

RECENT FIELDWORK AT THE NEOLITHIC SITE OF VELUŠKA TUMBA IN PELAGONIA

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Abstract

Veluška Tumba is one of the most interesting Neolithic settlement sites in Pelagonia in terms of its stratigraphy, architecture and material culture. In 2017, a research project was launched, with new scientific approaches that apart from the standard knowledge of layers, buildings and artifacts, aimed to reconstruct the internal organization of the settlement and its natural environment, as well as to gain a detailed insight into the stratigraphy, chronology, architectural features, production of vessels, tools and cult objects, and the diet of the inhabitants of this impressive mound which had an uninterrupted development in the Neolithic resulting into the formation of deposits measuring almost 4 m. Therefore, in addition to the usual archaeological methods, geoarchaeological, archaeobotanical and radiocarbon analyzes were used in the last few years of research at the site, as well as a Harris Matrix to record all archaeological features, which in turn provided a very detailed insight into several aspects of the Neolithic life.

Keywords: *Pelagonia – Neolithic – tell – architecture – material culture.*

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Introduction

Wetlands had crucial role in the inhabitation of areas that would provide stabile and continuous subsistence of the first farmers in the Balkans. One such region is the valley of Pelagonia that was also covered by marshes, particularly in its central part (Dumurdzanov et al. 2004; Mirčovski et al. 2015; Naumov et al. 2021a). This natural setting enabled access to a variety of resources that resulted in the appearance of a number of tell sites in Pelagonia around 6000 BC (Simoska & Sanev 1976; Naumov 2016a). One of these tells is Veluška Tumba, an eponymous site that was used to label the Neolithic communities in the valley of Pelagonia (Simoska & Sanev 1975; Garašanin 1979). Due to its good preservation and undisturbed layers, it is quintessential for studying the first

agricultural societies in the region, especially their architecture, pottery, tools, imagery, subsistence and environment.

The archaeological site of Veluška Tumba is an artificial mound created gradually through the continuous habitation of this area in the Neolithic. It is located 400 m south of the village of Porodin, although formally it belongs to the land of the Velušina village, which is 1.5 kilometers southwest of the tell and where its name comes from (fig. 1). The Veluška River passes close to the site as it flows from Baba Mountain toward the plains and is the main water source, both today and in the Neolithic. Geological research around the site indicates the existence of water surfaces, so it can be considered that the Neolithic village itself was located next to a wetland or river that in earlier periods flooded its periphery (Naumov et al. 2020). Such a natural environment indicates excellent conditions for agriculture near the tell site, as well as for its continuous occupation.

As a result of this natural environment, the Neolithic village functioned efficiently for a long period of time, which is evidenced by the height of the tell, as well as its area of 270 x 180 m (fig. 2). Research in the last few years confirmed that the settlement was founded on a natural sandy mound where 3.83 m of cultural layers were gradually deposited in the Neolithic. From the 31 identified Neolithic layers, 12 architectural phases were recorded, that is, buildings erected on top of each other. It is evident that this site was inhabited continuously for a long period of time around 6000 BC, without any interruptions caused by natural or social changes (Naumov 2022; Naumov et al. 2020).

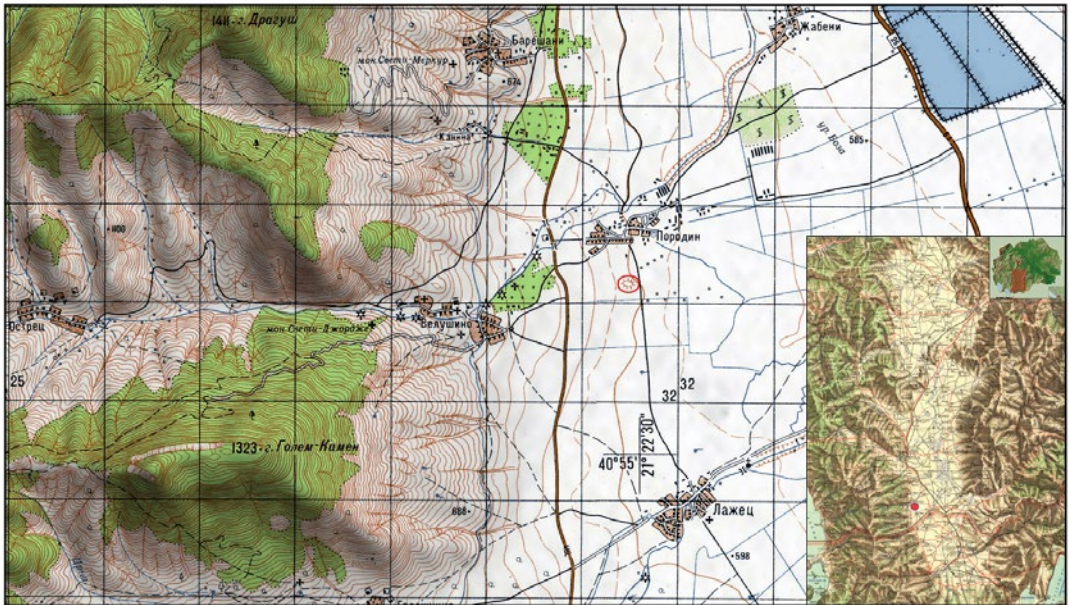


*Figure 1. Contour map showing the location of Veluška Tumba in Pelagonia.
Image Credit: G. Naumov.*



Figure 2. View of Veluška Tumba from the west. Image Credit: G. Naumov.

Due to its specificity and dominance in relation to the surrounding flatlands, this site attracted attention as early as the 1950s when it was first documented (Grbić et al. 1960). Then in the 1970s, excavation at the central part of the tell began, which partially continued in the 1980s (Sanev & Simoska 1983; Simoska 1986; Simoska & Sanev 1975). After a long research hiatus, in 2013, smaller excavations were made on the upper layers (Stojanova Kanzurova 2017). In 2017, new multidisciplinary research on this site was initiated in which Veluška Tumba is studied through geomagnetic mapping, small scale excavation, geological, radiocarbon and archaeobotanical analyses, re-evaluation of the stratigraphy and material culture, as well as prospection of the surrounding landscape to determine the density and arrangement of neighboring sites (Antolín et al. 2020; Naumov 2022; Naumov et al. 2017 and 2020; Sabanov et al. 2022). Several teams from the Center for Prehistoric Research in Skopje, the Institute for the Protection of Cultural Monuments and Museum in Bitola, the University of Basel, the Biosens Institute, the University of Belgrade and the University of South Bohemia are involved in this project.

These investigations have been carried out continuously for six years yielding evidence on the settlement pattern (linear layout of the buildings in the northeast-southwest direction and presence of a ditch), the daub structures (burnt or unburnt), the environment (wetland and abundance of wild fruits), the rich diet (cereals, lentils, peas, cattle, sheep and pigs), the pottery (continuous production of standardized vessels), and the various imagery (figurines and anthropomorphic models of houses; Naumov et al. 2020; Sabanov et al. 2022).

Having been preceded by a geomagnetic mapping and ground reconnaissance of the surrounding area, in 2019 the re-evaluation of the Veluška Tumba's stratigraphy began by reexamining the existing profile and starting a test trench within the limits of the dig

in the 1970s. Thus, the stratigraphic features of the Neolithic settlement were defined, and samples were taken for radiocarbon dating (fig. 3). This made it possible to determine the dynamics of living through the continuous renewal of buildings, but also to verify its chronology. This partially confirmed and expanded the knowledge from the 1970s when radiocarbon analyses were made that together with the new results indicate a time span from the end of the seventh to the mid-sixth millennium cal. BC (Naumov 2022; Valastro et al. 1977). The most recent studies of Veluška Tumba enable a much more thorough understanding of this Neolithic settlement, especially its architectural features. This paper will therefore outline the excavations at the tell site from 2020 to 2022, with an emphasis on the more significant structures, the clay installations in the interior and the material culture, while the latest results of the radiocarbon, archaeobotanical and geoarchaeological analyses will be presented in detail on another occasion.

The excavations in 2020

The excavations began next to the western profile and the 2019 test trench, so that the lower layers of the site could be investigated. During this campaign, two quadrants measuring 5 x 5 m each were opened providing insight into the earlier phases of Neolithic occupation (fig. 4). Being located next to the western profile of the 1970s trench, these quadrants represent a continuation of the excavations from forty years ago, which in some parts of the trench were interrupted at an elevation of ca. 1.5 m above the natural. There-



Figure 3. West profile of the trench at Veluška Tumba. Image Credit: G. Naumov.



Figure 4. The excavation trench at Veluška Tumba. Image Credit: D. Bežanovski.

fore, the unfinished parts of the trench are being investigated through ongoing research and a detailed insight into the beginnings and early development of the settlement could be obtained. As the excavations of the trench in the 1970s stopped at different elevations, the ‘new’ quadrants were opened at these levels, that is, with a small difference in elevation. The surface of quadrant I is slightly lower than of the adjacent quadrant II where several structures built on top of each other were investigated. In quadrant II, just one level is under excavation because of a specific building that we intend to excavate completely. Consequently, the excavation in quadrant I enabled the understanding of the stratigraphy and architectural dynamics of the site, while quadrant II provided significant information about the organization of the space in one house and about the activities within (figs. 5 and 6). All features in these quadrants were recorded in stratigraphic units (SU), thus creating a Harris Matrix that provides a clear insight into the arrangement of the architectural elements (fig. 7). In this paper, I will discuss in detail the features revealed in the two explored quadrants.

Despite the small excavated area, the quadrants yielded an abundance of results on the layout of the buildings and their architectural features. The numbering of the structures discovered in 2020 was a continuation of those in 2019, when in the western profile of the 1970s trench, the remains of 12 structures built on top of each other were registered, from the lowest layers to the highest (Naumov et al. 2020). Therefore, the buildings identified in both quadrants in 2020 were recorded with numbers from 13 to 17. Also, the detailed records of the finds demonstrate the amount and variety of objects preserved and used in these structures that are considered as household units. They and their material

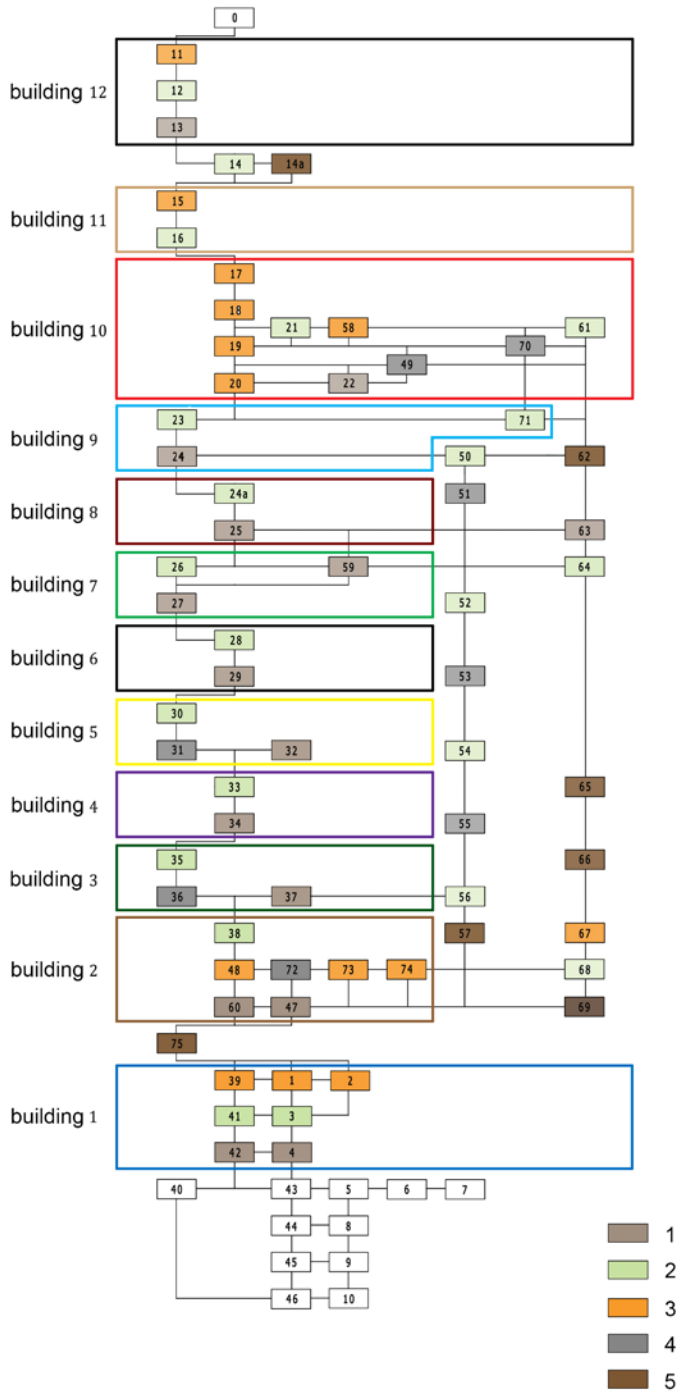


Figure 5. Stratigraphic units of the west section. Key: (1) plaster; (2) sediment/daub; (3) burnt daub; (4) ashes; (5) pit. Image Credit: G. Naumov.



Figure 6. View of the excavation trench and quadrants I and II.

Image Credit: D. Bežanovski & G. Naumov.

culture adequately correspond to the existing knowledge on the early Neolithic Balkans, but they also contribute to a new comprehension of their construction, production and use. Therefore, the architectural features will be presented according to the determined features in the two quadrants, and below they will be discussed in the context of previous knowledge on the stratigraphy and architecture of Veluška Tumba (Simoska & Sanev 1975; Naumov et al. 2020).

Quadrant I

This is a north extension of the 2019 test trench connecting to the northern edge of the 1970s dig. It was excavated in order to explore the archaeological layers in the eastern part of the earlier trench next to quadrant II. The uppermost layers are related to building 2, which was identified in 2019 (Naumov et al. 2020), starting with the levels associated with a small oven (SU 48) and the floor (SU 60), of which new sectors were uncovered (SU 79). Above the floor, a thin layer of sediment/unburnt daub was also documented, which is an integral part of the walls of this building, previously registered as SU 38 (fig. 7).

No sediments or geological features were registered between the layers of the structures built on top of each other. Thus, part of building 14 was discovered immediately below building 2, of which only the eastern part was uncovered, while its remaining area extends under the layers in the western profile (fig. 7). The uncovered features of building 14 include the floor made of clayish compact plaster (SU 83 and 84), postholes (SU 91 and 99), loose daub mixed with soot (SU 81), remains of unburnt daub (SU 80) and a concentration of rocks and pottery (SU 81). It is evident that this building also has the usual architectural elements like the other at the settlement, with the evidence of uneven firing of the daub being more clearly visible. The concentration of rocks could be

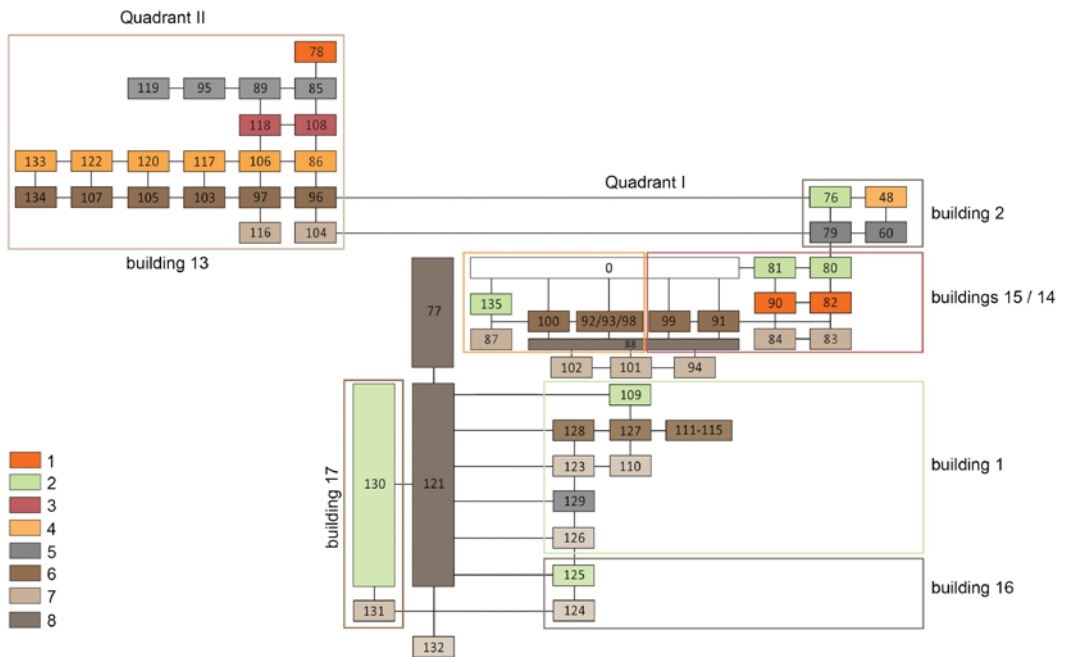


Figure 7. Stratigraphic units of the earliest levels of Veluška Tumba. Key: (1) burnt daub; (2) unburnt daub; (3) cluster of finds; (4) clay installation; (5) ashes; (6) posts; (7) plaster; (8) ditch. Image Credit: G. Naumov.

explained with the collection of this material for domestic activities as the production of grinding stones, cooking with heated stones, or for particular construction works.

The remains of one of the walls of building 14 were also uncovered – a foundation trench running northeast-southwest, with postholes (SU 92–95, 98, and 100) on its bottom (fig. 8). Unfortunately, due to the excavations in the 1970s and to the damage from a World War I ditch (Simoska & Sanev 1975), the remains of the walls of building 15 were not found but only parts from its floor (SU 87), with some indications that it had an earlier phase (SU 94), as well as the paved alley between it and building 14 (SU 101 and 102; fig. 7). Alternatively, the pavement could have been part of the floor of one of these buildings; given the small excavated area, however, it is currently not possible to find evidence in favor of one or the other option.

The remains of building 14 overlapped parts from building 1, which was first identified in the 2019 test trench (Naumov et al. 2020). Only the southeast corner of this structure is located in quadrant I, where the renewed plaster floor (SU 110, 123, and 126) and the soot sediment between its two phases (SU 129) were revealed, as well as postholes (SU 111–115, 127, and 128) and a unburnt daub wall (SU 109; fig. 7). These features correspond well to what was found in 2019: the floor (SU 4 and 24) and the remains from a fallen wall (SU 3 and 41). The profile of the 2019 test trench clearly shows the remains of burnt daub walls, but they were not identified in quadrant I. This situation is similar to some other buildings at Veluška Tumba where the walls were not uniformly burnt, e.g., buildings 2, 10, and 12.

Another structure (building 16) was discovered under the remains of building 1 that could not be detected in the profiles of the test trench, demonstrating that there is architecture beneath this building as well. The plaster floor (SU 124) and a unburnt daub wall (SU 125) of building 16 are preserved; similarly to the later houses, they extend in the north and west profiles of the trench. To the west of this house, a ditch (SU 121) was identified that is most likely the end of SU 77 (fig. 7). As some plastering was uncovered at its bottom (SU 132), it still remains unclear whether it was dug in World War I or in the Neolithic, moreover that the eastern edge of the floor of building 16 follows the line of the ditch (fig. 9).

East of the ditch, an unburnt daub wall (SU 130) was uncovered belonging to building 17, as well as a floor of compact plaster (SU 131). Therefore, the bottom of the ditch is located between buildings 16 and 17 that have almost identical floor elevations. Considering the plastering at the bottom of the ditch (SU 132), it seems more plausible to suggest that it dates to the Neolithic. Also, it should not be ruled out that buildings 16 and 17 were in fact parts of the same house that had been cut in halves by the ditch (fig. 9).

The elevations of the sediment layers of the walls and the floor of building 17 corresponds to those of buildings 1 and 16. It is yet not clear whether building 17 lasted longer and was used throughout the two different life phases of the neighboring houses or whether there was another structure on top of it that could have not still been iden-

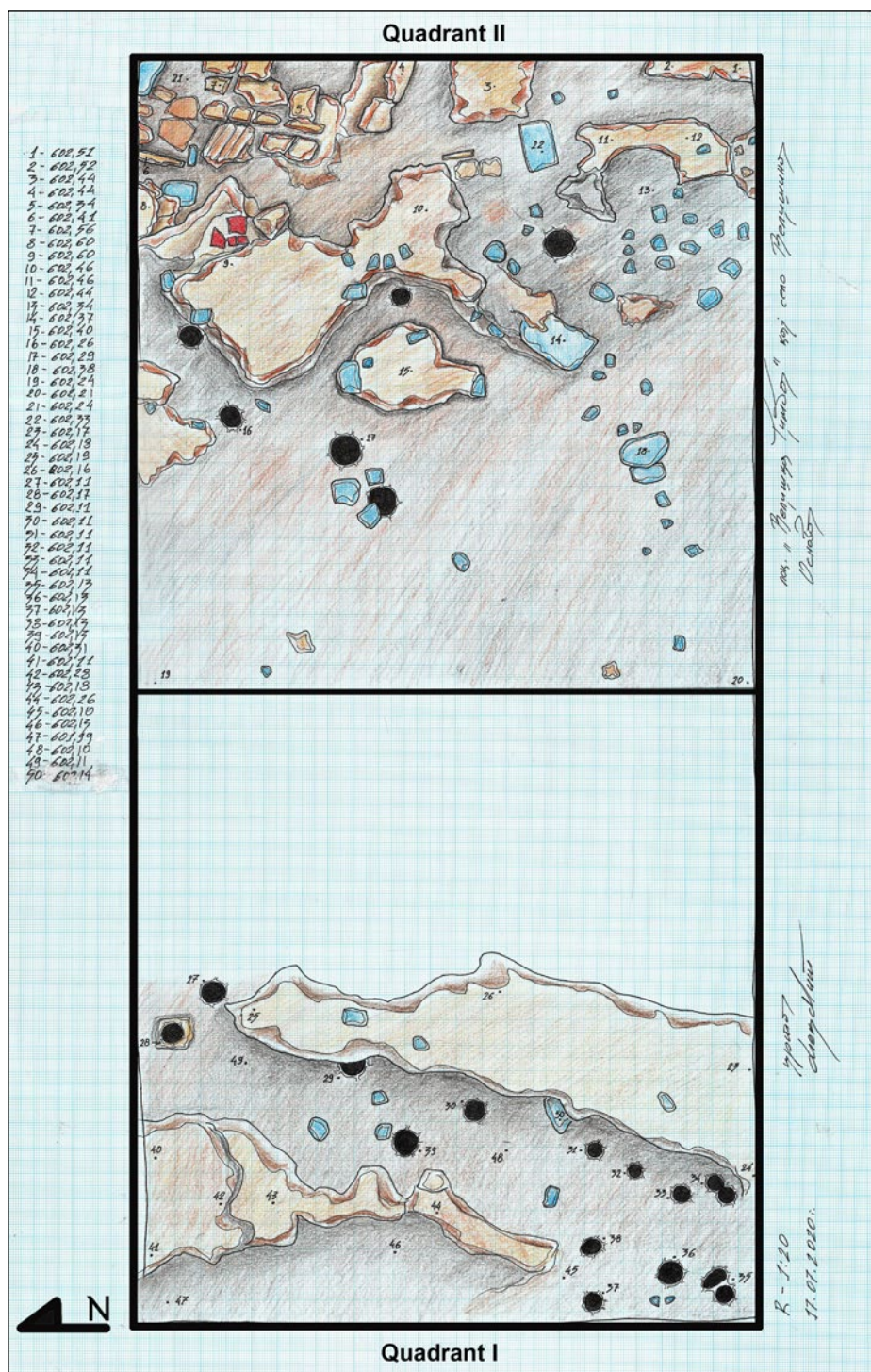


Figure 8. Archaeological contexts in quadrants I and II. Image Credit: A. Mitkoski.

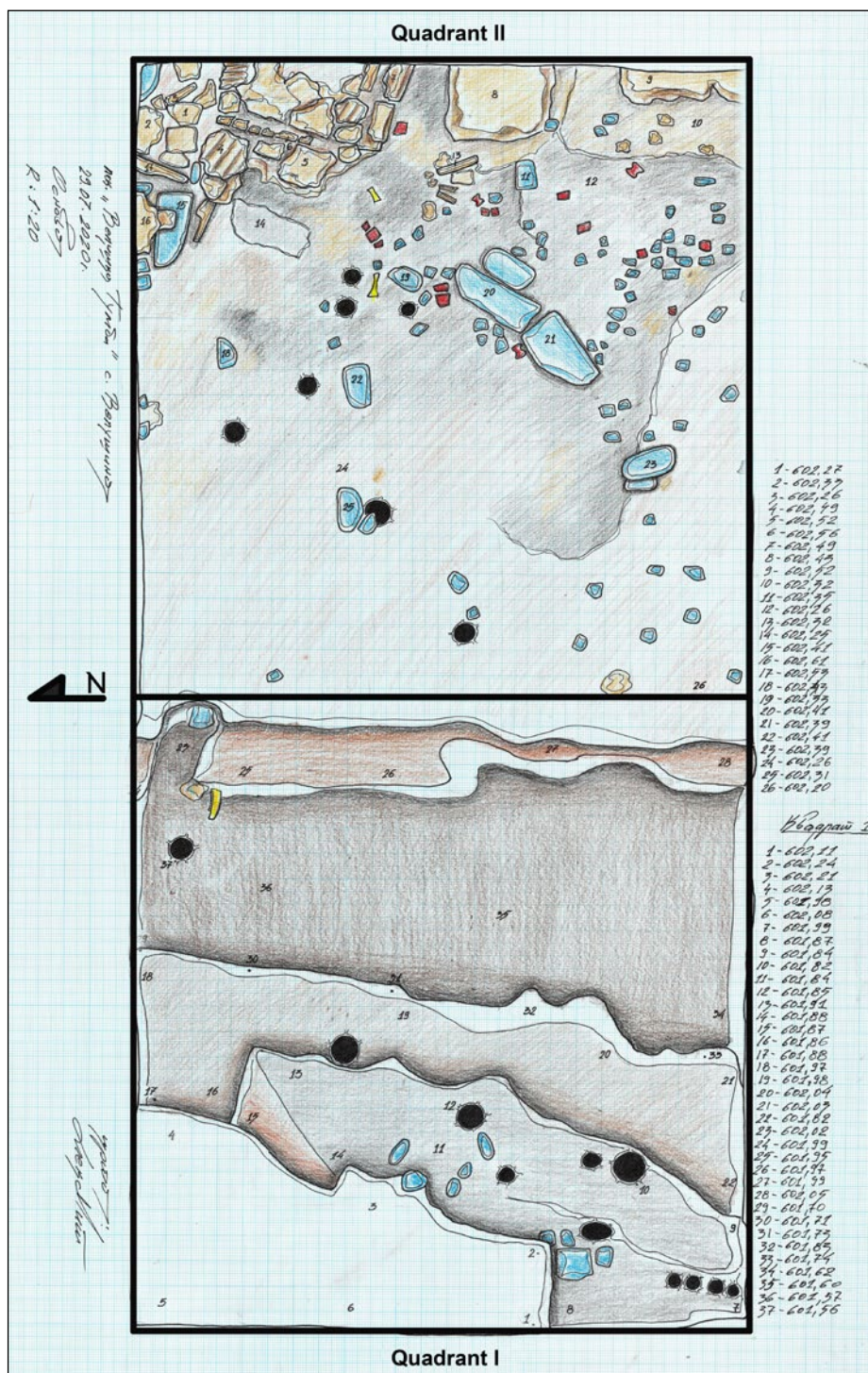


Figure 9. Archaeological contexts in quadrants I and II. Image Credit: A. Mitkoski.

tified in the wall sediments and that could have existed simultaneously with building 1. I should remind here that only a small part of building 17 was uncovered in quadrant I, while its larger part is located in quadrant II, of which only the uppermost layers are thus far excavated (building 13). Building 13 overlaps building 17 and is positioned at the approximate elevations of buildings 2 and 14; it is thus after its complete excavation that the structural stratigraphy beneath it will be recorded.

Quadrant II

Quadrant II was opened east of quadrant I, for the only reason to investigate building 13, which is stratigraphically later than buildings 1, 14, 15, 16, and 17. It was identified at similar elevation as building 2 and was also built of daub and burnt down (fig. 10). Considering the ditch (SU 77) between buildings 13 and 2, and that building 2 was identified only in the western profile, it is not clear whether they are parts of the same structure, or they belong to two different structures. The possible expansion of the trench in the future could bring more precise information about this context, although at the moment they are defined as separate structures.

Building 13 was apparently a massive house that occupied a large area, which is evidenced by the large pieces of burnt daub and the clay installations found in it (fig. 7). Its daub walls had burned intensely (SU 78), and its posts functioned as a frame and reinforcement (SU 96, 97, 103, 105, and 107). The floor was made of compact plaster (SU



Figure 10. View of building 13 from the west. Image Credit: G. Naumov.

104 and 116), and the soot sediment that covered it, came from the fire in the building, but also from certain household activities (SU 85, 89, 95, and 119) that took place between several installations: a grinding installation with a massive stone (SU 86), a larger (SU 106) and a smaller tub (SU 122), a bin (SU 117), and a concentration of several larger and smaller grinding stones (SU 120). In several areas of the floor of building 13, clusters of animal bones, weights and pottery (SU 108 and 118) were discovered in the soot layer, which suggests that food was prepared in the building and that weaving was performed as well (fig. 11).

Special note should be given to the clay installations and the grinding stones in building 13. The SU 86 bin was recorded in the north and east profile of quadrant II and as most of its remains have not still been uncovered (fig. 12), it is not clear whether it's a storage bin or an oven. Its massive walls show it is a massive installation. In front of it, there is a large grinding stone of almost perfect rectangular shape, entirely smoothed.

Remains of another large installation and walls of smaller tubs and bins were discovered south of SU 86 (fig. 7). SU 133 was recorded next to the east profile of quadrant II; damaged as it was, it could have been an oven or a grain-grinding platform. The upper surface of the burnt daub installation is smoothed but because of its bad state of preservation, its form could not be restored. North and west of it, only small walls of what are supposed to have been tubs for grain grinding were recorded. Larger and smaller grinding



Figure 11. Architectural contexts in building 12. Image Credit: G. Naumov.



Figure 12. Grinding stone installation in building 13. Image Credit: G. Naumov.

stones were uncovered in this area, which is indicative of the activities in this part of the building (fig. 11). Considering these elements in building 13, it can be suggested that they are part of a system of installations for preparing and baking bread, common for several Neolithic settlement sites in North Macedonia.

The remains of daub installations and the floor extend beyond quadrant II, and thus it can be expected that building 13 continues to the southeast. The presence of larger

installations near the east and north profiles indicates that the walls of the building are probably located in these parts, because at the Neolithic settlements in Pelagonia, such features are usually positioned in the peripheral areas of the dwellings (Grbić et al. 1960; Mitkoski 2005; Naumov et al. 2021a). In the southeast corner of the quadrant, a smaller trench was clearly outlined in the soot and ashes covering the floor of building 13, filled with small pieces of burnt daub (SU 134). It starts near SU 133 and continues straight towards the south profile (fig. 9). Since it doesn't change its direction to the west, it is yet not clear whether the trench is a corner of a structure that was later built on top of building 13, or whether it is the remains of some activities in building 13. Such trenches were also found between buildings 14 and 15.

The excavations in 2021

In 2021, the investigation of the architecture recorded in 2020 continued, but only in quadrant I, due to the smaller funding. All stratigraphic units were incorporated into the Harris Matrix, which enabled the registration of the architectural features and activities of the earliest inhabitants of the settlement (fig. 13). The work was focused on some of the earliest Neolithic buildings at Veluška Tumba, and the remaining parts of building 1 and the area around and below it were investigated. The excavation started by following the remains of its wall (SU 136/109) – one of the last contexts recorded in 2020. In this way, the excavation continued at the same place where it was stopped in the last archaeological campaign and the features that are closest to the natural were registered.

The daub wall is unevenly preserved as it was leveled before the construction of building 14. After the removal of the wall's remains, the floor was revealed (SU 137/110/123). It turned out that it is not just a single layer of plaster that is related with the floor, but it's a much more complex unit which will be discussed below. Here it is important to point out that to the east of the remains of the floor, holes of massive posts (SU 138) were recorded, which are probably associated with another wall of this building (fig. 13). Due to the small excavated area, it was not possible to determine exactly which wall of building 1 they belong to, although they seem to be related the east one.

Northeast of the remains of the floor (on which there were also overturned grinding stones) and the postholes, a hearth was discovered consisting of ashes, soot and a circle of large rocks (SU 140). Its presence further complicates the determination of the area of building 1 as it seems that the house extends to the east and this hearth could have been inside it, at least in one of its phases (fig. 14). The excavation of the floor and the hearth demonstrated the stratigraphic complexity of building 1 as below SU 137 and 140, layers of compact whitish plaster and dense soot and ashes were revealed (SU 144, 145, 148, 151, and 153) that suggest continuous and frequent renewal of the plaster and constant use of what would later be defined as a hearth (SU 140). These densely distributed stratigraphic layers indicate that one of the earliest buildings in the investigated area of Veluška Tumba was used for a very long time. Moreover, since very few animal bones and vessels

were discovered here, it seems that this area had often been cleaned. Due to the small excavation area and the absence of architectural elements in the lower layers (especially posts), it is currently difficult to confirm whether these intensive burning activities (heating or cooking) were carried out in building 1 or in an earlier building, which could not be found in quadrant I. Also, these layers of remains from fire and of plastering measure 0.38 m thick; they were recorded in a smaller unit of 2.6 by 1.2 m, and do not cover the whole area of the floor (figs. 15 and 16).

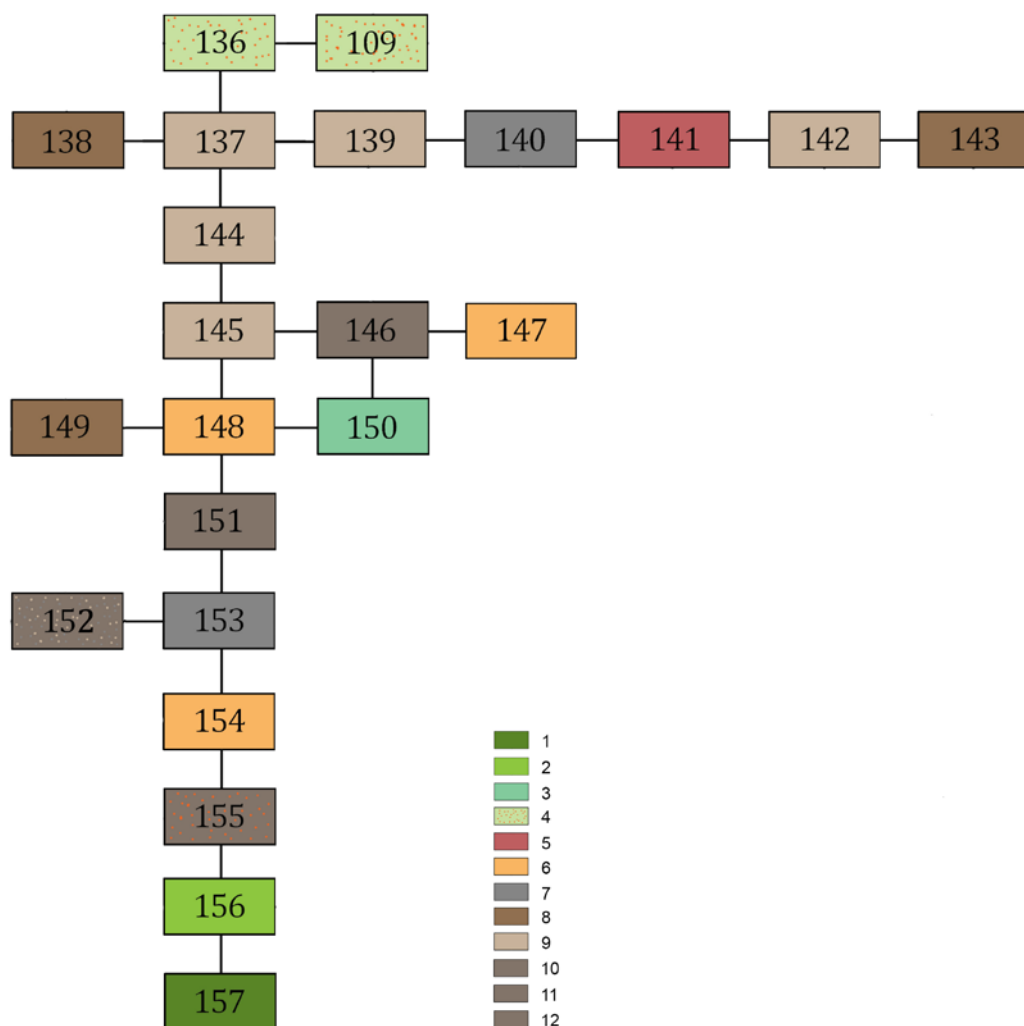


Figure 13. Stratigraphic units from the excavations in 2021. Key: (1) sandy natural soil; (2) compact clay foundation; (3) trenches; (4) unburnt daub with inclusions of small burnt daub lumps; (5) rock cluster; (6) brown soil; (7) ashes/soot; (8) posts; (9) plaster; (10) black compact soil; (11) soil with inclusions of burnt daub; (12) soil mixed with ashes and plaster pieces. Image Credit: G. Naumov.



Figure 14. View of the earliest buildings at Veluška Tumba. Image Credit: G. Naumov.

North and east of the floor (and the layers below it), there is only black dense soil (SU 146) and brown soil (SU 147), respectively, containing almost no archaeological finds or architectural units, which indicates that this area was used for a completely different purpose. Only one small unit consisting of narrow trenches and furrows (SU 150) was recorded in SU 146, but it cannot be related to any structure.

A small part of building 16, which was recorded in 2020, is overlapped by building 1, but its floor (SU 124) was not found to the west. This suggests that it extends to the east, where it was probably truncated by the ditch SU 121. The remains of building 17 could be part of the same structure, but this will be cleared out in the next campaigns.

Under the layers with remains of plastering and burning (building 1), sediments containing no plaster and soot were uncovered (SU 154), with a larger quantity of pottery sherds. Under this unit, a dense layer of wheat grains, small pieces of burnt daub and single sherds was recorded (SU 155), which again indicates the remains of construction activities, but outside of quadrant I (fig. 15) as no remains of walls (daub and postholes) and floor (plaster) were found in this area.

Under SU 155, compact greenish clay (SU 156) was recorded that could have been used for the leveling of the natural surface (fig. 16). This is also evidenced by the virgin soil below it (SU 157), which is dark greenish fine sand. It can thus be concluded that the natural sandy terrain was leveled with compact clay layer on which the local community constructed its first houses. Such a situation has been ascertained in the earliest layers of other Pelagonian tell sites, so it can be considered that it was the regular practice of the Neolithic communities during the transformation of natural places into settlements.



Figure 15. Archaeological contexts under building 1 in quadrant I. Image Credit: G. Naumov.

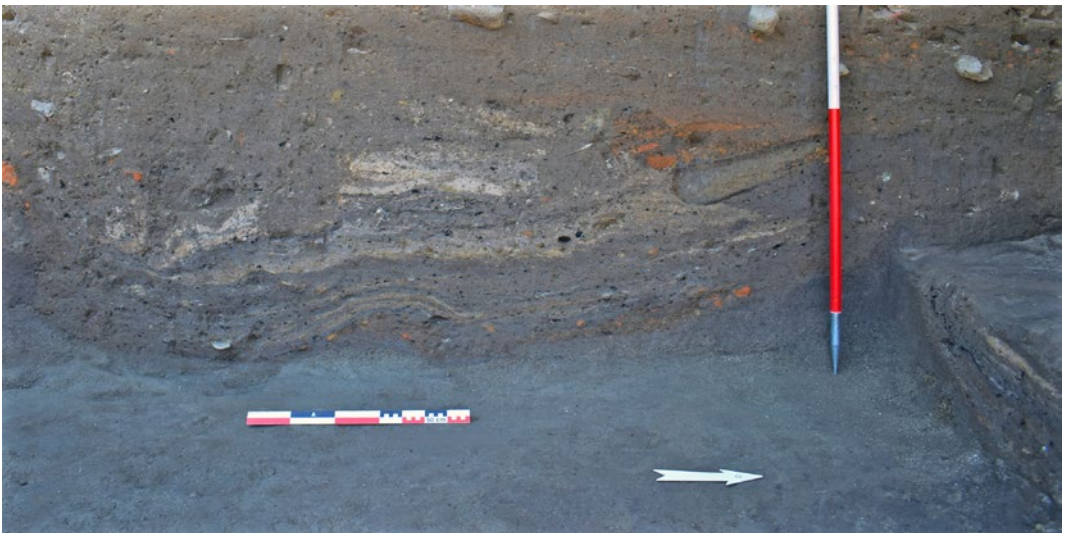


Figure 16. Archaeological layers above the natural in quadrant I. Image Credit: G. Naumov.

The excavations in 2022

In quadrant I, work continued on the earliest layers dating from the foundation of the settlement. The investigation in quadrant II was also resumed. The excavation area was extended to the east and south in order to uncover building 13, and for this purpose, quadrants III, IV, and V were opened. In quadrant V, no archaeological finds were discovered in context, because this area was excavated in the 1970s down to sterile soil (Simoska & Sanev 1975). Although smaller in scope, the 2022 campaign provided insights into the formation processes of the tell site and into the architectural features of some of the earliest structures at Veluška Tumba.

Quadrant I

The excavation continued of the unit whose function could not be previously identified, as well as the space around it. The work was focused on its northern part that actually ends in the middle of the quadrant. Remains of white plaster (SU 162) were found, as a continuation of the one from 2021. Considering the elongated shape and shallow depth of this feature (SU 168), it remains unclear whether it is a pit or a pit-house (fig. 17). It measures 1.78 m (NS) x 2.21 m (EW), and 4.20 m diagonally from its eastern end to the west profile of the quadrant where it is 2.10 m wide. Given its size – at least 5 m long and 2 m wide – it seems more plausible that it is a pit-house than a pit or a ditch, although no construction elements as post holes and daub walls related to it were uncovered. A single



Figure 17. Stratigraphic unit 168 in quadrant I. Image Credit: G. Naumov.

post hole (SU 184) and a pit (SU 195) were discovered on its edge. Intensive activities took place at this place that were not accompanied by the deposition of ceramic sherds (found in a very small number) or animal bones but are reflected by the formation of the following layers: soot and ash (SU 168), brown unburnt clay (SU 183), green compact sediment between them (SU 197), and greenish sediment mixed with soot (SU 206), all of them covering the natural (fig. 18).

In any case, such a feature has been identified for the first time in the North Macedonian Neolithic archaeology. It should be analyzed on the background of the characteristics and types of pit-houses in the early Neolithic Balkans, as well as of various types of pits and ditches/trenches that could have multiple uses. It should be considered especially in relation to the formation processes in the very beginning of the Neolithic settlement

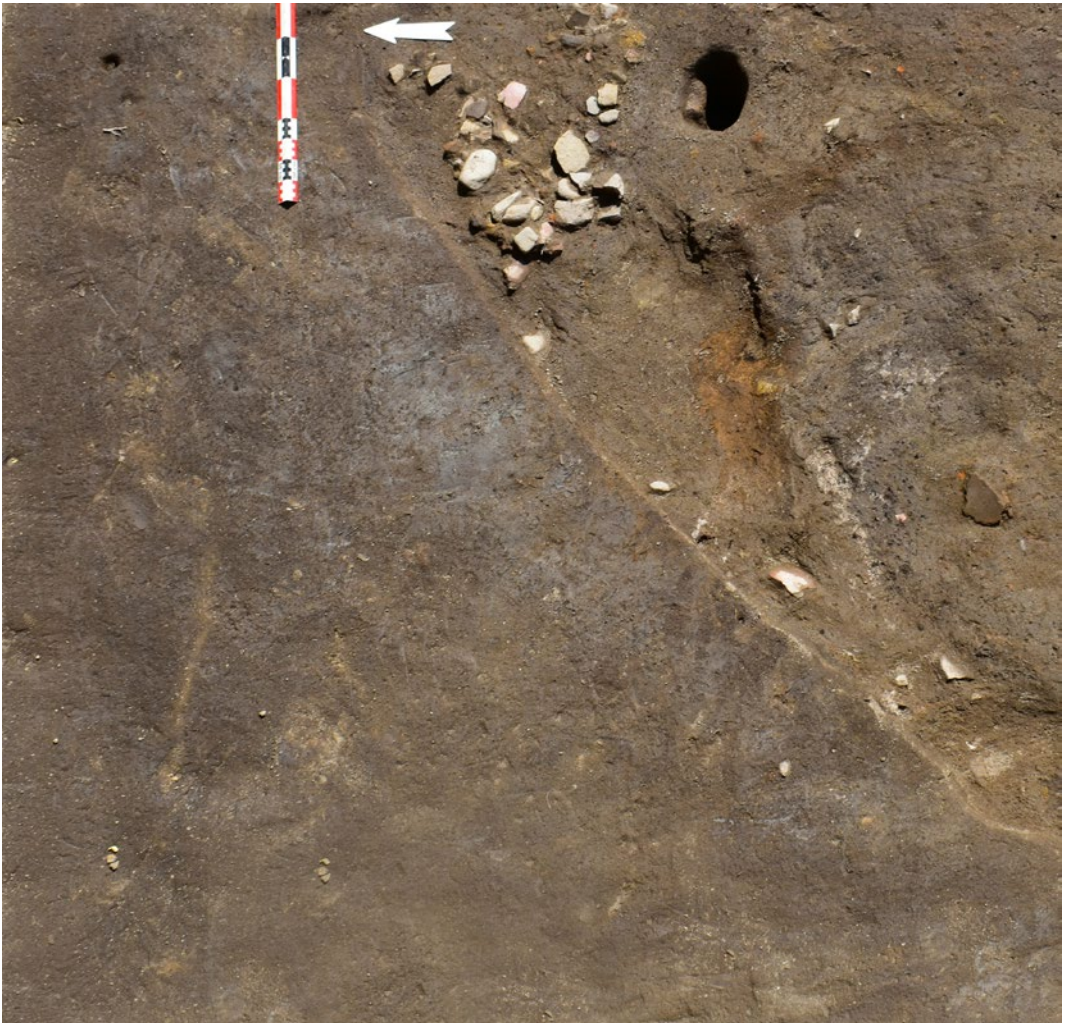


Figure 18. Archaeological context in SU 168. Image Credit: G. Naumov.

as it was created immediately after the initial leveling of the space above the sterile soil. Although structural elements (floors, walls, postholes) were not registered at this level, it does not mean that they are absent in the earliest layers of the settlement. They might be located in the area that has not yet been excavated, or, alternatively, there were pit-houses which, except in rare and poorly grounded exceptions, are not common in Pelagonia (Kitanoski et al. 1980).

Quadrants II, III, and IV

The excavation of the remains of building 13 turned out to be far more complex than what had been expected in 2021. In quadrant III, several contexts related to the storage and processing of cereals were discovered, as well as structural elements that indicate the massiveness of this house (fig. 19). After removing the daub pieces from the fallen east and south walls (SU 158), several storage bins and a partition wall were uncovered as well as a larger bin (SU 163 and 172) and a large fine pot in front of it (fig. 20).

To the southwest of this bin, a wall was discovered running southeast-northwest (SU 165). It is disturbed by a series of smaller bins (SU 174 and 176), and it is yet not clear whether this is part of another building or if it remained unfinished and was later de-



Figure 19. Remains of building 13 in quadrants II, III, and IV. Image Credit: H. Talevski.



Figure 20. Installations in the northeast part of building 13. Image Credit: G. Naumov.

stroyed in order to install the bins. It is noteworthy that in the same line of these features, to the west, another smaller bin (SU 178) was discovered, which in turn was attached to a larger elliptical bin (SU 177). This larger bin connects to a burnt daub wall (SU 186) and it is not clear whether the wall belongs to building 13 or is a part of the bin (fig. 21).

Next to it, another wall was discovered in quadrant IV running north-south (SU 187). It ends just before the bin SU 177 and the wall SU 186 (fig. 19). It remains unclear whether these features and the grinding stones uncovered in 2021 in quadrant II are part of the same building 13 or belong to different structures.

Another smaller bin (SU 164) was also discovered in quadrant IV, as well as house walls in the north profile of quadrant III, between bin SU 177 and the one discovered in 2021, with a large tile-like grinding stone inserted in it. Thus, the relationship between these three features and their connection to the same building is even more confusing, considering that there is a wall between them (SU 186 and 187). One would expect to find another parallel wall of a neighboring house next to this one, but no such wall has been discovered so far.

In several areas in quadrants III and IV, the remains of a plastered floor (SU 188) and soot sediments (SU 191–195) were recorded. Also, ca. thirty grinding stones were discovered in these two quadrants, the largest number of grinders found so far in a Neolithic house in North Macedonia. As these grinding stones are arranged around bins, it is obvious that there was an intensive preparation of flour in these facilities. The absence of an oven in this complex is surprising, but it might not have been discovered yet.



Figure 21. Installations and postholes in building 13. Image Credit: G. Naumov.

The concentration of bins in one area is particularly interesting. At least eight bins are positioned between the partition wall and the north profile, a relatively small space for such a number of installations (fig. 22). This means that the activities related to the processing of cereals took place mostly in this part of the house, although another bin was registered south of the partition wall. On the other hand, most of the grinding stones were found throughout the building and not only in the bins area, and it is an open question whether they were used during the life cycle of the house or were scattered there as a result of its symbolic abandonment; such a practice has been identified at several Neolithic sites in North Macedonia (Fidanoski & Tomaž 2010; Naumov et al. 2021a).

Material culture

Ceramic assemblage

Thousands ceramic sherds were uncovered during the excavations that enable an overview of the main typological features of vessel production in each of the discovered buildings. Although building 2 was recorded in 2019, elements of its floor and walls were also investigated in the next campaigns. The preliminary analysis of the material from this building indicates that the open and semi-open mouth bowls are the most common shape; they are made of fine fabric and are red slipped (fig. 23). Within the fine ware, the small spherical and larger jars are also typical, painted with white triangular patterns (fig.



Figure 22. Installations in the north part of building 13. Image Credit: H. Talevski.

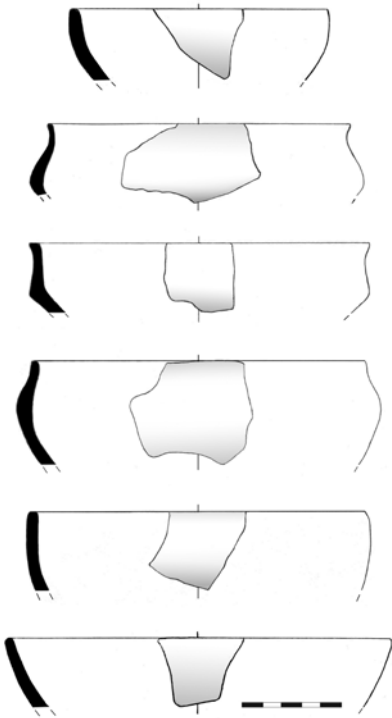


Figure 23. Early Neolithic vessels from Veluška Tumba. Image Credit: G. Naumov.

25). As for the coarse ware, low necked pots and storage jars decorated with barbotine were often in use. A perforated lid was also discovered, indicating that some of the vessels were covered, most likely to protect their contents.

Considering that a large part of building 13 was excavated, and that it is located approximately at the same elevation as building 2, several sherds were discovered corresponding to a certain extent with those of the latter structure. Semi-open, open, and closed mouth bowls predominate, some of them decorated with white painted elongated triangles, lozenges and curved lines, while a few have impressions and notches on the rims (figs. 23 and 24). Among the bowls, carinated profiles and small nipple-like buttons are common. The spherical pots and jars are also present, decorated with white painted elongated triangles, oblique and curved lines (fig. 25). The storage jars and cooking pots are also frequent in this building; some of the storage jars also have a rib inside, probably for placing a wooden drain, while others have a button-like mas-

sive handle and mat impressions on the base. Some storage jars are decorated with loosely arranged or finger trailed barbotine.

In building 14, the semi-open, open, and closed mouth bowls are common, sometimes decorated with finger impressions. Carinated bowls were also used, and some have nipple-like buttons or were decorated with black paint on a red surface (figs. 23 and 24), or with white-painted stair-like lines or strips filled with vertical lines (fig. 25). Small globular vessels were also found among the fine ware, while the coarse ware consists of low-necked pots decorated with pinched impressions, as well as storage vessels covered with barbotine, sometimes with cordons and handles near the rim or on the belly.

Building 15 is located next to building 14, but as only a small part of it was excavated, just a few sherds were found, except for fragments from semi-open mouth bowls and low-necked pots (figs. 23 and 24). Considering the posthole trench (SU 88) between these two buildings, some of the sherds from it were probably extracted from these buildings during the leveling of the surface before the construction of the later houses. SU 88 yielded closed and semi-open mouth bowls, sometimes featuring carinated profiles and decoration of finger impressions and nipple-like buttons on the rim. Other shapes include low necked pots and small cups.

The assemblage of building 1 includes closed, open, and semi-open mouth bowls, some with notched rims or carinated profiles (figs. 23 and 24). White-painted crescents and lozenges appear that are also common for the pottery from the upper layers of the site (fig. 25). Jars are often decorated with large, elongated triangles, Y-motifs, long zig-zag lines, and strips filled with oblique or vertical lines (fig. 25). Among the fine ware, small globular pots are present, while the coarse ware include low-necked pots decorated with pinched impressions and storage jars, sometimes with massive rosettes and handles or barbotine stretched in long vertical lines.

Other ceramic objects

Small ceramic finds mostly include imagery, altars, and models (fig. 26). An anthropomorphic figurine with the arms placed on the torso and a head from a zoomorphic fig-

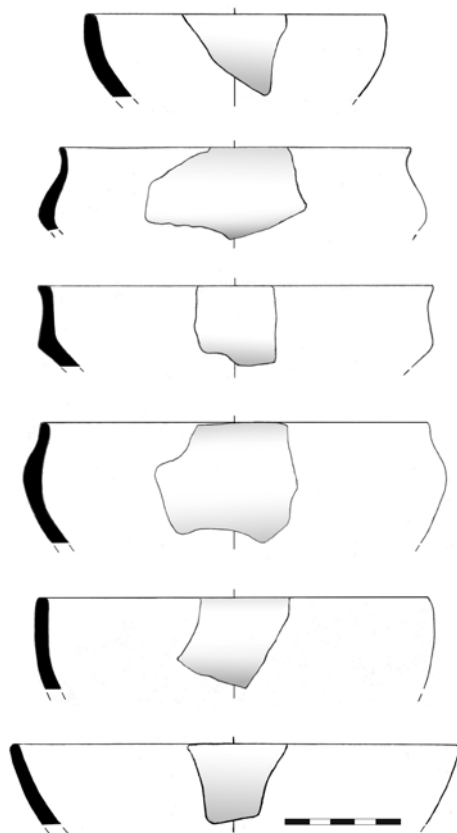


Figure 24. Early Neolithic vessels from Veluška Tumba.

Image Credit: G. Naumov.

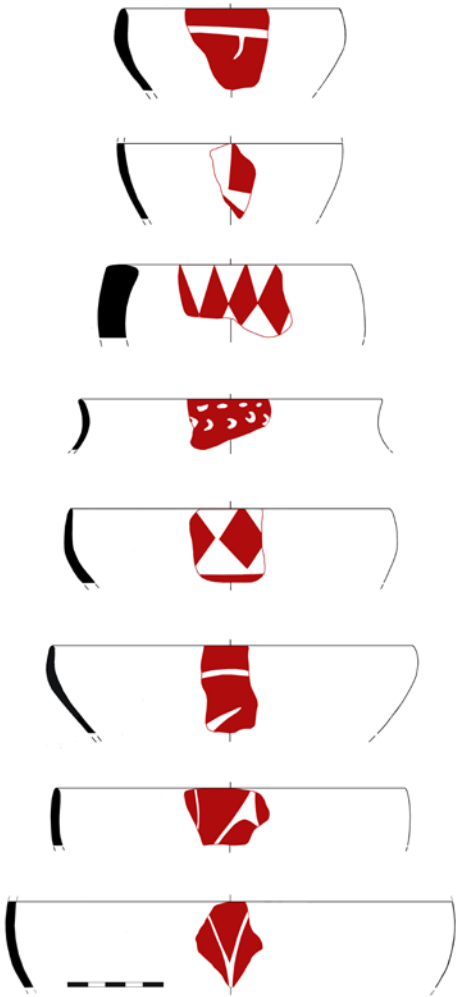


*Figure 25. White-painted early Neolithic vessels from Veluška Tumba.
Image Credit: G. Naumov.*

urine were found in building 2, while building 13 yielded a stylized cylindrical figurine. Several fragments of elongated deer heads with conical muzzles and almond-shaped eyes were also uncovered in buildings 1 and 14. These are animal protomes typical for the high legged house models that are specific to Veluška Tumba and Tumba Porodin (Grbić et al. 1960; Simoska & Sanev 1975). The frequent appearance of deer heads at the site suggests a special relationship of the Veluška Tumba population with this animal. Several fragments from long legs that also belong to such models should be added here, quite rare, or completely absent at other tell sites in Pelagonia. This demonstrates reverence for deer at this Neolithic settlement and its inclusion in the symbolic and mythical sphere. As for the anthropomorphic house models, several fragments of cylinders and cubes were discovered in building 13. More corner- and leg fragments – one of them with zig-zag decoration – from altars ('cult tables') were found in the trench and in building 14. Several loom weights were found in building 13, and a fragment from a ceramic bracelet was discovered in building 1. All these clay objects point to particular Pelagonian traditions in the Neolithic which are associated with local beliefs and rituals, but also with the aesthetics of the inhabitants of Veluška Tumba.

Tools

Stone tools include grinding stones, grinders, flint cores, flakes and several blades. Flint tools were found in buildings 1 and 13, while flakes and cores were found in several contexts, suggesting that chipped stone production was carried out in several stages, from the earliest phases of settlement development and within the dwellings as well.

The grinding stones are numerous, especially in building 13 where they were discovered in a context related to domestic activities. There are dozens of larger and smaller grinding stones made of several types of stone. It is noteworthy that most grinding stones in building 13 were turned upside down, except for the one in front of SU 86. This again

confirms the already established Neolithic practices of turning over the grinding stones before the abandonment of the dwellings and workshops (Fidanoski & Tomaž 2010; Naumov et al. 2021a).

Several bone tools were also discovered (fig. 26), usually awls, chisels, and spatulas, mostly found in building 13 but also in buildings 1 and 2.

Conclusion

Veluška Tumba is one of the most impressive Neolithic tell sites in Pelagonia considering its stratigraphy, architecture and material culture. With an area of 4.8 ha and early Neolithic deposits measuring 3.83 m thick, it is one of the most prominent settlements in the region that shows a long Early Neolithic continuity. This is due to the excellent natural conditions in which the settlement was established, such as the proximity of a wetland,



*Figure 26. Selection of finds from the recent excavations at Veluška Tumba.
Image Credit: G. Naumov.*

fertile soils, and wealth of resources. Geoarchaeological research has confirmed the presence of early Neolithic remains 100 meters south of the tell covered with 0.80 cm of topsoil, so that Veluška Tumba may have been much larger in the initial stages or there was a smaller settlement right next to it (Naumov et al. 2020). This attractiveness of the space is also confirmed by the large number of other tells concentrated near this marshy area, such as those close to the villages of Porodin, Žabeni, Kanino, Lažec, Meditlia, Kremenica, etc. (Naumov 2021; Naumov & Stojkoski 2015; Simoska & Sanev 1976).

The excavations conducted in the last four years, as well as the geomagnetic scanning in 2017 and 2022 confirmed a linear layout of the buildings with a southwest-northeast alignment, surrounded by a double ditch (Naumov et al. 2017). The presence of a ditch has been identified in the area near buildings 16 and 17, but it remains unclear whether it dates from the Neolithic or from World War I, as was pointed out by researchers in the 1970s (Simoska & Sanev 1975). In any case, although a novelty in North Macedonian archaeology, such circular ditches are common for Neolithic settlements in the Balkans (Abazi & Tolevski 2019; Bacvarov et al. 2016; Draşovean & Schier 2010; Fidanoski 2015; Harding et al. 2006; Hofmann 2012; Kokkinidou & Nikolaidou 2004; Naumov et al. 2021a; Nikolova 2021; Parkinson & Duffy 2007; Pyke 1996; Spasić 2013).

As for the architecture, it should be emphasized that 18 buildings were recorded during the excavations of Veluška Tumba. Due to the test nature and the small area of the excavations, these buildings are partially revealed, mostly in the west stratigraphic profile of the 1970s trench. However, this test approach also allows to determine the basic characteristics of the buildings in this area. Thus, it can be concluded that most of them were not intentionally or unintentionally set on fire, while the burnt houses are very few, which somewhat differs from the practices at some other tell sites in Pelagonia, such as Vrbjanska Čuka and Tumba-Optičari (Naumov et al. 2020; Simoska & Kuzman 1990). Such is the case with building 13, which is still under investigation, and from which its northeastern part was discovered. The burning of this building allows one to perceive the massiveness of its walls, as well as the large number of bins in which cereals were processed and near which there are thirty grinding stones. This early Neolithic building contains the same architectural elements and interior as some structures at other sites in Pelagonia, but also in the Skopje and Polog regions (Abazi & Tolevski 2019; Zdravkovski 1988; Kanzurova 2021; Naumov et al. 2021a; Sanev 1988).

What makes the architecture of Veluška Tumba specific is the large elliptical cut in the earliest layers of the site that could suggest a possible existence of a pit-house. Such dwellings are rare or unrecorded in the North Macedonian Neolithic, but they are found at early Neolithic sites in Serbia and Greece, so their presence at Veluška Tumba should not be surprising (Horejs et al. 2019; Kitanoski et al. 1980; Kotskakis 2018).

Apart from the architecture, the relations of Veluška Tumba with other settlements in Pelagonia and the Balkans are evidenced by its pottery assemblage. The types of vessels used by the population of this tell site are common for the Pelagonia basin (semi-open

and open bowls, slightly carinated bowls, jars and pots), but similar shapes are present in other Balkan regions. What makes Veluška Tumba exceptional are the white painted patterns. Both in the 1970s and in the recent excavations, patterns unique to this site were recorded, but some of them are also present at other tells in Pelagonia, such as Vrbjanska Čuka and Tumba-Optičari (Naumov et al. 2020; Simoska & Kuzman 1990). Some of the white painted decorative elements of the pottery are also present in the Ohrid and Korça regions, which in turn indicates the close ties between the communities that lived in these areas (Kuzman 2017; Naumov 2016b; Ruzi 2009).

Veluška Tumba is also specific for its imagery, especially the anthropomorphic house models and the zoomorphic altars. Although these sophisticated forms of Neolithic beliefs are common for the entire Pelagonia, the elements of the human body and the architecture of the models, as well as the frequent presence of deer on the altars, is what makes this tell distinctive. Their specific features were also emphasized during the initial investigations at the site (Simoska & Sanev 1975), but the discovery of parts of such models during the new excavations points to the special character that these symbolic objects had within the early Neolithic settlement (Naumov et al. 2020).

Although smaller in scope, the research at Veluška Tumba contributed to significant new insight into the beginnings of this site. If the recent results are coupled with those obtained in the 1970s, a very thorough reconstruction of the settlement and its environment can be done. It provides an insight into almost all spheres of life of the Neolithic communities in Pelagonia and especially into the way they built the houses, made and modified the vessels, worshiped their ancestors and nature, and prepared food, clothes and domestic inventory, etc. In this way, much new information is provided that can help in interpreting the social, economic and symbolic components that were an integral part of the life of those who established Veluška Tumba and lived continuously on it. Future research at this site will continue in that direction, both in the domain of excavation and through the application of new scientific methods that will help to understand some of the first farmers in Pelagonia.

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