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HOUSE CONSTRUCTION AND SETTLEMENT PATTERNS ON AN EARLY COPPER AGE SITE IN THE GREAT HUNGARIAN PLAIN

Introduction

The excavations conducted as part of the Hungarian–American Körös Regional Archaeological Project were begun in 2000 at the Vésztő–Bikeri (Vésztő 20) site. In its current phase, the goal of the long-term research project initiated for the study of the socio-

economic changes in the Körös Valley during the Holocene is to explore the transition from the Neolithic to the Copper Age through the systematic, multi-disciplinary investigation of Early Copper Age settlements.¹

The site lies in the northern part of County Békés, on the western outskirts of Vésztő by the boundary

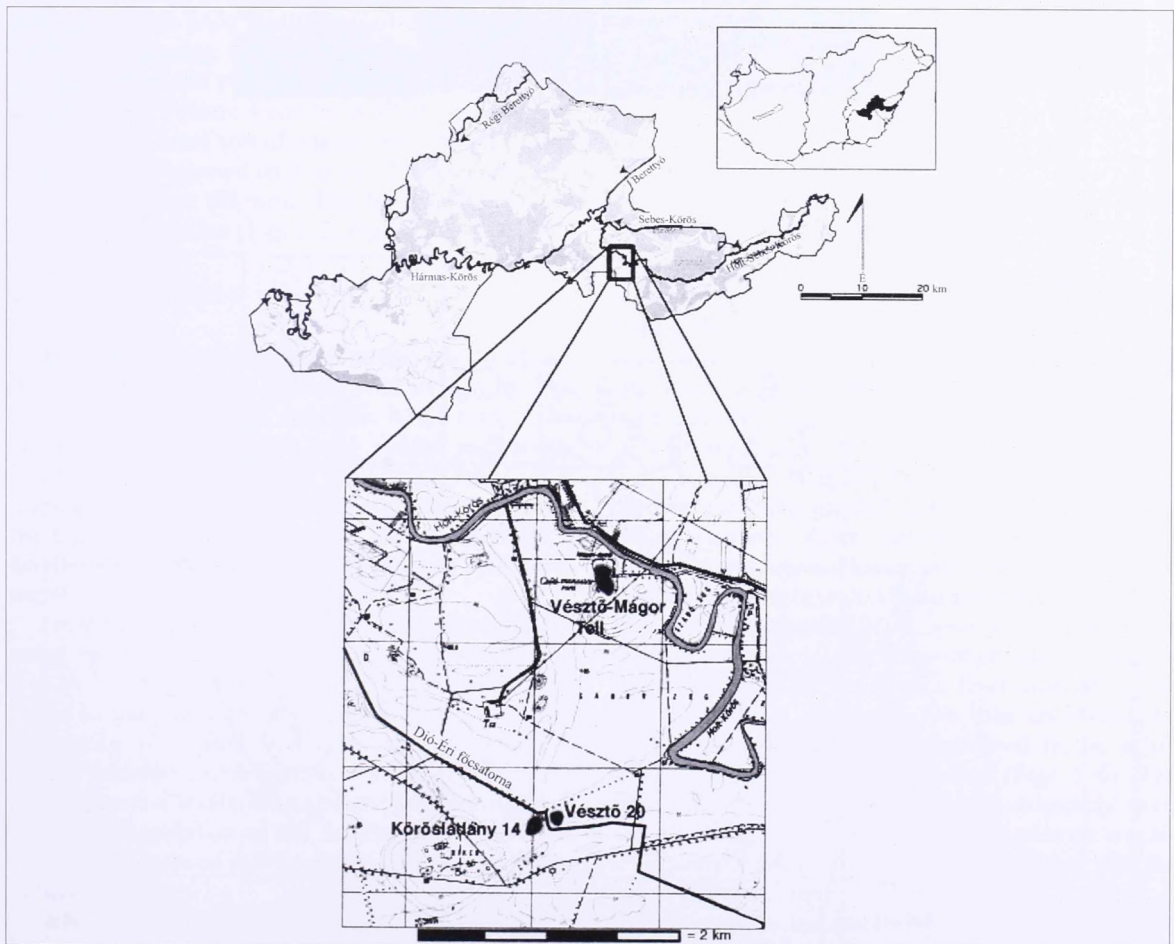


Fig. 1. Vésztő–Bikeri. The broader and narrower environment of the site, and the location of the Vésztő–Mágor tell settlement and the Körösladány–Bikeri (Körösladány 14) site

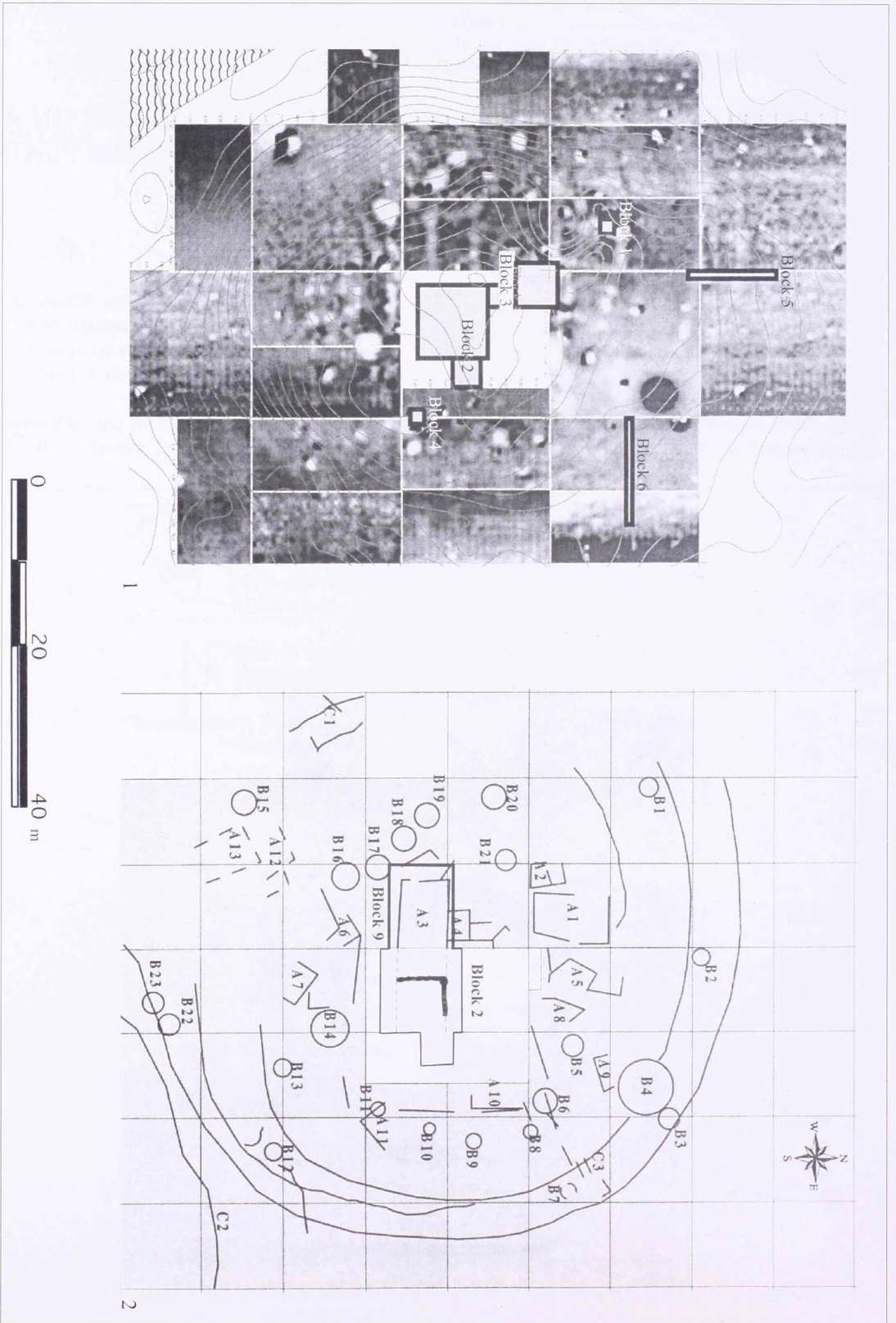


Fig. 2. Vészta–Bikeni. 1: The magnetometer survey of the site from 2002 and the blocks opened in 2000–2003; 2: Interpretation of the magnetometer survey, showing the position of Block 9 and the bedding trenches uncovered in Block 2 in 2002

with Körösladány, on a 100 m by 70 m large oval elevation on the western bank of a former Körös channel (Fig. 1). The Vésztő–Mágor tell settlement, where Katalin Hegedűs uncovered an Early Copper Age settlement and cemetery section in the 1970s (HEGEDŰS 1977; HEGEDŰS 1982; HEGEDŰS–MAKKAY 1987), lies *ca.* 2 km northeast of the site. On the opposite side of the Dió-éri Channel bordering the site on the west lies the Körösladány 14 site, whose excavation was begun in 2005, following a sounding and a magnetometer survey in 2001.

In 2002 and 2003, we uncovered the bedding trenches of the building (Features 4 and 14²) identified in Block 2 opened in 2000 at Vésztő–Bikeri (GYUCHA–PARKINSON–YERKES, 2004, 34). The magnetometer survey of the site in 2002 identified several regular, rectangular anomalies, which in view of the observations made during the excavation of Feature 4 were interpreted as the bedding trenches of various buildings (e.g. A1, A13; Fig. 2. 12). One of these anomalies (A3) was identified directly west of Block 2, measuring 10 m by 10 m. A comparison of the position of the partially excavated northern bedding trench of Feature 4 and the position of the anomaly suggested some sort of relation between the two.

In 2003, we opened an 8 m by 12 m block adjoining Block 2 from the west. This became Block 9 of the Bikeri excavation (Fig. 2. 2, Fig. 3).

Description of Block 9

We first mechanically removed the *ca.* 20–25 cm thick upper part of the plough zone in 2 m by 2 m large units and collected the finds. Aside from a few Árpadian Age sherds, this level yielded exclusively Tiszapolgár pottery, animal bones and burnt daub fragments, which had an even distribution, except for the block's south-western corner, where we found a smaller concentration of pottery and burnt daub fragments.

From this point, we excavated the block manually, using the micro-stratigraphic excavation technique in 2 m by 2 m large units. The essence of this technique, based on the procedure first elaborated during the investigation of the Hódmezővásárhely–Gorzsa site,³ is that in addition to the various features, construction and destruction levels, each genuine level formed during the accumulation of the settlement is excavated. We took 10 litres of soil for flotation from each excavation unit.

After clearing the lowermost, *ca.* 5 cm thick section of the plough zone humus, we reached the first intact Copper Age level (Fig. 4).⁴ We observed a north to

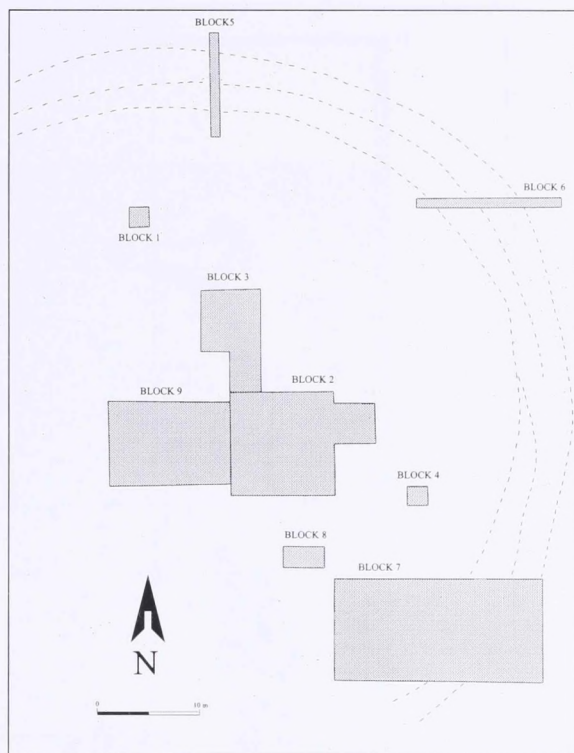


Fig. 3. Vésztő–Bikeri. Position of the blocks opened on the site and the circular ditch enclosing the settlement

south oriented, greyish-light yellow band above the bedding trenches indicated by the magnetometer survey, which differed markedly from the area around it and was strewn with Early Copper Age sherds and burnt daub fragments in a secondary position.

Next, we continued the excavation along this band in a 2 m by 2 m large unit in the block's southern and northern part. The greyish-light yellow feature widened downwards. After cutting through the feature along a short section it became clear that we had found an unburnt, upright wall remain surrounded by debris. Searching for an identifiable level on either side, we reached the floor level on the inner side of building (Feature 15) and the occupation level associated with this phase on its outer side. We then uncovered the floor level and outer occupation level in the entire block, and cleared the wall debris (Figs 5–6). The floor and occupation level were both extremely worn and often difficult to trace. We did not uncover any artefacts on the floor, which could be associated with the house's occupation (Figs 7–8).

In contrast to the results of the magnetometer survey, the burnt debris in the corners did not turn sharply at an angle of 90°, but was curved. Its height de-

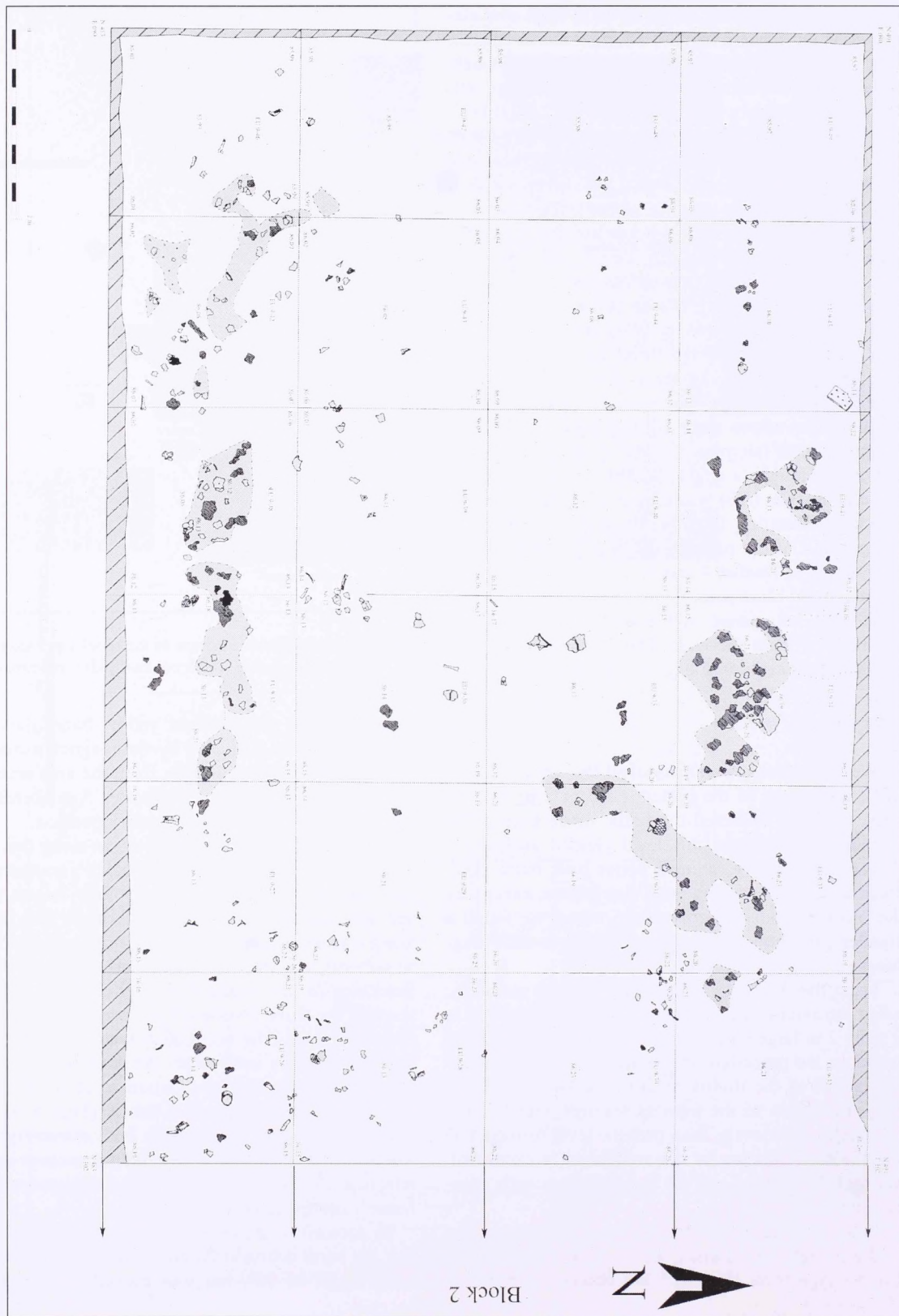


Fig. 4. Vésziő-Bikeri, Block 9. The layer of levelling with the wall debris overlying Feature 15 directly under the plough zone

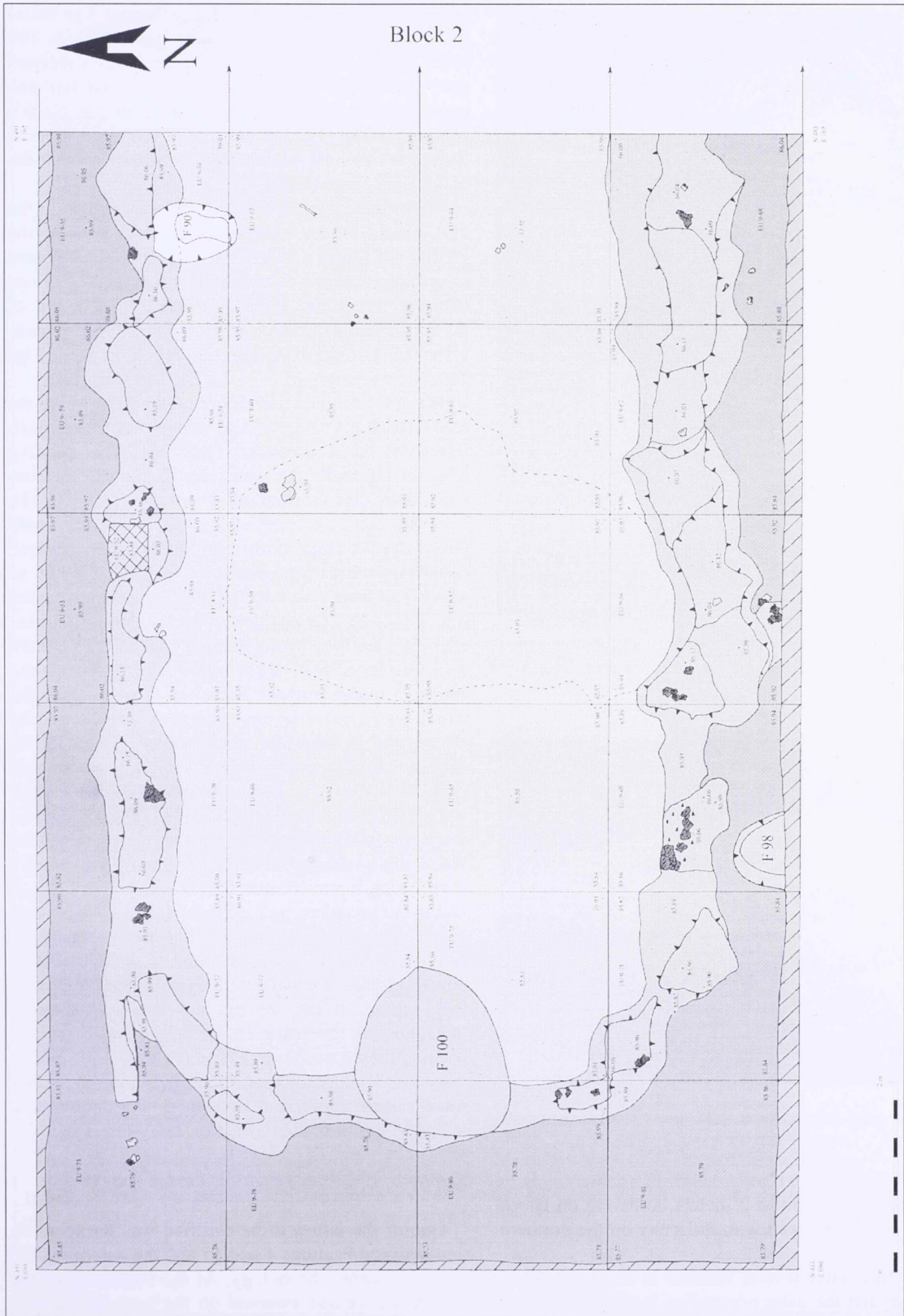


Fig. 5. Vész-tő-Bikeri, Block 9, Feature 15. The floor, the outer occupation level, and the debris around the wall



Fig. 6. Vésztő–Bikeri, Block 9. Position of the layer of levelling covering Feature 15 and the wall debris relative to each other



Fig. 7. Vésztő–Bikeri, Block 9, Feature 15. The house floor with the surviving wall remains

creased on both the northern and the southern side in the block's easternmost 2 meters bordering on Block 2, and could be traced with difficulty on the northern side.

We uncovered several features in the level above the floor and the outer occupation level, which could

be assigned to a period of the Early Copper Age settlement post-dating the house. Two pits (Features 100 and 128) cut through the wall in the block's western part and by the north-western corner, another one penetrated the outer occupation level by the block's southern wall (Feature 98). We found a modern feature in the north-eastern part, which cut through the house floor (Feature 90).

We concentrated on clearing the wall remain in the next phase of the excavation. After removing the debris, we found a relatively large amount of burnt daub fragments in a secondary position and the *in situ* remains of vertical walls, preserved to a height of 10–30 cm and a thickness of 30–50 cm. We also identified the position of upright timbers in the wall (Figs 7–9).

We next removed the wall remains, from which we recovered Early Copper Age pottery and burnt daub fragments in a secondary position. The bedding trenches lay under the walls, conforming to the data yielded by the magnetometer survey (Figs 10–12). Their fill contained varying quantities of exclusively Early Copper Age finds. We documented several, downward narrowing post-holes in the fill, some of which had been dug into floor of the bedding trench (Fig. 13. 1–2). The position of another upright timber could be identified by the western edge of the southern wall. We found that larger, burnt daub fragments occurred in higher number and often formed a concentration by the one-time timber posts. We found a series of regular rectangular depressions separated by slightly raised sections in the shorter, western side (Fig. 14. 1, Fig. 15). The inner side of the wall widened slightly above the raised sections. The section of a ditch pre-dating the house was uncovered between the block wall and the bedding trench in the block's north-western part (Feature 127).

We opened a 2 m by 2 m large block by the house's northern part in order to gain a clearer idea of the site's stratigraphy in this area and to clarify whether our assumption about a possible internal partition wall was correct. While we did not find any remains indicating the presence of a partition wall, we uncovered the section of a feature (Feature 149), which was co-eval or slightly later than house in the block's south-eastern corner and a pit pre-dating the house in the north-eastern corner (Feature 150) (Fig. 16).

Relationship between Feature 4 and Feature 15

One of the issues to be clarified was the relationship between Features 4 and 15 and the determination of their relative chronology. At the beginning of the excavation we had assumed on the basis of the bed-



Fig. 9. Vésztő–Bikeri, Block 9, Feature 15. Detail of the *in situ* wall remain

ding trenches uncovered in Block 2 and the results of the magnetometer survey that we had found the remains of a two-roomed, burnt longhouse in the settlement's centre, although we were aware that the features observed in Blocks 2 and 9 allowed other interpretations too.

An alternative interpretation was suggested by the fact that while Feature 4 had definitely been destroyed by fire (the floor was covered with a thick rubble of burnt wall remains and the house contained a great number of household objects), Feature 15 had not burnt down and the house's interior did not contain a single artefact, which could be associated with the building's use, suggesting that the two structures had not been destroyed simultaneously.

The wall structure and the differences between the bedding trenches were of help in resolving this problem. Feature 4 was certainly a building with daub walls on the testimony of the wall fragments covering the floor; in the case of Feature 15, the examination of the *in situ* wall and the observations made during its clearing indicated that this building did not have wattle and daub walls since in spite of the most circumspect examination, we did not find smaller pos-

tholes indicating wattling between the large timber posts. Moreover, we recovered various finds, including large pottery sherds from the interior of the wall, suggesting that this building had been constructed using some other technique and was probably a *terre pisé* structure. Major differences could be observed between the bedding trenches of the two buildings: the width of the southern bedding trench of Feature 15 was 60 cm in its easternmost section falling in Block 2, but its size decreased substantially, and narrowed to *ca.* 30 cm after the south-eastern corner, from where it became part of Feature 4.

It follows from the above that the two structures could not have been part of the same longhouse, but were the remains of two successive houses erected on the same spot.

The various phenomena observed above the floor level too proved useful for determining the relative chronology of these features. Feature 15 was covered by a layer of levelling, while Feature 4 was not: the wall debris lay directly above the floor, under the plough zone. This again seems to confirm that Feature 4 is the later of the two and that the use of Feature 15 pre-dates it. This is also suggested by the fact that Feature 98, a pit dug from the layer of levelling covering Feature 15 and its environs, yielded a bone point (Fig. 28. 4) resembling the one from the floor and wall debris of Feature 4 (GYUCHA–PARKINSON–YERKES 2004, 51, Fig. 6).

The observations concerning Feature 15 and its reconstruction

The house's greater part fell into Block 9, with a 4 m long section of its eastern side extending into Block 2. The house interior in Block 2 was cleared to the layer of levelling covering the floor and the bedding trenches were wholly excavated (Fig. 10).

The 14.4 m by 6.4 m large building oriented according to the cardinal points was an above-ground structure. The area was levelled before its construction in order to flatten the surface and the features of the preceding period were either demolished or filled up (Fig. 6. and Fig. 14. 2). Bedding trenches with a U section and slightly sloping walls were dug for the walls: their width was 55–70 cm on top and 30–40 cm at the bottom. Their relative depth from the floor level and the outer occupation surface varied between 40 and 70 cm, being usually 55–65 cm (Figs 10–13, Fig. 14. 2, Fig. 15). The large timber posts were set into this bedding trench; the area around the posts was carefully stamped. The position of the daub fragments around these post-holes suggested that they had per-



Fig. 10. Vészító-Bikeri, Block 2 and Block 9, Feature 15. The floor and outer occupation level in Block 9, and the excavated bedding trenches in Block 2 and Block 9



Fig. 11. Vésztő-Bikeri, Block 9, Feature 15. The excavated bedding trenches



Fig. 12. Vésztő-Bikeri, Block 9, Feature 15. The southern bedding trench

haps been placed there intentionally to reinforce the timbers.⁵ The sections between the posts were filled with clay rammed between wooden moulds and thus the house can be best described as a *terre pisé* structure.⁶ The roof structure cannot be reconstructed owing to the lack of post-holes inside the house, although

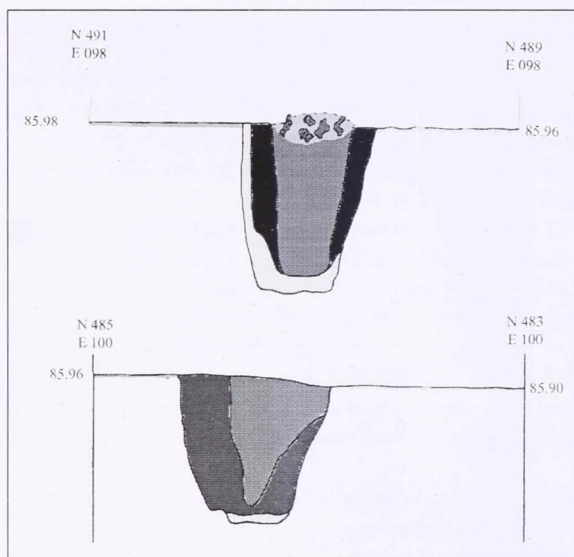


Fig. 13. Vésztő-Bikeri, Block 9, Feature 15. 1–2: Section of the bedding trench with post-holes

it seems likely that the building had a saddle-roof. There was no indication of an inner partition wall.

We did not find any traces of an entrance and the bedding trenches were uninterrupted. The structure of the bedding trench of the shorter, western wall described above can perhaps be associated with some sort of entrance, although this interpretation is only tentative (Fig. 14. 1, Fig. 15).

The floor level was extremely thin in the house's interior, hardly worn and difficult to trace, suggesting that it had perhaps been covered with wooden planks, woven mats or animal hides. We did not find any traces of a hearth or an oven.

The house did not burn down and it was apparently stripped of the various household objects before its abandonment for we did not find a single artefact on the floor. The western, northern and southern walls probably still stood for some time after its occupation ceased, and the loose debris found beside the *in situ* walls probably accumulated during this time (Figs 5–6). The post-hole (Feature 112) lying by the southwestern corner and the section of the wall suggests a structural renewal since the excavated wall section diverges from the line of the bedding trench. The narrowing form of the post-holes can probably be attributed to the removal of the timber posts, which were perhaps re-used in the construction of Feature 4 or some other building.

The walls still stood to a small height, when Feature 4 burned down, as shown by the burnt daub fragments found on the wall remains, an indication of the spreading fire. The area was later filled up.

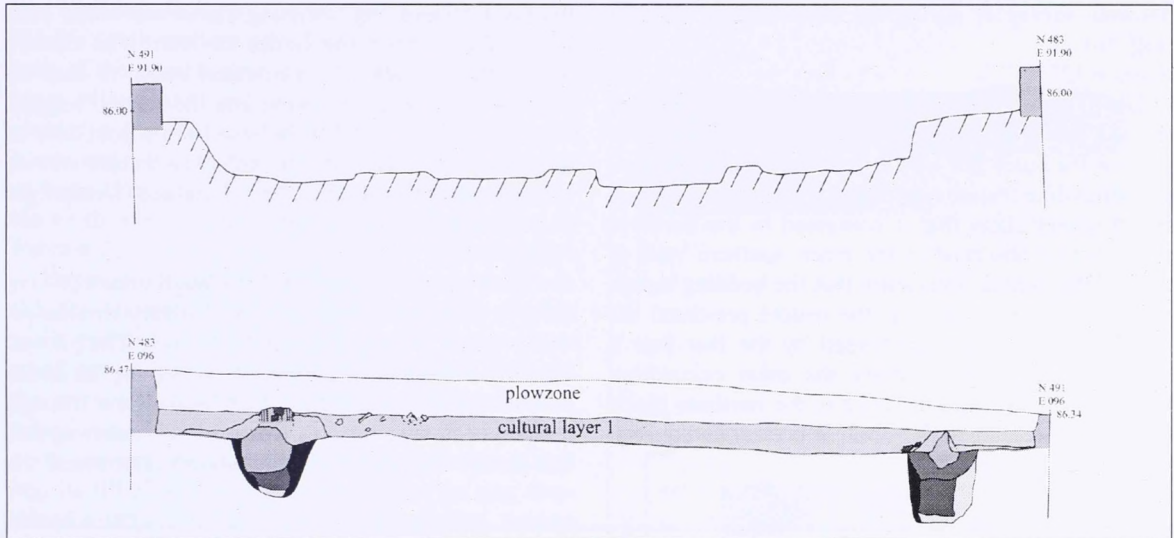


Fig. 14. Vésztő-Bikeri, Block 9, Feature 15. 1: N-S section of the western bedding trench; 2: N-S section of Block 9 and Feature 15

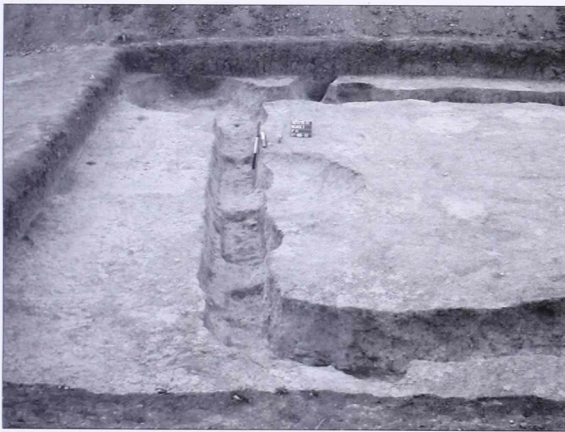


Fig. 15. Vésztő-Bikeri, Block 9, Feature 15. The western bedding trench and Feature 128

Other features of Block 9 and their date relative to the building

Feature 150

Depth (from the subsoil level): 62 cm (84,88). Size: 126 cm x 113 cm. Oval pit with sloping sides and straight floor. Its patch was noted some 50 cm under the house's floor level in the yellow subsoil in the north-eastern corner of the 2 m by 2 m unit opened from the floor level. The grey, extremely compact fill differed from the fill of the site's other features, and could be identified with the virgin soil, suggesting that the feature had been dug from the level of the virgin

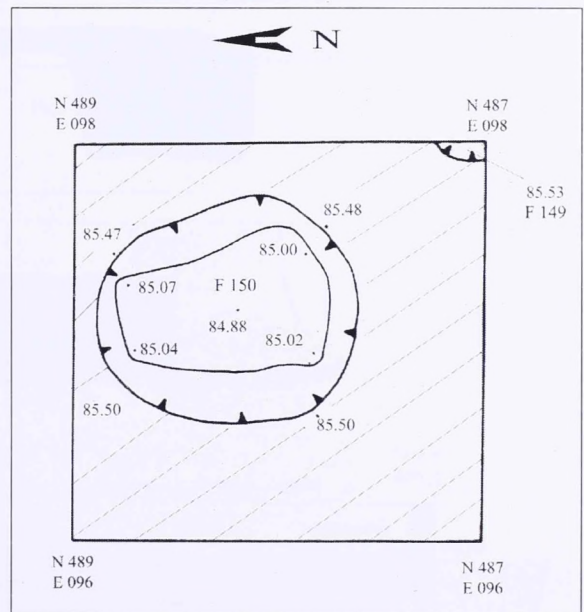


Fig. 16. Vésztő-Bikeri, Block 9. Features 149 and 150

soil and had been infilled well before the accumulation of the first occupation level (the level under the house floor). The pit is thus the earliest feature in the block and the entire site. The fill contained the fish remains, mussels, various animal bones and a few daub fragments, but no pottery, and the pit's date cannot be established. However, it seems likely that it can be associated with the Early Copper Age settlement since no finds from other periods were found either during

the field survey or during the excavation of the site (Fig. 16).

Feature 127

Depth (from the outer occupation level): 37 cm (85,83). It was first noted in the block's north-western part, on the outer side of the bedding trench. The narrow, ditch-like feature was cleared up to the block wall and it seems likely that it continued to the north. It could not be observed in the inner, southern wall of the bedding trench, indicating that the bedding trench cut through the feature, i.e. the feature pre-dated the building. This is also confirmed by the fact that it could not be observed above the outer occupation level associated with the house in the northern block wall. Its fill contained Tiszapolgár pottery and animal bones (Fig. 10, Fig. 17. 1).

ing layer of levelling, meaning that it was either contemporaneous with the house or later. The feature penetrated the subsoil to a minimal extent (3 cm). Its size and its minimal intrusion into the subsoil suggest that the feature could hardly have been a post-hole of the house's internal partition wall. The feature continued to the south and east. Its fill yielded Tiszapolgár pottery (Fig. 16, Fig. 17. 2).

Feature 100

Depth (from the base of the plough zone): 38 cm (85,64). Size: 170 cm x 150 cm. Roughly circular pit with slightly sloping walls and flat floor. The pit was first noted in the layer of levelling overlying the house and was probably dug from that level. It cut through the remains of the house's western wall, meaning that this feature represents the settlement's later phase. Its

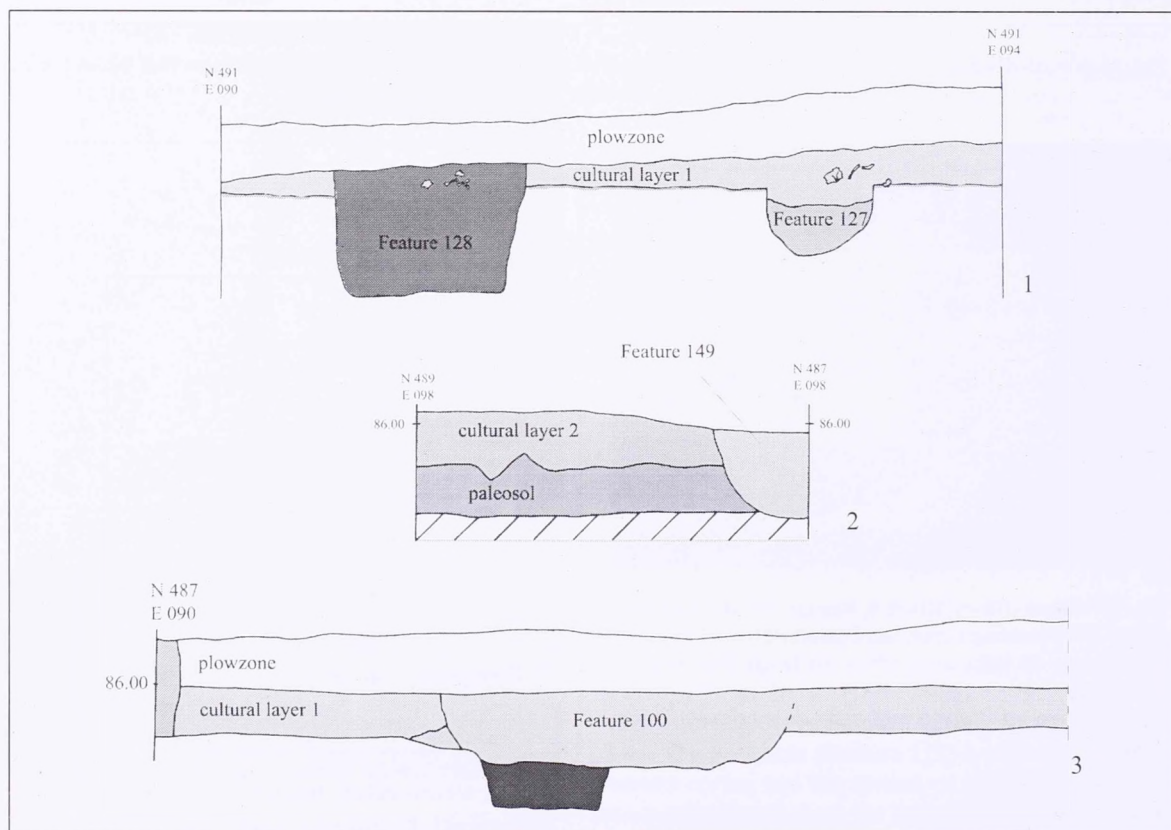


Fig. 17. Vésztő–Bikeri, Block 9. 1: Section of Features 127 and 128; 2: section of Feature 149 and the levels under the floor of Feature 15; 3: section of Feature 100

Feature 149

Depth (from the floor level): 45 cm (85,53). Part of a smaller pit lay in the south-eastern corner of the 2 m by 2 m unit opened from the floor level, which had probably been dug from the floor level or the overly-

fill contained Tiszapolgár pottery and animal bones (Fig. 5, Fig. 8, Fig. 17. 3).

Feature 98

Depth (from the base of the plough zone): 56 cm (85,53). Part of a small pit dug into the outer occupa-

tion level was found by the southern block wall in the block's south-western part. The pit was dug from the base of the plough zone (i.e. the top of the surviving layer of levelling) and thus post-dates the house. It yielded a few Tiszapolgár vessel fragments, animal bones and a leaf shaped arrowhead made from antler or bone (Fig. 28. 3). The feature continued towards the south, in the unexcavated area (Fig. 5, Fig. 18. 1).

Feature 128

Depth (from the base of the plough zone): 66 cm (85,32). Diameter: 200 cm. Round pit with sloping walls and flat floor. Except for the northern part, a small part of which extends under the block wall and the unexcavated area, its extension could be determined in all directions. The pit cut through the house's north-western corner, and it thus post-dates the building. Its fill of black humus, unusual for the site, contained a large amount of Tiszapolgár pottery, animal bones and daub fragments (Fig. 10, Fig. 17. 1).

Feature 90

Depth (from the base of the plough zone): 39 cm (85,85). Size 90 cm x 59 cm. Oval pit with sloping sides and flat floor. The pit lay in the block's north-eastern part and cut through the house floor. Its dark humus fill contained a modern animal skeleton. This date was confirmed by the two iron rings found by the skull (Fig. 5, Fig. 8, Fig. 10).

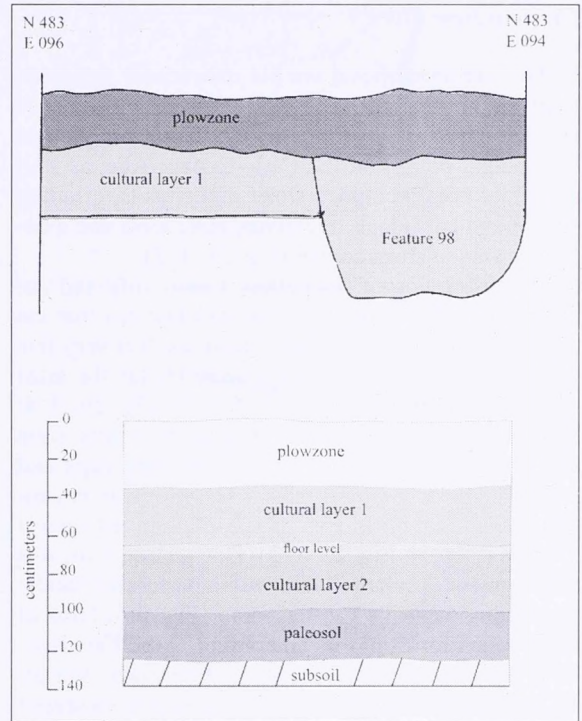


Fig. 18. Vésztő-Bikeri, Block 9. 1: Section of feature 98; 2: stratigraphy of the block

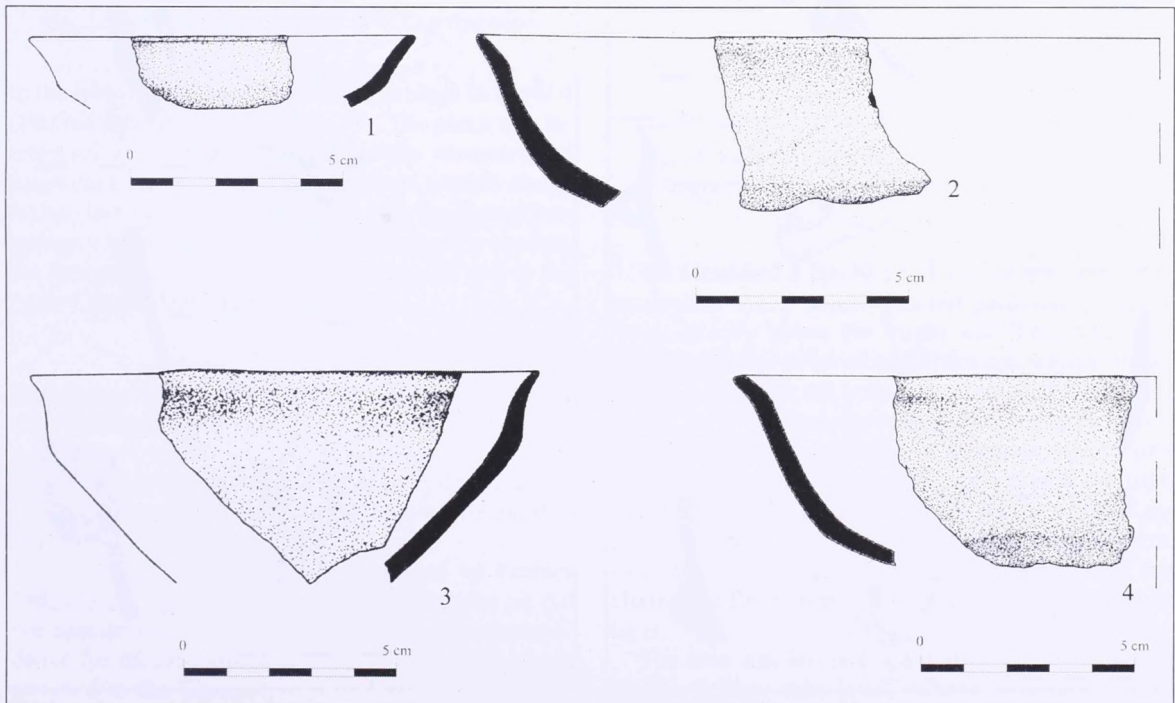


Fig. 19. Vésztő-Bikeri, Block 9. 1-4: Bowl fragments

The finds from Block 9

As mentioned above, we did not recover any finds from the house floor. The pits, the bedding trenches and the layer of levelling in the block all yielded Tiszapolgár pottery of the Early Copper Age, as well as animal bones, chipped stone implements, grinding stone fragments, daub fragments, bone tools and a deformed ring of sheet copper (Fig. 28. 1–2).

The restoration of the pottery finds confirmed our observations based on the excavated features that the ceramic material is very fragmented and that very few sherds could be joined. Bowls were by far the most common pottery wares (Fig. (19. 1–4; Fig. 20. 1–4; Fig. 21. 1). Various flowerpot shaped vessels were also quite popular (Fig. 21. 2–4), as were cups and mugs (Fig. 22. 1–3, Fig. 23. 1–2), globular vessels with cylindrical neck (Fig. 23. 3), pedestalled vessels and lids (Fig. 24, Fig. 25. 1–3). One unique form was the fragment of a large ladle with a perforated handle resembling a double rooster comb (Fig. 26). Each of these vessel forms has its antecedent in the Late Neolithic cultures of the Great Hungarian Plain. Vessels are ornamented with knobs and lugs of various shapes

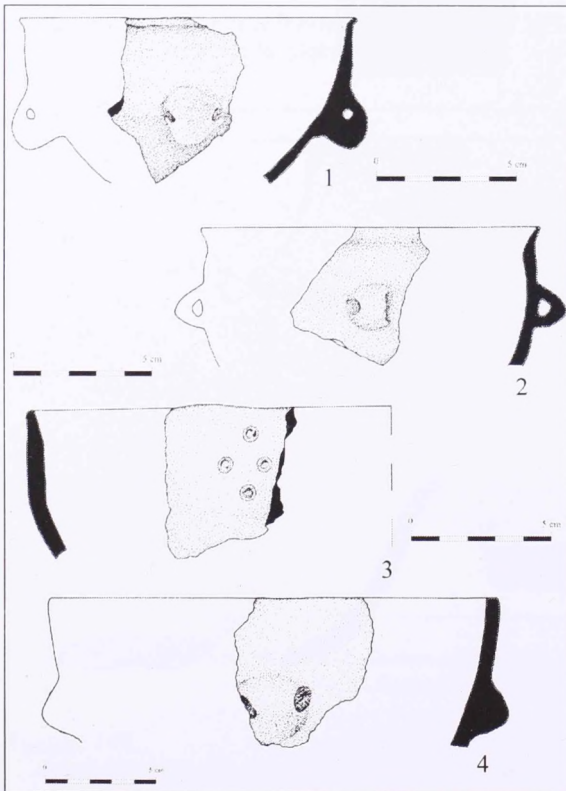


Fig. 20. Vésztő-Bikeri, Block 9.
1–4: Bowl fragments

and sizes, as well as punctates and incised designs, although the proportion of the latter is rather low.

One of the most intriguing ceramic forms, discussed at greater length here, is a low bowl-like vessel set on a sledge runner-like base decorated with dense notching in its interior (Fig. 27). Most fragments of this type came to light in Block 9, especially in its western part, although sherds of this type were recovered from the site's entire area. The bowl interior is often decorated with garland motifs in relief. Analogies to the vessel form can be quoted from the Tisza culture, whose ceramic inventory includes several variants of this form. One of these is the large, rectangular clay "chest" set on a similar base (BANNER 1931). The flatter, smaller, bowl shaped variant with a similar base is less frequent and probably had a different function. The specimens from Vésztő-Bikeri can be best likened to the latter. A comparable piece is known from the Vésztő-Mágor tell settlement, found

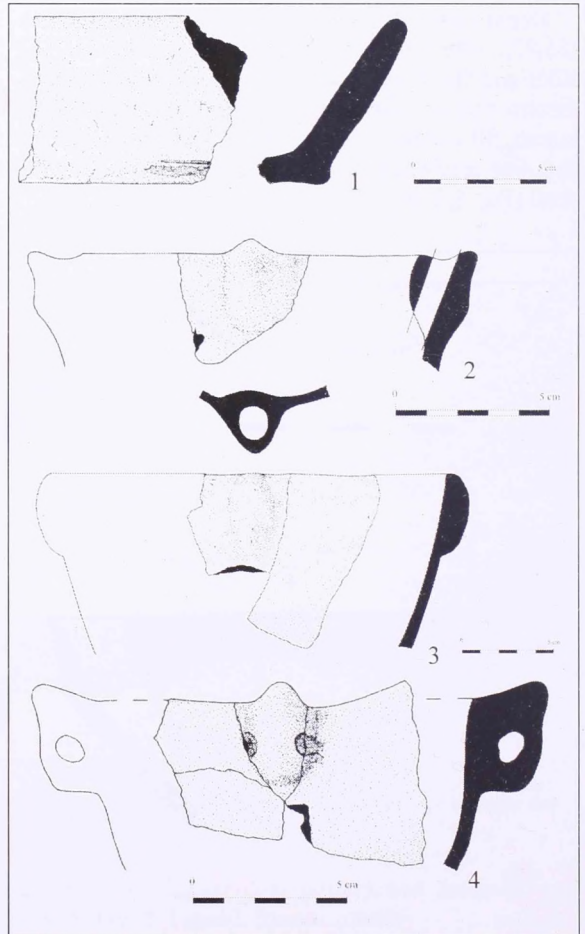


Fig. 21. Vésztő-Bikeri, Block 9. 1: Bowl fragment; 2–4: Fragments of flowerpot shaped vessels

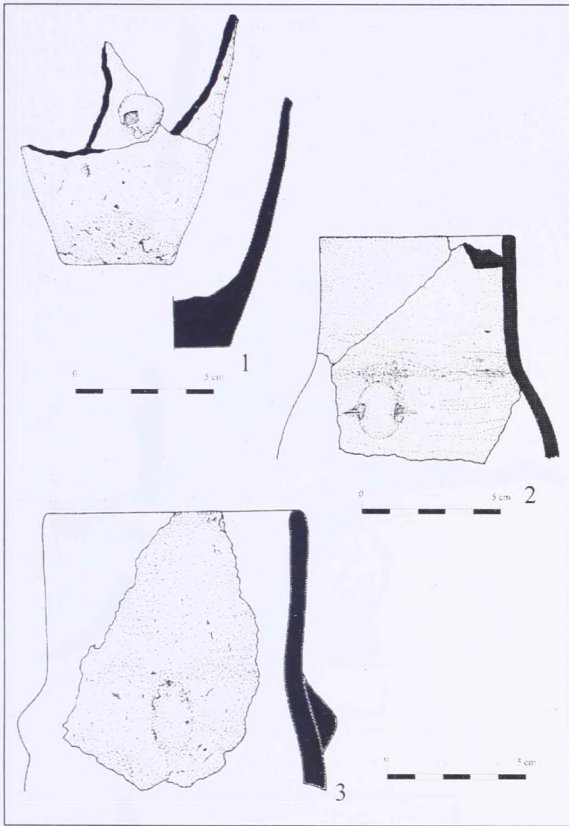


Fig. 22. Vésztő-Bikeri, Block 9. 1–3: Cup fragments

in the house containing the cult assemblage in Level 4 (HEGEDŰS–MAKKAY 1987, 99). The piece was interpreted as an altar; it resembles the reconstructed fragment from Bikeri in that it is set on a triple sledge runner-like base and is decorated with an incised pattern on one side of the bowl. In the lack of a context, the function of this vessel type on this site and in the Early Copper Age remains enigmatic.

Settlement history in the light of the house remains and finds from Block 9

The settlement history of this section of the site can be reconstructed as follows in the light of the excavation of Block 9 (Fig. 18. 2).

The earliest occupation is represented by Feature 150, dug from the virgin soil. Even though the pit did not contain any pottery and in spite of any other evidence for its chronological position, the pit has been assigned to the Tiszapolgár period since there are no finds suggesting that the site had been occupied before the Copper Age.

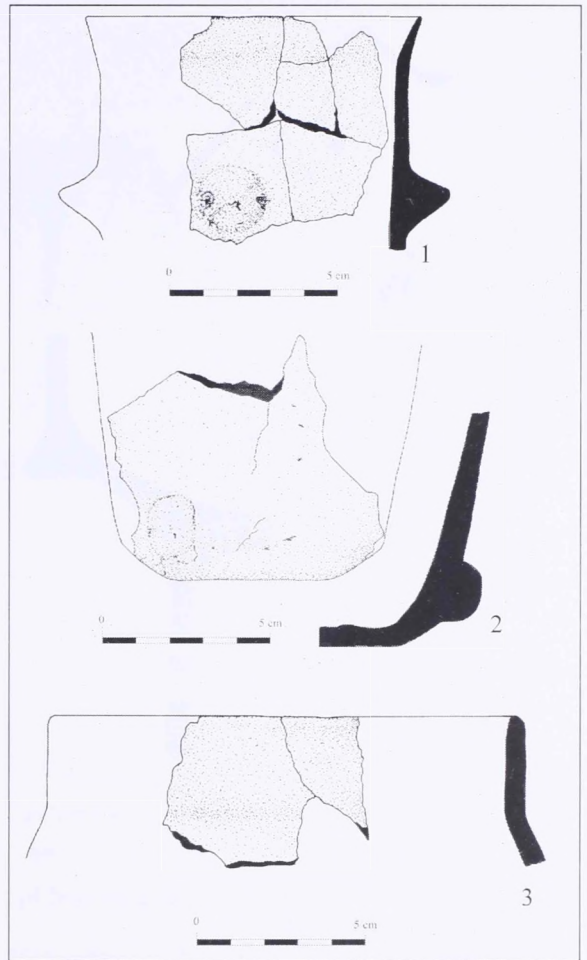


Fig. 23. Vésztő-Bikeri, Block 9. 1–2: Cup fragments; 3: fragment of a globular vessel with cylindrical neck

We identified a 20–30 cm thick Early Copper Age occupation level, which was not particularly rich in finds, directly above the virgin soil. This was interpreted as a layer of levelling, which can wholly or partially be linked to the activity preceding the construction of the house and served to flatten the surface. Feature 127 can be associated with the phase directly preceding the house construction together with the finds from the bedding trenches, which on the basis of the large amounts of burnt daub fragments reflects intensive construction activity on the settlement during this phase. The floor level of Feature 15 sealed this culture layer.

The area was levelled again after the abandonment of the house: this level, whose thickness varied between 20 and 30 cm, was extremely rich in finds. Several features could be associated with this level,

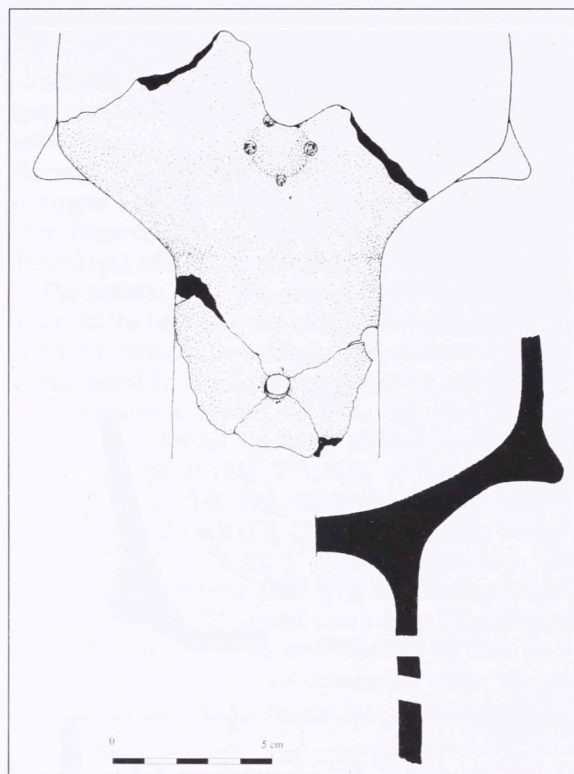


Fig. 24. Vésztő–Bikeri, Block 9. fragment of a pedestalled vessel

whose top is not known because it was destroyed by ploughing (Features 98, 100, 149).

In the lack of finds and reliable evidence, the site's subsequent history is uncertain since erosion and intensive cultivation destroyed all other levels, which –

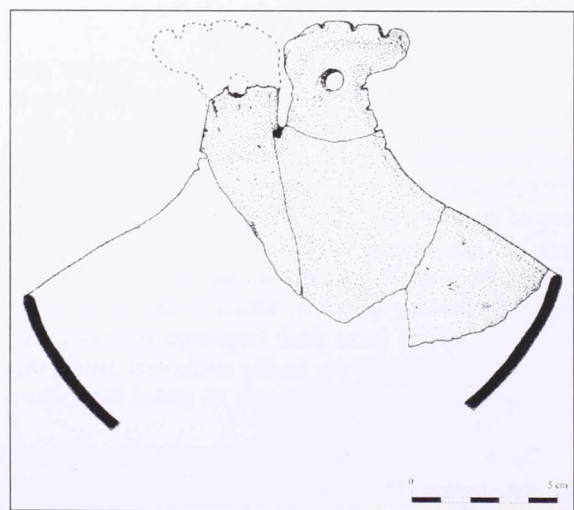


Fig. 26. Vésztő–Bikeri, Block 9. Ladle fragment

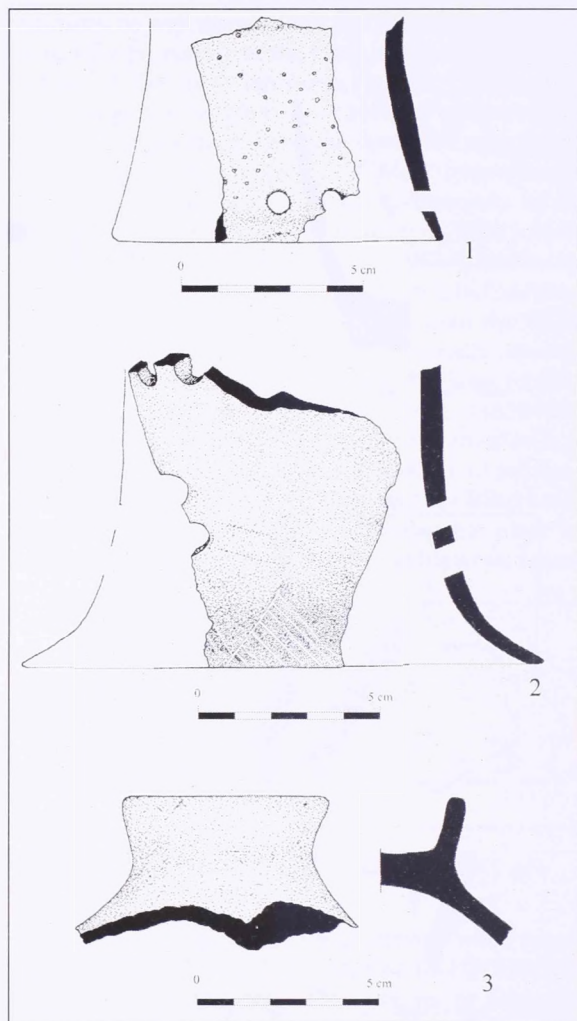


Fig. 25. Vésztő–Bikeri, Block 9. 1–2: Fragments of vessel pedestals; 3: Lid fragment

judging by the finds from the plough zone and the surface – reflected a similarly intensive site use as the intact levels.

Feature 128 uncovered in the north-western part of the block represents a late phase, perhaps the site's latest phase. Even though the uppermost section of the layer of levelling overlying the house could not be identified, it seems likely that this feature was not dug from that level. Its fill of black humus differing from the other pits and the layer of levelling suggests a phase in the occupation of the Bikeri settlements, when the site remained unoccupied over a longer period, during which humus formation began in the area. The pit's fill, differing from the fill of the site's other features, reflects this hiatus and a subsequent occupation.

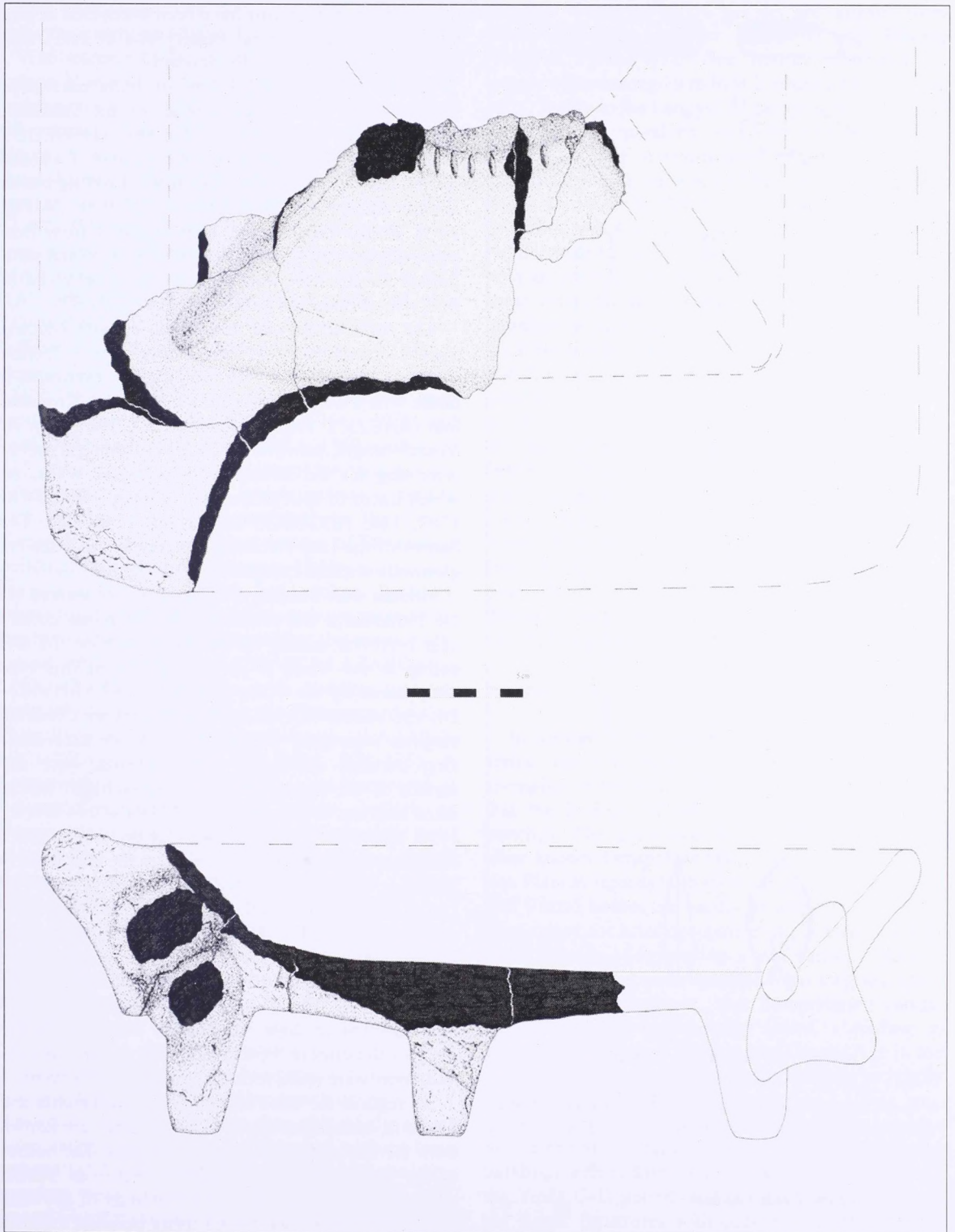


Fig. 27. Vésztő-Bikeri, Block 9. Fragment of a bowl set on a sledge runner-like base

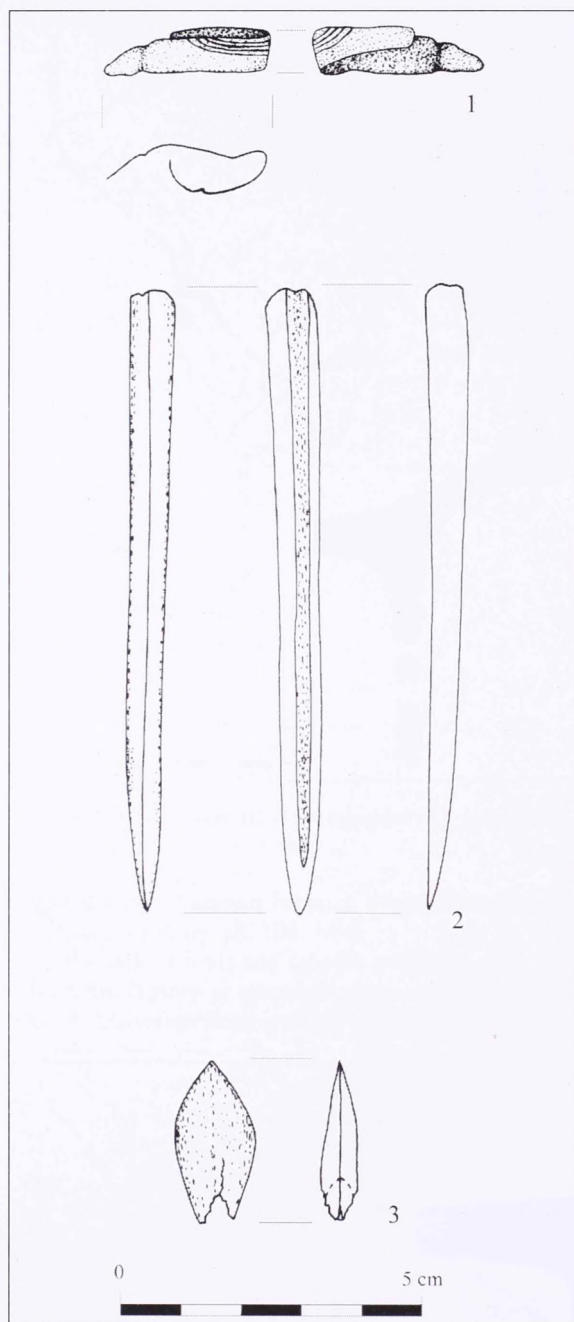


Fig. 28. Vésztő–Bikeri, Block 9. 1: Copper ring; 2: bone awl; 3: bone point

Analogies of the Vésztő house

The first houses with a bedding trench in the Great Hungarian Plain are known from the Middle Neolithic Szakálhát culture. Only timber-framed buildings of

the Linear Pottery culture have been uncovered to date both in the Alföld Linear Pottery and in the Transdanubian Linear Pottery distribution.⁷

Katalin Hegedűs and Márta Galántha uncovered four houses with bedding trenches on the Szakálhát settlement at Csanytelek–Újhalastó (HEGEDŰS 1985, 7–8, Fig. 3). Ferenc Horváth excavated a house section lacking a plastered floor with a bedding trench at Tápé–Lebő–Felsőhalom (HORVÁTH 1988, 24, Fig. 3). A similar building has been reported from Battonya–Parázs-tanya (SZÉNÁSZKY 1988, 6) and post-framed houses were uncovered at the nearby site of Battonya–Vidpart too (SZÉNÁSZKY 1979, 67).

The construction and use of houses with bedding trenches continued in the early Tisza period (HORVÁTH 1988, 29–30). Pál Raczký excavated a house with a deep bedding trench at Őcsöd–Kováshalom (RACZKY 1985, 105; RACZKY 1987, 72). At Vésztő–Mágor, however, shallower bedding trenches were dug for the houses with terre pisé walls, on which traces of split timbers were noted (HEGEDŰS 1982, 184; HEGEDŰS–MAKKAY 1987, 96). The houses of the Late Neolithic cultures in the Tisza region were without exception timber framed.⁸

Houses with bedding trenches were uncovered on the Parác/Parța tell settlement of the Bánát culture near Temesvár, among the buildings of Phase IIA–IIB dating to the Vinča B period. Houses of this type disappeared by the Vinča C period (LAZAROVIC–DRAŠOVEAN–MAXIM 2001). Houses with bedding trenches were quite widespread on Vinča sites. Bedding trenches associated with buildings were unearthed at the Opopo settlement in southern Bánát, dated between 4700 and 4500 BC (TRINGHAM et al. 1992, 356–366, Fig. 9), as well as on several other contemporaneous settlements, such as the ones at Banjica near Belgrade (TODOROVIC–CERMANOVIC 1961), and Divostin (BOGDANOVIC 1988) and Selevac (TRINGHAM–STEVANOVIC 1990) both lying in the Morava Valley. At Selevac, House 4 was built by extending House 5 eastwards (TRINGHAM–STEVANOVIC 1990, 118–119). The depth of the bedding trenches at these settlements was roughly the same as the ones at Vésztő, although house sizes varied: most were multi-roomed structures with ovens.

As regards the late Neolithic of Transdanubia and Slovakia, buildings with bedding trenches are known from the Late Neolithic of these regions. The houses of the first and second building horizon at Svodin were timber-framed, while the buildings of the third and fourth horizon were built using bedding trenches (NEMEJCOVÁ–PAVÚKOVÁ 1986, 142). The section of a bedding trench dating from the early Lengyel period was uncovered at Bakonyszűcs (REGENYE

1994); in contrast, the buildings at Zengővárkony were apparently post-framed (DOMBAY 1960, 25).

The research of the settlements of the Tiszapolgár culture is one of the most neglected fields of prehistoric studies in Hungary. The little that is known about the culture's houses can be summed up in a few sentences. It seems likely that the buildings at Kenderes-Kulis and Kenderes-Telekhalom were timber-framed structures (BOGNÁR-KUTZIÁN 1972, 51–52, 165–166), while only collapsed daub walls were found at Béli-megyér-Mondoki domb (GOLDMAN 1977, 222), Vésztő-Mágor (HEGEDŰS-MAK-KAY 1987, 91) and Tiszaföldvár (SIKLÓDI 1982–83, 11), without any indication of the structure of the buildings, which were reconstructed as wattle-and-daub houses with the walls set on groundills (SIKLÓDI 1982–83, 25). Timber-framed houses have been reported from Tibava (ŠIŠKA 1964, 295) and Lučky/Lucska in Slovakia (ŠIŠKA 1968, 130–133, 135, Abb. 31, 136, Abb. 32). Most of the buildings uncovered at the latter site, which include a sunken building too, have been assigned to the Proto-Tiszapolgár phase. The highest number of Tiszapolgár buildings is known from Romania. Unlike in Hungary, the known buildings include both sunken structures, whose function is still debated, and above ground timber-framed houses, the latter being the more widespread of the two (LAZAROVICI-LAZAROVICI 2003, 424–425). Buildings with bedding trenches have only been reported from the Tiszapolgár level at Parác/Parța in south-western Romania (LAZAROVICI-DRAȘOVEAN-MAXIM 2001, 374–375). A house with bedding trenches has been uncovered at Feketető/Crna Bara in Serbia, where similarly to Vésztő-Mágor and Parác/Parța, the Tiszapolgár level overlies the Late Neolithic occupation levels of the tell settlement (GARAŠANIN-GARAŠANIN 1951; GARAŠANIN-GARAŠANIN 1957).

In Transdanubia, houses with bedding trenches are known mainly from the Lengyel III phase. András Figler uncovered six large houses of this type at Mosonszentmiklós-Pál-major. Four buildings had two rooms, the other two had a single room (RégFüz 1997a, 20). The place of the posts supporting the roof was identified in one of the two-roomed buildings; in the case of another, the bedding trench of the wall of the smaller room was wider than that of the larger room, suggesting that the building had perhaps been two-storied.⁹ Late Lengyel buildings with bedding trenches were excavated at Börcs-Paphomok-dűlő, one of which measured 9 m by 18 m and had an apsidal end (RégFüz 1997b, 7–8). A similar apsidal building was reported from Veszprém-Felszabadulás Road (RACZKY 1974). Other buildings with bedding

trenches from the same period are known from Abda-Hármasok (RégFüz 1994, 6) and Ravazd (RégKut 1998a, 43). Two houses with bedding trenches (measuring 19 m by 8.2 m and 22 m by 8.5 m resp.) dating to the Lengyel III period were brought to light on the outskirts of Szombathely (ILON-FARKAS 2001). A two-roomed house with bedding trenches from the same period has been reported from Branč in Slovakia (VLADÁR-LICHARDUS 1968, 291–292, 295, Abb. 46–47). The buildings cited above include both buildings with one and two rooms, some with an internal row of posts for supporting the roof, some without. Large structures with a bedding trench remained widespread during the Middle Copper Age on Transdanubian and on the neighbouring Slovakian and Austrian settlements.¹⁰ The use of these houses continued into the Late Copper Age in Transdanubia, as shown by one of the buildings with bedding trenches (House 5) uncovered at Kóny (RégKut 1998b, 38). In contrast, there is no evidence for houses with bedding trenches from the period following the Early Copper Age houses at Vésztő – the Early and Middle Bronze Age buildings with bedding trenches from Túrkeve-Terehalom and Tószeg-Laposhalom cannot be derived from Neolithic and Copper Age traditions (CSÁNYI-TÁRNOKI 1992, 162–163, Abb. 114–115; RégFüz 1997c, 28; STANCZIK 1980, 67).

Summary

In addition to Feature 15 and Feature 4 described above, the magnetometer survey indicated several anomalies at the Vésztő-Bikeri site, which suggested that the houses had all been built using bedding trenches. The excavated buildings differ from the other known Tiszapolgár houses in the Great Hungarian Plain as regards both their size and their structure. The Vésztő houses can hardly be interpreted as structures raised for brief occupation: the massive vertical walls, capable of supporting a roof structure, suggest that the buildings were intended for a long use spanning several generations. This interpretation contradicts the earlier conventional views, according to which the settlements of the Early Copper Age in the Great Hungarian Plain were either seasonal or briefly occupied at the most.

The best analogies to the Vésztő buildings in terms of size and/or structure can be quoted from among the buildings with bedding trenches of the Lengyel III and the Vinča C–D period, and the Early Copper Age in the Banat. Structures with bedding trenches were in use from the early Lengyel period and we know that late Lengyel elements can be demonstrated in various Tiszapolgár assemblages. Interestingly enough, the

buildings uncovered at Kenderes, lying closest to the Lengyel distribution, and in Slovakia from the Proto-Tiszapolgár and Tiszapolgár period were all post-framed houses. It must also be borne in mind that timber-framed buildings were the norm during the entire Herpály sequence and the classical and late Tisza period, the two cultures regarded as the genetic predecessors of the Tiszapolgár culture. The construction technique observed at Vésztő–Bikeri, the use of bedding trenches and the erection of terre pisé walls recall the early Tisza houses of the Vésztő–Mágor tell. However, seeing that the tell settlement did not survive into the late Tisza period, a direct relation cannot be assumed. The houses of the Vinča culture, slightly earlier than the ones at Vésztő, and the contemporary buildings with bedding trenches uncovered in Serbia and the Romanian Banat resemble the ones at Bikeri only as regards the use of bedding trenches and, in part, their size, but their other features differ, and thus the assumption of a direct link between them would be premature without a study of the Tiszapolgár culture's cultural contacts with the south.

The Early Copper Age house uncovered at Bikeri raises several questions, which can be summed up as follows:

1. Why did the occupants of Vésztő–Bikeri start building entirely different structures at the onset of the Early Copper Age compared to the preceding period?

2. It is unclear whether the use of bedding trenches is a unique phenomenon characteristic for this settlement only, a local tradition within certain geographic boundaries, or whether it has chronological implications.

3. The different size of the Late Neolithic and Early Copper Age buildings of the Great Hungarian Plain and the relatively early radiocarbon date for the Vésztő–Bikeri settlement (4450–4200 BC; GYUCHA–PARKINSON–YERKES 2004, 44, Table 1) suggests that the houses of this settlement perhaps represent a transitional phenomenon characterising the early Tiszapolgár phase.

4. Comparable structures from Vinča settlements and the Tiszapolgár levels at Feketetó/Crna Bara and Parác/Parța indicate that a much better knowledge of the Early Copper Age settlements in the southern part of the Great Hungarian Plain and in the Serbian and Romanian Banat is necessary in order to clarify the nature and the intensity of contacts between these regions, which is also vital for a better understanding of the southern elements of the Tiszapolgár culture.

5. Finally, the interpretation of the similarities between the Vésztő–Bikeri houses and the buildings of the Lengyel culture too calls for further studies.

These issues will be hopefully resolved by future studies.¹²

Notes

- 1 For a description of the Körös Regional Archaeological Project and preliminary reports on the work done between 1998 and 2005, cp. PARKINSON–GYUCHA–YERKES 2002; GYUCHA–PARKINSON–YERKES 2004; PARKINSON–YERKES–GYUCHA 2004; SARRIS et al. 2004; PARKINSON et al. 2006; YERKES et al. 2006.
- 2 It later became clear that they were part of the same building and they were thus labelled Feature 4.
- 3 For a description of this excavation technique, cp. Horváth 1994.
- 4 In addition to the absolute co-ordinates and depth data, the number given to a particular unit during the excavation of the blocks is also shown (e.g. EU 9–26 = Block 9, Unit 26).
- 5 A similar phenomenon was observed during the excavation of the Neolithic houses at Parác/Parța (LAZAROVICI–DRAȘOVEAN–MAXIM 2001, 365, 372).
- 6 For the construction technique of terre pisé walls, cp. SABJÁN–BUZÁS 2005, 79–90.
- 7 E.g. Krasznokvajda (LOSITS 1980); Tiszalúc–Sarkadpuszta (ORAVECZ 1998); Füzesabony–Gubakút (DOMBORÓCZKY 2001a; DOMBORÓCZKY 2001b); Balatonszárszó–Kis-erdei-dűlő (BELÉNYE-SY–MARTON–OROSS 2002)
- 8 E.g. Hódmezővásárhely–Gorzsa (HORVÁTH 1987, 40; HORVÁTH 1988, 31); Berettyóújfalu–Herpály (KALICZ–RACZKY 1986, 86; KALICZ–RACZKY 1987, 113); Polgár–Csőszhalom-dűlő (RACZKY et al. 1999, 158–159, 166).
- 9 András Figler's kind personal communication.
- 10 Cp. EGRY 2001; NÉMETH 1994; VIRÁG 2003; VLADÁR–LICHARDUS 1968; PAVÚK–BÁTORA 1995; RUTTKAY 1995.
- 11 The Körös Regional Archaeological project was supported by the National Science Foundation, USA (NSF-0139122, NSF-0105851, NSF-0097230, NSF-9812677), the Wenner–Gren Foundation for Anthropological Research, New York, USA (ICRG, 2001), the MTA–OTKA–NSF international scientific

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The homepage of the Körös Regional Archaeological Project is www.anthro.fsu.edu/research/koros.

12 Translated by Magdaléna Selenau.

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