

THE GRAVES OF PECICA-ROVINE/CĂPRĂVANUL MIC, AND DISTRIBUTION NETWORKS OF AMBER AND PERSONAL ADORNMENTS IN THE 6TH AND 7TH CENTURIES

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Two graves, with altogether four skeletons, discovered near Pecica and buried in W–E orientation, offer us the possibility of a more nuanced analysis of the cultural realities of the groups of people living in the Trans-Tisza region in the 6th and 7th centuries. However, the amber and earring finds allow us to contem-

plate communication networks in the early Avar Age and their significant transformation by the late Avar period. Placing these transformations in the first half of the 7th century, they explain the appearance of some rare goods, like ambers, in the region of Pecica.

Key words:

Early Avar Age, amber, earring, Pecica-Rovine/Căprăvanul Mic, Lower Mureș basin

Archaeological rescue excavations of the past decade, carried out due to infrastructure investments, have led to the discovery of new traces of the early-medieval period in the Lower Mureș basin. The building arrangements in 2014 of a parking lot for trucks near Pecica revealed a multi-layered archaeological site (forty-nine archaeological features of four archaeological periods). In 2018, a new project extending the initial investment allowed the archaeological investigation of the remaining surface of the terrace to the east. Various features were identified (49), including some graves without any grave goods (graves Ftr. 32 and 42); however, given their S–N orientation,¹ these probably belong to the so-called *Sarmatian* period² (Pl. 1).

1. Topographic features of the excavated graves

The graves at Rovine, attributed to the Avar Age, were located in the close vicinity of the town of Pecica, on the road to Nădlac, between the channel under the grapevines and the European Arad–Nădlac road, an area which is a subdivision of the Nădlac Plain (Fig. 1).

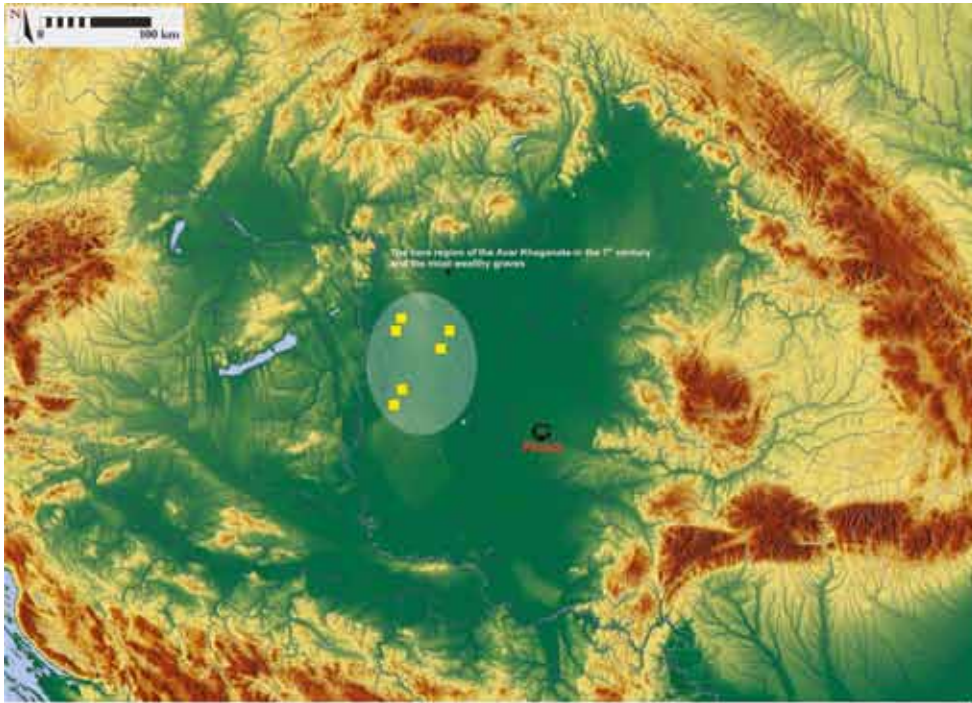
On the Habsburg military maps, as well as on modern satellite images, it is apparent that the site is located on the margins of a terrace, above the floodplain of a meandering stream that has kept its name until today as *Cseh-ér*,³ and which originates from the *Mureș* river. The area north of the *Mureș* in the region of Pecica was crisscrossed by small streams as well, forming a varied hydrological structure with patches of swamp and marshland covered by water periodically or permanently. North of the *Cseh-ér* stream, the unflooded areas are affluent in micro-formations; the dry, loess-covered area of the alluvium has given rise to rich prairie land, making it possible to exploit its geographic features in terms of animal breeding and agriculture.

Comparing the extent of the excavated area with the topographical realities reflected by the *Josephinian Land Survey*, a tentative estimation could be made that the archaeological excavations have exposed only the western limit of the area used as a funerary place during the Early Avar Age. On the basis of the archaeological investigations, further graves are unlikely to be discovered to the north; however, the possibility of the spread of the funerary area to the south and the east cannot be excluded.

¹ On the orientations of the graves in the 'Sarmatian' period, see Istvánovits, Kulcsár (2017, 212–214).

² Mărginean 2016, 109–111.

³ <https://mapire.eu/hu/map/europe-19century-secondsurvey/?bbox=2329037.2537516397%2C5799053.906642109%2C2353172.2454326837%2C5810519.460884886&layers=158%2C164>.

**FIGURE 1/A.**

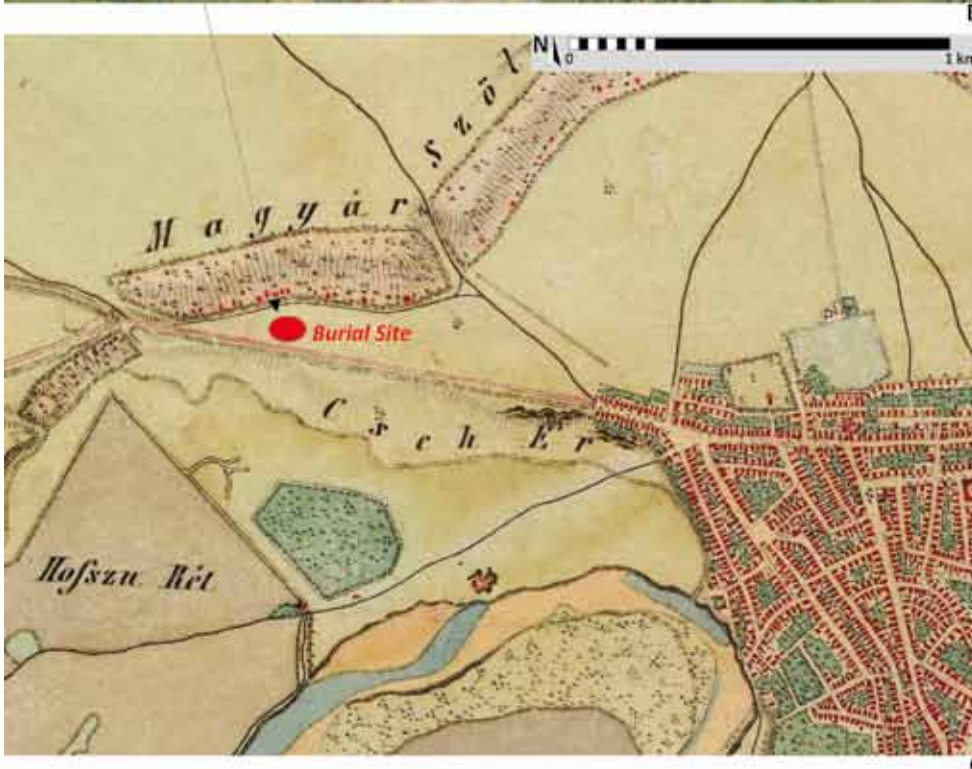
The location of Pecica and the position of the richest graves of the 7th century in the Carpathian Basin (made by G. Szenthe; adapted by E. Gáll);

FIGURE 1/B.

Pecica: Avar Age funerary sites projected onto the map of the 1st Military survey (made by F. Mărginean);

FIGURE 1/C.

Pecica-Rovine/Căprăvanul Mic: the place of the burial site on the map of the 1st Military survey (made by F. Mărginean).



2. Description of the uncovered graves

Grave Ftr. 46/A–C (Pl. 2)

Inhumation. Orientation: W–E. After the mechanical removal of the topsoil, a rectangular pit was observed. Unfortunately, its original depth could not be estimated. Its bottom slightly sloped from the lower limbs towards the skull. It superimposed an older complex. Dimensions: 194 × 93 cm. Identification depth: -15 cm. There was no indication of the presence of a coffin/coffins.

Three individuals have been uncovered who, on the basis of their positions, had been buried at the same time; thus, the grave can be interpreted as a multiple burial. The mature skeleton (A) was buried at the left side of the pit (north), and both children were laid at the right side of the pit (south). One of them (*skeleton B*) was placed next to the upper part of skeleton A's body, while the other child was buried close to the lower body, more precisely next to the right leg (the femur and the tibia) of the adult skeleton.

Skeleton A: male, 30–40 years old; length of the skeleton: 169.9 cm.

The skeleton was found in an anatomical position, lying on its back, the skull facing upwards. Both arms were placed along the body; the legs were stretched, reaching each other near the heels.

Inventory:

1. On the right coxal bone, a bronze ring was found, probably related to a belt. Diameter: 2.8 cm (Pl. 2: 1).
2. An iron knife placed diagonally on the pelvis. Length (of the blade): 10.47 cm; width (of the blade): 1.69 cm and 0.8 cm (Pl. 2: 3).
3. A slightly trapezoidal iron buckle with a spike under the left pelvic bone. Diameter: 3.6 cm (Pl. 2: 2).
4. Fragment of an awl near the outer part of the left femur. Length: 3.2 cm (Pl. 2: 4).

Skeleton B: infant I, 6–7 years old; length of the skeleton: 105.9 cm.

The skull of the supine-laid infant skeleton was leaning to the right; the arms were placed along the body; the legs were stretched near each other. No grave goods were uncovered.

Skeleton C: infant I, 2–3 years old; length of the skeleton: 84.8 cm.

The skull of the supine-laid infant was leaning to the left, to the middle part of the right femur of skeleton A. The legs were pulled up to the left. No grave goods were uncovered.

Grave Ftr. 47 (Pl. 3)

Inhumation. Orientation: W–E. The grave pit has an elongated oval shape, with an irregular right wall. The topsoil's mechanical removal destroyed the upper part of the pit; however, it could not have been much deeper. Dimensions: 172 × 60–70 cm. Observable depth: -15 cm.

Female, 45–55 years old; length of the skeleton: 150.2 cm.

The skull of the supine-laid skeleton was leaning to the right; the hands were laid beside the body; the legs were stretched out.

Inventory:

1. Gilded silver earring under the left part of the skull. To the middle of the oval, low-quality silver hoop, a sheet-metal globe was mounted, made of high-quality silver, and decorated with filigree wires. Two cast collars were inserted on the hoop of the earring: one at the lower open end of the hoop, and one at the middle, across that. The sheet-metal globe was gilded and composed of two semi-globe parts, soldered to each other. The soldering was covered with two filigree wires. Both parts of the globe's surface had been decorated with filigree patterns that we labelled as "multiple interlocking U-shaped" designs. This pattern's structure appears three times on each semi-globe: three reversed U-shaped filigree wires, starting from the bottom of the hemisphere, two next to each other, and one on top of them, in the middle. The two halves were adjoined with a double-filigree-wire decoration, running vertically over the middle of the globe, perpendicularly connecting the reversed U-shaped decorations. The tops of both halves were also decorated with double filigree wires. The signs of wear on the surface and on the filigree wires of the earring (Pl. 5: 1A–E) and of repair on another part (Pl. 5: 1F) testify to the long use of the artefact. One of the U-shaped filigree wires is also damaged and incomplete (Pl. 5: 1C). Dimensions: 1. Height: 3.1 cm; 2. Diameters of the globe: 1.3 × 1.1 cm; 3. Width of the ring: 2.5 cm. Weight: 3.15 grams (Pl. 4/2, Pl. 5).

2.1–34. Thirty-four beads were discovered under the skull and to the right of the skull, on the upper part of the body. On the basis of their position in the grave, it is apparent that they originally formed a necklace. Among them, two were made of amber; the rest of the beads were made of glass. Three types can be differentiated, as follows: 1. Tripartite type: 0.6 × 0.3 cm (Pl. 4: 1.3); 2.1–6. Bipartite beads of diameters about 0.43 × 0.4/0.36 cm (Pl. 4: 1.4–9); 3. Globular beads of diameters about 0.8, 0.6, 0.5 and 0.4 cm (Pl. 4: 1.10–37); 4. Amber beads: 4.1. Almost globular type: 1.3 × 1.5 cm (Pl. 3: 1.2); 4.2. Large, tooth-shaped type with a circular perforation at the end: 2.22 × 1.5 cm (Pl. 3: 1.1).

3. Up to the left pelvic bone, a fragmented iron buckle was discovered. Diameter: 3.7 × 3.3 cm (Pl. 4: 3).

3. Funerary rituals

The funeral, following the death, a *rite de passage*, has also been an important task for every human community in the past. Funerary acts⁴ reflect how a community thinks about death and the afterlife. Both graves at Pecica-Rovine/Căprăvanul Mic stand out with the simplicity of the funerary act. Grave Ftr. 46 belongs to the category of triple burials, which are not a common custom in the cemeteries of the Avar Age.⁵ The positions of the skeletons imply that the act of deposition of the deceased took place simultaneously.⁶

4. Material culture deposited in the graves

The limited quantity of the archaeological materials in the graves does not allow a thorough typological analysis of the artefacts. The items identified appear quite frequently in female graves, but sometimes they occur in male burials as well. The majority of them can be classified primarily as jewellery and dress accessories, but tools (knife, awl), as well as belt elements (bronze ring) can also be found.

4.1. Silver earring with filigree-decorated sheet-metal globe mounted on the ring

Earrings have been used in multiple ways during every era, indicating, as in the case of Pecica-Rovine/Căprăvanul Mic grave Ftr. 47, the gender status of the woman, here together with a bead necklace. As various archaeological investigations have revealed, the position of these earrings in the graves suggests that, in many cases in the Early Middle Ages, these rings dangled from ribbons attached to leather headbands instead of being placed in the earlobe.⁷

Although they turn up in pairs in general, the deposition of a single earring is not uncommon in graves of the Avar Period.⁸ In the case of Pecica-Rovine/Căprăvanul Mic, the meticulous excavation made it clear that the earring was buried with the deceased as a single item.

The artefact has a distinct but unsophisticated shape, with an uneven ring, but delicate filigree applied on the gilded sheet-metal globe, presumed to be a copy of a model type created by a skilled master.

The earring discovered in grave Ftr. 47 is a rather rare type, especially in the Trans-Tisa and the Danube–Tisa Interfluvium area; they are concentrated mainly in the former Roman province of Pannonia.⁹ The original model, a type of earring manufactured in the Byzantine Empire's workshops, appeared north of the Danube.¹⁰ These finds occur predominantly in the regions under the Avar khagan's rule – probably by goldsmith masters trained in the workshops of the Empire.¹¹ Regarding dating, Éva Garam has identified this earring type's appearance from about the middle of the 7th century until the turn of the 9th. She also stated that the variants with filigree decoration on the smaller and bigger globes are not typical before the middle of the 7th century.¹² In contrast, Gábor Kiss dated several pieces of this type, such as the finds from Mezőfalva Gr. 152 and Szekszárd-Bercsényi Utca to the first half of the 6th century, and the artefacts from Keszthely-Sörkert Grave 9, Nagyarsány Graves 'A' and 9 to the second third of the same century.¹³ Zlata Čilinská considers their use to have been during the entire 7th century.¹⁴

The cast collars applied on the end of the open ring and in the middle of the hoop on the opposite side have multiple analogies. Such pieces were found, for example, in Tiszafüred-Majoros Grave 28, Keszthely-Dobogó Grave 1746, and Želovce Grave 622.¹⁵ All three graves can be dated most probably to the second half of the 7th century.

The gilded sheet-metal globe and its filigree decoration raise more important questions. As described above (see the description of grave Ftr. 47), the globe of the earring has been decorated with a somewhat rough filigree wire with a pattern of interlocking, reversed 'U' shapes. This particular pattern is not widely known; however, it has to be pointed out that there is a general lack of analysis on the filigree decoration patterns of these earrings. One exception to that is earrings with one or three sheet metal globe(s) from Zamárdi-Rétiföldek, on which Éva Garam identified a filigree decoration in the form of "*Pariser Klammer*" (Parisian Clip) on the surface of the "*Verzierte Blechkugel-Ohringe*".¹⁶ This pattern has been identified in most cases. However, objects with different decorations have also occurred, such as those with *pelta motif* (e.g.: Cikó Graves 193 and 239, Óbuda stray find, Regöly Grave 61, Szebény Cemetery I Grave 176, etc.),¹⁷ and those with the so-called 'U' shapes, similar to the item from Pecica-Rovine/Căprăvanul Mic.

4 From the enormous quantity of literature on the complex analysis of funerals, see for example Härke (2000, 369–381) and Daim (2003, 42–44).

5 Related to this phenomenon, with further references and broad analysis, see Cociş *et al.* 2016, 39–43. On Early Avar-period double and multiple burials, see Tomka (2003, 11–56) and Balogh (2006, 41–86).

6 In this regard, see the analysis of Tomka (2003, 9. ábra).

7 Kiss 1983, 107; Garam 2005, 172–175; Szőke 2013, Fig. 4.

8 For example, Balogh (2013, 181), without statistical data about the question.

9 Mócsy 1974.

10 Kiss 1983, 108–109.

11 Kiss 1983, 100–101. However, there is no such earring type in the Transylvanian Basin.

12 Garam 2018, 126.

13 Kiss 1983, 107.

14 Čilinská 1966, 143–144.

15 Garam 1995, Taf. 60/28/1–2; Kiss 1997, 4. táb. 1.

16 Garam 2018, 126.

17 Kiss 1983, 1. kép 1, 3. kép 3, 4. kép 6, 5. kép 2, 4. This is a classic motif of the antique cultures; for a discussion of its origin, see Yeroulanou (1999, 145).

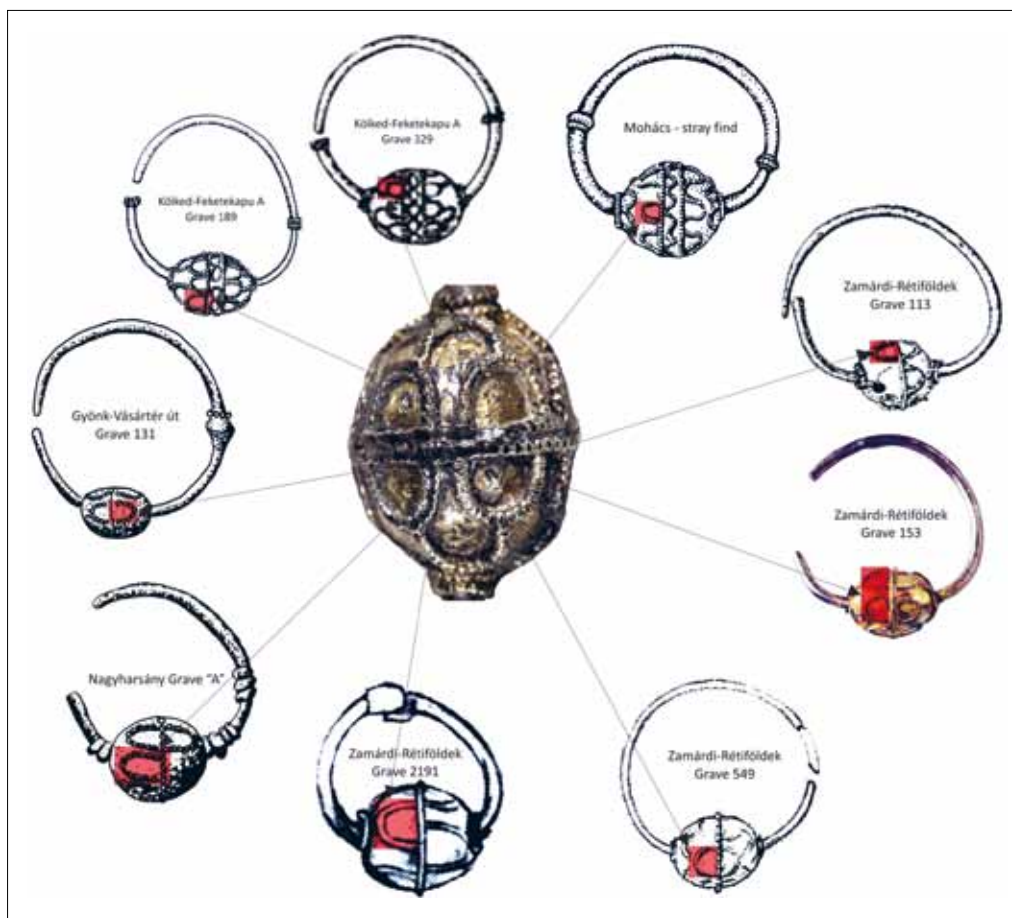


FIGURE 2. Multiple interlocking U-shaped patterns applied on the surface of the globe of the earring from Pecica grave Ftr. 47, and its analogies (made by E. Gáll).

So far, nine analogies of the earring found at Pecica-Rovine/Căprăvanul Mic have been identified, which show the same *multiple interlocking U-shaped patterns* on the globe. These are from Gyöng-Vásártér út Grave 131, Kölked-Feketekapu Graves 189, 329, Mohács stray find, Nagyarsány Grave 'A', and Zamárdi-Rétiföldek Graves 113, 153, 549 and 2191.¹⁸

As is clear from the map, the spread of this type of earring shows a rather uneven pattern within the Carpathian Basin. Still, it is observable that it is most prevalent in the Transdanubian region, more precisely between Lake Balaton and the micro-region of the Danube-Drava confluence. The concentration of the finds in this area suggests a continuity of the late-antique technique. The region had been the core of the Keszthely culture,¹⁹ with the filigree decoration being one of its most distinctive characteristics, particularly on basket-shaped earrings.²⁰ Revealing the connection between the find from Pecica and

those from 6th and 7th century Transdanubia bearing similar decoration is undoubtedly a crucial outcome in regard to our conclusions (Fig. 3).

As the map illustrates, (Fig. 3) these earrings, decorated with filigree patterns that we have labelled as *multiple interlocking U-shaped*, found in burials, have been discovered only between Lake Balaton and the micro-region of the Danube-Drava confluence. Stating the connection, a question must be asked about how the technological connection can be explained between finds recovered more than a hundred kilometres from each other. Could it be a remnant of a redistribution network, relying on a prestige chain, and/or the simple result of a commercial system? Or would a scenario where the woman excavated at Pecica was involved in some sort of human mobility / medium-range migration from west to east be more plausible?

18 Kiss 1983, 1. kép 12, 5. kép 11; Garam 2001, Taf. 8/1, 7, 9; Kiss 1996, Taf. 69/329/1-2; Bárdos, Garam 2009, Taf. 14/113/2-3, taf. 71/549/1, taf. 171/7; Bárdos, Garam 2014, Taf. 229/2191/1.

19 On the Keszthely culture, see Müller (2020, 69-99).

20 On the one hand, in contrast to other territories, the technological continuity in this region had probably been much more evident; on the other hand, substantial immigration from the south may have occurred (Müller 2020, 69).

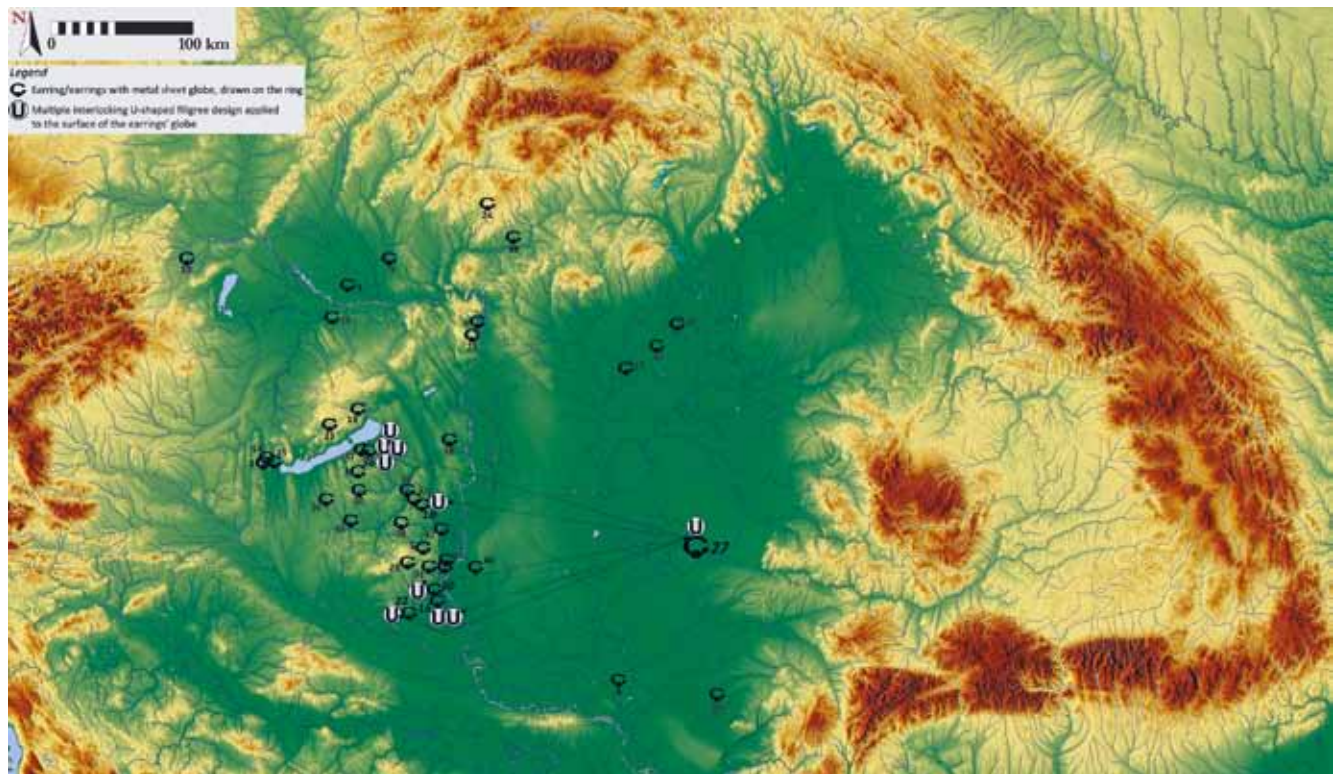


FIGURE 3. The distribution within the Carpathian Basin of earrings with globes mounted on sheet metal, decorated with multiple interlocking U-shaped filigree patterns, with the list of the graves of the earrings with globes mounted on sheet metal (made by E. Gáll).

Funerary sites: 1. Holiare Graves 30, 41, 52, 80, 157, 158, 171, 172 (Točík 1968, Taf. XXVIII/20, 21, 23, taf. XXX/18, taf. XXXI/13, taf. XXXIV/3, taf. XLV/13, 16, 17, taf. XLV/13, 16–17, taf. XLVI/12, 14; 2. Alsópáhok (Kiss 1983, 100); 3. Andocs-Temető utca Graves 4, 5, 147 (Garam 1972, 7. ábra 20–21, 29, 25. ábra 13–14); 4. Aradac-Mecka Graves 16, 68 (Kiss 1983, 2. kép 9, 12; Haň 1959, Фиг. 4/2–3, Фиг. 4/2–3); 5. Cíkok Graves 91, 193, 239, 265, 306, 423, 448, 551 (Kiss 1983, 100, 1. kép 6, 11, 3. kép 1, 3, 4. kép 1–2, 5. kép 4); 6. Budakalász-Duna part Grave 759 (Pásztor, Vida 1991, 242, 2. táb. 1); 7. Dunaszekcső-Téglagyár Grave 20 and another one stray find (Sós 1967, 46, 54. ábra); 8. Dunaszekcső-Várhegy, stray find (Kiss 1983, 100, 1. kép 3); 9. Nové Zámky/Érsekújvár Graves 145, 310, 370, 510 (Čilinská 1966, Taf. XXXII/2, taf. LII/2–3, taf. LXIII/1–2, taf. LXXV/5); 10. Gyöng-Vásártér út Grave 131 (Rosner 1972, I. táb. 52); 11. Gyöng – Szárazd, stray find (Kiss 1983, 100, 3. kép 6); 12. Győr-Téglavetői dűlő Graves 616, 756 (Kiss 1983, 100); 13. Jutas Grave 138 (Rhé, Fettich 1931, Taf. VI/8; Kiss 1983, 2. kép 1); 14. Keszthely-Dobogó Grave 1746 (Kiss 1997, 4. táb. 1); 15. Keszthely-Sörkert Grave 9 (Kovrig 1960, 141, 15. kép 2–3); 16. Kölked-Feketekapu A Graves 189 and 329 (Kiss 1996, Taf. 46/189/1, taf. 69/329/1–2); 17. Kőtelek (Kiss 1983, 1. kép 4); 18. Mezőfalva-Vasúttállomás Grave 152 (Kiss 1983, 100); 19. Münchendorf Grave 13 (Kiss 1983, 100, 2. kép 13, n. 21); 20. Mohács-stray find (Garam 2001, Taf. 8/7); 21. Veliki Gaj, stray find (Kiss 1983, 1. kép 10); 22. Nagyhsársány Graves “A”, Graves 60, and 65 (Papp 1963, 115, 131, 134, XI. tábla 1–2, XI. tábla 1–2); 23. Nagyvázsonyi-Baráti dűlő-Csapár II, stray find (Németh 1969, 161); 24. Zemianský Vrbovok (Svoboda 1953, Obr. 4); 25. Óbuda, stray find (Kiss 1983, 1. kép 2); 26. Osztopán, stray find (Kiss 1983, 2. kép 1); 27. Pecica-Rovine/Căprăvanul Mic Grave Ftr. 47; 28. Pécsvárad-Fullermalom Grave 1 (Kiss 1977, Pl. LXI/E.1); 29. Regöly Graves 8, 21 (1 item), 22, 23, 27, 51, 52, 56, 60/A, 61, 65, 69, 72, 79, 82, 89, 95–100, 101, 102 (Hampel 1905, 2: 240. gr. 27/10–13, 243. gr. 52/5, 254; III, Taf. 182/14, taf. 185/gr. 8/3, taf. 190/gr. 21/2, taf. 190/gr. 22/5–6, taf. 193/gr. 51/3–4, taf. 193/gr. 53/6–7, Taf. 199/gr. 95–100/15–16); Grave 56 (Kiss 1983, 5. kép 6); stray finds with name of “Kupavár” (Hampel 1905, 3: Taf. 182/13–16); 1902/Graves 11, 12; stray find from 1902 (Kiss 1983, n. 33); 1904/Tr. I/Graves II, X, XIII and Tr. II/Gr. I (Kiss 1983, n. 34); stray find (Kiss 1983, 3. kép 9, 5. kép 2); 30. Somogyacska (Kiss 1983, 3. kép 4); 31. Szebeny Cemetery I Grave 176 (Garam 1975, 65, Ab. 14, Pl. XVI/1–2; Kiss 1983, 5. kép 1); 32. Szekszárd-Bercsenyi utca Graves A, 4, 8 (Kiss 1983, n. 38); 33. Tiszaderzs Graves 39, 44, 81 (Kovrig 1975, Fig. 7/39/1, fig. 9/44/2, fig. 10/1–2, Pl. XXIX/2–4; Kiss 1983, 1. kép 9, 3. kép 7); 34. Tiszafüred-Majoros Graves 5, 28, 37, 45, 54, 105, 115, 131, 135, 146, 154, 262, 263, 266, 269, 273, 310, 321, 362, 382/a, 383, 403, 448, 454, 458, 464, 495, 498, 508, 529, 549, 550, 560, 566, 574, 581, 586, 587, 588, 593, 596, 609, 610, 619, 632, 648, 653, 677, 723, 744, 746, 748, 750, 760, 761, 769, 770, 771, 793, 807, 830, 836, 839, 850, 861, 865, 889, 911, 918, 949, 960, 972, 974, 984, 993, 1010, 1023, 1053, 1063, 1072, 1092, 1105, 1106, 1108, 1119, 1125, 1129, 1137, 1150, 1165, 1170, 1172, 1190, 1209, 1227, 1232, 1234, 1239, 1247, 1252, 1273, 1275, stray finds (2) (Garam 1995, 10–11, 13, 16, 20–21, 23, 25, 37, 39, 44, 50, 52, 54, 56, 60, 63, 65, 68, 71, 74–76, 78, 80–83, 86, 91, 93–94, 96–97, 99, 101–103, 108–110, 112, 114–115, 117, 120, 123, 125–126, 128, 130, 132, 134–135, 137–138, 140, 144, 146, 148, 150, 153, 156, 158, Taf. 58/5/1, taf. 60/28/1–2, taf. 61/37/1–2, taf. 62/45/1–2, taf. 63/54/1–2, taf. 66/105/1–2, taf. 67/115/1–2, taf. 69/131/1–2, taf. 69/135/3–4, taf. 70/146/1–2, taf. 70/154/1–2, taf. 78/262/1–2, taf. 79/263/1–2, taf. 79/266/2–3, taf. 79/269/1–2, taf. 80/273/1–2, taf. 82/310a/1–2, taf. 83/321/1–2, taf. 85/362/2–3, taf. 86/382a/1–2, taf. 87/383/1–2, taf. 88/403/1, taf. 91/448/1, taf. 92/454/1–2, taf. 92/454/1–2, taf. 93/458/1–2, taf. 93/464/1–2, taf. 96/495/1–2, taf. 97/498/4, taf. 97/508/1–2, taf. 99/529/1, taf. 101/549/2–3, taf. 101/550/1–2, taf. 102/560/1–2, taf. 103/566/1–2, taf. 103/574/1–2, taf. 104/581/1–2, taf. 104/586/1–2, taf. 104/587/1–2, taf. 104/588/4–5, taf. 105/593/1–2, taf. 106/593/1, taf. 107/609/1–2, taf. 107/610/1, taf. 107/619/2, 5, taf. 107/632/1–2, taf. 110/648/1–2, taf. 110/653/1, taf. 111/677/1–2, taf. 115/723/1–2, taf. 116/744/1–2, taf. 116/746/1, taf. 116/748/1, taf. 116/750/1–2, taf. 117/760/1–2, taf. 117/761/1–2, taf. 118/769/7–8, taf. 118/770/3–4, taf. 118/770/3–4, taf. 119/771/1–2, taf. 123/793/1–2, taf. 124/807/1, taf. 125/830/3, taf. 125/836/1–2, taf. 125/839/1–2, taf. 126/850/1, taf. 126/861/1, taf. 127/865/1–2, taf. 129/889/1–2, taf. 131/911/2, taf. 132/918/1–2, taf. 132/949/1, taf. 135/960/1, taf. 136/972/1–2, taf. 137/974/1–2, taf. 138/984/1–2, taf. 138/993/1–2, taf. 140/1010/4–5, taf. 142/1023/1–2, taf. 144/1053/1–2, taf. 144/1063/1–2, taf. 145/1072/1–2, taf. 148/1092/1–2, taf. 149/1105/1–2, taf. 149/1106/1–2, taf. 149/1108/1–2, taf. 150/1119/2–3, taf. 151/1125/1–2, taf. 151/1129/1–2, taf. 152/1137/1–2, taf. 153/1150/6–7, taf. 155/1165/1–2, taf. 156/1170/1, 3, taf. 156/1172/1–2, taf. 158/1190/1a, 2a, taf. 160/1209/1–2, taf. 162/1227/1–2, taf. 163/1232/1–2, taf. 164/1234/1–2, taf. 165/1239/1, taf. 165/1247/1–2, taf. 167/1252/1–2, taf. 170/1273/3–4, taf. 170/1275/3–4, taf. 172/1–2); 35. Kaposvár-Toponár-Fészlerlakpuszta (Kiss 1983, n. 42); 36. Zamárdi-Rétiföldek Graves 35, 66, 74/a, 82, 84, 91, 100, 113, 116, 251, 280, 375, 387, 439, 458, 488, 517, 525, 549, 695, 712, 723, 748, 786, 857, 1123, 1242, 1254, 1389, 1471, 1536, 1568, 1657, 1702, 1714, 1728, 1736, 1765, 1779, 1789, 1798, 1804, 1837, 1874, 1875, 1883, 1887, 1889, 1901, 1914, 1916, 1918/b, 1921, 1945, 2056, 2099, 2162, 2167, 2168, 2170, 2185, 2191, 2197, 2198, 2257, 2275, 2287, 2294, 2308, 2310, 2336, 2345, 2366 (Bárdos, Garam 2009, 16, 19–24, 26–27, 44, 47–48, 59, 61, 65, 68, 73, 76, 79, 82, 99, 101–102, 104–105, 108, 117, 147, 161–162, 182, 193, Taf. 5/35/1, taf. 7/66/1, taf. 8/74a/1–2, taf. 9/82/1–2, taf. 10/84/1, taf. 11/91/1–2, taf. 13/100/5–6, taf. 14/113/2–3, taf. 14/116/1, taf. 30/251/1, taf. 33/280/1–2, taf. 44/375/1, taf. 45/387/1–2, taf. 49/439/1, taf. 55/458/1, taf. 61/488/1–2, taf. 66/517/1–2, taf. 68/525/1, taf. 71/549/1, taf. 88/695/1–2, taf. 90/712/2, taf. 90/723/2–3, taf. 93/748/1–2, taf. 95/786/1–2, taf. 102/857/1, 4, taf. 141/1242/1, taf. 141/1254/3, taf. 159/1389/1, taf. 165/1471/1–2; Bárdos, Garam 2014, 16–17, 19, 35, 41, 44, 46–47, 49, 52–54, 58, 61, 63–65, 70–71, 74–75, 79, 91, 99, 108–109, 112–114, 120, 123, 127, 130, 132, 134–135, 138, 139–140, 144, 148, Taf. 170/1536, 2–3, taf. 171/1568/1, taf. 181/1657/1–2, taf. 181/1659/1–2, taf. 185/1702/1–2, taf. 187/1714/1–2, taf. 187/1728/1, taf. 188/1736/3–4, taf. 190/1765/1–2, taf. 190/1779/1–2, taf. 191/1789/1, taf. 191/1798/1–2, taf. 192/1804/1, taf. 194/1837/1, taf. 196/1874/1, taf. 197/1875/2, taf. 197/1883/1, taf. 197/1887/1–2, taf. 198/1889/2, taf. 200/1901/1–2, taf. 203/1914/1–2, taf. 204/1916/3–4, taf. 205/1918b/3–4, taf. 206/1921/2–3, taf. 209/1945/1, taf. 216/2056/1–2, taf. 221/2099/1–2, taf. 226/2162/1, taf. 226/2167/1–2, taf. 226/2168/6, taf. 227/2170/1–2, taf. 229/2185/1, taf. 229/2191/1, taf. 229/2197/1–2, taf. 229/2198/1–2, taf. 232/2257/2, taf. 233/2275/4–5, taf. 238/2287/1–2, taf. 239/2294/1–2, taf. 241/2308/1–2, taf. 242/2310/1–2, taf. 243/2336/1–2, taf. 244/2345/1–2, taf. 248/2356/1–2, taf. 249/2365/1, taf. 249/2366/1, taf. 251/2365/1); 37. Zamárdi-stray find (Kiss 1983, 2. kép 4); 38. Závod Graves 7, 17, 20, 70, 78 (Kiss 1983, 101, 5. kép 3, 5); 39. Želovce Grave 622 (Čilinská 1966, Taf. CVIII/9–10); 40. Vaskút-Homokbánya Grave “A” (Balogh 2013, 1: 191–192).

4.2. Beads

The most characteristic items of the grave goods are the different types of beads forming the necklace of the female buried in Ftr. 47.

The thirty-two beads, strung closely, would make a fairly short necklace, but their position in the grave does not provide any information about whether they formed a single-, or double-row necklace.

The forms, types, and prime materials of the beads are presented in the table (Tab. 1).

Still, the two amber beads discovered in the same grave raise some much more interesting questions. One of them belongs to a standard round form, but the tooth-shaped one is almost unique in the entire Avar Period. Amber has been recognised as having healing effects and apotropaic powers since prehistoric times, much like carnelian. Pliny the Elder describes the metempsychic reason for its possession, wearing it not only as a simple fashion piece, but also as an amulet.²⁵

Unfortunately, without infrared spectroscopic analysis,²⁶ their origin – the Baltic region or another European source – cannot be revealed, but even such investigations could produce un-

Type/variants	Shape	Raw material	Decoration	Colors of the monochrome beads ²¹	Quantity
Bipartite/two-piece	Flat globular	Opaque paste	X	Brownish white Brownish silver	6
Three-piece	Flat globular	Opaque paste	X	White	1
Globular	Flat globular	Opaque paste	X	Greenish/turquoise	1
Globular	Flat globular	Opaque paste	X	Silvery white and brownish	19
Globular	Flat globular	Opaque paste	X	White	1
Globular	Flat globular	Opaque paste	X	Brownish/greenish	1
Globular	Flat globular	Opaque paste	X	Brownish/reddish	1
Globular	Flat globular	Opaque paste	X	Yellow-reddish	1
Globular	Flat globular	Opaque paste	X	Yellow	1
Globular	Flat globular	Opaque paste	X	Yellow-brownish	2
Globular	Flat almost rectangle	Opaque paste		Greenish/turquoise	1
Globular	Flat globular	Amber	X	Orange reddish	1
Tooth-shaped	Tooth-shape	Amber	X	Orange reddish	1

TABLE 1. Classification of the beads in the grave Ftr. 47, according to the number of occurrences of the types/variants.

Unfortunately, the various types of beads from grave Ftr. 47 provide only a relative dating. According to Adrienn Pásztor, the bipartite (or two-piece) beads can be loosely dated, from the 6th century to the 8th,²² while the three-piece beads are dated to a later starting period, from the 7th century on.²³

The round beads – in this case, the majority of them being millet-size (approx. > 0.4 cm) – are characteristic of the entire Avar Period.²⁴

certain results.²⁷ However, it is worth mentioning that a study involving more than one hundred such beads, dated from the 3rd century to the 6th, found in the Carpathian Basin, concluded that all the objects had been made of Baltic amber.²⁸

On the basis of these results, the amber's Baltic origin in the case of the beads found near Pecica may also be plausible, but because of the lack of sufficient data on amber processing, other possibilities cannot be excluded; the Baltic region, somewhere in the Carpathian Basin, or near Pecica can all be argued. The raw amber found in a female grave at Hódmezővásárhely-Kishomok, for example, presumed the existence of local manufacturing as well.²⁹

21 The colour of the beads may have been influenced by their main ingredients, the contemporary manufacturing process, or, following their interment in graves, by the chemical interaction between the components of the beads and the soil, or the change of the chemical parameters of the soil after the interment.

22 Pásztor 2008, Tab.2.

23 Pásztor 2008, Tab.2.

24 Pásztor 1995, 73, n. 5.

25 Plinius, *Naturalis historiae* XXXVII, XLII: 315.

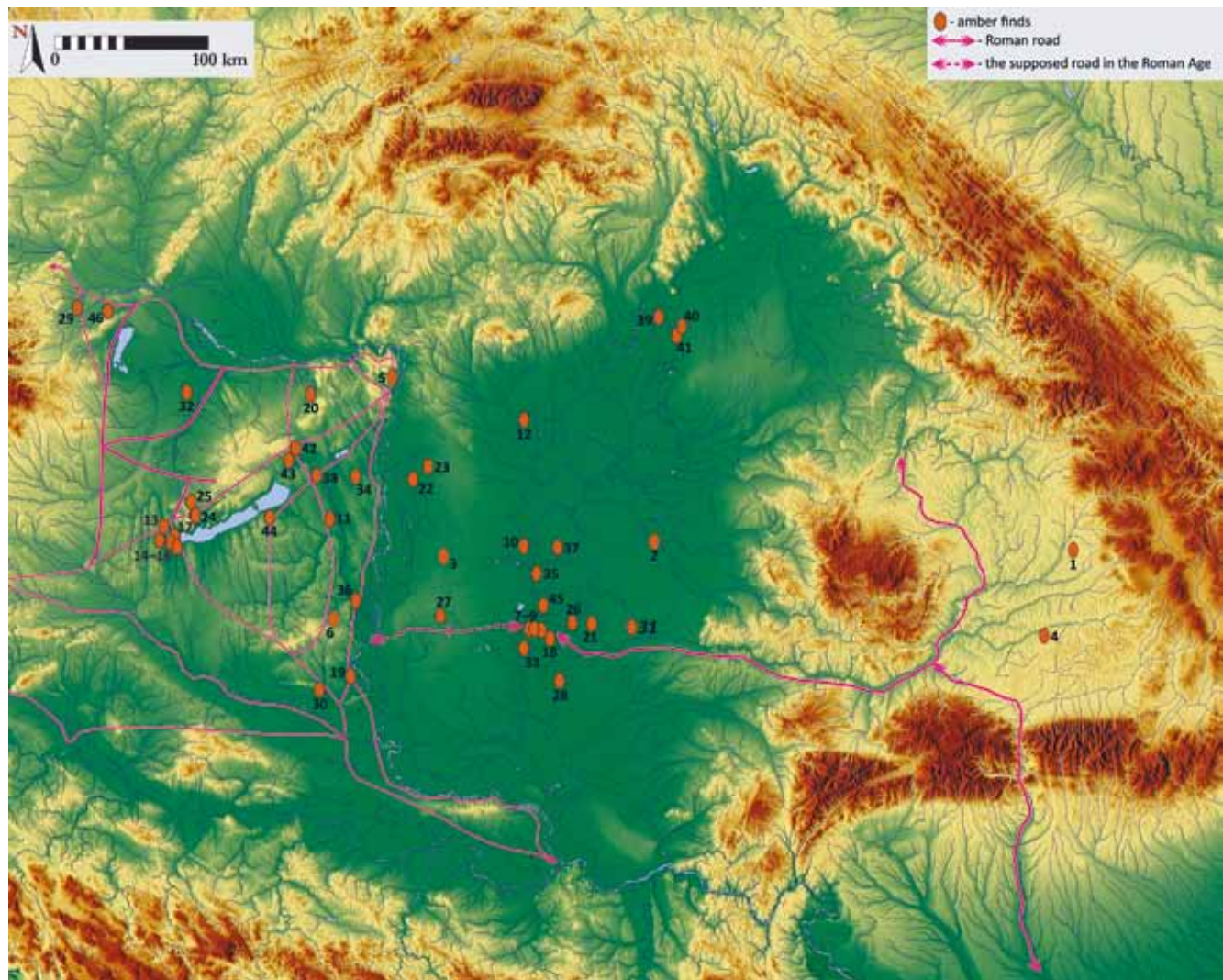
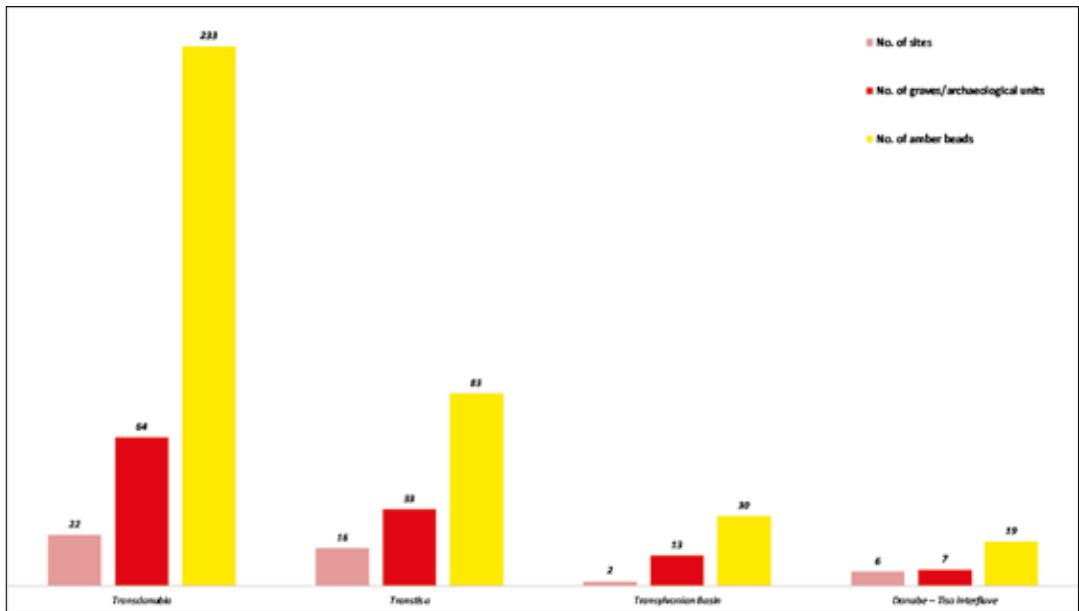
26 <https://www.sciencedirect.com/topics/chemistry/ir-spectroscopy>; <https://www.sciencedirect.com/science/article/pii/B0122274105003409>.

27 Truică et al. 2012, 3524.

28 Sprincz 2003, 203–212. In the Lower Danube region, for other analyses see Truică et al. (2012, 3524–3533) and Vîrgolici et al. (2010, 1977–1987).

29 Nagy 2002, 95–143. However, no sixth-century workshop has so far been identified in the Carpathian Basin.

FIGURE 4. The number of amber beads deposited in graves from the 6th-7th century Carpathian Basin (the first half of the Avar age) (pink: number of the funerary sites, red: number of containing graves and yellow: number of beads made of amber) (made by E. Gáll, F. Mărginean).



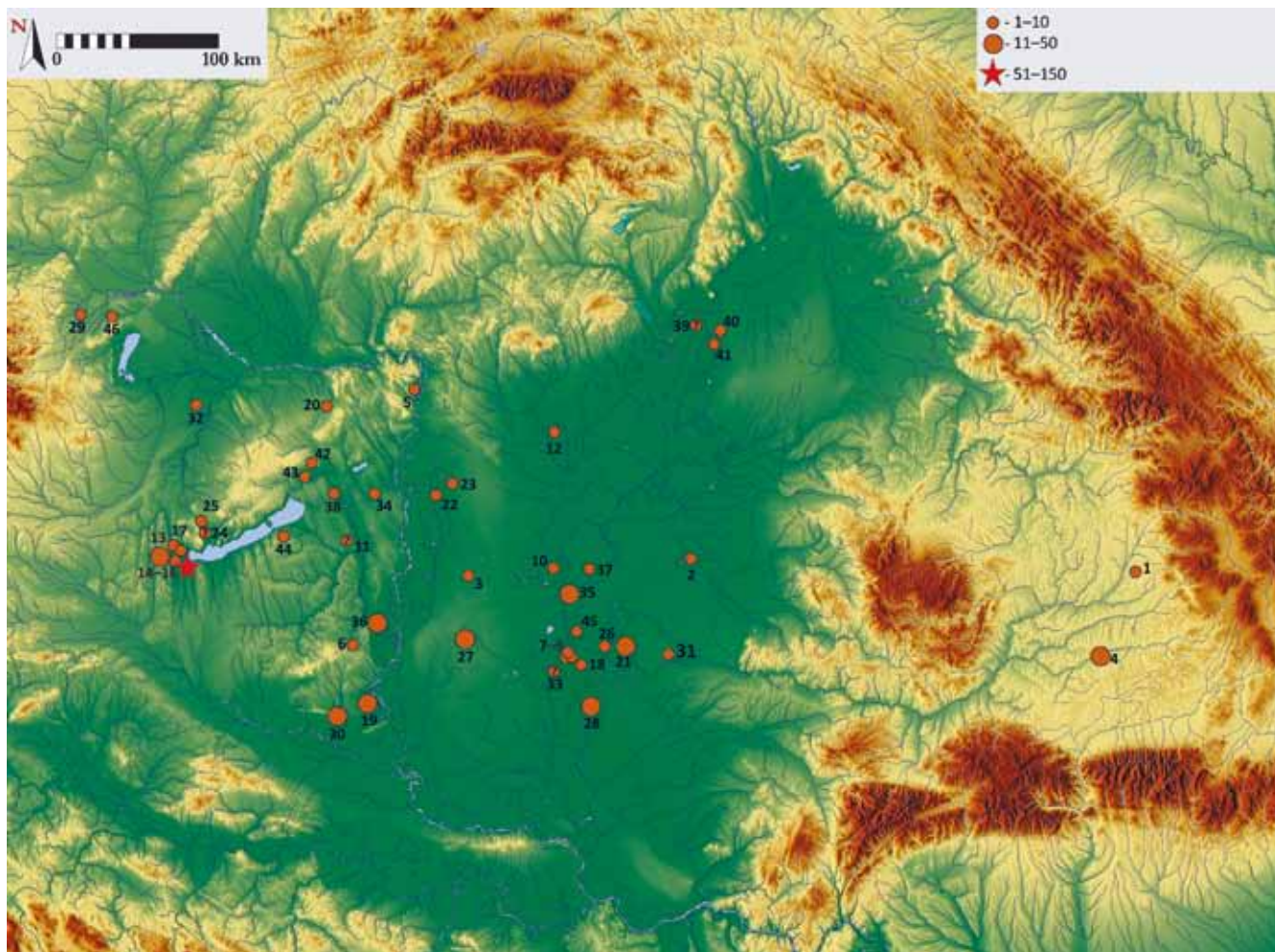


FIGURE 5/A-B. The spread of amber beads in the Carpathian Basin. A: the Roman roads re-drawn after Mócsy 1974, Map; B: the smallest circle up to 10, the large circle up to 50, and the red star up to 150 pieces per burial site (made by E. Gáll).

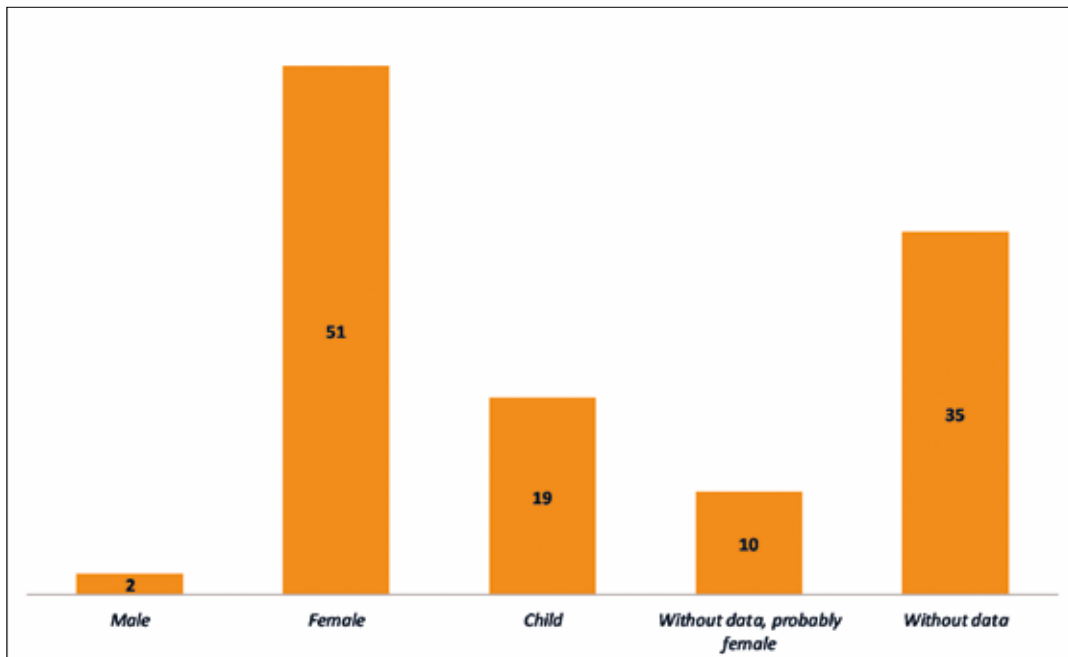
Funerary sites (The numbers inside brackets indicate the quantity of beads found at a certain site): 1. Bandu de Câmpie Graves XXIX (1), LXXXVI (1), CIII (4) (Kovács 1913, 308, 335, 338, 30. kép 25, 56. kép 4, 60. kép 7-10); 2. Békéscsaba-Repülőtér female grave (2) (Pásztor 1995, 71); 3. Bócsa-Pivarcsi I. földje (2) (ADAM 2002, 1: 60 with further references); 4. Brateiu Cemetery 3 Graves 9 (1), 41 (1), 82 (15), 107 (1), 125 (1), 230 (1), 237 (1), 248 (1), 253 (1), 262 (1) (Bârză 2010, 91, 174, 182, 194, 199, 206, 246, 248, Taf. 86-87, 90); 5. Budakalász-Duna part Graves 285 (1), 349 (1), 759 (1) (Pásztor, Vída 1991, Fig. 1/5; Pásztor 2015, n. 137); 6. Cíkó Grave 144 (1) (Somogyi 1984, 87); 7. Deszk-D Grave 170 (1) (Csallány 1943, 162); 8. Deszk-G Graves 15 (2), 37 (4), 53 (1) (László 1940, 142; Balogh 2014, 121); 9. Deszk-H Grave 12 (2?) (ADAM 2002, 110 with further references); 10. Felgyő-Ürmös tanya Grave 196 (1) (Balogh 2010, 215); 11. Igar-Kisdaádi-szőlőhegy (?) (ADAM 2002, 168 with further references); 12. Jánoshida Grave 182 (2) (Erdélyi 1958, 33, XXXV. tábla 1-2); 13. Keszthely-Dobogó Grave 1600 (2) (Kiss 1997, 136);* 14. Keszthely-Fenekpuszta-Horreum Graves 6 (14), 8 (46), 9 (16), 12 (1), 13 (11), 14 (16), 17 (has not been precised, but at least 10 according to the publication's photo), 29 (2), 30 (14) (Barkóczy 1968, Taf. LVIII:7, LX, LXI:1, LXI:15, LXII:10, LXVI:8, LXI: 2-9, LXVII:II; Pásztor 2011, 438-442); 15. Keszthely-Fenekpuszta, Ódenkircse-Flur Graves 2000/123 (1), 1999/126 (2) (Pásztor 2014a, 275; Müller (ed.) 2014, 64, 66-67); 16. Keszthely-Fenekpuszta, cemetery by the southern fort wall Graves 1966/45 (1), 1967/97 (7), 1971/34 (1), 1971/46 (3), 1971/85 (2), 1999/12 (4), 1999/40 (2) (Müller 2010, 55, 60, 68, 70, 77, 113, 119; Pásztor 2015, 550); 17. Keszthely-Sörkert (1951-1957) Graves 39 (1), 51 (1) (Kovrig 1960, 143-144); 18. Kiszombor-Burial ground O Grave 6 (1) (Lőrinczy, Straub 2003, 177); 19. Kölked-Feketekapu Graves A-47 (9), 83 (1), 203 (3), 218 (1), 230 (1), 245 (2), 261 (2), 283 (1) (Kiss 1996, 30, Taf. 27:4; 36, Taf. 30:2; 63, Taf. 48:2-3; 66, Taf. 49:2; 69, Taf. 52:1; 72, Taf. 54:11; 77, Taf. 58:9; 82, Taf. 62:16); 20. Kőrnye Graves 83 (1), 152 (2) (Salamon, Erdélyi 1971, 29, Taf. XVI:1); 21. Kövegy Graves 9 (1), 20 (1), 24 (17) (Benedek, Marcsik 2017, 369-442); 22. Kunbábony Grave 1 (1): (Tóth, Horváth 1992, Taf. XXIV:1); 23. Kunpszér Graves 5 (1), 6 (1) (Balogh 2013, 1: 207, 2: 389. kép 4; 412. kép 4); 24. Lesencetomaj-Piroskereszt Graves 74 (?), 82 (1), 121 (?), 137 (?), 170 (?) (Perémi 1991, 158; Perémi 2003, 29. táb. 8, 44. táb. 3, 52. táb. 3, 58. táb. 9; Pásztor 2015, n. 137); 25. Lesencetomaj - Római katolikus temető (1) (ADAM 2002, 226 with further references); 26. Makó-Mikocsa halom Grave 17 (1), 33 (1) (and other graves with unknown number of amber beads) (Balogh 2014, 111; Balogh 2018, 25, 33, Fig. 4/1-3); 27. Mélykút-Sáncdűlő Grave 29 (11) (Pásztor 2015, n. 137); 28. Mokrin Graves 9 (8), 12 (2**) (Ранисављевић 2007, 15); 29. Münchendorf-Drei Mahlden Grave 1 (3) (Bachner 1985, 83, Taf. 1/1); 30. Nagyarsány Grave "A" (12) (Papp 1963, 116, 1. táb. 1); 31. Pecica Grave Ftr. 47 (2); 32. Rábapordány-Árokszer (Pátyi)-domb, Ghiczey-halom (1) (ADAM 2002, 298 with further references); 33. Srpski Krstur Grave 2 (?) (Milleker 1893, 305; Pásztor 1995, 71; Balogh 2013, 207, but instead of Srpski Krstur she have mentioned Ruski Krstur); 34. Szabadegyháza-Szeszgyár, Bűdöstő Grave "3" (1) (ADAM 2002, 334 with further references); 35. Szegvár-Oromdűlő Graves 1 (3), 130 (3), 196 (1), 293 (2), 325 (1), 333 (1), 628 (1), 717 (2), 761 (10), 870 (4), 887 (1), 968 (3) (Lőrinczy 1985, 128; Lőrinczy 2017, 150; Pásztor 2014b, 303; Pásztor 2015, n. 137); 36. Szekszárd-Bogyszlói út Graves 108 (1), 296 (3), 546 (2), 617 (1), 644 (1), 653 (1), 654 (1), 655 (1), 713 (1) (Pásztor 2001, 137-138); 37. Szentés-Dónát Grave 3 (1) (Csallány 1900, 395: grave 3/figure; Lőrinczy, Straub 2005, 1. táblázat); 38. Tác-Gorsium Grave 33 (?), 1999/6 (1) (Pásztor 2008, 315, n. 44; Pásztor 2015, n. 137); 39. Tiszadada-Kálvinháza (stray finds, questionable quantity) (ADAM 2002, 378 with further references); 40. Tiszavasvári-Koldusdomb Grave 18 (2) (Pásztor 2015, n. 137); 41. Tiszavasvári-Utasér-part-dűlő Grave 8 (1) (Istvánovits, Lőrinczy 2017, 43); 42. Várpalota-Gimnázium Grave 201 (1) (Pásztor 2015, n. 137); 43. Várpalota-Unió (Szűts)-homokbánya Grave 18 (1) (Pásztor 2015, n. 137); 44. Zamárdi-Rétiföldek Graves 514 (4), 920 (1), 2026 (1) (Bárdos, Garam 2009, 75, 122, Taf. 64/4, taf. 107/1); 45. Hódmezővásárhely-Koppány Site II Grave X (2) (Herendi 2012, 352, 355, Fig. 3/5-6); 46. Sommerein am Leithagebirge - Steinacker Grave 140 (10) (Daim, Lippert 1984, 58, 78, 242-243, Taf. 91/1).

Questionable finds (they aren't included on our maps, Fig. 5/A-B): 47. Gyula-Dobos I. utca single grave (?) (Lőrinczy, Straub 2005, 1. táblázat); 48. Balatonfüzfő-Szalmássy-t. Grave 55 (?) (Lőrinczy, Straub 2005, 1. táblázat); 49. Szentés-Fertő 21. sz., Takacs F. földje (Acker) (ADAM 2002, 353 with further references).

* Amber beads were registered in other graves too, but exact data was provided only for grave no. 1600.

** Aleksandar Ranisavljev (Ранисављевић 2007, 15) has noted that several beads made of amber were found on the neck, but only two of them were preserved.

FIGURE 6. Age and sex of distribution of graves with amber beads in the Carpathian Basin (made by E. Gáll, F. Mărginean).



At any rate, if one would accept the high probability of a Baltic origin for the raw material or the finished product in the case of the amber beads from Pecica, these most probably travelled along the trade route linking the Baltic coast to the former Roman provinces in the Middle Danube region.³⁰ This commercial road remained in use during the early and late Middle Ages, even after the fall of the Empire.³¹ Referring to the early Middle Ages, Florin Curta suggested – against Åberg’s, Werner’s and McCormick’s trade views – that a non-commercial model should be presumed,³² where these amber beads were part of a gift-exchange system between elite groups rather than being a commodity, as there is no evidence for other trade activity between these regions.³³ Tivadar Vida has argued the emergence of a trading system in the 6th and 7th centuries between the Baltic region and the Carpathian Basin, based on the distribution of amber and other types of finds as well.³⁴

The occurrence of amber finds covers a broad area in the Carpathian Basin, comprising the regions of the two branches of the Târnava river and the region of the Mureş river (Bratei, Bandu de Campie), to the region near Vienna (Münchendorf-Drei Mahlden, Sommerein am Leithagebirge).

In most cases (ninety-three graves), only a small number of amber beads were discovered per grave (between one and four beads). A higher quantity (six to ten pieces) occurred at five sites (Fig. 5: 1, 8, 28, 44, 46), while a much higher quantity was discov-

ered in nine sites (Fig. 5: 4, 14, 16, 19, 21, 27, 30, 35, 36). One such example is grave 8 at Keszthely-Fenékpuszta-Horreum (Fig. 5: 14), where forty-six pieces were registered.³⁵ Unfortunately, in the case of several sites, there are no data about the exact amount of the amber beads (Fig. 5: 11, 24, 33, 38, 39).

Regarding the biological sex of those buried with amber beads, it can be stated that they were generally deposited in graves of females and children (presumably girls?) (Fig. 6). It was possible to record fifty-one certain and another ten probable cases of female burials, and nineteen cases of child burials with such items. In the cases of thirty-five graves, there are no data about the sex and age of the interred person.

From this tendency, only two elite male burials prove to be exceptions; two pieces are known from the male burial at Bócsa, and another occurrence in the so-called ‘khagan’s grave’ at Kunbábony, a male who had died at the age of around 60 to 70 years.³⁶

From a quantitative point of view, the geographic distribution clearly illustrates that the fashion of amber beads is strongly related to the earlier chronological phase of the Avar period.³⁷ In contrast to the seven graves (containing nineteen amber beads in total) from the region between the rivers Danube and Tisza (Fig. 5: 3, 10, 12, 22, 23, 27), the number of graves with such items in the 6th and 7th centuries is much higher in the regions of Transdanubia, the Trans-Tisza area and the Transylvanian Basin.

30 Bliujienė 2011, Fig. 9.

31 Curta 2007, n. 11 with further references.

32 Curta 2007, 65 with further references.

33 Curta 2007, 69.

34 Vida 2019, 278.

35 Barkóczy 1968, 280–281.

36 ADAM 2002, 1: 60 with further references; Tóth, Horváth 1992, Taf. XXIV: 1.

37 We collected amber beads in only 15 funerary sites datable to the Late Avar period.

Most amber beads dated to the 6th and 7th centuries (one hundred and fifty-nine pieces) were associated with twenty-eight graves of the seven funerary sites of the so-called *Keszthely culture* (see Fig. 5: 13, 14, 15, 16, 17, 24, 25). Cemeteries of the same region associated with other populations ('Avars', 'Germanics') show many fewer occurrences of amber beads (seventy-four pieces from thirty-six graves of fifteen cemeteries) (see Fig. 4 and Fig. 5: 5, 6, 11, 19, 20, 29, 30, 32, 34, 36, 38, 42, 43, 44, 46). From this perspective, the former Roman infrastructure in Pannonia could have played an important role in the distribution of the amber beads, as Fig. 5/A clearly illustrates.

Concluding our thoughts about the spread of amber beads, it is observable that they are distributed within almost all regions of the Khaganate, even though quantitative concentrations seem to be present in some areas, such as sites associated with the *Keszthely culture*.³⁸ Furthermore, they occur in graves of the elite (Bócsa, Kunbábony) (see Fig. 5: 3, 22), and graves associated with a lower social status. This consistent appearance both in space and social sphere supports the idea of an amber-trading system between the Baltic region and the Carpathian Basin. It is essential to point out that the political and economic structures of Avar power, which functioned as a catalyst of the barbarian world,³⁹ may also have promoted the appearance of such a trade network. In this regard, the long-distance trade routes could either persist over centuries, or may have been repeatedly re-established successfully.

4.3–4. Knife and awl (?)

One of the most frequently-found items in Early Avar-period cemeteries is a small-sized iron knife with a narrow blade, which can be considered part of the garment. In Pecica, such an iron blade (11 cm long and 1.5–1.6 cm wide) was registered in one case: in grave Ftr. 47⁴⁰ (Pl. 2: 3). In addition, around the left femur, probably a fragment of an awl was registered. As revealed by Cs. Balogh's list, more iron awls have been found in female graves (in the area of the Danube–Tisza Interfluve) of the Early Avar Period.⁴¹

4.5. Bronze ring

The bronze ring was found on the right pelvic bone in grave Ftr. 46/A (Pl. 2: 4). The ring was initially part of a belt.⁴²

5. Discussion

5.1. The issue of the chronology of the graves

Establishing the precise chronological framework is a vital prerequisite of every archaeological analysis. The traditional way to date the graves uncovered in this micro-region at Rovine/Căprăvanul Mic is difficult. The only well-datable artefact would be the gilded silver earring; however, these types – as discussed above – had been in use from the first part of the 7th century until at least the end of the 8th century (see above). Thus, the one possibility left is to use radiocarbon dating (and the analysis of those results through Bayes's statistical method), combined with archaeology's traditional chronological results. Accordingly, three radiocarbon analyses were conducted (Fig. 7 and Pls 2–3); the two ¹⁴C samples were collected from graves Ftr. 46/A and Ftr. 47 of Pecica-Rovine/Căprăvanul Mic, selected according to archaeological principles. However, due to the lack of registered animal bones in these burials, it was not possible to perform control measurements, which could raise some questions about the veracity of these graves's chronology.⁴³ Still, samples were taken from an animal tooth discovered in the interior of dwelling Ftr. 9 (Pl. 1), along with handmade pottery sherds datable to the 7th century.⁴⁴

The analysis of the ¹⁴C samples indicated an early period of use, very likely datable between the second half of the 6th century and the first half of the 7th (grave Ftr. 46 being dated to 569–636 AD with a 95.4% probability, and grave Ftr. 47 to 565–637 AD) (Pls 2–3), while the sample from the dwelling pointed to the late 6th century and the first two-thirds of the 7th century.

According to these data, the graves at Pecica-Rovine/Căprăvanul Mic can be dated probably to the end of the 6th century or, more plausibly, to the first third of the 7th century.

5.2. Human mobility and/or circulation of goods?

As discussed above, the presence of the earring in grave Ftr. 47 has put forward the question of its provenience, whether it reached the region of Pecica through some kind of social movement, displacement, or personal migration (such as marriage) of the person interred in the grave, or its presence could result from a different kind of circulation of goods. Could the social phenomenon of migration (an entailed one-directional movement with the purpose of relocation and resettling) be presumed in the case of graves Ftr. 46 and 47? In this case, without a *strontium* and *oxygen isotopes* analysis, the question whether

38 There is as yet no valid explanation for the high number of amber beads occurring in the necropolises of the so-called *Keszthely culture*.

39 Daim 2010, 61–71.

40 For an analysis of knives in the Mureş–Criş–Tisa region Gáll (2017, 82–84).

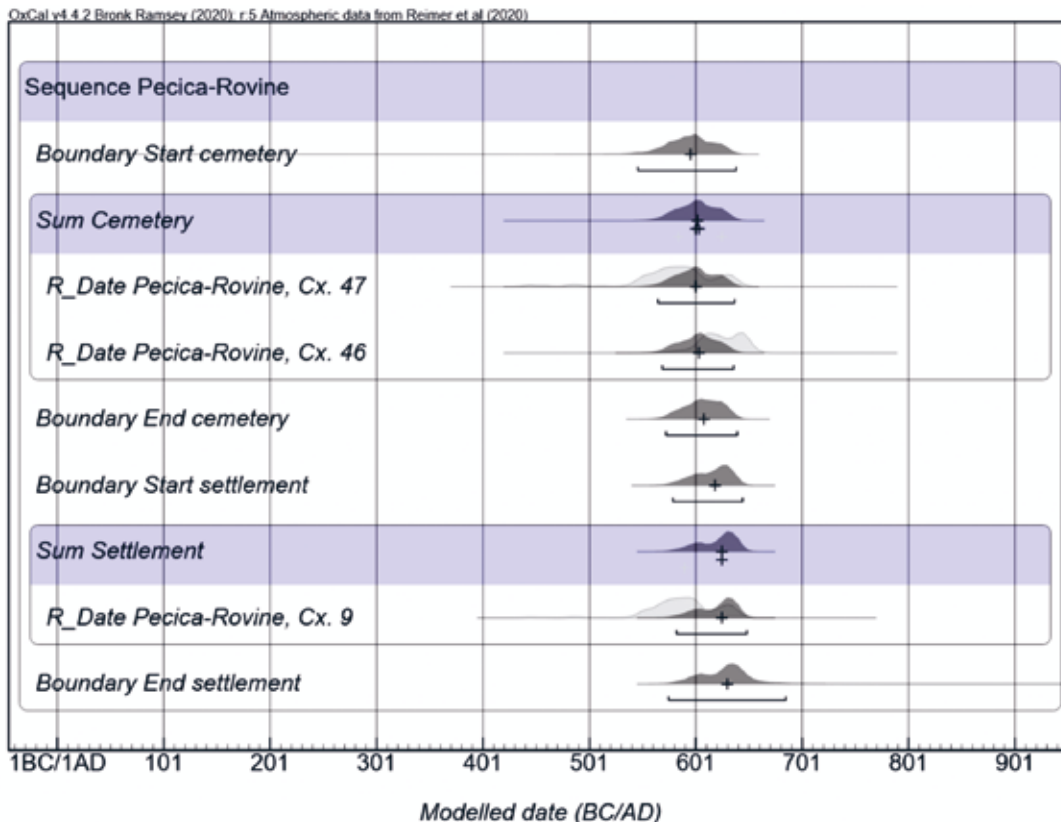
41 Balogh 2013, 320–321.

42 For an analysis of the components of belts in the Early Avar period in the Mureş–Criş–Tisa region, see Gáll (2017, 132–134).

43 The impact of freshwater diet could affect the dating, so the difference between the calibrated and the real age may vary from zero to 6 thousand years (Philippson 2013, 1).

44 Unpublished, analysis in progress.

FIGURE 7. The Bayesian analysis of the ^{14}C samples from Pecica-Rovine / Căprăvanul Mic (for the individual ^{14}C sample dating of the graves, see the PIs. 2–3) (made by V. Sava).



this person had come from the region of Transdanubia – the region where all of the analogies of her earring are detected (as analysed above) – or was a member of a mobile community, dying in the region of Pecica, remains unanswered. The Schmorl's node observed on the skeleton in Ftr. 46A may indicate that the individual submitted his body to intense physical effort. Such nodes are formed through activities such as the flexion and bending of the spine, but they can also appear through trauma caused by weight lifting.⁴⁵

One might also consider the scenario that the earring reached its final owner through commercial ways. However, the fact that this item stands out as a unique piece of jewellery of this type in the region, and the form of filigree decoration is without analogy from east of the Danube, should not be overlooked, which makes this scenario less plausible! Again, the question remains unanswered. Taking these data into account, the W–E migration of a settled human group is the most logical and plausible explanation in this case. Moreover, an eastward population movement is also indicated by the eastward shift in the pollen distribution of cerealia from the late 7th century.⁴⁶ Still, a more elaborated discussion of this problem remains one of the significant challenges of the archaeology of the 6th and 7th centuries.

5.3. The micro-region of Pecica in the 7th century and the 'Trans-Tisza problem'

According to earlier military maps, the funerary sites of the Avar Period near Pecica were situated next to a delta-like estuary on the Mureş, crisscrossed by small streams (*Cseh-ér* and *Forgács-ér*), forming a diverse hydrological landscape, with patches of swamp and marshland (Fig. 1: B–C).

The two graves, with altogether four skeletons, were situated near the *Cseh-ér* stream, indicating a habitat in the 7th century, positioned in the *loess* plateau north of the river Mureş. These two graves with four burials are the only known funerary sites discovered and uncovered near this stream up until now from the Avar Age.

By contrast, east of Pecica, near the stream of *Forgács*, three or four smaller funerary sites (clusters of graves) have been discovered from the Early Avar Period: Site 15 Grave Clusters 1 and 2, Smart Diesel and perhaps *Forgács* (Fig. 1). All of these sites consist of a few graves only, which is one of the main archaeological characteristics of the Early Avar Period in the region of Trans-Tisza, related perhaps to the lifestyle and demographical realities of the early Middle Ages (Fig. 1: B and Pl. 1).

⁴⁵ Andreica-Szilágyi 2017, 194.

⁴⁶ Törőcsik, Sümegi 2019, 251, 254, Fig. 5.

Site	Grave	Preservation degree	Sex	Age at death	Stature (cm)
Pecica-Rovine	Ftr. 46A	Well preserved	Male	30–40 years old	169.9 cm
Pecica-Rovine	Ftr. 46B	Poor	Indeterminable	6–7 years old	105.9 cm
Pecica-Rovine	Ftr. 46C	Poor	Indeterminable	2–3 years old	84.8 cm
Pecica-Rovine	Ftr. 47	Poor	Female	35–45 years old	150.2 cm

APPENDIX 1/A. Distribution of sex, age and stature values at death for the site of Pecica-Rovine/Căprăvanul Mic (made by L. Andreica-Szilagyi).

Grave	Palaeopathology	Enthesopathies: Featured muscle/ligament	Localisation
Ftr. 46A	The thoracic segment of the vertebral column showed Schmorl's nodes	<i>Ligamentum costoclaviculare</i>	Clavicle
		<i>Ligamentum conoideum</i>	
		<i>Musculus Pectoralis major, Deltoid. Triceps Brachii Musculus Supraspinatus, Infraspinatus</i>	Humerus
		<i>Musculus Biceps brachii</i>	Radius
		<i>Musculus Triceps brachii</i>	Ulna
		<i>Musculus Gluteus maximus</i>	Femur
Ftr. 47		<i>Ligamentum costoclaviculare</i>	Clavicle
		<i>Musculus Pectoralis major, Deltoid</i>	Humerus
		<i>Musculus Biceps brachii</i>	Radius

APPENDIX 1/B. Enthesophytes at Pecica-Rovine/Căprăvanul Mic (made by L. Andreica-Szilagyi).

However, due to the W–E orientation of the graves and the lack of animal remains, as well as the distinctiveness of the earring, the burials at Rovine/Căprăvanul Mic stand in sharp contrast to the other burial sites near the *Forgács* stream (Smart Diesel, Site 15/Cluster 1 and 2), characterised by E–W and NE–SW orientations, and a considerable number of occurrences of deposits of animal remains in the graves (sheep and cattle bones) (Fig. 1: B). Differences in funerary characteristics of burials are often interpreted as a sign of a different cultural background.⁴⁷ This observation is even more frequent in the archaeological studies of the 6th- and 7th-century Trans-Tisza region. According to these analyses, the *E–W orientation and parts of the animals deposited in the graves* played a crucial role in creating a ‘*uniform*’ ethnic character.⁴⁸

47 In the case of the Early Avar period, see for example Lőrinczy (2016, 156–158).

48 a. NE–SW and E–W orientations; b. partial animal offerings, cut marks; c. remains of skinned animals; d. the grave was divided, separating the area of the human body and that of the animal parts from animals sacrificed during the burial ritual (graves with catacomb-type niche; stepped graves; graves with side niche); f. the deposition of a pottery container, usually near the head; g. sheep's leg deposited in the grave. Lőrinczy 2016, 156–163. See more in Gáll, Mărginean (2020, 385, 402, Fig. 12).

On one hand, the graves of W–E orientation at Pecica-Rovine/Căprăvanul Mic deviate from the aforementioned vision of an imagined cultural uniformity and offer us the possibility of a more nuanced analysis of the cultural realities of the groups of people living in the Trans-Tisza region in the 6th and 7th centuries. From the perspective of these new graves, the ‘*cultural unity*’ of the Trans-Tisza region in the 6th and 7th centuries should be considered much more relative.

On the other hand, the amber finds allow us to contemplate communication networks in the early Avar Age and their significant transformation by the late Avar period.⁴⁹

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49 See more in Szenthe, Gáll (2021, 345–366).

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PLATE 1.
General map of the archaeological excavations and the precise locations of the graves (made by F. Mărginean and V. Sava).

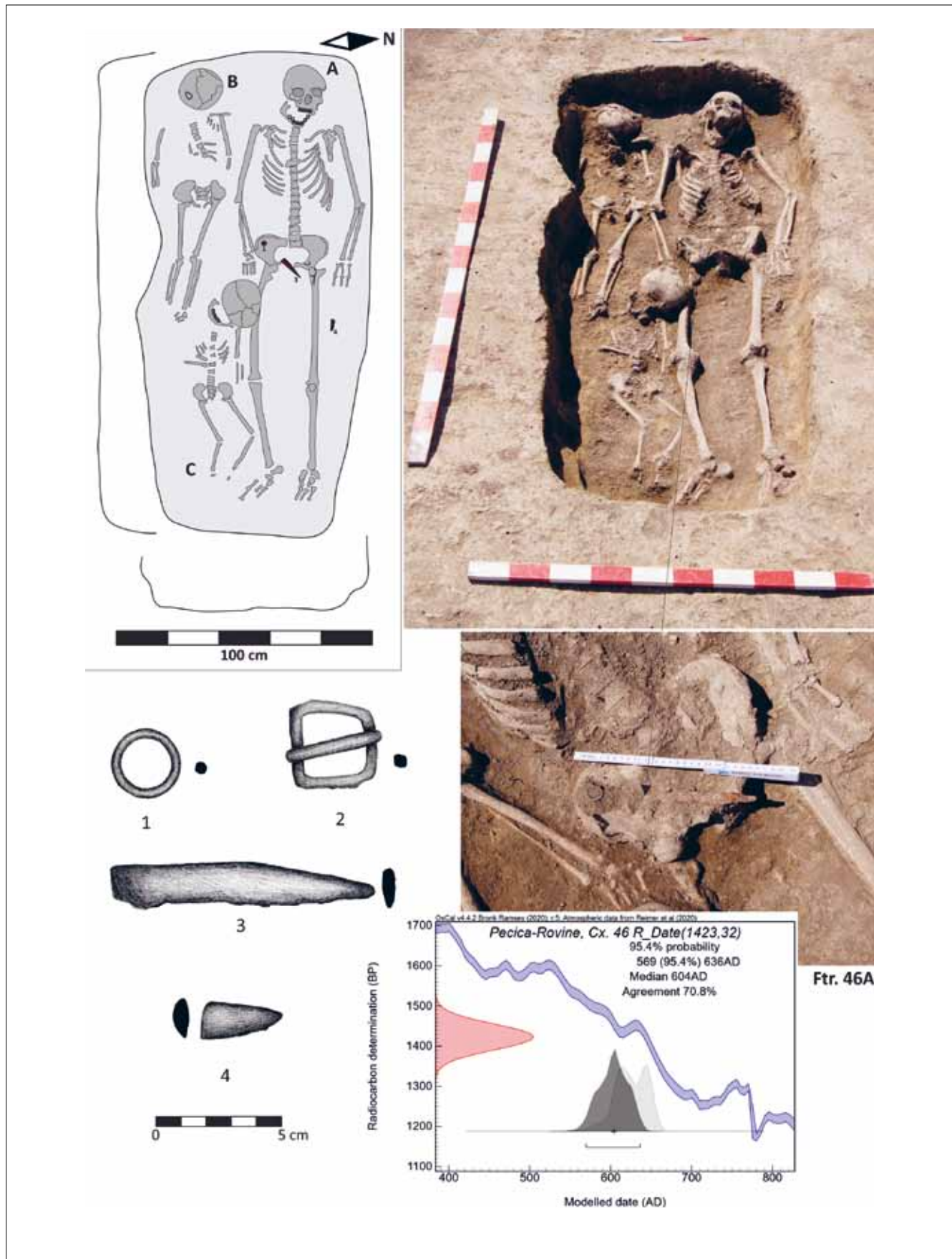


PLATE 2.
Pecica-Rovine/Căprăvanul Mic Grave Ftr. 46/A: 1-4.

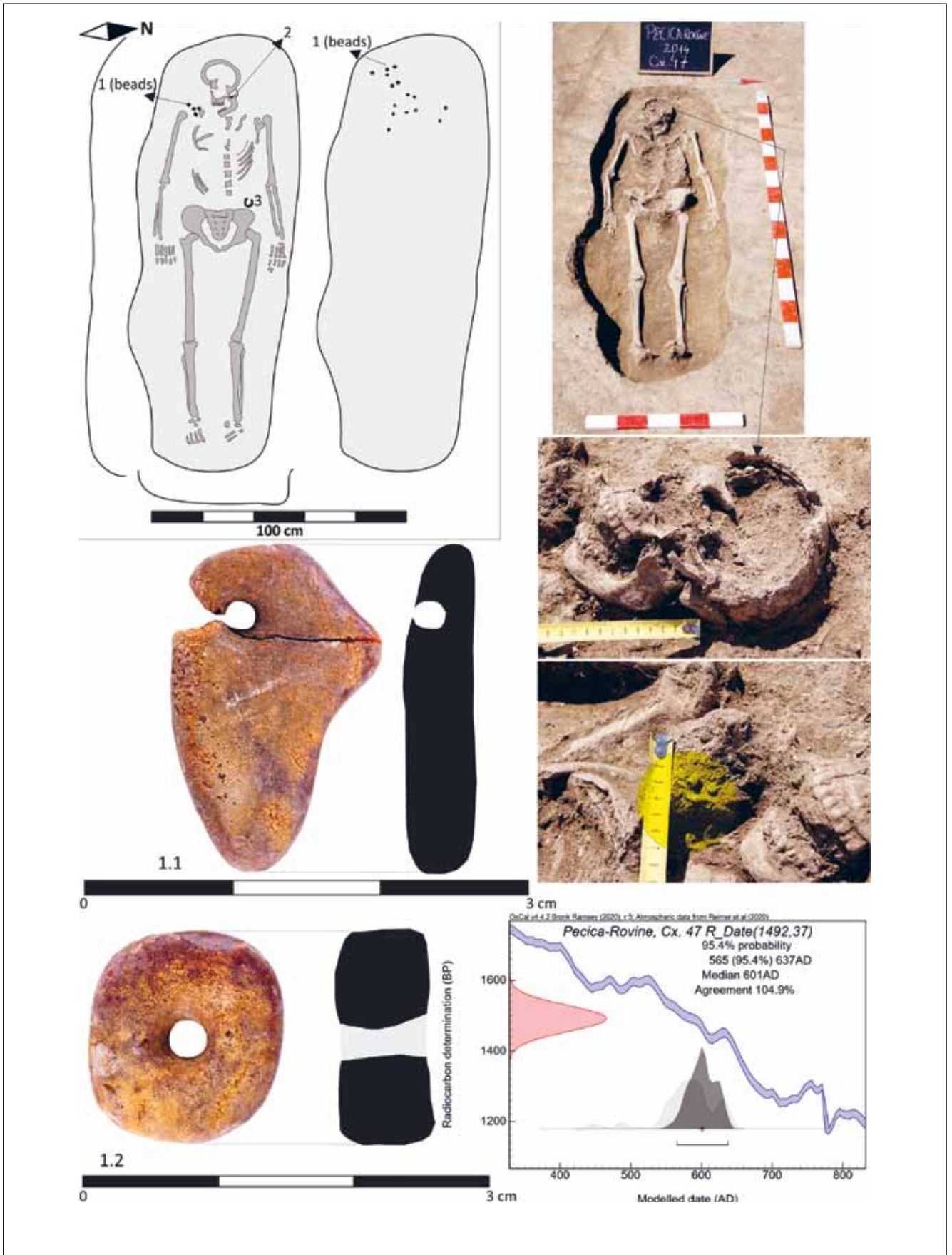


PLATE 3.
Pecica-Rovine/Căprăvanul Mic Grave Ftr. 47: 1.1–2.

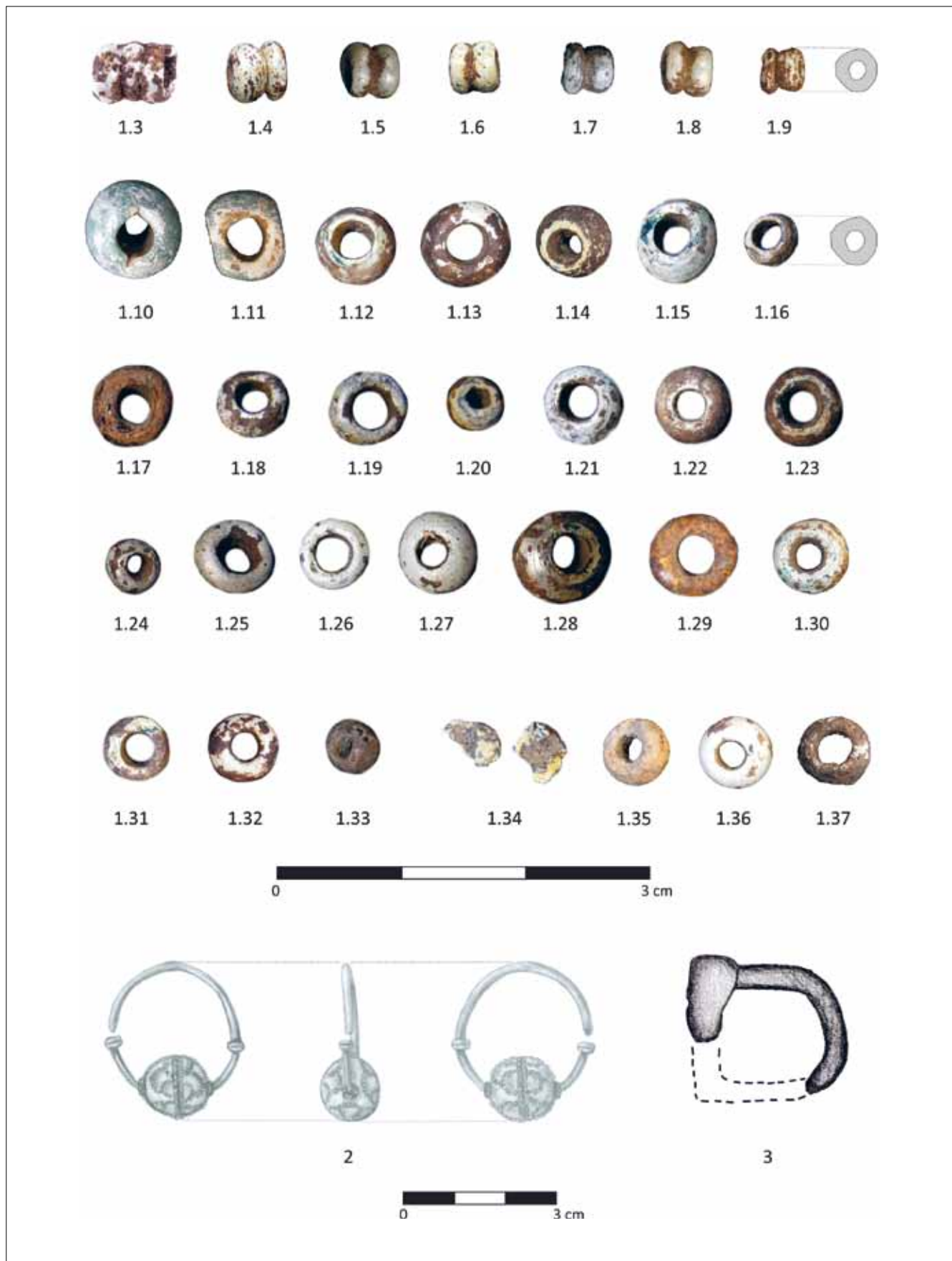


PLATE 4.
Pecica-Rovine/Căprăvanul Mic Grave Ftr. 47: 1.3-37; 2-3.



PLATE 5.
Pecica-Rovine/Căprăvanul Mic Grave Ftr. 47: 1/A-F.