

THE LIFE CYCLE OF THE HOUSES IN THE FINAL LATE COPPER AGE HORIZON AT TELL YUNATSITE

Velichka Mazanova¹, Tatiana Mishina²
and Stoilka Terziyska-Ignatova^{3*}

¹ Pazardzhik Regional Museum of History, mazanova@abv.bg

² Russian Academy of Sciences, Archaeological Institute, tnmishina@mail.ru

³ Ministry of Culture of R Bulgaria, toni_pz@gbg.bg

* Corresponding author

Abstract

The article summarizes the accumulated information from the investigated 11 houses of the last Late Chalcolithic settlement at Tell Yunatsite. The Late Chalcolithic house is discussed both as a functional and a symbolically arranged place where real and mystical (profane and sacred) intertwine.

The contextual method that was applied allows for identifying the various functions of the house. The residential function was the primary one. The everyday activities of the inhabitants took place in the house: childbirth, raising the children, preparing food, and several other household and economic activities. On the other hand, inside the house the individual felt in a secure space, protected by the household deities that prevented the penetration of evil forces.

The settlement was burnt down and the inhabitants of the houses fell victim to the attackers and the fire. The survivors returned and buried those who died outside the buildings. Those who were buried under the ruins were left as they were. The survivors performed a complex burial ritual: they covered symbolically with soil not only the houses, but also the space between them. In this way, they ‘closed down’ and put an end to the life cycle of the houses and transformed the settlement into a cemetery of those who died in the military clash.

Keywords: Late Chalcolithic – houses – architecture – interior – contextual analysis – enemy attack – settlement burial.

<https://doi.org/10.53250/stprae15.219-239>



Figure 1. Aerial image of Tell Yunatsite, view to the northwest.

The Chalcolithic cultural layer of Tell Yunatsite was registered by V. Mikov as early as the first investigations of the site in 1939 (Mikov 1940, 56–62). The resumed excavations in 1976–2001 over an area of 1300 m², including Mikov's trench, allowed for a more detailed study of the uppermost, last Late Chalcolithic settlement¹ (fig. 1). The archaeological characteristics of the cultural deposits, the microstratigraphic context and the planning of the settlement complemented with the research on the paleoecology, the specifics of the population, and the analysis of the pathological changes that were detected in some individuals allowed for reconstructing numerous aspects of the life of the Late Chalcolithic inhabitants. The results from the complex approach have been presented in several publications (Balabina et al. 1999, 18–22; Balabina & Mishina 2003, 402–408; Aleksandrovskiy et al. 2004, 292–307; Kiseleva et al. 2005, 118–128; Buzhilova 2005, 106–122; Zäuner 2006; Mazanova 2010, 169–278).

Within the excavated area of the final Late Chalcolithic horizon, 11 above-ground houses of rectangular layout were discovered (fig. 2). Their surface varies between 72 and 96 m².

¹ The regular archaeological excavations at Tell Yunatsite started in 1976 under the direction of R. Katincharov and V. Mazanova. In 1983, the project became Bulgarian-Russian, with N. Y. Merpert as director on the Russian part.



Figure 2. Layout of the last late Copper Age settlement of Tell Yunatsite. Key: (1) layout of a destroyed structure; (2) grain storage pit; (3) oven; (4) skeleton in a structure; (5) scattered bones; (6) articulated bones.

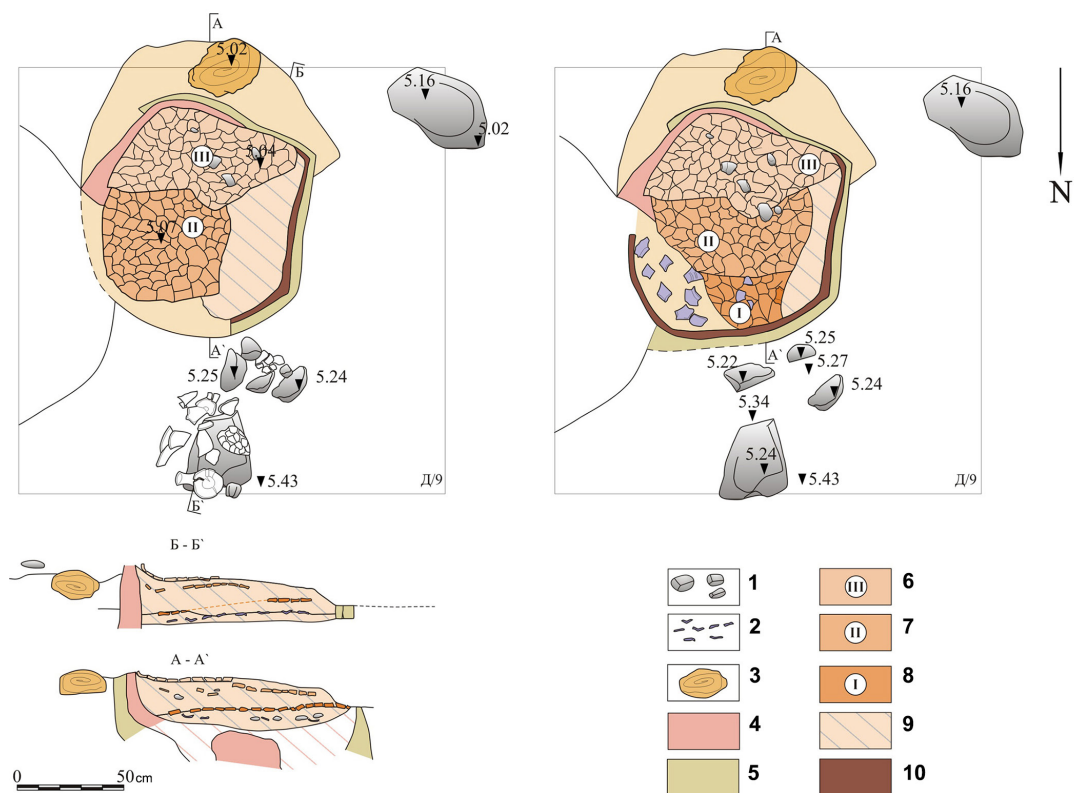


Figure 3. Oven 11. Upper left: upper level. Upper right: lower level. Key: (1) rocks; (2) ceramic sherds; (3) burnt daub fragments; (4) reddish burnt clay; (5) yellow-grey clay; (6) level of uncovering III; (7) level of uncovering II; (8) level of uncovering I; (9) layer between the levels; (10) dark brown clay.

The outlines of the houses on the Chalcolithic surface are rather indistinct and could be traced by the contours of the ruins. Only in some cases, small sections of *pisé* walls were detected – greyish-green or greyish-yellow strips of clay, 0.25–0.30 m wide. The layouts of the houses were established at the level of the substructure. No holes from the wooden posts of the walls were discovered. Only in house 12, small holes were documented from a partition wall that divided the room in two. In three buildings investigated by the Bulgarian-Greek team, wattle and daub walls were discovered (Mazanova 2011, 9–21; Boyadzhiev et al. 2011b, 42–44; Boyadzhiev et al. 2011a, 29–31, Abb. 12).

These observations allow for presuming that both construction techniques were used: *pisé* (rammed earth) and wattle and daub. The combined building technique has been attested in late Chalcolithic buildings at the contemporary settlement of Pietrele (Gumelnița culture, Romania), where the inner partition walls were made of wattle and daub, and the outer ones were in the *pisé* technique (Hansen et al. 2011, 44, ris. 38). At the same time, at



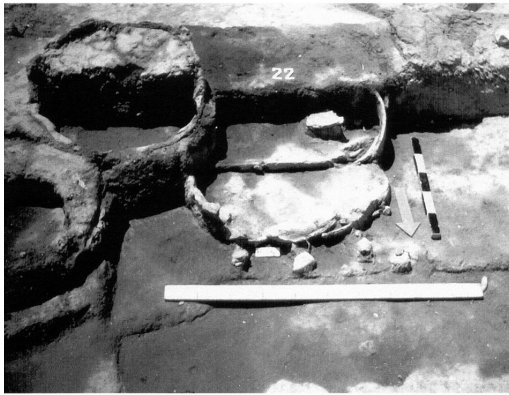
Figure 4. Oven 1 in house 6.

the settlement of Telish-Redutite III only the *pisé* technique has been identified (Gergov 1992, 351; 2004, 438). All excavated structures are of utilitarian function. No buildings of public or cult functions were discovered within the investigated area.

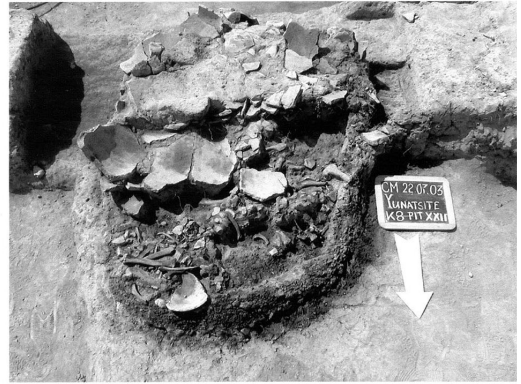
The floors of the houses are of beaten clay. On top of them, ovens, grain storage bins, and grain-drying platforms were built. In each house, one oven has been discovered that had been functional at the time when the structure was demolished. They were situated close to one of the walls, in the corners or near the center of the room.

The ovens had one chamber and were mostly small and of round shape (up to 1 m in diameter). There are a few horseshoe-shaped ovens. Among them, special attention should be paid to oven 8 in house 2 that was the largest one (1.50 x 2.00 m) and had a solid base; it was repeatedly reconstructed and probably had special functions.

The ovens have bases built of a layer of gravel, or ceramic sherds, or of a combination of the two. The plastering of the floor is flat, severely burnt by the continuous firing. The firebox was domed. Only the foundations of the domes were found. Holes were discovered from posts that were used for the construction of the dome. The ovens were reconstructed several times. They functioned for quite a long time; the oven in house 6 had undergone nine consecutive reconstructions that raised its level with 0.80 m, which suggests a rather long life of the house itself (fig. 4).



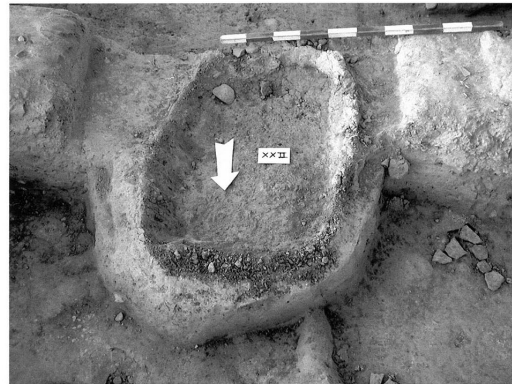
1



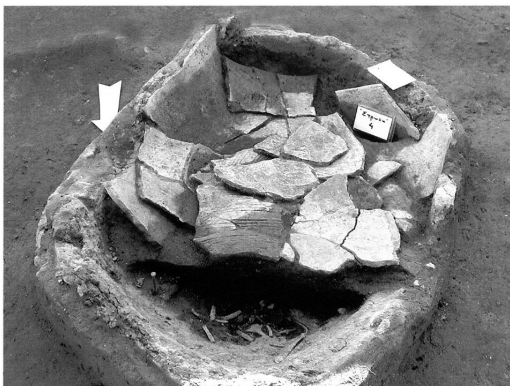
2



3



4



5



6

Figure 5. (1) Feature XXII (excavation 1998); (2, 3 and 4) feature XXII (excavation 2002–2003); (5 and 6) feature XXIV (excavation 2002–2003).



Figure 6. Pločnik type copper hammer axes from house 12.

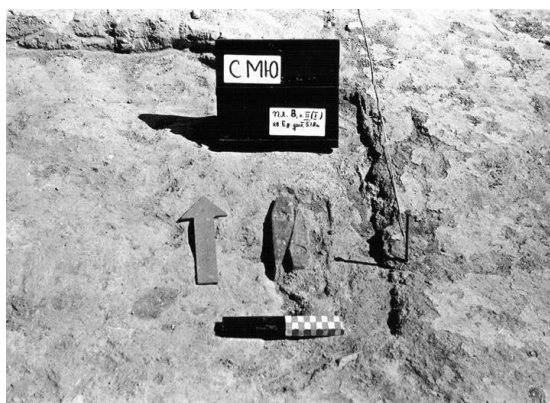


Figure 7. Pločnik type copper hammer axes in situ in house 12.

In all houses, between one and three storage bins of unbaked clay were discovered. Their shapes vary from round to oval or rectangular. Both storage jars and bins have been found. On the floors of houses 2, 4, and 5, grain storage jars were documented: large, thick-walled vessels, up to 1 m high. The storage bins were built at the level of the floor or were dug into it. In some cases, they are up to 1–1.20 m deep.

Two of these sunken facilities were built of greyish-green clay, with ceramic sherds arranged vertically along their periphery (fig. 5). At the bottom, beneath a dense cover of other large ceramic sherds, parts of the skeletons of small animals were uncovered: lambs, several young and old sheep, a calf. This installation was used for the storage of meat and has been interpreted as the earliest ‘meat safe’. Based on the contents of these facilities, the time of the year when the settlement was burned down could be estimated: the early summer (Aslanis & Boyadzhiev 2004, 376–378; Terziyska-Ignatova 2006, 263–267; Boyadzhiev et al. 2011b, 44f).

Due to the large area of investigation, it is possible to discuss not only the layout of the separate buildings, but the layout of the uncovered part of the last Chalcolithic settlement. It combines circular and linear planning, a kind of combined layout. Some of the houses are situated along the periphery of the tell, following its circumference (houses 7, 11, 6, and 2), while the others are arranged in a line (N–S) in the middle of the investigated area (houses 4, 12, 13, 5, 3, and 1). Also, some of the buildings are grouped in pairs. They are arranged in rows and have the same orientation. In the central part of the north sector, there are spaces without buildings. The layout of the final Chalcolithic settlement of Tell Yunatsite has parallels at the contemporary settlements of Krivodol, Zaminets, Telish-Redutite III, Lîga II (with linear layout), and others of the Krivodol–Sălcuța–Bubani culture (Gergov 1992, 349f; Merkyte et al. 2005, fig. III.2), as well as at settlements of the Kodzhadermen–Gumelnița–Karanovo VI culture: Hotnitsa (horizon I), Drama-Merdzhyumekiya (Lichardus 2000, 52–60, Abb. 19; Merkyte et al. 2005, 44, fig. III.6).

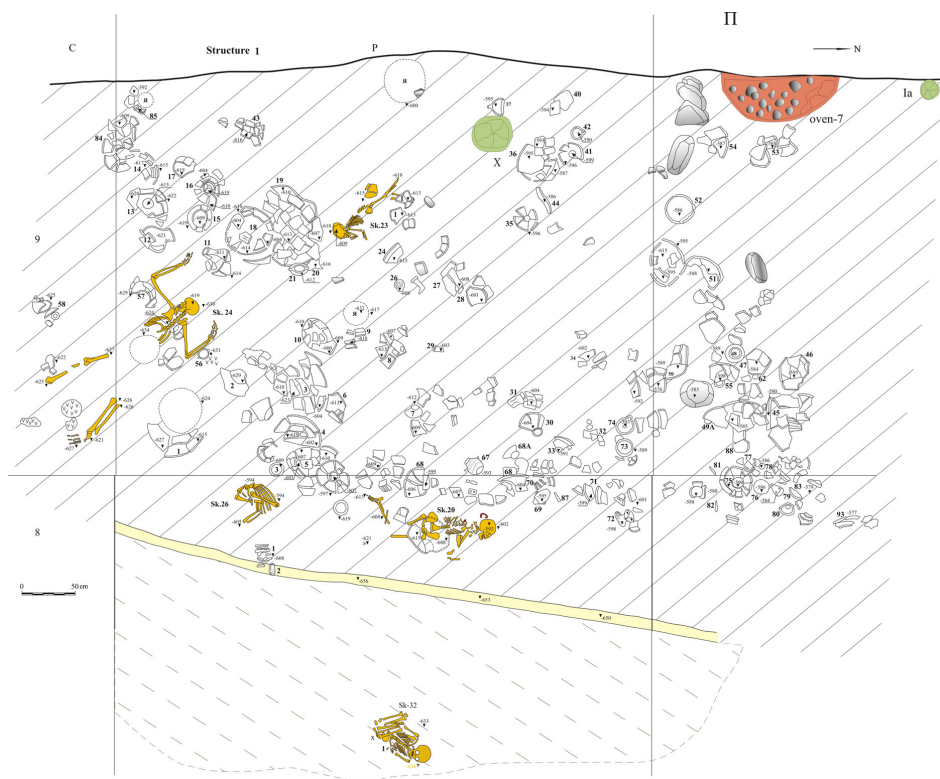


Figure 8. Layout of house 1, with the skeletons.



Figure 9. Ceramic figurine of mother and child (curotrophos) from house 5.

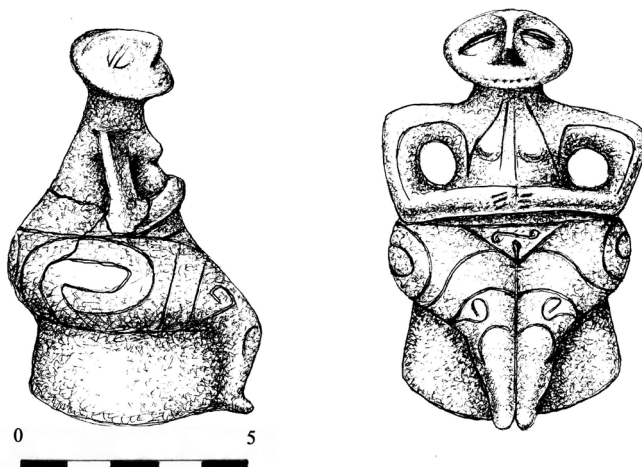


Figure 10. Line drawing reconstruction of a ceramic anthropomorph from house 7.

The number of the tools discovered in the houses does not allow for relating them to a specific specialized activity. Isolated and quite worn stone axes were discovered, as well as several flint knives and 17 copper artefacts: seven awls, one chisel, three hooks, two sewing needles, two hairpins, a copper finger ring discovered next to the hand of skeleton 43 (a girl of 7–8 years), a small spiral-shaped gold tube, and two large Pločnik type hammer axes (fig. 6). There are no traces of use on the axes (Kalin Dimitrov, personal communication). Their archaeological context – placed under the floor of House 12 – suggests they were used as offerings (Mazanova 2004, 391ff, obr. 1) (fig. 7). The limited number of tools, weapons, and adornments made of copper and gold could be explained by their looting by the attackers.

The number of ceramic pots in the houses could reach up to several dozen (house 1: 41 vessels; house 3: 28 vessels; house 4: 30 vessels; house 12: 15 vessels). Rows of vessels were uncovered along the walls (they were probably placed on shelves), but they were also discovered scattered all over the floor (fig. 8). We rule out the use of the ceramic vessels as burial offerings during the deliberate burning down of the houses as it has been attested at other prehistoric settlements (Burdo 2010, 123ff). The morphology and the decoration of the pottery display a mixture of the cultural traditions of Kodzhadermen–Gumelnița–Karanovo VI and Krivodol–Sălcuța III–Bubani cultures (Todorova & Mazanova 2000, 354–359; Todorova 2002, 114–129). The archaeological context of the plastic imagery discovered in the settlement is of utmost importance for the reconstruction of various aspects of the inhabitants of the houses. The final horizon of the late Chalcolithic yielded more than 600 cult items made of clay or bone: 313 anthropomorphic ceramic figurines and 107 zoomorphic ones; 39 anthropomorphic figurines made of bone; 120 ornithomorphic (the so-called cross-shaped idols), and 74 miniature vessels. Among the anthropomorphs, most numerous are the figurines (200 pieces); there are 13 face pots and 21 cult tables and stools. The majority of the face pots were discovered on the floors of the houses, half of them in house 1. Isolated examples were uncovered in houses 4 and 12.

From a total of 60 standing anthropomorphic ceramic figurines, 45 were discovered in the houses and 15 outside. Among the 35 seated anthropomorphic ceramic figurines, females seated on a stool with their hands crossed on the abdomen predominate; there are only a few male examples. Almost all of them were discovered in the buildings. The zoomorphic figurines – 58, plus 15 *amphisbaenae* – were discovered mainly in the buildings. Half of the 120 ornithomorphic figurines were found in the houses. Sixty-three of the miniature vessels were in the houses, and 11 out of them (Balabina 2014). This statistical overview clearly demonstrates that the majority of the plastic imagery was discovered in the houses. In some structures, many cult artifacts were discovered that are otherwise of rarely found types. In house 1, among the numerous ceramic vessels (41), there were three face pots, a head from an anthropomorphic figurine, an ornithomorphic figurine, a female figurine seated on a stool, an *amphisbaena*, four flat bone figurines and a concave one (Mazanova 1992, 260f, Taf. VII–VIII; Mishina 1988, 244–248). In

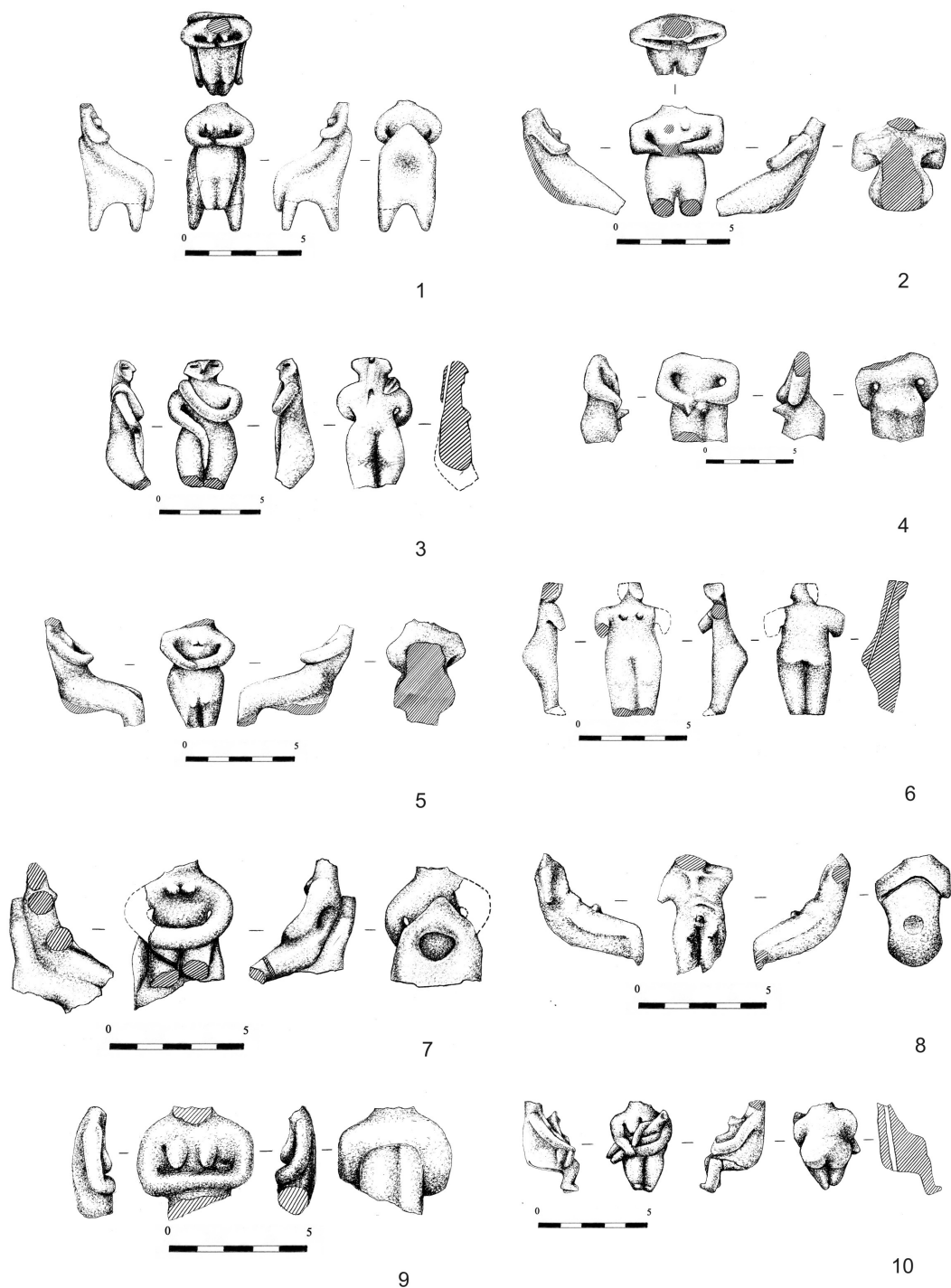
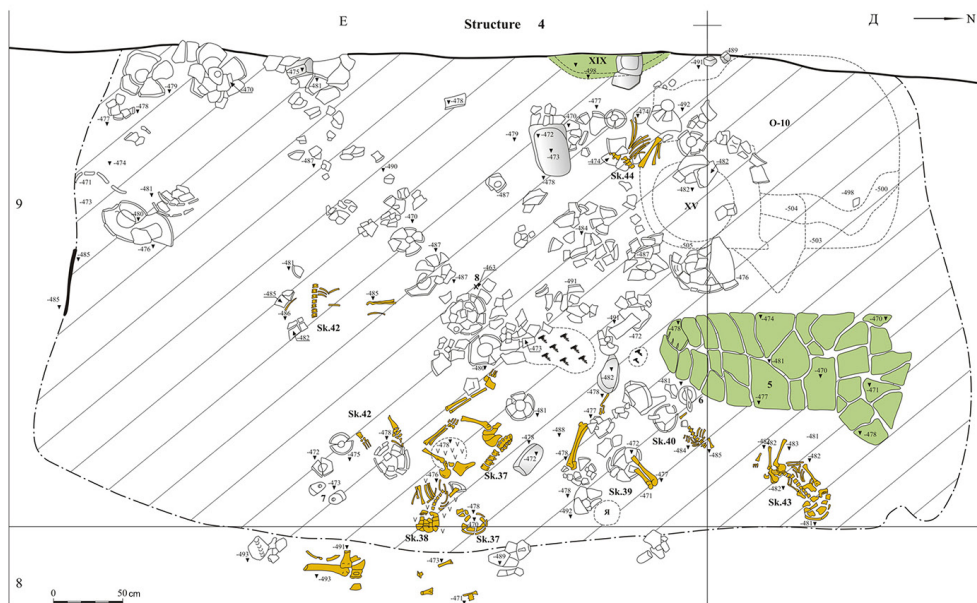


Figure 11. Ceramic anthropomorphs from: house 12 (1 and 2); house 3 (4, 5 and 9); house 11 (3 and 6); house 2 (7 and 8); house 5 (10).

house 5, close to the oven, a unique seated female figurine holding a child (*kourotrophos*) was discovered (figs. 9 and 11.10) (Mazanovа & Terziyska-Ignatova 2014, 247ff), as well as one ornithomorphic, one zoomorphic, and one standing anthropomorphic, two cult stools, and one stamp seal. In house 7, next to the oven, there were a female anthropomorphic figurine seated on a round stool, similar to the 'Venus of Pazardzhik' (fig. 10), an ornithomorphic and a zoomorphic figurine. In house 2, next to oven 8, there were an ithyphallic male statuette, a zoomorphic figurine, three standing male figurines, and two female figurines seated on stools. House 6 yielded four ornithomorphs, three standing female figurines, and a zoomorph. In each of the remaining houses 3, 4, 8, 12, and 13, between one and three standing figurines and one seated female figurine were discovered.

The contextual method that was applied allowed for identifying the various functions of the house in the late Copper Age. Undoubtedly, its main function was residential. In the house, the everyday activities of the inhabitants took place: childbirth and raising children, preparation of food, and various household and economic activities such as weaving, spinning, making some of the tools, etc. The diverse pieces of plastic imagery reveal the other equally important function of the house: the sacral one. As stated by M. Eliade, after stepping through the door of the house, the individual feels in a secure place. His household deities are here to prevent the penetration of evil, and here he is protected from maleficent forces. In the house, the ontophany (the manifestation of the being) and the hierophany (the manifestation of the sacred) 'are two modes of being in the world, two existential situations assumed by man' (Eliade 1959, 14). The inhabitants of each house worshiped their domestic deities: the seated goddess, personification of the Mother Earth related to the agricultural activities, the universal nursing mother (*kourotrophos*); the seated ithyphallic male and female figurines with hands crossed on the abdomen, symbolizing the divine couple and the 'sacred marriage', the hierogamy (Balabina 2002, 214f; Mazanovа & Terziyska-Ignatova 2014, ris. 1 and 2) (fig. 11). Representatives of mythical and real ancestors were depicted; of the origins and the ancestry; the *amphisbaenae*, magical forces that protected the house (Terziyska-Ignatova 2008, 184); the ornithomorphic figurines, these syncretistic images, mediators between sky and earth, probably related to fetishism and animism; the zoomorphic statuettes related to the totemistic ancestors (Mazanovа 1994, 53–62; Terziyska-Ignatova 2004, 379–390).

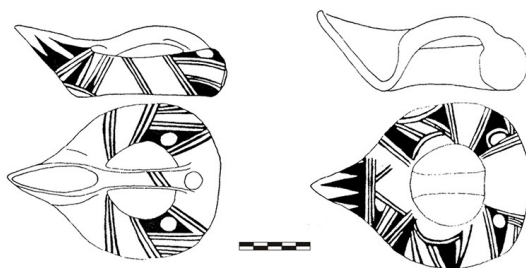
It should be noted that the diverse pieces of plastic imagery were discovered clustered around the oven, the sacral center of the house, next to which the household deities, protectors of the inhabitants, were worshiped. This tradition that emerged in the Neolithic and Chalcolithic (Avramova 2003, 89), continued in the religion of ancient Rome with the household lararium with the so-called *Penates* (Palaguta & Mitina 2014a, 287–290; 2014b, 87–92), and up to present day with the icon corner of the Christianity. The existence of domestic sanctuaries does not exclude the existence of a special cult building in the part of the settlement that remains unexplored.



1

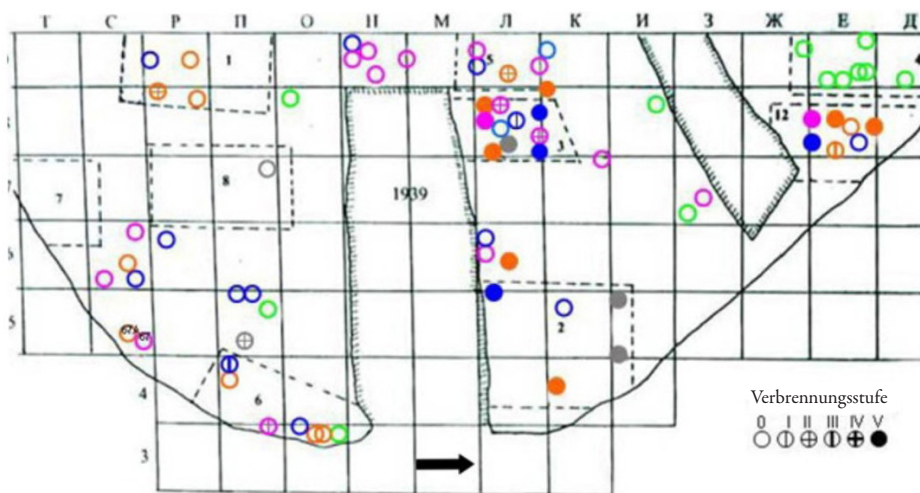


2



3

Figure 12. House 4: (1) layout with the skeletons; (2) ceramic askos in situ on the floor; (3) line drawing of the askos.



Männliches erwachsenes Individuum

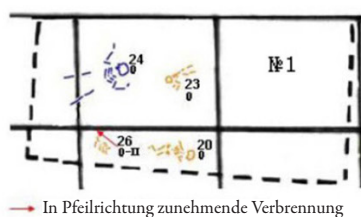
Weibliches erwachsenes Individuum

Kind / junges Individuum

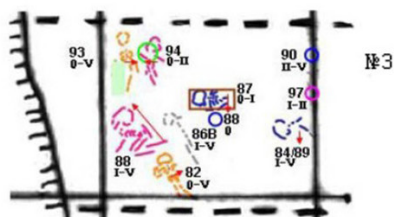
Alter und Geschlecht nicht bestimmt

Information aus Dokumentation; Skelett nicht in Junazite

1

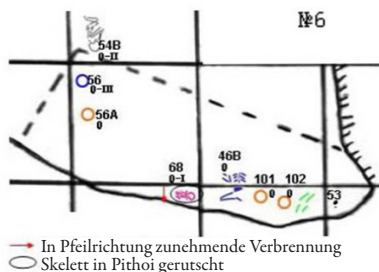


→ In Pfeilrichtung zunehmende Verbrennung



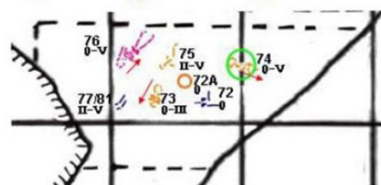
→ In Pfeilrichtung zunehmende Verbrennung

Unter Schutt (green circle) Unter Keramik (blue circle) auf verbranntem Brett (yellow square)



→ In Pfeilrichtung zunehmende Verbrennung

○ Skelett in Pitthoi gerusst



→ In Pfeilrichtung zunehmende Verbrennung

○ Unter Keramik

Individuum mit Nummer, darunter Verbrennungsstufe(n)

2

Figure 13. (1) Direction and distribution of the burning intensity in the last late Copper Age of Tell Yunatsite (horizon I), burning degrees: (0) room temperature, (I) below 250°, (II) below c. 400°, (III) c. 500°, (IV) below c. 700°, (V) above 700°; (2) burning intensity in houses 1, 3, 6 and 12 (horizon I) (from Zäuner 2006).

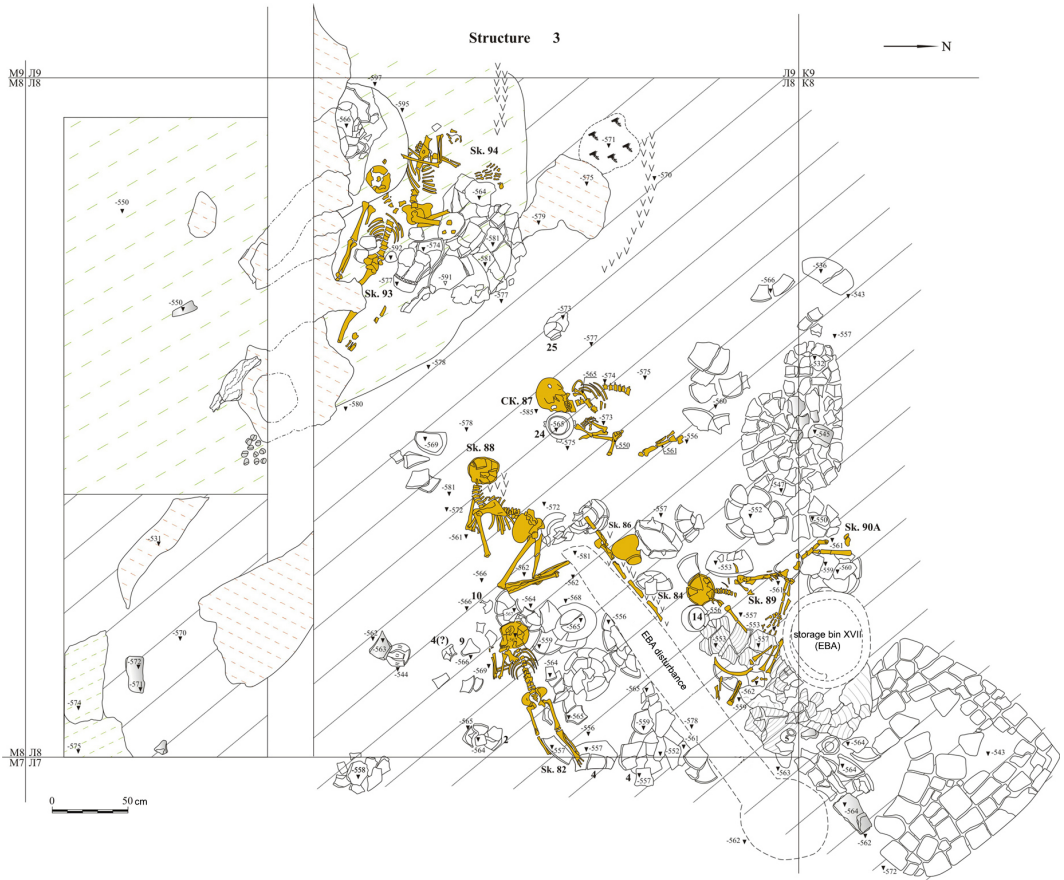


Figure 14. Layout of house 3, with the skeletons.

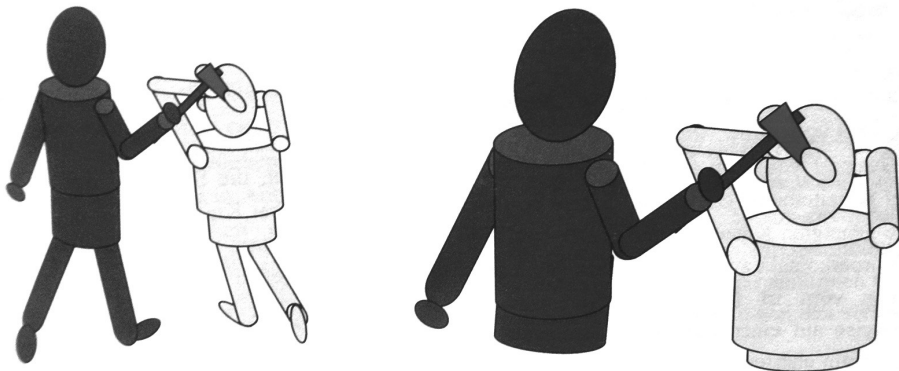


Figure 15. Reconstruction of the probable strike and skull fracturing of skeleton 67 (from Zäuner 2006).

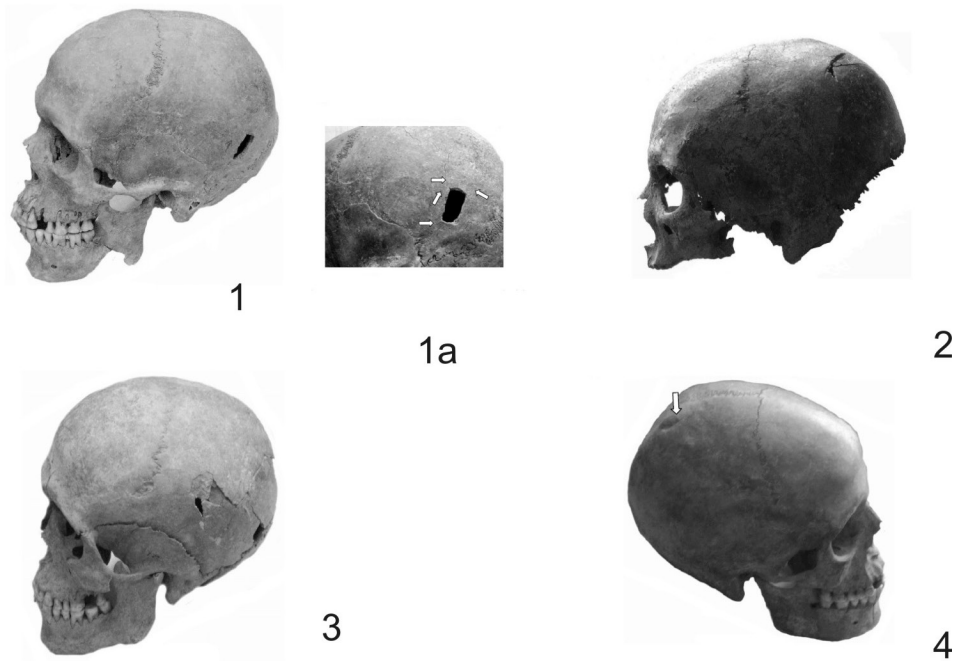


Figure 16. Skull fractures: (1 and 1a) skeleton 87; (2) skeleton 67; (3) skeleton 24; (4) skeleton 83 (from Zäuner 2006).

It was established that the existence of the settlement was discontinued in result of an enemy attack. Traces of a conflagration were discovered throughout the investigated area. The houses were burnt down and collapsed, covering the household goods and the remains of the people who perished.

In nine of the investigated 11 houses, burnt human skeletons were discovered. Their number in the separate buildings varies. In the lowest part of the tell, in two houses (Nos. 7 and 11), there were no skeletons, and under the ruins of the neighboring houses, closer to the center, between two and six skeletons were uncovered. They are more numerous in the buildings closer to the center: between five and 11 individuals. The skeletons were piled close together, sometimes overlapping, and were severely burnt. In two cases the skeleton of an adult overlays a child, and a woman holds a child in her arms (houses 4 and 5; fig. 12).

Apparently, the houses in the south and southeast sectors, in the considerably lower and gently sloping parts in the periphery of the tell, were attacked first. Probably, the entrance of the settlement was from that side. Even today this area offers the easiest access to the main territory of the settlement.

Under the ruins of the houses, a total of 47 skeletons have been documented in various degrees of preservation of the bones. The remains of children and juveniles



Figure 17. Skeleton 96 buried in a contracted position to the right.

constitute one quarter of the total, among them 22% children of up to four years old, 26% of five to nine years old, 14% of 10 to 14 years old, and 38% of 15 to 19 years old. There is not a single individual of the age group 20–24 years. The men are mostly adults and of the *maturus* group, while there are mostly women of old age (*senilis*) (Balabina & Mishina 2010, 337ff; Zäuner 2011a, 56).

A considerable part of the skeletons in the houses bear traces of burning (25 individuals): 42.44% of all remains (fig. 13). The fire has been particularly strong in house 2, where individuals 70 and 71 were completely charred and not even sex determination could be obtained. Here, the temperature exceeded 800°C, and the wall daub vitrified (Zäuner 2006, 27ff, Abb. 6 and 7). The strength of the fire in the neighboring buildings varied from 300–400°C to 800°C. Mainly the skulls and the thoraces bear traces of burning (skeletons 76 and 73 in house 12, skeleton 88 in house 3 (fig. 14); skeleton 23 in house 1). The individuals that were covered by the collapsed walls or fell into a storage bin, like skeleton 68, were only partly burnt.

Sixteen skeletons reveal traces of violence: several injuries on the occipital part of the skulls (Zäuner 2011a, 64f, obr. 6; Buzhilova 2005, 109f). Perimortem injuries were established on the skulls of the skeletons (skeletons 24, 80, 87, 96 and 101). Some of the

injuries correspond to the copper battle axes that were used in this period (Zäuner 2011b, 52) (figs. 15 and 16).

A group of 11 individuals were buried in flexed position between the houses, close to their walls. No burial pits were identified. The bodies were placed on the then surface and covered with burnt debris: wall daub, ceramic sherds, and animal bones (Mazanov 2000, 121–131; Boyadzhiev 2001, 19f; 2006, 41; Balabina & Mishina 2010, 336–342; 2012, 47–64). The injuries of certain individuals from that group (skeletons 67, 96 and 98) suggest violent traumas (figs. 16.2 and 17). The shapes and sizes of the perforations of the skulls are identical to those from the houses, indicating that they were delivered with the same weapons during the attack (Zäuner 2006, 8f and 104f; 2011, 53f). This fact and the partial burials that were performed in extreme circumstances indicate that the two groups of skeletons – in and outside the houses – are contemporary.

Situations that are similar to that in the burnt down houses have been uncovered at other settlements as well. At Pietrele, Romania, in a burnt down two-story building at site F, nine individuals (two adult men and one woman, a young woman, a young man, and four children of between 1 and 10 years) burnt in the fire that reached a temperature of 600–700°C. However, the skeletons were incomplete and mixed together, based on which the excavators presumed that they were collected in one place after a long time in the burnt house (Hansen & Toderas 2009, 16f; Hansen et al. 2011, 76 and 80).

The final Chalcolithic settlement of the tell was burned down and the inhabitants fell victim to the attackers and the conflagration. However, not all inhabitants perished. The survivors returned, most probably within a day, and buried all those who died outside the buildings – hastily, but with all due reverence (Zäuner 2011b, 55)¹. Those who were buried beneath the collapsed buildings were left as they were.

Then, a complex burial ritual was performed; the survivors symbolically piled a thick layer of loose soil that was collected, according to the paleoecological analyses, from the foot of the tell – not only on top of the houses, but also of the spaces between them. Precisely this layer helped preserve the investigated details of the wartime incident (Aleksandrovskiy et al. 2003, 297, ris. 4). Thus, the last inhabitants of the settlement ‘closed down’ the houses at the end of their life cycle. Life at the tell was not resumed for several hundred years. The settlement at the citadel became a sacred place, a ‘home of the dead’.

Tell Yunatsite reveals one of the ritual practices in the life cycle of the houses and the settlements in the late Copper Age that have been discussed in archaeological literature (Brami 2014, 161–177), and illustrates a poorly known religious aspect of the culture of the late Chalcolithic society.

¹ A theory exists about the longer use of the intramural necropolis (Balabina & Mishina 2012, 47–64), which is supported by one of the authors of the present article (VB). See also Balabina & Mishina, this volume.

REFERENCES

- Aleksandrovskiy et al. 2003:** A.L. Aleksandrovskiy, V.I. Balabina & T.N. Mishina. Materialy k istorii paleolandshafta verhnego techeniya reki Maritsy v srednem golotsene. – Dobrudzha 21, 2003, 288–304.
- Aslanis & Boyadzhiev 2004:** I. Aslanis & Y. Boyadzhiev. Fleischdeponierung in der chalkolithischen Siedlung von Yunatsite. – In: V. Nikolov, K. Bacvarov & P. Kalchev (eds.) Prehistoric Thrace. Proceedings of the International Symposium in Stara Zagora, 30.09 – 04.10.2003. Sofia–Stara Zagora: Institute of Archaeology and Museum, 2004, 373–378.
- Avramova 2003:** M. Avramova. Sveshtenata pesht. – Dobrudzha 21, 2003, 88–95.
- Balabina 2002:** V.I. Balabina. “Molenie o dozhde” i „ierogamiya” (eshte raz o nekotoryh neverbalnykh tekstov). – In: R.M. Munchaev (ed.) Problemy arheologii Evrazii: k 80-letiyu N.Y. Merperta. Moskva: Grif IK, 2002, 207–220.
- Balabina 2014:** V.I. Balabina. Osobennosti konteksta kulytovykh predmetov, prinadlezhashtih finalnomu halkoliticheskomu gorizontu telly Yunatsite. – Kratkie soobshcheniya Instituta arheologii 236, 2014, 33–37.
- Balabina & Mishina 2010:** V.I. Balabina & T.N. Mishina. Posledniy eneoliticheskiy poselok na telle Yunatsite: istoriya gibeli. – In: M.V. Andreeva, S.V. Kuzyminykh & T.N. Mishina (eds.) Chelovek i drevnosti: Sbornik pamyati Aleksandra Aleksandrovicha Formozova (1928–2009). Moskva: Grif IK, 2010, 336–342.
- Balabina & Mishina 2011:** V.I. Balabina & T.N. Mishina. Considering the destruction of the latest Eneolithic at Tell Yunatsite. – In: Y. Boyadzhiev & S. Terzijska-Ignatova (eds.) The golden fifth millenium: Thrace and its neighbour areas in the Chalcolithic. Sofia: NAIM-BAN, 2011, 39–47.
- Balabina & Mishina 2012:** V.I. Balabina & T.N. Mishina. Eneoliticheskiy mogilynik na telle Yunatsite: problemy interpretatsii. – Rossiyskaya arheologiya, 2012, 4, 47–64.
- Balabina & Mishina 2014:** V.I. Balabina & T.N. Mishina. Osobennosti poselenneskikh struktur epohi zemledelycheskogo eneolita Yugo-vostoka Evropy. – In: V.I. Gulyaev (ed.) Na poroge tsivilizatsii i gosudarstvennosti (po arheologicheskim i inym istochnikam): tezisy vserossiyskoy nauchnoy konferentsii. Moskva: Institut arheologii RAN, 2014, 401–406.
- Balabina et al. 1999:** V.I. Balabina, V. Mazanova, N.Y. Merpert, T.N. Mishina & E.A. Spiridonova. Stratigrafiya i palinologiya tellya “Ploskaya mogila” vo Frakii. – Estestvennonauchnye metody v polevoy arheologii 3, 1999, 17–24.
- Boyadzhiev 2001:** Y. Boyadzhiev. Pogrebalnata praktika intra muros prez neolita i halkolita v balgarskite zemi: obichay ili izklyuchenie. – Arheologiya 42/3–4, 2001, 16–24.
- Boyadzhiev 2006:** Y. Boyadzhiev. Mobilnost na individite i kontakti mezhdu otdelnite obshtnosti prez V hil. pr. Hr. (po dannii na nekropolite). – Izvestiya na Arheologicheskaya institut 39, 2006, 13–45.
- Boyadzhiev et al. 2011a:** Y. Boyadzhiev, I. Aslanis, S. Terzijska-Ignatova & V. Mazanova. Yunatsite: Ein Bulgarisch – Griechisches Grabungsprojekt. Die Jahre 2002-2008. – In: Y. Boyadzhiev & S. Terzijska-Ignatova (eds.) The golden fifth millenium: Thrace and its neighbour areas in the Chalcolithic. Sofia: NAIM-BAN, 2011, 21–38.
- Boyadzhiev et al. 2011b:** Y. Boyadzhiev, I. Aslanis, S. Terzijska-Ignatova & V. Mazanova. Selishtna mogila Yunatsite – prouchvaniya prez 2001–2011 godina. – Godishnik na Regiona-

- len istoricheski muzey – Pazardzhik 2, 2011, 42–55.
- Brami 2014:** M. Brami. House-related practices as markers of the Neolithic expansion from Anatolia to the Balkans. – Bulgarian e-Journal of Archaeology 4/2, 2014, 161–177.
- Burdo 2010:** N. Burdo. Svyashtenna spadshatina tripilyiskoy tsivilizatsii. Kiiv, 2010.
- Buzhilova 2005:** A.P. Buzhilova. Homo sapiens: istoriya bolezni. Moskva: Yazyki slavyanskoy kulytury, 2005.
- Eliade 1959:** M. Eliade. The sacred and the profane: the nature of religion. New York: Harcourt, 1959.
- Gergov 1992:** V. Gergov. Doistoricheskoe poselenie Telish-Redute. – Studia Praehistorica 11–12, 1992, 347–357.
- Gergov 2004:** V. Gergov. Telish-Redutite: synchronization with sites in Thrace. – In: V. Nikolov, K. Bacvarov & P. Kalchev (eds.) Prehistoric Thrace. Proceedings of the International Symposium in Stara Zagora, 30.09 – 04.10.2003. Sofia–Stara Zagora: Institute of Archaeology and Museum, 2004, 441–448.
- Hansen & Toderas 2009:** S. Hansen & M. Toderas. Pietrele: eine kupferzeitliche Siedlung an der Unteren Donau. Oldenburg: Isensee, 2009.
- Hansen et al. 2011:** S. Hansen, M. Toderas, A. Reingruber & J. Wunderlich. Pietrele. Poselenie epohi mednogo veka na Nizhnem Dunae. – Stratum plus 2, 2011, 17–86.
- Kiseleva et al. 2005:** N.K. Kiseleva, V.I. Balabina, T.N. Mishina & A.M. Pereladov. Osobnosti formirovaniya fitolitnogo i diatomovogo spektrov kulyturnogo sloya tellya “Ploskaya mogila”. – Opusk 4, 2005, 114–145.
- Lichardus et al. 2000:** J. Lichardus, A. Fol, L. Getov, F. Bertemes, R. Echt, R. Katincarov & I. Iliev. Forschungen in der Mikroregion Drama (Südostbulgarien). Zusammenfassung der Hauptergebnisse der bulgarisch-deutschen Grabungen in den Jahren 1983–1999. Bonn: Habelt, 2000.
- Mazanov 1992:** V. Mazanov. Tellsiedlung Junazite – die Spätkupferzeit. – Studia Praehistorica 11–12, 1992, 248–261.
- Mazanov 1994:** V. Mazanov. Krastati idoli ot selishtnata mogila pri s. Yunatsite, obshtina Pazardzhik. – In: B. Borisov (ed.) Maritsa-Iztok: arheologicheski prouchvaniya, 2. Radnevo: Poliprint, 1994, 53–62.
- Mazanov 2000:** V. Mazanov. Intramuralni “pogrebeniya” ot kasniya halkolit v selishtnata mogila pri Yunatsite, Pazardzhishko. – In: V. Nikolov (ed.) Trakia i sasednite rayoni prez neolita i halkolita. (Karanovski konferentsii za praistoriyata na Balkanite 1). Sofia: Arheologicheski institut s muzey, 2000, 121–131.
- Mazanov 2004:** V. Mazanov. Spätkalkolithische Metallfunde aus Tell Yunazite, Gebiet Pasardjik. – In: V. Nikolov, K. Bacvarov & P. Kalchev (eds.) Prehistoric Thrace. Proceedings of the International Symposium in Stara Zagora, 30.09 – 04.10.2003. Sofia–Stara Zagora: Institute of Archaeology and Museum, 2004, 394–401.
- Mazanov 2011:** V. Mazanov. Erforschungsgeschichte der Tellsiedlung Yunatzite, Pasardzikregion. – In: Y. Boyadzhiev & S. Terziyska-Ignatova (eds.) The golden fifth millenium: Thrace and its neighbour areas in the Chalcolithic. Sofia: NAIM-BAN, 2011, 9–23.
- Mazanov & Terziyska-Ignatova 2014:** V. Mazanov & S. Terziyska-Ignatova. Pozdneeneoliticheskie sidyachie antropomorficheskie keramicheskie figurki iz tellya Yunatsite. – In: R.M. Munchaev

- (ed.) *Drevnie kulytury yugo-vostochnoy Evropy i zapadnoy Azii: sbornik k 90-letiyu i pamyati N. Y. Merperta*. Moskva: Institut arheologii RAN, 2014, 244–251.
- Merkyte et al. 2005:** I. Merkyte, S. Albek, J.S. Østergaard & P. Zidarov. *Liga: Copper age strategies in Bulgaria*. (Acta archaeologica 76/1) København: Blackwell Munksgaard, 2005.
- Mikov 1940:** V. Mikov. *Selishtna mogila pri s. Yunatsite, Pazardzhishko*. – *Godishnik na narodnata biblioteka i muzey v Plovdiv 1937/1939, 1940*, 55–84.
- Mishina 1988:** T.N. Mishina. *Eneoliticheskiy kompleks tellya Ploskaya mogila u s. Yunatsite (NRB)*. – *Sovetskaya arheologiya* 3, 1988, 244–248.
- Palaguta & Mitina 2014a:** I. Palaguta & M. Mitina. On the problem of the integration of the Neolithic anthropomorphic clay sculpture: the figurine sets – their structure, function and analogies. – In: C.-E. Ursu & S. Țerna (eds.) *Anthropomorphism and symbolic behavior in the Neolithic and Copper Age*. (Studies into South-East European Prehistory 1) Suceava: Karl A. Romstorfer 2014, 275–302.
- Palaguta & Mitina 2014b:** I.V. Palaguta & M.N. Mitina. *Nekotorye zamechaniya k smyslovoy interpretatsii predmetov rannezemledelycheskoy plastiki: Lares et Penates epohi neolita?* – *Vestnik Sanktpetersburgskogo gosudarstvennogo universiteta* (ser. 15) 4, 2014, 80–95.
- Terziyska-Ignatova 2000:** S. Terziyska-Ignatova. *Kasnohalkolitni antropomorfni sadove i kultovi masichki ot selishtnata mogila pri Yunatsite, Pazardzhishko*. – In: V. Nikolov (ed.) *Trakia i sasednite rayoni prez neolita i halkolita*. (Karanovski konferentsii za praistoriyata na Balkanite 1). Sofia: Arheologicheski institut s muzey, 2000, 113–120.
- Terziyska-Ignatova 2002:** S. Terziyska-Ignatova. *Eneoliticheskie kostyanye idoly iz poseleniya Ploskaya mogila u s. Yunatsite (Bulgaria)*. – In: R.M. Munchaev (ed.) *Problemy arheologii Evrazii: k 80-letiyu N.Y. Merperta*. Moskva: Grif IK, 2002, 259–270.
- Terziyska-Ignatova 2004:** S. Terziyska-Ignatova. *Late Chalcolithic zoomorphs from Tell Yunatsite*. – In: V. Nikolov, K. Bacvarov & P. Kalchev (eds.) *Prehistoric Thrace. Proceedings of the International Symposium in Stara Zagora, 30.09 – 04.10.2003*. Sofia–Stara Zagora: Institute of Archaeology and Museum, 2004, 383–390.
- Terziyska-Ignatova 2005:** S. Terziyska-Ignatova. *Newly found bone figurines at Tell Yunatsite, Pazardzhik region*. – In: M. Neagu (ed.) *In Honorem Silvia Marinescu Bilcu – 70 ani*. (Cultură și Civilizație la Dunărea de Jos 22) Călărași: DAIM, 2005, 377–382.
- Terziyska-Ignatova 2006:** S. Terziyska-Ignatova. *Late Chalcolithic dug-in pits for meat preservation from Tell Yunatsite, Pasardzhik region, Bulgaria*. – In: M.-C. Frere-Sautot (dir.) *Des trous... Structures en creux pré- et protohistoriques* (Actes du Coll. de Dijon et Baumeles-Messieurs, 24-26 mars 2006). (Préhistoires 12) Montagnac: M. Mergoïl, 2006, 227–237.
- Terziyska-Ignatova 2008:** S. Terziyska-Ignatova. *Zoomorfni amfisbeni ot selishtnata mogila Yunatsite*. – In: M. Gurova (ed.) *Praistoricheski prouchvaniya v Bulgaria: novite predizvika-telstva*. Sofia: Natsionalen arheologicheski institut i muzey, 2008, 178–184.
- Todorova 2002:** N. Todorova. *Keramichnite kompleksi na Yunatsite i Sitagri III i kulturnite vzaimodeystviya mezhdru Gorna Trakia i Belomorskata oblast prez kasniya halkolit*. – *Godishnik na Sofiyskiya universitet "Sv. Kliment Ohridski", Istoricheski fakultet, Spetsialnost Arheologiya* 3, 2002, 95–140.
- Todorova & Mazanova 2000:** N. Todorova & V. Mazanova. *Late Chalkolithic ceramic style at Yunatzite tell (approach to the systematization of the ceramics from the newly excavated*

levels). – In: L. Nikolova (ed.) *Technology, style and society: contributions to the innovations between the Alps and the Black Sea in prehistory*. (BAR International Series 854) Oxford: BAR, 2000, 331–361.

Zäuner 2006: S. Zäuner. *Anthropologische Untersuchung der Skelettreste aus dem Tell Yunazite (Bulgarien). Ein chalkolithischer Kriegsschauplatz? Schriftliche Arbeit zur Erlangung des Magistergrades*. Tübingen: Institut für Ur-und Frühgeschichte und Archäologie des Mittelalters. Abteilung ältere Urgeschichte und Quarterökologie, 2006.

Zäuner 2011a: S. Zäuner. *Ploskata mogila Yunatsite. Edin pogled varhu naselenieto na poslednoto selishte ot kasniya halkolit*. – *Godishnik na Regionalen istoricheski muzey – Pazardzhik* 2, 2011, 56–68.

Zäuner 2011b: S. Zäuner. *The dark side of the Chalcolithic. Evidence for warfare at Tell Yunatsite? An anthropological approach*. – In: Y. Boyadzhiev & S. Terzijska-Ignatova (eds.) *The golden fifth millenium: Thrace and its neighbour areas in the Chalcolithic*. Sofia: NAIM-BAN, 2011, 49–57.