R. 1982. The Economy of the Roman Empire: Quantitative Studies. Cambridge.

Engels, D. W. 1978. Alexander the Great and the Logistics of the Macedonian Army. Berkeley.

Foxhall, L. / Forbes, H. A. 1982. Sitometria: The Role of Grain as a Staple Food in Classical Antiquity. – Chiron 12, 41-89.

Gaitzsch, W. 2011. Roman villa landscape of the lignite mining areas in the hinterland of Cologne. In: Roymans, N. / Derks, T. (eds.). Villa Landscapes in the Roman North. Amsterdam. 285-300.

Goldsworthy, A. K. 1998. The Roman Army at War 100BC-AD200. Oxford.

Groenman van Waateringe, W. 1997. Classical authors and the diet of Roman soldiers: True or false? In: Groenman-van Waateringe, W. / van Beek, B. L. / Willems, W. J. H. / Wynia, S. L. (eds.). Limes XVI. Oxford. 261-265.

Hansen, M. H. / Nielsen, T. H. 2004. An Inventory of Archaic and Classical poleis. Oxford.

Holder, P. 2006. Roman Military Diplomas V. London.

Jeneson, K. 2011. Evaluating settlement patterns and settlement densities in the villa landscapes between Tongres and Cologne. In: Roymans, N. / Derks, T. (eds.). Villa Landscapes in the Roman North. Amsterdam. 259-273.

Lungu, V. / Bounegru, O. / Avram, A. 1990. Cercetari Arheologice la Cogealac. – Pontica 23, 161-175.

Panaite, A. 2004. Villa Rustica or Mansio? – Ephemeris DacoRomana 12, 1, 185-201.

Poulter, A. G. 1980. Rural Communities (vici and komai) and their Role in the Organisation of the Limes of Moesia Inferior in Limes XII. Oxford.

Roth, J. P. 1999. The Logistics of the Roman Army at War. Leiden.

Roxan, M. 1978. Roman Military Diplomas 1954-1977. London.

Sarnowski, T. / Dintchev, V. / Kovalevska, L. / Mrozewicz, L. Emergence of vici. http://www2.rgzm.de/Transformation/Bulgaria/Vici/VICI_BG2.html (accessed Dec 2011).

Sallares, R. 1991. The Ecology of the Ancient Greek World. London.

Schucany, C. 2011. The villa landscape of the Middle Aare valley and its spatial and chronological development. In: Roymans, N. / Derks, T. (eds.). Villa Landscapes in the Roman North Amsterdam. 275-283.

Spaul, J. 2000. Cohors 2: The Evidence for and a Short History of the Auxiliary Units of the Imperial Roman Army. Oxford.

Spaul, J. 1994. Ala 2: The Auxiliary Cavalry Units of the Pre-Diocletianic Imperial Roman Army. Andover.

Spurr, M. S. 1986. Arable Cultivation in Roman Italy c 200BC – c AD100. London.

Suceveanu, A. 1998. Fântânele Contributii La studiul Vietii Rurale in Dobrogea Romana. Bucuresti.

Suceveanu, A. 1977. Viata economică în Dobrogea Romană sec I-III e.n. Bucurest.

Tentea, O. / Oltean, I. A. 2009. The Lower Danube Roman limes at Galaţi (Romania): Recent Results from Excavation and Aerial Photographic Interpretation. In: Limes XX. Madrid. 1515-1523.

White, K. D. 1965. The productivity of Labour in Roman Agriculture. – Antiquity 39, 102-107.

Zahariade, M. / Gudea, N. 1997. The Fortifications of Lower Moesia. Amsterdam.

Stephen Matthews, MA
Postgraduate research student
Royal Holloway, University of London
UK-Egham Hill, Egham TW20 OEX
Steve.Matthews.2008@live.rhul.ac.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Towards a Military Geography of *Moesia Inferior*

Martin LEMKE

Military Geography

Military geography is, in short, the adaptation of geospatial concepts for military problems. It concentrates on the influence of physical and cultural environments over political-military policies, plans, programs, and combat/support operations of all types in global, regional, and local contexts (a good introduction: Harmon / Dillon / Garver 2005). From an archaeological point of view, the building and maintaining of the Roman limes was inevitably connected with a number of factors arising from these environments.

Those factors are concerned with the influence of spatial diversity of natural, political, social, economic and military conditions of the given countries, theatres of war for the preparation and implementation of military actions (Parucki 1970, 7). Obviously, natural conditions should be considered first, since cultural factors result from them. The following table prepared by J. Collins (Collins 1998, 4) gives a good impression as to the scope of those factors.

Physical Factors	Cultural Factors
Spatial Relationships	Racial and Ethnic Roots
Topography and Drainage	Population Patterns
Geology and Soils	Social Structures
Vegetation	Languages and Religions
Oceans and Seashores	Industries and Land Use
Weather and Climate	Transportation Networks
Daylight and Darkness	Telecommunications
Gravity and Magnetism	Military Installations

Military geography – a selection of relevant factors

Geography

In order to approach the "military geography of *Moesia inferior*", one first has to take a look at the mere geography of the region **(fig. 1)**. The Balkan Peninsula is the natural link between the Black Sea and the Mediterranean, Europe and Asia. Geography has always hindered the evolution of a single politic entity here (Lyde 1905, 26). The province in question was located on the Lower Danube. The Lower Danube has its beginning at the Iron Gate gorge. Here the river Danube finds its course through the Carpathian and Stara Planina (the Balkan, *Haemus Mons*) mountains. From this place, the mountains run towards the northeast (Carpathians) and southeast (Stara Planina), to form a ring open towards the Black Sea, resembling the shape of a horseshoe. The lands within stretch roughly 500 km west to east, from the Iron Gate to the Danube delta and 200 km between the Carpathians and Stara Planina on the north-south-axis (Maruszczak / Miszew 1958, 2). The region north of the Danube encompasses Wallachia, divided by the Aluta river in a western (Oltenia) and eastern part (Muntenia), the lands south of the Danube are called the Danubian Plain. The region more or less corresponding to the Late Roman province Scythia minor, along the Black Sea coast south of the Danube delta is called Dobrudja.

Below the Iron Gates the right bank of the Danube is towering above the river, whereas the land on the left is flat and boggy and predominantly consists of wet meadows, which are cut by the left tributaries of the Danube and therefore often flooded (Geografia Văii Dunării Românești 1969, 26-27). Natural crossing points, fords (resulting from the geological foundations and accumulated sediments) are quite rare on this part of the river, which is usually 800-1000 m wide (East 1932, 326). Such places can be found on the Nikopol – Turnu Măgurele and Svištov – Zimnicea lines, the mouth of the Arges opposite Tutrakan, at Silistra and Călărași, as well as in the Dobrudja: Hârșova, where a bedrock pedestal runs below the river bed, Galați, Isaccea and near Tulcea. The tributaries run perpendicular to the Danube and pose a considerable obstacle for armies moving along the East-West-axis (Lyde 1905, 55). The Dobrudja has a specific landscape and climate which has changed only little throughout the last

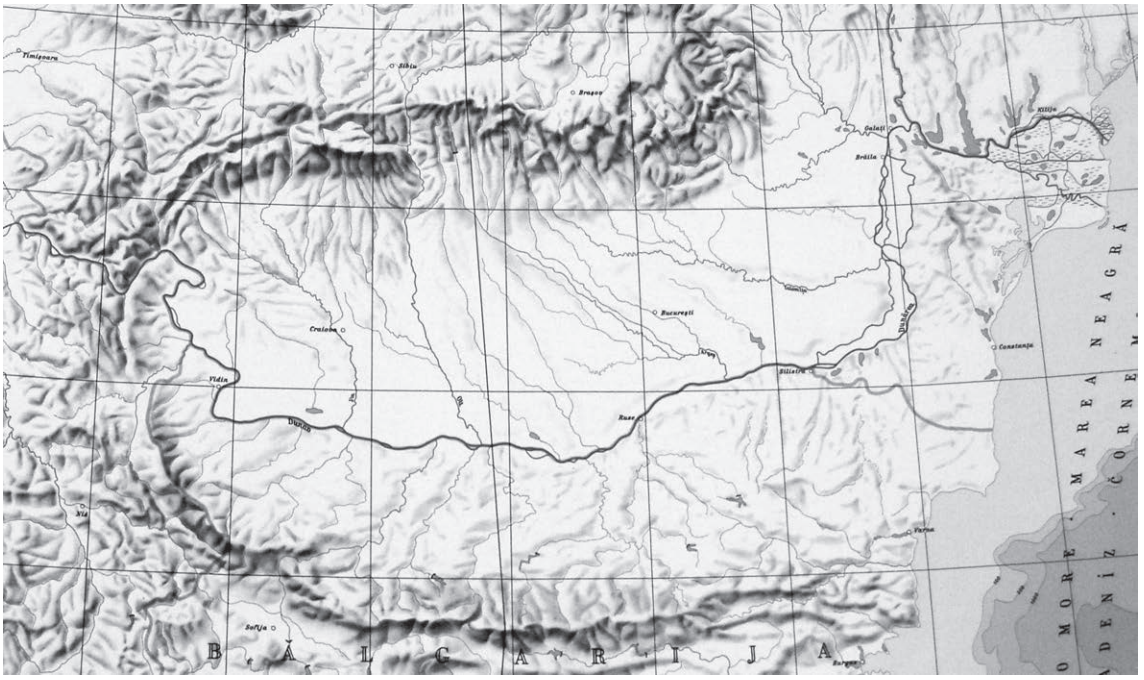


Fig. 1. The Lower Danube (after Atlas der Donauländer)

2000 years (Gajewska 1968, 153; Zahariade 2006, 8). Ovid described the Dobrudja as a treeless steppe[1] and roughly 2000 years later Helmuth von Moltke confirmed this opinion: "*The land is a desert one would not expect in Europe*" (Moltke 1845, 41). From a geological point of view, the Dobrudja is like a bridge, a prolongation of the Ukrainian steppe and a promontory of the Balkan at the same time (Magnes 1995, 65; Damyanov 2001, 1). In spite of the fertile loess soil, the agricultural potential is significantly diminished by the lack of water (Baumann 1995, 438; Paltineanu / Prefac / Popescu 2008; Poulter 1980, 733-734; 1983, 520; Lyde 1905, 72; Förster 1938, 290; Moltke 1845, 42).

Sites

Taking a look at the more than 50 confirmed fortified spots on the *limes* of *Moesia Inferior* **(fig. 2)**, from fortlet to legionary fortress, one can identify certain patterns (Lemke 2011b, passim. For an overview of the sites see: Gudea 2005), which may not be surprising in themselves, but which are still worthwhile noting in their relation to military geography. The most important factor for the Roman army when choosing a spot for a garrison seems to have been the proximity of an existing settlement, which had both logistic and strategic reasons. Firstly, the existence of such a settlement was proof there was water available in the area, and a hint that neither the Danube, nor another river flooded the area. Additionally, the local inhabitants were certainly more than happy to supply the garrison with food (Roth 1999, 141-155). In a broader context, a strategic value resulted from the fact that the civil settlements often were placed on communication routes and convenient crossing places on the Danube, which had to be controlled and secured. If a settlement in a given region had achieved a certain level of development, a garrison not only secured a potential invasion route, but also controlled the population and could prevent a potential rebellion.

There are also a number of other factors that can be observed at least with a major part of the forts and fortresses (a good example is *Novae*, **fig. 3**). In the case of the large legionary fortresses, the area selected for their construction had to be sufficiently wide to accommodate the invariably emerging *canabae* and *vicus*. This, and a convenience of supply, clearly had preference over possible defensive attributes of the terrain. Although more often than not the fortresses were built on elevated terrain, they never reached heights that would have made the transport of heavier goods from the river level troublesome. Logistic convenience was also the reason for the location right on the Danube, where

[1] Ov. *Trist.* III 10.67-75: *Tunc quoque, cum pax est, trepidant formidine belli,| nec quisquam presso uomere sulcat humum. | Aut uidet aut metuit locus hic, quem non uidet, hostem; | cessat iners rigido terra relicta situ. | Non hic pampinea dulcis latet uua sub umbra, | nec cumulant altos feruida musta lacus. | Poma negat regio, nec haberet Acontius, in quo | scriberet hic dominae uerba legenda suae. | Aspiceres nudos sine fronde, sine arbore, campos.*

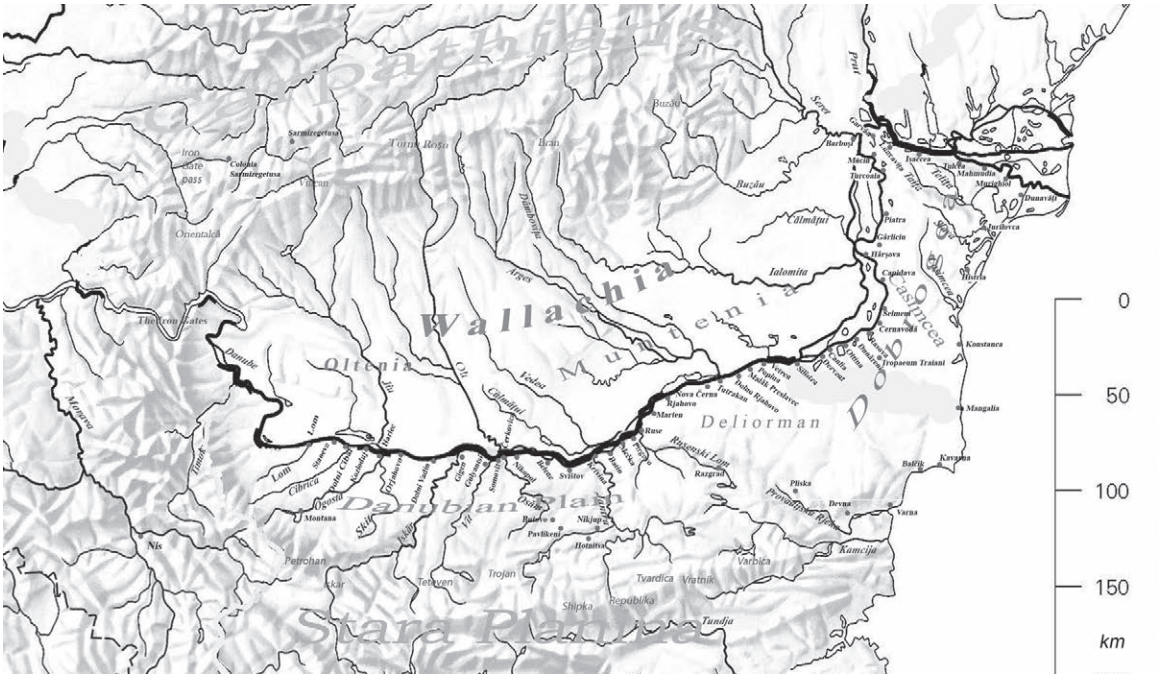


Fig. 2. *Limes* sites in *Moesia Inferior* (after M. Lemke 2011b)

the transport ships arrived. A further consideration were communication routes: the Danube, its right and left tributaries, but also the various promontories among the marshland of the Danube banks, that is the weak spots of the river frontier. Even in areas without major tributaries to the Danube, the Roman army sought places close to the mouths of smaller streams. Firstly, in the upper run of these rivers there were usually springs of fresh water and constructing an aqueduct along a river valley (for the aqueducts of Lower Moesia see Tsarov 2007) was easier for the engineers, and secondly naturally defensive peninsulas would be formed where the stream met the Danube[2] (**fig. 4**).

The River Frontier

The biggest common attribute of all the *limes* sites in *Moesia Inferior* was obviously the Danube. The decision of making a river the frontier line of the Empire included a number of considerations. Even though at first glance the defensive properties of a river frontier seem evident, there has been much discussion about them. The counterarguments concentrate on the assumption that rivers historically are no real barriers, but rather lines of communication and convenient demarcation lines, posing no obstacle to the attacker[3].

However, there is ample support for the appreciation of the tactical values of a river frontier by the roman army, explaining, why the *limes* was often built in way to ensure a maximal length of frontier line on a river (Scheliha 1931, 95), in our case the Danube. Aside from the logistical considerations mentioned above, the Danube itself was a hindrance to movement (Nicasie 1997, 456) and next to the riverbed lay marshes and lakes and the steep bank, providing even more an obstacle than the river itself (Clausewitz 1832, 489). Having an army swim across the river was quite impossible[4], so the only option was crossing the river by boat, and Rome made sure to have the supremacy in this domain (Nicasie 1997, 456; Rankov 2005, 181; Sommer 2009, 111).

The weak spot of a river frontier remained a freezing winter. However, this seasonal vulnerability was paradoxically proof of its general strength, as a number of written sources attests. Pliny the Younger noted in his panegyric for Trajan, that winter was the best time for the Dacians to attack, when

[2] This is the case for the following sites: Batin (*Scaidava*), Mechka (*Trimammium*), Marten (*Tegra*), Vetren (*Tegulicium*). Harlets (*Augustae*) and Guljantsi (*Utus*) lie protected by the river loops of Danube tributaries.

[3] The discussion is summed up in Rankov 2005. Cf. Mann 1974, 513; Pfaffenbichler 2006, 7; Scheliha 1931, 77.

[4] "Otherwise we need not dwell on the events of this winter except to remark in passing that the suggestion that the Roxolani [i.e. Sarmatians] got across the lower Danube in midwinter by swimming in their mail-armour, will not be accepted by anyone who has attempted to swim across the river in this area in midsummer in a bathing-suit" (Salmon 1936, 92). Cf. Rankov 2005: 179. Tacitus describes auxiliary soldiers drowning in such attempt on a smaller river: *Ann*. II 8.



Fig. 3. The terrain around *Novae* (after Lemke 2008)

the big river had an ice shelf cover. The sturdiness of a frozen river has been described as sufficient to carry an army[5] and chariots (Verg. *G.* 3.360). Winter was obviously not the preferred time for the Roman army to fight their battles, even though it was well capable of it, as shown by the example

[5] Plin., *Pan.* 12.5-6: *An audeant, qui sciant, te adsedisse ferocissimis populis eo ipso tempore, quod amicissimum illis, difficillimum nobis: quum Danubius ripas gelu iungit, duratusque glacie ingentia tergo bella transportat: quum ferae gentes non telis magis, quam suo coelo, suo sidere armantur? Sed ubi in proximo tu, non secus ac si mutatae temporum vices essent, illi quidem latibulis suis clausi tenebantur; nostra agmina percursare ripas, et aliena occasione, si permitteres, uti, ultroque hiemem suam barbaris inferre, gaudebant.*



Fig. 4. Batin (*Scaidava*). Naturally protected peninsula between Danube and local river (© Römisch-Germanische Kommission, Sven Conrad)

of the battle with the Jazyges in 173/174 AD (Dio *Hist*. LXXI 7). The ambivalence of a river frontier is summed up by Ovid, who differs between the flowing and frozen Danube (*Pont.* IV 9.80). The frozen Danube signifies the danger of barbaric invasions (Ovid implies a certain regularity of the winter attacks. *Tr.* III 10.29-34), but at springtime the river becomes a natural barrier against attacks (*Tr.* III 10.7-8). Florus comments the Dacian attacks in a similar manner (*Epitoma* II 28). Philostorgius in turn describes a much later event, when towards the end of the 4th century AD, during Theodosius' reign, the fort at Halmyrys near the Danube delta was taken by barbarians, who had crossed the frozen Danube (*Eccl. Hist.* X 6). The attacks by the Scythae, Bastarnae and Sarmatians also led to the migration of peoples across the ice-covered river.[6] Overall, it is hardly surprising, that the barbarian invasions into Moesian territory predominantly took place during the winter, when the Danube was frozen. However, this specific weakness of the border was acceptable because the river usually provided such a formidable obstacle (For an overview concerning barbarian invasions before the Goths, cf. Gerov 1977; for *Novae*, cf. Kolendo 2008. The Danube still occasionally freezes over; cf. Dyczek 2008, 257).

In this context, the grave inscription with an elegy for Plautius Aelianus is also noteworthy.[7] This important document from the early history of Moesia is proof the Danube was perceived as a barrier. On one hand there is a quite precise differentiation between the Roman shore and the people beyond, the *Transdanuvii*, and furthermore the expression *in ripam quam tuebatur*, is used, stressing the defensive value of the river. Tacitus also notes the significance of the stream securing the Empire's borders (*vetera imperii munimenta, Hist*. IV 20). Finally, the Roman army avoided building bridges on the frontier rivers. If necessary, they could always build a pontoon bridge without difficulty and quickly disassemble it after use (Austin / Rankov 1995, 176). The process was regularly trained by the soldiers as described by Cassius Dio (*Hist.* LXXI 2). The magnificent bridge at *Drobeta* built at Trajan's order for the invasion into Dacia is proof that Rome possessed the technology, but the destruction of the very same bridge by Hadrian (*Hist.* LXVIII 13) for reasons of security is proof Rome put the defensive value of the natural obstacle above convenience of movement.

Analogies

Warfare is as old as mankind and in spite of all technical novelties, there remains a number of factors

[6] Premerstein 1898, 158, 169-170; Tomas 2007c, 13; Sarnowski 2007, 18, note 23. Sarnowski suggests the attackers forded the river near *Novae*, where the river froze earlier, and returned further northeast in the Dobrudja.

[7] CIL XIV 3608 = ILS 986. For T. Plautius Silvanus Aelianus, cf. Mrozewicz 1984b, 267-271; Mrozewicz 1994a, 14-23; Zawadzki 2008, 49-69; Sarnowski 2006, 85-90; Mrozewicz 2007, 983-986.

that played a role for the military in the past as they do now. Again, geography is the key. From a number of more recent military actions in the area in question, three successful crossings of the Danube by large armies, in 1828 (Lemke 2015), 1877 (Lemke 2008) and 1916 (Lemke 2011a) stand out. The latter two occurred in the very spot, where *Novae* is located. In 1877, a Russian army forded the river coming from the north and proceeded to liberate Bulgaria from the Ottoman Empire. During World War I, German, Bulgarian and Austrian forces approached the river from the south in order to attack Romania, which had joined the war in 1916 on the side of the Alliance. In both cases, the key element of surprise was given due to the neglected observation of this natural crossing location.

Interestingly, in order to avoid the attacking army in 1916 being outflanked from the east, controlling the Dobrudja was a prerequisite for the maneuver. In general, the campaign highlighted the obstructive properties of the Danube in terms of army movement, especially due to the wide stretches of marshland along its banks (Johnson 1917, 181), as well as the difficult conditions in the Dobrudja particularly the lack of water (Förster 1938, 290), just like in 1828 (Moltke 1845).

Conclusions

Thus geography left a distinct imprint on the history of Moesia. The annexing of the lands that would eventually form *Moesia Inferior* was carried out stepwise, proceeding from west to east. In Flavian times there seem to have been merely outposts in the Dobrudja (Ov. *Pont*. IV 9.79; Suceveanu 1971, 103-123; Aricescu 1980, 36-37), Rome acted simply as a "curator" in this area (Mrozewicz 1982, 7) due to her interest in the towns on the Black Sea coast. In the second half of the first century this area became strategically more valuable, Vespasian significantly strengthened this stretch of the frontier while reorganizing the entire Empire's defence (Schönberger 1969, 155; Gabler 1999, 75; Luttwak 1976, 57; Beneš 1978, 65). However, the eventual annexation of the Dobrudja made the dislocation of a further legion in that area necessary, with additional *auxilia*, which was difficult considering the obligations in other parts of the empire (Poulter 1986, 521). Given the small population of the Dobrudja, the roman administration was forced to implement a "settlement programme" to ensure the supply of the soldiers, hence the symmetry of the settlements and their Latin names (Poulter 1980, 734-735).

Looking at the three Dacian Wars, the distinct role of the geography can be observed, as well as a consequent learning process based on mistakes stemming at least in parts from the peculiar terrain. Starting with Fuscus' defeat in Domitian's campaign resulting from inadequate terrain and enemy strength reconnaissance (Strobel 1988, 111), through the inability of concluding Trajan's first war, when the Dacians could flee eastwards, up to the flanking maneuver through the Dobrudja in Trajan's second campaign war are proof of adjusting the means as required by the aims (For the Dacian wars see: Sarnowski 1988; Strobel 1984; Poulter 1986).

Regarding the functioning of the *limes*, in contrast to the two successful army river crossings of 1877 and 1916, when the element of surprise and lacking defenses played a major role, the positioning of Novae stands out: Rome chose to place the headquarters of an entire legion there, being fully aware of the significance of the spot. Obviously, the first Italic legion and its supporting units were not meant to secure merely one crossing, but a long stretch of the Danube *limes*. However, the placing of the fortress is a clue to the fact that the area of Svištov had been a hotspot long before the 19th century and the Romans' ability to defend *Novae* against the invading Goths towards the middle of the 3rd century (Kolendo 2008) validates their tactics. The lessons from military geography can help to both close some gaps in the knowledge, when reconstructing the functioning of the river frontier as well as direct fieldwork to places of particular interest.

Bibliography

Aricescu, A. 1980. The Army in Roman Dobrudja. Oxford.

Austin, N. / Rankov, B. 1995. Exploratio. Military and Political Intelligence in the Roman World from the Second Punic War to the Battle of Adrianople. London.

Baumann, V. 1995. Aşezări rurale antice în zona gurilor Dunarii. Contribuţii arheologice la cunoaştera habitului rural (sec. I-IV p. Chr.). Tulcea.

Beneš, J. 1978. Auxilia Romana in Moesia atque in Dacia. Praha.

Clausewitz, C. von 1832. Vom Kriege. Berlin (Ullstein 2003).

Collins, J. 1998. Military Geography for Professionals and the Public. Washington.

Damyanov, M. 2001. Dionysopolis, its territory and neighbours in the pre-Roman times. – Ancient Greek Colonies in the Black Sea 2, BAR International Serie; 1675 (1-2). Oxford. 1-35.

Devijver, H. 1982. Cohortes Cilicum in the Service of Rome. – Zeitschrift für Papyrologie und Epigraphik 47, 173-183.

Dyczek, P. 2008. The Geography of the area and

Topography of Novae. In: Derda, T. / Dyczek, P. / Kolendo, J. (eds.). Novae: Legionary Fortress and Late Antique Town, vol. I: A Companion on the Study of Novae. Warsaw. 249-262.

East, W. 1932. The Danube Route-Way in History. – Economica 37, 321-345.

Förster, W. 1938. Mackensen. Briefe und Aufzeichnungen des Generalfeldmarschalls aus Krieg und Frieden. Leipzig.

Gabler, D. 1999. The Flavian Limes in the Danube-Bend (Eastern Pannonia). – Communicationes Archaeologicae Hungariae, 75-86.

Gajewska, H. 1974. Topographie des fortifications romaines en Dobrudja. Wrocław.

Gajewska, H. 1968. Topografia umocnień rzymskich we wschodniej części Dolnej Mezji. – Archeologia 19, 153-157.

Geografia Văii Dunării Românești 1969. = Ianovici, V. / Mihailescu, V. / Badea, L. / Morariu, T. / Tufescu, V. / Iancu, M. / Herbst, C. / Grumazescu, H. (eds.). Geografia Văii Dunării Românești. București.

Gerov, B. 1977. Die Einfälle der Nordvölker in den Ostbalkanraum im Lichte der Münzschatzfunde. I. Das II. und III. Jahrhundert (101-284). In: Aufstieg und Niedergang der Römischen Welt 6. Berlin – New York. 110-181

Gudea, N. 2005. Der untermoesische Donaulimes und die Verteidigung der moesischen Nord- und Westküste des Schwarzen Meeres. Limes et Litus Moesiae inferioris (86-275 n. Chr.). – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 52, 319-566.

Harmon, R. / Dillon, F. / Garver, J. 2005. Perspectives on Military Geography. The Military Operating Environment. In: Caldwell, D. / Ehlen, J. / Harmon, R. (eds.). Studies in Military Geography and Geology. London. 7-20.

Ivanov, R. 1997. Das römische Verteidigungssystem an der unteren Donau zwischen Dorticum und Durostorum (Bulgarien) von Augustus bis Maurikios. – Bericht der Römisch-Germanischen Kommission 78, 469-640.

Johnson, D.W. 1917. Topography and Strategy in the War. New York.

Kolendo, J. 2008. Novae during the Goth raid of AD 250/1 (Iordanes, *Getica* 101-103). In: Derda, T. / Dyczek, P. / Kolendo, J. (eds.). Novae: Legionary Fortress and Late Antique Town, vol. I: A Companion on the Study of Novae.Warsaw. 117-131.

Lemke, M. 2015. Die Tücken des Terrains. Einige Aspekte der Militärgeschichte der Unteren Donau zwischen Limes und Neuzeit. In: Die Balkanregion als Kontaktzone zwischen Ost-West und Nord-Süd, Kolloquien zur Vor- und Frühgeschichte, forthcoming.

Lemke, M. 2011a. The crossing of the Danube near Roman Novae in World War I and the role of Svištov in military history. – Novensia 22, 149-158.

Lemke, M. 2011b. Geografia wojskowa Mezji Dolnej. Czynniki naturalne, kulturowe i logistyczne w organizacji limesu prowincji Moesia Inferior w okresie pryncypatu (I-III w.). Ph.D. dissertation, University of Warsaw.

Lemke, M. 2008. The Location of Novae and the Crossing of the Danube by Russian Forces in 1877. In: Derda, T. / Dyczek, P. / Kolendo, J. (eds.). Novae: Legionary Fortress and Late Antique Town, vol. I: A Companion on the Study of Novae. Warsaw. 291-297.

Luttwak, E. 1976. The Grand Strategy of the Roman Empire. London.

Lyde, L. 1905. A Military Geography of the Balkan Peninsula. London.

Magnes, M. 1995. Die Naturräume Rumäniens. – Carinthia II 185, 59-69.

Mann, J. 1974. The Frontiers of the Principate. In: Aufstieg und Niedergang der Römischen Welt II 1. Berlin – New York. 508-533.

Maruszczak, H. / Miszew, K. 1958. Zarys geomorfologiczny Równiny Naddunajskiej w okolicy Widina. – Annales Universitatis Mariae Curie Skłodowska 13/1, 1-61.

Moltke, H. von 1845. Der russisch-türkische Feldzug in der europäischen Türkei 1828 und 1829. Berlin.

Mrozewicz, L. 2007. Inschriften der Statthalter des ungeteilten Moesien. In: Acta XII Congressus Internationalis Epigraphiae Graecae et Latinae. Provinciae Imperii Romani Inscriptionibus Descriptae. Barcelona. 983-986.

Mrozewicz, L. 1994. Exempla prosopographica. In: Mrozewicz, L. / Ilski, K. (eds.). Studia Moesica. Poznań. 14-23.

Mrozewicz, L. 1984. '... non debuerit in me differri...' Tiberius Plautius Silvanus Aelianus et Néron. – Eos 82, 267-271.

Nicasie, M. 1997. The Borders of the Roman Empire in the fourth century. In: Limes 16. Proceedings of the 16th International Congress of Roman Frontier Studies. Rolduc. 455-460.

Paltineanu, C. / Prefac, Z. / Popescu, M. 2008. Aridity and extreme drought in Dobrogea, Romania. In: D. Gabriels et al. (eds.). Combating Desertification. Assessment, Adaptation and Mitigation Strategies. Ghent. 23-29.

Parucki, Z. 1970. Geografia polityczna i wojenna. Warszawa.

Petculescu, L. 2006. The Roman Army as a Factor of Romanisation in the North-Eastern Part of Moesia Inferior. In: Bekker-Nielsen, T. (ed.). Rome and the Black Sea Region. Domination, Romanisation, Resistance. Aarhus. 31-41.

Pfaffenbichler, M. 2006. Grenzen im historischen Kontext. In: Klose, G. (ed.). Grenzen des Römischen Imperiums. Mainz. 7-13.

Poulter, A. 1986. The Lower Moesian Limes and the Dacian Wars of Trajan. In: Studien zu den Militärgrenzen Roms 13. Akten des 13. Internationalen Limeskongresses (Aalen 1983). Stuttgart. 519-528.

Poulter, A. 1983. Town and Country in Moesia Inferior. In: Poulter, A. (ed.). Ancient Bulgaria. Papers presented to the International Symposium on the Ancient History and Archaeology of Bulgaria (University of Nottingham 1981). Nottingham. 74-119.

Poulter, A. 1980. Rural Communities (vici and komai) and Their Role in the Organisation of the Limes of Moesia Inferior. In: Roman Frontier Studies 12 (= *BAR Int. Series* 71). Oxford. 729-744.

Premerstein, A. v. 1898. Die Anfänge der Provinz Moesien. – Jahreshefte des Österreichischen. Archäologischen Institutes I, 145-196.

Rankov, B. 2005. Do Rivers make good frontiers? In: Limes 19. Proceedings of the 19th International Congress of Roman Frontier Studies held in Pécs, Hungary, September 2003. Pécs. 175-181.

Salmon, E. 1936. Trajan's conquest of Dacia. – Transactions and Proceedings of the American Philological Association 67, 83-105.

Sarnowski, T. 2007. The Name of Novae in Lower Moesia. – Archeologia 58, 15-23.

Sarnowski, T. 2006. Ti. Plautius Silvanus, Tauric Chersonesos and Classis Moesica. – Dacia N.S. 50, 85-90.

Scheliha, R. von 1931. Die Wassergrenze im Altertum (=Historische Untersuchungen 8). Breslau.

Schönberger, H. 1969. The Roman Frontier in Germany: An Archaeological Survey. – Journal of Roman Studies 59, 1-2, 144-197.

Sommer, S. 2009. Why there? The positioning of forts along the riverine frontiers of the Roman Empire. In: Hanson, W. (ed.). The Army and Frontiers of Rome. Journal of Roman Archaeology Supplementary 74, 33-43.

Suceveanu, A. 1971. In legătura cu data de anexare a Dobrogei de Câtre Romani. – Pontica 4, 103-123.

Tomas, A. 2007. Inter Moesos et Thraces. A Contribution to the Studies on the Rural Hinterland of Novae in Lower Moesia. – Archeologia 58, 42-44.

Tsarov, I. 2007. Water Supply in the Legionary Camps Oescus, Novae and Durostorum (Moesia inferior). In: The Lower Danube in Antiquity. Sofia. 217-226.

Zahariade, M. 2006. Scythia Minor: A History of a Later Roman Province (284-681). Pontic Provinces of the Later Roman Empire I, with contributions by V. Lungu and Z. Coracef. Amsterdam.

Zahariade, M. / Gudea, N. 1997. The Fortifications of Lower Moesia (A.D. 86-275). Amsterdam.

Zawadzki, T. 2008. Namiestnictwo Tyberiusza Plaucjusza Sylwanusa Elianusa w Mezji na tle polityki zbożowej cesarza Nerona. – Na peryferiach świata rzymskiego, Klasycy Nauki Poznańskiej 39, 49-69.

Dr. Martin Lemke
Ośrodek Badań nad Antykiem Europy Południowo-Wschodniej
Uniwersytet Warszawski
Krakowskie Przedmieście 26/28
PL-00927 Warszawa
m.lemke@uw.edu.pl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Metal Detecting for Surveying Marching Camps?

Jaume NOGUERA / Eduard BLE / Pau VALDÉS MATÍAS

Some thoughts regarding methodology in light of the results of the lower Ebro Roman camps project.

The following article is a methodological reflection in the light of the results of surveys conducted in the sites of La Palma and Camí del Castellet de Banyoles, in North-eastern Spain, as a part of the lower Ebro Roman camps project (2006-2010). Both camps are dated around 200 BC. La Palma is related to the Second Punic War, and Camí del Castellet de Banyoles to the repression of the successive Indigenous uprisings between 200 and 180 BC. Both interventions are in their final phase of study, the second being resumed as a teaching project since 2010. Now, the project has been expanded to two new sites with a wider chronology: Les Aixalelles, a possible Roman camp of the Sertorian Civil War, and Terrer Roig, from the Caesarean Civil War. In this situation, we consider it necessary to reflect on the viability of our methodology (**fig. 1**).

1. Identifying Roman Camps

1.1.The conventional way: the use of architectural evidence

Roman military camp identification lies in two different kinds of archaeological evidence: architectural and artefactual ones. The architectural evidence is far more commonly used as the main argument. It is essentially based on the archaeological identification of some structures considered to be characteristic of a Roman camp, like the defensive system (*vallum*), generally the only structure preserved, but also military barracks, *horrea* and other buildings. Such is the case of classic sites like Numantia or the Limes fortifications (Morillo 2008: 79-85).

Following this criteria, many camps have also been found through aerial photography or even just satellite visors like Google Earth (Kennedy, Bishop 2011). Sometimes, if the defensive structures can be seen clearly enough, its identification is supported even without excavations and the existence of related materials. This is the case of some of the marching camps documented in the United Kingdom (Swan, Welfare 1995; Davies, Jones 2006; Jones 2011), in the Near East (Kennedy, Riley 1990) or more recently in Spain (Didierjean 2008). At the same time, preventive excavations have been able to document the existence of Roman camps that were not previously visible or recognizable on the surface or from the air only, just through the excavation of a small fraction of their defensive perimeter. This has been possible thanks to the documentation of structures, but also artefacts of clear military nature: weapons, equipment, etc.

1.2. The "other" way: the use of artefactual evidence

But what happens if we do not have structures? As a response, a method based on artefact finding is being adopted: the metal detector survey. This technique coming from Conflict Archaeology (Freeman 2001; Coulston 2001) has obtained a huge success in projects such as the Battle of Teutoburg (Harnecker 2004) or the Battle of Baecula (Bellón et al. 2009). As a consequence, its use has been extended to other sites with similar problems, like marching camps, gradually replacing other methods eliminate. This is not a problem in itself but, sometimes, it leads to an indiscriminate use of metal detector under the theoretical coverage of a research project. This unconscious application in the study of camps, where there can be layers susceptible of being excavated, sometimes might have catastrophic results. That is the reason why it cannot be applied indiscriminately without first performing a series of tests using other less destructive methods.

Still, we consider that it is possible to document a military camp without structures. Indeed, that is what distinguishes the sites presented here: La Palma and Camí del Castellet de Banyoles. Both were identified due to metal findings discovered by locals, and after 12 archaeological campaigns no structure has been found so far. Consequently, in order to develop our study, we counted only on artefacts found through surveys. However, we consider that the volume of materials allows us to identify a Roman military occupation at both sites (Noguera 2008; 2012).

2. Sites Description

The site of La Palma is located in the municipality of L'Aldea (Tarragona), on a large river terrace on the north bank of the Ebro. Currently, several roads cross the site. In addition, a large area was subject to an urban operation that destroyed the majority of the site. As a consequence, the original area of some 30 ha has been reduced to only a 7 ha plot located in the northwest corner. This prospectable surface was divided into two zones: A and B, separated artificially by the railroad embankment. For planning purposes, we divided zone B into two subzones: B1, in the north, and B2, in the south, both separated by a track (**fig. 3a**).

Regarding Camí del Castellet de Banyoles, this site is located in the municipality of Tivissa (Tarragona). It is situated outside an important Iberian town (Castellet de Banyoles), just across a narrow passage of 8 m wide and almost 120 m long that restricts the access to this town. It occupies a large and almost flat platform of 11 ha with quite steep limits. The level of preservation is better than that of La Palma, although a gas line crosses most of the site in an east-west direction. The area could be studied almost entirely, except for plot 36 of 8,700 m^2. Moreover, a part of plot 17 could only be prospected with metal detector because of the dense vegetation preventing visual exploration. Unlike La Palma, this area is cultivated with orchards of olive and almond trees. This fact prevented the use of some methods, such as mechanical ground stripping.

3. Methodology Analysis

This paper aims to show that, both in La Palma and Camí del Castellet de Banyoles, and by extension in any military camp which has no preserved structures, the methods that best suit the needs of the research are the ones that focus on the documentation of artefacts, i.e. field and metal detector surveys. To defend this position, we intend to describe all methods we applied, whose different results have led us to this conclusion. Nevertheless, we must bear in mind that our primary objective was the documentation of archaeological layers that could be excavated. The failure in this regard, in addition to the unexpected results of the survey with metal detector, made us reconsider the focus of our research towards the study of artefacts.

3.1. Aerial photography analysis

We considered essential as the first step in the project to conduct a detailed study of the aerial photography available for both sites. This included the photogrammetric flights made by the Institut Cartogràfic de Catalunya (ICC) in the years 2006, 2008, 2009, 2010 and 2011, along with the earlier flights of 1955-56, 1977 and 1984-86, and also the ones made by Italian air force during the Battle of the Ebro in 1939, or the Confederación Hidrográfica del Ebro in 1927.

Overall, the conclusions drawn from this study were not very outstanding, as we could not document any trace of structures attributable to a military settlement. Still, it was possible to point out some anomalies that were subsequently revealed

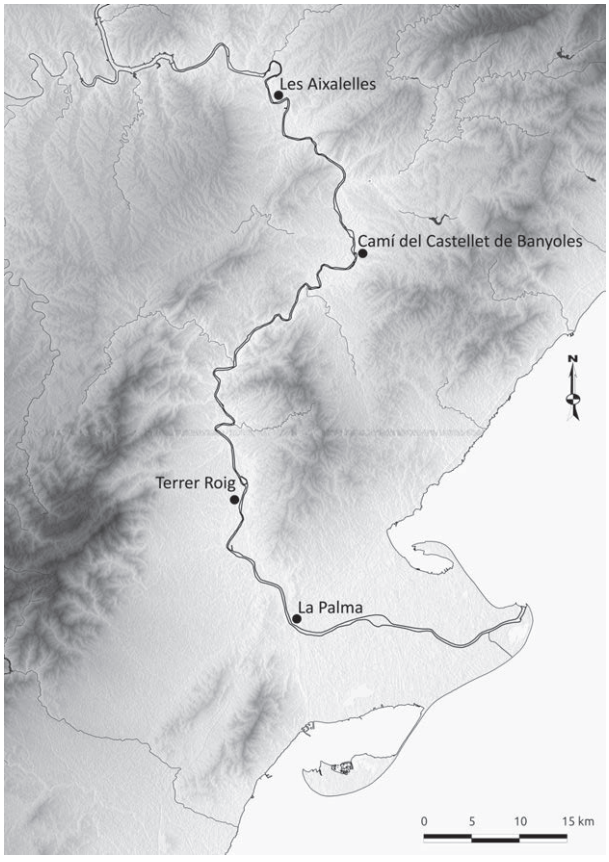


Fig. 1. Map of the Lower Ebro with the sites included in the project



Fig. 2. Aerial photography of Camí del Castellet de Banyoles taken by a balloon

by other methods: cropmarks showed zones with greater stratigraphic depth at both sites.

In La Palma, we observed a strip that traverse the site from north-west to south-east, linked to a ravine that leads to the Ebro. In addition, a photograph took in 1955–56 showed the existence of a U-shaped wall that closed the northern end of the deeper strip. In Camí del Castellet de Banyoles, this type of analysis was hindered by orchards. Still, we could identify on the western plateau an area where the almond trees were thickener, an evidence of deeper soil.

Besides the use of conventional cartography, in 2009 we conducted a photographic documentation from the air with a balloon. Aerial photography did not reveal any evidence to suggest the existence of hidden structures in the ground, but we got oblique and vertical perspectives of both sites, further indicating the strategic nature of their location (**fig. 2**).

3.2. Intensive field survey

Intensive field surveys were also carried out. In the case of La Palma, the survey was conducted in 2006. Zone B1, of nearly 40,000 m^2, was ploughed to facilitate field survey. Then it was divided using a 30×10 m grid with 131 units, which were systematically surveyed by a team of 7 people. In zone B2 of 10,000 m^2, we conducted a field survey without a grid, but positioning each element with a total station (**fig. 3a**).

In the case of Camí del Castellet de Banyoles, due to its largest surface, survey lasted for three campaigns. The field works conducted in 2007 focused on 4.3 ha, following the same method of intensive survey with 300 m^2 units used in La Palma, so that the results could be compared. In 2008, plot 17, which occupies 45,632 m^2, was prospected. However, we could only work on 26,000 m^2 because of the dense vegetation in some areas. We used the same criteria with a new systematic survey grid of 86 units. Finally, in 2009 we focused on plot 68. We set a survey grid of 50 units, covering nearly 15,000 m^2. This time the work was conducted by a team of students from the University of Barcelona, who completed the study in a single day (**fig. 4a**).

Thanks to the continuous repetition of the same system each campaign, we have been able to improve the method, especially regarding ground preparation and the survey team. After the first time, we were aware of the importance of ploughing the ground with a tractor before the survey. Turning over the soil, the vegetation cover is removed, while it helps pottery emerge to the surface. In 2009, we also decided to wait some time so that it had rained before surveying started. Rain eliminates the dust deposited on pottery and makes it easier to identify it.

3.3. Mechanical ground stripping

Because of the large size of the study area and the absence of any visible structures, we put into prac-

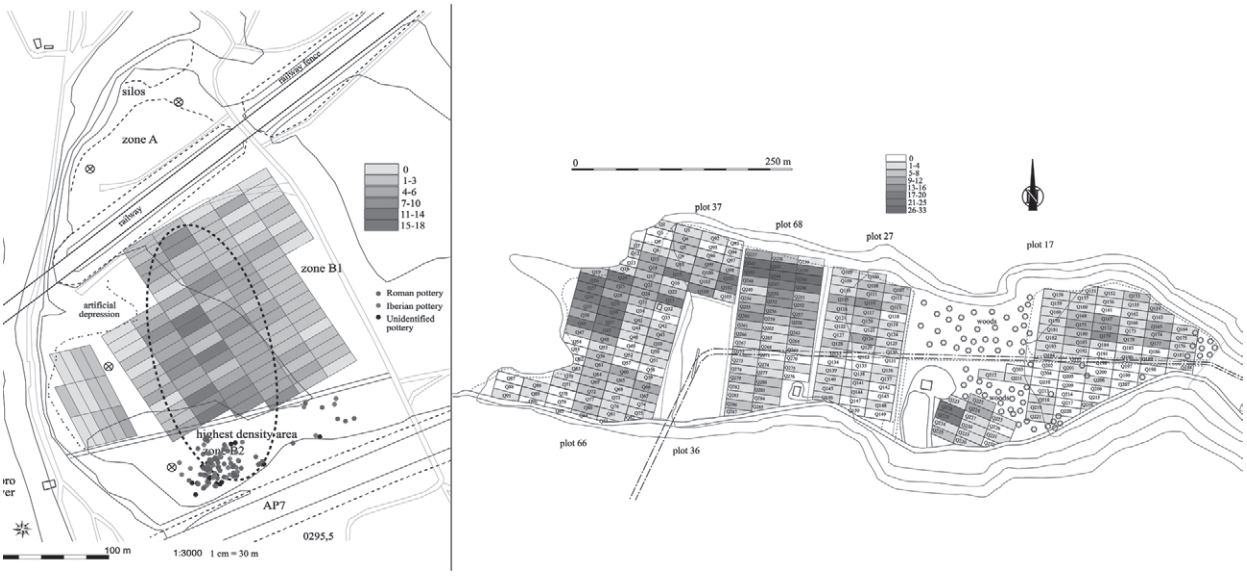


Fig. 3. Results of the intensive field survey with the 30×10 m grids and the division of the sites by areas in the case of La Palma (right) and by plots in Camí del Castellet de Banyoles (left)

tice a general stripping of the ground. This method allows tracking the existence of architectural structures (positive and negative) quickly, effectively and, above all, without problems to cover a wide area. We consider this method much more valid than the more common test pits, which have the inherent risk of sampling.

The downside, of course, is the highly destructive nature of this system, which involves the removal of large amounts of soil. That is the reason why it is essential to ensure a continuous monitoring of the mechanical work, and to always keep the same criteria and configuration in the strips. Nevertheless, this method is frequently used in archaeology (Wilson 1982), especially in preventive interventions, but was never applied before in the field of military camps.

This method could only be used in La Palma. The initial objective was to document structures that had not been detected by aerial photography and that were likely to be excavated. We used a motor grader, a machine that enables controlled stripping of the ground, by moving the soil laterally; and the display of a large surface. With each pass, the motor grader striped about 10 cm, reaching a total depth of about 30-40 cm.

The first intervention took place in 2007 and was concentrated on a strip of land of around 15,000 m^2 parallel to the river Ebro. This was the area where the field survey of 2006 had detected a high concentration of pottery. The result was entirely negative, but the method showed itself as very useful in combination with metal detector survey. Because of that, we decided to continue applying it in each campaign as a soil preparation system.

In the next year, we intervened in the same sector of subzone B1 (12,400 m^2), where the motor grader knocked down the mounds and then stripped the ground about 20-30 cm more. In 2009 we proceeded in the same way, but extending the system to the sector of zone B that had not been lowered so far, covering an area of 17,400 m^2 in subzone B1 and 7000 m^2 in B2. Then, we decided to continue stripping the natural depression identified by cropmarks and also documented via ground-penetrating radar (GPR) survey, totalling an area of 6,000 m^2. In 2010, we undertook a final general stripping reaching nearly the entire area B, and again with special emphasis on the northwest-southeast strip. Finally, in 2011, considering the absence of any structure, we decided to flatten the plot again (**fig. 5**).

The works were closely monitored at any time, in order to detect changes in the stratigraphy. Unfortunately, we could not identify any excavated structure, much less walls. Bedrock is shallow and generally emerges within few centimetres. The only element detected was a greater depth in the already mentioned strip that crosses the site northwest-southeast.

Instead, mechanical stripping has shown itself as an ideal ground preparation system for metal detector survey; in the same way that ploughing is for field survey. This method enables the removal of the topsoil, which contains more contemporary material intrusions and has been heavily affected by the



Fig. 4. Field pictures showing the works of field survey in Camí del Castellet de Banyoles (above) and metal detector survey in La Palma (bellow)

activities of amateur detectorists. Indeed, there was an exponential increase of metallic findings once we implemented this method.

The only drawback of stripping is the accumulation of leftover soil in the same field forming mounds that divide the area of exploration in different lanes. This fact has hampered the works by disabling the survey of the entire surface with the same intensity (the penetration of the signal detector is lower in the mounds). At the same time, it caused the same soil to be surveyed each campaign as we had to knock down the mounds before a new strip was done.

3.4. Metal detector survey

The other technique that has given us more data is metal detector survey. It allows us to identify the rest of artefactual evidence characterizing a military camp: numismatics and weaponry/military equipment (*militaria*). In the case of La Palma, this method was tested during the campaign of 2006 using the same grid created for field survey. Thus, in parallel, a team of three people equipped with metal detectors of different types were responsible for the recovery of metallic objects.

Next year, facing the impossibility of documenting structures with the mechanical stripping and the difficulty of putting into practice a field survey because of the mounds, the campaign was exclusively dedicated to metal detector survey. Thereafter, this was our main activity in all the campaigns, introducing, year after year, more detectors and operators, and also improving the data collection system.

In 2007, the team consisted of 4 people equipped with Teknetics T2, and a support person who led the work. Finds were positioned using a dumpy level by triangulation from two elements of known situation. In 2008 and 2009 we kept the same methodology, but with a team of 6 operators. Since 2010, we introduced the positioning of finds with a GPS Garmin Etrex, which has a margin of error of less than 5 m. This georeferencing system, at the cost of losing some precision, has enabled us to accelerate the process of data recording. This has increased the number of findings per campaign and simplified the information post-processing facing toward a study of geospatial dispersion (**fig. 4b**).

In the case of Camí del Castellet de Banyoles, without having carried out a ground stripping, metal detector survey has always been done in parallel with field one. The equipment used was the same as in La Palma and finds were positioned by triangulation from the 30×10 m grid.

It should be pointed out that the use of metal detectors in Camí de Castellet de Banyoles has been hampered by the presence of several country houses, around which there is a large concentration of metal debris that interfere with the signal. Metal findings related to a possible Roman camp were infrequent, but still we have recovered some key elements that allow us to support a military role for the site. Undoubtedly, these problems could have been solved through ground stripping, but orchards prevented it.

3.5. Geophysical survey

Given the negative results of all the attempts to locate structures, we tried to exhaust all possibilities resorting to geophysics. The survey was performed by SOT Prospection. The methods used were the magnetic gradiometer type fluxgate and the GPR, with profiles in a reading density of 0.025 m for each scan (40 scans/m) and a scan depth set at 70 ns equivalent to a maximum of 2.8 m.

In La Palma, in 2009 we surveyed the area where the campaign of 2006 located a higher density of pottery. This work aimed to identify architectonic structures, especially negative ones, which could indicate the existence of a defensive system belonging to a camp. The magnetic survey was performed on about 8,300 m^2, as 700 m^2. of the western squares were excluded. To this, several GPR profiles were added to complement the survey. Preliminary results showed a number of anomalies that could correspond to underground structures, while the GPR profiles confirmed the existence of a large natural depression following a northwest-southeast direction, in full agreement with cropmarks.

In the case of Camí del Castellet de Banyoles we made the surveyed area coincide with the transects that in 2007 provided more amphorae fragments from the third or early second century BC. Thus, we used a grid of 60×90 m (5,400 m^2). The results suggested the presence of isolated structures in this sector. The structure in area 1 was especially interesting: a possible rectangular building with walls around 50-100 cm wide and a door facing north. The situation of this underground structure coincided with an area where the almond trees are thicker. Areas 2 and 3 had other possible structures, although less clear. The negative result of the test pits led to another attempt next year. We extended the surveyed area about 1,500 m2 more westward. This new intervention identified another zone of anomalies near the western boundary of the river terrace where the site is located.

3.6. Excavation

The aim of the whole project has always been to identify archaeological structures susceptible to be excavated. Therefore, the excavation phase was not only a goal, but also a final verification of the various archaeological traces and geophysical anomalies pointed out by the rest of the methods.

In the case of La Palma, in 2007 we intervened on a set of 10 silos that had been documented in surface in area A. They were excavated in the limestone rock that forms the river terrace and surfaces within few centimetres. None of the silos was covered with stone slabs. Many were empty and others fully filled with the same gravel that covered the entire sector. Only 4 silos that had a fill with a different colour and texture from the outside were selected for excavation. The initial hypothesis was that these structures could be linked to the occupation of the camp. Unfortunately, the levels were much altered and provided no evidence to date their collapse. The materials were virtually non-existent. We can only highlight a tile fragment, two fragments of medieval or modern pottery and a much worn out iron fragment. In view of the result, the silos seem to be abandoned over time, but in any case, they are not Roman.

Another attempt took place in 2009, when we conducted an excavation to date the wall documented from aerial photography. This structure seemed to close on three sides a slope that connects the terrace on which the site is located with the riverbank, making us consider the possibility that it might be a fortification that defended a ramp toward a possible anchorage. The excavation of a trench revealed a large wall about 4 m wide, but with very uneven walls: one made of small stones and the other with large blocks mixed with soil. This system, away from the Romans constructive canons, added to the non-existence of archaeological materials, led us to reject this dating. Without much more certainty, the current assumption is that it would be a fortification linked to the War of Spanish Independence (1808-14) or The III Carlist War (1872-76), conflicts that had an impact on the archaeological record of La Palma, or even a storage structure related to the construction of a railway in the early twentieth century.

Finally, during the campaigns of 2006 and 2009 of La Palma, and 2009 and 2010 of Camí del Castellet de Banyoles, several test pits were dug to verify whether the anomalies detected via geophysical survey team could correspond to archaeological structures. Unfortunately, all the excavations were unsuccessful, and all that we were able to document were differences in the underlying geological layers,



Fig. 5. Mechanical ground stripping performed by a motor grader and evolution of the stripped area in 2007, 2008 and 2009

like an oblique stripe that crosses La Palma, which could explain the results of the geophysical surveys. In the case of La Palma we always identified a single layer of variable thickness (from 1 m to 20 cm), with some fragments of pottery, corresponding to the layer stripped by the motor grader, and beneath just the natural gravels. In Camí del Castellet de Banyoles, after a completely sterile layer of 30-40 cm, we found the bedrock, often in the form of slabs of limestone.

4. Assessment of the Results

In conclusion, we can see how only two methods have provided significant results from an archaeological point of view. On one hand, there is field survey. In this sense, the origin of pottery bears great importance, especially when it marks a contrast with the dynamics of other sites from the same area. In the case of La Palma, 548 shards were collected, of which 66% were Greco-Italic amphorae, 28% were Iberian and 6% were indeterminate. In Camí del Castellet de Banyoles in 2007, 708 shards were collected, of which 88% corresponded to Iberian pottery and 12% to Greco-Italic amphorae. This map is clearly different from the one we found in a common Iberian settlement from c. 200 BC. The same Iberian town of Castellet de Banyoles constitutes a good example, with 98% of Iberian pottery, and just 1% of Campanian A ware (almost non-existent in both camps) and 0.5% of Greco-Italic amphorae.

On the other hand, there is metal detector survey. Its results are much more evident in La Palma. Here, the discovery of more than 200 coins dated from the Second Punic War, together with an important set of weaponry and military equipment, make the military role of the site undeniable. Among the military equipment, we have to highlight the presence of two socketed pyramidal projectile-heads, some suds from *caligae* and two *bullae*, all of them of clear Italic origin. Comparing the numismatic ensembles of both sites (presence of Hispano-Carthaginian coins in La Palma and Roman *denarii* in Camí del Castellet de Banyoles) we are able to specify their

chronology with a difference of less than 20 years (Noguera 2008; 2012).

Furthermore, in case the method used in La Palma could be questioned, the results of the reiterative repetition of metal detector survey points towards another conclusion. We have never detected a decrease in the number of findings, rather the opposite, nor a decrease in the proportion of modern materials (a fact that would be expected if we had altered archaeological layers beyond the surface level). The only change that could be perceived, especially during the last year, was the decrease in the mass of the items found. This is especially important in the case of coins, as it has involved changes in their classification by origin. Hispano-Carthaginian and Massaliote bronze divisors, significantly smaller than Roman coins in mass, have significantly increased their rates in last campaigns. A clear indicator of how intensive the survey has been conducted.

The successful results obtained validate the suitability of this methodology. Indeed, during 2010 and 2011 Camí del Castellet de Banyoles was again surveyed by undergraduate students from the University of Barcelona. The quantitative results and the percentages were almost identical to those obtained by the research project, a final validation of the method used. As a consequence, for the first time, we are capable of asserting the identification of two Roman military camps exclusively from archaeological artefacts. In this regard, artifacts, i.e. pottery, weaponry and numismatic, are valid indicator of military presence in a site, provided that they are contrasted with other contemporary archaeological contexts.

Bibliography

Bellón, J. P. / Gómez, F. / Ruiz, A. / Molinos, M. / Sánchez, A. / Gutiérrez, L. / Rueda, C. / Wiña, L. / García, Mª. A. / Martínez, A. / Ortega, C. / Lozano, G. / Fernández, R. 2009. Baecula. An archaeological analysis of the location of a battle of the Second Punic War. – 20th International Congress of Roman Frontier Studies (León, 2006). Anejos de Gladius 13, 253-265.

Coulston, J. 2001. The archaeology of Roman conflict. In: Freeman, P. W. M. / Pollard, A. (eds.). Fields of Conflict. Progress and prospect in battlefield archaeology. BAR International Series 958, 23-49.

Davies, J. L. / Jones, R. H. 2006. Roman camps in Wales and the Marches. Cardiff.

Didierjean, F. 2008. Camps militaires romains et archéologie aérienne: méthodologie et données nouvelles. – Saldvie 8, 95-115.

Freeman, P. W. M. 2001. Introduction: issues concerning the archaeology of battlefields. In: Freeman, P. W. M. / Pollard, A. (ed.). Fields of Conflict. Progress and prospect in battlefield archaeology. BAR International Series 958, 1-10.

Harnecker, J. 2004. Arminius, Varus and the Battlefield at Kalkriese. An introduction to the archaeological investigations and their results. Bramsche.

Jones, R. H. 2011. Roman camps in Scotland. Edinburgh.

Kennedy, D. L. / Riley, D. N. 1990. Rome's Desert Frontier from the Air. London.

Kennedy, D. L. / Bishop, M. C. 2011. Google Earth and the Archaeology of Saudi Arabia. A case study from the Jeddah area. – Journal of Archaeological Science 38, 1284-1293.

Morillo, A. 2008. Criterios arqueológicos de identificación de los campamentos romanos en Hispania. –Saldvie 8, 73-93.

Noguera, J. 2012. La Palma: a Publius Cornelius Scipio Africanus encampment during the Second Punic War in Iberia. – Madrider Mitteilungen 53, 262-288.

Noguera, J. 2008. Los inicios de la conquista romana de Iberia: los campamentos de campaña del curso inferior del río Ebro. – Archivo Español de Arqueología 81, 31-48.

Swan, V. G. / Welfare, H. 1995. Roman camps in England. The field archaeology. London.

Wilson, D. R. 1982. Air Photo Interpretation for Archaeologists. London.

Prof. Jaume Noguera Guillén
University of Barcelona
C/ Montalegre 6-8, planta 1, despatx 1021
ES-08001 Barcelona
noguera@ub.edu

Eduard Ble Gimeno, PhD candidate
University of Barcelona
C/ Montalegre 6-8, planta 1, despatx 1022
ES-08001 Barcelona
eble@ub.edu

Pau Valdés Matías, PhD candidate
University of Barcelona
C/ Montalegre 6-8, planta 1, despatx 1022
ES-08001 Barcelona
pauvm84@hotmail.com

Remote Sensing on Roman Frontiers

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Luftbildprospektionen zu den Militärlagern *Vetera castra* I auf dem Fürstenberg bei Xanten: Zur *praetentura* und dem Befestigungssystem des neronischen Zweilegionenlagers

Norbert HANEL / Baoquan SONG

In den letzten Jahren wurden Luftbilduntersuchungen und geophysikalische Prospektionen zum Zweilegionenlager *Vetera castra* I auf der eiszeitlichen Stauchmoräne auf dem Fürstenberg bei Xanten fortgesetzt. Vor allem die Luftbildarchäologie erbrachte eine Reihe neuer Erkenntnisse (Hanel / Song 2007; Song / Hanel 2011; Hanel / Song im Druck; Becker / Wippern 2011). Im Rahmen der Luftbildauswertungen konnten exzeptionelle Ergebnisse insbesondere zur jüngsten, neronischen Militäranlage gewonnen werden. Diese Resultate betreffen in erster Linie die *praetentura*, während sich in der *retentura* nur geringfügige Bewuchsmerkmale abzeichnen, die im Vergleich zu den bisherigen Grabungsergebnissen keine Gebäuderekonstruktion erlauben. Da dieses Bild die gesamte *retentura* des Zweilegionenlagers betrifft, könnten möglicherweise die höher gelegenen Lagerareale besonders von Bodenerosion betroffen sein. Jedoch gilt dies anscheinend nicht für die Bewuchsmerkmale tiefer in den Boden reichender, älterer Lagerbefunde (vgl. Hanel / Song 2007, 352 f., Abb. 2; Song / Hanel 2011, 90 f., Abb. 71-72).

1. Zur Umwehrung des neronischen Zweilegionenlagers

Durch die Altgrabungen in den Jahren zwischen 1905 und 1933/34 wurden zwar immer wieder Ausschnitte der neronischen Lagerumwehrung auf dem Fürstenberg freigelegt; jedoch konnten in diesem Zusammenhang weder der Aufbau, noch die Lage der Befestigungstürme beobachtet werden: dies betrifft sowohl die Zwischen- als auch die Ecktürme dieser Lagerumwehrung (zusammenfassend Lehner 1930, 28-31; ferner Hanel 1995, 306-309 mit Taf. 166). Durch die jüngsten Befliegungen, die durch das Ministerium für Wirtschaft, Energie, Bauen, Wohnen und Verkehr des Landes Nordrhein-Westfalen (Düsseldorf) finanziell gefördert wurden, gelang es, vor allem an der östlichen, südlichen und nördlichen Lagerseite die Pfostengruben einiger hölzerner Wehrtürme festzustellen (**Abb. 1/3**). Für die gesamte Westseite war dies nicht möglich; der zweiphasige, südliche Torturm der *porta principalis dextra* war bereits bei den Ausgrabungen von 1930 freigelegt worden (Oelmann 1931, 223, Abb. 2; 228 f., Abb. 3; Hanel 1995, Beil. 10 mit Maßstab 1:250). Auch die Lagerbefestigung mit Holzerdeumwehrung und Spitzgräben ist auf der Westseite des neronischen Militärlagers in den Luftbildern kaum zu erkennen. Dies ist dadurch zu erklären, dass lange Strecken der Umwehrung unter Wald, unter modernen Flurgrenzen und Feldwegen oder in Äckern mit Pflanzenbewuchs liegen, die für die Luftbildauswertung ungünstig sind. Dagegen sind die Luftbildbefunde an der Nord-, Ost- und Südumwehrung des neronischen Lagers hervorragend: Die Lagerbefestigung setzt sich aus zwei Spitzgräben zusammen, die einer ungefähr 3,00-3,50 m breiten, zweischaligen Holzerdeumwehrung vorgelagert sind: Auf den Luftbildern zeichnen sich das äußere und innere Fundamentgräbchen der Befestigung ab (**Abb. 2**). Der lagerseitige Wehrgraben hat heute noch erhaltene Breiten von ungefähr 2,00-2,50 m (Südumwehrung), ca. 1,50 m (Ostumwehrung) und 2,00-2,50 m (Nordumwehrung). Demgegenüber war der



Abb. 1. *Vetera castra* I. Luftbildbefund eines Ausschnitts der Südumwehrung des neronischen Zweilegionenlagers mit Pfostenspuren des bereits ausgegrabenen Südtors (*porta decumana*, **1**), den Fundamentgräbchen der Holzerdeumwehrung (**2**), Pfostenspuren der Zwischentürme (**3**) und den beiden Wehrgräben (**4**) (Luftbild aufgenommen am 24.06.2010 von B. Song)

feldseitige Spitzgraben deutlich schmaler; die Breitenmaße betragen an der Südumwehrung 1,00-1,25 m, an der Ostseite lediglich 0,50-1,00 m und an der Nordumwehrung 1,00-2,00 m. Zusätzliche Annäherungshindernisse, wie sie teilweise bei den Altgrabungen beobachtet wurden (Lehner 1907, 316 mit Abb. 2, Taf. 6/1; Lehner 1930a, 28-1), sind auf den jüngsten Luftbildern nicht erkennbar. Auf der Rückseite der Holzerdeumwehrung schließt sich das *intervallum* mit der inneren Wallstraße (*via sagularis*) an; in diesem Areal lassen sich einige kleinere Bauten erkennen (vgl. **Abb. 1** und **4**), deren genaue Funktion sich unserer Kenntnis entzieht. Bereits bei den Altgrabungen oder auf Luftbildern konnten im *intervallum* mehrfach große Bauten (Bau X: fabrica ? südwestlich von Z, Speicher ? südlich der *porta principalis sinistra*) beobachtet werden (Lehner 1930b, 171 f., Abb. 3; Hanel 1995, 309 mit Beil. 10; Scollar 1965, Taf. 16; Hanel 1995, 309, Taf. 6/1; Becker / Wippern 2011, 104 f., Abb. 85).

Alle Wehrtürme waren in der Weise in die Holzerdeumwehrung integriert, dass die vorderen und hinteren Eckpfosten jeweils hinter den Holzverschalungen errichtet waren, wie dies z. B. bei den Legionslagern von Bergkamen-Oberaden und Nijmegen-Kops Plateau nachgewiesen ist (Kühlborn / v. Schnurbein 1992, 23-25, Abb. 14; Beil. 2-5; Willems 1991, 212, Abb. 36/3); die vorderen Pfosten standen demnach innerhalb des Kastenwerks, während die hinteren außerhalb aufgestellt waren (Peterse 2010, 143, Abb. 3; 166). Die Abstände der Zwischentürme an der neronischen Ostbefestigung unterscheiden sich vermutlich im vorderen und hinteren Lagerbereich; in der *praetentura* sind sie aufgrund zweier nachgewiesener Türme mit 67 m (ca. 226 *pedes*) gesichert; in der *retentura* sind die Abstände mit 77 m (ca. 260 *pedes*) wahrscheinlich länger; allerdings sind die Zwischentürme in diesem Bereich nur zu erschließen. An den Schmalseiten des Lagers hatte man die Wehrtürme in kürzeren Abständen von ungefähr 59-60 m (ca. 200 *pedes*)

aufgestellt. Alle Zwischentürme, die von vier starken Eckpfosten getragen wurden, hatten einen quadratischen Grundriss von ungefähr 3,00 x 3,00 m (10 x 10 *pedes*). Demgegenüber bestanden die 6,00 x 3,50 m (ca. 20 x 12 *pedes*) großen Türme in den abgerundeten Lagerecken aus sechs Holzpfosten (Becker / Wippern 2011, 101, Abb. 83; Song / Hanel 2011, 91, Abb. 73). Dieser Eckturmtyp, der der Rundung in den Lagerecken folgt, lässt sich seit augustischer Zeit in Nieder- und Obergermanien sowie später in Britannien nachweisen, z. B. in Nijmegen-Hunerberg, Valkenburg, Hod Hill, Hofheim-Steinkastell, Elginhaugh etc. (Driessen 2007, Abb. 10, Taf. 19; van Giffen 1955, Taf. 19-23; Richmond 1968, 72 f.; Abb. 62; Nuber 1986, 226 f. mit Abb. 1; Hanson et al. 2007, 164-171 mit Abb. 7/19, 7/21, Taf. 7/8).

Obwohl durch die Befliegungen nur ein Teil der Wehrtürme des neronischen Zweilegionenlagers bekannt ist, lässt sich mit Hilfe der fassbaren Turmabstände die Position aller Türme rekonstruieren und somit die Gesamtzahl der ehemals errichteten Lagertürme bestimmen. An den Lagerschmalseiten standen im Süden und im Norden jeweils acht Zwischentürme und zwei Ecktürme. Die Ostumwehrung wurde in der *praetentura* von vier und in der *retentura* von sieben Zwischentürmen geschützt. Somit betrug die Gesamtzahl der Eck- und Zwischentürme 42, zu denen weitere acht Türme der vier Haupttore hinzukommen (**Abb. 2**).

2. Zur Gliederung und Bebauung der *praetentura*

Nach den Untersuchungen der jüngsten Luftbildbefunde können in der *praetentura* des neronischen Zweilegionenlagers jetzt zweifelsfrei drei *scamna* unterschieden werden. Durch die Altgrabungen wurden Lagerbauten vor allem südlich der *via principalis* hinter den Tabernen freigelegt (u. a. *valetudinarium*, Offiziersbauten, *schola* etc.). Obwohl bereits bei den älteren Befliegungen Spuren von Lagergebäuden im *latus sinistrum* der *praetentura* beobachtet wurden (Scollar 1965, Taf. 16; Hanel 1995, Taf. 4/2), ist es im Zuge der jüngsten Auswertung der Luftbildbefunde gelungen, ein zweites *valetudinarium* zu identifizieren (Song / Hanel 2011, 92-95 mit Abb. 74). Während das Lazarett der *legio V Alaudae* im 3. *scamnum* der *praetentura* in der rechten Lagerhälfte liegt, war das neuentdeckte Hospital zwar ebenfalls in der *praetentura* errichtet worden, jedoch befindet es sich an der *via praetoria* im *latus sinistrum* im 2. *scamnum* und war gegenüber dem Lazarett der 5. Legion um 90° in seiner Gesamtausrichtung gedreht (**Abb. 3/1**). Nach der Aufteilung der beiden Lagerhälften auf die beiden hier stationierten Legionen handelt es sich bei dem neuentdeckten Gebäude um das Hospital für die *legio XV Primigenia*; demnach hatte jede Legion ihr eigenes Lazarett. Soweit dies den Luftbildbefunden zu entnehmen ist, hat das neuentdeckte Militärkrankenhaus denselben Grundriss wie das Pendant in der westlichen Lagerhälfte (Oelmann 1931, 225-227; Schultze 1934, Taf. 1). Das *valetudinarium* misst ungefähr 98 x 84 bis 87 m, d. h. es nimmt eine Gesamtfläche von etwa 8232-8526 m^2 ein. Der Zugang erfolgte durch einen breiten Gang von der *via praetoria* aus. Von hier aus gelangte man in eine Nord-Süd ausgerichtete *basilica*, die sich deutlich in den Luftaufnahmen abzeichnet; sie hat eine Ausdehnung von ca. 41 x 19,7 m. Die *basilica* wird durch insgesamt 18 Säulen in drei Schiffe gegliedert, wobei zwei Reihen von jeweils acht Säulen in der Längsachse und von je drei Säulen an den Schmalseiten einen Zentralraum umschließen. Ein kleiner Rechteckanbau (etwa 12 x 10 m) befindet sich, wie beim Lazarett der 5. Legion, an der Längsseite der *basilica* im eigentlichen Innenhof. Dieser Hof misst ungefähr 44 x 42 m, wobei die genauen Abgrenzungen auf den Luftbildern schwer zu erkennen sind. Die um den Innenhof umlaufenden Korridore mit den Kammerreihen sind nur teilweise zu sehen (Nordostecke). Vermutlich hatte dieses *valetudinarium* ein kleines Lazarettbad, das in Analogie zum Lazarett der 5. Legion in der Südwestecke des Hospitals liegen müsste (Hanel 2000, 24 f., Abb. 1). Allerdings lassen sich auf den Luftaufnahmen entsprechende Spuren bislang nicht feststellen. Ähnliche Legionshospitäler sind seit der augustischen Zeit an zahlreichen Militärstandorten nachgewiesen (v. Petrikovits 1975, 98-102, Abb. 27; Dyczek 1997). Mit der Entdeckung des Lazaretts der *legio XV Primigenia* gehören die Legionslager auf dem Fürstenberg zu dem Platz mit den meisten Militärhospitälern im *Imperium Romanum*: Ein drittes Lazarett, das zu einem vorneronischen, wahrscheinlich claudischen Lager gehört, war bereits bei den Altgrabungen entdeckt worden (Schultze 1934, 58; Hanel 1995, 304). An der Westseite überlagert das *valetudinarium* der 15. Legion ein älteres Gebäude von 58,0 x 46,5 m mit abweichender Ausrichtung (**Abb. 3/3**). An der Nordseite ist eine Raumflucht mit größeren Rechteckräumen zu erkennen, während an der Ost- und Westseite Kammerreihen einen Innenhof flankieren.

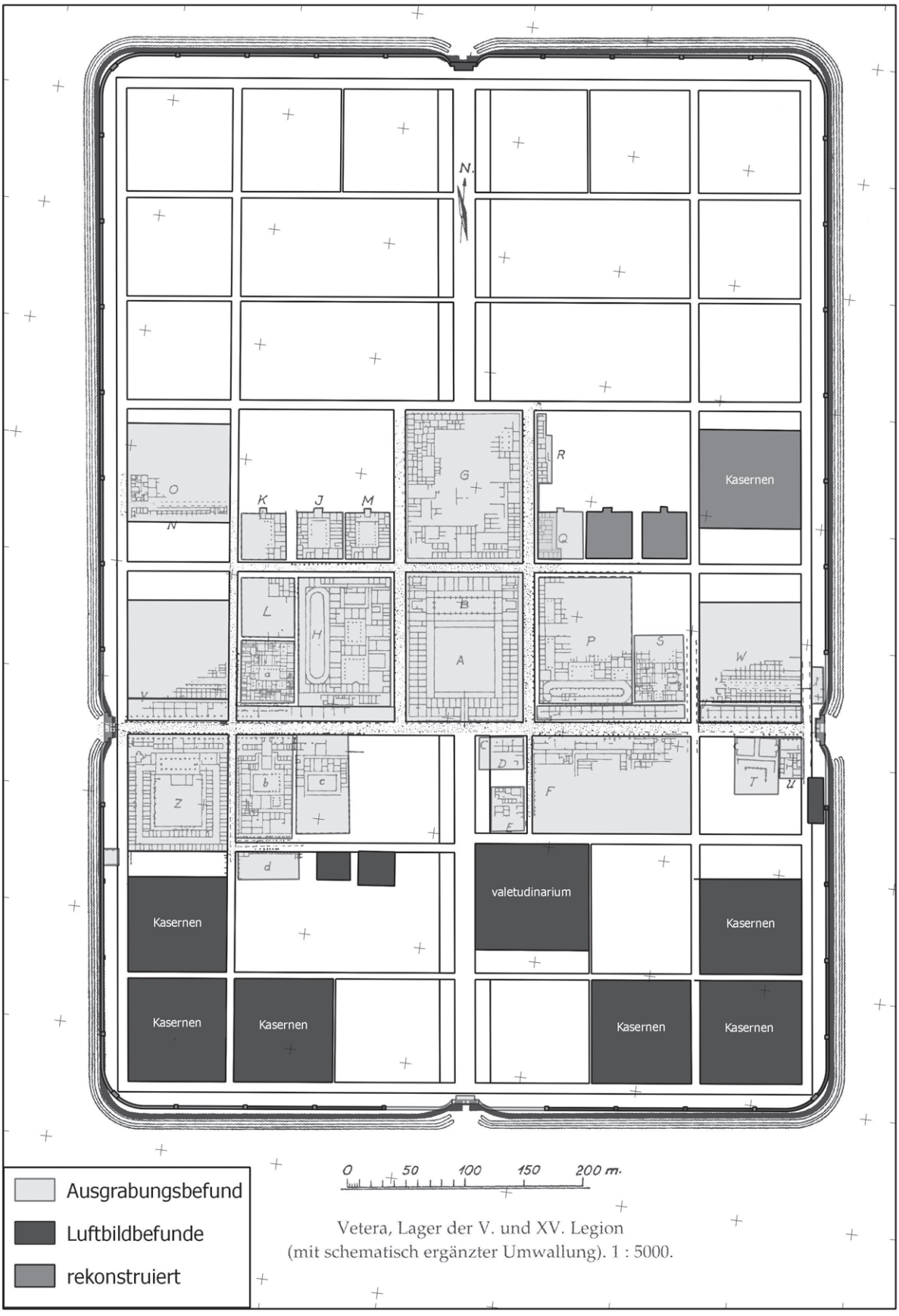


Abb. 2. *Vetera castra* I. Gesamtplan des neronischen Zweilegionenlagers mit den nachgewiesenen und rekonstruierten Türmen (H.-P. Klossek nach Vorgaben N. Hanel)

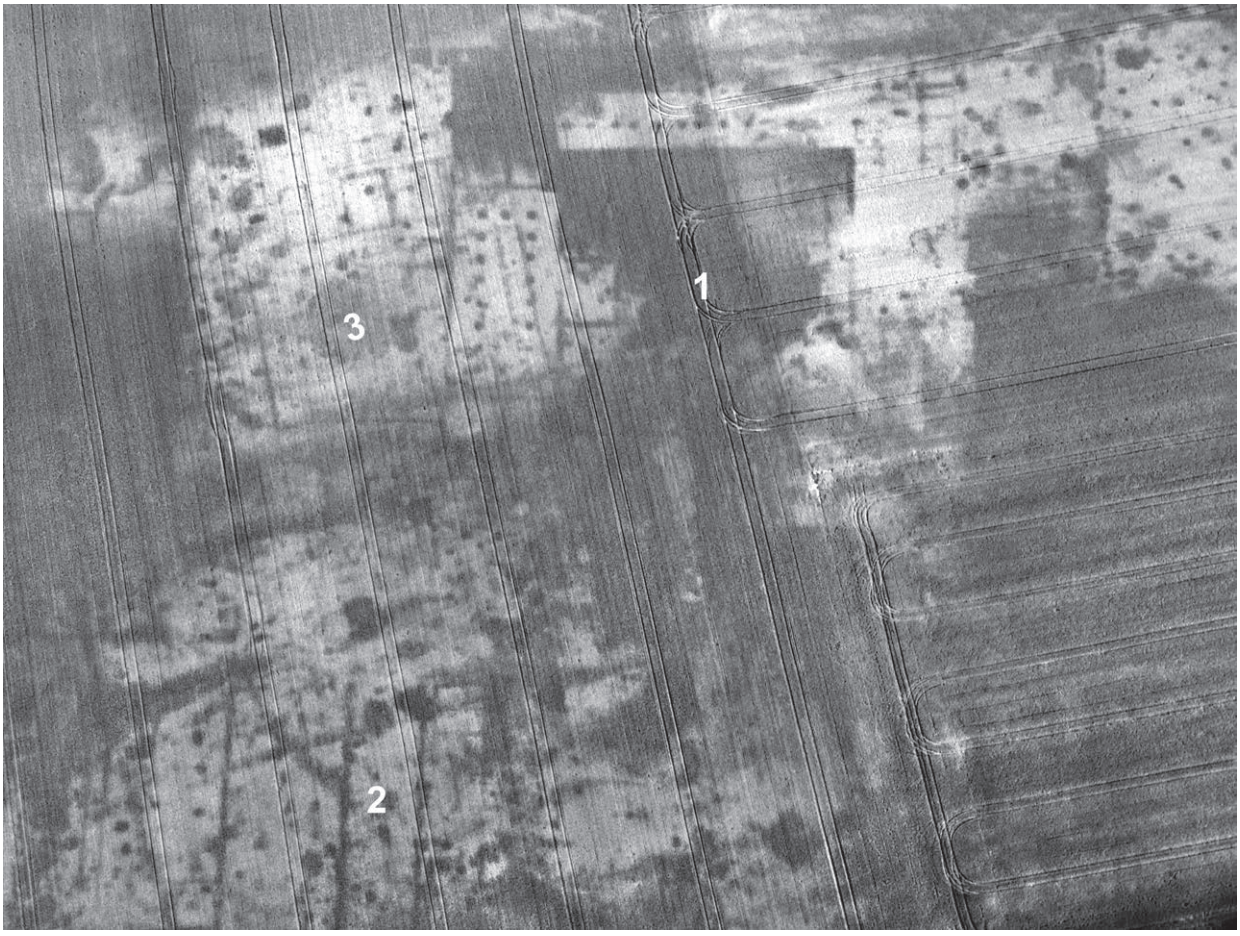


Abb. 3. *Vetera castra* I, neronisches Zweilegionenlager. Luftbildbefunde des Militärhospitals der *legio XV Primigenia* (**1**) mit dem Haupteingang zur *via praetoria* (**2**). Das *valetudinarium* überlagert ein älteres Gebäude mit Innenhof (**3**) (Luftbild aufgenommen am 08.06.2010 von B. Song)

Außer dem Lazarett der *legio XV Primigenia* zeichnen sich in der *praetentura* im 1. *scamnum* mehrere, bislang nicht bekannte Kasernengrundrisse ab (**Abb. 4/A-I**). Bedauerlicherweise befinden sich die südlichen Barackenbereiche – für die Luftbildauswertung unsichtbar – unter einem kleinen Obstgarten. Es handelt sich um die sechs Mannschaftsunterkünfte einer Legionskohorte, wobei zweimal zwei Zenturienbaracken Rücken an Rücken errichtet wurden, während sich östlich und westlich je eine Einzelkaserne befindet (Davison 1989, 270, Abb. A, Typ Z; 271, Typ 2 oder 4). Deutlich ist die Einteilung der Kontubernien in einen kleineren Vor- und einen größeren Rückraum (*arma*, *papilio*) zu erkennen. Auf den Luftbildern sind noch mindestens vier bis sieben oder acht *contubernia* zu sehen. Bedauerlicherweise lässt sich bei den Doppelkasernen nicht die Größe der zur *via sagularis* ausgerichteten Kopfbauten bestimmen. Deshalb bleibt vorerst unklar, inwieweit es sich bei den nördlichen, breiteren Endräumen um die Unterkünfte der Zenturionen oder um rückwärtige Endbauten handelt, die z. B. als Kornkammer dienten (Johnson 1987, 196 f., 218 f.). An den Gassen zwischen den Kasernen lagen von Pfosten gestützte Portiken. Der ungefähr vollständige Grundriss einer einzelnen Zenturienkaserne ist in dem östlich anschließenden Kohortenblock zu sehen und beträgt etwa 80-82 m (**Abb. 4/G**); die Gesamtlänge der westlich gelegenen Baracken kann somit ebenfalls auf circa 80 m veranschlagt werden. Dieses Maß stimmt ungefähr mit den in ihrer Länge weitgehend vollständig ausgegrabenen Kasernen N und V des neronischen Zweilegionenlagers überein (Hanel 1995, Taf. 169, Beil. 8-9 mit Maßstab 1:250). Bei der im 1. *scamnum* liegenden Zenturienkaserne befindet sich der Kopfbau an der zum Lagerinnern ausgerichteten Seite; ein entsprechender Kopfbau scheint an der zur *via sagularis* orientierten Seite zu fehlen. Hinsichtlich der Ausrichtung entspricht diese Mannschaftsunterkunft der Einzelkaserne V im *latus praetorii* der östlichen Lagerhälfte nördlich der *via principalis*, deren Kopfbau ebenfalls zur Lagerinnenseite liegt (v. Petrikovits



Abb. 4. *Vetera castra* I, neronisches Zweilegionenlager. Luftbildbefunde von Mannschaftsunterkünften (A–I) im 1. *scamnum* der Osthälfte der *praetentura* (Luftbild aufgenommen am 29.06.2010 von B. Song)

1975, 37, Abb. 2/2; Hanel 1995, Taf. 169, Beil. 9).

Insgesamt lässt sich das Anordnungsschema der sechs Zenturienkasernen (A–F) in der *praetentura* des neronischen Zweilegionenlagers von *Vetera castra* I zu einem Kohortenblock mit den Befunden im Neusser Koenenlager (*retentura*) und im Legionslager von *Lambaesis* (*praetentura*) vergleichen (Nissen et al. 1904, Taf. 3, Bau 110-115, Bau 135-140; Cagnat 1912, nach 464 Abb.; v. Petrikovits 1975, 111 f., Abb. 33/2[3?.7].6[9-10]). Vermutlich schloss sich im Osten ein identisch angeordneter Kohortenblock an, von dem vorerst nur die drei westlichen Zenturionenunterkünfte (G–I) zu sehen sind.

Bibliographie

Becker, Th. / Wippern, J. M. 2011. Geophysikalische Prospektion im Bereich des Legionslagers Vetera I. In: Kunow, J. (Hrsg.). Caelius … und danach? Zur Geschichte und Zukunft des Fürstenbergs und der Bislicher Insel bei Xanten (= Materialien zur Bodendenkmalpflege im Rheinland 23). Treis-Karden. 97-106.

Cagnat, R. 1912. L'armée romaine d'Afrique et l'occupation militaire de l'Afrique sous les empereurs. 2. éd. Paris.

Davison, D. P. 1989. The Barracks of the Roman Army from the 1st to the 3rd Centuries A.D. A comparative study of the barracks from fortresses, forts and fortlets with an analysis of building types and construction, stabling and garrisons (= BAR International Series 472,1-3). Oxford.

Driessen, M. 2007. Bouwen om te blijven. De topografie, bewoningscontinuïteit en monumentaliteit von Romeins Nijmegen (= rapportage Archeologische Monumentenzorg 151). Amersfoort.

Dyczek, P. 1997. The Valetudinarium at Novae. In: Groenman-van Waateringe, W. / v. Beek, B. L. / Willems, W. J. H. / Wynia, S. L. (Hrsg.). Roman Frontier Studies. Proceedings of the XVIth International Congress of Roman Frontier Studies (= Oxbow Monograph 91). Oxford. 199-204.

Giffen, A. E. van 1955. De Romeinse Castella in den dorpsheuvel te Valkenburg aan den Rijn (Z.H.) (Praetorium Agrippinae) I. De opgravingen in 1942-1943 en 1946-1950. – Jaarsverslag Terpenonderzoek Groningen 33-37, 1-209.

Hanel, N. 2000. Militärische Thermen in Niedergermanien. Eine Bestandsaufnahme. In: Fernández Ochoa, C. / García Entero, V. (Hrsg.). Termas romanas en el Occidente del imperio. II Colloquio internacional de arqueología en Gijón, Gijón 1999. Gijón. 23-33.

Hanel, N. / Song, B. 2007. Neue Ergebnisse der Luftbildarchäologie zu den römischen Militärlagern Vetera castra I auf dem Fürstenberg bei Xanten. – Germania 85, 349-357.

Hanel, N. / Song, B. im Druck. Neue Luftbilder zu den Militäranlagen und den canabae legionum von Vetera castra I (Xanten). In: Bidwell, P. (Hrsg.). Proceedings of the XXI[st] International Limes (Roman frontiers) Congress, Newcastle upon Tyne 2009 (= BAR International Series). Oxford.

Hanson, W. / Speller, K. / Yeoman, P. A. / Tery, J. 2007. Elginhaugh: A Flavian fort and its annexe 1 (= Britannia Monograph Series 23). London.

Johnson, A. 1987. Römische Kastelle des 1. und 2. Jahrhunderts n. Chr. in Britannien und in den germanischen Provinzen des Römerreiches (= Kulturgeschichte der antiken Welt 37). 3. Auflage. Mainz.

Kühlborn, S. / Schnurbein, S. v. 1992. Das Römerlager in Oberaden III. Die Ausgrabungen im nordwestlichen Lagerbereich und weitere Baustellenuntersuchungen der Jahre 1962-1988 (= Bodenaltertümer Westfalens 27). Münster.

Lehner, H. 1930a. Vetera. Die Ergebnisse der Ausgrabungen des Bonner Provinzialmuseums bis 1929 (= Römisch-Germanische Forschungen 4). Berlin / Leipzig.

Lehner, H. 1930b. Die Ausgrabungen auf dem Fürstenberg bei Xanten. – Bonner Jahrbücher 135, 168-172.

Nissen, H. / Koenen, C. / Lehner, H. / Strack, M. L. 1904. Novaesium. Das im Auftrag des Rheinischen Provinzialverbandes vom Bonner Provinzialmuseum 1887–1890 ausgegrabene Legionslager. – Bonner Jahrbücher 111/112, 1-462.

Nuber, H. U. 1986. Das Steinkastell Hofheim (Main-Taunus-Kreis). In: Studien zu den Militärgrenzen Roms III. 13. Internationaler Limeskongress Aalen 1983, Vorträge (= Forschungen und Berichte zur Vor- und Frühgeschichte Baden-Württembergs 20). Stuttgart. 226-234.

Oelmann, F. 1931. Ausgrabung in Vetera 1930. – Germania 15, 221-229.

Peterse, K. 2010. Die Rekonstruktion der Holz-Erde-Mauer des Römerlagers Oberaden. – Bulletin Antieke Beschaving 85, 141-177.

Petrikovits, H. v. 1975. Die Innenbauten römischer Legionslager während der Prinzipatszeit (= Abhandlungen der Rheinisch-Westfälischen Akademie der Wissenschaften 56). Opladen.

Richmond, I. 1968. Hod Hill 2. Excavations carried out between 1951 and 1958 for the trustees of the British Museum. London.

Schultze, R. 1934. Die römischen Legionslazarette in Vetera und anderen Legionslagern. – Bonner Jahrbücher 139, 54-63.

Scollar, I. 1965. Archäologie aus der Luft. Arbeitsergebnisse der Flugjahre 1960 und 1961 im Rheinland (= Schriften des Rheinischen Landesmuseums Bonn 1). Düsseldorf.

Song, B. / Hanel, N. 2011. Neue Luftbildbefunde der römischen Militärlager Vetera castra I auf dem Fürstenberg bei Xanten. In: Kunow, J. (Hrsg.). Caelius … und danach? Zur Geschichte und Zukunft des Fürstenbergs und der Bislicher Insel bei Xanten (= Materialien zur Bodendenkmalpflege im Rheinland 23). Treis-Karden. 87-96.

Willems, W. J. H. 1991. Early Roman Camps on the Kops Plateau at Nijmegen. In: Maxfield, V. A. / Dobson, M. J. (Hrsg.). Roman Frontier Studies 1989. Proceedings of the XV[th] International Congress of Roman Frontier Studies. Exeter. 210-218.

Dr. Norbert Hanel
Kommission für Alte Geschichte und Epigraphik
des Deutschen Archäologischen Instituts
Amalienstr. 73b
DE-80799 München
Norbert.Hanel@uni-koeln.de

Dr. Baoquan Song
Ruhr-Universität Bochum, Fakultät für
Geschichtswissenschaft
Institut für Archäologische Wissenschaften
Am Bergbaumuseum 31
DE-44791 Bochum
Baoquan.Song@rub.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Archaeogeophysical Prospection upon the Danube Limes Fort *Ad Militare* in Batina (2010)

Igor VUKMANIĆ / Branko MUŠIČ

Archaeogeophysical survey at the Roman fort site *Ad Militare* in Batina was the first research of this kind conducted on what is today Croatian section of the *limes* (**fig. 1**). The survey results of that northernmost *limes* site in Croatia indicate to the first extensive building layouts whose military purpose is determined there beyond doubt.

In Roman era *Ad Militare* was one of the forts situated in the province of *Pannonia* along the right bank of the Danube River (**fig. 2**)[1]. From that point, located on the 165-170 m high hilltop *Mons Aureus* (Bansko brdo), Roman military units were able to control movements along the river to the north, east and west.

During the 20th century the site was grown with vineyards and orchards and built-up by cottages and small households. Such conditions, along with thickets, hedges and fences, constructed between the parcels of various landowners, make the location very complicated for research. Nowadays, in the form of a quite regularly cut elevated plateau, there are indications of the earth-covered outlines of the eastern, northern and southern rampart of the fort at the site. On the ground numerous fragments of ancient building material can be found.



Fig. 1. Map of Croatia (http://www.sacred-destinations.com/croatia/croatia-map.htm), modified by Vedran Mesarić (31.03.2011)

Geophysical Survey

Geophysical survey upon *Ad Militare* in Batina was conducted at the sections of the fort in the period between 19 and 24 April 2010 by means of two different methods: geoelectrical resistivity method[2] (mapping mode) and ground penetrating radar method (GPR) (**figs. 3a, b, c**)[3]. Those non-destructive researches have been implemented by Branko Mušič PhD, assistant professor, Gearh d.o.o and University of Ljubljana, with three associates from Slovenia[4], by order and instructions of Igor Vukmanić, curator at the Archaeological Museum of Osijek, Croatia[5]. The survey has been enabled by the

[1] Results of geophysical survey (**figs. 2, 5**) have been traced in ARKOD (http://www.arkod.hr, 31.03.2011) and modified by Igor Vukmanić and Branko Mušič.

[2] Geoscan RM15 has been applied for resistivity mapping in Batina.

[3] GPR method has been conducted by the means of the device GSSI SIR3000, 400 MHz antenna.

[4] The associates have been Igor Medarič, Matjaž Mori and Uroš Kirn.

[5] On 29 March 2012 the Archaeological Museum of Osijek was merged with the Museum of Slavonia in Osijek (Uredba 2012).



Fig. 2. Position of the fort *Ad Militare* in Batina (http://www.arkod.hr, modified by I. Vukmanić, B. Mušič 2010)

World Heritage Center funds through the UNESCO Regional Bureau for Science and Culture in Europe, Venice and in accordance with the agreement made between the Ministry of Culture of the Republic of Croatia and the Archaeological Museum of Osijek.

Eolic loess sediments of the Batina area appeared to be a convenient medium for geophysical survey. Resistivity method foremost gave results indicating to wider areas of high resistance and they can be interpreted either as layers of ruins or as wall foundations of Roman architecture on the plateau.

The favourable signal to noise ratio of radar echoes assured a good data set for the level of preservation, determination of depths, dimensions and fort layout (**fig. 3a, b**). Remains of brick walls on stone foundations[6] were located at a depth of 0.3 m to 0.5 m. However, in places where ground humidity was higher, their depth might be underestimated. The level of preservation of the building heights ranges from 0.5 m to 1 m. Latitude of walls in the fort interior varies from about 1 to 1.5 m, whereas the foundation of the eastern rampart appears to be up to 2 m thick. Since detected structures fit in the regular grid pattern, it can be concluded that they were built at the same construction phase. Both methods were applied to the section of the fort enclosing approximately 0.7 ha.

Several structures were located in the interior of the fort *Ad Militare*. The most remarkable among them are the remains of stone-built headquarters (*principia*) (**fig. 4a**).

The layout, size and orientation of the headquarters were determined in the middle of the central range of the fort, which was here combined with the fort's rear end (*retentura*). Georadar survey indicated that the back row of five rooms may have been built along the rear longitudinal axis of the headquarters. Central position there was taken by a 12 m long and 8 m wide exterior-oriented semicircular apsidal regimental shrine (*sacellum, aedes*). In shrines in auxiliary forts in Saalburg, Theilenhofen and Marköbel in Germany, as well as in Brough-by-Bainbridge in England, Roman emperor statue fragments have been found (Johnson 1983, 112). Two

[6] This kind of material determinant was established by archaeological excavations in 1970-1972 (Pinterović 1971, 55-58; Bulat 1984, 117).

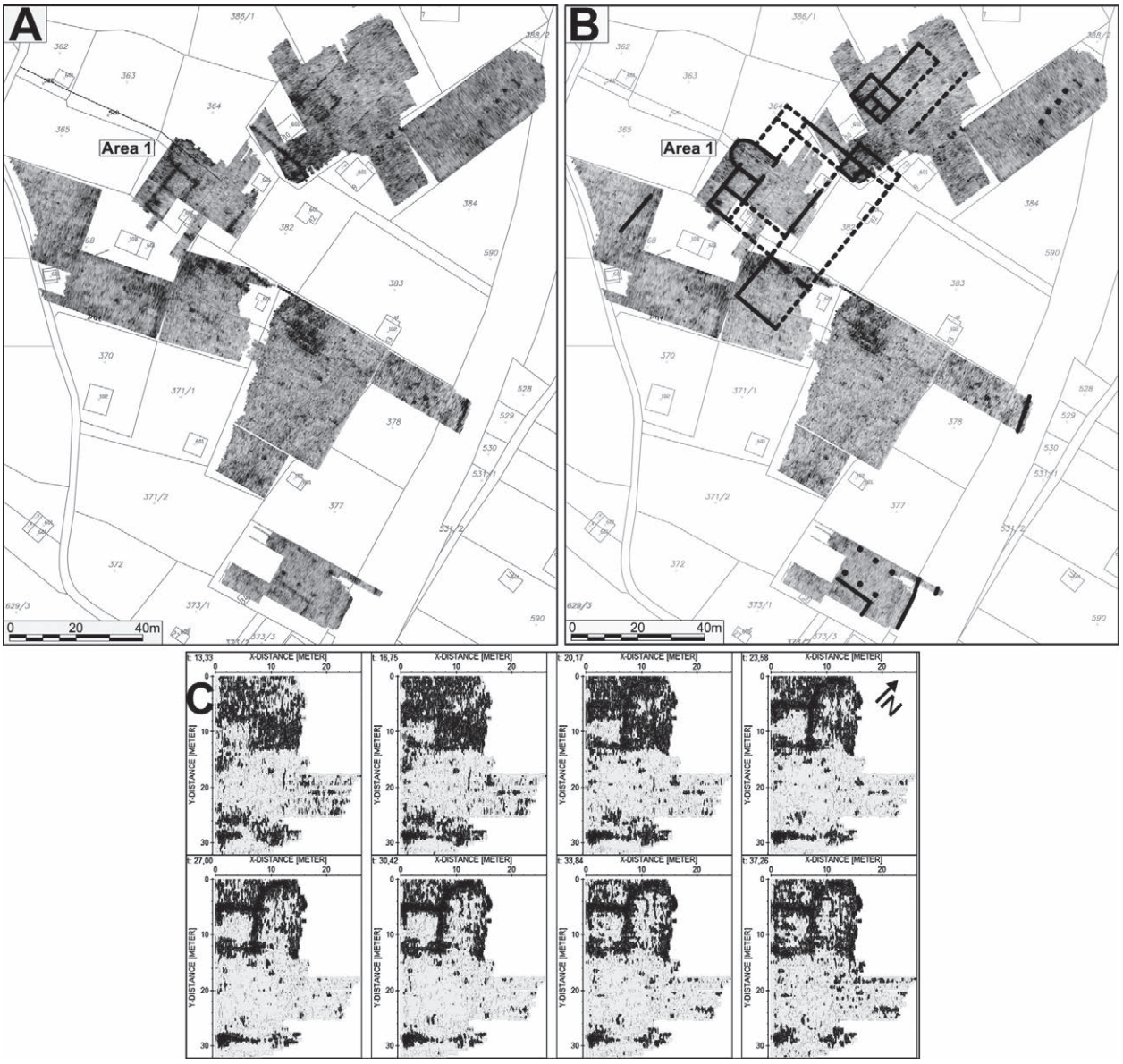


Fig. 3a, b, c. Fort *Ad Militare*: Results on the Ground penetrating radar method (GPR) (**a**), interpretation of GPR results (**b**) and time slices (depth sections at apsidal shrine) of GPR survey (**c**) (B. Mušič, I. Vukmanić 2010)

rooms, the length and width of which enclosed approximately 6.5 m were built along the south side of the apsis room in *Ad Militare*. The headquarters layout could be reconstructed on the assumption that on its other end the room arrangement was the same. It has been known that similar rooms were used for administrative purposes (*officia, tabularia*), for storage of *insignia* of the standard-bearers (*signiferi*) (Johnson 1983, 104, 119) and for keeping archival material by the chief clerk (*cornicularius*) or other staff (*actuarii, librarii*). The headquarters courtyard could have been flanked by two 16 x 6.5 m rooms used as weapon stores (*armamenteria*) on one or symmetrically on its both sides (Johnson 1983, 108 ff.; Connolly 2003, 16-17). However, the real purpose of these rooms remains speculative until archaeological excavation is provided on the site.

The *principia*, including the apse, is approximately 40 m long and 30 m wide[7]. This calculation does not include the size of the forehall in front of the east face of the headquarters, since it is not possible to establish by geophysical survey whether this (forehall) was built simultaneously with *principia* or was subsequently added to it. The forehall is 16 m wide and at least 60 m long and projected beyond the

[7] The headquarters buildings may vary in size. They usually measure about 30 x 25 m (Johnson 1983, 104).

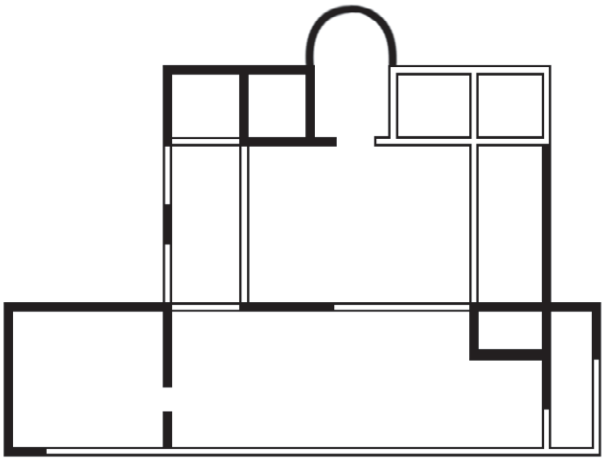


Fig. 4a. *Ad Militare* – layout of the headquarters (I. Vukmanić, B. Mušič 2010)



Fig. 4b. *Ad Militare* – L-shaped plan building (I. Vukmanić, B. Mušič 2010)

width of the rest of the headquarters. Due to many feedback radar signals that could be interpreted as remains layers, the north end of the forehall could not be detected clearly.

The existence of forehalls cannot help in precise chronological determination of their construction, since they were built in the period from the late 1st century until the first half of the 3rd century (Johnson 1983, 122-126, fig. 95, 314). Their function is also the subject of discussion[8].

Unlike the symmetry of the remaining part of the headquarters, the forehall in *Ad Militare* appears to be asymmetric. Headquarters with similar layouts have not been identified so far in Roman forts along the *ripa Pannonica* in Hungary (Visy 2003, 117). More similar to this forehall are those found along the *limes* in former Roman provinces of *Germania* and *Raetia* in modern day Germany (Johnson 1983, 120-126, fig. 95, 263). There they were discovered in forts in Aalen, Zugmantel (Campbell 2009, 27, 41), Unterböbingen, Weissenburg (Johnson 1983, 121-123, fig. 93, 131, fig. 99) and Welzheim-West[9].

Judging by the appearance of the headquarters' layout, there are several indications to date at least two renovation phases of *Ad Militare*. The apsidal shrine might go back to the Antonine period[10] while forehall could have been added during the greatest prosperity of Roman history in the Danube basin during the Severan dynasty (193-235)[11], possibly when from 217-218 the road between *Aquincum* (Budapest) and *Mursa* (Osijek) had been reconstructed in the area[12]. However, all building plans on which the conclusion is based had been built before and after the mentioned periods.

The second Roman building detected next to the headquarters in *Ad Militare* was an L-shaped, long and narrow structure which was on the west side, probably fronted by a verandah. The latitudes of foundations of its walls are narrower than those of the headquarters. The preserved length of that building is about 28 m and its width measures approximately 7 m (**fig. 4b**).

The L-shaped-plan buildings are assumed to be barracks (*centuriae*) (Johnson 1983, 165-176; Campbell 2009, 34, 48). The existence of this structure in the rear left half of the fort would mean that at least one barrack in *Ad Militare*, partially or entirely, was made of permanent building material. It would also mean that quarters directed towards the headquarters on the south side of the L-shaped building belonged to the army officers (*centuriones*). Those quarters occupy the area of approximately 7 x 7 m and are divided into three smaller rooms. One of them is bigger, comprising 3.5 x 7 m, two of them are about half of that size – 3 x 4 m – and separated from the rest of the building by a wall. A division where one third of a building served the needs of officers fits the interpretation of the structure being a barrack. In its eastern forepart the course of the wall is not visible, because solid material was abstracted with time. If the building served

[8] Mortimer Wheeler, following Veget. *Epit. rei milit.* 2.23; 3.2, interpreted forehalls as training fields (Wheeler 1926, 42). Anne Johnson states that forehalls could be used as assembly points when giving orders, holding religious ceremonies and for presentation (Johnson 1983, 109-111).

[9] http://sw.wikipedia.org/wiki/Kastelle_von_Welzheim (16.04.2011).

[10] With possible unit *cohors II Asturum* if stamped tiles are taken into consideration (Szilágyi 1933).

[11] Conclusions were drawn based on the construction features of the forts in today's German part of the Roman province of *Germania* and the Hungarian part of *Pannonia* (Johnson 1983, 123, 131).

[12] CIL III 10647; Fröhlich 1888, 291. We herewith thank Eldina Lovaš for the translation from Hungarian to Croatian language.

as a barrack then its interior had to be divided into two rows of rooms (*contuberniae*)[13].

Barracks with an L-shaped layout were frequent throughout the Roman Empire. For example, they can be found in Künzing (1) in Germany, Housesteads in England, Gelligear in Wales (Johnson 1983, 98 ff., 166-176, fig. 129), Fendoch in Scotland and *Drobeta* in Romania (Campbell 2009, 13, 15). Chemical analysis of a similar plan building in Valkenburg in the Netherlands showed that such structure served there as a horse-stable (Johnson 1983, 178: figs. 134, 236).

As barracks were the most numerous buildings in Roman military camps, as well as often built in pairs (Johnson 1983, 167), to the east and opposite the assumed north to south axis of the principal street, georadar in *Ad Militare* indicated to the remains of an approximately 27 m long wall, almost as long as and parallel with the L-shaped building. This may be the partially preserved foundation of another barrack.

Regarding the spatial organization, barracks had to be situated in the front range of *Ad Militare*. Six barracks for 480 men strong unit could be expected there[14]. However, since possibly only the remains of one stone barrack might have been detected there so far, it is yet not possible to determine the exact number of Roman soldiers in service in the fort. One and the same group of men-at-arms could have been divided or assigned for the task elsewhere and also several different units (Campbell 2009, 31-32) could have resided in the fort.

There are also doubts arising from the orientation that next to the headquarters actually stood a barrack, because barracks were always built with their shorter sides towards the principal street and not to the headquarters. There are no barracks of this orientation along the entire *limes*, however, this does not mean that this is not the first case of that kind. The length of the L-shape building (28 m) compared to the lengths of stone built barracks elsewhere cannot be a proof or a disproof of its existence because there are barracks that short (Johnson 1983, 169, fig. 129).

Since numerous Roman auxiliary forts had a hospital (*valetudinarium*) (Johnson 1983, 157-165) or a commander's house (*praetorium*) built next to the headquarters (Johnson 1983, 139), it is possible that instead of the barrack, the southeast part of the building complex that served one of these two purposes is detected by geophysical survey. In that case, parts of that complex might either have not been surveyed or, more likely, did not exist because there is not enough space for the remaining of such complex near the north-west angle of the fort. On the contrary, it looks as if a probable *praetorium* occupied the whole area between the headquarters and the north rampart of the fort, and that along its west end a western rampart was constructed. Additionally, the position of that structure in the rear range of the fort and near the northwest slope of *Mons Aureus*, offering the best view of southern part of the Carpathian valley and the Danube, goes in favour of the presumption that indeed the commander's house stood there. From these points, the position and orientation within the fort seems to be a more convenient argument for the interpretation of the building function than its layout.

As location and direction of the headquarters have been determined, it is possible to assume the position of the entrance gates (*portae*) on the sides of the fort. Four entrance gates could have been built in *Ad Militare*. Since before 2010 there had been no indications of the building arrangement within the fort, neither of them could have been scheduled in geophysical survey. It is clear that *via principalis* was running through or in front of the forehall and on this axis there was probably the sidegate through the south (*porta principalis dextra*) rampart. Further on, the course of the road that was leading out of the fort can be calculated. Natural changes in the scenery (erosion) along with the human factor (construction of houses) render it difficult to estimate whether the gate (*porta principalis sinistra*) in the northern rampart of *Ad Militare* existed.

Porta praetoria[15] must have been built in the east rampart. That was the main gate to every military camp whose position depended on the course of the *via praetoria* (Campbell 2009, 33). At the assumed location of these gates today there is a concrete driveway in one of the houses in Batina. From that point in Roman era *via praetoria* could run vertical-

[13] The first Roman forts were built of earth and timber. Later on stone was used; first while (re)building headquarters, commander's houses and granaries. However, the use of timber continued for roofing and construction of partition walls (Johnson 1983, 97).

[14] Written (Hygin. *De munit. castr*. 1) and pictorial evidence (Trajan's column, scene 21) as well as archaeological remains proved that wooden barracks and tents could have housed the army units (Johnson 1983, 166-167; Birley 2009).

[15] Roman writer Hyginus stated that *porta praetoria* should be directed towards the enemy (Hygin. *De munit. castr.* 56), whereas Vegetius wrote that it should be directed eastward or in marching direction (Veget. *Epit. rei mil.* 2.23). Nevertheless, optimal possibilities for transport, communication, access to supplies and water sources had been often preferred (Johnson 1983, 41).

ly in direction east to west towards the apsis room in the *principia* or pass on its left or right, dividing the front and the rear range of the fort into the left and right zone. As average length of the main gate in forts was 15-18 m (Johnson 1983, 34, 89), the same size could be estimated in this case as well.

Polybius states (Polyb. *Hist.* 6.40.9) that access to water and raw material was enabled through the back gate of the camp (*porta decumana*) and this statement matches the appearance of the countryside west to *Ad Militare*. However, regarding the slide-prone terrain and the possibility that back gate in that case was built in front of the most important building in the fort – *principia*, at the current stage of research it is not certain whether the *porta decumana* had been built in the west rampart at all[16]. The area west of the apse room of *Ad Militare* is today bumpy and overgrown in thicket. In addition to the deviation in altitude at immediate back of the headquarters apsidal shrine, it prevented GPR survey at that particular place.

On two locations, the rim of topographic elevation along the west side of the modern road that leads towards the monument *Pobjeda*, made by Antun Augustinčić in 1947, was surveyed and confirmed to be earthed outline of the east curtain wall of the fort. This is the third scientifically confirmed rampart direction of *Ad Militare*[17]. One third of its foundation length to the north may have been destroyed by construction of a modern road. GPR survey showed that the eastern rampart was two times as wide as the one in the west, which this research can finally confirm[18].

For the time being, it is not possible to determine either the function or the integral plan/plans of the structures next to the rampart in front right zone of the fort. Since wider context is missing, it is difficult to determine whether the structure was a courtyard of a single building, a street with a colonnade or verandah parts of two buildings. If not barracks then, judging by the position within the fort, a workshop (*fabrica*) could have been situated in that zone[19]. It would be opportune that in the interior or in the immediate surrounding of the fort there was a stonemason's workshop for processing raw material from the quarry some 260 m west of the fort[20]. Neither is it possible to give a reliable interpretation of architecture remains in the front left zone of *Ad Militare* where a regular row of structures appears in an outline. In fact, neither have the anomalies in the front range been surveyed to a reliable extent so far, nor are they precise enough for a successful interpretation (**fig. 5**).

Reinterpretation of the Fort *Ad Militare* Concept

By comparison of the auxiliary fort layouts built in the period from the 1st to the 3rd century, according to the pioneer work of Johnson, it was realized that there were no two identical Roman forts or identical layouts of the buildings of same function in their interior (Johnson 1983, 31-32). *Dunium* at Hod Hill, England (Johnson 1983, 241-242, fig. 182), *Nigrum Pullum* in Zwammerdamm and *Praetorium Agrippinae* in Valkenburg, the Netherlands (Enckevort et al. 2006, 108-109, fig. 4), which are forts dating back to time of emperor Claudius (AD 41-54), were in their interior arrangement the most similar to the fort *Ad Militare* in Croatia. In fact, the principal street in first three forts divides the camp center into two equal ranges (Johnson 1983, 241-242). If the principal street in *Ad Militare* passed through the forehall, the proportion between the area of the front and rear fort sections would suggest that its rear end was somewhat smaller than the front one.

Equal plan arrangements of the mentioned forts may suggest that the first or one of the early construction phases there started around the mid-1st century[21]. In the 1970s Pinterović suggested the period of the 1st century to be the probable period of construction of this fort in Batina (Pinterović 1975, 77). Later on, there were attempts to date particular construction phases of the camp to the end of the 3rd or beginning of the 4th century, based on the stamped tiles of *legio II Adiutrix* and *legio VI Herculia* (Filipović / Podrug 2008, 35-55).

Archaeological excavations were conducted in 1970-1972 at the site. The conclusion was that the

[16] The fort in Valkenburg (Johnson 1983, 236) whose layout is similar to this of the fort in Batina had no back gate.

[17] Two rampart directions, the northern and western one were determined from 1970-1972 (Bulat 1970, 42-43; Pinterović 1971, 55-58; Bulat 1984, 117).

[18] Acknowledged for the first time in 1971 by Danica Pinterović (Pinterović 1971, 55-58), but with negation of Mirko Bulat (Bulat 1975, 76).

[19] Johnson 1983, 184. That would imply that structures other than barracks were built in the *praetentura* of *Ad Militare*.

[20] As the quarry was next to the Danube, in Batina it is also probable to find a Roman port or a bridgehead.

[21] The fort *Ad Militare* was first mentioned in AD 85 in the Beleg diploma from present-day Hungary (CIL XVI, 31). The name of the place was also written in *Notitia Dignitatum* (*Occ.* 33, 45) by the end of the 4th century.



Fig. 5. *Ad Militare* – Ground penetrating radar method results on orthophotograph (B. Mušič, I. Vukmanić 2010)

fort had been considerably destroyed due to centennial land cultivation. Within the fort area few wall segments were excavated, without any particular explanation of their function. However, the directions of the northern and western ramparts were then defined and their lengths were assumed (Bulat 1970, 42-43; Pinterović 1971, 55-58, T. 35/2; Bulat 1984, 117). It was then that, at both sides of the modern road leading to the monument *Pobjeda*, the section of the eastern 1.8 m (Pinterović 1975, 76) wide stone rampart foundation was excavated (Pinterović 1971, 55-58). Foundation length of the northern rampart, according to Pinterović, enclosed the total of 95 m[22]. The second direction of the segment of the rampart at right angle against the northern one was excavated along the western

[22] Pinterović 1971, 55-58. On the basis of satellite imagery and landscape appearance the length of the northern rampart of *Ad Militare* is estimated at about 90 m.

plateau edge (Pinterović 1971, 57-58; 1975, 76-77). As a participant in Pinterović's dig, Mirko Bulat (Bulat 1970, 43; 1975, 76) by 1972 must have already known that the fort was not 200 m wide (220 x 200 m) as he stated in 1975[23]. The result of his rough estimate of the calculated fort surface at 4.4 ha has been accepted ever since.

However, excavation (Pinterović 1971, 55-58), satellite imagery, landscape appearance and results of geophysical survey proved that the Roman fort was more than two times smaller than what Bulat previously assumed, but also larger than what Pinterović thought. The eastern and western ramparts of *Ad Militare* were about 210 m long, the northern and southern about 90 m. Therefore, the total surface of the fort is determined at 1.7-1.9 ha. Shape of the fort could be conditioned by the topography of Bansko brdo, which in its northernmost hillside was not wide enough for its different orientation.

At present, the form of corner towers at the fort is not familiar. Only the section of the northeast tower could have been excavated so far but was interpreted as a fort angle (Pinterović 1971, 55-58). Presumed northwest and southwest corner towers are situated in the area endangered with erosion, whereas a house was built at the site of the presumed southeast tower.

Current research results leave the possible existence, number and span between interval towers of *Ad Militare* unknown. The same counts for the position, width, form, depth or number of ditches (*fossae*) that may have been made around the fort. The ditches do not appear in the ground in immediate vicinity of the fort, nor a bit further, but if they existed, it is possible that their number from all sides was not equal and that there were no ditches on the west side of the fort. The ditch on the west side is neither seen in the results of geophysical survey, nor do topographic features indicate that it was needed there. It also seems, regarding the landscape configuration, that it was not necessary to dig the ditch in front of the forts north rampart, but this cannot be determined since modern cottages were built along that area. To the east side of the camp, 15-20 m away, there is a ravine. It is not certain whether the ravine had already existed in the Roman era and if it was used as a path towards the Danube, or if it is a result of a more modern natural phenomenon. If it had existed in the time of Romans, then the ditch(es) could have been situated closer to the eastern rampart, perhaps at the place of modern day drainage canal between the fort and the road.

When using the earth and timber constructions or stone for building the forts, the opinion of Duncan B. Campbell (Campbell 2009, 35), following that of Johnson, is that there had been no carefully planned imperial policy, but that older military structures had been renovated or rebuilt in stone in periods when the possibility of conflict outbreak was reduced to the minimum (Johnson 1983, 68). Along the Upper Danube *limes*, the inscriptions deriving from the area of the forts in Günzburg (AD 77-78) and Kösching (AD 80) in Germany indicate that the rebuilding in stone was performed in the period of the emperor Vespasian (AD 69-79) (Johnson 1983, 252)[24]. If vicinity is taken into consideration, then Croatia is situated in the Middle Danube *limes* area, closer to what is today Hungary. Recent excavations showed that the stone-built forts there should be dated to the Antonine period (AD 138-161) and after the Marcomannic wars of AD 167-180 (Gabler 2003, 38-39), and not to the reign of Hadrian (AD 117-138), as previously thought (Soproni 1973, 61). Beside the outlook of the *principia* this could as well be an indication that *Ad Militare* was (re)constructed (in stone) after Antoninus Pius had come to the throne. In western Serbia, which is besides southern Hungary also similar to Croatia when it comes to the *limes* issues, there is still no evidence that could contribute to the solution of this problem area.

Conclusion

Until 2010 there was no Roman fort size in Croatian section of the *limes* that has been determined scientifically or professionally. Archaeogeophysical survey at the site of *Ad Militare* and its interpretation therefore certainly is a contribution to the understanding of Roman military history along the *limes* in Croatian and European context.

Modern research methods like satellite imagery and geophysical survey helped that the dimensions, layout, orientation, exact position and purpose of some structures erected by Roman army have been

[23] Bulat 1975, 76. Also in 1961 Bulat claimed that he knew the surface of the fort *Ad Militare* but avoided written answer (Bulat 1961, 367). The size that he claimed in 1975 was contrary to the opinion of Pinterović who sketched it and considered it smaller but did not specify it (Pinterović 1971, T. 35/2).

[24] According to Johnson, the transition from forts made of earth and timber to those built of stone is not a chronological determinant because in the same period there were forts built in both materials (Johnson 1983, 57 ff.).

determined for the first time ever in Croatia at this *limes* site. By the use of ground penetrating radar it has been realized that the direction of the fort was longitudinal, with longer sides looking east-west and that principal buildings were settled in the central/rear range of the fort. The fort layout has been determined at no more than 1.9 ha, more than twice as small as previously assumed.

The foundations of structures in *Ad Militare* were built of solid material, but for the time being, the possibility cannot be excluded that their superstructure was wooden and later mortared and painted in stone-shaped blocks. Additionally, some buildings in the fort interior, especially barracks, could have been partially or completely constructed of organic material.

Understanding of underground stratigraphy at *Ad Militare* will enable the rationalization of the possible future archaeological excavations at the site. With their help there will be some corrections of incorrect and incomplete data and updating and/or correction of comprehension in determining the course of the Roman road, the gate positions, the appearance of corner towers, courses, lengths and rampart perspectives, as well as the precise construction phase(s) and space arrangement in the interior of the fort.

The systematic *limes* research in Croatia could be continued in years to come, funded by the Croatian Ministry of Culture Danube Limes program led by Igor Vukmanić. A detailed visualization of the fort will follow, funded by transnational EU South-East Europe – Danube *Limes* Brand project.

Bibliography

Birley, R. 2009. Vindolanda: a Roman Frontier Fort on Hadrian's Wall. Chalford.

Bulat, M. 1984. Neki noviji antički nalazi iz Slavonije i Baranje. In: Čuček, B. (ed.). Arheološka istraživanja u istočnoj Slavoniji i Baranji. Zagreb. 117-128.

Bulat, M. 1975. Stanje istraživanja antičkih naselja u Slavoniji. In: Vikić-Belančić, B. (ed.). Antički gradovi i naselja u južnoj Panoniji i graničnim područjima. Materijali 13. Varaždin. 63-86.

Bulat, M. 1970. Gradac, Batina Skela-naselje od srednjobrončanog do željeznog doba i rimski logor. – Arheološki pregled 12, 42-43.

Bulat, M. 1961. Obilasci arheološkog terena od 1. I. 1961. do 31. XII. 1962. i važnije prinove. – Osječki zbornik 8, 364-368.

Campbell, D. B. 2009. Roman Auxiliary Forts 27 BC-AD 378. Oxford.

Connolly, P. 2003. The Roman Fort. Oxford.

CIL = Corpus inscriptionum Latinarum. Berlin.

Enckevort, H. van / Hazenberg, T. / Vos, W. / Graafstal, E. / Polak, R. 2006. Die Grenze in der Niederlanden. In: Planck, D. (ed.). Grenzen des Römischen Imperiums. Mainz. 105-111.

Filipović, S. / Podrug, E. 2006. Neobjavljene rimske opeke i tegule s radioničkim pečatima iz Muzeja Slavonije. – Osječki zbornik 28, 35-55.

Fröhlich, R. 1888. Két Római mértföldmutató Kő. – Archaeologiai értesítő 8, 289-295.

Gabler, D. 2003. The Ripa Pannonica. In: Visy, Zs. (ed.). The Roman army in Pannonia. Pecs. 37-42.

Johnson, A. 1983. Roman Forts of the 1st and 2nd Centuries AD in Britain and the German Provinces. London.

Pinterović, D. 1975. Istraživanje limesa u Slavoniji i Baranji. – Muzeologija 19, 69-82.

Pinterović, D. 1971. Batina-praistorijski i antički nalazi. – Arheološki pregled 13, 55-59.

Soproni, S. 1973. Militär und Befestigungen am pannonischen Limes. In: Weniger, P. (ed.). Die Römer an der Donau: Noricum und Pannonien. Petronell. 59-68.

Szilágyi, J. 1933. Inscriptiones tegularum Pannonicorum. Dissertationes Pannonicae, Ser. 2 / 1. Budapest.

Uredba 2012. Uredba o pripajanju Arheološkog muzeja Osijek Muzeju Slavonije. – Narodne novine (Zagreb) 39/04.04.2012. Narodne novine (Zagreb) 39/04.04.2012.

Visy, Zs. (ed.) 2003. The Roman Army in Pannonia. Pecs.

Wheeler, R. E. M. 1926. The Roman fort near Brecon. – Y Cymmrodor 37, 1-260.

Igor Vukmanić, MA
Museum of Slavonia in Osijek
Trg Svetog Trojstva 2
HR-31000 Osijek
igor.vukmanic@mso.hr

Branko Mušič, PhD
GEARH d.o.o.
Radvanjska 13
SI-2000 Mariborand
Univerza v Ljubljani
Filozofska fakulteta
Oddelek za arheologijo
Zavetiška 5
SI-1000 Ljubljana
branko.music@ff.uni-lj.si

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Non-destructive Survey in *Novae* (Lower Moesia)

Agnieszka TOMAS

with contributions by Marcin JAWORSKI, Piotr JAWORSKI, Wiesław MAŁKOWSKI, Krzysztof MISIEWICZ, Joanna PISZ, Michał PISZ, and Piotr WRONIECKI

The archaeological site of *Novae* (present Bulgaria) is a settlement complex consisting of a legionary camp, associated civil settlements (*canabae* and *vicus*), places of cult, villas, as well as elements of infrastructure (roads, aqueducts, cemeteries). Over time the fortress developed into a Late Roman town, which existed until the end of the 6th century.

The first epigraphically attested unit based at *Novae* was the *legio VIII Augusta* (IGLNovae 81; AE 1999, 1331). (IGLNovae 81; AE 1999, 1331). The camp was laid out on a high Danubian escarpment, on an extensive plateau surrounded by hills from the east and south and a plain on the west (**fig. 1**). The earliest permanent structures of the civilian settlement so far unearthed, were left by the followers of the succeeding I Italic legion, which arrived in *Novae* in the beginning of the AD 70s (Генчева 2002, 10-11; Sarnowski et al. 2012). In the 2nd century the legionary base covered the area of 17.99 ha (Sarnowski et al. 2005, 141-143).

Subsidiary army camp settlements (*canabae*) were located on public land around the legionary camp. In many cases, another civilian settlement existed at a certain distance from the camp. A series of inscriptions discovered in *Carnuntum* suggest that this land was placed probably within boundaries set down by an ancient measure of the *leuga,* equivalent to 1.5 Roman mile or 2.22 km (Piso 1991; 2003, 11-14, # 6-11, 19). The questions concerning compliance with this rule may indicate that the term of *leuga* could have been understood as *territorium* or a unit of area (Beschaouch 1979, 403-407; Kovács 2000, esp. 48; Gugl 2012, esp. 414). Civil settlements outside the *leuga* or military *territorium* were administered by provincial authorities. It is commonly accepted, as well, that inhabitants of the *canabae* were not permitted to own land, but they had their own quasi-municipal self-government as a community (Vittinghoff 1971), but epigraphic evidence in some cases is lacking (Gugl 2012, 417).

In *Novae* the principal part of the *canabae* lay to the west (Tomas 2011, 61, figs. 2 and 3; 2012), although pre-Roman and 1st-century AD finds have been recorded also to the east of the fortress (Čičikova 1980, 62). However, the compliance of the *leuga* understood as a distance measure should be verified (**fig. 2**). In *Novae* a second civil settlement (presumed *vicus*) was located ca. 2.7 km away to the east of the camp, at a locality called Ostrite Mogili (Tomas 2006). The size of the two settlements is estimated at approximately 70-80 ha (*canabae*) and 15 ha (*vicus*) (Conrad / Stančev 2002, 674; Tomas 2006, 120).

As a result of a complex social and spatial process, *Novae* became a civil town with military detachment of the First Italic legion. The fortress received new additional circuit of defences surrounding the area placed to the east from the camp. The walls erected most probably in the end of the 3rd century (Press / Sarnowski 1990, 240), as well as new buildings which replaced military architecture, had changed the layout of *Novae* (**fig. 1**). The end of Roman presence is dated by coins to the beginning of the 7th century (Madgearu 2006, 153-154).

Novae has been surveyed for more than 60 years by Polish and Bulgarian researchers. The excavated areas covered the legionary headquarters, military hospital and baths, as well as some Late Roman buildings including urban *villa*, cathedral

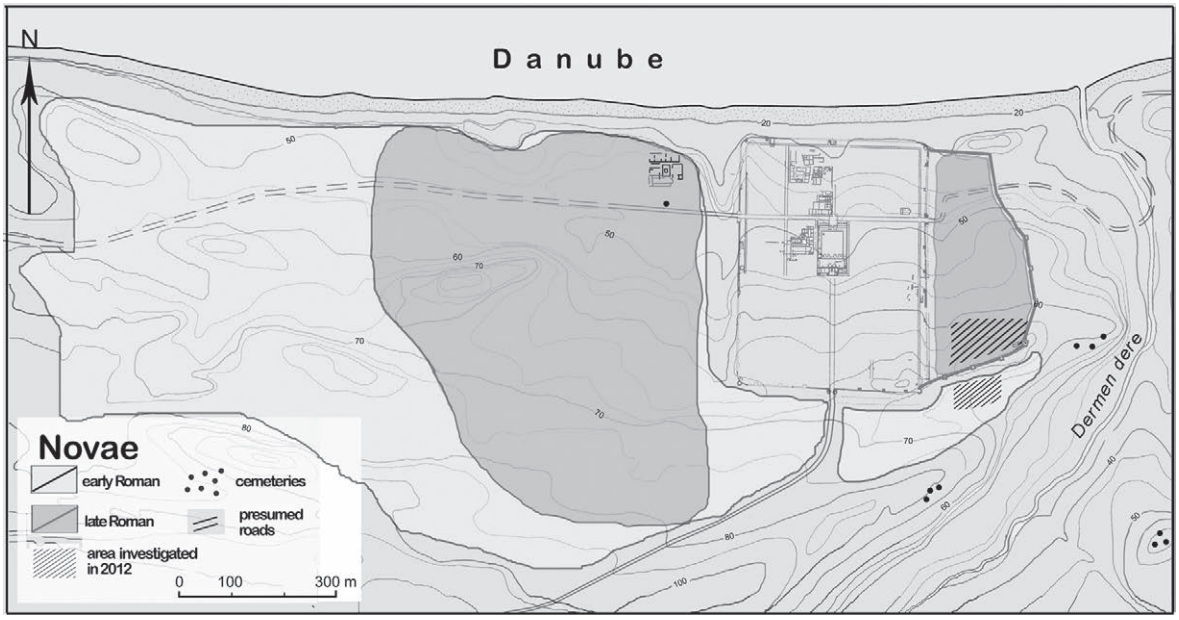


Fig. 1. *Novae*. Camp and *canabae* and Late Roman town (by A. Tomas)

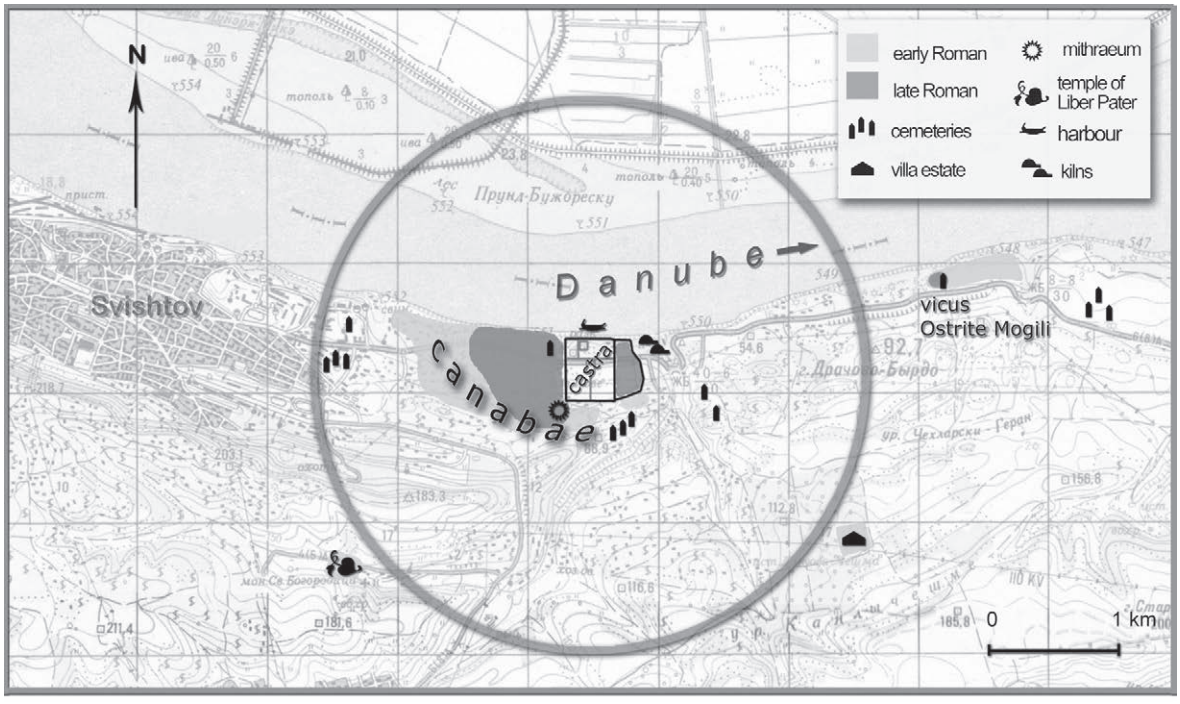


Fig. 2. *Novae*. Topography of the camp surroundings compared with a radius of one *leuga* measured from the *locus gromae* (by A. Tomas)

and Episcopal residence. Excavations in the *canabae* have been carried out in the villa and a Late Roman basilica near the western gate of the fortress (Čičikova 1997; Владкова 2006), a temple of Oriental deities (Najdenova 1999). The vicinity of the legionary camp has been investigated by extensive field surveying by a Bulgarian-German expedition (Conrad / Stančev 2002). The supposed *vicus* at Ostrite Mogili has been surveyed several times, among others in 1977, 1990, 1999 and 2000 (Sarnowski 1979; Доневски 1991; Conrad / Stančev 2002, 676; Tomas 2006). A temple of Dionysus and smaller settlement units were located to the south of *Novae* (Джонова 1961; Sarnowski 1979; Conrad / Stančev 2002, 676-677), as well as to the west of it, in the nearby town of Svištov (Стефанов 1958, 341 ff.). The location of aqueducts (Biernacka-Lubańska 1979) and cemeteries (Kołkówna 1961;

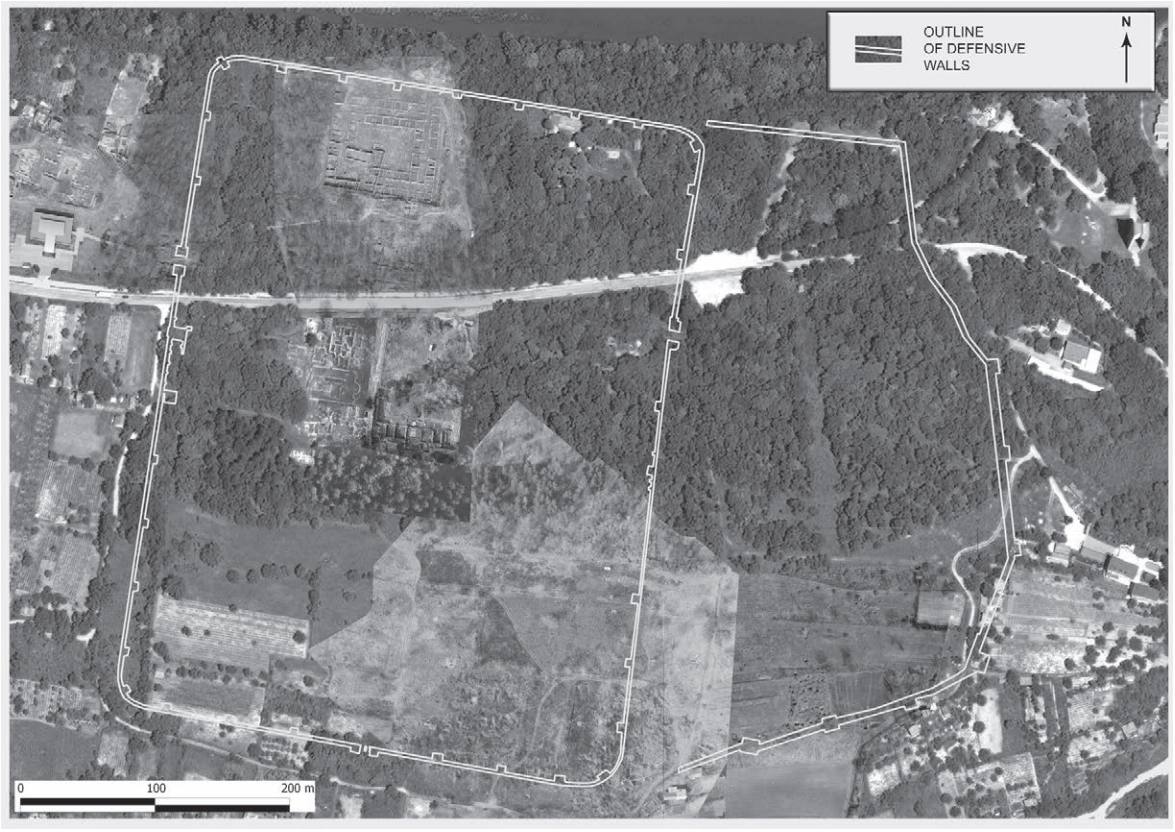


Fig. 3. *Novae*. The southeastern part of the site. satellite image and orthorectified BAP images depicting *Novae* and investigated area (by M. Pisz, J. Pisz, M. Jaworski, P. Wroniecki)

Вълов 1965) is fairly certain. No broad-scale investigation has been carried out so far within the annex of the fortress, although trenching along the fortifications has revealed pre- and early Roman finds (Čičikova 1980, 62; Димитров et al. 1967, 139-140). The artifacts kept in the local museum possibly originating from the civil settlements of *Novae* have never been collected and studied comprehensively.

The Lower Danubian camp settlements are much less investigated than their counterparts in the western provinces of the Empire (Tomas 2012). A grant from the Polish National Center of Science has provided the means to carry out a three-year project of non-invasive research in the area around the camp, using geophysical methods, aerial prospection and intensive field survey with the aid of metal detectors (decision # DEC-2011/01/D/HS3/02187). Complementary data will come from laboratory analysis of palynological remains. A 3D ground model is being prepared, including data on the flora. Thanks to the KWERENDA programme of the Foundation for Polish Science it was also possible to catalogue finds connected with civil settlement.

Magnetic and Earth Resistance Survey (*by P. Wroniecki, M. Jaworski*)

In the past twenty to thirty years non-destructive methods have served not only as auxiliary or predictive techniques aimed at supporting traditional (destructive) archaeological research but also as a means of obtaining answers and posing questions in independent scientific proceedings (Kuna 2004; Gojda 2004; Pasquinucci / Trément 2002).

The original idea behind the research in *Novae* was to investigate the landscape using an integrated scientific approach. Since many aspects of the man-made scenery derive from economic needs and social behavior (Muir 2006), landscapes mirror the societies that created them. A landscape approach based on the complementary use of remote-sensing techniques gives a clearer and more reliable look at archaeological patterns and features than based solely on surface finds. This take on archaeological research enables important information to be captured, such as relationships between settlements, topography and the geological setting.

The survey in 2012 was preceded by tests of the magnetic and earth resistance methods. The area

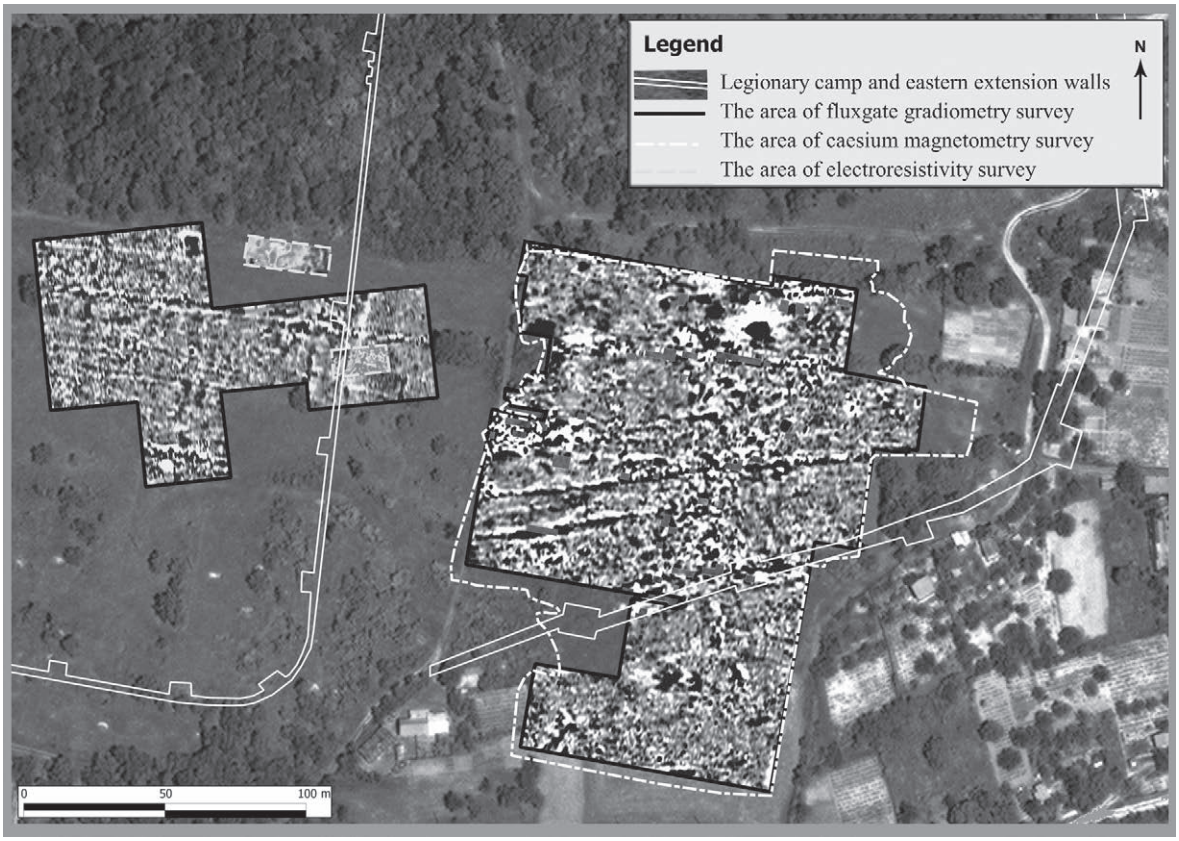


Fig. 4. Eastern extension in *Novae*. Greyscale visualization of geophysical data superimposed on a satellite image (by M. Jaworski, M. Pisz, P. Wroniecki)

selected for surveying was located in the so called "eastern annex" of the fortress (**fig. 3**). A survey grid of 30 × 30 m polygons, 23 in all, was laid out, covering all of the available area of the extension, that is, a total of over 2 ha. The surveyed area included a part of the sectors excavated in the 1960s, due to the comparison with the non-excavated, prospected polygons. Magnetic prospection was conducted with a Bartington Grad 601-Dual fluxgate gradiometer and a cesium magnetometer G-858 Magmapper with GPS RTK. A micro-relief map covering the area inside and outside the walls was also made with the help of the GPS RTK system (**fig. 5**).

The magnetic survey revealed a number of different types of anomalies which correspond to features visible on the surface. Other anomalies could be identified with subsurface features, including ancient architectural structures. The interpretation of the results (**fig. 4**) shows which signals can be identified with remains of ancient buildings. We can distinguish linear anomalies, zones of interference and dipolar and single point positive anomalies.

Surface features manifested in the form of characteristic linear, parallel anomalies include rows of stones. Some of these stones reveal tooling marks. They could be a remnant of ancient retaining walls forming a system of leveling terraces, or modern parceling of arable fields. Because of their parallel arrangement they can be easily distinguished from other linear anomalies running at different angles. Those intersecting at a right angle can be connected with buried remains of ancient buildings. Further studies, using complementary methods (e.g. ERT and earth resistivity) will allow for a more accurate and deeper understanding of the underlying stratigraphy and should determine the nature and origin of the anomalies and allow for a precise location of other architectural features of the "eastern annex".

A few other magnetic anomalies can be linked with features seen on the surface. The largest of these is a zone of disturbance caused by treasure hunting activities. Illegal digs are undertaken on such a scale that they can be seen even on satellite imagery. Another interesting area of disturbance is formed by rubble, which consists of the same stones as used in the terrace walls.

Some anomalies can also be linked with modern infrastructure, such as two zones in the north of the studied area. These are zones of strong interference

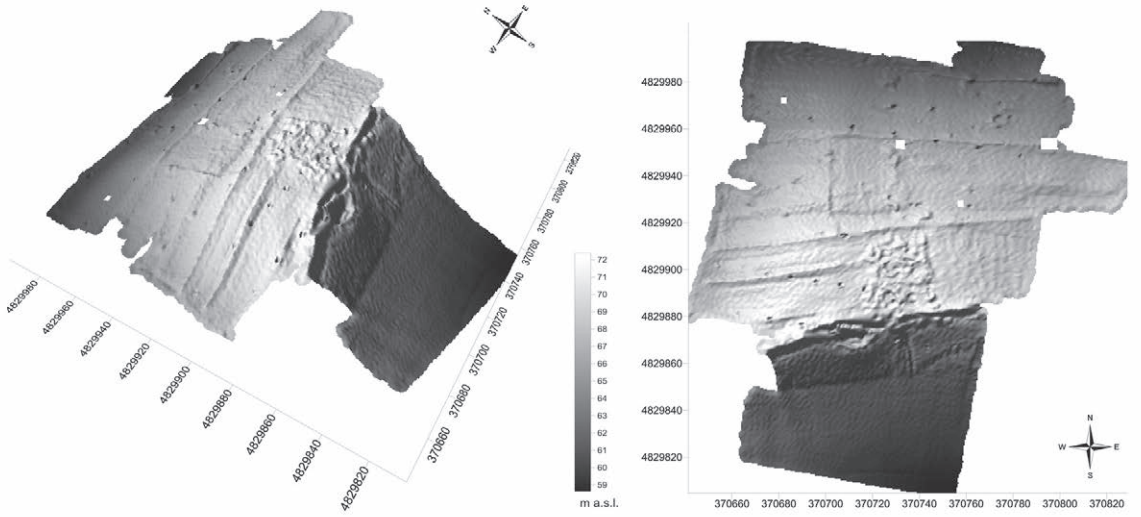


Fig. 5. *Novae*. Micro-relief map covering the area inside and outside the fortress walls (by K. Misiewicz, W. Małkowski)

caused by power-line poles and remains of a metal fence (zone of bipolar anomalies).

Field Survey Using Metal Detectors (*by P. Jaworski*)

During the spring campaign of 2012, an additional surface artifact collection survey was conducted with the aid of metal detectors (cf. Krivánek / Kuna 2004). The prospection covered an area of 2700 sq. m. which had previously been surveyed with geophysical methods. This area was divided into three squares, each 30 m long, and searched with two metal detectors spanning sections 2.5 m wide at each run. Methodical prospecting in this manner produced a significant number of metal artifacts.

The assemblage reflects the history of this particular area of *Novae* with Late Roman and Byzantine finds clearly in predominance. The most numerous group of metal objects consists of iron and lead building elements. Several dozen coins were found, most of them from the 4th to 6th century AD. Their presence suggests that the walls of the "eastern annex" still existed in the 6th century (cf. Čičikova 1974, 230). Of equal importance were two lead seals, one of them being an imperial seal of Justinian I, two arrowheads, two fragments of lead mirrors with floral ornaments, a bronze pendant, an iron *fibula* and several buckles.

Aerial and Satellite Photography (*By M. Pisz*)

Supplementary to magnetic prospection a series of low altitude aerial photographs were taken using a remote-controlled camera platform attached to a helium balloon. In addition to acquiring prospection and documentation imagery of the surveyed extension, a series of flights over other areas of the site were carried out, including the southern part of the camp (*retentura*), headquarters building, cathedral and Episcopal residence, villa and late Roman basilica beyond the western walls of the fortress and military hospital with superimposed structures of a Late Roman urban villa. Prospection photographs show the outline of the camp and topography of the surrounding area. The collection of a few thousand photos will be used as an auxiliary tool for further remote sensing and preparation of orthophotomaps.

Additional tool is a high resolution (0.41 m) orthorectified satellite imagery from the WorldView-2 satellite encompasses the entire area of the camp, *canabae* and adjacent territory. Satellite imagery is being released with increasingly higher resolution, supplementing aerial photography as a source of high quality remote sensing data. Its aim is not only to serve as a base map for GIS or verification of the accuracy of archaeological plans but also as a prospection tool, and more importantly, a way of documenting the state of preservation of the site. In conjunction with the balloon aerial photographs the satellite imagery has high potential on showing and monitoring the changes on the site (**fig. 3**).

Catalogue of Finds

Archive and museum searches have been aimed mostly at locating finds registered before the start of the excavations. These include, among others, votive plaques, funerary monuments, and small finds (female jewelry, toys) originating most prob-

ably from the civil settlements. This catalogue will also include some finds which certainly were moved from these settlements within the fortress' walls and reused in the later buildings. The purpose is to trace evidence of everyday life, to picture the material culture of the civil inhabitants, and to reconstruct the character of some of the buildings located outside the fortifications.

A Question of Municipal Status of *Novae*

The chronology of finds from the settlement located at Ostrite Mogili suggests that the supposed Roman *vicus* existed from the Flavian period to the 3rd c. AD at least (see Tomas 2006). However, the size of the site and the nature of the finds are not very impressive comparing to the *canabae*. The raids and disquiet of the 3rd century most probably caused migrations of the *vicus*' residents nearer to the walls of the camp. The emergence of a *civitas* of *Novae* inhabited both by the military and civilians resulted among others from new regulations introduced by Septimius Severus, allowing soldiers to live with their families (Tomas 2011 with literature). In my opinion, scarce evidence attesting the municipal status of *Novae* attested by only one inscription (Kolendo 1970) – may be caused by the shortness of time during which the *municipium* existed. Thus, highly probable is that it were the *canabae* which received municipal status, no earlier than at the turn of the 2nd and 3rd century AD (cf. Gerov 1964; Gerov 1977, 300; Тачева 2004, 80; Tomas 2007, 42; Piso 1990, 148).

***

The localization of the major part of the *canabae* to the west of the army camp is attested by repeated ground surveys and longtime topographical observations. Important issue of the function and chronology of the so-called "eastern annex" and a supposed *vicus* near *Novae* may have received a new approach: archaeological investigations compared to the evidence from the other Lower Moesian settlements may help in understanding the phenomena in land use and landscape changes. This must be followed by the accurate surveying of the annex' defences, distances between both settlements, analysis of their origin, development and chronology, but also the map of other traces of human activities in the vicinity of *Novae*.

It is possible that the destruction and collapse of civil settlements after the Gothic raids in the mid-3rd century and instability of the second half of this century was followed by migrations of *vici* inhabitants closer to the military camps, similar as in Durostorum (Mrozewicz 2010; Boyanov 2010). The dwellings or a refuge in the vicinity of the fortress was surrounded by a separate circuit of defences in the end of the 3rd century AD, most probably analogically as in Oescus (Иванов / Иванов 1998, 203). This is however a scenario which we must confront during archaeological investigations. Certainly, the southern part of the annex in *Novae* which was placed on the hill could have helped the town's inhabitants to survive until the beginning of the 7th century.

Translated by Iwona Zych

Bibliography

Владкова, П. 2006. Некропол край Novae от времето на Теодорих Велики. In: Милев, Р. (ed.) Готите. Goterna – current aspects of the Gothic historical and cultural heritage in Bulgaria. Sofia. 57-70.

Вълов, В. 1965. Антични некрополи в Свищовско. – Археология 7, 1 27-34.

Генчева, Е. 2002. Първият военен лагер в Novae провинция Мизия (Северна България). София/Варшава.

Джонова, Д. 1961. Светилище на Дионис край Свищов. – Археология 3, 2, 21-24.

Димитров, Д. П. / Чичикова, М. / Димитрова, А. / Найденова, В. 1967. Археологические раскопки в Восточном Секторе Нове в 1965 г. – Известия на Археологическия институт 30, 75-100.

Доневски, П. 1991. Разкопки в местността „ОстритеМогили" източно от Нове. In: АОР през 1990 г. Ловеч. 95-96.

Иванов, Т. / Иванов, Р. 1998. Улпия Ескус. Римски и ранновизантийски град, vol. I. София.

Стефанов, С. 1958. Принос към старата история на Свищов до средата на XVII век. In: Сто години народно читалище Свищов 1856 г. – 1956 г. Юбилеен сборник, Свищов, 337-365.

Тачева, М. 2004. Власт и социум в римска Мизия и Тракия, vol. II. София.

Beschaouch, A. 1979. Eléments celtiques dans la population du pays de Carthage. – CRAI 123, 3, 394-409.

Biernacka-Lubańska, M. 1979. Water-supply System of Novae. – Archeologia 30, 57-68.

Boyanov, I. 2010. Municipium Aurelium Durostorum or vicus Gavidina. – Archaeologia Bulgarica 14, 2, 53-59.

Conrad, S. / Stančev, D. 2002. Archaeological survey on the Roman frontier on the lower Danube between Novae and Sexaginta Prista. Preliminary report (1997-2000). In: Freeman, Ph. / Bennett, J. / Fiema, Z.T. / Hoffmann, B. (eds.). Limes

XVIII. Proceedings of the XVIII[th] International Congress of Roman Frontier Studies held in Amman, Jordan (September 2000), II, [=British Archaeological Reports, International Series, 1084]. Oxford. 673-681.

Čičikova, M. 1997. La basilique et la nécropole paléochretiennes extra muros (Mésie Inférieure). In: Biernacki, A. / Pawlak, B. (eds.). Late Roman and Early Byzantine Cities on the Lower Danube from the 4th to the 6th cent. AD. International Conference. Poznań, Poland, 15-17 November 1995. Poznań. 57-69.

Čičikova, M. 1980. Forschungen in Novae. – Klio 62, 1, 50-66.

Čičikova, M. 1974. Les fouilles de Novae, Moesia inferior, secteur Est: campagnes 1960-1968. In: Birley, E. (ed.). Roman Frontier Studies 1969, Cardiff, 226-234.

Gerov, B. 1977. Zum Problem der Entstehung der römischen Städte am Unteren Donaulimes. – Klio 59, 2, 299-309.

Gerov, B. 1964. Die Rechtsstellung der Untermösischen Stadt Novae. In: Beiträge zur Geschichte der römischen Provinzen Moesien und Thrakien. Gesammelte Aufsätze. Amsterdam 1980. 113-118 [reprint from: Akte des IV. Internationalen Kongresses für Griechische und Lateinische Epigraphik, 1962. Wien 1964. 128-133].

Gojda, M. 2004. Ancient landscape, settlement dynamics and non-destructive archaeology: Czech research project 1997-2002. Praha.

Gugl, Chr. 2012. Leugengrenze und juristischer Status von canabae-Siedlungen. In: Reinholdt, C. / Wohlmayr, W. (eds.). Akten des 13. Österreichischen Archäologentages. Klassische und Frühägäische Archäologie. Paris-Lodon-Universität Salzburg vom 25. bis 27. Februar 2010, Wien. 413-420.

Kolendo, J. 1970. Dea Placida à Novae et le culte d'Hécate, la Bonne déesse. – Archeologia 20 (1969 (1970)), 77-84.

Kołkówna, S. 1961. Nekropola północno(sic!)-wschodnia. In: Majewski, K. (ed.). Sprawozdanie tymczasowe z wykopalisk w Novae w 1960 roku. – Archeologia 12 (1961 (1962)), 123-128.

Kovács, P. 2000. Consistentes intra leugam. In: Németh, G. / Forisek, P. (eds.). Epigraphica 1. Studies on Epigraphy. Hugarian Polis Studies 6. Debrecen. 39-56.

Kuna, M. 2004. Nedestruktivní archeologie. Praha.

Krivánek, R. / Kuna, M. 2004. Pruzkum detektory kovu. In: Kuna, M. (ed.). Nedestruktivní archeologie. Praha. 185-191.

Madgearu, A. 2006. The end of the Lower Danubian limes: a violent or a peaceful process? – Studia Antiqua et Archaeologica 12, 151-168.

Mrozewicz, L. 2010. Miasta rzymskie nad dolnym Dunajem. – Studia Europaea Gnesnensia 1-2, 262-286.

Muir, R. 2006. The New Reading the Landscape. Fieldwork in Landscape History. Exeter.

Najdenova, V. 1994. Un sanctuaire syncrétiste de Mithra et de Sol Augustus découvert à Novae (Mésie Inférieure). In: Hinnels, J. R. (ed.). Studies in Mithraism [= Storia delle regioni, 9]. Roma. 225-228.

Pasquinucci, M. / Trément, F. 2002. (eds.), Non-destructive techniques applied to landscape archaeology, Oxford.

Piso, I. 2003. Die Inschriften. Das Heiligtum des Jupiter Optimus Maximus auf dem Pfaffenberg/Carnuntum 1, RLÖ 41 Sonderband 1, Wien.

Piso, I. 1991. Die Inschriften von Pfaffenberg und der Bereich der canabae legionis. – Tyche 6, 131-169.

Press, L. / Sarnowski, T. 1990. Novae. Römisches Legionslager und frühbyzantinische Stadt an der unteren Donau. – Antike Welt 21, 225-243.

Sarnowski, T. 1979. Badania powierzchniowe w okolicy Novae. In: Majewski, K. (ed). Novae – Sektor Zachodni 1977. Sprawozdanie tymczasowe z wykopalisk Ekspedycji Archeologicznej Uniwersytetu Warszawskiego. – Archeologia 30, 207-210.

Sarnowski, T. / Kovalevskaja, L. / Kaniszewski, A. 2005. Novae – Castra legionis, 2003-2005. – Archeologia 56, 141-152.

Sarnowski, T. / Kovalevskaja, L. / Tomas, A. 2012. Principia et munitiones castrorum. Headquarters Building and Legionary Defences. – Światowit L/A, 189-194.

Tomas, A. 2012. Canabae legionis I Italicae: state of research on civil settlements accompanying the legionary camp in Novae (Lower Moesia) compared to relevant Lower Danubian sites. – Światowit L/A, 155-168.

Tomas, A. 2011. Reading gender and social life in military spaces. – Światowit 8 (59), A, 2009-2010 (2011), 139-152.

Tomas, A. 2011a. Connecting to Public Water: the Rural Landscape and Water Supply in Lower Moesia. – Archaeologia Bulgarica XV, 2, 59-72.

Tomas, A. 2007. Inter Moesos et Thraces. A Contribution To The Studies On The Rural Hinterland Of Novae In Lower Moesia. – Archeologia 58, 2007 (2009), 31-47.

Tomas, A. 2006. Field Survey at Ostrite Mogili, Veliko Turnovo District. – Światowit VI (XLVII), A, 115-128.

Vittinghoff, F. 1971. Die rechtliche Stellung der canabae legionis und die Herkunftsangabe castris. – Chiron 1, 299-318.

Agnieszka Tomas PhD
University of Warsaw
Institute of Archaeology
Krakowskie Przedmieście 26/28
PL-00927 Warsaw
agnieszka.tomas@uw.edu.pl

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Defining the Roman *Limes* in Romania: The Contribution of Aerial and Satellite Remote Sensing

Ioana A. OLTEAN / William S. HANSON

Background

Much of the great diversity apparent in the frontiers of the Roman Empire can be experienced within the territory of modern Romania. In the Roman period the country was split between the provinces of Lower Moesia and Dacia, its provincial borders defined by the natural boundary of the Carpathian mountain range to the north and the sea to the east, by major rivers such as the Someş, Olt and the mighty Danube, or by man-made linear defences. The territory presented as many opportunities as difficulties to the Roman military who sought to define and defend it. So too for modern scholars who have been studying the various Roman frontiers which resulted from that occupation for over a century. Although Romania does not lack studies of the Roman military system (e.g. Gudea 1979; 1995; 1997a; 1997b; Zahariade 1988; Bogdan-Cătăniciu 1981; 1997; Nemeth 2005; Nemeth et al. 2005), it has failed to develop a unitary research agenda or consistent methodologies of data recovery, prospection and excavation. Meanwhile the disproportionate distribution of research interest focusing on a few sites or areas has produced a highly biased perception of the system as a whole. Despite this history of research, at the beginning of the 21st century there remain important gaps in our knowledge of the extent and complexity of Roman frontier installations, the chronology of their construction and occupation, their function and their socio-cultural and ecological impact.

The important contribution of aerial reconnaissance to the identification of new sites and wider archaeological research themes, particularly in the Roman period, is well attested in Western Europe (e.g. Jones 2005), but has seen only limited application in Romania. Aerial photographs specially taken for him by the German air force in 1918 were employed by Schuchhardt, at what was a very early date in the development of the technique, to check his own ground-based survey of the Valu lui Traian frontiers in Dobrogea (1918). However, little use was made of aerial photography thereafter, with two notable exceptions: Bogdan-Cătăniciu used archival vertical photographs in her studies of the frontiers along the Olt river and the *Transalutanus*, and in her reconsideration of the Valu lui Traian (1981; 1996); while Ştefan applied photo-interpretation of oblique and vertical aerial photographs both to document and add new information on several Roman military sites, their setting and immediate surroundings, and in his synthetic analysis of the Roman conquest of Dacia (1974; 1986; 2005). Even so, most aerial photography of Roman military sites has focused exclusively on known sites primarily for the purposes of illustration, rather than undertaking aerial reconnaissance, that is seeking to discover new sites or gather new information on known sites. More recently, since the introduction of the technique of aerial reconnaissance to Romania by the authors and the more ready availability of satellite imagery on-line, interest has been re-ignited. For example, Crăciun (2009) has used Google Earth imagery and Romanian orthophotos to discuss several new sites in Dobrogea, including three possible Roman forts (but see below).

Methodology[1]

The authors began a programme of aerial reconnaissance in Romania in 1998 (e.g. Hanson / Oltean

[1] This work was variously supported by the Leverhulme Trust, the British Academy, the Romanian Ministry for Education and Research (STRATEG project), and most recently by the European Union FP7 funded Archaeolandscapes Europe (ArcLand) project.

2003). This has continued over the past 14 years with different intensity across various areas which experienced the Roman military presence, such as the Mureş Valley and Western Transylvania, the Olt river valley and Western Muntenia, and Southern and Northern Dobrogea (**fig. 1a**). Aerial reconnaissance involves flying in a light aircraft at a height of *c.* 500 m and recording any man-made features observed, whether extant or completely buried by repeated ploughing and visible only as differential growth patterns in agricultural crops caused by buried remains (cropmarks). The flight path is determined in order to maximise the potential visibility of sites, particularly in relation to weather patterns and the local agricultural regime. Such observer-directed reconnaissance is aimed at recovering archaeological information when the growing crop is most sensitive to any buried remains, which occurs when the crop is experiencing moisture stress. However, as the spatial coverage of reconnaissance flights is highly subjective, we have gradually added more systematic, non-archaeological coverage to our study wherever this is available, such as vertical aerial photographs (e.g. Romanian cartographic orthophotos of 2005 and 2008-2010) and high-resolution commercial satellite imagery (e.g. Quickbird, Geoeye). In addition, German and Allied historical aerial photographs from the Second World War and Corona satellite imagery from the Cold War, both predating the extensive landscape development of the later 20th century, have been consulted in order to help identify sites and features which have since disappeared completely under such developments (**fig. 1b**). More recently LiDAR technology has been tested successfully in order to study extant upland archaeology, particularly under forest cover.

All data has been subject to a rapid assessment, interpretation and mapping, and integrated with published archaeological evidence, historical maps and with natural landscape features using a Geographical Information System (GIS). This represents the most extensive initiative to provide detailed mapping of the archaeological landscape ever undertaken in Romania, allowing Roman military sites to be better presented within their strategic and topographic context. The resulting dataset is able to assist academic research, contribute to the long-term monitoring and management of sites, including any threats to their preservation, and facilitate public dissemination of information about the archaeology of the Roman *limes* in Romania.

Overview of Results

With over 100 military bases known in the former territory of Dacia alone, Romania witnessed a large Roman military presence (Gudea 1997a; 1997b). Most fort sites were located on the fringes of the two provinces, along natural or man-made frontier lines, though Dacia seems also to have been provided with military bases in the interior in contrast to Dobrogea in Lower Moesia. Apart from documenting over 50 known Roman military bases and their surroundings from the air, the application of aerial and satellite remote sensing and GIS in Romania over the past 14 years has enhanced our appreciation of the Roman *limes* in this part of the Empire in numerous ways, some of which are considered below.

Fort Plans and Layout

Roman military sites have long been a focus of interest in Romania and have attracted significantly more research attention over the last century than most other types of sites, particularly rural settlements. Nonetheless, because of outdated methodologies and the limited availability of resources compared to the number of sites in need of investigation, understanding of the occupation and layout of forts is still interpreted on the basis of remarkably limited excavation. At a number of forts, buried internal structures became visible from the air through cropmarks, allowing the reconstruction of their plan to variable extents (**fig. 2**). At *Micia*, for example, nine parallel internal road alignments were identified. Their regular spacing suggests that they were in contemporary use and laid out to provide ease of access to cavalry stable barracks laid out *per scamna*, with a larger space for the central buildings. Although of comparable dimensions and also occupied by an *ala milliaria* (*Ala I Batavorum*), the four internal road alignments and barrack blocks revealed by cropmarks at Războieni, especially in the eastern sector of the fort, suggest a different organisation of internal space, with the accommodation blocks running *per strigas*. A few internal wall partitions were apparent, and also shorter features perhaps indicating the presence of stone-lined drains for the pits collecting horse urine which would have been provided inside stable-barracks (see Hodgson 2003, 37-90). Two buildings were also located in the western sector. Though their function is yet uncertain, they do not look like barracks. The layout of the much smaller fort of the *numerus Britannicianorum* at Cigmău was much clearer. The irregular shape of the fort enclosure and the orientation of the main internal roads are at odds with

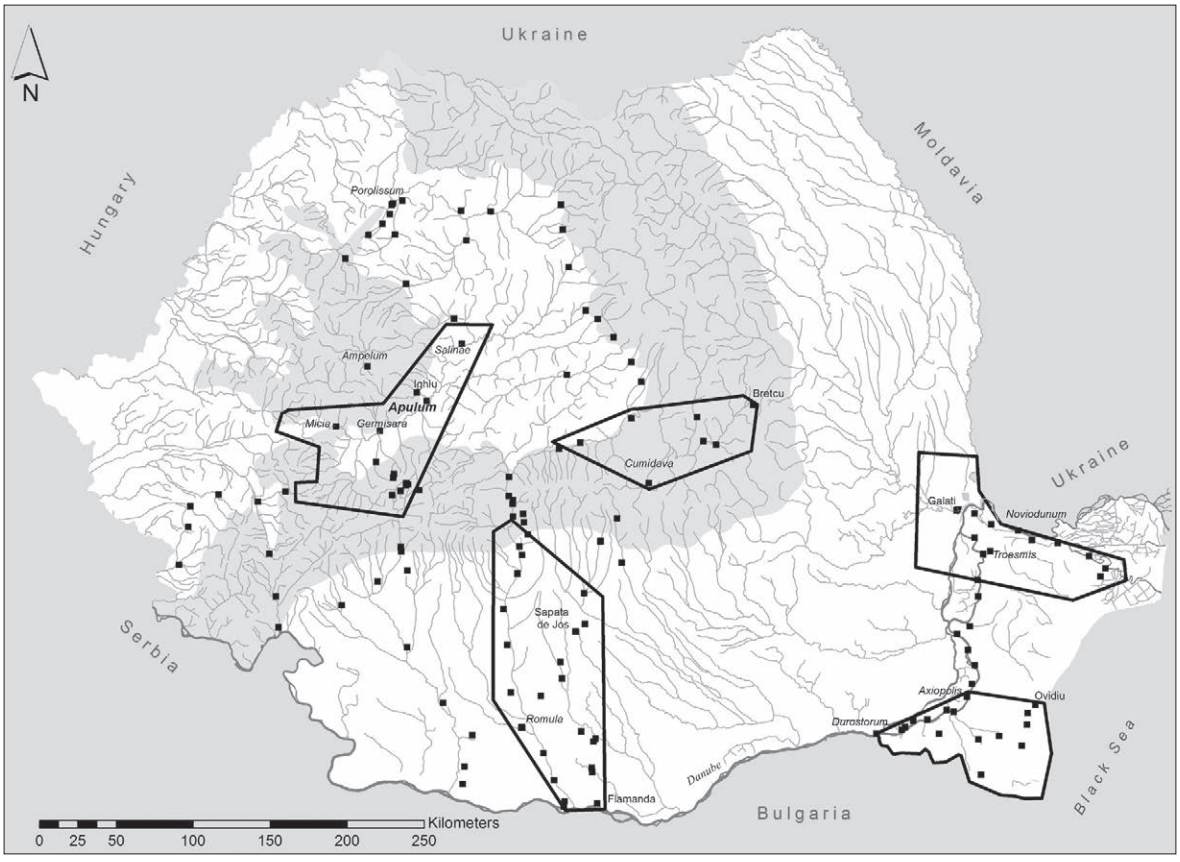


Fig. 1a. Map of areas of aerial reconnaissance in Romania

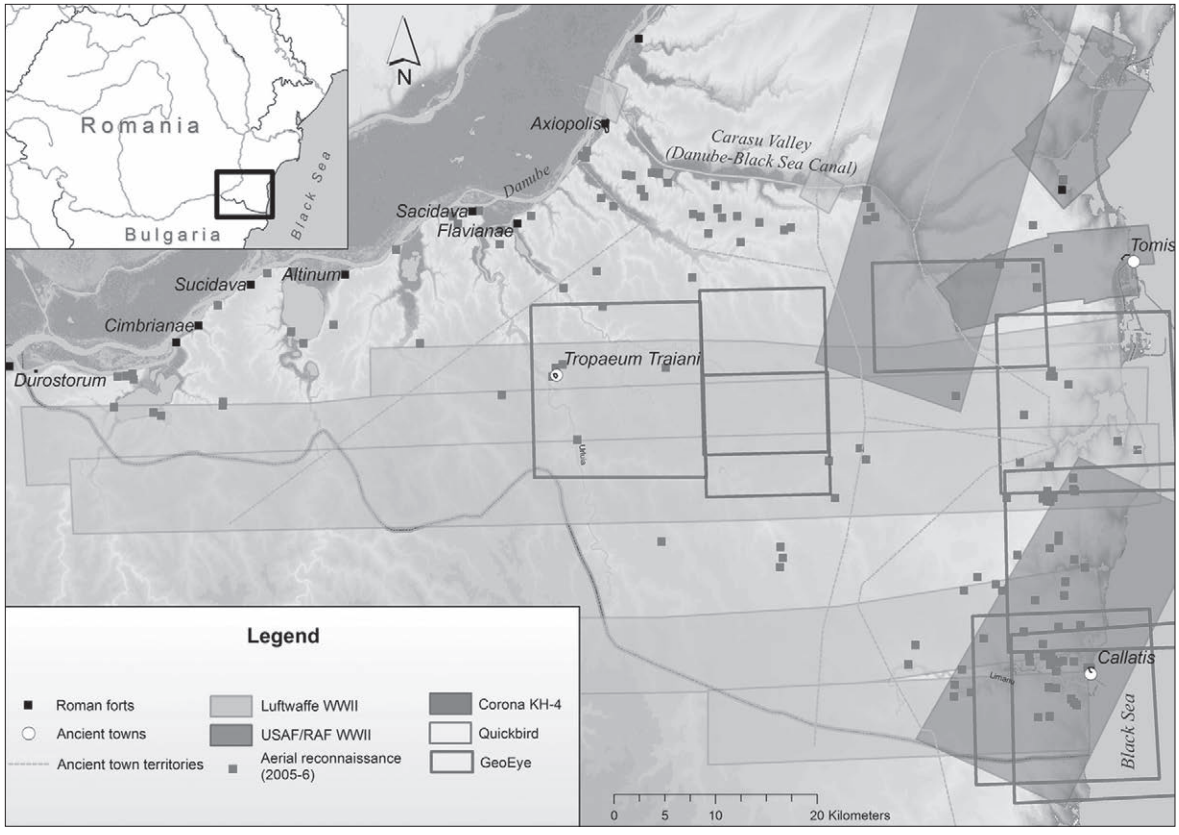


Fig. 1b. Map of aerial and satellite coverages in Northern (Romanian) Dobrogea

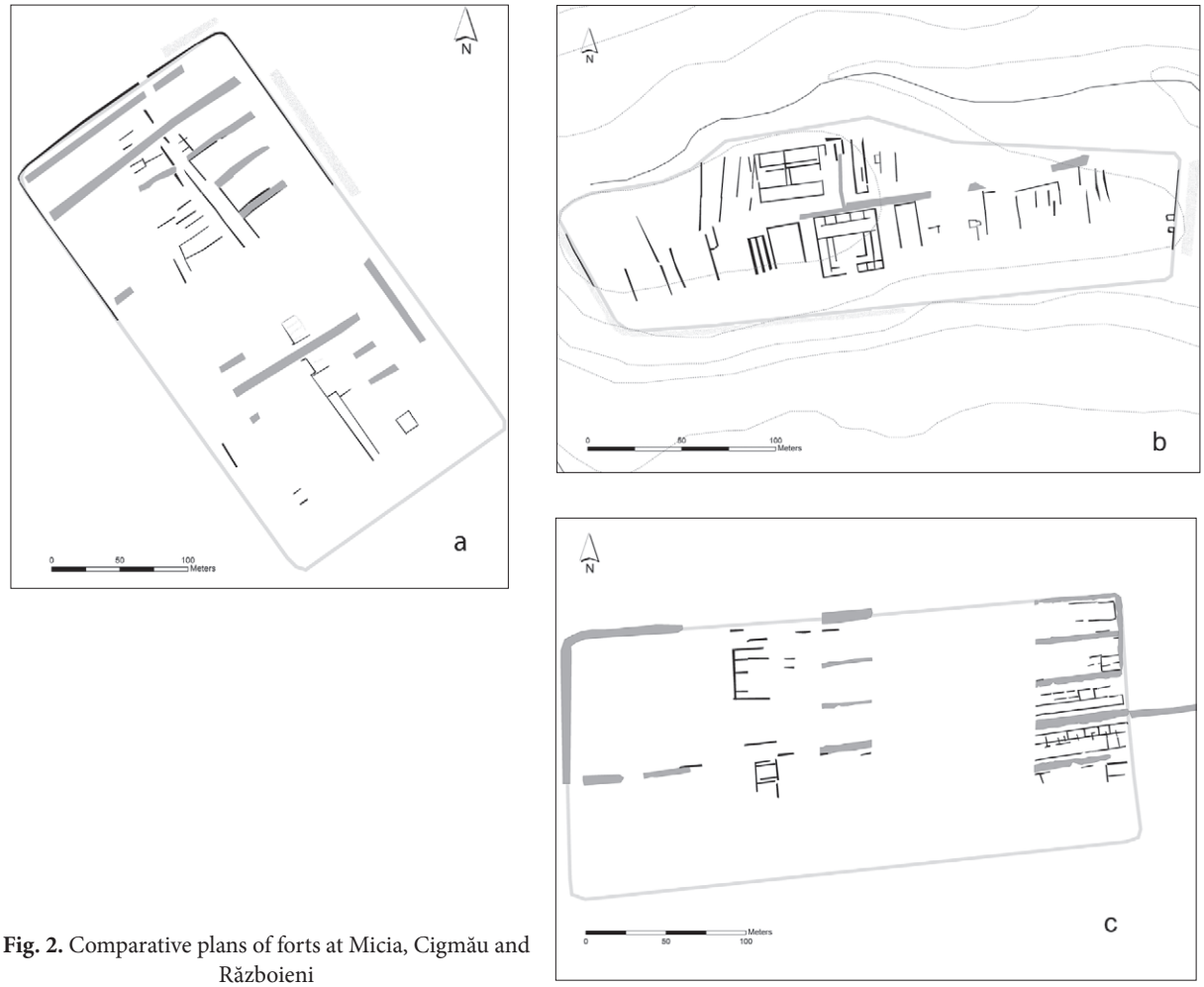


Fig. 2. Comparative plans of forts at Micia, Cigmău and Războieni

any standard fort plan and appear to have been determined by the topography of the promontory on which the fort was located. The central range of stone buildings, the *principia* flanked by three granaries with the probable *praetorium* to the north, were readily apparent as parch marks from the air, the former subsequently confirmed by excavation by Deva Museum (http://www.cimec.ro/scripts/ARH/Cronica/cercetari.asp # 1205; 1374; 1959; 3130; 3634; 3860). There was less clear-cut indication of buildings elsewhere in the fort, with only a few wall alignments indicating with some approximation the space reserved for the barracks, which excavation suggested were of timber construction (http://www.cimec.ro/scripts/ARH/Cronica/detaliu.asp?k=1205). Thus, the plans recovered from the air are still incomplete largely because the uneven response of the varied crops covering the remains at the time of photography or the state of survival of the archaeological deposits, but also the variety of building techniques employed. Stone foundations seem to be more easily visible as negative cropmarks in Transylvania (Oltean / Hanson 2007a), with the construction trenches for timber buildings generally more difficult to identify from the air. Nevertheless, the surveys undertaken so far provide sufficient evidence to document that variety in both spatial organisation and building techniques was far more common than previously appreciated and suggest that only extensive geophysical and aerial prospection guiding excavation in a more systematic way in the future is likely to reveal such patterns across the province as a whole.

New Discoveries

Aerial photographs and satellite imagery have helped us augment the list of sites known, with nine possible new forts and many more fortlets, particularly in Dobrogea and along the Valu lui Traian (see below). At Flămînda, north of the Danube at the southern end of the *limes Transalutanus* (**fig. 3a and b**), a new fort, and possibly a second, was identified during aerial reconnaissance in 2010. The fort is attached to the linear barrier immediately adjacent to the supposed fort site previously identified from topographical survey and aerial photographs, whose

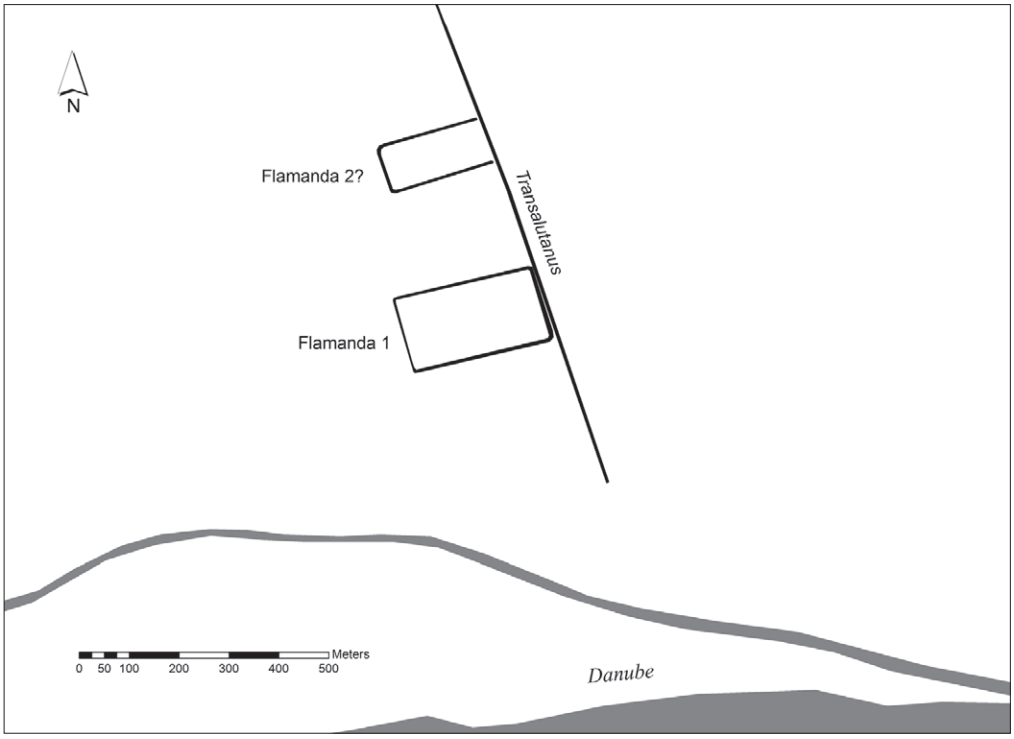


Fig. 3a. Location of new forts on the *limes Transalutanus* at Flămînda

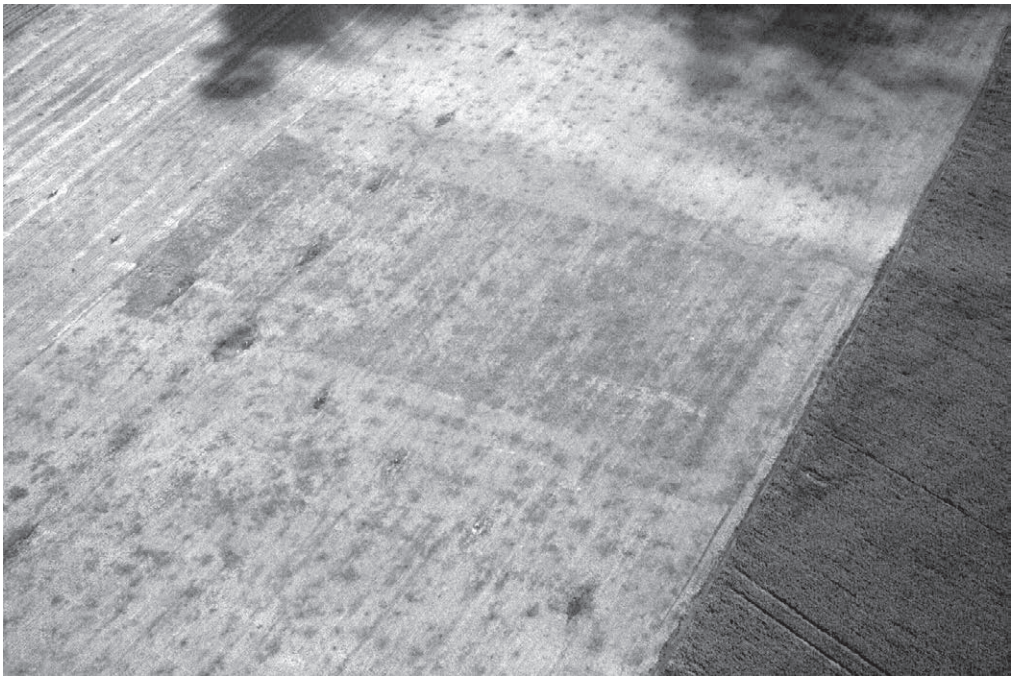


Fig. 3b. Oblique aerial photograph of fort 1

rampart was investigated by Bogdan-Cătăniciu (1981, 33-4; 1997, 90-1). A re-examination of the area from the air suggests that the curvilinear feature abutting the edge of the scarp overlooking the Danube, which has long been assumed to define the fort (Bogdan-Cătăniciu 1981, fig. 59A), is a geomorphological feature.

Over 175 km to the east at Flămînda, two other fortifications, possibly of Roman and Late Roman date, have been identified from examination of satellite imagery and of Romanian orthophotos of 2005 some 25 km north of the Danube, just to the south of the Vâlcelele village (Călăraşi county) (**fig. 4a**). One is a large sub-rectangular enclosure measuring

some 500 by 350 m internally, with a second much smaller (*c.* 45 m square internally) located immediately to the west. While a number of new fortifications of uncertain date have been recorded on the promontories along the Danube shore between *Durostorum* and *Axiopolis* in Dobrogea, at least one new small Late Roman fort has been identified further north, at Peceneaga 18.7 km south of *Troesmis* and 10 km north from *Beroe*. A further new site located south of the village of Greci and 4.6 km to the east of *Troesmis* has the size and morphology typical of a late Roman fort (*c.* 30 m by 40 m with projecting towers) similar to Peceneaga and Poiana. A possible temporary camp, which once stood on the shores of the Black Sea in the immediate vicinity of a Late Roman *burgus* at Ovidiu (later Lake Siutghiol, north of *Tomis*), was visible on aerial photographs taken in May 1944 (Oltean / Hanson 2007b, Fig. 5), but has since been destroyed by the expansion of the modern village. However, closer examination of the morphology of a small rectangular enclosure at Almalău on the shores of Lake Bugeac, previously reported as a military structure (Oltean / Hanson 2007b, 5; Crăciun 2009, 360-361), revealed that it was not a Roman fortlet as it contained the remains of a large *tumulus*. An important addition to previous understanding was the discovery of Roman forts at Pietreni (Oltean / Hanson 2013, 326 and fig. 18.5a), Cobadin, Cumpăna, Topraisar and Căscioarele (**figs. 4b, 5a and b**). These were situated in the interior of Dobrogea away from the provincial boundaries to provide internal security. The subrectangular enclosure at Căscioarele is sufficiently large to compare it with the probable temporary camp at Ovidiu on the Black Sea shore and with the larger enclosure at Vâlcelele beyond the Danube. The dimensions of the others vary (Cumpăna *c.* 191 m by 181 m; Pietreni *c.* 165 m by 175 m; Cobadin *c.* 126 m by 137 m; Negureni *c.* 77 m by 84 m; Topraisar *c.* 230 m by 194 m). Although the defences of each enclosure are clearly visible, in no case have internal structures yet been identified, which may indicate that they were constructed in less permanent materials. Future ground-based prospection and excavation could clarify this matter.

Topographic and Logistical Location

Precisely locating sites has been a problem in the past. In Romanian publications fort locations have tended to be described in vague terms and the scale of most distribution maps has made it difficult to find them on the ground or consider them appropriately within their natural and archaeological setting. Sometimes this has even resulted in confusion and misplacement in studies rightly seeking to address the latter issue (e.g. Cigmău in Gudea 1997a, fig. 99; *Troesmis* in Gudea 1995, fig. 45). One of the most important outcomes of our aerial research so far, therefore, has been the clarification of the exact location of those military bases and their accurate plotting within the GIS. This allows us to better understand their positioning within the landscape and their overall function as a system. We have observed, for example, that along the Mureş valley in Transylvania and the Danube in Dobrogea, topographic setting, access to both road and river transportation and regular spacing seem to have played a key role in determining fort locations (**fig. 6**). In Dobrogea most forts on the north-south stretch of the Danube between *Durostorum* and *Arrubium* are located on natural promontories fringing the river and its flood-exposed meadows, overlooking its main bends and its confluences with secondary valley mouths. Also, with few exceptions, the forts are facing upstream towards the south. Although the full chronology of their occupation remains to be established, from their spatial distribution alone it is clear that the Danube shore between *Durostorum* and *Axiopolis* was far more densely fortified than the sector further north, which may have a bearing on the operation of the Valu lui Traian linear frontier (see below).

Although in the Mureş Valley more evidence hinting at the layout of Roman roads came from historical maps than from archaeological evidence (see e.g. Oltean 2007, fig. 1/9), in Dobrogea aerial and satellite imagery have provided extensive evidence outlining systematically not only the 'military road' along the frontier, but the extent of the ancient road network across the province as a whole. Moreover, the position of all the newly identified inland forts indicates that they were clearly linked to road traffic. The most systematic traffic surveillance seems to have been along the road between *Durostorum* and *Tomis* via *Tropaeum Traiani*. Along it the forts at Cumpăna, Cobadin and Pietreni seem to have been intended to break the distance from *Tomis* to *Tropaeum Traiani* into more or less even sectors of approximately 13 km, while Negureni provided the necessary interval between *Tropaeum Traiani* and the forts on the Danube.

Linear Barriers

Our research has substantially increased the levels of information available in under-researched *limes* zones in the Lower Danube area, such as that con-



Fig. 4a. New forts/fortlets at Vâlcelele (© 2013 Google; © 2013 Cnes/Spot)

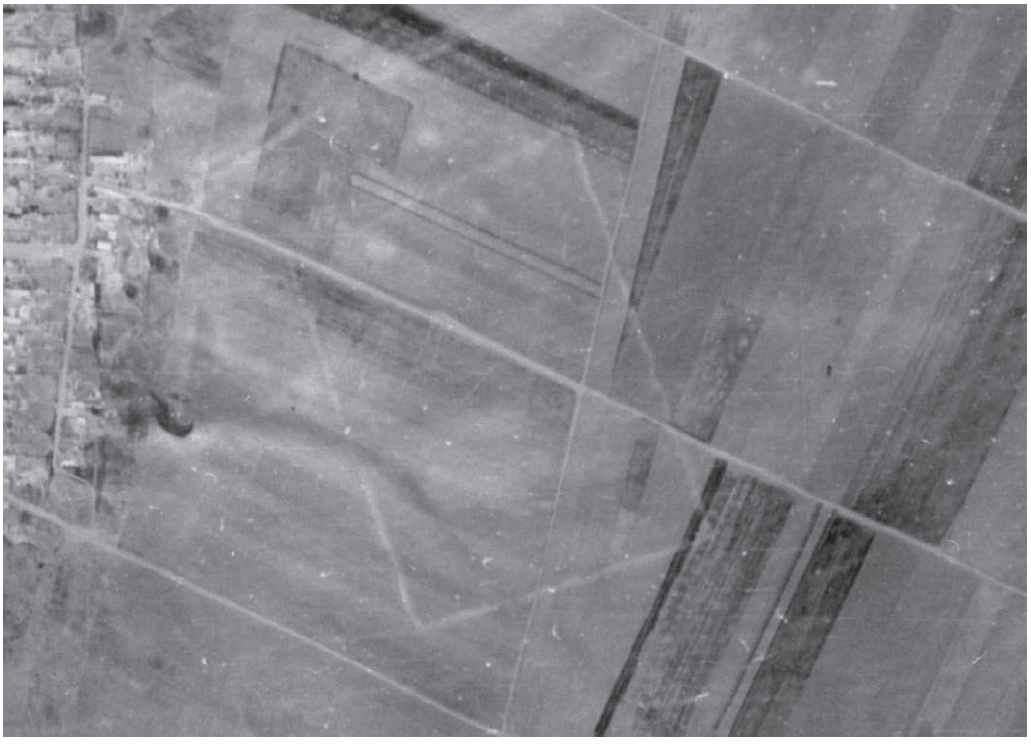


Fig. 4b. New fort at Căscioarele (extract from GX 22250 Frame 057 April/May 1944. Licensor NCAP/aerial.rcahms.gov.uk)

trolling the confluence of Siret, Prut and Danube in the area of modern Galaţi, or the linear defensive systems known as the Valu lui Traian. Both these examples of linear fortifications were known and subject to early topographic surveys (e.g. Tocilescu 1900; Schuchhardt 1918). However, insufficient was known about the functioning of the former to connect it to the Danube *limes* system, while the Roman

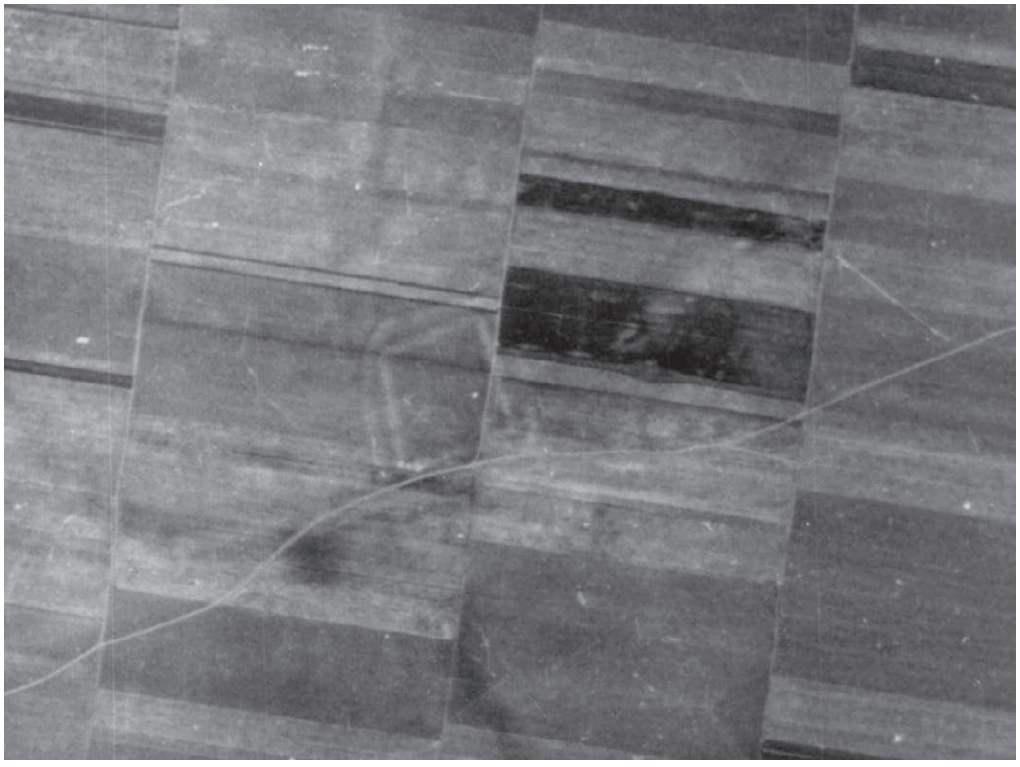


Fig. 5a. New fort at Cobadin (extract from GX 22249 Frame 054 May 1944) (Licensor NCAP/aerial.rcahms.gov.uk)



Fig. 5b. New fort at Topraisar (extract from GX 22250 Frame 150 April/May 1944) (Licensor NCAP/aerial.rcahms.gov.uk)

date of the latter had been dismissed since the 1950s. Since more detailed consideration of our work on these frontier lines has been published elsewhere (Ţentea / Oltean 2009; Oltean 2013; Hanson / Oltean 2012), they will be considered only briefly here.

Located some 12-14 km beyond the point where the Danube bends to the east at Galaţi, an earthen rampart and ditch extended for some 20 km in an

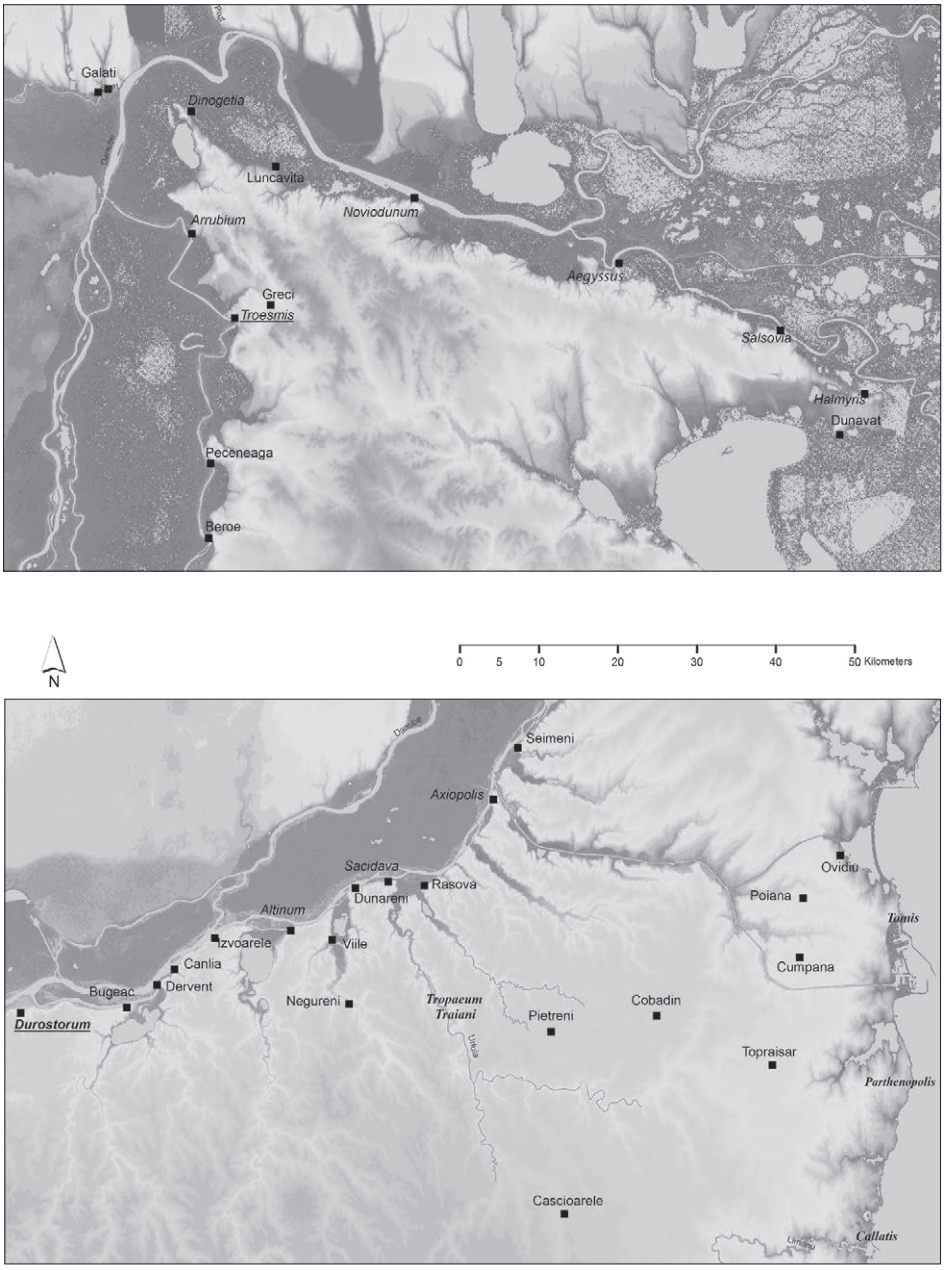


Fig. 6. Maps of Northern and Southern part of Northern (Romanian) Dobrogea showing the location of forts against their topographical background

arc between the modern villages of Traian on the Siret to Tulucești overlooking the Prut valley. It thus provided a foothold on the raised plateau on the left bank of the Danube, allowing surveillance of movement along the two most important river valleys of Moldavia and control of the problematic marshes beyond the Danube. Our survey confirmed the absence of military installations along the rampart, but identified at least two probable fortlets (from the 15 rectangular enclosures mapped) within the enclosed area to augment the two previously recognised examples at Dunărea and Bărboși. Furthermore, it served to emphasise the density of ancient settlement on the plateau, exemplified by the large number of funerary barrows and probable road lines recognised.

Cutting across the Dobrogea from the Danube to Black Sea coast near Constanța (*Tomis*), covering an distance of up to 61 km (38 miles), are three separate but interlinked linear fortifications: a Stone Wall, a Large Earthen Wall and a Small Earthen Wall. Our re-assessment has demonstrated that the first two of those lines represent a well-preserved and chronologically complex Roman frontier system, the most easterly example of a man-made barrier in the Roman Empire. The

earlier earthen rampart has a series of at least 32 associated forts (one of which is a new aerial discovery) and 31 attached fortlets (three of which are new aerial discoveries); while the stone wall had at least 21 attached forts (one of which was a new aerial discovery)[2].

Associated Civilian Settlements (*Vici*)

No less important to understanding the development of the province of Roman Dacia is the role of the military in determining the character of the post-conquest settlement pattern. At least 27 military *vici* are attested in Roman Dacia (see Hanson / Oltean 2001, 123). Very few have been extensively excavated and for even fewer do we have overall site plans that would enable us to gain a better appreciation of their full extent and layout. This is one aspect where aerial photography can provide particular assistance, though, since more detailed consideration of some of our work has been published elsewhere, it will be considered only briefly here.

Regular reconnaissance and subsequent mapping of results has greatly enhanced our understanding of the character and extent of the military *vici*, particularly at three sites: *Micia*, Cigmău and Războieni (Hanson / Oltean 2001; Oltean et al. 2005; Oltean 2007, 155-64). What are particularly striking are the density, organisation and sheer size of the settlements. A considerable degree of pressure on available space is apparent, with buildings quite close together and encroaching right up to the defences of the fort at both *Micia* and Cigmău. The layout of the settlements indicates a considerable level of planning control and organisation, with a range of structures represented. Finally, the settlements extend for between 350 m and 600 m on at least two sides of each fort. On the basis of this evidence, such military *vici* should be categorised as the equivalent of small towns.

Conclusions

In Romania, as in many other provinces of the Roman Empire, aerial reconnaissance has demonstrated its ability to expand the database of sites. But to characterize it as merely a more efficient means of discovery is to underestimate its potential. By careful mapping of the results and the application of a more analytical approach to their interpretation, it can greatly enhance our understanding of the layout of sites, their interrelationships and how they fit within the wider topographical, cultural and military landscape.

Bibliography

Bogdan-Cătăniciu, I.O.M. 1997. Muntenia în sistemul defensiv al Imperiului Roman: sec. I-III p. Chr; Wallachia in the defensive system of the Roman Empire 1st to 3rd centuries AD. Alexandria.

Bogdan-Cătăniciu, I. 1996. I valli di Traiano nella Dobrugia. Considerazioni sulle fotografie aeree. In: Porumb, M. (ed.). Omaggio a Dinu Adameşteanu. Cluj-Napoca. 201-225.

Bogdan-Cătăniciu, I.O.M. 1981. Evolution of the system of defence works in Roman Dacia. Oxford.

Crăciun, C. 2009. Structuri antice descoperite prin fotointerpretarea imaginilor aeriene. – Pontica 41, 357-392.

Gudea, N. 1997a. Der Dakische Limes: Materialen zu seiner Geschichte. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 44, 1-113.

Gudea, N. 1997b. Der Meseş-Limes. Die vorgeschobene Kleinfestung auf dem westlichen Abschnitt der Grenze der Provinz Dacia Porolissensis. Zalau.

Gudea, N. 1995. Der Untermoesische Donaulimes und die Verteidigung der Moesischen Nord- und Westkuste des Schwarzen Meeres. Limes et litus Moesiae Inferioris (86-275 n. Chr.). – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 52, 319-566.

Gudea, N. 1979. The defensive system of Roman Dacia. – Britannia 10, 63-87.

Hanson, W.S. / Oltean, I.A. 2012. The 'Valu lui Traian': a Roman frontier rehabilitated. – Journal of Roman Archaeology 25, 297-318.

Hanson, W.S. / Oltean, I.A. 2003. The identification of Roman buildings from the air: recent discoveries in Western Transylvania. – Archaeological Prospection 10, 101-17.

Hanson W. S. / Oltean, I.A. 2001. Military vici in Roman Dacia: an aerial perspective. – Acta Musei Napocensis 38, 123-134.

Hodgson, N. 2003. The Roman fort at Wallsend (Segedunum): Excavations in 1997-9. Newcastle-upon-Tyne.

Jones, R.H. 2005. The advantages of bias in Roman studies. In: Brophy, K. / Cowley, D. (eds.). From the air: understanding aerial archaeology. Stroud. 86-93.

Németh, E. 2005. Armata în sud-vestul Daciei romane (Die Armee im Südwesten des römischen Dakien). Timişoara.

Németh, E. / Rustoiu, A. / Pop, H. 2005. Limes Dacicus Occidentalis. Die Befestigungen im Westen Dakiens vor und nach der römischen Eroberung. Cluj Napoca.

Oltean, I.A. 2013. A lost archaeological landscape of the Lower Danube Roman limes on aerial photographs of World War

[2] The number of forts recorded by the two early topographic surveys differs and is further confused by the inclusion of enclosures which are dubious or clearly not associated with the frontier. The figures put forward here represent the minimum number of confirmed sites.

Two. In: Hanson, W.S. / Oltean, I.A. (eds.). Archaeology from Historical Aerial and Satellite Archives. New York. 147-164.

Oltean, I.A. 2007. Dacia. Landscape, colonisation, Romanisation. London.

Oltean, I.A. / Hanson, W.S. 2013. Integrating aerial and satellite imagery: discovering Roman imperial landscapes in southern Dobrogea (Romania). In: Hanson, W.S. / Oltean, I.A. (eds.). Archaeology from Historical Aerial and Satellite Archives. New York. 315-336.

Oltean, I.A. / Hanson, W.S. 2007a. Cropmark formation in 'difficult' soils: case studies from Romania. In: Mills, J. / Palmer, R. (eds.). Populating clay landscapes. Stroud. 75-78.

Oltean, I.A. / Hanson, W.S. 2007b. Reconstructing the archaeological landscape of Southern Dobrogea: integrating imagery. In: Ehlers, M. / Michel, U. (eds.). Remote Sensing for Environmental Monitoring, GIS Applications, and Geology VII, Proceedings of SPIE Vol. 6749, # 674906.

Oltean, I.A. / Rădeanu, V. / Hanson, W.S. 2005. New discoveries in the military vicus of the auxiliary fort at Micia. In: Visy, Z. (ed.). Limes XIX. Proceedings of the XIXth International Congress of Roman Frontier Studies. Pecs. 351-356

Schuchhardt, C. 1918. Die sogenannten Trajans-Walle in der Dobrudscha. Berlin.

Ştefan, A.S. 2005. Les guerres daciques de Domitien et de Trajan: architecture militaire, topographie, images et histoire. Paris.

Ştefan, A.S. 1986. Archéologie aérienne en Roumanie. Photo-interpretation 25 (1 and 2) (special edition). Paris.

Ştefan, A.S. 1974. Recherches de photo-interprétations archéologique sur le limes de la Scythie Mineure à l'époque du Bas-Empire. In: Pippidi, D.M. (ed.). Actes du IXé Congrès International d'Études sur les Frontières Romaines. Bucharest. 95-108.

Ţentea, O. / Oltean, I.A. 2009. The Lower Danube Roman limes at Galaţi (Romania). Recent results from excavation and aerial photographic interpretation. In: Morillo, Á. / Hanel, N. / Martín, E. (eds.). Limes XX. XX Congreso Internacional De Estudios Sobre La Frontera Romana. XXth International Congress of Roman Frontier Studies León (España), Septiembre, 2006. Madrid. 1515-1523.

Tocilescu, G.G. 1900. Fouilles et recherches archaeologiques en Roumanie. Bucharest.

Zahariade, M. 1988. Moesia Secunda, Scythia **şi** Notitia Dignitatum. Bucharest.

Ioana A. Oltean Lic Hist MA PhD FSA
Department of Archaeology,
University of Exeter,
United Kingdom
I.A.Oltean@exeter.ac.uk

William S. Hanson BA PhD FSA
Archaeology, University of Glasgow,
United Kingdom
William.Hanson@glasgow.ac.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

POROLISSUM A Roman Fort and Town on the Northern Frontier of the Roman Empire[1]

Coriolan Horaţiu OPREANU / Vlad-Andrei LĂZĂRESCU

Roman *Porolissum* was set up immediately after Trajan conquered *Decebalus*' Dacian Kingdom in AD 106. The name *Porolissum*, mentioned in Ptolemy's *Geography* and recorded by several Roman inscriptions coming from the site, is of local Dacian origin, being probably the name of the nearby native settlement from the *Măgura* hill. The main Roman military base was placed on the *Pomăt hill*, a strategically key point for blocking the most important route towards the province, across the *Ortelec* Valley. This passage was the only important cross over the Western Carpathians used during Antiquity. Controlling this road was a strategic aim for the Romans and for the establishment of the defence system of the frontier.

Because of this reason, huge military defence works were performed in the area. Beside the two already mentioned forts, the top hills were provided with many signalling watchtowers composing a unique surveillance system, other valleys being blocked by stone or turf and wood walls (Gudea 1997b; Matei 2007). *Porolissum* remained the most important military base of the Dacian frontier with a garrison composed of both legionary detachments and several auxiliary units' all-around 3000 soldiers (Gudea 1989, 26-33; Gudea 1997a, 46-50). Soon, the civil settlement developed in the shadow of the two forts started growing (Gudea 1986; Tamba 2008). It became also a production centre due to the great contacts with the barbarian tribes situated in its vicinity (Opreanu 2011).

Starting with 2010, Dr. Coriolan H. Opreanu from the Institute of Archaeology and History of Art of the Romanian Academy was appointed the new director of the site. The old projects, which were still in progress at that time, were continued, for example the Romanian-German "Mithras Project" (Döhner *et alii* 2010; Döhner *et alii* 2011). A new research project (2010-2015) based on systematic excavations inside the Roman fort was initiated with a main objective to establish the relationship between the so-called "late buildings" situated in the vicinity of the defence wall and the inner structure of the fort, as well as their chronological sequence. Recently (2012) another research project, "Seeing the Unseen. Landscape archaeology on the northern frontier of the Roman Empire at *Porolissum*", was granted by the Romanian National Research Authority to the same archaeological team working at *Porolissum* (2012-2015, director of the project Dr. Coriolan H. Opreanu). The project will reveal the human impact upon the region by focusing on the huge changes of the landscape which have taken place immediately after the Roman conquest, when the entire defence system of the province was created. It is the novelty of such a perspective, based on interdisciplinary studies (geophysical surveys, palynology, landscape archaeology, satellite remote sensing, LiDAR, GIS models etc.), that makes this approach innovative for this area.

New Excavations in the Roman Fort at *Pomăt Hill*

The big Roman fort at *Porolissum* has been intensively excavated, starting with 1939-1940 (C. Daicoviciu), 1943 (A. Radnóti), 1958-1959 (M.

[1] This paper has been completed due to the „*Parteneriate în domenii prioritare – PN II*" Program, supported by ANCS, CNDI – UEFISCDI, project # 0924.

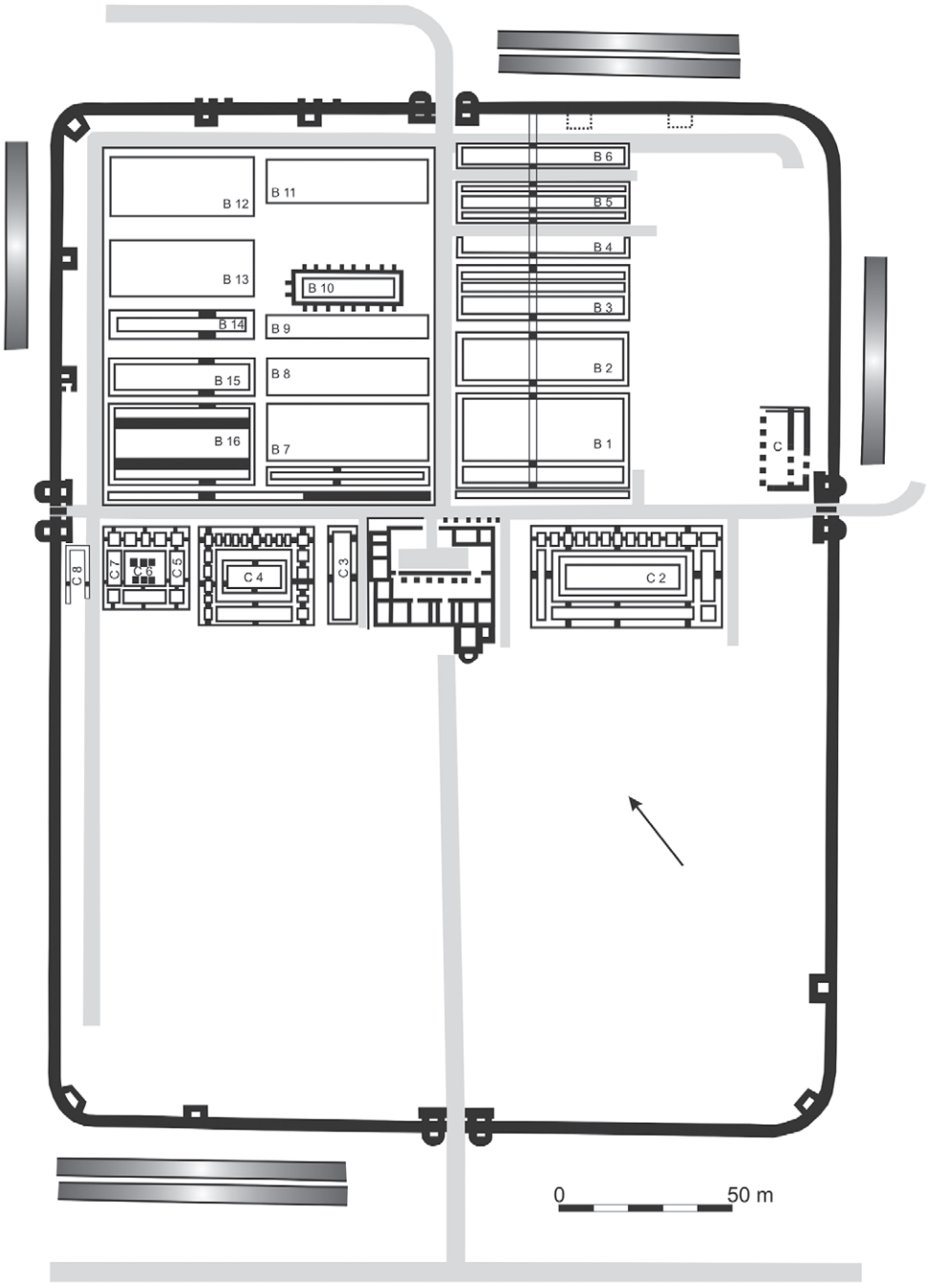


Fig. 1. General plan of the fort from *Pomăt* hill (after Gudea 1997)

Macrea), 1977-1992 (E. Chirilă and N. Gudea) and 2009-2010 (N. Gudea). In spite of these remarkable efforts, there are still many unanswered questions regarding the inner structure, function and chronological sequence of the buildings. One of the insufficiently solved issues was the problem of the so-called "late buildings". N. Gudea (1997a, 41-42) trenched several buildings, all having something in common, situated in the neighbourhood of one of the gates and overlapping the *via sagularis* and partially the turf rampart behind the wall (buildings C1, C8 and B6). Even their chronology was not based on direct archaeological evidence; it was considered that their position is the proof of a late period (after the middle of the 3rd century AD) for their construction (Gudea 1997c, 49).

Trying to check this hypothesis, between 2010 and 2012 excavations have been carried out for the first time in one of the so-called "late buildings", namely building B6. It was identified by Gudea's trench 71/1983, which crossed the entire *praetentura dextra*. Building B6 is placed on the northern

side of the fort, very close to the *porta praetoria* (**fig. 1**). Simultaneously with the excavations, a series of geophysical surveys were undertaken showing some faint possible contours of the building and the traces of another archaeological structure located near it. Right from the first campaign many unexpected results came to light. The first preliminary conclusions were that the walls mentioned by N. Gudea had not been mapped correctly, with an error of approximately 7-8 meters. As a consequence, it was obviously necessary to establish their right position and dimensions and to reassess the whole sequence of buildings proposed by N. Gudea. The inner relative chronology of the structure consists of five archaeological layers, none of which has the characteristics of a road, meaning that *via sagularis* does not exist in this area of the fort. In the first layer a strongly profiled bronze brooch (Cociş type 8a11a1) well known in all the military sites of Dacia in Trajan's time and at the beginning of Hadrian's reign (Cociş 2004, 58) was found. During this time, it is not very clear what type of habitation was in the area. We need more data to determine, in the future, the beginnings of the site. At the moment there are two different opinions regarding this period. While N. Gudea (1989, 67) considers that the fort located on the *Pomăt hill* had approximately the same dimensions in its wooden phase as in stone, Al. V. Matei (2003, 284) strongly argues that during Trajan's reign a smaller wooden fort was situated more or less in the central part of the stone fort.

The most informative habitation layer inside the building was the third one, very rich in Roman military equipment items, weapons, glass, pottery and animal remains as well as stamped building material. A knee brooch (Cociş 2004, 94-95 type 19a6a1) and some Samian ware fragments are the main evidence for a late 2nd century – early 3rd century AD chronology. In the eastern half of the building B6 more than 100 round stone projectiles of approximately 10 to 14 cm in diameter were unearthed, used probably for fighting machines – a unique find of Roman archaeology in Dacia. The excavation performed in 2011and 2012 showed one of the structures visible in the geophysical survey was actually a defence tower along the precinct wall.

The final conclusions of the excavation are totally different from the old hypothesis. First of all, we managed to establish very precisely the dimensions and position of building B6. It was 25 x 10 meters long, situated between *porta praetoria* and the recently found defence tower, with only half the previously thought length. Beside the excavations, the fort from *Pomăt hill* was also surveyed using geophysical means by a group of specialists from ELTE University Budapest (Petrovszki et al. 2008; Döhner et al. 2011; the magnetic map for the whole fort forthcoming). The area of our excavation was also surveyed by electrical means, using electrical lateral profiling and electrical resistivity tomography profiles revealing the trajectory of the building's walls and their depth. Starting from these observations, it is very clear now that the whole inner structure and general plan of the fort still need to be reconsidered (**fig. 2**). The walls were built in *opus incertum* technique using stone from local quarries. An interesting feature was recorded at the corners of the building. They were made from limestone blocks of 0.90 x 0.60 x 0.40 meters, with their front parts chiselled. The same technique is known from the first stone phase of the headquarters building dated during Hadrian's time (Gudea 1997a, 24-25). As far as the function of building B6 is concerned, we can say at the moment that at least for some period at the end of the 2nd and beginning of the 3rd century AD, it was used for storing projectiles and maybe even war machines that needed to be very close to the rampart in case of unexpected attacks. It is highly probable that building B6 was already ruined before the end of the fort.

All these facts proved to be of great chronological importance for the construction of the fort's stone phase. The first argument for such an assertion is that building B6 was clearly taking into consideration the structure of the stone wall, being perfectly integrated between *porta praetoria* and the first defence tower mentioned above. Both the construction technique and the finds discovered inside building B6 show date from Hadrian's reign, as already proven for the *principia*. Therefore, we can say that the main stone structures of the fort were contemporary, having been erected sometime during the first half of the 2nd century AD.

New Data from the Roman Civilian Settlements

The civilian settlement at *Porolissum* was identified around the fort from *Pomăt hill*. Important research has been done in front of the western and northern sides of the fort, along the Imperial road that linked the Roman province with the barbarian world. A mile castle excavated was identified with the customs building (Gudea 1996). In this part were unearthed several temples and private buildings dur-

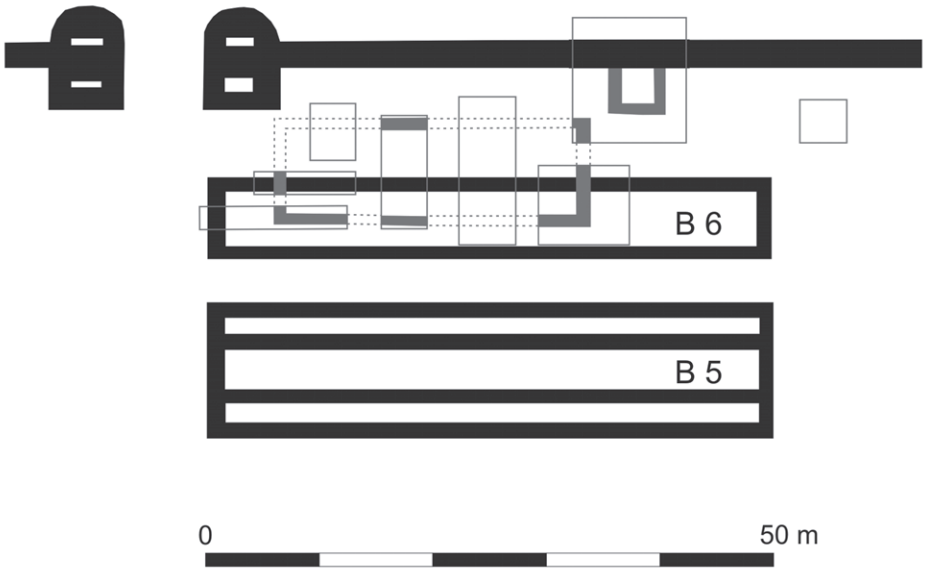


Fig. 2. New plan of the building B6 (Background map © of the authors. All rights reserved)

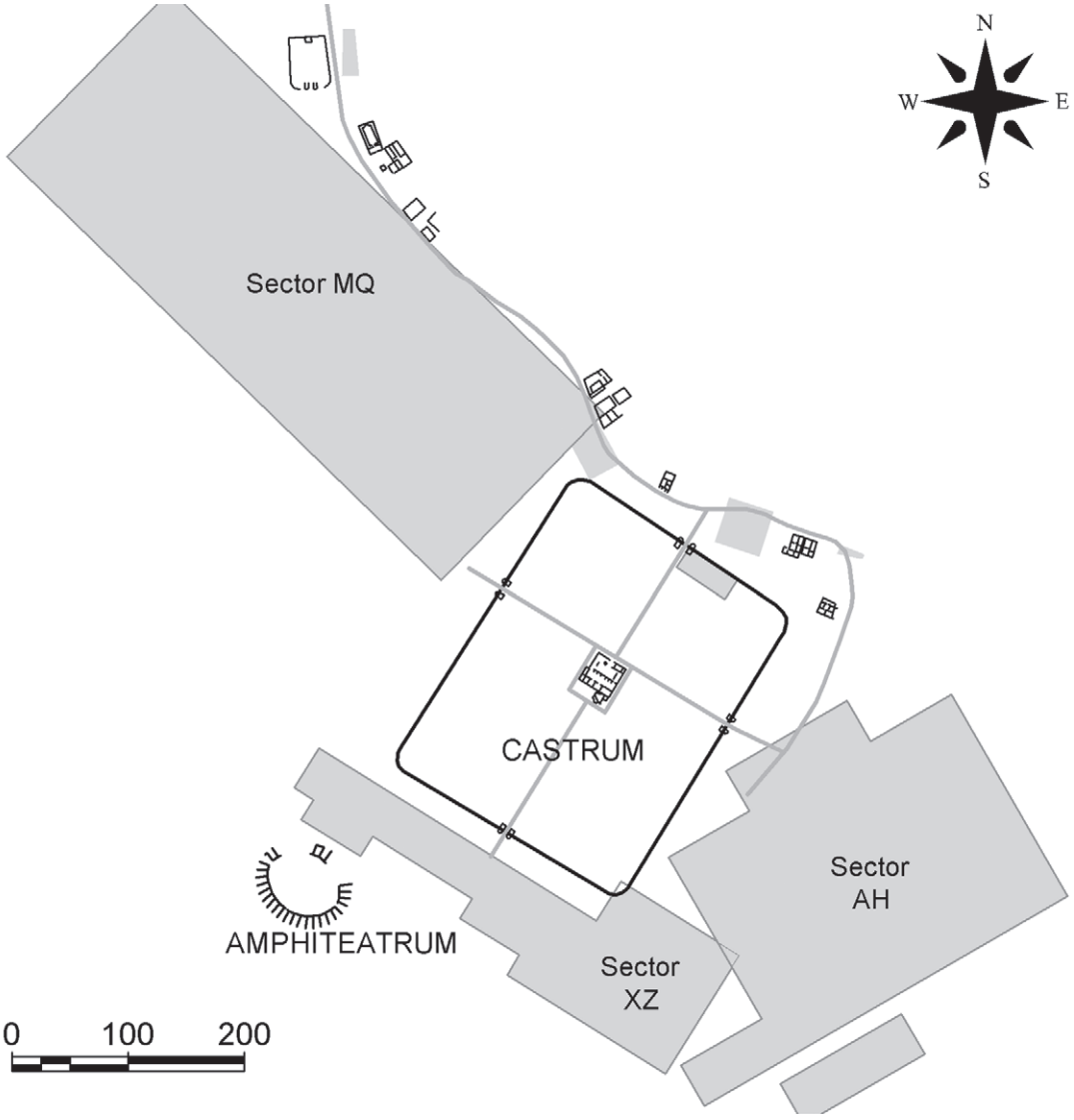


Fig. 3. General plan of the areas surveyed using geophysical methods (Background map © of the authors and Dan Ştefan. All rights reserved)

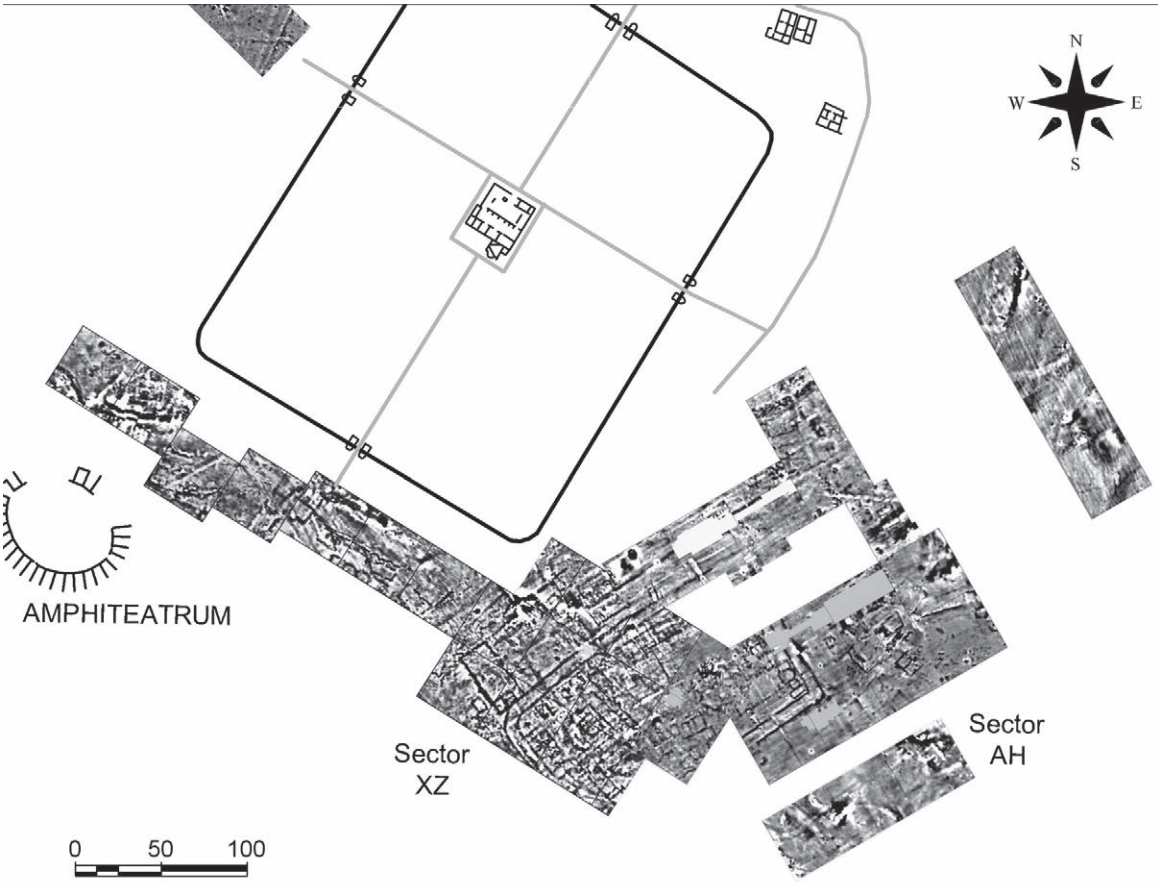


Fig. 4. Magnetic map of the sectors AH and XZ (Background map © of the authors and Dan Ştefan. All rights reserved)

ing the last 30 years which has led to the assumption that it is in this area where the first military *vicus* emerged (Tamba 2008).

To the south-west, at about 100 meters from the western corner of the fort, the Roman amphitheatre was excavated. Its presence at *Porolissum* was already known since the 19th century due to the building inscription (CIL III 836) that mentions the reconstruction in stone in AD 157. The archaeological excavations carried out here, brought to light another timber amphitheatre under the stone phase and it was dated by I. Bajusz (2011, 59-65) during Hadrian's reign.

Other epigraphic material already known (as for example CIL III 828) mentioned the Roman town *municipium Septimium Porolissensium*. For many years its exact location was unknown. Al. V. Matei was the first to excavate the eastern side of the fort, presuming his excavations will reach the *forum* of the *municipium* (Matei / De Sena 2005). His hypothesis was also based on several geophysical attempts, their main result being the conclusion that on about 4 hectares there was a high concentration of Roman stone structures (Scurtu 1997; Scurtu 2003; Tirpák *et alii* 2007). Unfortunately, after 8 seasons of excavations (2004-2011), an interim report is not available at the moment, nor any convincing plan has been presented to the scientific community. That is why the presence of the *forum* still remains a hypothesis not yet demonstrated.

After 2011, a new strategy of research was obviously needed and was implemented by the new director of the site. The first step was to gather as much topographical information as possible, thus mapping all the already known archaeological features and creating a local topographic grid system. Then, as part of the above mentioned project "Seeing the Unseen", massive and diverse geophysical surveys were performed all around the site, focusing upon less known areas (**fig. 3**). In the sector XZ and sector AH (**fig. 4**) there were spectacular results. It is easy to identify some huge rectangular buildings, probably public, as well as an interesting double precinct, these sectors surely covering parts of the *municipium Septimium*. In the sector XZ, between the amphitheatre and the southern side of the fort, small scale geophysical prospections have been done previously (Lipovics *et alii* 2008; Petrovszki *et alii* 2008; Lipovics *et alii* 2009),



Fig. 5. Magnetic map of the sector MQ (Background map © of the authors and Dan Ştefan. All rights reserved)

but no general background for the area was known until now. In the sector MQ (**fig. 5**) the density of the archaeologically significant features is rather low, and they are concentrated along the Roman imperial road. Some circular anomalies present in the southern part of the area may be interpreted as kilns. Based on this new information, the future archaeological strategy will focus on checking structures situated in key points that may offer answers to problems related.

Future Projects

During the last 3 years we have succeeded in offering for the first time a new plan of the site by using new research technologies. The "New Deal" is supported by an interdisciplinary vision about site management. The future strategy will follow two major directions: focusing the scientific research towards major problems of the site, thus encouraging new well defined projects, and enlarging the archaeological park in the area of the Roman town as well.

Bibliography

Bajusz, I. 2011. Amfiteatrul de la Porolissum şi amfiteatrele din provinciile romane de la Dunărea de Mijloc. Cluj-Napoca.

Cociş, S. 2004. Fibulele din Dacia romană / The Brooches from Roman Dacia. Cluj-Napoca.

Döhner, G. / Fiedler, M. / Höpken, C. / Merzenich, Ch. / Pánczel, Sz. / Stürmer, V. / Vasáros, Zs. 2011. Neue Forschungen im Kastell von Porolissum (Dakien, Rumänien). Bericht zur ersten Kampagne 2009. – Kölner und Bonner Archaeologica 1, 95-104.

Döhner, G. / Fiedler, M. / Höpken, C. / Merzenich, Ch. / Pánczel, Sz. / Stürmer, V. / Vasáros, Zs. 2010. Forschungen im Kastell von Porolissum. Bericht zur Kampagne 2009. – Marisia 30, 115-126.

Gudea, N. 1997a. Der Römergrenzkastell von Moigrad-Pomet / Castrul roman de la Moigrad-Pomet. Zalău.

Gudea, N. 1997b. Der Meseş-Limes. Die vorgeschobene Kleinfestungslinie auf den westlichen Abschnitt der Grenze der Provinz Dacia Porolissensis / Limesul de pe Munţii Meseş. Linia înaintată de turnuri de pază de pe sectorul de vest al provinciei Dacia Porolissensis. Zalău.

Gudea, N. 1997c. Der Dakische Limes. Materialien zu seiner Geschichte. – Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz 44, 1-113.

Gudea, N. 1996. Porolissum. Un complex daco-roman la marginea de nord a Imperiului Roman II. Vama romană. Monografie arheologică. Cluj-Napoca.

Gudea, N. 1989. Porolissum. Un complex arheologic daco-roman la marginea de nord a Imperiului Roman. Zalău.

Gudea, N. 1986. Porolissum. Municipium Septimium Porolissense. Zalău.

Lipovics, T. / *Petrovszki, J.* / *Kudó, I.* / *Pánczel, Sz.* / *Dobos, A.* / *Vass, L.* / *Lenkey, L.* / *Bajusz, I.* 2009. Domborzati modell alkalmazása egy Porolissumban végzett régészeti célú mágneses mérés feldolgozásában és értelmezésében. – Archeometriai Műhely 2, 31-41.

Lipovics, T. / *Lenkey, L.* / *Pethe, M.* / *Herein, M.* / *Ferencz, J.* / *Bajusz, I.* 2008. Măsurători arheomagnetice la Porolissum. Acta Musei Porolissensis 30, 123-133.

Matei, Al. V. 2007. O nouă poartă amenajată în zidul provinciei Dacia descoperit în faţa complexului militar roamn de la Porolissum. In: Nemeti, S. / Fodorean, F. / Nemeth, E. (eds.) Dacia Felix. Studia Michaeli Bărbulescu oblata. Cluj-Napoca.

Matei, Al. V. / *De Sena, E.* 2005. Jac, com. Creaca, jud. Sălaj (Porolissum). Punct: Pomet- forum. – Cronica Cercetărilor Arheologice 2004 (2005), 201-202.

Matei, Al. V. 2003. Despre castrele romane de la Porolissum. Un nou castru din timpul lui Traian descoperit la Porolissum. – Acta Musei Porolissensis 25, 277-298.

Opreanu, C. 2011. The barbarians and Roman Dacia. War, trade and cultural interaction. In: De Sena E. / Dobrzanska H. (eds.) The Roman Empire and Beyond: Archaeological and Historical Research on the Romans and Native Cultures in Central Europe. BAR International Series 2236. Oxford. 125-136.

Petrovszki, J. / *Lipovics, T.* / *Lenkey, L.* / *Pethe, M.* / *Ferencz, E.* / *Herein, T.* 2008. Régészety kutatás céljából végzett mágneses mérések Porolissumon. – Magyar Geofizika 49, 2, 88-95.

Scurtu, E.-F. 2003. Raport preliminar în legătură cu cercetările arheologice de la Porolissum: Cercetări geofizice. – Acta Musei Porolissensis 25, 257-259.

Scurtu, E.-F. 1997. „Radiografia" geofizică a unei părţi a oraşului roman Porolissum. – Studii şi Cercetări de Istorie Veche şi Arheologie 48, 4, 361-372.

Tamba, D. G. 2008. Porolissum. Aşezarea civilă (vicus militaris) a castrului mare. Cluj-Napoca.

Tirpák, J. / *Rajtár, J.* / *Matei, Al. V.* / *Scurtu, F.* / *Varsik, V*. 2007. Geophysical prospecting in Porolissum, Romania. – Študijné zvesti archeologického ústavu SAV 41, 67-68.

Coriolan Horaţiu Opreanu PhD
Romanian Academy Cluj Branch
Institute of Archaeology and History of Art
12-14 M. Kogalniceanu St.
RO-400084 Cluj-Napoca
choprean@yahoo.com

Vlad-Andrei Lăzărescu PhD
Romanian Academy Cluj Branch
Institute of Archaeology and History of Art
12-14 M. Kogalniceanu St.
RO-400084 Cluj-Napoca
lazarescu_vlad@yahoo.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Roman Fort from Călugăreni (Mureş County, Romania)

Szilamér-Péter PÁNCZÉL

At the initiative of the Mureş County Museum, in the framework of the *RLR* (Roman *Limes* Route) and *LIDOR* (*Limes Dacicus Orientalis*) projects[1] focusing on the research, conservation and presentation of the eastern border of Roman Dacia, aerial archaeological and topographical survey was undertaken at the auxiliary fort from Călugăreni (HU: Mikháza). The present paper intends to provide a historical overview of the research and to synthesise the available archaeological knowledge about the site.

The fort is one of the major Roman sites of the region and it is located in the south-western periphery of the modern village (**fig. 1**), on the left bank of the Niraj (HU: Nyárád) River, at the altitude of approx. 440 m from the Black Sea level. Linked probably to the forts of Brâncoveneşti (HU: Marosvécs) and Sărăţeni (HU: Sóvárad) by the eastern *limes* road and relaying on the natural defence offered by the Gurghiu Mountains (HU: Görgényi-havasok) and the hills of the Subcarpaţii Târnavei Mici (HU: Sóvidéki-dombság), combined with a system of watchtowers and defensive structures situated towards East, this fort had the task of controlling the border section around the upper Niraj Valley and the Săcădat (HU: Szakadát) Valley which represented ancient traffic routes towards the *barbaricum*. Even if a lot of research has been already done (Orbán 1868, IV, 80, 88; Lattyák 1918, 219, fig. 1, 230; Paulovics 1944, 35, 37-

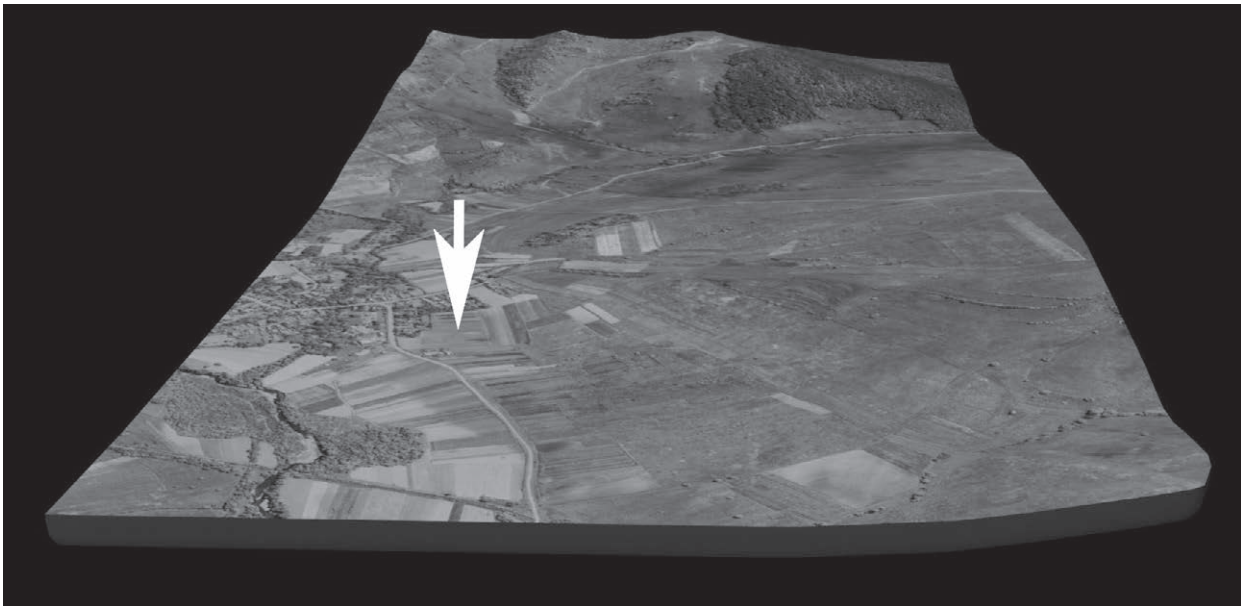


Fig. 1. DTM and orthophoto of the site from the west (made by N. Laczkó and Sz.-P. Pánczél)

[1] Cultural projects financed by the Administration of the National Cultural Fund from Romania and the Mureş County Council. For previous reports see: Visy 2008; Visy 2009a = Visy 2009b; Szabó 2009; Pánczél et al. 2011; Pánczél et al. 2012, Farkas et al. 2012.

38; Ferenczi / Petică 1982, 568-584; Ferenczi / Petică 1994; Ferenczi / Petică 1995; Visy 2008, 162-168; Visy 2009a, 589-596 = Visy 2009b, 108-115; Szabó 2009; Pánczél et al. 2011, 177-180), we have still many open questions related to how the Roman defensive system in this area actually functioned.

The place of the fort is known as *Vár* (Castle), *Vár-tartomány* (District of the castle), *Tündér Ilona vára* (Tündér Ilona's castle)[2] and *Óvár* (Old castle) and the street leading towards it is called *Trajan útja* (Trajan's road) and *Kandia*. North of the fort, on the other side of the road, at the place called *Palota* (Palace), *Palota melléke* (Annex of the palace) and *Strázsaház* (House of the guard), possible remains of the Roman bathhouse have been identified (Scheint 1833, 116; Ackner 1856, 23-24 = Ackner 1857, 29-30; Deák 1878, 268; Orbán 1868, 88; Paulovics 1944, 32-34; Protase 1965, 209; Lazăr 1995, 122-124).

The Roman site was first mentioned in the early 18th century by L. F. Marsigli (Marsigli 1726, II, 59-60, fig. 27) and he was the one who also made a first topographic plan and description of the site. In his plan, the fort appears as a rectangular structure, and the probably still visible northern gate (*porta principalis sinistra*) was shown as a half circle. Inside the fort a rectangular building (based on its position is probably the *principia*) is marked with the letter *a*. Today's road leading from Călugăreni to Dămienei (HU: Deményháza) is following probably the track of the Roman road and it is marked with the letter *d* (it is probably a printing mistake because in the text he discusses it as *c*). In the area between the road and the Niraj River, a rectangular building having almost the same size as the principia is marked with the letter *b*. It can be presumed that this structure represents the remains of the Roman bathhouse from the *vicus*. At the end of the 18th and beginning of 19th century the site was mentioned in several papers concerning the history of the region (Timon 1733, 141; Benkő 1778, 227; Bartalis 1787, 25, 55; Kővári 1842, 42), but only J. Ercsei, who visited the site, offered relevant new data about the Roman road and some of the finds (Ercsei 1830, 410).

Beside a large fortification positioned on the Becheci (HU: Bekecs) hill[3], J. F. Neigebaur mentions the Roman road leading towards Dămieni (Neigebaur 1851, 247-249), the remains of a round building made of bricks and stones, located close to the road[4], several small finds and a votive inscription discovered in 1847 and lost in 1848 (CIL III, 944; ILS 3748; IDR III-4, 215). In later publications this dataset, with the erroneous location of the fort, was often cited (Kővári 1852, 48; Ackner 1856, 24 = Ackner 1857, 30; Vass 1863, 118) even if G. Scheint already referred correctly to the location of the fort (Scheint 1833, 116). The first information concerning excavations made at the site is offered by K. Benkő who also indicated quite accurately for the first time the size of the fort: 170 x 150 paces (Benkő 1868, 190-191).

During his vast survey of the region, B. Orbán visited the site and mentioned that the ditches and the precinct walls of the rectangular fort were well preserved and measured 210 paces on the south-north axis and 160 paces on the east-west axis[5] (Orbán 1868, IV, 88-89). He underlined the fact that the fort had rounded corners with corner towers and two gates, both of them located centrally on the south-north axes[6] and that the ruins from the central part of the fort[7] could come from the *praetorium* and the quarters. He referred also to the building on the other side of the road located at a distance of 130 paces from the north-western corner of the fort, and described it as an oval building which had the entrance on the eastern side and was 30 paces long and 20 paces wide[8]. He mentioned that the large quantity of ceramic tubes and the marble pavement of the building showed that it might have functioned as a bathhouse. The large quantity of bricks and tiles discovered on the site made him presume that next to the fort, at Călugăreni, there was an important settlement as well. Regarding the road, he mentioned that beyond the fort he was not able to trace it further east, so he concluded that it had to turn south, in the direction of the Becheci hill and Sovata (HU: Szováta).

The first excavations from Călugăreni took place in 1878 under the supervision of F. Kovács

[2] Tündér Ilona is a fairy who appears in Transylvanian folk-tales.

[3] Probably the ditch and road system known as *Óriások árka* (Ditch of the giants), *Óriások útja* (Road of the giants) and *Rabsonné útja* (Road of Rabsonné) from the Becheci hill (Ercsei 1830; Orbán 1868, IV, 80, 88; Paulovics 1944, 38) was mistaken with a Roman fort. Rabsonné is also a character from the Transylvanian folk-tales.

[4] It might refer to the bathhouse.

[5] The size of the north-south axis is considerably higher than the one indicated by Scheint, but the east-west axis is only slightly longer. This needs to be linked to the fact that he considers the north-south axis the longer one, probably extending it to the road due to a misinterpretation.

[6] He identified probably the *porta decumana* and *porta praetoria.*

[7] Probably building *a* (*principia*) from the plan of Marsigli 1726, II, 59-60, fig. 27.

[8] See note 5.

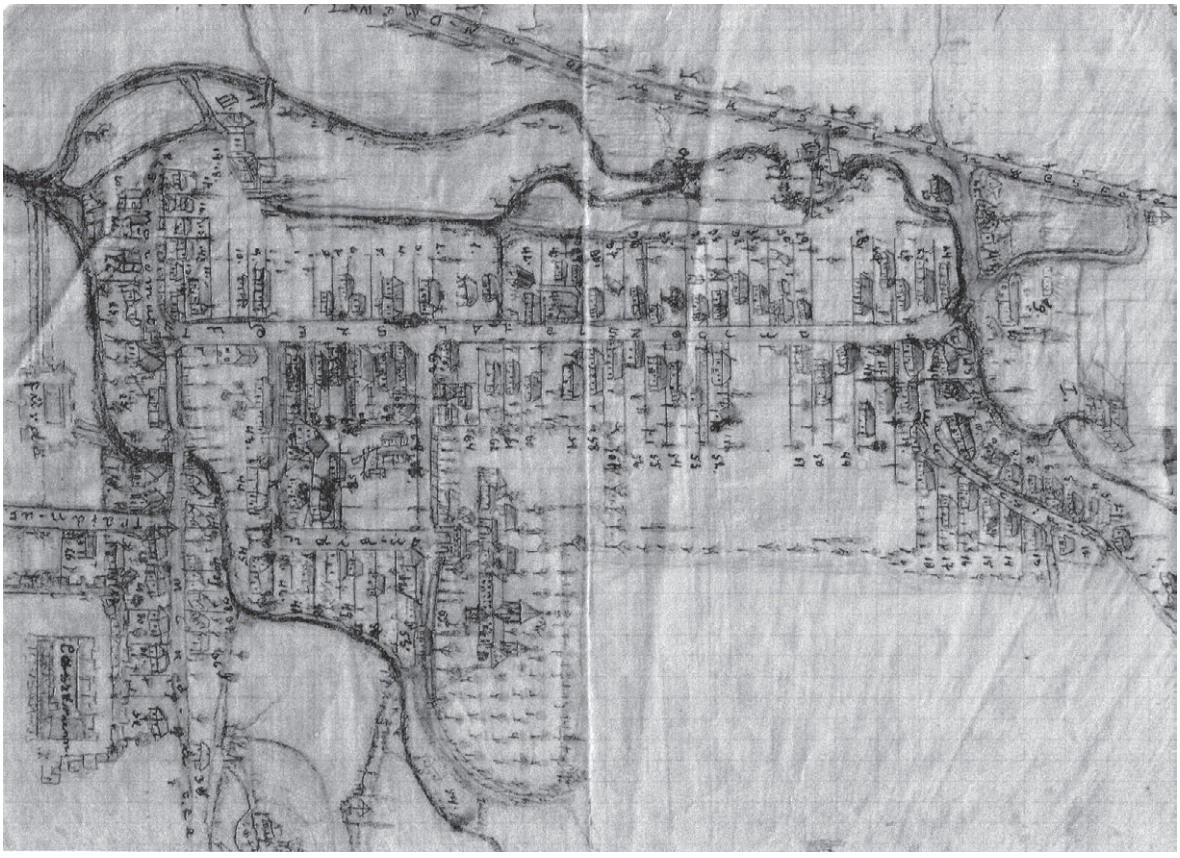


Fig. 2. Sketch plan of Călugăreni in 1885 made by friar Lokody Antal in 1901
(Manuscript from a private collection in Târgu Mureş)

from Târgu Mureş, who was also a well known collector of antiquities[9]. Concerning the excavations only a summary report written by F. Deák (1878) was preserved. They excavated parts of the *porta principalis sinistra* where the remains of the stone doorstep and possible metal fitting of the wooden door were identified. Beside this, at the depth of a 2 m, a roughly worked, reclining sandstone lion was discovered, which was one meter long. Based on the description, it seems that the lion was pouncing on a sheep's head[10]. A fragmentary funerary inscription made of limestone (CIL III, 7716; IDR III-4, 217), bricks with the *CPAI* stamps of the military unit and other small finds made of ceramics, stone and metal were discovered as well (Deák 1878, 268-269).

The late 19th century scholars (Gooss 1876, 92-93; Király 1894, 29; Téglás 1888, 58-59, 242; Téglás 1896, 388, 425; Téglás 1900, 266, 313, 317, 322) referred mainly to the published data, or added some minor details. It is noteworthy that Király (Király 1892, 238; Király 1893, 421) mentioned that the fort was 157.5 m long and 120 m wide.

An unpublished sketch plan from 1901, drawn by a Franciscan monk, friar Lokody Antal, is preserved in a private collection from Târgu Mureş, showing the village of Călugăreni around 1885 (**fig. 2**). On the left side of this plan, parts of the northern, eastern and southern precinct walls of the fort were marked together with a large building from the interior, representing probably the *principia* or the *praetorium*, or maybe both. North of the fort, the road marked as Trajan's road, and beyond that, a large building marked as the bathhouse, are visible. On this map, this building is connected with the Pesze Stream and the Niraj River through channels which were leading the water to the bathhouse and were evacuating it from inside. This information, if reflecting the reality, is particularly interesting because it is not mentioned anywhere else.

In papers published in the first part of the 20th century, which synthesised the information regarding the history of Roman Dacia or the military history of the region, Călugăreni or the military unit or units stationed here were mentioned among the

[9] His collection was scattered, but most of it was donated to the Roman-Catholic Boy Gymnasium from Târgu Mureş, from where it was transferred to the collections of the Mureş County Museum.

[10] This piece seems to be lost, but probably it was a funerary lion.



Fig. 3. The location of the site (made by N. Lackó and Sz.-P. Pánczél after Protase 1965, 211, fig. 2 and Popa et al. 2010, 124, fig. 12)

important Roman sites (Marţian 1920, 26; Marţian 1921, 32; Christescu 1929, 103, 109-110; Christescu 1937, 109, 120, 131, 170, 182, 189; Wagner 1938, 82-83, 158-159; Szilágyi 1946, 16-17, 65; Rusu 1957, 361; Macrea 1957, 220; Macrea 1960, 377). In one of his papers concerning matters of epigraphy, C. Daicoviciu (Daicoviciu 1932, 58-59) published the left fragment of a limestone funerary inscription (CIL III, 7716 = 12552; IDR III-4, 216) which, together with the right fragment published earlier by G. Téglás (Téglás 1893, 253-254, # 13), turned out to be written as a *distichon*, attesting the taste of the provincial population for Latin poetry.

During his survey of the eastern *limes* I. Paulovics (Paulovics 1944, 32-38) visited Călugăreni and, based on his field observations, described accurately the location of the fort (Paulovics 1944, 34-35) and published the first topographic plan of the site (Paulovics 1944, fig. 5). Beside summarizing and correcting the already known data, he mentioned that the southwestern corner of the fort was still visible as a small heap and that in the courtyard of the house belonging to L. Kovács, situated in the vicinity of the fort, the remains of the Roman road leading towards the fort was identified, at the depth of one meter, during construction works from the beginning of the 20th century. He also mentioned three unpublished

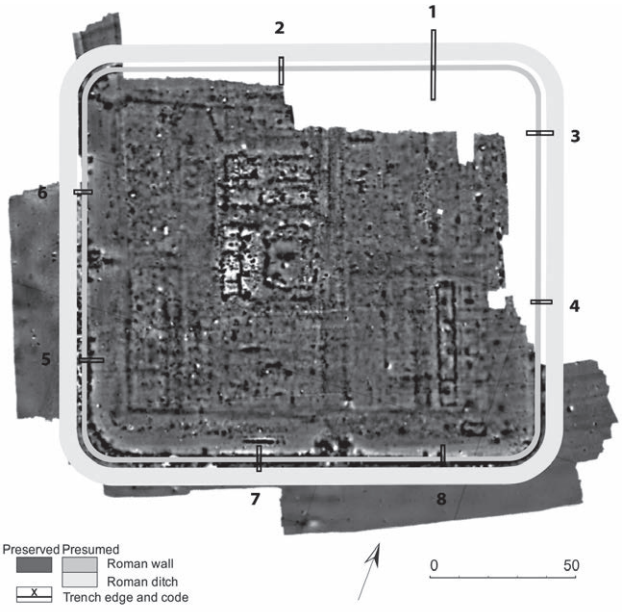


Fig. 4. Plan of the fort (made by N. Lackó and Sz.-P. Pánczél after Protase 1965, 211, fig. 2 and Popa et al. 2010, 124, fig. 12)

cornice fragments kept under the porch of the house belonging to F. F. Janka (Paulovics 1944, 37, fig. 5a).

The first systematic excavations in the fort were made in 1961 under the scientific supervision of D. Protase[11]. The purpose of the eight evaluation trenches was to define the extent of the fort. They

[11] Concerning the excavation results, see mainly: Protase 1962, 506; Popescu 1962a, 524, # 76, 530, fig. 1; Popescu 1962b, 210, # 76; Protase 1965.

sectioned the precinct walls as following: S1 and S2 the northern one, S3 and S4 the eastern one, S5 and S6 the western one, and S7 and S8 the southern one (**fig. 3-4**). The results of this campaign established that the fort was oriented with the *porta praetoria* towards east and the medium length and width of the fort was 162 m and 140 m, covering an area of approx. 2.25 ha[12].

The longest trench (S1) was 24 meters and sectioned all the defensive elements of the fort on the northern side. Based on the archaeological evidence, Protase stated that the fort had an early earth-timber phase dated to the 2nd century AD[13] and a later stone phase (Protase 1965, 212). The rampart of the earth-timber fort was preserved up to a height of 0.5 m and the ditch had a 3.5 m width at the top and was 2 m deep. In the second building phase the ditch of the earth-timber fort was levelled and a stone wall was erected on the berm of the earlier phase. The berm of the stone fort was 1.9-2 m wide and overlapped the ditch of the earth-timber phase. The stone material of the precinct wall was robbed and only the 1.6-1.7 m wide foundation, built out of river cobbles, was preserved. The defensive ditch of the stone fort was 6 m wide and 3 m deep. The *agger* of the stone fort was preserved up to a height of 0.8 m and had a width of 6.5 m at the base. On the inner side of it, the mixed up remains of the *via sagularis* were identified as well. During the excavations Roman coarse pottery fragments, a millstone, brick and tile fragments were recovered[14].

In this paper Protase mentioned that approx. 100 m away from the north western corner of the fort, on the land strip between the road and the Niraj River, the remains of the bathhouse were still visible at that time (Protase 1965, 210).

Most of the publications until the end of the 20th century and early 21st referred to the site based on the available information without adding new data to it (Daicoviciu / Protase 1964, 171, 173, fig. 3; Rusu 1964, 185, fig. 3; Macrea / Crișan 1964, 320, 323, 352, # 23; Macrea 1965, 159; Macrea 1967, fig. 1; Macrea et al. 1967, 120; Székely 1967, 135; Macrea 1969, 159, 232, 372; Tudor 1968, 268, 271; Ferenczi / Ferenczi 1970, 60-61, fig. 1; Glodariu et al. 1970, 231; Glodariu 1972, 141-142; Rusu 1972, 65-66, # 3, 67-68, # 17; Gudea 1974, 188-189; Giurescu / Giurescu 1975, 87; Székely 1976, 118; Popa 1976, 12; Daicoviciu 1977, 203; Gudea 1977, 107-108, 111, # 33; Beneš 1978, 15, 41-42; Gudea 1979, 72, fig. 5, 77, 86, # 33; Chirilă et al. 1980a, 24, # 9; Chirilă et al. 1980b, 26, # 9; Crișan 1982; Ferenczi / Petică 1982, 579; Glodariu 1982, 35, fig. 2; Zahariade 1984, 190; Ferenczi / Petică 1995, 133-137; Lazăr 1995, 122-124; Gudea 1997, 57-58; Petolescu 2002, 116; Fodorean 2006, 266).

In 2004 research excavations were undertaken in the military fort under the scientific supervision of N. Man. Through the evaluation trench S1 (31 m long and 2.5 m wide), the *via principalis* and a 30 m long building with six rooms was sectioned and rich Roman material, including fine[15] and coarse pottery, bricks and tile fragments (some with *CPAI* stamps) and artefacts made of glass, iron and bronze were recovered. Massive medieval and modern intervention in the form of stone robbing disturbed the site, but it could be established that the precinct wall and some of the internal buildings were built of river cobbles in *opus incertum* technique (Man et al. 2005, 102; Man 2006, 113)[16].

In 2008, in the framework of a German, Romanian and Moldavian collaboration, geomagnetic measurements were made at the fort of Călugăreni (Popa et al. 2010). Beside a summary about the site, some reserves concerning the evidence published by Protase (1965, 212), related to the earth and timber phase of the fort, were presented (Popa et al. 2010, 108). The high quality measurements covered most of the fort, and only the north-eastern corner (parts of the *praetentura*), had to be excluded because of modern land use. The precinct walls appear as strong magnetic anomalies, fact which proves that some of the masonry structures are better preserved than it was considered before[17].

Based on the interpretation of the authors (Popa et al. 2010, 108-110, 124, fig. 12), the *porta decumana* should have been double arched with an inner width of 8 m, and the *porta principalis dextra* had only one arch and an inner width of 4-5 m. In the north-western, south-western and south-

[12] The fort was slightly irregular, due to the fact that the southern precinct wall measured 163 m in length, the northern one 161 m, the western one 141 m, and the eastern one 139 m (Protase 1962, 211).

[13] He does not present any arguments for this dating.

[14] Several brick fragments had the *CPAI* stamp (Protase 1965, 213, fig. 4)

[15] Related to the discovered stamped pottery fragments, see Man 2006.

[16] Research excavations have started in the military *vicus* since 2010, under the scientific supervision of N. Man. For the results, see: Man / Cioată 2012; Man et al. 2012.

[17] See the argumentation for stone robbing at: Man et al. 2005, 102.

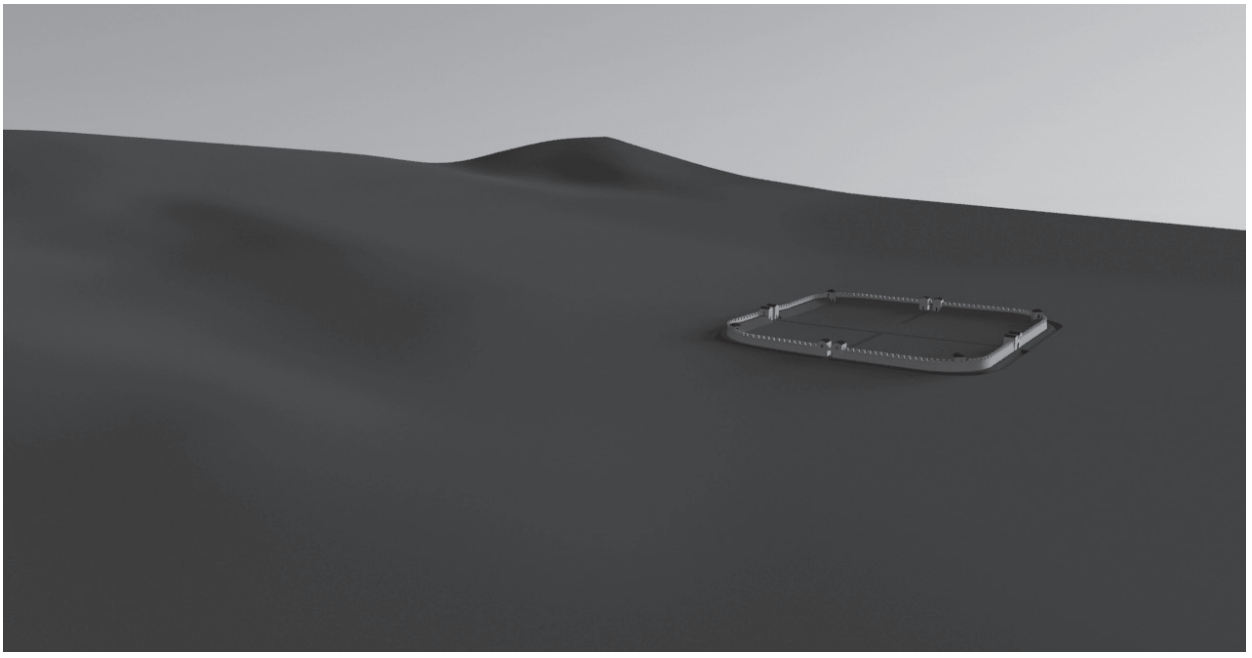


Fig. 5. 3D volumetric model of the fort from the east (made by N. Lackó)

eastern corners of the fort, remains of trapezoidal corner towers (size: 3-4 x 3 m) are visible. On each side two intermediate curtain towers (size: 3 x 4 m) can be defined. All the major roads, *via sagularis*, *via decumana*, *via praetoria* and *via principalis* are clearly visible. The *principia* (size: 32-33 x 25-26 m) has a typical plan with an inner courtyard, a *basilica* and five smaller rooms in the back. In the *latus praetorii sinistrum*, immediately north of the principia, a *horreum* is to be identified (size: 30 x 7.5 m) and next to it a building with similar size (30 x 9 m) is visible. Between this and the northern *via sagularis*, the remains of a building, which is only partly visible in the measured area, could be traced down. In the *latus praetorii dextrum*, a large building (size: 28-30 x 36 m) with an internal courtyard was identified as the *praetorium*. In the *retentura* several barracks are visible. The barrack from the south-western corner (size: 50 x 18 m) of the *retentura dextra* had a *porticus* on the eastern side and even if all the details are not very clear, eight *contubernia* (width: 4.5 m) and the centurions quarters (size: 14 x 14 m) can be reconstructed. A not so well preserved barrack displaying a similar length is visible east of it and a similar building structure can be reconstructed in the *retentura sinistra*. In the *praetentura*, the structural evidence of the presumed barracks is more difficult to interpret. A building from the *praetentura dextra* (size: 43 x 5-6 m) was considered (part of a later phase just because it was better preserved, but one needs to take into account that part of the buildings might have been made of timber with stone foundations (or not even that) and that in some of the cases, the rubble preserved in the robbing trenches showed up on the digital map as anomaly.

By georeferencing the geophysical plan (Popa et al. 2010, 124, fig. 12) and the excavation plan (Protase 1965, 211, fig. 2) a slight difference could be observed in the south-western corner of the precinct wall. Based on this it can be concluded that, probably, all the corners of the fort were less angular than presumed by Protase (Protase 1965, 211, fig. 2).

Based on tile stamps with the abbreviation *CPAI* discovered at Călugăreni (IDR III-4, 220; Piso / Marcu 2008, 174, fig. 5) it has been recently concluded that *cohors I Augusta Ituraeorum*, probably a *quingenaria* unit comprising *sagittarii*, was stationing in the fort[18]. Tile stamps of the *legio XIII Gemina* (CIL III, 8065/1 w, 1 x; IDR III-4, 219) stationing at *Apulum* (Alba Iulia, HU: Gyulafehérvár) and of the *cohors I Alpinorum* (IDR III-4, 220) stationing probably in the vicinity, at Sărăţeni (HU: Sóvárad)[19], were discovered as well, but they represent most likely dispatch material. The confusion that the stamps *CPAI* and *CPALP* represent the same unit, the *cohors I Alpinorum*, persisted up to this moment in almost all the publications dealing with the issue.

[18] See the discussion at: Piso / Marcu 2008; Marcu 2009, 121-122.

[19] See the discussion at: Marcu 2009, 122.

Based on the corroborated archaeological and topographic data a 3D model was made as a volumetric study (**fig. 5**). The purpose of this visualization method is to show the position and the dimensions of the fort in relation to the topography of the site. Only the defensive walls, the corner towers and the gates were reconstructed, but all of them should have been considerably higher. From the interior of the fort, except the main roads, there is not enough evidence to reconstruct the internal structure, even if some features like the curtain towers, the *principia*, the *praetorium* and some of the barracks are quite well defined on the geophysical plan. Based on this it can be seen that the fort is built on a slight slope, facing the enemy with the *porta praetoria*, and it can be presumed that the ditch and rampart system on the Becheci hill, starting immediately south of the fort, had probably the purpose to protect the communication route with the closest fort, the one from Sărăţeni, located on the other side of the same hill.

Bibliography

CIL Corpus Inscriptionum Latinarum. Berlin

IDR Inscripţiile Daciei romane. Bucureşti.

ILS Dessau, H. (ed.). Inscriptiones Latinae Selectae. Berlin.

Ackner, M. J. 1857. Die römischen Alterthümer und deutschen Burgen in Siebenbürgen. Wien.

Ackner, M. J. 1856. Die römischen Alterthümer und deutschen Burgen in Siebenbürgen. – Jahrbuch der Kaiserl. Königl. Central-Commission zur Erforschung und Erhaltung der Baudenkmale 1, 3-50.

Bartalis, A. 1787. Ortus et Occasus imperii Romanorum in Dacia mediterranea. Posonii.

Beneš, J. 1978. Auxilia Romana in Moesia atque in Dacia: zu den Fragen des römischen Verteidigungssystems im Unteren Donauraum und in den angrenzenden Gebieten. Praha.

Benkő, J. 1778. Transsilvania sive Magnus Transsilvaniae Principatus, olim Dacia mediterranea dictus orbi nondum satis cognitus nunc multifariam, ac strictim illustratus. Vindobonae.

Benkő, K. 1868 / 1869. Marosszék ismertetése. Kolozsvár.

Chirilă, E. / Gudea, N. / Lazăr, V. / Zrinyi, A. 1980a. Tezaure şi descoperiri monetare din Muzeul Judeţean Mureş. Tîrgu Mureş.

Chirilă, E. / Gudea, N. / Lazăr, V. / Zrinyi, A. 1980b. Münzenhorte und Münzenfunde aus dem Kreismuseum Mureş. Tîrgu Mureş.

Christescu, V. 1937. Istoria militară a Daciei romane. Bucureşti.

Christescu, V. 1929. Viaţa economică a Daciei romane. Piteşti.

Crişan, I. H. 1982. Itinerare arheologice transilvănene. Bucureşti.

Daicoviciu, C. 1932. Notiţe arheologice şi epigrafice. – Anuarul Institutului de Studii Clasice 1/2 (1928-1932), 58-63.

Daicoviciu, C. / Protase, D. 1964. O diplomă militară din Dacia Porolissensis. Ştiri noi despre organizarea Daciei romane. – Acta Musei Napocensis 1, 163-180.

Daicoviciu, H. 1977. Un fragment ceramic de la Porolissum. – Acta Musei Napocensis 14, 201-204.

Deák, F. 1878. Hazai tud. intézetek és leletek. A mikházi ásatások. – Archaeologiai Értesítő 12/7, 267-269.

Ercsei, J. 1830. Római út-nyomozás a Becsek körül. – Nemzeti Társalkodó 52, 409-412.

Farkas, I.G. / Pánczél, Sz.P. / Szabó, A. 2012. A New Roman Altar from Gurghiu, Mureş County. – Marisia 32, 101-104.

Ferenczi, G. / Ferenczi, I. 1970. O nouă mărturie epigrafică în legătură cu activitatea împăratului Lucius Verus în provinciile de lîngă Dunărea de jos şi în Dacia. – Sargetia 7, 59-78.

Ferenczi, I. / Petică, M. 1995. Limesul Daciei. Contribuţii la cunoaşterea sectoarelor Brâncoveneşti-Călugareni şi Călugăreni-Sărăţeni (jud. Mureş) 2. – Apulum 32, 121-143.

Ferenczi, I. / Petică, M. 1994. Limes-ul Daciei. Contribuţii la cunoaşterea sectoarelor Brâncoveneşti-Călugăreni şi Călugăreni-Sărăţeni (jud. Mureş) 1. – Apulum 31, 140-166.

Ferenczi, I. / Petică, M. 1982. Cercetări de topografie arheologică în judeţul Mureş (Partea I-a) – Acta Musei Napocensis 19, 557-584.

Fodorean, F. 2006. Drumurile din Dacia romană. Cluj-Napoca.

Giurescu, C. C. / Giurescu, D. C. 1975. Istoria românilor 1. Bucureşti.

Glodariu, I. 1982. Sistemul defensiv al statului dac şi întinderea provinciei Dacia. – Acta Musei Napocensis 19, 23-38.

Glodariu, I. 1972. Călugăreni. In: Pippidi, D. M. (coord.). Dicţionar de istorie veche a României (Paleolitic – sex. X). Bucureşti. 141-142.

Glodariu, I. / Zrinyi, A. / Gyulai, P. 1970. Le dépôt d'outils romains de Mărculeni. – Dacia N.S. 14, 207-231.

Gooss, C. 1876. Chronik der Archäologischen Funde Siebenbürgens. Hermannstadt.

Gudea, N. 1997. Der dakische Limes. Materialien zur seiner Geschichte. – Jahrbuch des Römisch-Germanischen Zentralmuseum Mainz 44, 1-113.

Gudea, N. 1979. The Defensive System of Roman Dacia. – Britannia 10, 63-87.

Gudea, N. 1977. Limesul Daciei romane de la Traianus (106) la Aurelianus (275). – Acta Musei Porolissensis 1, 97-113.

Gudea, N. 1974. Sistemul defensiv al Daciei romane. I. Stadiul actual al cercetărilor. – Apulum 12, 182-192.

Király, P. 1894. Dacia Provincia Augusti 2. Nagy-Becskerek.

Király, P. 1893. Dacia Provincia Augusti 1. Nagy-Becskerek.

Király, P. 1892. Gyulafehérvár története. Gyulafehérvár.

Kővári, L. 1852. Erdély régiségei. Pest.

Kővári, L. 1842. Székelyhonról. Kolozsvár.

Lattyák, S. 1918. Limes nyomok a „Görgényi hegyek"-ben. – Dolgozatok az Erdélyi Múzeum Érem- és régiségtárából 8, 218-232.

Lazăr, G. 1995. Repertoriul arheologic al judeţului Mureş. Târgu Mureş.

Macrea, M. 1969. Viaţa în Dacia romană. Bucureşti.

Macrea, M. 1967. L`organisation de la province de Dacia. – Dacia N.S. 11, 121-141.

Macrea, M. 1965. Cercetările privind epoca romană în Transilvania de la început pînă în zilele noastre. – Acta Musei Napocensis 2, 141-162.

Macrea, M. 1960. Cap. I.2. Organizarea militară a provinciei. In: Daicoviciu, C. (red. resp.). Istoria României I. Bucureşti. 370-382.

Macrea, M. 1957. Apărarea graniţei de vest şi nord-est a Daciei pe timpul împăratului Caracalla. – Studii şi Cercetări de Istorie Veche 8/1-4, 215-251.

Macrea, M. / Crişan, I. H. 1964. Două decenii de cercetări arheologice şi studii de istorie veche la Cluj (1944–1964). – Acta

Musei Napocensis 1, 307-365.

Macrea, M. / Protase, D. / Dănilă, Ş. 1967. Castrul roman de la Orheiul Bistriţei. – Studii şi Cercetări de Istorie Veche 18/1, 113-121.

Man, N. 2006. Ceramica ştampilată descoperită în castrul roman de la Călugăreni. – Marisia 28, 113-117.

Man, N. / Cioată, D. M. 2012. Archaeological Researches in the Military Vicus from Călugăreni. – Marisia 32, 85-99.

Man, N. / Cioată, D. / Crişan, C. / Panczel, Sz. / Cociş, S. 2012. Călugăreni, com. Eremitu, jud. Mureş. Punct: Vicusul castrului roman de la Călugăreni. In: Angelescu, M.V. (ed.). Cronica cercetărilor arheologice din România. Campania 2012. Bucureşti. 34-37.

Man, N. / Crişan, C. / Cioată, D. 2005. Călugăreni, com. Eremitu, jud. Mureş. Punct: Castru roman. In: Angelescu, M. V. / Oberländer-Târnoveanu, I. / Vasilescu, F. (eds.). Cronica cercetărilor arheologice din România. Campania 2004. Bucureşti. 101-102.

Marcu, F. 2009. Organizarea internă a castrelor din Dacia. Cluj-Napoca.

Marsigli, L. F. 1726. Danubius Pannonico-Mysicus, observationibus geographicis, astronomicis, hydrographicis, historicis, physics perlustratus et in sex tomos digestus. Amsterdam-Haga.

Marţian, I. 1921. Urme din războaiele romanilor cu dacii. Cluj.

Marţian, I. 1920. Repertoriu arheologic pentru Ardeal. Bistriţa.

Neigebaur, J. F. 1851. Dacien aus den Ueberresten des klassischen Altertums, mit besonderer Rücksicht auf Siebenbürgen. Kronstadt.

Orbán, B. 1868. A Székelyföld leírása történelmi, régészeti, természetrajzi s népismei szempontból. Pest.

Paulovics, I. 1944. Dacia keleti határvonala és az ugynevezet "dák"-ezüstkincsek kérdése. Kolozsvár.

Pánczél, Sz.P. / Lenkey, L. / Pethe, M. / Laczkó N. 2012. Updating our Knowledge about the Roman Fort from Brâncovenești, Mureș County. – Marisia 32, 105-115.

Pánczél, Sz.P. / Szabó, M. / Visy, Zs. 2011. Dácia superior keleti határának régészeti kutatása. / Archaeological research on the Eastern Frontier of Dacia Superior. In: Visy, Zs. (ed.). A Danube Limes program régészeti kutatásai 2008-2011 között. Jelentés a Danube Limes UNESCO World Heritage Site pályázat keretében a PTE BTK Régészet Tanszékének kutatócsoportja által végzett kutatásokról. / The Danube Limes Project Archaeological Research between 2008-2011. Report on the research carried out by the research team of the Department of Archaeology, University of Pecs within the framework of the Danube Limes UNESCO World Heritage Site project. Pécs. 173-180.

Petolescu, C. C. 2002. Auxilia Daciae. Contribuţii la istoria militară a Daciei romane. Bucureşti.

Piso, I. / Marcu, F. 2008. La cohors I Augusta Ituraeorum en Dacie. – Acta Musei Napocensis 43-44/I, 167-176.

Popa, A. 1976. Academia Română şi descoperirile arheologice de pe valea superioară a Mureşului (II). – Marisia 6, 11-25.

Popa, A. / Cociş, S. / Klein, Ch. / Gaiu, C. / Man, N. 2010. Geophysikalische Prospektionen in Ostsiebenbürgen. Ein Deutsch-Rumänisch-Moldauisches Forschungsprojekt an der Ostgrenze der römischen Provinz Dacia. – Ephemeris Napocensis 20, 101-128.

Popescu, D. 1962a. Les Fouilles archéologiques dans la République Populaire Roumaine en 1961. – Dacia N.S. 6, 515-532.

Popescu, D. 1962b. Săpăturile arheologice din Republica Populară Romînă în anul 1961. – Studii şi Cercetări de Istorie Veche 13/1, 201-215.

Protase, D. 1965. Castrul roman de la Călugăreni (r. Tîrgu Mureş). Săpăturile din anul 1961. – Acta Musei Napocensis 2, 209-214.

Protase, D. 1962. Le coorti I Hispanorum miliaria e I Ubiorum in Dacia. – Dacia N.S. 6, 505-508.

Rusu, I. I. 1972. Auxilia provinciae Daciae. – Studii Clasice şi Istorie Veche 23/1, 63-77.

Rusu, I. I. 1964. Materiale epigrafice din estul Daciei. – Acta Musei Napocensis 1, 181-195.

Rusu, I. I. 1957. Szilágyi János, A dáciai erődrendszer helyőrségei és a katonai téglabélyegek / Die Besatzungen des Verteidigungssystems von Dazien und ihre Ziegelstempel. Dissertationes Pannonicae Sér. 2 / 21. Budapest. 1946. – Dacia N.S. 1, 360-363.

Scheint, D. G. 1833. Das Land und Volk der Szekler in Siebenbürgen, in physischer, politischer, statistischer und geschichtlicher Hinsicht. Pest.

Szabó, M. 2009. Dacia superior keleti határának légirégészeti kutatása. In: Körösfői, Zs. (ed.). Kutatások a Nagy-Küküllő felső folyása mentén. Székelykeresztúr. 117-122.

Székley, Z. 1976. Aşezarea prefeudală de la Bezid (Jud. Mureş). – Marisia 6, 117-123.

Székely, Z. 1967. Descoperiri epigrafice şi arheologice pe graniţa de est a Daciei romane. – Arheologia Moldovei 5, 133-143.

Szilágyi, J. 1946. A dáciai erődrendszer helyőrségei és a katonai téglabélyegek. / Die Besatzungen des Verteidigungssystems von Dazien und ihre Ziegelstempel. Budapest.

Téglás, G. 1900. Dacia keleti határvonala s annak védelmi rendszere a Maros felső völgyétől az Olt rákos-hévizi szorosáig. – Erdélyi Múzeum 17, 261-269, 313-324.

Téglás, G. 1896. A rómaiak végvárai a Hargita hegység alján s a keleti határvédelem czélja és rendszere. – Erdélyi Múzeum 13, 384-389, 416-427.

Téglás, G. 1893. Neue Inschriften aus Dacien. – Archaeologisch-Epigraphische Mitteilungen aus Oesterreich-Ungarn 16/2, 251-256.

Téglás, G. 1888. Adalékok Dacia felirattanához. – Erdélyi Múzeum 5, 56-69, 237-257.

Timon, S. 1733. Imago antiquae Hungariae, repraesentans terras, adventus et res gestas gentis Hunnicae I. Cassoviae.

Tudor, D. 1968. Oraşe, tîrguri şi sate în Dacia romană. Bucureşti.

Vass, J. 1863. Erdély a rómaiak alatt. Kútfők nyomán. Kolozsvár.

Visy, Zs. 2009a. Archäologische Forschungen an der östlichen Grenze von Dacia Superior. In: Biró, Sz. (ed.). Ex officina... Studia in honorem Dénes Gabler. Győr. 587-598.

Visy, Zs. 2009b. Régészeti kutatások Dacia superior keleti határán. In: Körösfői, Zs. (ed.). Kutatások a Nagy-Küküllő felső folyása mentén. Székelykeresztúr. 107-115.

Visy, Zs. 2008. Dacia limese mint lehetséges világörökségi helyszín. In: Visy, Zs. (ed.). Tanulmányok Énlaka történetéről és kultúrájáról. Énlaka-Pécs. 159-173.

Wagner, W. 1938. Die Diklokation der römischen Auxiliarformationen in den Provinzen Noricum, Pannonien, Moesien und Dakien von Augustus bis Gallienus. Berlin

Zahariade, M. 1984. Evoluţia politico-militară a Daciei în sec. II-III. In: Oltean, C. (ed.). Istoria militară a poporului român 1. Bucureşti. 180-215.

Szilamér-Péter Pánczél
Mureş County Museum
8A Mărăşti St.
RO-540328 Târgu Mureş
pszilamer@yahoo.com

Running and Expanding the World Heritage Site

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

WHS FRE (Frontiers of the Roman Empire) – Running and Expanding the World Heritage Site (Introduction to the Session)

C. Sebastian SOMMER

An international serial World Heritage Site is a complicated matter. Nomination files, which have to be approved by the existing member States Parties, heritage questions concerning a growing number of legal systems, management issues which need coordination across the countries and unanimous responses on UNESCO / ICOMOS are requirements which need specific attention now and in the future. In addition to the aspects that all States must deal with at "ordinary" national World Heritage Sites, "our" Frontiers of the Roman Empire pose a number of additional challenges. However, it creates great opportunities as well. The relevance to a Limes Congress is that the formulation of a World Heritage Site demands the preparation of a management plan and that this document must include a research strategy for the Site. But also, the World Heritage status is of particular value for raising money to undertake research.

In January 2003 Germany submitted the nomination papers for the Upper German-Raetian Limes to UNESCO. Initially, it was intended to form a national World Heritage Site. As the nomination was returned to us for reconsideration and sorting out some internal problems, we picked up earlier discussions about the possibilities of an international serial site. These questions were exchanged on various multinational levels (for the history of this discussion Breeze / Jilek 2008a). It was also discussed what "Frontiers of the Roman Empire" could mean, in terms of World Heritage matters. At the meeting of the Bratislava Group[1] at Koblenz, Germany, 23rd June 2004, with the Koblenz Declaration we agreed on the following definition:

"The Frontiers of the Roman Empire World Heritage (FRE WHS) should consist of the line(s) of the frontier at the height of the empire from Trajan to Septimius Severus (about AD 100 to 200), and the military installations of different periods which are on that line. The installations include fortresses, forts, towers, the limes road, artificial barriers and immediately associated civil structures. It is accepted that the Roman frontiers are more complex, and that this might be recognized in a later amendment to the above definition, but this definition is recommended as the first step in the creation of this multi-national World Heritage Site". (App. to WHC-08/32.COM/10B, 10f.; Jilek 2008, 201; Fejérdy / Jilek 2011, 21).

The idea was a definition that

- would deal with the "problem" of changing border lines, particularly in Great Britain and in Southern Germany;
- would incorporate our then biggest interest – the High Empire;
- allows a maximum of States Parties to participate (**fig. 1**), including many in North Africa and the Near East, with whom we have not had a chance to come in contact yet;
- could be used for all ICOMOS and UNESCO dealings;
- perhaps most importantly, could satisfy UNESCO-delegates to inscribe FRE into the WHS-List.

As you know, we must have done at least not a bad job, as on this basis and on a Summary Nomination

[1] The Bratislava Group is a loosely knit international advisory body for the FRE WHS, accepted by UNESCO; Jilek 2008.



Fig. 1. The Roman Empire with its frontiers in the middle of the 2nd century (FRE)

Statement (Breeze / Young 2008) an Outstanding Universal Value (OUV) was recognized. In summer 2005 the proposal of an extension of Hadrian's Wall into FRE, including the ORL, was accepted. In 2008 the Antonine Wall was added.

In respect to further expansions, at least in Europe mostly along rivers, the Koblenz Declaration was amended at the Bratislava Group meeting 5th November 2008 by what is known now as the Vienna Declaration:

"The aim is to bring into the FRE WHS all appropriate parts of the Roman frontier with the definitions laid down in the Koblenz declaration and bearing in mind the value of the buffer zone in protecting the integrity of the Site. The first step is to prepare an inventory of existing remains which might require new non-intrusive archaeological investigation and includes determining the state of surviving remains in context. Special attention will need to be given to recording and preserving remains in settled and urban environments. Such actions will allow decisions to be made about what to be included in future nominations. The World Heritage Committee has accepted both that elements of the frontier which are not visible and archaeological remains buried below modern buildings may also be included in the WHS." (Fejérdy / Jilek 2011, 22).

At present, after a several-year period of intensive preparations, we are looking forward to two additional applications – Hungary and Slovakia – on that basis. We hail the colleagues there for their efforts and preliminary results.

Others will follow. As far as I know, Austria, Croatia and the Netherlands have their Limes on their Tentative Lists and are in process of collecting

the necessary information and taking the relevant decisions, the Netherlands in close cooperation with North-Rhine Westfalia and Rhineland-Palatinate in Germany. In Romania serious discussions are happening and a few months ago we noticed with big surprise that Tunisia included forts and barriers in the North African desert onto its Tentative List, too.

With the expansion of FRE WHS towards the Danube and the Rhine we are taking a new step into somewhat unknown territory. Hadrian's Wall, the Antonine Wall, and Upper German-Raetian Limes are all clearly defined borders systems with linear features partially running well preserved in thinly populated areas. At the rivers, however, there are fortresses, forts, perhaps towers; and a road or the river itself could be seen as connector. Of that, what should be inscribed into the WH-List? And how to deal with the fortresses and forts, which in their majority served as nuclei for post-Roman medieval development and which are mostly situated under present day towns and villages still functioning and in use?

Particularly challenging is the fact, that "our" WHS FRE is still the only phased serial international nomination on the WH-List. With all other international nominations, like the Prehistoric Pile Dwellings around the Alps, all possibly participating States Parties and Sites were nominated under the same circumstances at the same time with just one nomination paper. In our case, however, we have a situation where over time more and more States Parties will try to join the WHS, having prepared their nominations on the present day state of the art. These new applications have to be approved by all States Parties already within the WHS.

As a result, there are ongoing discussions with a high relevance for the present and future participants in the WHS FRE. It will be crucial whether, and in what form, UNESCO would accept our proposal of the Retrospective Statement of Outstanding Universal Value. There are points of disagreement between the Intergovernmental Committee (IGC)[2] and UNESCO, but it is too early to bring this discussion forward here.

David Breeze and I thought it worthwhile to share the various discussions with all those interested at this Limes Conference. We also thought that it would make sense to share the experiences, some of them quite experimental, and the "off-spins" resulting from the inscription of the first three sites into the WHS-List.

This session's aim is to establish a platform of exchange for all those who are already involved with the administration of the WHS FRE, and for those who are considering joining the FRE. For the latter, "how to" information will be provided about the process of preparing a nomination and the phases following nomination. The idea is to promote the fascination of this unique enterprise outside the relatively small but open circle of the Bratislava Group.

We are grateful to Lyudmil Vagalinski and the congress team for allocating "space" for the session. We are also grateful for the range of contributions, as much as we are delighted that so many colleagues wanted to contribute. I tried to order the papers in a way that we start with some general views looking back and forth, continue with developments at various frontier sections – I am particularly looking forward to hearing news from Jordan – then hear about examples of best practice at WH-sites, mostly in respect of presentation and involving a wider public, and finish with two papers about attempts to systemize our knowledge and approach. This eventually brought us back into the primarily scientific framework of the XXII Limes Conference.

Bibliography

Breeze, D. J. / Jilek, S. 2008a. The Frontiers of the Roman Empire World Heritage Site. In: Breeze, D. J. / Jilek, S. (eds.) Frontiers of the Roman Empire – the European dimension of a World Heritage Site. Edinburgh. 25-28.

Breeze, D. J. / Jilek, S. (eds.). 2008b. Frontiers of the Roman Empire – the European dimension of a World Heritage Site. Edinburgh.

Breeze, D. J. / Young, Chr. 2008. Frontiers of the Roman Empire World Heritage Site Summary Nomination Statement. In: Breeze, D. J. / Jilek, S. (eds.). Frontiers of the Roman Empire – the European dimension of a World Heritage Site. Edinburgh. 29-35.

Dyczek, P. / Jilek, S. / Lemke, M. (eds.). 2011. In the Footsteps of the Romans. Guidelines to Nominate New Danube Limes Sections in Other Danube Countries. Warsaw.

Fejérdy, T. / Jilek, S. 2011. Guidelines to nominate new Danube

[2] The IGC was formed as a "governing body" of the States Parties within the existing WHS FRE (Great Britain and Germany) for the administration of the WHS. States Parties joining the WHS will also join the IGC. A "Joint Declaration" defining its function and also the relation to the Bratislava Group and a recently formed Management Group is expecting approval by UNESCO.

Limes sections. In: Dyczek, P. / Jilek, S. / Lemke, M. (eds.). In the Footsteps of the Romans. Guidelines to Nominate New Danube Limes Sections in Other Danube Countries. Warsaw. 7-23.

Jilek, S. 2008. The Role of the Bratislava Group. In: Breeze, D. J. / Jilek, S. (eds.). Frontiers of the Roman Empire – the European dimension of a World Heritage Site. Edinburgh. 201-203.

Prof. Dr. C. Sebastian Sommer
Landeskonservator
Bayerisches Landesamt für Denkmalpflege
Abteilung B
Hofgraben 4
DE-80539 München
Tel.: 089/2114-294
Fax: 089/2114-407
Sebastian.Sommer@blfd.bayern.de
http://www.blfd.bayern.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Corpus Limitis Imperii Romani (CLIR)

Zsolt VISY

The Regional Committee of the Hungarian Academy of Sciences at Pécs, the Committee for Philosophy, History and Ethnography, and the University of Pécs, Department of Archaeology Pécs, have prepared and submitted a proposal for a new scientific program to the Union Académique Internationale, Sciences humaines et sociales on May 11, 2010. The title of the proposal was: *Corpus Limitis Imperii Romani* (CLIR). It was accepted with good will by the General Assembly of the UAI, and as a first step, the arrangement of an international conference on the subject was suggested, in order to make sure that the proposal is supported by many scholars from different countries. The conference was held in Pécs in December 2010. Based on its results, and because it was possible to initiate the preparation a common international *limes* database, the proposal has been adopted by the General Assembly of UAI in 2011 for the Danube region (the provinces Noricum, Pannonia, Dalmatia, Moesia and Dacia) as its 79th international scientific program.

The Roman Empire evolved as a result of a long development and centuries of conquests. It emerged owing to the statesmanship of Augustus (31 BC – AD 14). The Roman Empire stretched over three continents around the Mediterranean Sea and triumphed for five centuries. Its duration was perhaps the longest of all empires in the world. Due to the accomplishments of this ancient civilization and the spread of Christianity, the Empire is still greatly relevant even today.

The Roman imperial army was recruited among freeborn male citizens, who served in it for 20-25 years. This army of approximately 400,000 men consisted of legions, auxiliary troops, fleets and special units, and was stationed almost without exception in the frontier provinces. The troops were commanded by high ranking officers commissioned by the emperor, and held this service only for a few years. The creation of a centralized mobile army at the end of the 3rd century alone brought about significant changes. Soon it became the most important military force. Gradually, the troops stationed at the frontiers were transformed into border guards, to the ranks of which even barbarians were admitted by the end of the 4th century.

The concept of linear frontier defence, i.e. the stationing of units along the frontiers or in close vicinity, started to evolve in the late 1st century AD. The military stations – forts, fortlets, and watchtowers – were constructed in common form, plan and mode of operation throughout the whole empire. As Roman conquests decreased, the forts built formerly only of timber and earth were rebuilt in stone. The *limes*, or the frontier that developed in this way, was merely a border-zone in the deserts, it used the features of the terrain in hilly areas, while in other places great rivers, in addition to determining transport routes, marked the borders (*ripa*). Walls or earthworks were erected only in the most threatened stretches. Soldiers served as guards and built their watchtowers near the *limes* road.

The army was stationed mainly along the frontiers in forts, which stood at an average distance of 10-30 Roman miles apart. However, Roman strategy always took geographical and political circumstances into consideration, and, accordingly, troops were sometimes stationed in the rear or in the centre of a province. Only the Praetorian Guard and some less important troops were billeted in Italy. The central fleet was also stationed there, but other fleets served in different seas or even on rivers.

The frontiers of the Roman Empire changed many times throughout the centuries, as new terri-

tories were occupied and organized into provinces, or were given up for a period of time or forever. The Roman army changed the position of its units accordingly, creating and constructing new lines of defence with new fortifications.

Military history and frontier defence of the Empire are almost synonymous. Together with the history of the army, they form the backbone of research on the Roman Empire. Works by Latin and Greek authors, tens of thousands of inscriptions and a rapidly increasing amount of archaeological data provide a solid base in order to explore and describe the history of the *Limes Romanus*.

These investigations have been going on for more than a hundred years in almost every country that inherited parts of the frontiers. There are at present 10 countries in Europe and 8 in Asia and Africa, along the over 5000 km long frontiers of the Roman Empire. At least 10 more countries possess remains of Roman military presence, and many others are interested in the research of the *Limes Romanus,* even though they did not belong to the territory of the Empire.

A large amount of work has been done for the better understanding of the Roman frontiers, and systematic research projects are carried out in most of the countries involved. Comprehensive studies, series and monographs, and an immense amount of other contributions and papers have been published. Since 1949, an international forum exists, in order to enhance Roman frontier studies – the International Limes Congress with its 22 editions, the most recent one held in 2012 in Ruse, Bulgaria. Some sectors of the *Limes Romanus* have been inscribed on the World Heritage List, and since 2005 have been included in the Multinational World Heritage Site of the Frontiers of the Roman Empire. The three registered as such up to 2008[1] will be followed by nominations of other sectors. For two of them - the Hungarian and Slovakian ones - nomination documentation has been completed by 2011, but not sent to the UNESCO World Heritage Centre yet.

Taking into account all the scientific work done, and considering the broad international interest in a synchronized, common effort and systematic evaluation of all investigations of the Roman frontiers in the future, the top priority has been to create a common platform in order to prepare a scientific catalogue and evaluation of the *Limes Romanus*. The best way to do so is to establish a corpus under the umbrella of the UAI: the *Corpus Limitis Imperii Romani* from Augustus to the end of the Western Roman Empire (ca. 500 AD). As far as the *Limes Romanus* is concerned, not only will the exact border line be included with its changes over time, but also the frontier provinces with all inner fortifications, military sites and installations. Roman military sites beyond the frontiers also belong to the subject. After having been adopted by UAI in 2011, the work on CLIR started with the development of the CLIR database.

CLIR is designed as a catalogue and a comprehensive study of the military sites of the Roman frontiers. A great number of monographs and series have already been published – the masterpiece remains *Der obergermanisch-raetische Limes* (ORL). Still, a systematic work of a common structure about the whole *Limes Romanus* is still missing. CLIR should and will fill this gap.

The main target of the project is to enhance international research of the *Limes Romanus* and to publish its elements on a common and coordinated base. To achieve these goals, the following tasks are to be considered and executed:

- preparing a list of the *limes* sites;
- *limes* structures: wall, palisade, ditch;
- temporary/permanently used forts and fortifications;
- fortlets, towers and other small military sites; military roads;
- to create an international database for proper organization of the material;
- to publish a series of monographs at national and international level
  - on each sector of the Roman frontiers according to the ancient or modern borders;
  - on the military network of the frontier provinces;
  - on the military sites.

The core of CLIR should concentrate on archaeological sources, especially on the military sites and structures. The forts, fortlets and other military structures and sites with their civil settlements should be described fully in monographs. Other archaeological and numismatic finds, cemeteries, epigraphic and all other written sources should be taken into limited consideration, according to the needs of interpretation.

CLIR is in close connection with some other UAI-programs, first of all with nr. 6a: *Tabula Imperii Romani* (TIR), nr. 48: *Atlas of the Greek and Roman World*, nr. 49: Greek and Latin inscriptions (*Corpora,*

[1] 1987: Hadrian's Wall; 2005: Upper German and Raetian Limes; 2008: Antonine Wall.

Supplementum Epigraphicum Graecum and *Corpus of amphora stamps*). These and other corpora (inscriptions: *CIL*, *IG*, *IGRR*, *CIG* and those on national level; *RIC* and other collections of numismatic material, *CSIR* for sculpture; the great number of monographs on archaeological evidence), and the evaluation of inscriptions and archaeological data make it unnecessary to incorporate inscriptions and mobile archaeological finds into CLIR, except for evaluation.

Research of the *ripa Pannonica* is an ongoing program of the Hungarian Academy of Sciences, the universities, the National Museum and of the territorial museums, and the scientific team responsible works at the University of Pécs. Archaeologists and students are creating a systematic survey of the *ripa Pannonica*, preparing a new and more accurate topography of the 500 km long Hungarian sector of the frontier of Pannonia. In the course of this work, many new military sites and structures have been identified. Based on this research and earlier information (documentation, databases, archives, excavations and finds) a series of new monographs will be prepared. Similar scientific programs are running in other countries, too.

The list of *limes* sites is to be prepared by the participating members/member institutes at the beginning of the project. New archaeological investigation (aerial exploration, geophysics, any kind of field work, including excavation) is to be planned and executed on the level of their personal and financial abilities. International coordination and cooperation is needed.

There are several databases dedicated to sectors of the *Limes Romanus*, prepared both on national and international levels.[2] The Hungarian *limes* database, which was created earlier and has now been upgraded in accordance with the latest scientific demands and safeguards, will be available on the web soon. There is, however, at least one international database planned and partly done: that of the Bratislava Group established in 2005-2008, for the European *limes* (extendable for the whole *limes*) with a multilingual thesaurus and with the possibility of providing a common platform for national *limes* databases. Although this database is not ready yet, after supplementary work has finished, it could be soon usable to all members/member institutes. The international CLIR database will be bigger than the previous ones but will be harmonized with them.

The completion of the program will take many years. Depending on the number of scholars working and on the time and financial resources available, it will take about 20 years just to prepare and publish the CLIR monographs about the Pannonian military sites in Hungary alone.

The sources and documents are and will be filled in the *limes* database, and this database will be accessible to everybody in a restricted way, but in its entirety with password-controlled access for all interested scholars. The advantage of the database is that it will be developed, refreshed and supplemented permanently. Although on-line publishing is an option, a printed version is also needed and planned, so that it can provide a well based overview and evaluation of the *limes* in a given time. The first volumes of the series of monographs should be published within 5 years. They will constitute a catalogue of the military structures of a given site or sector; however, they also will provide a critical evaluation as well.

The costs are at least three-folded: the fieldwork first, then the scientific work and the publication. The fieldwork (except new excavations) was partly carried out in an international program in Hungary (Roman Frontiers as World Heritage Site – Central European Program of the EU), and published in 2011. Further investigation is needed both along the *limes* and in the inner military sites of Pannonia, where ongoing investigations readily meet the requirements for inclusion in the *limes* database.

Scientific work and evaluation is on the way at many Hungarian institutions, also at the University of Pécs. Although the costs are partly covered by these institutions, further financial support is needed to enable scholars to work on CLIR. Regular financial support is needed from the government, private funds and international programs. The re-

[2] Some databases on the Roman Limes are: The Frontier of the Roman Empire of the Culture 2000 program between 2005-2008: www.romanfrontiers.org;
Danube Limes Project of the Central Europe Program between 2008-2011: http://danube-limes.eu/downloads/communication_materials;
The ripa Pannonica: http://plt.btk.pte.hu/ripa_pannonica_in_hungaria;
The Antonine Wall: www.antoninewall.org;
Hadrian's Wall Country: www.hadrians-wall.org;
Der römische Limes in Deutschland: www.deutsche-limeskommission.de;
Dunavski limes u Hrvatskoj: http://www.dunavskilimes-amo.com.hr.

search has to be synchronized also internationally, and the different working groups should prepare international applications to be able to finance the investigations, the work on the database and the scientific evaluation with publication of the results.

The Hungarian CLIR program at its current level, as created at the University of Pécs, has extended partnerships on both national and international levels; first of all with the Hungarian Academy of Sciences. A close connection and collaboration has also been established with several Romanian museums for common research on the Eastern frontier of province Dacia. There is a continuing cooperation with the Bratislava Group (international scientific board to enhance research and maintenance of the Roman *limes*) and with scientists and scientific institutions in Great Britain, The Netherlands, Germany, Austria, Slovakia, Croatia, Poland, Romania, Bulgaria, Spain, and from time to time with scholars from academies, universities, museums and research institutes of other countries.

The first meeting of the CLIR was held in conjunction with the 21st International Limes Congress held in Newcastle, Great Britain, in 2009. Scholars from many countries took part in it and agreed with the initiative of this program and gave their support to it. Hopefully, the presentation in Ruse about the newer results will provide further impetus to the work on CLIR.

Structure of the CLIR database

- archaeological site
- type of the site
- data relating to military sites
- data relating civilian sites
- workshops
- building elements
- tools
- articles for personal use
- clothing
- pottery
- grave and cemetery
- inscription and coin
- religion and arts
- troops
- description of the site
- bibliography

Structure of the volumes

- history of research
- topography
- maps, measurements, plans, photographs
- the *limes* sites with full documentation (text – figures)
- the finds according to types, with documentation (text – figures)
- selected epigraphic and numismatic material
- building history
- history of troops
- historical summary
- bibliography

Provinces involved

- Noricum
- Dalmatia
- Pannonia superior
- Pannonia inferior
- Moesia superior
- Moesia inferior
- Dacia superior
- Dacia Porolissensis
- Dacia inferior

- Possible volumes for Noricum
  - Lauriacum
  - River frontier of Noricum
- Possible volumes for Dalmatia
  - Burnum
  - Tilurium
  - Other military sites
  - Spalatum
- Possible volumes for Pannonia superior
  - Austria
    - Vindobona
    - Carnuntum
    - River frontier
    - Fortifications in the Barbaricum
  - Slovakia
    - River frontier and fortifications in the Barbaricum
  - Slovenia
    - Poetovio and other military sites
  - Hungary
    - Brigetio
    - Ad Flexum – Brigetio
    - Azaum – Cirpi
    - Early fortifications in the inner territory of the provinces in Hungary
    - Late fortifications in the inner territory of the provinces in Hungary
- Volumes for Pannonia inferior
  - Hungary
    - Cirpi – Aquincum
    - Aquincum
    - Aquincum – Intercisa
    - Intercisa – Altinum
    - Fortifications in the Barbaricum
  - Croatia

- River frontier
- Serbia
- River frontier
- Possible volumes for Moesia superior in Serbia
- Singidunum
- Viminacium
- River frontier 1
- River frontier 2
- Romuliana
- Possible volumes for Moesia superior in Bulgaria
- River frontier
- Possible volumes for Moesia inferior in Bulgaria
- Oescus
- Novae
- Durostorum
- River frontier 1
- River frontier 2
- River frontier 3
- Late Roman-Byzantine military sites
- Possible volumes for Moesia inferior in Romania
- Troesmis
- River frontier
- Late Roman-Byzantine military sites
- Possible volumes for Dacia in Romania
- The south-western frontier
- The north-western frontier
- Porolissum
- The northern frontier
- The eastern frontier
- Apulum
- Potaissa
- Inner fortifications
- The limes Alutanus
- The limes Transalutanus

Bibliography

Alföldy, G. 2005. Die Romanisation – Grundbegriff oder Fehlgriff? Überlegungen zum gegenwärtigen Stand der Erforschung von Integrationsprozessen im Römischen Weltreich. In: Visy, Zs. (ed.). Limes 19. Proceedings of the 19th Congress of Roman Frontier Studies. University of Pécs. 25-56.

Alföldy, G. 2000. Das Heer in der Sozialstruktur des Römischen Kaiserreiches. In: Kaiser, Heer und Gesellschaft in der römischen Kaiserzeit. Stuttgart. 33-57.

Alföldy, G. 1974. Noricum. London – Boston.

Aszt, Á. 2004. Mosonmagyaróvár, Frankel Leó utca (Téglaföldi-dűlő). Az Ad Flexum kutatások története és újabb eredményei - Mosonmagyaróvár, Frankel Leó utca (Téglaföldi-dűlő). History and research Results of the Ad Flexum Investigations. – Régészeti kutatások Magyarországon, 65-73.

Bíró, Sz. 2010. Eine Straßenstation unter militärischer Überwachung. Anmerkungen zu einer römischen Station in Nordwestpannonien. In: Grabherr, G. / Kainrath, B. (eds.). Conquiescamus! Longum iter fecimus – Römische Raststationen und Straßeninfrastruktur im Ostalpenraum. Akten zum Kolloquium zur Forschungslage zu römischen Straßenstationen. Innsbruck 4. und 5. Juni 2009 = IKARUS 6. Innsbruck. 133-158.

Bíró, Sz. 2009. Neue Angaben zum Vicus von Arrabona. In: Bíró, Sz. (ed.). Ex officina… Studia in honorem Dénes Gabler. Győr. 49-61.

Bödőcs , A. 2007. „Újabb" őrtornyok a limes Fejér megyei szakaszán – "Further" watch-towers in the section of the limes of Fejér County – „Neue" Wachtürme an der Limesstrecke vom Komitat Fejér. In: Bíró, Sz. (ed.). Fiatal Római Koros Kutatók I. Konferenciakötete. Xántus János Múzeum, Győr. 2006. március 8–10. Győr. 319-330.

Bondoc, D. 2009. The Roman Rule to the North of the Lower Danube during the Late Roman and Early Byzantine Period. Cluj-Napoca.

Bulat, M. 1969. Topografska istraživanja limesa u Slavoniji i Baranji. – Osječki zbornik 12, 39 –52.

Bülow, G. v. / Milčeva, A. (eds.) 1999. Der Limes an der unteren Donau von Diokletian bis Heraklios. Sofia.

Cambi, N. et al. 2007. Rimska vojska u Burnumu. L'esercito romano a Burnum. Drniš - Šibenik – Zadar.

*Czövek, A.*1999. Topográfiai adatok a limes Fadd menti szakaszához. – WMMÉ 21, 133-149.

Dyson, S. 1985. The Creation of the Roman Frontier. Princeton.

Elton, H. 1996. Frontiers of the Roman Empire. London.

Fischer, Th. 2002. Noricum. Mainz.

Gabler, D. 1995. Early Roman Occupation in the Pannonian Danube Bend. Roman Frontier Studies. 85-92.

Gardner, A. 2007. Fluid Frontiers: Cultural Interaction on the Edge of Empire. – Stanford Journal of Archaeology, 4, 43-60.

Gassner, V. / Jilek, S. / Stuppner, A. 1997. Der römische Limes in Österreich. Wien.

Genser, K. 1986. Der österreichische Donaulimes in der Römerzeit. – Der Römische Limes in Österreich 33. Wien.

Gudea, N. 1997a. Der Römergrenzkastell von Moigrad-Pomet/ Castrul roman de la Moigrad-Pomet. Zalău.

Gudea, N. 1997b. Der dakische Limes. Materialien zur seiner Geschichte. – Jahrbuch des Römisch-Germanischen Zentralmuseum Mainz 44, 1-113.

Gudea, N. 1997c. Der Meseş-Limes. Die vorgeschobene Kleinfestungslinie auf den westlichen Abschnitt der Grenze der Provinz Dacia Porolissensis/ Limesul de pe Munţii Meseş. Linia înaintată de turnuri de pază de pe sectorul de vest al provinciei Dacia Porolissensis. Zalău.

Ivanov, R. 1997. Das römische Verteidigungssystem an der unteren Donau zwischen Dorticum und Durostorum (Bulgarien)

von Augustus bis Maurikios. – Berichte der Römisch-Germanischen Kommission 78, 467-640.

Komoróczy, B. 2009. Marcomannia. Der Militärschlag gegen die Markomannen und Quaden - ein archäologischer Survey. In: 2000 Jahre Varusschlacht Konflikt. 114-125.

Kovács, P. 2006. Excavations in the Roman Auxiliary Fort of Annamatia (Baracs) between 1999 and 2005. Budapest.

Kovács, P. 2005. Excavations in the Roman Auxiliary Fort of Annamatia (Baracs) between 1999 and 2005. Budapest.

Lőrincz, B. 2001. Die römischen Hilfstruppen in Pannonien während der Prinzipatszeit. Teil I: Die Inschriften. – Wiener Archäologische Studien 3.

Marcu, F. 2009. Organizarea internă a castrelor din Dacia (= BMN 30). Cluj-Napoca.

Mattingly, D. 2010. Imperialism, Power, and Identity: Experiencing the Roman Empire. Princeton.

Mattingly, D. / Alcock, S. / Barrett, J. C. / Freeman, P. W. 1997. Dialogues in Roman Imperialism: Power, Discourse & Discrepant Experience in the Roman Empire. – Journal of Roman Archaeology Supplementary Series 23.

Miletić, Ž. 2010. Burnum – vojničko središte provincije Dalmacije. Burnum a Military Centre in the Province of Dalmatia. In: Radman Livaja, I. (ed.). Nalazi rimske vojne opreme u Hrvatskoj - The Finds of the Roman Military Equipment in Croatia. Zagreb. 113-141.

Mócsy, A. 1974. Pannonia and Upper Moesia. London – Boston.

Mráv, Zs. 2009. Dunafalva, későrómai kikötőerőd. – Régészeti kutatások Magyarországon, 183-184.

Pánczél, Sz. P. / Szabó, M. / Visy, Zs. 2011. Dácia superior keleti határának régészeti kutatása / Archaeological research on the Eastern Frontier of Dacia Superior. In: Visy, Zs. (ed.). A Danube Limes program régészeti kutatásai 2008-2011 között. Jelentés a Danube Limes UNESCO World Heritage Site pályázat keretében a PTE BTK Régészet Tanszékének kutatócsoportja által végzett kutatásokról / The Danube Limes Project Archaeological Research between 2008-2011. Report on the research carried out by the research team of the Department of Archaeology, University of Pecs within the framework of the Danube Limes UNESCO World Heritage Site project. Pécs. 173-180.

Péterfy, Zs. / Várady, Z. 2009. Watchtower from Late Roman Times, Explored in Őcsény-Soványtelek. – Specimina Nova 13, 159-166.

Petrović, P. (ed.) 1996. Roman Limes on the MiddIe and Lower Danube. Beograd.

Pinterović, D. 1968. Limesstudien in der Baranja und in Slawonien. – Archaeologia Iugoslavica 9, 5-83.

Pinterović, D. 1961. O rekognosciranju baranjskog sektora limesa. In: Limes u Jugoslaviji I. Zbornik radova sa simposiuma o Limesu 1960 godine. Beograd. 43-45.

Popa, A. / Cociş, S. / Klein, Ch. / Gaiu, C. / Man, N. 2010. Geophysikalische Prospektionen in Ostsiebenbürgen. Ein Deutsch-Rumänisch-Moldauisches Forschungsprojekt an der Ostgrenze der römischen Provinz Dacia. – Ephemeris Napocensis 20, 101-128.

Sanader, M. 2010. Dalmatia. Eine römische Provinz an der Adria. Mainz am Rhein.

Sanader, M. 2008. Imago provinciarum. Zagreb.

Sanader, M. 2006. The Roman legionary fortress at Tilurium - State of Research. In: Davison, D. / Gaffney, V. / Marin, E. (ed.). Dalmatia. Research in the Roman Province 1970–2001. Papers in Honour of J. J. Wilkes. Oxford. 59-66.

Sanader, M. 2003a. The ripa Pannonica in Croatia. In: Visy, Z. (ed.). The Roman Army in Pannonia. Pecs. 135-142.

Sanader, M. 2003 b. Tilurium I. Istraživanja - Forschungen 1997-2001. Zagreb.

Šašel-Kos, M. 1997. Dalmatae. Dalmatia. In: Der Neue Pauly. Enzyklopädie der Antike 3. Stuttgart. 282-286.

Szőnyi, E. 2009. Der römische Limes im Komitat Győr-Moson-Sopron. – Specimina Nova 13, 5-14.

Szőnyi, E. 2007. Győr-Belvárosi ásatások (Győr, innenstädtische Ausgrabungen). – Arrabona 45, 1, 109-148.

Torbatov, S. 2002. The Defence System of the Late Roman Province of Scythia. Veliko Tarnovo.

Tóth, E. 2009. Die Spätrömischen Militärarchitektur in Transdanubien. – Archaeologiai Értesítő 134, 31-61.

Vagalinski, L. / Sharankov, N. / Torbatov, S. 2012. The Lower Danube Roman Limes (1st – 6th c. AD). Sofia.

Visy, Zs. 2009. Archäologische Forschungen an der östlichen Grenze von Dacia Superior. In: Biró, Sz. (ed.) Ex officina... Studia in honorem Dénes Gabler. Győr. 587-598.

Visy, Zs. (ed.) 2003a. The Roman army in Pannonia. An Archaeological Guide of the Ripa Pannonica. Pécs.

Visy, Zs. 2003b. The ripa Pannonica in Hungary. Budapest.

Visy, Zs. / Szabó, M. / Priskin, A. / Lóki, R. (ed.) 2011. Danube limes project archaeological research between 2008-2011. Report on the research carried out by the research team of the Department of Archaeology, University of Pécs within the framework of the Danube Limes UNESCO World Heritage Site project. PTE Régészet Tanszék. Pécs.

Vukmanić, I. et al. 2010. Terenski pregled područja između Batine i Suze (Field Survey of the Area between Batina and Suza). – Annales Instituti archaeologici 6, 80-87.

Whittaker, C. R. 2004. Rome and Its Frontiers: The Dynamics of Empire. London: Routledge.

Wilkes, J. J. 1969. Dalmatia. London.

Zahariade, M. 1997. The Fortifications of Lower Moesia (A. D. 86-275). Amsterdam.

Dr. Zsolt Visy DSc FSA
Department of Archaeology
University of Pécs
Rókus u. 2.
H-7624 Pécs
Tel.: +36-72-503600/3524
zs.visy@gmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Classifying the Past: Using Thesauri to Interpret Roman Frontiers

Rebecca JONES

The *Limes* congresses provide an invaluable forum for scholars of Roman Frontiers to exchange knowledge and study frontier remains in other countries. Researchers often have to read academic papers in languages other than their native tongue in order to gain a wider grasp of the overall study area and where their own research interests sit in the pantheon of Roman frontier archaeology. The congresses have developed in recent years to enable a broad range of themes to be explored on the archaeology of different countries as well as provide the delegates with an opportunity to learn more about other frontiers and visit Roman sites and museums in the host country. We all know that a frontier studied in isolation will not benefit from wider research perspectives, alternative views, an appreciation of the wider Roman Empire and the potential for international research collaboration that is one of the many benefits of studying Roman military archaeology. Two languages, English and German, have dominated Roman frontier studies for many years, and certainly since the inception of the *Limes* Congresses in 1949 (Birley 1952, although that volume's papers are wholly in English). Other languages, French and sometimes that of the host country, have also been official congress languages of the 22 congresses that have now taken place. A glance at the bibliography of David Breeze's recent publication on the archaeology of Roman frontiers (Breeze 2011) shows the dominance of English and German in frontier literature. Yet the Roman frontier runs through 10 countries within Europe, before we even start to look at further around the Black Sea, the Near East and North Africa, meaning interpretation of frontier archaeology in at least nine languages if we are to explain the sites and monuments to the communities who live around them. Furthermore, the hinterland depth of the frontiers brings in a number of other countries, as well as evidence for military campaigns beyond the frontier elsewhere. Whilst there is, at present, no Roman frontier archaeology in Poland (although the proximity of marching camps heading north in Slovakia offers an intriguing possibility for the future – Hüssen / Rajtár forthcoming), there has been active Polish research on the Danube *Limes*, most notably at the fortress at *Novae* near Svishtov (e.g. Derda et al. 2008), visited by the participants at the XXII Congress in Bulgaria, as well as the Eastern frontier (e.g. Dabrowa (ed.) 1994) therefore adding Polish to the list of languages spoken by those researching Roman frontier archaeology. Moreover, Roman interaction with countries beyond the frontier brings in participation from an even wider number of languages. For example, congresses in recent years have seen numerous papers and posters showing the amount of research currently going in on beyond the Roman frontier in southern Scandinavia (e.g. Grane 2007).

Although most scholars are conversant in one of the two main languages (English and German) and many speak both, we must ensure that we continue to be able to promote and interpret our research to as wide an audience as possible, and this means describing Roman archaeology in all the languages of those interested. The many different languages in daily use by scholars and archaeological interpreters around the Roman Empire provide challenges for cross-border research and promotion. The *Frontiers of the Roman Empire* (FRE) project, funded by Culture 2000 which ran from 2005-8 (Breeze / Jilek 2008), was acutely aware of the issues of trying to promote and expand a transboundary World Heritage Site which ran through

multiple countries. Indeed, an early product of the project was an overarching booklet promoting the Frontiers (Breeze et al. 2005), written in four languages – English, German, French and Arabic – the latter recognising the amount of the Roman frontier that runs through Arabic speaking countries. The first three languages sit side by side on the page, together with the three language captions for the illustrations, but because Arabic reads differently, this had its own separate section in the latter part of the book. This volume, with over 5,000 copies distributed free around the world to archaeologists and cultural resource managers as well as members of the public, was so successful that it begat a multilingual series on the frontier in various participating countries, each of which contained the text in the original booklet, updated as appropriate, plus a description of the frontier in that country in its native tongue with a translation into English and sometimes German. Whilst this sounds a logical step for a multi-language discipline such as Roman frontier studies, the work that was required firstly to undertake the translations in the appropriate style as well as language, conveying the archaeology appropriately, plus the layout challenges in presenting this in printed form, should not be underestimated, and the series has been a major undertaking for all concerned. But it has been an extremely worthwhile activity which aids in the wider promotion of our shared Roman heritage. Thus far (early 2013), seven booklets have been produced (2008: Slovakia; the Lower Danube Limes in Bulgaria; The Roman Limes in Hungary; 2009: The Antonine Wall; The Danube Limes, a Roman River Frontier; 2011: The Danube Limes in Austria; Hadrian's Wall) with a North Africa in active preparation and a further eight planned.

One of the objectives set during the FRE project was the creation of a multilingual thesaurus of terms used to describe Roman military archaeological sites. The foundation for this (partly because of the involvement of this author) was the Thesauri of Monument Types that have been created for the national records for Scotland and England and available online (Scotland: http://orapweb.rcahms.gov.uk/apex/f?p=210; England: http://thesaurus.english-heritage.org.uk) both urls may change in 2015. These two thesauri, mapped to one another, stem from a common United Kingdom standard known as *MIDAS Heritage: The UK Historic Environment Information Standard* (English Heritage 2012). MIDAS Heritage identifies what are known as Heritage Asset Themes, and the 'Monument' theme was our source. MIDAS Heritage itself has been mapped to the CIDOC Conceptual Reference Model, an international standard adopted by the International Council of Museums (ICON) to provide definitions and a structure for describing the implicit and explicit concepts and relationships used in cultural heritage documentation (www.cidoc-crm.org/).

The first phase was to take a subset of the thousands of site types in both the Scottish and English thesauri of those terms used to describe Roman military and frontier archaeology. This was done in English with phase two being the translation of these terms into languages of the FRE partners. This resulted in new terms being added to the initial list as required due to the archaeology specific to countries outside the UK and a wider range of terms being in common use elsewhere. Currently, the thesaurus exists in seven languages (English, German, Hungarian, Polish, Slovakian, Slovenian and Spanish) but it needs to be used and updated to enable its future development, both in the addition of new terms as well as languages. Furthermore, there is no reason why we should stop with 'sites' and we should also consider the development of a multilingual artefact thesaurus in the future.

Once the thesaurus had been created in several languages, the task of creating a digital online version came next, and this was undertaken by Kurt Schaller who kindly then agreed to host it on the Austrian Limes website (http://www.limes-oesterreich.at/thesaurus/123). Although digital thesauri may not be the most exciting element of Roman archaeology, this development enables users to look up the 'scope notes' – brief descriptions – of different types of site which can be valuable when words are encountered when reading other languages. The thesaurus is far from perfect, with some terms not in active use in the language given but it needs to be used and updated to keep current with research and interpretation. Thesauri are indexing terms in that they are designed to enable us to find on-line data. The FRE thesaurus is structured so that it can be searched in three ways in all the partner languages: by tree view (for example, viewing all sites classified as 'defence' or 'communications'), by hierarchy (similar to the tree view but compressed) and as an alphabetical list. In the latter, sites may appear more than once if they sit in multiple hierarchies. For example, hospital / infirmary appears twice in English due to its presence in both the Health and Welfare and Architecture (Building Structure) hierarchies.

In my own area of research, that of temporary camps, confusion can arise in different languages which is one of the reasons for my interest in the multi-lingual thesaurus. In English, we use the term 'camp' to describe structures occupied on a temporary basis by the Roman army whether on campaign (marching camps), besieging sites (siege camps), practicing construction techniques (practice camps) or engaged in building forts and frontiers (construction / labour camps) (for more discussion of these functional categories, see Jones 2011, 6-12). Whilst these have been translated in the FRE thesaurus, many of these translations are probably not in active use in the databases and publications of many of the partner countries. One of the complications we have in applying our modern concepts and descriptions is that we are trying to put our perceptions on the past rather than use the language in operation by their native occupants. In Latin we have the simplicity of '*castra*' as a general catch all, with classical texts referring to *castra aestiva*, *castra hiberna* and *castra stativa* (summer, winter and permanent camps respectively). Yet both summer and winter camps were presumably temporary, as they differ from permanent (*stativa*), but detecting the difference between these two in the archaeological record is currently impossible and the terms are not in common parlance in the English language.

When it comes to *castra stativa*, permanent camps, these are referred to as 'forts' in Britain (and other related sites such as legionary bases (fortresses) and fortlets) but elsewhere in Europe the term 'camp' is frequently applied in English translations when what is intended is a site that we would call a 'fort'. As noted above, the site type 'camp' is used for temporary structures where the soldiers were camped in tents, not a 'fort' where the occupants lived in buildings. Yet this is an area where the thesaurus would benefit from constant revision generated through its active use. The German translation of fort in the FRE thesaurus at present is 'Festungslager'. Whilst this is the traditional translation of the term, it is old fashioned and not generally used in Roman contexts. 'Lager' is possible but is more likely to be used when referring to a 'legionary fortress / base'. A more neutral term is 'Kastell'. But many colleagues do not make any difference between 'Lager' and 'Kastell', which does not appear on its own in the thesaurus, although 'Klein Kastell' or Fortlet does.

Does any of this actually matter? Potentially not, although if we are to ever realise an ambition to create an online database of Roman sites across the Empire then this outline agreed list of terms will be critical. The world of heritage database standards development recognises the constraints posed by the specific terms adopted in thesauri and is moving to knowledge organisation systems, whereby concepts are mapped to one another – this should ultimately allow for more flexibility when developing indexing terms in more than one language. We have many languages still to bring on board, but if another European funding opportunity presents itself and the will is there, we should work together to consider developing an online interactive map and database of Roman frontier archaeology. Not only should it help with running an expanding the World Heritage Site, but it should aid research and therefore subsequent interpretation. Collaboration will be the key to our success.

Whilst it has been noted that the many different languages in use in the countries on the frontiers of the Roman Empire present challenges for research, they create even greater challenges for those tasked with the interpretation of these sites to non-scientific / non-specialist audiences. Language is a barrier to access but we have some of the most amazing archaeological sites in the world and we want to find ways to express our enthusiasm and interpret them for a wider audience. It is our responsibility as Roman scholars to ensure that our colleagues who specialise in interpretation and access are given the tools that they need – and that includes thesauri, classification and descriptions – to enable them to write and tell the stories that open up our archaeology to the general public – to the people whose interest in these sites will ensure their preservation for future generations.

Acknowledgements

This work was only possible due to the work by numerous colleagues who were involved in the FRE project, most of whom are named in Breeze / Jilek 2008. I would also like to thank Martina Meyr for helpful discussions about German and English terminology and David Breeze for commenting on the text. I am extremely grateful to the Royal Society of Edinburgh for the award of a research grant enabling me to attend the Limes Congress in Bulgaria.

This paper is dedicated to the late Kurt Schaller who did all the digital work on the thesaurus and sadly passed away in Autumn 2012.

Bibliography

Birley, E. (ed.) 1952. The Congress of Roman Frontier Studies, 1949. Durham.

Breeze, D. J. 2011. The Frontiers of Imperial Rome. Pen and Sword. Barnsley.

Breeze, D. J. / Jilek, S. 2008. Frontiers of the Roman Empire. The European Dimension of a World Heritage Site. Edinburgh.

Breeze, D. J. / Jilek, S. / Thiel, A. 2005. Frontiers of the Roman Empire / Grenzen des Roemischen Reiches / Frontieres del'Empire Romain. Edinburgh / Esslingen / Wien.

Dabrowa, E. (ed.) 1994. The Roman and Byzantine Army in the East. Proceedings of a Colloquium held at the Jagiellonian University, Krakow in September 1992. Krakow.

Derda, T. / Dyczek, P. / Kolendo, J. 2008. Novae: Legionary Fortress and Late Antique Town. Volume 1: A Companion to the Study of Novae. Warsaw.

English Heritage 2012. MIDAS. Heritage. The UK Historic Environment Data Standard. Version 1.1, October 2012. http://www.english-heritage.org.uk/publications/midas-heritage/ accessed 12 January 2012.

Grane, T. (ed.) 2007. Beyond the Roman frontier: Roman influences on the Northern Barbaricum. Quasar.

Hüssen, C-M. / Rajtár, J. forthcoming. Römische Feldlager aus der Zeit der Markomannenkriege in der Slowakei. In: Bidwell, N. / Hodgson, N. (eds.). Limes XXI: Proceedings of the International Congress of Roman Frontier Studies held in Newcastle, September 2009. British Archaeological Reports. Oxford.

Jones, R. H. 2011. Roman Camps in Scotland. Society of Antiquaries of Scotland. Edinburgh.

Dr Rebecca H Jones
Historic Scotland, Alba Aosmhor
Longmore House, Salisbury Place
UK-Edinburgh EH9 1SH
Tel.: 0131 668 8735
Rebecca.Jones@scotland.gsi.gov.uk

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Factors Influencing the Future Development of the Frontiers of the Roman Empire World Heritage Site

David BROUGH

Introduction

Around ten years ago the concept of presenting the archaeological remains across the entirety of the frontiers of the Roman Empire as one World Heritage Site (WHS) began to take shape. Since that time three sections of the frontier have been inscribed within the Frontiers of the Roman Empire World Heritage Site (FRE); progress towards the nomination of further sections of the frontier has been made in several countries; management structures for the serial transnational WHS have been established and a broad range of promotional, educational and research activities have been undertaken in support of the overall endeavour.

All those involved hope that this progress may be sustained over coming years and that eventually the aspiration to achieve the inscription of elements from all sections of the Roman imperial frontier system will be realised.

This paper, based on research completed in late 2011, describes the principal factors which are likely to influence progress towards realising this ambition, and in so doing suggests issues which merit further consideration and debate by those involved in this process. The future development of the FRE is considered both in terms of the inscription of further sections of the Roman frontier system and the establishment of the FRE as a single serial transnational WHS. The principal factors discussed are: the degree of consensus surrounding the FRE project; the influence of official guidance and World Heritage policy; the effectiveness of the arrangements by which the project is managed.

The Level of Consensus

The aspiration to seek World Heritage inscription for the archaeological remains of the Roman imperial frontier is based on a solid and long-established academic consensus that these sites represent an integrated and coherent archaeological ensemble. The triennial International Congress of Roman Frontier Studies (the Limes Congress) is itself testimony to this consensus. Academic authority agrees that these remains possess both authenticity (i.e. they are genuinely what they are claimed to be) and integrity (i.e. that not only are the remains substantive but that they represent a coherent whole), each of which must be evidenced as part of Outstanding Universal Value (OUV) of any property nominated for World Heritage status.

The consensus extends to a shared recognition amongst the archaeological and heritage management communities that World Heritage inscription of the monument can enhance its protection, and that the process of preparing nominations for World Heritage status significantly facilitates its protection by obliging the identification, delineation and cataloguing of its component archaeological elements to be undertaken.

This consensus has not, however, resulted in the same degree of priority having been given to the promotion of nominations between different countries which contain remains of the Roman frontier. **Figure 1**, which lists these countries clockwise from the Antonine Wall in the northwest, shows that the rate of progress towards nomination and inscription has been greatest in the northern European reaches

Fig. 1. Progress to Date in Inscription of Frontiers of the Roman Empire

Section	Status
Antonine Wall	Inscribed 2008
Hadrian's Wall	Inscribed 1986
Netherlands / Lower German Limes	Tentative List 2011 – nomination in preparation
Upper German / Raetian Limes	Inscribed 2005
Danube Limes in Austria	Tentative List 2011 – nomination in preparation
Slovakian Limes Romanus	Tentative List 2002 – nomination prepared
Ripa Pannonica in Hungary	Tentative List 2009 – nomination prepared
Croatian Limes	Tentative List 2005 – nomination in preparation
Serbian Limes	Not on Tentative List
Bulgarian Limes	Not on Tentative List
Romanian Limes	Not on Tentative List
Turkish Limes	Not on Tentative List
Syrian Limes	Not on Tentative List
Jordanian Limes	Not on Tentative List
Egyptian Limes	Not on Tentative List
Libyan Limes	Not on Tentative List
Limes du Sud tunisien	Tentative List 2012 – nomination in preparation
Algerian Limes	Not on Tentative List
Moroccan Limes	Not on Tentative List

of the imperial boundary. This may be reflective of the relative prosperity of these countries and of their greater capacity in Roman archaeological expertise. It may, however, also be indicative of differences in the relative cultural significance attributed to Roman heritage between Europe and the Middle East and North Africa[1]. Nominations for World Heritage status must be endorsed at the national government level, and therefore the significance attributed to different types of heritage within each country becomes critical to their advancement. This situation is compounded by the continuing application of the principles established by the Cairns Declaration (UNESCO 2011a) of limiting the number of nominations which can be made by each country, thus creating competition between different heritage interests and obliging prioritisation at the national level of sites for nomination. **Figure 1** nevertheless also suggests that progress towards nomination has spread down the Danube since the FRE WHS was formally established in 2005, and the recent inclusion of elements of the frontier system on Tunisia's Tentative List would suggest the expansion of participation in the FRE project may well continue, which may be given further impetus by plans to stage the XXIV Limes Congress in 2018 in Morocco.

While consensus around the desirability and credibility of securing inscription for the archaeology of the Roman frontier system is widely if not universally established, this does not automatically lead to a consensus that it is equally desirable to be inscribed as part of a serial transnational WHS rather than as a stand-alone Site.

This is not to say that there are differences of opinion on this question, but rather that the possible answers to this question have yet to be fully explored and articulated, and uncertainty remains around what it means in practical terms to be a serial transnational WHS. As a result the advantages and potential dis-benefits of being part of a serial transnational WHS are not yet clear. The FRE project is undoubtedly an ambitious undertaking and the enthusiasm of those involved in propelling it forward has partly been fuelled, as Christopher Young acknowledged, by the proposition being 'new and fun and exciting' (2011). Other participants in the process, such as Hadrian's Wall WHS Co-ordinator John Scott (2011), believe that the FRE project offers a potential exemplar which could

[1] The relative numbers of delegates at the Limes Congress from each of these regions provide a clear if crude indication of this point.

epitomise the World Heritage Convention's objective of fostering greater international cooperation in the management and conservation of heritage of universal value to mankind (UNESCO 1972, article 7). Furthermore, Jens Dolata (2011) amongst others has suggested that the FRE offers an opportunity for each of its participating sections to tell a much larger and more compelling story – that of the whole of the Roman frontier system – than they might otherwise be able to do as stand-alone Sites.

Within the wider workings of the World Heritage programme mixed views have been expressed about the desirability of serial and serial transnational nominations. Those supporting the concept have felt that it offers a mechanism by which Sites which display what may be termed dispersed or aggregated OUV can be included on the WH List thereby making it more representative of a wider range of types of heritage in contrast to the traditional focus on single, monumental Sites (UNESCO 2004, 11). Echoing John Scott's view, serial transnational properties have also been welcomed for their potential to promote greater international co-operation in heritage management (UNESCO 2010a, para 1.6). At the same time unease has been expressed that serial Sites in general can constitute catalogues of particular types of heritage in which some components may not warrant the attribution of World Heritage status (UNESCO 2010a, para 2.2.8). This anxiety is only likely to be compounded by concern that while the creation or extension of serial Sites may reduce the numerical growth of the World Heritage List each will undoubtedly lead to the geographical proliferation of World Heritage Sites.

Those responsible for managing the three currently inscribed sections of FRE WHS expressed doubts about how far it might be practicable or desirable for each of these sections to function as one single Site. These doubts were based on the recognition that each of these sections are different in their fabric and their setting, in their regulatory and management structures and practices, and hence in the specific issues and priorities which confront their management. It is also widely recognised that these already evident barriers to the FRE functioning as a single WHS are only likely to become greater as more sections from other countries are added to the Site.

World Heritage Policy

The evolution of World Heritage policy has generally been conducted by the setting of precedence through the decisions of the World Heritage Committee in respect of individual nominations and by the Committee's responses to the recommendations and findings of expert groups of heritage specialists which have considered particular aspects of policy or categories of heritage. In time these evolving policies are reflected in periodic amendments to the Operational Guidelines for the Implementation of the World Heritage Convention (the Guidelines). Serial WHSs have been the subject of debate by three such expert groups whose recommendations (Engels / Ohnesorge / Burmester 2009; Engels 2009; Martin / Gendre 2010) have in turn been debated as separate agenda items at three sessions of the Committee (UNESCO 2008; 2009a; 2010a). Each of these processes have, however, been dominated by discussions relating to the evaluation and inscription of serial nominations and have shed relatively little light on how such sites in general or serial transnational sites in particular should function post-inscription.

As a result the Guidelines' references to serial transnational WHSs focus primarily on how they may be nominated and how those nominations should be evaluated. They state that such sites may be inscribed through one nomination, providing that the Site as a whole demonstrates OUV and that each component contributes to its OUV in a 'substantial … way' (UNESCO 2012, para 137), or through a series of nominations, providing that the first section nominated demonstrates OUV in its own right (ibid, para 139) and that all subsequent extensions to the Site are endorsed 'by all State Parties concerned' (ibid, para 138). The failure of the Guidelines to elaborate on what in this context is meant by *substantial*, ensures that future assessments of whether this condition has been met will remain subjective and as such could potentially differ between those proposing nominations and those evaluating and determining them.

Similarly, what is meant by *concerned* is left undefined; does it, in the case of the FRE, include only those sections already inscribed or those plus others who have included potential sections of the Site on their Tentative Lists, or potentially any State Party which could in future put forward nominations of extensions to the Site? If the latter, then the practicalities and costs of confirming such assent across 19 modern day countries would be a major undertaking, while the potential for disagreement between 19 opinions on any aspect of a nomination is considerable.

The Guidelines provide only general guidance on how a serial or serial transnational Site should

be managed, stating that 'a management system or mechanisms for ensuring the co-ordinated management of the separate components are essential' (UNESCO 2012, para 114). Those seeking further guidance are, therefore, obliged to work on the assumption that where there are no specific provisions for serial Sites, the provisions as stated for non-serial properties will apply in the case of all serial properties. The most serious implication of this interpretation relates to the provisions for placing a Site on the List of World Heritage In Danger and for deleting Sites from the World Heritage List. At present, if any element of a Site is deemed to be at risk of losing its OUV then the whole of that Site may be declared to be In Danger or may be deleted. Thus, in theory, if part of Hadrian's Wall was under threat of destruction then the whole of Hadrian's Wall and the whole of the Antonine Wall and of the Upper German-Raetian Limes could potentially lose its WH status. This, as David Breeze (2011) has pointed out, despite there being no legal mechanism by which responsibility for the management of the serial transnational site can be shared between separate legally accountable authorities in different states. This situation naturally increases the concern of inscribed sections of the FRE that new nominations should be adequately protected and managed.

The Guidelines alone, therefore, leave those involved in the FRE project somewhat in the dark as to what may or may not be possible or permitted in terms of its future geographical expansion and its future management arrangements and practices. Some light on the first of these issues is provided through looking at the World Heritage Committee's decisions on the nominations of other serial properties. Two examples should be of concern to those hoping the Roman archaeological remains across the whole of the Roman frontier system might eventually be inscribed. In 2010 the WH Committee declined to inscribe a fourth extension to the Indian Hill Railways WHS declaring that the Site was now complete (UNESCO 2010b, 21); in 2009 the Committee deferred the nominations for the Halsingland Farmsteads and for the Works of Le Corbusier on the grounds that each were presenting wholesale catalogues of their particular heritage themes rather than a representative selection of the best examples of those themes (UNESCO 2009b, 15, 18). This reflects a wider debate about whether the WH List should be wholly inclusive or representative of the best of world heritage (ICOMOS 2008, 71-74).

These examples suggest it is unsafe to assume that similar decisions may not be applied to nominations of future extensions to the FRE. It is possible, for instance, that in the course of the sequential nomination of potentially five or six riparian sections of the frontier, the Committee may at some point declare this element of the Site to be adequately represented and reject further nominations of river frontiers. To mitigate this danger the approach taken by new nominations to the FRE to the preparation of the Comparative Analysis, as required of all nominations, will require careful consideration.

The recommendation of the expert group which met at Vilm in 2008 (Engels / Ohnesorge / Burmester 2009) that serial properties should include the minimum number of elements necessary to convey their OUV also suggests the desire of archaeologists to see all elements of the Roman remains inscribed is not certain to be approved. This uncertainty is only compounded by the increasing incidence of the Committee making decisions against the recommendations of the Advisory Bodies as noted by Jokilehto (2011).

The lack of specific guidance concerning the required management arrangements for serial properties is compounded for the FRE by the absence of other comparable Sites whose experiences of testing official policy might inform its development, and as Sonja Jilek has noted the FRE is 'a challenging concept without real precedent' (2009, 18). **Figure 2** lists all serial transnational WHSs as at the end of 2012 and illustrates that the FRE is already considerably more serial than any of its peers, with over 400 separate components inscribed via three separate nominations, with the potential for further nominations of extensions to the FRE involving up to 17 more countries and perhaps another 2,000 components. Although prospective nominations are in development from The Silk Roads of Central Asia and the Main Andean Highway, each of which are of potentially similar scale and complexity to the FRE, in the meantime no wholly comparable precedent is available to assist in addressing the policy issues facing the Site.

Hope of future clarification of policy is compromised by the currently applied definition of serial properties. Although no official definition a serial WHS has yet been declared, since 2005 any nomination consisting of more than one geographically separate component has been catalogued as serial. A serial transnational WHS is, therefore, one which comprises of more than one geographically separate component across the territories of more than one sovereign state. As I have argued elsewhere (Brough 2010) this somewhat crude designation has little

Fig. 2. Serial Transnational World Heritage Properties, August 2012

Serial Transnational Properties	State Parties	No. Elements	Size (ha)	Date Inscribed[1]
Cultural Properties				
Jesuit Missions of Brazil and Argentina	Argentina, Brazil	5	n/a	1983, **1984**
Frontiers of the Roman Empire[2]	United Kingdom, Germany	>400	527	1987, **2005**, 2008
Belfries of Belgium and France	Belgium, France	55	n/a	1999, **2005**
Struve Geodetic Arc	Belarus, Estonia, Finland, Latvia, Lithuania, Moldova, Norway, Russia, Sweden, Ukraine	34	n/a	**2005**
Stone Circles of Senegambia	Gambia, Senegal	93	9	**2006**
Coa Valley / Sega Verde	Portugal, Spain	2	n/a	1998, **2010**
Alpine Pile Dwellings	Austria, France, Germany, Italy Slovenia, Switzerland	111	274	2011
Heritage of Mercury – Almaden and Idrija	Spain, Slovenia	12	104	**2012**
Natural Properties				
Aggtelek Karst / Slovak Karst	Hungary, Slovakia	7	56, 651	**1995**, 2000
Uvs Nuur Basin	Mongolia, Russia	12	898,064	**2003**
The Beech Forests of the Carpathians	Germany, Slovakia, Ukraine, Germany	10	968,393	**2007**, 2011

[1] Date in bold indicates date at which the property became a transnational property.
[2] The Frontiers of the Roman Empire could potentially include over 2,000 elements across the territories of 19 State Parties.

meaning and results in an enormously diverse range of properties being bracketed within the same classification. At present, those Sites possessing only two geographically separate elements within the same setting, such as the Historic Centre of Graz and the neighbouring Schloss Egginburg, are categorised alongside the FRE with its 400-plus separate components spread over a distance of over 700 km across six separately administered jurisdictional areas. The resulting difficulties in devising guidance which may be equally relevant, appropriate or practically applicable to these enormously different Sites perhaps explains the paucity of guidance appropriate to the FRE.

Management Agreements and Practice

The inadequacy of available guidance has obliged the FRE in large part to determine its own management arrangements. The Summary Nomination Statement, prepared at the request of the World Heritage Centre in the months before the FRE was created, proposed that it should function as something of an association of its separately inscribed sections, in which each section would remain largely autonomous while sharing common management principles (Breeze / Young 2005), but although these principles were outlined, they remain to be further articulated and declared.

The Statement described a structure through which the FRE would be managed, with at its head an Intergovernmental Committee (IGC) consisting of administrative and archaeological representatives nominated by the respective States Parties of each of the inscribed sections of the Site. The IGC has thus become the channel for all formal communication between the State Parties and between the FRE and the Centre.

The IGC is supported by an advisory scientific body, the Bratislava Group, which is an informal association of archaeologists and heritage managers from a number of countries containing sections of the Roman imperial frontier (Jilek 2008). It has been particularly active in supporting the preparatory work involved in the development of new nominations to the FRE and the promotion of the project through various initiatives, which work has been enabled by its success in securing successive tranches of EU funding.

In 2009 another group, known as the Management Group, was formed consisting of the World Heritage Co-ordinators for each of the inscribed sections of the FRE together with others involved in the day-to-day management of the Site. The primary purpose of the Management Group has been the exchange of experience and good practice in managing the Site post-inscription, but it has

also provided the mechanism by which the FRE's response to World Heritage obligations such as the updating of the Site's Statement of Outstanding Universal Value and the preparation of the Periodic Report have been co-ordinated.

Coordination of collaboration across the FRE demands the commitment of substantial resources of both funding and staff time, and the pressures on these resources even with the relatively wealthy UK and Germany already constrain the extent of interchange between those managing the inscribed sections of the Site. As the FRE continues to grow, co-ordination between its different sections, be it operational or strategic, will become yet more of a challenge, demanding yet further resources and commitment.

In fulfilling the obligations which accompany World Heritage status, efforts have been made to test some of the requirements of official policy, particularly in respect of the preparation of the FRE's Periodic Report, which must be completed by all WHSs every seven years. In this instance the FRE requested a dispensation to complete reports for each of its three inscribed sections, reflecting their particular management arrangements and challenges. This was refused by the Centre, which insisted that one composite report be produced, which is likely to have only limited utility in guiding the future management of the Site. Although this decision was in itself only disappointing, its potential implications are perhaps more worrying, for it indicates the reluctance of the Centre to permit exceptions or departures from general policy provisions despite their inappropriateness to the particular complexity of the FRE.

The difficulties this principle might present for the FRE in the future are illustrated by the question of WHS Management Plans. At present all Sites are expected to have 'an appropriate management plan or other documented management system' (UNESCO 2012, para. 108); over recent years, greater attention has been paid by the Centre to the standards of management arrangements for WHS, and it is conceivable that the Centre may at some point specify that each WHS must have one overall Management Plan. The preparation of a single Plan for the FRE would, however, be an enormous task, the costs of which would heavily outweigh its practical value in helping inform and plan the future management of the Site.

Despite the apparent clarity of responsibilities described above and the undoubted progress made in progressing nominations, promoting the concept of the FRE, and in developing co-operation and co-ordination between its inscribed sections, these arrangements are not without their shortcomings.

Each of these groups have operated somewhat independently of each other and communications between them have been limited. In addition, within this structure there is no single body or mechanism which brings together all interests in the project and which includes all inscribed and potential sections of the FRE. From a project management perspective it is also striking that, beyond the principles and objectives stated in the Summary Nomination Statement (Breeze / Young 2005), there is no apparent strategy or project plan directing the FRE project as a whole. It is, therefore, hardly surprising that, apart from the initial success of persuading the Centre to accept the principle that the FRE could be developed through a series of incremental nominations, the FRE has struggled to influence official policy relevant to its needs.

The looseness and flexibility of this structure has, however, allowed the enthusiasm, initiative, resourcefulness and tenacity of a number of key individuals to champion the project and drive it forward.

Conclusions

The progress made in the realisation of the FRE project has been considerable, but the issues discussed in this paper present significant potential challenges to its future development. Although many of these issues are ultimately beyond the control of those wishing to see the full realisation of the FRE project, the extent to which these challenges will be met is largely dependent on how far those responsible for the project seek to influence or address their resolution.

The maintenance of existing consensus and the development of further consensus in relation to the project is a central requirement for future progress. Work must, therefore, continue to present the arguments in favour of the objective of securing World Heritage status for the archaeological remains of the Roman frontier system as a whole – particularly in those areas in which development pressures are most acute. Similarly the nascent benefits of participation in the serial transnational WHS need to be further articulated and demonstrated, not least to encourage greater participation by archaeologists and heritage managers in the Middle East and North Africa – despite the uncertainties of continuing unrest in these regions. More particularly the concept of serial transnational sites itself and their benefits need to be actively demonstrated and

promoted within the World Heritage Centre and in ICOMOS.

The vagueness of some aspects of World Heritage policy has allowed the FRE a degree of latitude in determining its arrangements and management practices, and has led many participants in the process of developing the Site to conclude that to seek clarification on some policy issues may result in official rulings detrimental to its development. The administration of the World Heritage programme has, however, become increasingly regulated and prescriptive in its requirements of Sites, and there is no reason to expect that this trend will not continue. Although raising particular policy issues and actively pursuing their resolution may risk undesirable outcomes for the FRE, failure to anticipate potentially adverse policy developments or to participate in such debates will ensure that future policy is formed without understanding of the FRE's particular circumstances and requirements.

The challenge of influencing policy is considerable but informal opportunities to do so through ICOMOS and through case-making via relevant academic journals can be used to articulate the FRE's concerns and needs. Perhaps the strongest opportunity for influencing relevant policy issues lies in seeking closer liaison with other existing and prospective serial transnational Sites to develop shared proposals for the resolution of specific policy issues. Such liaison may eventually give the FRE a stronger voice, but it is likely to be costly and also likely to take time to bear fruit and may struggle to become a priority for those involved in meeting the already heavy demands of managing the Site and supporting its future development.

Yet, in order to be in a position to influence policy the FRE itself must develop effective mechanisms by which issues affecting the Site can be debated by both the already inscribed and prospective sections of the WHS. Whether or not the FRE seeks to actively influence official policy, the development of wider consensus across its current and potential members on questions of management principles and nomination strategy would greatly enhance its future development. While those preparing nominations and those responsible for managing the inscribed sections have different immediate priorities, their interests are, ultimately, inextricably entwined. The management practices and structures established by the sections of the FRE already inscribed will have implications for new sections once they gain inscription. Similarly each new nomination, and in particular their Comparative Analyses, will have implications both for subsequent nominations and effect the functioning of the FRE as a whole. Communication between all current and potential sections of the Site will therefore become of increasing significance in the future development of the FRE project.

Each of the recommendations above will require the ongoing commitment of significant resources, as will the continuation of current levels of developmental work and co-ordination across the FRE, which activities are likely to become more costly as the Site expands. The priority for all concerned should, perhaps, therefore be to explore opportunities through which these activities might be resourced and progress in the realisation of the shared aspirations for the FRE may be sustained.

Bibliography

Breeze, D. J. 2011. The Antonine Wall. In: Müller, M. / Otten, T. / Wulf-Rheidt, U. (eds.). Schutzbauten und Rekonstruktionen in der Archaeologie. – Xantener Berichte 19, 71-78.

Breeze, D. J. / Young, C. 2005. Frontiers of the Roman Empire World Heritage Site Summary Nomination Statement. In: Breeze, D. J. / Jilek, S. (eds.). Frontiers of the Roman Empire: The European Dimension of a World Heritage Site. Edinburgh. 29-35.

Brough, D. 2010. Serial World Heritage Properties – emergence, application and definition of the concept. Unpublished MLitt assignment, Newcastle University.

Dolata, J. 2011. Personal communication (interview with the author), 16 June, Bad Ems.

Engels, B. (ed.) 2009. Serial Natural World Heritage Properties – Challenges for Nomination and Management. German Federal Agency for Nature Conservation. Bonn.

Engels, B. / Ohnesorge, B. / Burmester, A. (eds.) 2009. Nominations and Management of Serial Natural World Heritage Properties. German Federal Agency for Nature Conservation. Bonn, Germany. http://www.bfn.de/fileadmin/MDB/documents/service/Skript_248.pdf (accessed 21st April 2010)

ICOMOS 2008. The World Heritage List: What is OUV? Defining the Outstanding Universal Value of Cultural World Heritage Properties, compiled by Jukka Jokilehto, with contributions from Christina Cameron, Michel Parent and Michael Petzet. Berlin.

Jilek, S. 2009. Frontiers of the Roman Empire: The Danube Limes: A Roman River Frontier. Warsaw.

Jilek, S. 2008. The Role of the Bratislava Group. In: Breeze, D. J. / Jilek, S. (eds.). Frontiers of the Roman Empire:The European Dimension of a World Heritage Site. Edinburgh. 201-203.

Jokilehto, J. 2011. World Heritage; Observations on Decisions related to Cultural Heritage. – Journal of Cultural Heritage Management and Sustainable Development 1, 1, 61-74.

Martin, O. / Gendre, S. 2010. UNESCO World Heritage: Serial Properties and Nominations. Bern. Swiss Federal Office of Culture.

Scott, J. 2011. Personal communication (interview with the author) 6 May, Hexham.

UNESCO. 2012. Operational Guidelines for the Implementation of the World Heritage Convention. http://whc.unesco.org/en/guidelines (accessed 6th January 2013)

UNESCO. 2011a. Decisions Database, 24COM VI Cairns Decisions – Work of The World Heri-tage Reform Groups. http://whc.unesco.org/en/decisions/1218 (accessed 11th October 2012)

UNESCO. 2010a. World Heritage Committee, Thirty-fourth session, Brasilia, Brazil, 25 July – 3 August 2010, Item 9B of the Provisional Agenda: Report on serial nominations and properties. http://whc.unesco.org/en/sessions/34COM/documents/WHC-10/34.COM/9B (accessed 14th September 2010)

UNESCO. 2010b. World Heritage Committee, Thirty-fourth Session, Brasilia, Brazil, 25 July – 3 August 2010. Nominations to the World Heritage List. http://whc.unesco.org/en/sessions/34COM/documents/WHC.10/34.COM/8B (accessed 9th September 2010

UNESCO. 2009a. World Heritage Committee, Thirty-Third Session, Seville, Spain, 22-30 June 2009. Serial transnational nominations. http://whc.unesco.org/en/sessions/33COM/documents/WHC.09/33.COM/10A (accessed 1st July 2010)

UNESCO. 2009b. World Heritage Committee, Thirty-Third Session, Seville, Spain, 22-30 June 2009. Nominations to the World Heritage List. http://whc.unesco.org/en/sessions/32COM/documents/WHC.09/33.COM/8B (accessed 15th August 2010)

UNESCO. 2008. World Heritage Committee, Thirty second Session, Quebec City, Canada, 2- 10 July 2008, Point of Information on the preparation of serial transnational nominations. http://whc.unesco.org/en/sessions/32COM/documents/WHC-08/32.COM/10Be (accessed 1st July 2010)

UNESCO. 2004. World Heritage Committee, Twenty-eighth session, Suzhou, China 28 June – 7 July 2004, Evaluation of the Global Strategy for a representative, balanced and credible World Heritage List (1994-2004). http://whc.unesco.org/en/sessions/28COM/documents/WHC.04/28.COM/13 (accessed 14th July 2010)

UNESCO. 1972. Convention Concerning the Protection of the World Cultural and Natural Heritage. http://whc.unseco.org/en/conventiontext/ (accessed 24th July 2010)

Young, C. 2011. Personal communication (interview with the author) 13 May. London.

David Brough MLitt
Independent Heritage Advisor
Merivale, Acomb Drive
UK-Wylam, Northumberland, NE41 8BD
davidbrough101@btinternet.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Frontiers of the Roman Empire WHS – Public Presentation and Interpretation Planning

Nigel MILLS

Summary

This paper advocates an approach to public presentation of the Frontiers of the Roman Empire World Heritage Site which moves beyond a narrow, monument focused definition of Outstanding Universal Value to embrace a wider, thematic approach offering greater opportunities to engage with modern visitor audiences, to broaden the tourism offer, to increase public understanding and to promote UNESCO's core values. An overarching interpretation concept for the FRE WHS is proposed and the approach is illustrated by reference to new approaches to interpretation at the Roman Frontier Gallery at Tullie House Museum in Carlisle and the Roman sites of the city of Weissenburg in Bavaria.

Introduction

The Frontiers of the Roman Empire WHS offers unrivalled opportunities for presenting and interpreting the Roman world to a wide range of modern audiences. The narrative of the Frontiers of the Roman Empire WHS is about far more than the infrastructure and personnel of the Roman frontier army. The frontiers evolved and adapted in response to political, economic and other strategic factors at the heart of the Empire. To understand the frontiers is to understand the politics, the economy and the society of the Roman world. The history of the frontiers is symbolic of the whole concept of Empire and resonates with modern times.

The Frontiers of the Roman Empire World Heritage Site can also serve as an exemplar for promoting UNESCO's core values in developing the concept of World Heritage – promoting understanding, toleration, co-operation and respect amongst the nations of the world through awareness and appreciation of their distinctive heritage. Symbolic of occupation, conflict and division, the Frontiers of the Roman Empire WHS provides an ideal context through which to promote UNESCO's values in the modern world.

To achieve this potential, and to engage with the visiting public, interpretation and presentation needs to move beyond move beyond a narrow, monument focused definition of Outstanding Universal Value to embrace a wider, thematic approach which enables visitors better to understand the changing context and significance of the frontiers of the Empire and hence of the World Heritage Site.

Issues and Approaches in Interpretation Planning for the FRE

Public presentation of the Frontiers of the Roman Empire currently suffers from a number of key issues (Mills 2013).

Public presentation is generally very academic, focusing on the imparting of knowledge from academics and professionals to visitors rather than responding to the interests and questions of the visitors (and potential visitors) themselves.

Public presentation has tended to focus on the display of objects for their own sake, avoiding and excluding approaches which seek to use objects to illustrate themes and narratives.

Academic and professional archaeologists are often very conservative in their understanding of how archaeological evidence might be used for public presentation.

There is generally a poor understanding of the basic principles of good interpretation in the academic and museums world, with a perception that anything beyond straightforward presentation of objects and well authenticated reconstruction implies 'Disneyfication', 'dumbing down' or 'marketing'. Use of the word *storytelling* by interpreters tends to equate with the word *fairytales* in the

minds of many academic and professional archaeologists and curators.

Public presentation of the Roman frontiers has a tendency to focus on the Roman army and its military infrastructure and to avoid broader political, economic and social issues.

Public presentation usually focuses on the detailed archaeology of particular sites rather than their broader context. Where many sites are essentially similar, as is the case with Roman forts, public presentation tends to be repetitive.

Audience research carried out through focus groups and telephone survey revealed that potential audiences who might visit Hadrian's Wall had poor understanding and low expectations for a visit (Adkins/Holmes 2011; Adkins/Holmes/Mills 2013). Building on the results of the audience research an Interpretation Framework for Hadrian's Wall was developed and published in 2011 (Adkins/Mills 2011; Mills/Adkins 2013) with the core objective of enabling compelling interpretation along the length of Hadrian's Wall through which each site and museum offers a different experience that contributes to understanding of the WHS as a whole.

The Interpretation Framework advocates the use of best practice principles of audience engagement and interpretation planning in developing exciting, visitor facing experiences that enhance understanding of the Roman frontiers and their history and role within the Empire. The Framework advocates a thematic approach that sees the frontiers as part of the evolving and dynamic story of the Empire as a whole and which explores resonances and legacies in the modern world. Key to this approach is the view that Hadrian's Wall is an object that illustrates the wider story of Rome's north west Frontier rather than simply an object in itself (a wall) with a narrative restricted to its construction and functioning as barrier. This broader perspective provides scope to explore a much wider range of narratives and themes with the potential both to engage new and wider audiences and to increase understanding of the interest and significance of the FRE WHS.

Central to the development of the Framework were the six principles of interpretation developed by Tilden (1977) and especially his first principle, that 'any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile' (1977, 9). People connect with activities and experiences that are relevant to their own experience of daily life and of society. Connecting the experiences of people on the Roman frontier to the personal experiences of people in the modern world is key to bringing the frontiers to life for modern audiences. To present and to interpret the FRE to visitors we need to understand the interests and motivations of different audiences to bring the frontiers and their stories alive for visitors

In the context of Hadrian's Wall, there seemed to be two main conceptual areas through which to link the Wall to the experience of the visitor:

First, by relating the daily experiences of those people who lived and died along the Wall 2000 years ago to those of modern visitors – military and family life, food, transport, fashion, craft skills, etc. People are interested in people. By focusing interpretation on people and daily life, and by communicating in ways that are diverse, personally engaging and which challenge assumptions, a more varied, inspiring, affective and effective visitor experience can be created. This has the ability to generate stronger feelings and attitudes, enhance understanding and engage new and more varied audiences.

Second, by exploring the bigger picture of the Roman frontier narrative and relating it to the wider social, political and economic forces that people see everyday on their television screens and in newspapers. Viewed in this way, the sites and museums along Hadrian's Wall have an unparalleled opportunity to explore many issues that affect contemporary society. This approach to interpretation responds to Tilden's fourth and fifth principles: 'the chief aim of interpretation is not instruction, but provocation' and 'interpretation should aim to present a whole rather than a part, and must address itself to the whole man rather than any phase' (1977, 9).

Unesco, World Heritage, and the Frontiers of the Roman Empire WHS

The concept of World Heritage provides further scope through which to broaden the narrative, provide relevance to the modern world and engage audiences.

UNESCO's core values with respect to World Heritage are encapsulated in the World Heritage in Young Hands project (UNESCO 2002) designed to encourage and enable tomorrow's decision-makers to participate in heritage conservation. The innovative Educational Resource Kit focuses on themes of Identity (who we are, who others are), Tourism (learning, benefit, understanding, management), Environment (natural and cultural, interactions with people, protection) and Peace (respect, understanding, toleration, co-operation).

The objectives are for participants to learn about sites and their value, to acquire skills to conserve and understand, to forge new attitudes and commitments, and to play an active role in conservation and co-operation.

As a transnational World Heritage Site potentially encompassing many nations across Europe, the Near East and North Africa and as a World Heritage Site whose Outstanding Universal Value reflects issues such as conflict, the imposition of Imperial power, cultural exchange, economic stability and disparity, the Frontiers of the Roman Empire has a particular and perhaps unique opportunity to contribute to UNESCO's core values and objectives as set out in World Heritage in Young Hands.

An Interpretation Framework for the Frontiers of the Roman Empire WHS

To address these issues and to take advantage of the opportunities and approaches identified above the Interpretation Framework concept developed for Hadrian's Wall can be applied to the FRE WHS as a whole. The following is suggested as an overarching concept through which to develop engaging, diverse and audience facing interpretation across the FRE:

"The Roman Empire was one of the largest, most powerful and influential Empires the World has ever seen. Its impact and legacy continues to affect and shape our modern world although the high point of the Empire was over 2000 years ago.

The frontiers ebbed and flowed in response to economic and political issues and decisions at the heart of the Empire and threats and pressures at its edges. Imperial ambition, Roman identity, external threats, trade, resources, communications and supply were important factors influencing the location, extent and nature of the frontiers and how they changed and evolved over time.

The frontiers of the Roman Empire defined the Roman world physically, symbolically and psychologically. The Emperors spent much of their time on the frontiers and depended on the army, mainly based on the frontiers, for support. Many Emperors came from the frontier areas, especially in the later Empire.

The nature and physical structure of the frontiers and their military systems varied across the limits of the Empire, including walls and timber palisades, rivers, deserts and mountains. The purpose of the frontiers varies too, over space and time and was often as much about controlling and managing communications, trade and movement of people as it was about defence. The frontiers were where the Roman world came face to face with others. As in the modern world, these frontier zones were marked by innovation, cultural exchange and ethnic mingling and diversity.

Today the story of the Roman frontiers symbolises many issues confronted by people and nations in the modern world, of conflict, security, mistrust, autocracy, economic prosperity and opportunity, religion, ethnicity and cultural exchange. They provide a window through which to look at the past, the present and the future. They provide a vehicle through which to explore and to promote UNESCO's core values in creating the concept of World Heritage – to promote understanding, toleration, co-operation and respect amongst the nations of the World."

The following thematic structure is proposed through which to organise, explore and develop engaging narratives for different parts of the Roman frontiers and different sites within them:

Identity and citizenship – Imperial and ethnic/local identity, 'Roman' and 'native', 'Romanisation' and the integration and imposition of the Roman way of life in frontier areas. The multi-cultural nature of many frontier areas. Urban and rural relations.

Military life on the Frontier – the army, the forts, the garrisons, the *vici* and extramural settlements, the ebb and flow of the frontier over time, maintaining the frontier. The army was an effective and mighty military machine whose soldiers were also engineers, policemen, administrators and loyal citizens in retirement.

Lives on the Frontier – we can become personally involved in the lives and emotions of individual citizens through the compelling stories revealed through texts, images and inscriptions.

Frontier provinces – the frontier provinces were part of a vast Empire with long range social, commercial and communications links. As provinces they needed to make a commercial return to the Empire, through agricultural produce, minerals and taxation. These areas were also cultural melting pots where citizens from across the Empire earned a living in trade and commerce and in supplying the army and where the Roman world came face to face with other cultures and ideas.

Legacies – before, during and after the Roman Empire local people lived in these frontier areas. In many cases Roman rule left lasting legacies in language, culture, law and religion. The frontiers of the Roman Empire form tangible and intangible links between the many countries inside and outside the Empire, along its frontiers.

Power and control – empires are often synonymous with conflict, struggle and barriers, but also

with stability, economic prosperity, trade and commerce. We can explore these influences and challenges in the world today. Once a great divide, the frontiers of the Roman Empire provide a unifying element in the modern world, offering opportunities to explore and understand contemporary struggles and barriers and to share universal values which resonate with the UNESCO objectives in World Heritage Site nominations.

Frontier landscapes – the landscapes, geology, flora and fauna of the frontier areas helped shape the Roman world. The Romans adapted to these frontier landscapes in many different ways.

Exploration and research – the archaeological and historical evidence that enables us to explore the story of the frontiers is revealed through the work of academic, professional and volunteer researchers. This is a dynamic process in which we can actively engage and contribute through our own ideas and interpretations. It is also a process through which we can come to understand and value the legacy of the past.

Applying the Interpretation Framework 1: The Roman Frontier Gallery, Tullie House Museum and Art Gallery, Carlisle

The Roman Frontier Gallery provides a western gateway to the Hadrian's Wall World Heritage Site (Mills et al. 2013). The design of the gallery and the selection of objects for display has been consciously structured to explore and to present a narrative of Rome's remote north west frontier, and its links to the Empire as a whole. The narrative encompasses the process of occupation of the north of Britain by the Romans, the evolution of the frontier over 400 years in response to political, economic and military issues at the heart of the Empire, and the nature of the Roman occupation including themes such as administration, colonial exploitation, identity, citizenship, culture and symbols of Empire.

A particular feature of the Gallery is the "Living Wall" exhibit which enables visitors to explore modern frontiers from different perspectives through sound and images including interviews with people affected by frontiers in Northern Ireland and in Palestine. This exhibit also enables visitors to explore the concept of World Heritage and UNESCO's vision and mission. Visitors are encouraged to comment on the feelings inspired by the Gallery and the responses are often powerful and moving, illustrating the power of the approach to engage visitors:

The positive impact of the Gallery is reflected in a comment left by a visitor shortly after the Gallery opened:

"I have visited Hadrian's Wall many times over many years. This is the first time I have thought about the impact of the Wall on local people." (Lewis 2011).

Applying the Interpretation Framework 2: Weissenburg, Bavaria

The town of Weissenburg in Bavaria is located a few kilometres behind the line of the Raetian Limes. It

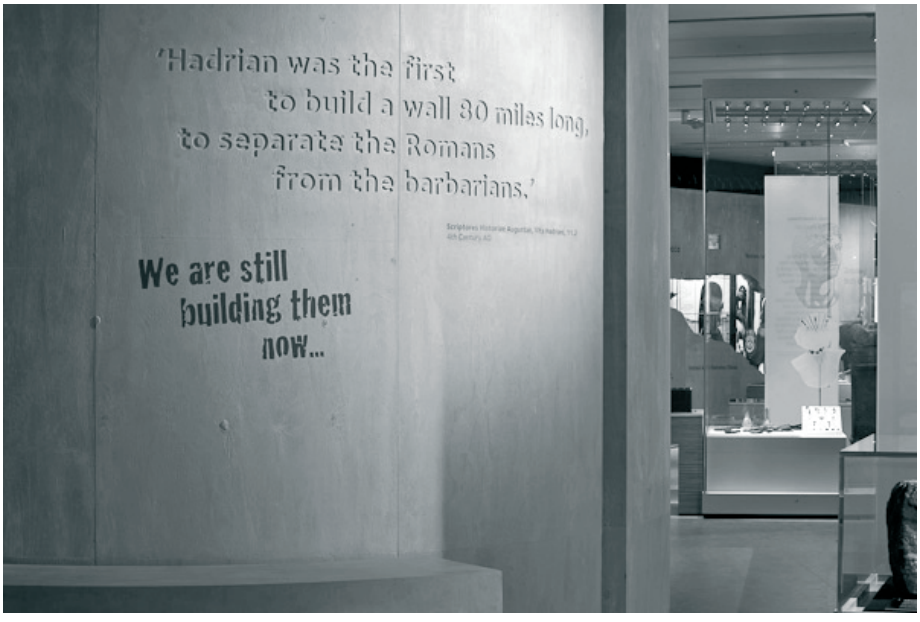


Fig. 1. The Roman Frontier Gallery – The Living Wall



Fig. 2. The Roman Frontier Gallery – The Province Pays

was the site of an important Roman fort and extramural settlement which is represented today through three key locations:

The fort itself, adjacent to a housing estate on the edge of the town about 1.5 km from the historic town centre. The fort outline is clearly demarcated, the interior laid out as public open space with a reconstructed gatehouse on the north side looking out to the Limes line.

A large excavated bath house, protected by an innovative architectural dome and open to the public

A museum in the historic core of the town which displays objects discovered from the fort and settlement, in particular a magnificent hoard or 'treasure' dated to the time of the collapse of this part of the Limes in the third century AD and comprising well-preserved bronze objects including statuettes and cavalry helmets.

A team from the Hadrian's Wall Trust was invited to develop an interpretation masterplan for the Roman sites of Weissenburg with a view to providing more effective linkage between the disparate elements and to developing an engaging offer for visitors (Hadrian's Wall Heritage 2011).

The team proposed a thematic approach exploring the way the different locations and their associated evidence symbolised and represented key aspects of Roman intervention in the area. The fort provides an opportunity to explore the military aspect of the Roman occupation, in particular how much of the power and wealth of Rome was manifested through the army and how large an investment this represented for the Roman state. The multi-cultural aspect of the Roman army could also be explored through the lives of individual soldiers as represented through evidence such as diplomas and inscriptions. The baths symbolise the sophistication and wealth of the Roman Empire, the investment that Rome made in this area through the decision to incorporate it into the Empire and an urban way of life. They provide scope to reveal the story of civil life, governance and administration as well as the security that the Roman occupation offered and the opportunities for leisure. Finally the 'Treasure' is an outstanding and dramatic collection of Roman objects that can be used to illustrate many aspects of the Roman occupation. The strongest theme though is the dramatic story of the sacking of the fort and other Roman sites by the Alamanic tribes, symbolising the end of the Raetian Limes. This story can be supported by the strong evidence from local Villa Rustica of the sudden and catastrophic events of the mid third century; the hoarding of the treasure and people fleeing the area and leaving behind their valuables

Three themes were proposed through which to develop complementary and engaging interpretation enabling each location to deliver differentiated storylines as part of an integrated narrative across all the Roman sites:

The power of Rome and its ethnic diversity – the fort

The wealth and sophistication of Rome – the baths

The 3rd century crisis – the treasure and the museum

These themes could be linked through an overarching narrative with references to the modern world.

This approach has been adopted by the City of Weissenburg and is being implemented in a phased programme. The new interpretation area for the Roman baths introduces the three themes and a film explores the splendour of Rome through the bath house.



Fig. 3. Weissenburg Interpretation Masterplan – Splendour



Fig. 4. Weissenburg Interpretation Masterplan – Doom

Bibliography

Adkins, G. / Holmes, N. 2011. Frontiers of the Roman Empire World Heritage Site – Hadrian's Wall Interpretation Framework Public Engagement Appendix. Hadrian's Wall Heritage Ltd. Hexham.

Adkins, G. / Mills, N. 2011. Frontiers of the Roman Empire World Heritage Site – Hadrian's Wall Interpretation Framework – Primary Theme: The north-west frontier of the Roman Empire. Hadrian's Wall Heritage Ltd. Perth.

Adkins, G. / Holmes, N. / Mills, N. 2013. The Hadrian's Wall Interpretation Framework: Audience Research. In: Mills, N. (ed.). Presenting the Romans: Interpreting the Frontiers of the Roman Empire World Heritage Site. The Boydell Press. Woodbridge 157-169.

Hadrian's Wall Heritage 2011. An Evaluation of Roman Weissenburg and Recommendations for Improvements to the Tourism Offer. Unpublished report. Hadrian's Wall Heritage Ltd. Hexham.

Lewis, P. 2011. Review of the Roman Frontier Gallery, Tullie House Museum and Art Gallery, Carlisle, Cumbria. – Museums Journal, December, 46-49.

Mills, N. 2013 Introduction. In: Mills, N. (ed.). Presenting the Romans: Interpreting the Frontiers of the Roman Empire World Heritage Site. The Boydell Press. Woodbridge 1-9.

Mills, N. / Adkins, G. 2013. The Hadrian's Wall Interpretation Framework. In: Mills, N (ed.). Presenting the Romans: Interpreting the Frontiers of the Roman Empire World Heritage Site. The Boydell Press. Woodbridge 171-180.

Mills, N. / Padley, T. / Scott, J. / Branczik, L. / Adkins, G. 2013. Applying the Hadrian's Wall Interpretation Framework. In: Mills, N. (ed.). Presenting the Romans: Interpreting the Frontiers of the Roman Empire World Heritage Site. The Boydell Press. Woodbridge 181-192.

Tilden, F. 1977. Interpreting our Heritage. Third ed. University of North Carolina Press. Chapel Hill.

UNESCO 2002. World Heritage in Young Hands Kit. Second ed. UNESCO World Heritage Centre. Paris.

Dr Nigel Mills
Heritage Consultant
The Hadrian's Wall Trust
UK-Ashgillside House Garrigill, Alston, CA9 3HB
nigelmillsheritage@gmail.com

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

The Management and Administration of the Transnational Serial World Heritage Property "Frontiers of the Roman Empire"

Christopher YOUNG / Reinhard DIETRICH / Peter HENRICH

The UNESCO World Heritage Committee sets out requirements for the management of World Heritage properties in its Operational Guidelines. Each property must have adequate legal protection, and a management system to protect its Outstanding Universal Value. Normally, this will include a management plan, some kind of steering group and coordination mechanism as well as oversight by the state party. Since 2007 the Committee also agrees a Statement of Outstanding Universal Value which explains why a property is on the World Heritage List. For sites inscribed earlier, such as the Frontiers, there is a programme for agreeing these Statements retrospectively.

UNESCO treats transnational serial sites, such as the Frontiers of the Roman Empire, as a single entity. For a serial transnational site, therefore, the management system must ensure the coordinated management of its individual parts. The states parties involved are recommended to establish a joint management committee or similar body to oversee the management of the site. Any significant action involving the World Heritage Committee requires the explicit approval of all the states parties while the Committee will treat a threat to one part of the site as a threat to the whole of it. Any extension to the property must be approved by the existing states parties. These requirements impose additional complexities on the already complex system of managing a World Heritage property. Until now there is little detailed guidance on what is required. The Intergovernmental Committee for the Frontiers property has raised a number of issues with the World Heritage Centre and awaits a response.

In 1987 the Hadrian's Wall became World Heritage Site as a single cultural monument and in 2005 the Upper-German-Raetian Limes (2005) and in 2008 the Antonine's Wall were accepted as extensions to Hadrian's Wall, along with the change of the name of the property to the "Frontiers of the Roman Empire". The intention of this was to have one World Heritage property covering the whole frontier of the Roman Empire rather than a proliferation of individual sites covering individual parts. Thus the "Frontiers of the Roman Empire" is one of the first transnational serial properties with the added complication that further state parties can propose additional parts of the frontier as extensions to it. This means that the management system must evolve through time to deal with this gradual expansion. This paper will examine the current position. So far, three parts of the frontier in Germany and the UK are included in the WH property. Further extensions like the Danube Limes in Hungary and Slovakia as River frontiers are in the offing. Inclusion of river lines may raise significantly different concerns over management that the three artificial barriers so far included in the property.

This is an essential difference to a transnational serial property such as the Prehistoric Pile Dwellings around the Alps where the OUV is manifested in each of the six states parties by the same types of phenomena. This property is also a closed series and further extensions are not expected. In contrast, the frontiers of the Roman Empire include artificial ramparts, walls and ditches, follow river lines or lie in the deserts of the Middle East or Africa with often no real visible demarcation line. This difference is compounded by the fact that, unlike many other transna-



Fig. 1. Organization of monument-protection within a Land (state) in Germany

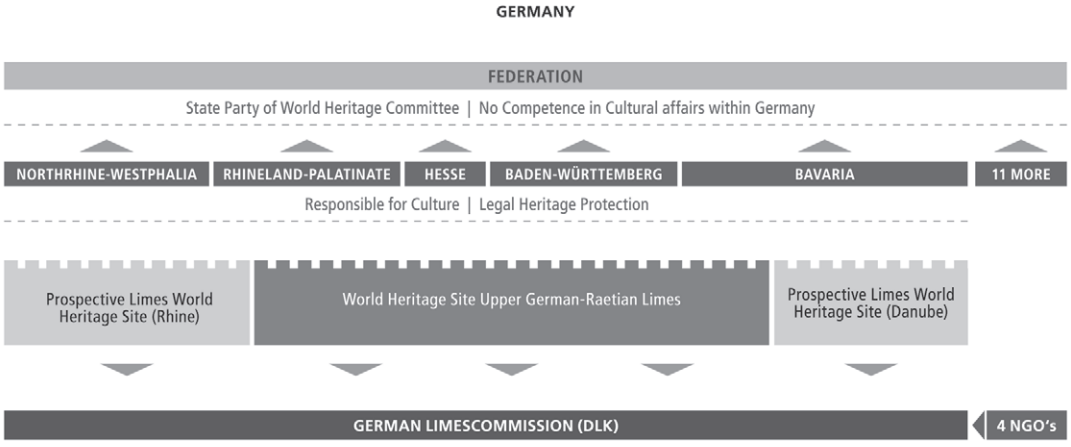


Fig. 2. Limes-management within the state party of Germany

tional or transboundary serial properties, this is still, as mentioned above, an open series which will continue to develop and change through time as further extensions are proposed. The stated intention that the property should continue to grow also has implications for its management and documentation.

At the national level, each of the three existing components has its own management system. In Germany for example the federal system does not give competence in cultural affairs within Germany to one single ministry at federal level (**fig. 2**). Instead, cultural affairs and therefore the laws of monument protection are the responsibility of the 16 Länder which make up the German state. The German section of the Frontiers property lies in four different Länder and so it was necessary to establish the German Limescommission as a coordinating committee for all aspects of the German Limes **(fig. 2)**. The members are the chief-archaeologists and one ministerial representative of each of the Länder as well as one representative of each of four NGO's (Römisch-Germanische Kommission as an institution of research, Archaeological Institutes of German Universities, Museums along the Limes and touristic organization). The day-to-day management is realized by many local site managers and is coordinated for each of the Länder by one responsible person called Limescoordinator who is in direct contact with the managing director of the German Limescommission as the national coordinator. This cooperation makes it possible to deal with such a big monument like the Upper-German-Raetian Limes with a length of 550 km, 120 forts and fortlets and about 900 watchtowers.

In the UK, Historic Scotland is the responsible government body for the Antonine Wall, and English Heritage for Hadrian's Wall **(fig. 3, 4)**. Both Walls have steering groups representing the key stakeholders, including landowners, local authorities, users and archaeologists, and a site coordinator whose role is to encourage cooperation. For the Antonine Wall the coordinator is a single

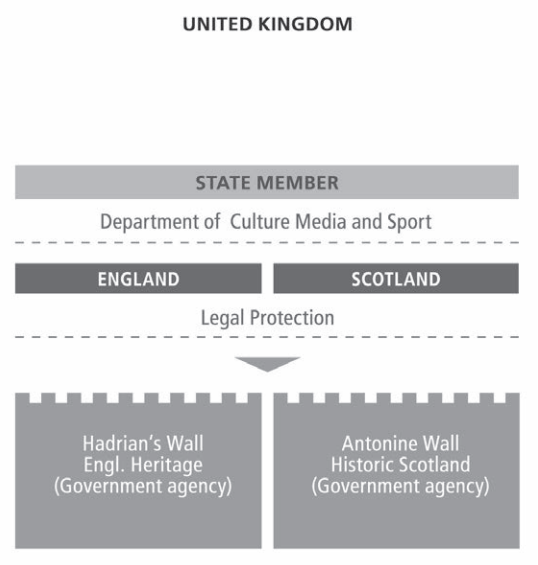


Fig. 3. Organization of the management of Hadrian's Wall and Antonine Wall in Great Britain (Copyright: German Limescommission/HundB Munich)

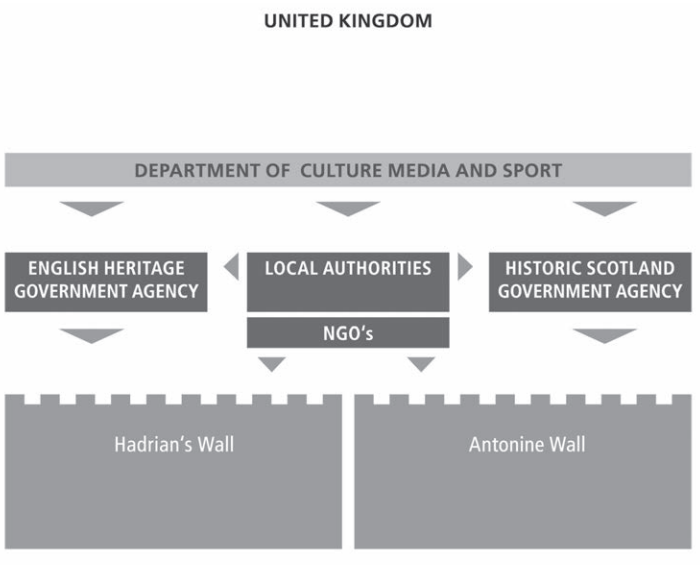


Fig. 4. Organization of the management of Hadrian's Wall and Antonine Wall in Great Britain (Copyright: German Limescommission/HundB Munich)

individual but for Hadrian's Wall this role is fulfilled by the Hadrian's Wall Trust which also has a number of other roles, such as the management of the National Trail.

Since the inscription of the Upper German – Raetian Limes in 2005, the existing partners have worked to establish the overall approach to management required by the Operational Guidelines (para 135). There is now an Inter-Governmental Committee (IGC) which is the internationally coordinating body **(fig. 5)**.

The Inter-Governmental Committee had its beginnings in 2005 and adopted a Joint Declaration and Terms of Reference at the end of 2011. This document provides a formal framework for cooperation between both governments to support the future management and development of the property. In the IGC, made up of the Department of Culture Media and Sport, Historic Scotland and English Heritage for the UK and the German Limescommission for Germany, each state party has one vote. The IGC is advised on scientific issues by the Bratislava Group and on aspects of management by the Hexham Group.

The Bratislava Group is an international scientific advisory body with expert members from States Parties containing inscribed or potential parts of the FREWHS **(fig. 6)**. The Bratislava Group aims to share knowledge and experience of Roman frontiers and their identification, protection, conservation, management and presentation, leading to the distillation of a common viewpoint. Through technical and professional advice the Bratislava Group provides a scientific framework for the whole of the Roman frontiers. The group supports States Parties by:

- advising on the significance of the Roman frontiers and on the development of best practice guides for their management and improving their understanding;
- developing support structures such as an overall research strategy, an international Roman frontiers database and websites.

In contrast the Management Group is made up of those directly responsible for the site management of the currently inscribed sections of the FREWHS **(fig. 7)**. The Management Group provides the primary mechanism for sharing best practice in relation to FREWHS. The German members of the Management Group are the Limes Coordinators, the managing director of the German Limescommission, representatives of the tourism-organisations and the museums along the Limes. For the UK, members include the Coordinator for the Antonine Wall, staff from the Hadrian's Wall Trust as well as relevant staff from Historic Scotland and English Heritage.

The key point which emerges from this resume is that FREWHS is an extremely complex site with a clear basis set out in the Summary Nomination Statement. It is also already a very large site covering, with its buffer zones and wider setting, large areas of territory, and in many ownerships. Furthermore it is necessary to deal with management and protec-

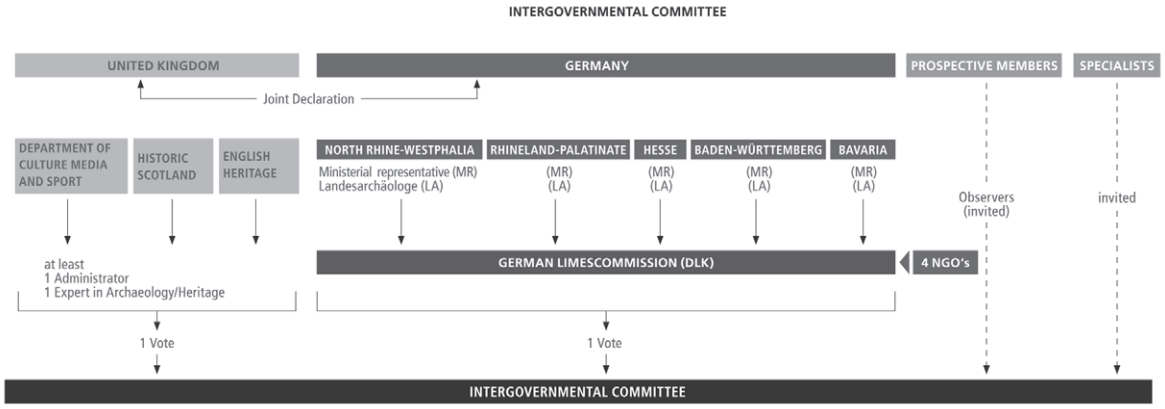


Fig. 5. Organization of the Intergovernmental Committee (Copyright: German Limescommission/HundB Munich)



Fig. 6. Organization of the Bratislava-Group (Copyright: German Limescommission/HundB Munich)

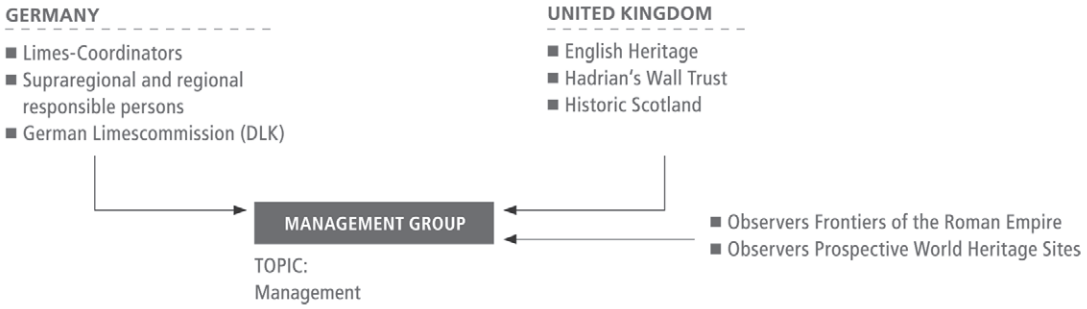


Fig. 7. Organization of the Management-Group (Copyright: German Limescommission/HundB Munich)

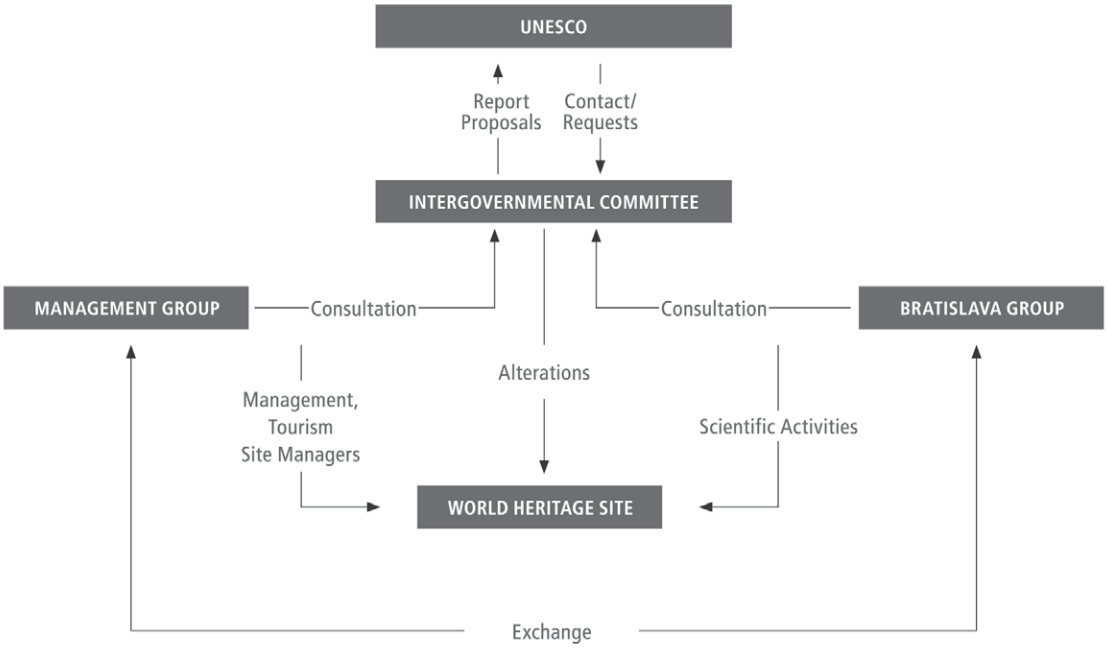


Fig. 8. Organization and administration of the transnational serial World Heritage Site "Frontiers of the Roman Empire" (Copyright: German Limescommission/HundB Munich)

tion in general terms, since ultimately it may need to embrace the very different systems of protection and management of up, seen in the long term, to 20 states parties with very different traditions, as well as the very different character of different parts of the Frontier.

Due to the different laws of monument-protection in the two state-parties and the different kind of topography, the different preservation of the archaeological and different traditions in research, presentation or reconstructions as well as integrating the monument into touristic programmes, each of the three parts of the WH property has its own operational Management Plan. In addition to that in Germany each of the Länder has a detailed development-plan for the Limes parallel to the general Management-Plan.

So, the established system of administration to organize such a big and complex WHS allows integrating easily new parts of the frontier. The administration realized by the IGC on the basis of the joint declaration sets out the framework for new state parties wanting to be part of the World Heritage property, allowing them after having accepted the joint declaration to handle day-to-day management according to their national laws and systems. Furthermore the Management-group and the Bratislava group together with the big number of national groups provide the guarantee to handle such a big and ambitious project as the WHS "Frontiers of the Roman Empire" in all aspects of monument protection, tourism and management concepts and research according to the ideas and rules of the UNESCO.

Dr. Christopher Young
Head of International Advice
English Heritage
1 Waterhouse Square
138-142 Holborn
UK-London EC1N 2ST
Christopher.Young@english-heritage.org.uk

Dr. Reinhard Dietrich
Head of division UNESCO World Heritage
Hessisches Ministerium für Wissenschaft und Kunst
Rheinstraße 23-25
DE-65185 Wiesbaden
reinhard.dietrich@hmwk.hessen.de

Dr. Peter Henrich
Managing director
Deutsche Limeskommission
Römerkastell Saalburg
Saalburg 1
DE-61350 Bad Homburg v.d.H.
peter.henrich@deutsche-limeskommission.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Recent Advances on the Lower German Limes (German Section). Re-searching the Data as a Basis for Proposing a World Heritage Site

Clive BRIDGER

In memoriam Willem Willems († 13.12.2014)

Abstract

In 2009 work started in the Netherlands and in Germany on collating old and new data along the Lower German Limes (LGL) with the aim – among others – to propose the LGL for a nomination as a UNESCO World Heritage Site. This stretch of the Limes was chronologically the longest of all Rome's frontiers / borders in the West, i.e. from c. 19 BC to c. AD 420, so a great deal of archaeological material was to be expected.

Excavation reports and other archival material have been assessed or reassessed, each site digitally mapped and exposed to a series of scientific and technical questions. Moreover, new, mostly remote-sensing investigations have led to old sites being better understood, but also to several new sites being found. In the northern section of the German Limes between Moers-Asberg (*Asciburgium*) in the south and Kleve-Rindern (*Harenatium*) in the north there have been recently found one new auxiliary fort and a couple of watchtowers, another auxiliary fort 'rediscovered', new work carried out in and around the legionary fortresses of *Vetera* I and *Vetera* II and several new temporary camps discovered, many still visible above ground.

Introduction

On the initiative of Jürgen Kunow, Director of the LVR-Archaeological Service for the Rhineland in Bonn, a joint Dutch-German project was set up in 2009 to propose the Lower German Limes (LGL) for nomination as a UNESCO World Heritage Site within the framework of the Frontiers of the Roman Empire (see article by T. Hazenberg in this volume). Mainly for this reason, but also to provide a scientifically and legally sound basis for present-day monument protection and for a proposed, updated publication on the LGL, it was decided that a small group of colleagues should delve into the archives, research and re-search the data on military sites along the Rhine and provide new data on known and, where possible, hitherto unknown sites. The 486 km riparian border is shared almost exactly equally between the two nations, with 244 km in the Netherlands and 242 km in Germany. The section invested to the writer comprises some 90 km from the Roman fort and settlement of *Asciburgium* in the south to the German-Dutch border in the north a little north of *Harenatium*. I intend starting in the south presenting the sites in their topographical order. A generation ago the last such overview included nine sites for this section (Bogaers / Rüger 1974, 93 ff.). Some two decades later this figure was reduced to six (Bechert / Willems 1995, 47 ff.). Here at least nine larger und six smaller sites as well as temporary camps will be presented (**fig. 1**), numbers which indicate the growth in knowledge in recent years[1].

Asciburgium and Environs

Originally situated on an active Rhine arm opposite the confluence with the River Ruhr the Roman fort of *Asciburgium* (Moers-Asberg) was almost certain-

[1] For each site the corresponding references in Bogaers / Rüger 1974 and Bechert / Willems 1995 will be given. Where appropriate major studies and publications since 1995 will also be given. Roadside towers, perhaps belonging to *beneficiarii*, and late Roman *burgi* will not be dealt with here. Cf. latest maps by Bödecker / Gechter 2012, 336, fig. 1.

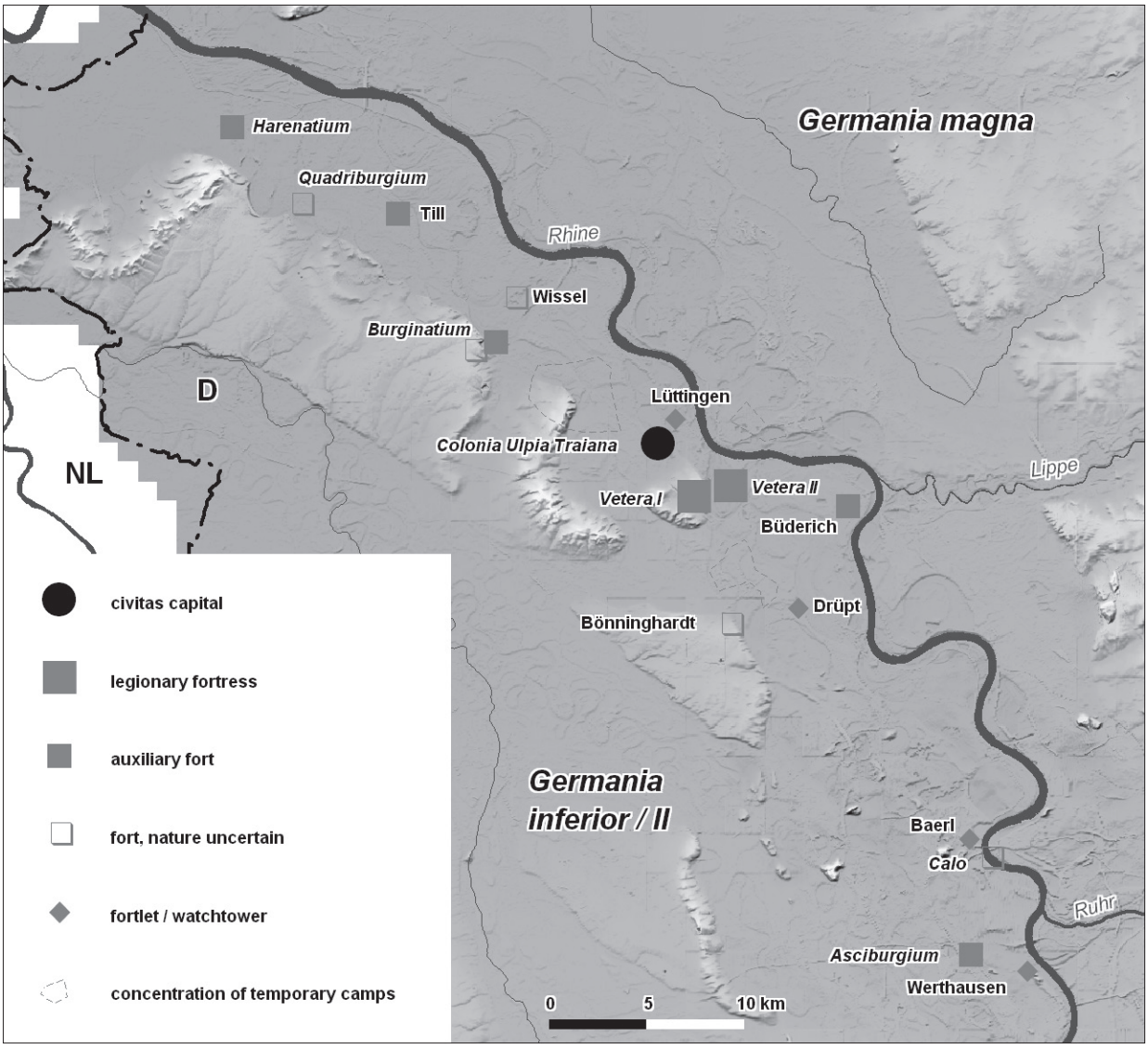


Fig. 1. The Lower German Limes between *Asciburgium* and *Harenatium*. Sites described in text

ly one of the over 50 *castella* founded by Drusus, when he was commander-in-chief in Germania from 13/12 to 9 BC[2]. The history of the fort with its five periods together with its associated *vicus* and safe harbour has been well-established (Bogaers / Rüger 1974, 128-131; Bechert 1989; 1992; Bechert / Willems 1995, 47 ff.; Bridger 2000); the main excavator, Tilmann Bechert, is working on the final excavation report. Most of the fort, which was garrisoned for around a century up to about AD 85, lies today beneath modern houses and their gardens, with only a few areas still left untouched. In the winter of 2010/11 a small excavation prior to a new development took place and confirmed the presence of four periods of the northern defensive circuit; only that of Period IV could not be located in the excavated area[3]. The report into a further rescue investigation, which took place in summer 2011 next to the previous one, has not yet been completed; however, it did reveal ditches, pits, a well and many coins[4].

The fort was abandoned around the mid-80s, i.e. at the time of Domitian's Chattan war and the establishment of the province of *Germania inferior*, but also when the meander, on which *Asciburgium* was situated, was truncated by a new course of the Rhine. A watchtower was established at the southern point of the new truncation at Duisburg-Rheinhausen-Werthausen (Bogaers / Rüger 1974,

[2] Florus, *Epitome* 2, 30.26: *In Rheni quidem ripa quinquaginta amplius castella direxit.*
[3] Excavation carried out by the contracting firm Ocklenburg-Archäologie, Essen (activity NI 2010/1044).
[4] Excavation carried out by the contracting firm archaeologie.de, Duisburg (activity NI 2011/1030).

132 ff.; Bechert 1989, 196-200; Bechert / Willems 1995, 49; Bödecker / Gechter 2012, 336 dates *Asciburgium* "bis 96?"). Perhaps at the same time, or rather a little later, another watchtower was erected some 8 km to the north, or 9 km per Rhine, on the Dachsberg in Duisburg-Baerl (Bechert 1989, 201-204; Bechert / Willems 1995, 49). This was situated opposite the confluence of the River Emscher on the lower terrace. On the river-terrace itself, just a kilometre to the east, the auxiliary fort of *Calo* was built, which very probably was destroyed by the meandering Rhine around the 15th century (Maier-Weber 1998). Since no archaeological material has survived, we cannot even estimate a dating for the fort, its size or type of garrison.

Between *Asciburgium* and Xanten

Nineteen km along the almost straight Roman road from *Asciburgium* to the north (Bridger 1990a) one reaches Alpen-Drüpt. The site has often been suggested as a candidate for a military base of some kind but hitherto firm evidence has been lacking. However, in recent years a large number of metal finds almost exclusively of the 4th century have been recovered from a concentrated area suggesting a fortlet or similar there. Based upon the coins and fibulae found one might suggest an occupation from about 330 to 390 (Bridger 2014). The most spectacular find was found in 2012, a gold medallion using a coin of Constantine I, for which there is only one known parallel, but without a provenance[5]. In 2012 preliminary geophysical work began slightly offsite and located a previously unknown road leaving the main Roman road and heading northeast towards the Rhine. Further work in 2013 revealed part of a fortification.

Roughly 6 km to the northeast lies the auxiliary fort of Wesel-Büderich, which had been recognised as such in the 1930ies, but then ignored or forgotten. Situated opposite the confluence of the River Lippe, it controlled the entrance to the most important inland waterway north of Germany's central uplands at the southern edge of the north German plain. According to the Samian recovered, the site was in use from about 60 to 160 or a little later, whereby the size and type of garrison remains unknown (Bridger 2010). A rescue excavation prior to the building of a new by-pass in 2009/2010 just west of the fort revealed several ovens and pits, but little dating evidence[6].

Approximately 3.5 km west of Alpen-Drüpt is situated, some 15 m above the Rhine valley, a slightly polygonal, single ditched enclosure of 10.4 ha with two gateways with *titula* (Bogaers / Rüger 1974, 113). Since its discovery by aerial photography and trial trenches through the ditches in 1974, no further work has been done on it and today's farmer does not allow access to the site, which remains undated. It is not known whether this was (or intended to be) a permanent fort or, more probably, a temporary camp. Given the topographical situation in a directly visible location some 6 km from *Vetera*, one could speculate about a connection with the legionary fortress in the 1st century or even with the events connected with its destruction in AD 70.

In the river-valley below the escarpment we find the largest concentration of Roman practice camps in Germany (**fig. 2**). Of the hitherto 138 known features of this type in the Lower Rhineland 75 are to be found in a 6 by 2 km corridor either side of the Roman road between Alpen-Drüpt and *Vetera* (Bogaers / Rüger 1974, 112; Scollar / Andrikopolou-Strack 1984). Most of these are of the standard playing-card shape, some of which display gates with *claviculae* or *titula*. As yet none have been archaeologically examined, a more precise dating within the occupation of *Vetera* I and II, from whose legionaries they were presumably laid out, is not known.

Xanten and Environs

The central sector of the Roman border under review is dominated by the second largest central place of *Germania inferior* – Xanten with its combined civilian (*Colonia Ulpia Traiana* / *CUT*) and military (*Vetera* I / II) foci.

After 77 years without excavations two trial trenches were opened in 2011 in the northwest corner of the largest known, permanently conceived Roman fortress of *Vetera* I (57 ha), in order to check the precise location of the fortress in relation to the old excavation plans, to establish the depth of surviving features and check the state of metal finds (Bogaers / Rüger 1974, 106 ff.; Obladen-Kauder 2012). Previously, geophysical work had been carried out to determine the defensive circuit (Becker / Wippern 2011). In addition, numerous air-photography sorties by Baoquan Song (University of Bochum) had led to several spectacular new find-

[5] Constantine I, *solidus*, c. 335, Trier, TR, not in RIC, 4.68 g, Ø 21 mm.

[6] Excavation carried out by the contracting firm Ocklenburg-Archäologie, Essen (activity NI 2010/1047).

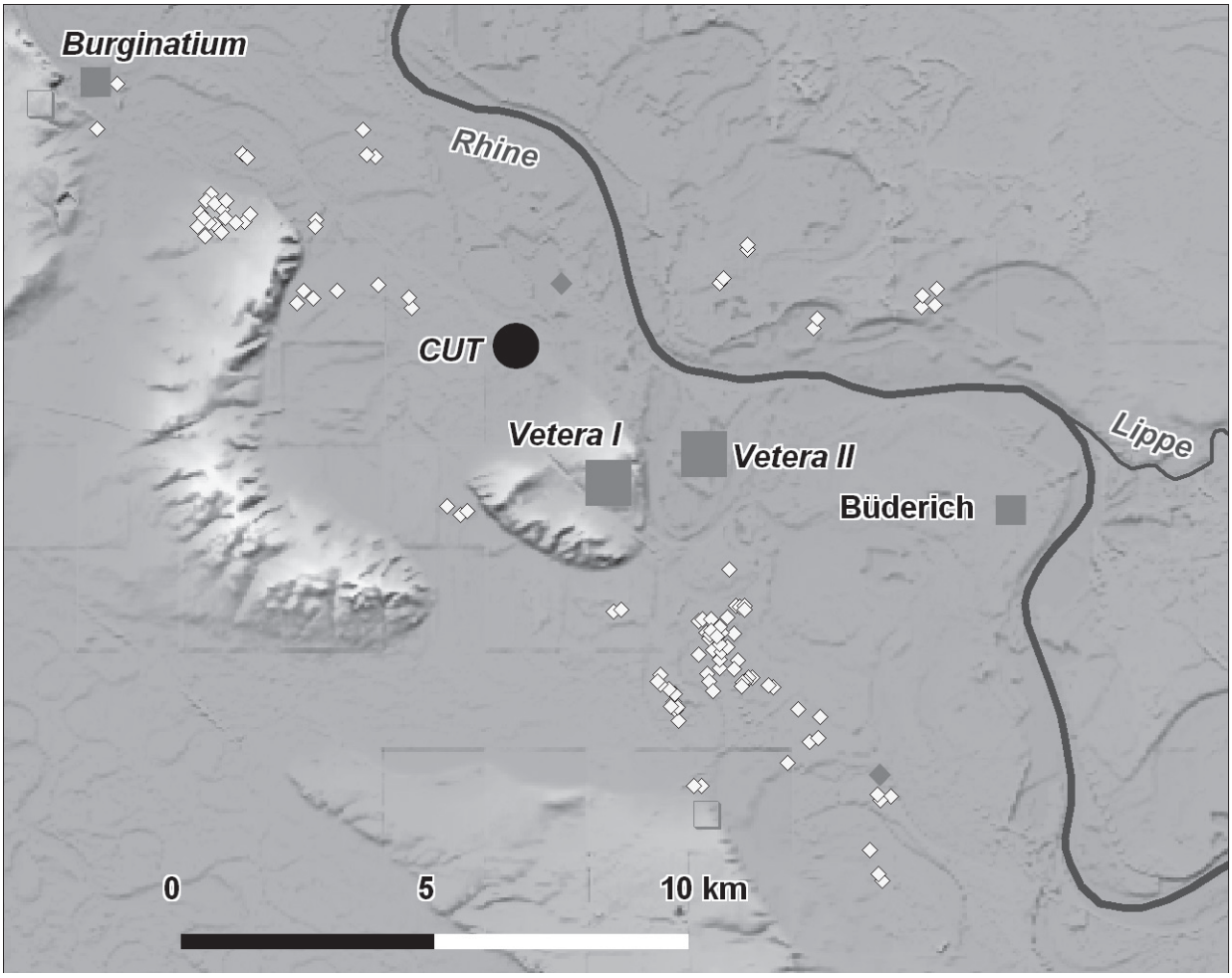


Fig. 2. Roman temporary camps in the vicinity of Xanten

ings, including a second *valetudinarium* within the Claudian-Neronian fortress, but also large buildings from earlier fortresses (Song / Hanel 2011; Hanel / Song in this volume).

Underwater archaeology in the form of diving and sediment echo-sounding has recently been undertaken in the area thought to be the site of *Vetera* II, which was undercut by the Rhine in the later Middle Ages (Bogaers / Rüger 1974, 107; Schmitz 2011). These have revealed linear structures, the nature of which has still to be determined (Mainberger / Obladen-Kauder 2011). All known epigraphic and historical sources from this home-base of the legio XXX have also been published very recently (Reuter 2012).

Of the supposed military sites below the later *CUT* only one had a probable claim to be such and was regarded as a Claudian auxiliary fort (Bogaers / Rüger 1974, opp. 108, fig. 36, # 1; Leih 2002). Recently, however, a full report on the trenches has concluded that there is at present insufficient evidence to support this hypothesis (Krämer 2012, 86).

A small watchtower on one of the Rhine islands in front of the *CUT* dates to the 2nd – 3rd century (Kraus 1996) and may have been one of a series of such towers along the river itself.

In recent years further temporary or practice camps have been located by aerial photography by B. Song west and north of Xanten to complement those to the south (see above) and even to the east on the east bank of the Roman Rhine in Wesel-Bislich. Moreover, in 2012 airborne laser scanning of the forests near Xanten revealed at least 15 such camps, mainly with *clavicula* gates, still visible at ground-level! Apart from the amphitheatre of Vetera, these form the only known surviving Roman superstructures in the area under review[7]. Whether they were laid out by legionaries, auxiliaries, or both will hopefully be revealed by on-going investigations.

[7] Cf. Bödecker 2012 on similar structures west of the legionary base in Bonn.



Fig. 3. Kalkar-Altkalkar, the Roman auxiliary fort of *Burginatium*. Magnetogram

Burginatium and Environs

The earliest military camp in Kalkar-Altkalkar is a polygonal structure with two to three ditches surrounding an internal area of 15.7 ha. The defences had partly survived into the 19th century, but were then ploughed out, before aerial photography relocated them (Bödecker 2003). Presumably the camp dates to the first quarter of the 1st century and may have been a temporary one for legionaries and / or vexillations.

The permanent fort of *Burginatium* (Bogaers / Rüger 1974, 101-104; Bechert / Willems 1995, 63) has only recently been precisely located (**fig. 3**). Geophysical surveys and aerial photography have revealed complete plans not only of the 3.2 ha large fort, but also of the surrounding *vicus*, roads and parts of the cemetery (Bödecker / Henrich / Mischka 2007). The *ala* fort displays at least three periods and probably dates from the Augustan period through to the early 5th century[8].

Between *Burginatium* and the German-Dutch Border

During extensive gravel-extraction east of Kalkar-Wissel several military and other Roman finds were found indicating the presence of a watchtower, fortlet or similar there (unpublished).

Only in 2009 was a known site near the village of Till 9 km northwest of *Burginatium* critically analysed and submitted to geophysics. These resulted in the location of a new auxiliary fort of at least two periods lying some 300 m from a former Rhine arm on a flood-free site at Steincheshof (Brüggler / Drechsler 2012) (**fig. 4**). The fort is some 3.4, later 2.1 ha in size, which may indicate a change from a cavalry to a cohort fort. Three trial trenches in 2010/11 revealed finds of the Flavian period to the second half of the 2nd century, which roughly corresponds with the dating of Wesel-Büderich mentioned above. The most spectacular find was a well-

[8] At present (winter 2012/2013) pottery from a kiln excavated at the site in 1960 is being analysed which seems to be contemporary to products from Haltern (M. Brüggler, in press).

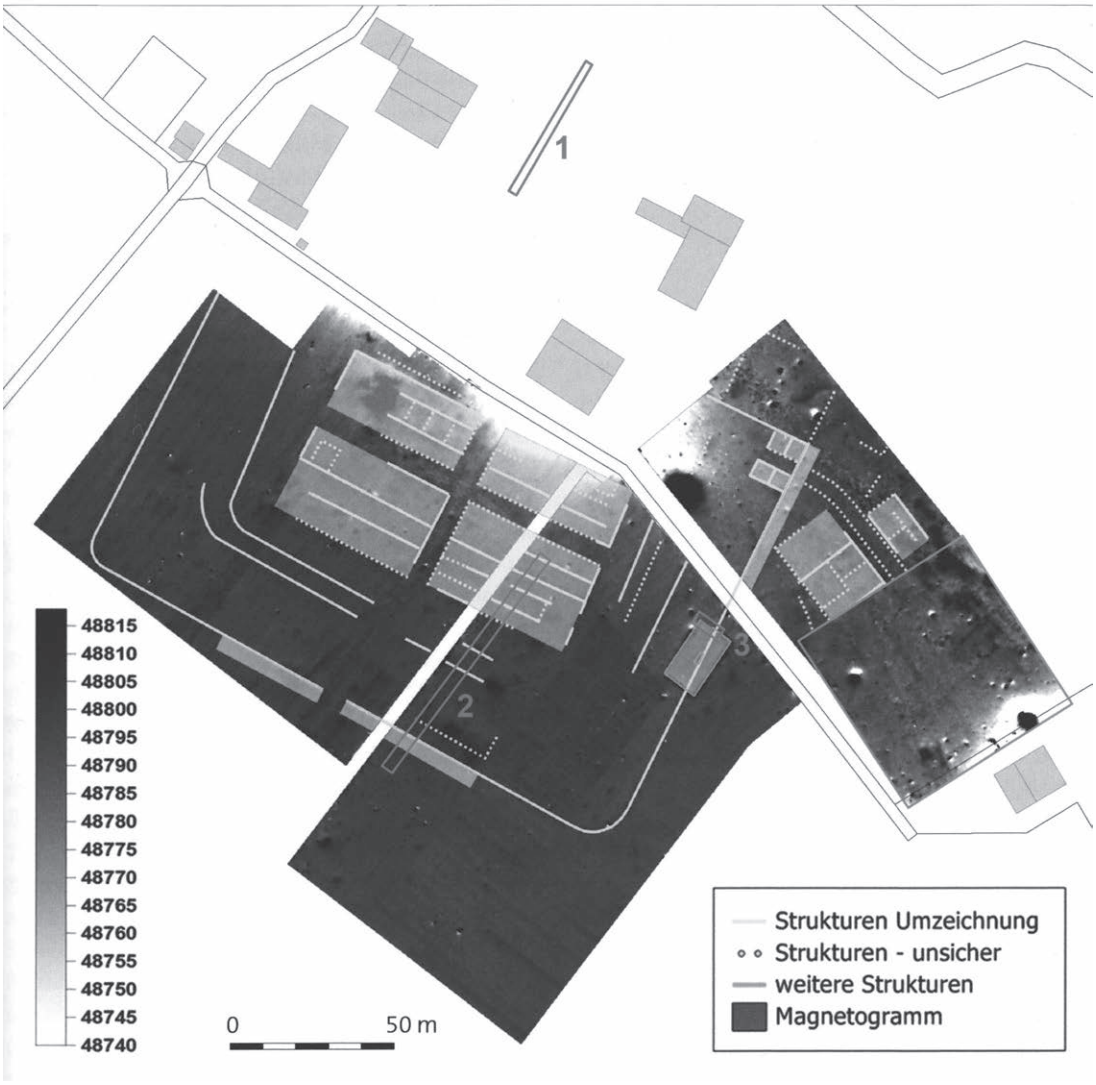


Fig. 4. Bedburg-Hau, Till, the Roman auxiliary fort at Steincheshof. Magnetogram and interpretation

preserved brass *manica*, one of only a few known from the Roman Empire.

Some 6 km to the west lies *Quadriburgium* (Bedburg-Hau, Qualburg). The military history of the site beneath the village is still only rudimentarily known (Bogaers / Rüger 1974, 96-98; Bechert / Willems 1995, 63 f.), but the main occupation was during the Late Roman period (Bridger 1990b). Whether a force was garrisoned there contemporary with Till or the latter abandoned in favour of the former is unclear at present.

The Roman site of *Harenatium* (*Arenatium*, *Arenacum*) is generally associated with Kleve-Rindern, a further 5 km to the northwest (Bogaers / Rüger 1974, 93-95; Bechert / Willems 1995, 64). Again the site beneath today's village and situated flood-free next to a former Rhine arm is hard to decipher. A north-south running ditch found in 1987 northwest of the church seems to correlate with one running east-west discovered west of the church in 2010[9]. The fill of the latter contained finds of the 1st and 2nd centuries. It would seem that we are dealing with the southwest corner of an auxiliary fort, parts of which were found in the 19th century beneath the church. Again it would be tempting to regard the site as preceding that of Qualburg, but the evidence for this is still too scant.

Conclusions and Future Work

The ever-increasing use of remote sensing on the ground and from the air coupled with the reappraisal of known sites and archival material has led to a marked increase in our knowledge of old sites on the LGL but have also revealed new sites. This is work in

[9] Excavation carried out by the contracting firm Ocklenburg-Archäologie, Essen (activity NI 2010/1000).

progress and, no doubt, further military installations will be found in the future. Primarily the work is being undertaken with regard to tendering for a World Heritage Site. However, at some stage soon we shall also be presenting our findings in a new guide book on the LGL, for which, though, a sequel will have to be provided by the next generation of colleagues.

Acknowledgements:

1-2. C. Bridger using Software MapInfo 8.0.
3. C. Mischka, University of Kiel; P. Henrich, Saalburg-Museum; S. Bödecker, LVR-ABR Bonn; from Bödecker / Gechter 2012, 342, fig. 8.
4. M. Buess, University of Cologne; from Bödecker / Gechter 2012, 343, fig. 9.

Bibliography

Bechert, T. 1992. Zweitausend Jahre Asciburgium. Die Geschichte der römischen Kastelle auf dem 'Burgfeld' in Moers-Asberg. Gummersbach.

*Bechert, T. 1*989. Die Römer in Asciburgium (= Duisburger Forschungen 36). Duisburg.

Bechert, T. / Willems, W. J. H. (Hrsg.) 1995. Die römische Reichsgrenze von der Mosel bis zur Nordseeküste. Stuttgart.

Becker, T. / Wippern, J. J. M. 2011. Geophysikalische Prospektion im Bereich des Legionslagers Vetera I. In: Kunow, J. (Hrsg.). Caelius ... und danach? Zur Geschichte und Zukunft des Fürstenbergs und der Bislicher Insel bei Xanten. Table Ronde in Xanten vom 18.–19. Juni 2009 (= Materialien zur Bodendenkmalpflege im Rheinland 23). Treis-Karden. 97-106.

Bödecker, S. 2012. Römische Übungslager im Hinterland von Bonn. In: Henrich, P. (Hrsg.). Der Limes vom Niederrhein bis an die Donau. 6. Kolloquium der Deutschen Limeskommission (= Beiträge zum Welterbe Limes 6). Stuttgart. 21-27.

Bödecker, S. 2003. "... ein Vetera... wilches bis anhero unbekannt..." Zu einer polygonalen Grabenanlage bei Altkalkar. – Archäologie im Rheinland 2002, 94 f.

Bödecker, S. / Gechter, M. 2012. Militärorte am Niedergermanischen Limes. In: Kunow, J. (Hrsg.). 25 Jahre Archäologie im Rheinland 1987-2011. Stuttgart. 335-344.

Bödecker, S. / Henrich, P. / Mischka, C. 2007. Die Entdeckung des Alenlagers Burginatium / Kalkar. – Archäologie im Rheinland 2006, 107-109.

*Bogaers, J. E. / Rüger, C. B. (*Hrsg.) 1974. Der Niedergermanische Limes, Materialien zu seiner Geschichte (= Kunst und Altertum am Rhein 50). Köln.

Bridger, C. 2014. Eine neue konstantinisch-valentinianische Befestigung im Kreis Wesel? Ein Vorbericht. Mit einem toponomastischen Beitrag von H. Hawicks. In: Henrich, P. (Hrsg.), Der Limes in Raetien, Ober- und Niedergermanien vom 1. bis 4. Jahrhundert. 7. Kolloquium der Deutschen Limeskommission (= Beiträge zur Welterbe Limes 8). Darmstadt. 193-204.

Bridger, C. 2000. Römerzeit und Frühmittelalter. In: Wensky, M. (Hrsg.). Moers. Die Geschichte der Stadt von der Frühzeit bis zur Gegenwart. Köln / Weimar / Wien. 1, 39-68; 427-452; 456-459.

Bridger, C. 1990a. Die Römerstraße zwischen Asberg und Xanten. In: Tromnau, G. (Bearb.). Duisburg und der untere Niederrhein zwischen Krefeld, Essen, Bottrop und Xanten (= Führer zu archäologischen Denkmälern in Deutschland 21). Stuttgart. 131-136.

Bridger, C. 1990b. Neufunde aus Qualburg. – Bonner Jahrbücher 190, 373-402.

Brüggler, M. / Drechsler, M. 2012. Das neue Auxiliarlager Till-Steincheshof, Bedburg-Hau, Kreis Kleve. In: Henrich, P. (Hrsg.). Der Limes vom Niederrhein bis an die Donau. 6. Kolloquium der Deutschen Limeskommission (= Beiträge zum Welterbe Limes 6). Stuttgart. 29-37.

Henrich, P. (Hrsg.) 2012. Der Limes vom Niederrhein bis an die Donau. 6. Kolloquium der Deutschen Limeskommission (= Beiträge zum Welterbe Limes 6). Stuttgart.

Krämer, J. 2012. Die Befunde und Funde von Insula 15 in der Colonia Ulpia Traiana. In: Xantener Berichte 24. Darmstadt / Mainz. 57-197.

Kraus, K. 1996. Siedlungskontinuität in Lüttingen? – Archäologie im Rheinland 1995, 95-97.

Kunow, J. (Hrsg.) 2011. Caelius ... und danach? Zur Geschichte und Zukunft des Fürstenbergs und der Bislicher Insel bei Xanten. Table Ronde in Xanten vom 18.–19. Juni 2009 (= Materialien zur Bodendenkmalpflege im Rheinland 23). Treis-Karden.

Leih, S. 2002. Ein Hilfstruppenlager im Bereich der Insula 15 der CUT: Grabung – Prospektion – Erste Ergebnisse. In: Xantener Berichte 12. Mainz. 149-154.

Maier-Weber, U. 1998. Zur Lokalisierung und zum Nachleben eines abgegangenen spätantiken Kastells am Niederrhein. In: Bridger, C. / Gilles, K.-J. (Hrsg.). Spätrömische Befestigungsanlagen in den Rhein- und Donauprovinzen (= BAR International Series 704). Oxford. 13-22.

Mainberger, M. / Obladen-Kauder, J. 2011. Vetera II: Unterwasseruntersuchungen 1955 und 2009. In: Kunow, J. (Hrsg.). Caelius ... und danach? Zur Geschichte und Zukunft des Fürstenbergs und der Bislicher Insel bei Xanten. Table Ronde in Xanten vom 18.–19. Juni 2009 (= Materialien zur Bodendenkmalpflege im Rheinland 23). Treis-Karden. 125-132.

Obladen-Kauder, J. 2012. Römisches Militärlager Vetera I – fast 20 Jahrhunderte später. In: Kunow, J. 2012 (Hrsg.). 25 Jahre Archäologie im Rheinland 1987-2011. Stuttgart. 90-91.

Obladen-Kauder, J. 2011. Vergangenheit und Zukunft des Legionlagers Vetera I auf dem Fürstenberg. In: Kunow, J. (Hrsg.). Caelius ... und danach? Zur Geschichte und Zukunft des Fürstenbergs und der Bislicher Insel bei Xanten. Table Ronde in Xanten vom 18.–19. Juni 2009 (= Materialien zur Bodendenkmalpflege im Rheinland 23). Treis-Karden. 107-118.

Reuter, M. 2012. Legio XXX Ulpia victrix. Ihre Geschichte, ihre Soldaten, ihre Denkmäler (= Xantener Berichte 23). Darmstadt / Mainz.

Schmitz, D. 2011. Bemerkungen zur Lokalisierung des

Legionslagers *Vetera* II. In: Kunow, J. (Hrsg.). Caelius ... und danach? Zur Geschichte und Zukunft des Fürstenbergs und der Bislicher Insel bei Xanten. Table Ronde in Xanten vom 18.–19. Juni 2009 (= Materialien zur Bodendenkmalpflege im Rheinland 23). Treis-Karden. 119-124.

Scollar, I. / Andrikopoulou-Strack, N. 1984. Römische Übungslager südlich von Xanten im Luftbild. – Rheinische Ausgrabungen 23. Köln. 381-390.

Song, B. / Hanel, N. 2011. Neue Luftbildbefunde der römischen Militärlager Vetera castra I auf dem Fürstenberg bei Xanten. In: Kunow, J. (Hrsg.). Caelius ... und danach? Zur Geschichte und Zukunft des Fürstenbergs und der Bislicher Insel bei Xanten. Table Ronde in Xanten vom 18.–19. Juni 2009 (= Materialien zur Bodendenkmalpflege im Rheinland 23). Treis-Karden. 87-96.

Clive Bridger BA, MA, DrPhil
LVR – Amt für Bodendenkmalpflege im Rheinland
Außenstelle Xanten
Augustusring 3
DE-46509 Xanten
Clive.Bridger-Kraus@lvr.de

Proceedings of the 22nd International Congress of Roman Frontier Studies, Ruse, Bulgaria, September 2012

Importance of the EU Large-scale Demonstrator LIMES for the Development of the European *Limes* Regions

Angela IVANOVA / Franz SCHAFRANSKI

1. Introduction

Given the explosive development of smartphones and tablets, these gadgets with Internet access and operating on multiple functions have had a major impact on our daily lives. On the other hand, one cannot deny that due to this technological development they have increasingly become a cornerstone of all sections of society – not only economically, but also on a communicative level. The EU large-scale demonstrator LIMES serves as a flagship program for the goal-oriented and comprehensive usage of smartphones and tablets, and the chances involved in the dissemination of innovative mobile services in culture tourism sector[1].

The LIMES-action is part of the EU initiative "European Mobile and Mobility Industries Alliance (EMMIA)". With this initiative we are trying to foster innovative mobile services and technologies throughout Europe. "Mobilise Europe" is the slogan. Responsible for EMMIA is the Directorate-General for Enterprise and Industry in Brussels.

LIMES is one of several large-scale demonstrators of the European Commission.

To reiterate: our LIMES-action is not to be confused with the Roman *Limes* we all know from ancient times. It is an abbreviation which stands for Large-scale Innovative and Mobile European Services for Culture Tourism in Rural Areas.

It is a broad-based development of innovative mobile services for cultural tourism in rural areas. So far the EU-project LIMES is useful for the development of the Roman *Limes*.

2. Project Consortium

The Roman *Limes* is an especially useful model for the development of mobile services:

- it runs through ten European countries;
- the regions along the *Limes* are largely rural in character;
- it is a base for cultural tourism;
- the touristic potential has not been explored yet.

The partner countries in the project are:

- Germany
- Austria
- Bulgaria

The remaining seven countries (Great Britain, The Netherlands, Slovakia, Serbia, Croatia, Hungary and Romania) are presently on the Advisory Board of the project or are anticipated to join.

Passages of the Roman *Limes* are to be examined in the partner countries. These are the *Limes* regions around the Bulgarian city of Ruse, the *Limes* between Vienna and the Hungarian border in Austria, and the Roman *Limes* in Rhineland-Palatinate in Germany.

Limes sights exist at all these places: historical monuments and reconstruction sights.

3. Objectives of LIMES

The objectives of LIMES are:

- to develop a LIMES-App for smartphones/ tablets;
- to link tourist sites along the *Limes* in ten European countries;

[1] European Union: The Smart Guide to Service Innovation. Guidebook 4. Brussels. 2013.

- to foster sustainable tourism in rural areas;
- to develop and implement innovative mobile services along the route;
- to support new businesses along the route through these services;
- to create income and jobs in rural areas;
- to make the European identity and common history visible and accessible for visitors from all over the world.

The goal of the project is not only to develop a LIMES-App (that means a digital guide for the regions at the *Limes*), but also to raise awareness about the importance of mobile services and technologies for the economic development of the region. It is all about networking, initiation of activities to kick-off innovative services for smartphones. It is important that the LIMES-App would not turn into an "expert app". It should be developed in conjunction with representatives of all aspects of life, such as politics, economy, particularly tourism, culture and administration – so that it is available for everybody.

In that regard, the action has two levels: a technical and a socio-political one.

4. Developing a LIMES-App

The development of the LIMES-App – a key objective of the project – takes place in different phases.

First, version 1.0 will be developed. It will contain general information about the Roman *Limes* in Europe. Furthermore it will present the *Limes*-related sights – through textual, pictorial, multimedia and virtual reconstructions. These sights will be:

- historical structures;
- reconstruction sights;
- information services (e.g. museums, guided tours, *Limes*-related events and so forth).

After that, version 2.0 will be developed. It will contain all the important tourist information, including:

- gastronomy;
- accommodation;
- other touristic sights;
- tourist facilities, etc.

Versions 1.0 and 2.0 are to be used in the three countries, Germany, Austria and Bulgaria. After completion of the project, more versions are expected to be developed, containing *Limes* and tourism-related information about the remaining seven countries.

5. Initiatives to Foster Culture Tourism

As to the more socio-political goals, a number of activities have been carried out, and initiatives have been launched to promote innovative mobile services for smartphones.

In Germany, e.g. in the state of Rhineland-Palatinate,

- there was a Wi-Fi initiative for free Internet access along the *Limes*;
- there has been a workshop held to develop services for the "creative holiday";
- the *Limes* hiking trail shall be upgraded by improving the sign posting;
- an e-bike initiative is at the ready;
- a competition for students called "MyApp" took place in 2012.

In Austria the following things happened so far:

- publications about the LIMES-action in conferences and journals;
- networking activities to establish a LIMES community;
- a workshop on linking famous hiking trails with the *Limes* sites along the Danube to integrate in to the LIMES-App.

In Bulgaria the following activities have been accomplished so far:

- promotional activities and networking with different stakeholders at regional level;
- presentation of LIMES-action during one of the sessions of the Regional Commission on Culture and Tourism as well as within the framework of two important tourist forums: "Holiday and SPA Expo" at national level and "Weekend tourism" at regional level;
- cooperation with local authorities in the region with regard to the improvement of the condition of *Limes* sights;
- establishing a LIMES community in the social network.

6. Conclusion

Mobile services and technologies are a key driver of the economic growth and the societal and political evolution of Europe. The LIMES-action is therefore a big chance for the regions along the Roman *Limes*.

The ancient *Limes* is a centerpiece for the development of culture tourism in the regions. Therefore LIMES includes archaeologists on different levels (e.g. most of the members of our advisory board are archaeologists).

Through the App we can visualize the *Limes* in different ways (augmented reality) and give information about it.

Apps are a very important tool for the marketing of the regions – but also to raise awareness for the value of sights indicating the unique history of



the area such as castles, churches, ruins, fortresses, historic cities.

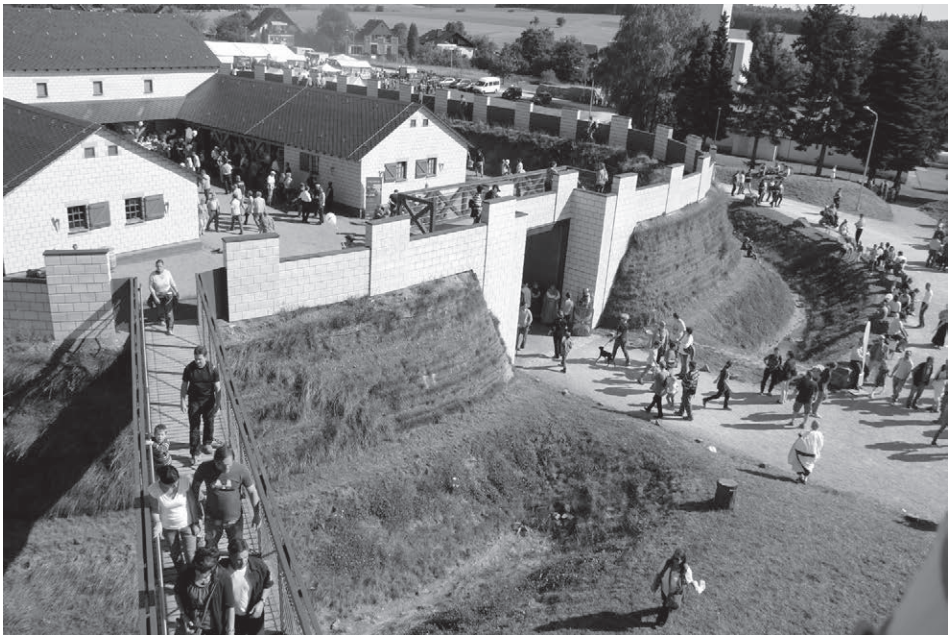
Culture tourism will be fostered in a sustainable way through bottom-up cooperation in terms of mobile services via smartphones and tablets.

Of utmost importance for the sustainable development is a viable networking system of the stakeholders on the regional level and between the *Limes*-regions on a European level.

More detailed information about the LIMES action is available on following the website: www.limes-mobile.eu

"This publication (video, folder, etc.) has been produced as part of the European Creative Industries Alliance/European Mobile and Mobility Industries Alliance. The views expressed in this report, as well as the information included in it, do not necessarily reflect the opinion or position of the European Commission and in no way commit the institution."

"This initiative (publication, event, video, etc). is financed under the Competitiveness and Innovation Framework Programme (CIP) which aims to encourage the competitiveness of European enterprises."





Dr. Ing. Franz Schafranski
Projektentwicklungsgesellschaft des Landes Rheinland-Pfalz mbH (PER)
4, Adolf-Kolping-Straße
DE-55116 Mainz
Franz.Schafranski@per-rlp.de

Angela Ivanova
BG-Russe
angelaivanovalimes@gmail.com

LIMES XXII

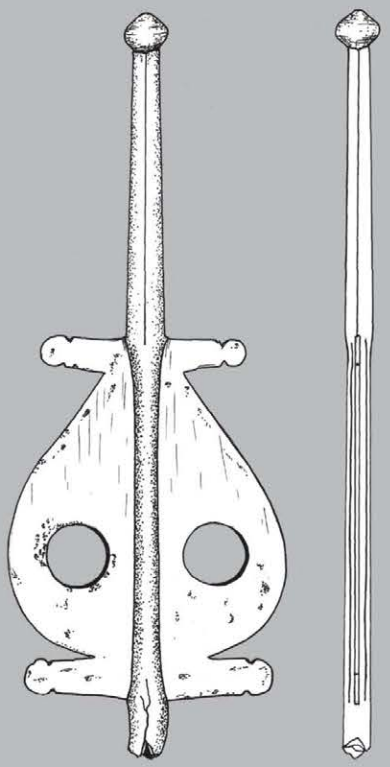
Proceedings of the 22nd International Congress of Roman Frontier Studies
Ruse, Bulgaria, September 2012

Edited by
Lyudmil Vagalinski, Nicolay Sharankov

Bulgarian
First Edition

National Archaeological Institute with Museum, Bulgarian Academy of Sciences
Bulletin of the National Archaeological Institute
XLII, 2015

Printed by: ACTIVE COMMERCE EOOD



National Archaeological Institute with Museum –
Bulgarian Academy of Sciences
1000 Sofia, 2 Saborna Str.
www.naim.bg

ISSN 0323-9535