ARRC – Acculturation, Romanisation, Roman Culture: Processes of Integration Across the Roman Empire

Edited by László Borhy, Kata Dévai, Linda Dobosi, and Csilla Sáró

DISSERTATIONES ARCHAEOLOGICAE
ex Instituto Archaeologico
Universitatis de Rolando Eötvös nominatae



DissArch

Supplementum 5 | 2026

Dissertationes Archaeologicae
ex Instituto Archaeologico
Universitatis de Rolando Eötvös nominatae

Supplementum 5

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ISSN 2064-4574 (online)

Publisher
Lénárt Darázs

The journal is supported by the ELTE Journal Development Fund of Eötvös Loránd University.
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Budapest, 23–25 May 2025



Edited by
László Borhy – Kata Dévai – Linda Dobosi – Csilla Sáró

Budapest, 2026

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Borhy, L. – Dévai, K. – Dobosi, L. – Sáró, Cs. (eds): ARRC – Acculturation, Romanisation, Roman Culture: Processes of Integration Across the Roman Empire. *Dissertationes Archaeologicae Supplementum* 5 (2026) 465–482. 10.17204/dissarch.suppl.5.2026.465

For old times' sake...

Dress accessories from a north-east Pannonian grave

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Received 2 March 2026 | Accepted 8 May 2026 | Published 18 November 2026

Abstract: The paper focuses on the grave of a woman (Grave 3) excavated at Páty-Malomi dűlő Site III in Pest County, Hungary. The grave is associated with a small burial site but is unrelated to the cemetery and *vicus* of Páty Site 13/9.
The grave contained numerous jewellery items, but no utilitarian objects or tools. The positions of all finds were documented during fieldwork, and the precise data collected enabled a complex analysis. Following the typological and chronological evaluation of the elements of the grave assemblage, the purpose of their inclusion in the grave could be determined: some may have formed part of the burial attire, while others were deposited in the grave as grave goods and personal belongings.
The most interesting object in the grave assemblage is a belt with metal fittings. The belt set includes parts made in the Norican–Pannonian style and various other mounts. It also comprised a wheel brooch that may have been used to decorate the belt. Analysis of the set has revealed that use-related damage was repaired and the missing mounts were replaced with new elements. The brooch was reused, acquiring a new function as part of the belt.

Keywords: Roman period burial, Norico-Pannonian belt, brooch, recycling, repairing

The archaeological site

The Páty-Malomi dűlő site is located in north-east Pannonia, within the former territory of the *Eravisci*, an indigenous population of the area. During a demolition project carried out under archaeological monitoring, a burial site comprising five Roman period graves was discovered at Páty-Malomi dűlő III in 2022 (Fig. 1).[1]

The Páty-Malomi dűlő archaeological site has been known since the 19th century. Based on the Hungarian Archaeological Topography, two sites (13/8, 13/9) were localised there. Extensive research was conducted at Site 13/9, where a Roman period settlement and a cemetery were discovered. The extent of the cemetery is only partially known: its north boundary is uncertain, while its eastern, western, and southern limits lie 50 m from the *vicus*. A total of 183 Roman period graves, including 127 from the early and 56 from the late Roman period, were discovered at the site. However, the newly excavated, seemingly isolated grave group is situated far from this cemetery and has no connection to previously unearthed burials; further investigations may reveal whether it was the burial ground of a single family. Based on preliminary results, the small grave group can be dated to the mid-2nd century AD at the latest.[2]

1 Sáró *et al.* 2024, 145–147, 1–2. kép.

2 Ottományi 2007; Ottományi 2019; Sáró *et al.* 2024, 145–147.

✉ Corresponding author

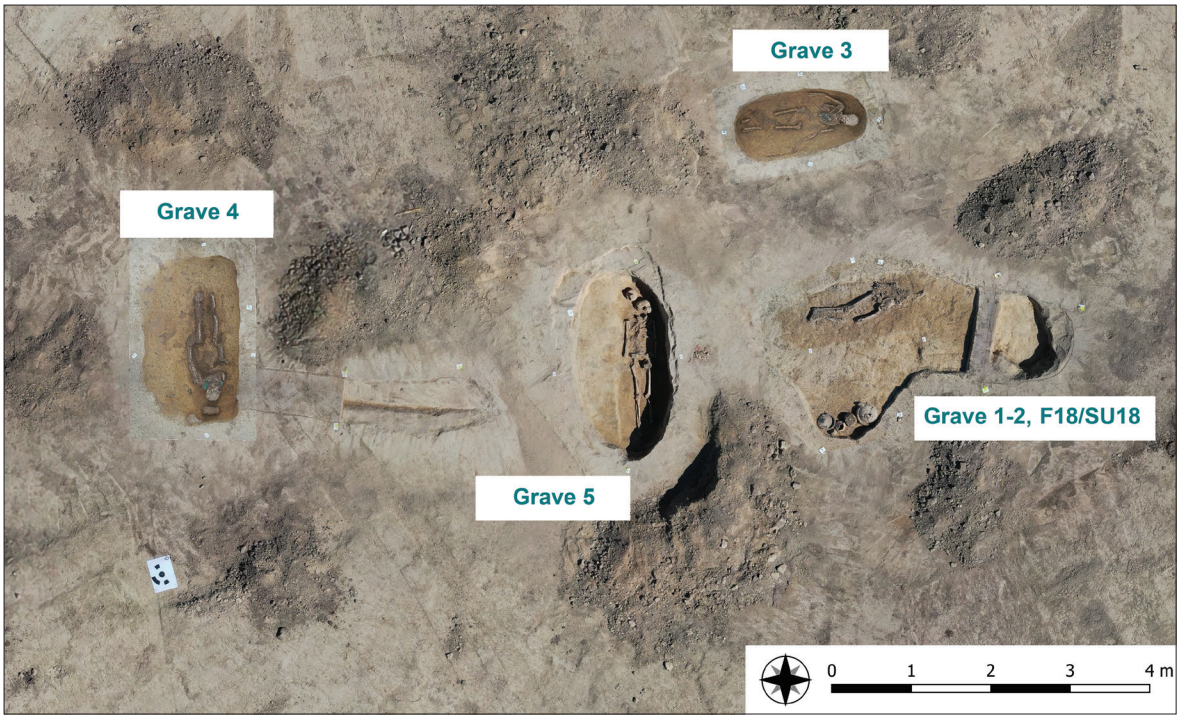


Fig. 1. Graves excavated in 2022 (photo by L. Rupnik, ELTE Eötvös Loránd University).

Graves at Páty-Malomi dűlő III

The graves were found close to each other, but their arrangement reflected no regularity or deliberate order. All of them except Grave 2 were inhumation burials. They yielded a relatively large number of diverse finds, including ceramic vessels, clothing items, and articles of daily life.[3] This study focuses on the detailed presentation and discussion of Grave 3.

Grave 3 (Figs 2–3) was found in the northern part of the excavation area, where no superposition was observed. The oval grave pit contained the remains of a woman aged approximately 30–50 years. Her head was oriented towards the east, her arms lay slightly open next to the body, and her legs were parallel and extended. The grave contained various types of dress accessory but no grave goods.[4] The dress accessories included two brooches (Fig. 2.1,5, Fig. 4) and a brooch pin (Fig. 2.2), two round mounts (Fig. 2.7–8, Fig. 5.6–9), a rectangular mount (Fig. 2.13, Fig. 5.5), a baluster-shaped mount (Fig. 2.9, Fig. 5.4), a boat-shaped mount (Fig. 2.10, Fig. 5.2–3), a mount with openwork decoration (Fig. 2.11, Fig. 5.1), a silver earring (Fig. 2.6, Fig. 7), six beads (Fig. 2.14–18, Fig. 6), and small pieces of metal sheet and wire (Fig. 2.3–4,12).[5]

Dress accessories: typology and chronology

The grave contained two brooches and a brooch pin (Fig. 2.1–2,5, Fig. 4). A strongly profiled brooch was found on the right shoulder, and a fragmented brooch pin on the left.

The strongly profiled brooch (Fig. 2.1, Fig. 4.1–2) was made of copper alloy and has a one-piece construction with a sprung pin of 4+4 coils. The head-end of the bow and the catchplate are rectangular. The bow is rhomboid, with a thick, semicircular-profile lower part and an undivided oval

3 Sáró *et al.* 2024, 145–147, 1–2. kép.

4 Sáró *et al.* 2024, 147, 149, 1. tábla 3.

5 Sáró *et al.* 2024, 149.

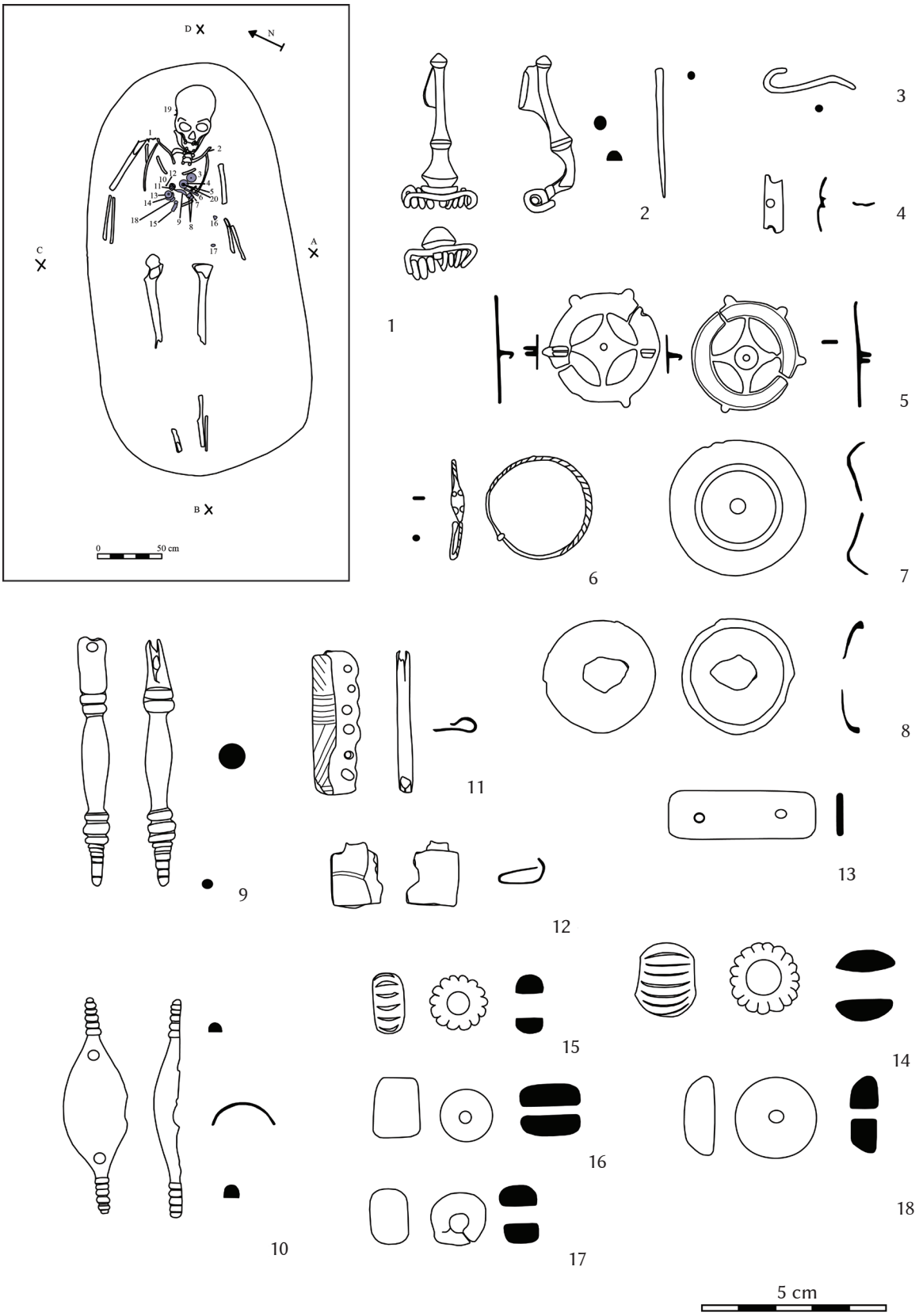


Fig. 2. Grave 3 and the grave finds (drawings by Cs. Sáró and A. Bózsa, Ferenczy Museum Centre).



Fig. 3. Detail photos of Grave 3 and a schematic survey of the grave finds on the chest (photos by A. Bózsa, Ferenczy Museum Centre; drawing by A. Bózsa and Cs. Sáró).

knob, followed by an oval-profile section ending in a collared, conical finial knob. The catchplate is trapezoidal and unperforated, ending in a hook on the right side.[6]

Based on its main characteristics and size, the brooch belongs to the Almgren 69 type, variant Cociş 8a1c2.[7] Diverse variants of the Almgren 69 and Almgren 69/70 brooches are well known from Pannonia. However, these brooches from the north-eastern region of Pannonia[8] differ from the specimen found at Páty. Although strongly profiled brooches remained in fashion for a long time,[9]

6 Find number: 1–2 (Sáró *et al.* 2024, 149); length: 4.2 cm, width (pin construction): 2 cm, width (bow 1): 1 cm, cross section (bow 1): 0.4 × 0.3 cm, cross section (bow 2): 0.3 × 0.3 cm; pin: 3.5 × 0. 2 × 0.2 cm.

7 Almgren 1923, 37, Taf. 4.69; Cociş 2004, 49.

8 Almgren 69: Merczi 2012, 484, 4. kép 1–2; Merczi 2017, 84, Kat. 34, 7. tábla 1; Almgren 69/70: Merczi 2012, 484–485, 4. kép 3–4; Merczi 2017, 84, Kat. 35–38, 2. tábla 5–7.

9 For an overview of the chronology of strongly profiled brooches from burials in north-eastern Pannonia, see Sáró 2020, Vol. 1, 37–38; Sáró 2020, Vol. 2, 162–170.



Fig. 4. Brooches. 1–2 – Almgren 69-type strongly profiled brooch, 3–4 – Riha 7.6-type wheel brooch (photos by B. Deim, Ferenczy Museum Centre).

each variant was produced only for a shorter period. According to S. Cociş, this variant was used in the second half of the 1st century AD.[10]

Another brooch from the grave was identified as an Ettlinger 40.1 = Riha 7.6 = Feugère 24c = Mazur 7.6 = Philippe 24c = Boelicke 7.5 = Gaspar 42 wheel brooch (Fig. 2.5, Fig. 4.3–4).[11] The pin of the fragmented copper-alloy plate brooch is missing. The two-piece brooch has a hinged pin between two lugs. The round plate has openwork decoration and a rhomboidal central part. Originally, the outer edge of the brooch was decorated with six small projections, an engraved line following the outer edge of each. The rhomboidal part was also decorated with an engraved line that originally framed a small rivet. The catchplate is rectangular, ending in a hook on the right side.[12]

This wheel brooch variant is well known from the western part of the Empire, i.e. Britannia, Gaul, and the Rhineland, but counts as rare in Pannonia,[13] where such brooches have been found only at Siscia and Perbál.[14] This variant was used mainly in the Claudian and Flavian periods;[15] however, the dating of the brooch from Perbál suggests that these brooches remained in use slightly longer and were also worn in Pannonia at the beginning of the 2nd century AD.[16]

10 Sáró 2020, 49.

11 Ettlinger 1973, 112; Riha 1979, 183; Feugère 1985, 335; Riha 1994, 156; Mazur 1998, 54; Philippe 1999, 139; Boelicke 2002, 123; Gaspar 2007, 47.

12 Find number: 14 (Sáró *et al.* 2024, 149); diameter: 3.2–3.1 cm; width (bow): 0.1 cm.

13 Riha 1979, 183; Feugère 1985, 340, 347–348, Fig. 50; Riha 1994, 156; Mazur 1998, 54; Philippe 1999, 139; Hattatt 2000, Fig. 202, 547, 1003; Boelicke 2002, 123; Gaspar 2007, 47; Mackreth 2011, 177, Pl. 119.11418; Merczi 2017, 72; Artefacts FIB-4107.

14 Košćević 1991, 131, T. 18.263–266, T. 19.267–269; Merczi 2017, 103, Kat. 1, 1. tábla 1.

15 Riha 1979, 183; Feugère 1985, 344; Mazur 1998, 54; Philippe 1999, 139; Boelicke 2002, 123; Gaspar 2007, 47. An object from Augst was found in a layer dated to the late Augustan–Tiberian period (Riha 1994, 156, Nr. 2796), suggesting that production and wearing started at that time.

16 Merczi 2017, 72.

The grave also contained various belt accessories, a few of which could be identified within J. Garbsch's well-known typological framework. J. Garbsch discussed different types of belt accessory in his monograph on the native attire of women in Noricum and Pannonia, and developed a classification for belt buckles (G1–G2), rectangular mounts with openwork motifs (B1–B7), boat-shaped mounts (K.a–c), elongated mounts with duck-shaped endings (E1–E3), and baluster-shaped mounts (R1–R4).[17]

A fragmentary object (Fig. 2.11, Fig. 5.1) is a rectangular mount with openwork decoration[18] (*Riemenkappen [durchbrochene Gürtelbeschläge B]*).[19] Some significant parts have perished, but the mount can be classified with relative certainty based on the rest. One of the ends is bent and decorated with bunches of engraved lines, while the other, fragmentary part is perforated by six rivet holes.[20] Six rivet holes are typical of the Garbsch B3a, B3c, B4a, B4d, and B5a[21] variants.[22] The bent ends differ; for example, the B3a and B3c are undecorated. On the basis of this detail, the possible categories are B4a, B4d, and B5a. However, the openwork motifs of B5a are different, and its design includes not only rivet holes but also small triangular ornaments. This leaves Garbsch B4a or B4d, which are characterised by six rivet holes and serried rows of openwork stars, drops, small dots, triangles, and blossoms. According to J. Garbsch, B4-type belt mounts were frequent in southern Pannonia, and the B4a variant was in fashion between the Tiberian–Claudian period and the mid-2nd century AD.[23]

J. Garbsch also classified boat- or spindle-shaped mounts *(Kähnchen, kahn- oder spindelförmige Beschlägen).* Based on the ends and the middle part of the mounts, he distinguished three subtypes (Ka, Kb, Kc). One mount (Fig. 2.10, Fig. 5.2–3)[24] from the grave belongs to the Garbsch Ka variant.[25] This mount was made of copper-alloy; the central element is embossed, raised, and perforated by two holes, while its tapered ends each feature six crosswise rounded ribs. The classification of boat-shaped mounts seems to require further refinement: for example, Garbsch Ka mounts were produced with different ends (roundish or rectangular); thus, based on its main characteristics, the mount from Páty was classified as the Sáró G.Ka1 variant.[26] At present, information is available only on the distribution of the Garbsch Ka variant, which extends across the territory of present-day Austria, Hungary, Germany, Slovenia, Slovakia, and the Czech Republic.[27] J. Garbsch dated the sub-

17 Garbsch 1965, 80–106. The belt set also included rivets with large hemispherical heads (Garbsch 1965, 108, Abb. 58).

18 Probably another sheet fragment is also a belt mount with openwork motifs. Unfortunately, it survived in poor condition, lacking any distinctive features (Fig. 2.12). Find number: 15 (Sáró *et al.* 2024, 149).

19 Garbsch 1965, 83–94.

20 Find number: 15 (Sáró *et al.* 2024, 149); 3.9 × 1.2 × 0.4 cm.

21 Garbsch 1965, 89–92, Abb. 46–48.

22 All variants include square pieces. The fragmented object from Páty was probably also square, not simply rectangular.

23 Based on the monographic work of J. Garbsch, B4a variants were used simultaneously with G2g and B2g belt accessories and A238c Norico-Pannonian wing brooches. Garbsch G2b: from the Claudius Age to the end of the 1st century AD (Garbsch 1965, 82); Garbsch B2b: from the Claudius Age to the mid-2nd century AD (Garbsch 1965, 87). A handful of A238c brooches from Magdalensberg were dated to as early as the Tiberian–Claudian periods (Sedlmayer 2009, 29); this variant remained in fashion until the Trajanic period (Garbsch 1965, 53; Garbsch 1974, 173).

24 Find number: 9 (Sáró *et al.* 2024, 149). Length: 5.9 cm, width: 0.3–0.1–0.3 cm, thickness (sheet): 0.06 cm, height: 0.6 cm

25 Garbsch 1965, 101–102.

26 Sáró 2022a, 294. In the future, the number of ribs on the ends is worth investigating as part of the research into production centres.

27 Sáró 2022a, 294.

type from the late Augustan to the Hadrianic period.[28] Well-dated pieces have also been published from Poetovio (Flavianic period–first third/first half of the 2nd century AD), Muttendorf (Flavianic–Hadrianic period), and Mautern/Favianis (100/110–120/140 AD).[29]

A baluster-shaped strap end *(Riemenzunge)* (Fig. 2.9, Fig. 5.4) was also found in the grave. These elongated mounts have three distinct main parts: a forked fastening part, a baluster-shaped central part, and a segmented end. The fastening part is occasionally decorated with engraved lines.



Fig. 5. Belt mounts. 1 – mount with openwork decoration (Garbsch B4a or B4d), 2–3 – boat-shaped mount (Sáró Ka1), 4 – baluster-shaped mount (Garbsch R2), 5 – rectangular mount (~Hoss B.1.b), 6–9 – two round mounts (photos by B. Deim, Ferenczy Museum Centre).

J. Garbsch classified strap ends into four subtypes (R1–4). His typology is based on size and on the design of the baluster-shaped part (simple or faceted), the joining part connecting the forked and baluster-shaped parts, and the segmented end.[30] The mount from Páty fits into the R2 subtype,[31] characterised by an undivided joining, a plain baluster-shaped part, and an end consisting of multiple segments.[32] Garbsch R2-type mounts are known from Austria, Hungary, Germany, Slovenia, Slovakia, and the Czech Republic.[33] J. Garbsch dated the R2 subtype from the late Augustan to the Trajanic/Hadrianic period;[34] the dating of a recently published find from the *vicus* at Kalsdorf is in

28 Garbsch 1965, 102.

29 Istenič 1999, 64; Groh – Sedlmayer 2002, 336, 352–353; Hinker 2017, 79; Sáró 2022a, 294.

30 Garbsch 1965, 104–106.

31 Garbsch 1965, 105.

32 Find number: 6 (Sáró *et al.* 2024, 149); length: 6.8 cm, width (rectangular part): 0.8 cm, cross section (middle part): 0.7 × 0.7 cm, cross section (segmented part): 0.8 × 0.8–0.3 × 0.3 cm.

33 Sáró 2022a, 298.

34 Garbsch 1965, 105.

accordance with this time frame.[35] However, one object from Poetovio suggests that such fittings occasionally remained in use until the second half of the 2nd century AD.[36]

As J. Garbsch and, later, U. Rothe summarised, this type of belt was popular in eastern Noricum, the western part of Pannonia Superior, and it also occurred in Raetia, Italia, and the northern Barbaricum.[37] Moreover, a recent summary has revealed that such belts were also worn in north-eastern Pannonia. However, they were less fashionable in this area.[38]

Three copper alloy objects from the grave were also belt mounts (Fig. 2.7–8,13, Fig. 5.5–9). Their shape is simple and differs from Norico-Pannonian mounts. One is a plain rectangular mount with two rivet holes.[39] The others are round, convex mounts with one rivet hole at their centres.[40]

The rectangular mount (Fig. 2.13, Fig. 5.5) is similar to military belt mounts in the typology of S. Hoss. Hoss B1-type mounts are also rectangular, with two to four rivet holes and a white-metal cover.[41] The mount from Páty resembles the Hoss B1b variant,[42] in which the short sides were parallel to the edges of the leather belt. However, the mount from Páty lacks the two to four studs on the back and the longitudinal attaching part, which are also typical of this variant. In its present condition, and to the naked eye, no intentional manipulation can be seen on the surfaces or edges of the object. The Hoss B1b variant was in fashion in southern Britain, the Rhineland, and the Danube area. According to S. Hoss, these mounts were in fashion during the Claudian period and remained in use until the Flavian period.[43]

The present condition of the two round mounts (Fig. 2.7–8, Fig. 5.6–9) allows for two possibilities regarding their exact design. The first is simple: originally, they were round and perforated at the centre by a rivet. According to the second possibility, these objects were cut out of larger mount and reshaped for secondary use in order to prolong their use-life. The second option should be considered, because military belt mounts with such decoration are known: rectangular mounts with a central decoration (Hoss B3), more precisely the Hoss B3.1 variant, comprising mounts with a bulging central part.[44] Such belt accessories were worn in the Rhineland, the Alps, and Great Britain. The Hoss B.3.1 appeared in the Augustan period, was most popular in the Claudian period, and remained in use until the early Flavian period.[45]

The grave also contained five intact glass beads and a fragmented one. All intact pieces are undecorated.

Two melon beads *(Melonenperle)*[46] belong to the Guido Fig. 35.21–22, Tempelmann-Maczyńska XVIII, Riha 11.1 subtypes.[47] Their material, size, and colour differ. The turquoise opaque bead is made

35 Hinker 2017, 78.

36 Istenič 1999, 62.

37 Garbsch 1965, 164–222, Karte 14–16; Rothe 2012, 219, Map 8.

38 Sáró 2022a, 290–307, Fig. 7.

39 Find number: 7 (Sáró *et al.* 2024, 149); 3.9 × 1.2 × 0.2 cm.

40 Find number: 3–4 (Sáró *et al.* 2024, 149); 3: diameter (mount): 0.3 cm, diameter (hole): 0.4 × 0.4 cm, thickness (sheet): 0.1 cm, height: 0.5 cm; 4: diameter (mount): 0.3 cm, height: 0.5 cm.

41 Hoss 2014, 69.

42 Hoss 2014, 79.

43 Hoss 2014, 79.

44 Hoss 2014, 98–106, B.452–555.

45 Hoss 2014, 99.

46 For a recent comprehensive synthesis on melon beads, see the study on the glass finds from Savaria (Dévai 2025, 51–55, 150–154).

47 Guido 1978, 100; Tempelmann-Maczyńska 1985, 39–45; Riha 1990, 80–83.

of quartz ceramic (Fig. 2.14, Fig. 6.1);[48] it belongs to the van der Sleen Fig. 5.19, Guido Fig. 37.22, Tempelmann-Maczyńska *Gruppe* XVIII *Typ* 171, and Riha 11.1.1 variant.[49] The opaque white bead is made of glass (Fig. 2.15, Fig. 6.2) and fits the van der Sleen Fig. 5.19, Guido Fig. 37.22, Tempelmann-Maczyńska *Gruppe* XVIII *Typ* 156, and Riha 11.1.4 variant.[50] The former piece is also similar to Riha 11.1.4-variant beads, resembling their form and size, but not their colour range.[51] Blue was a popular colour because it was associated with magical and apotropaic properties in the ancient world; accordingly, blue melon beads were also in high demand.[52]



Fig. 6. Beads. 1 – quartz-ceramic melon bead (Riha 11.1.1), 2 – glass melon bead (Riha 11.1.4), 3 – short cylindrical bead with a round section (Guido 37.5), 4 – long cylindrical bead with a round section (Guido 37.4), 5 – ring-shaped bead (Riha 11.24) (photos by B. Deim, Ferenczy Museum Centre).

Various variants of melon beads are known not only from the Roman Empire but also from the Barbaricum.[53] Quartz-ceramic objects were in fashion and produced primarily in Egypt and the Near East. However, the great number of quartz-ceramic beads in the western Roman provinces points to local production, of which the finds from the military naval base at Köln Alteburg have provided conclusive proof.[54] Melon beads were in fashion and produced almost continuously throughout the Roman era, their popularity lasting from the 1st to the 3rd centuries AD and peaking between the third quarter of the 1st and the first half of the 2nd century AD.[55] C. Höpken studied this bead type in detail and categorised it into two subtypes based on size (small, ca. 1.2 cm long, and large, ca. 2.5 cm long beads). She also concluded that these objects were used not only as jewellery but also as decoration on horse harnesses.[56] In bead jewellery, they were worn alone or strung together with other beads.[57] Figurines wearing such beads were depicted on stone monuments in the Near East. Melon beads belonged to the attire of women and girls.[58]

Two glass beads are cylindrical, with a round cross-section. The short bright yellow opaque piece (Fig. 2.17, Fig. 6.3)[59] belongs to the van der Sleen Fig. 4.2, Guido Fig. 37.5, Tempelmann-Maczyńska *Gruppe* I *Typ* 16, and Riha 11.19 variants; the long brownish-red opaque bead (Fig. 2.16, Fig. 6.4)[60]

48 For more details on terminology and manufacturing techniques, see Höpken 2003, 355–357. For a recent summary on quartz ceramic, see Dévai 2025, 52–54, 151–152.

49 Find number: 10 (Sáró *et al.* 2024, 149); 2 × 2.1 × 1.6 cm.

50 Find number: 5 (Sáró et al. 2024, 149); 1.6 × 1.7 × 0.9 cm.

51 Riha 1990, 83.

52 Martin-Kilcher – Martin-Kilcher 1979, 25; Riha 1990, 77, 80; Höpken 2003, 353.

53 Tempelmann-Maczyńska 1985, 39–40.

54 Born 1975, 134; Riha 1990, 80; Höpken 2003, 355, 357–361.

55 Born 1975, 134; Tempelmann-Maczyńska 1985, 39–40; Riha 1990, 80–83, Footnote 303, Tab. 97.

56 Höpken 2003, 353–354, Abb. 1.

57 Martin-Kilcher – Martin-Kilcher 1979, 24; Riha 1990, 77, 81; Höpken 2003, 354.

58 Höpken 2003, 354.

59 Find number: 8/2 (Sáró *et al.* 2024, 149); 1.7 × 1.7 × 1.2 cm.

60 Find number: 18 (Sáró *et al.* 2024, 149); 1.7 × 1.7 × 1.4 cm.

fits the van der Sleen Fig. 4.2, Guido Fig. 37.4, Tempelmann-Maczyńska *Gruppe* I., and Riha 11.19 variant.[61] Cylindrical beads were used continuously throughout the Roman era. They were popular in the Rhine-Danube region and also fashionable in Britannia.[62]

The grass-green translucent ring-shaped bead (Fig. 2.18, Fig. 6.5)[63] has one straight side and one convex side. Ring-shaped beads were included in E. Riha's 11.8 subtype.[64] The form and size of ring-shaped beads from Augst and Kaiseraugst vary, some of them being similar to the bead from Páty.[65] Ring-shaped beads were widely distributed and used throughout the Roman era.[66]

The last bead was investigated *in situ*, but fell apart into crumbs.[67] However, its original shape is known, which makes its classification possible: it was a Kempten-type bead and belongs to the Tempelmann-Maczyńska *Gruppe* XIX *Typ* 193–194, and Riha 11.24 variant.[68] Beads of this type are typically large and round, with a slightly convex upper side and spiral patterns. Scholars have interpreted their function differently: as spindle whorls, hairpin decorations, or parts of necklaces.[69] The position of the bead in the grave at Páty suggests that it was part of some kind of jewellery, a necklace or a bracelet. T. E. Haevernick studied Kempten-type beads in detail. He collected 274 pieces and concluded that these objects were present from Portugal to the Near East and from Norway to North Africa.[70] The Artefacts database holds the most up-to-date catalogue of the type.[71] Based on the concentration of these objects, one of their production centres was certainly located somewhere in the territory of present-day Slovenia and northern Croatia.[72] Earlier, they were dated to the 1st century AD,[73] but today it seems that their use lasted longer, continuing into the 2nd century AD.[74]

A small copper-alloy clasp (Fig. 2.3) can also be connected with the beads.[75] This small piece of wire with a hook-like end was found near the beads, which suggests that it may have formed part of a bead jewellery item.

The last object to be discussed[76] is a silver open-hoop earring made of twisted wire (Fig. 2.6, Fig. 7). One of its ends is flattened, leaf-shaped, and decorated with four stamped circles, while the other terminates in a small sphere. The leaf-shaped end resembles a stylised snake head.[77]

61 van der Sleen 1973, 32, 34–35, Fig. 4.2; Guido 1978, 94–96, Fig. 37.4–5; Tempelmann-Maczyńska 1985, 27–29, Taf. 1.16; Riha 1990, 88, Taf. 38.1247–1250.

62 Riha 1990, 88, Tab. 111.

63 Find number: 8/1 (Sáró *et al.* 2024, 149); 2.2 × 2.2 × 0.9 cm.

64 Riha 1990, 85, Taf. 37–38, 1181–1211.

65 Riha 1990, Taf. 37.1192–1193.

66 Riha 1990, 85, Tab. 103, 105.

67 Find number:13 (Sáró *et al.* 2024, 149).

68 Haevernick 1972, 136, Abb. 1–2; Tempelmann-Maczyńska 1985, 45–47, Taf. 3.186–187,193–194; Riha 1990, 90, Pl. 39.1338–1340.

69 Haevernick 1972, 136–138; Riha 1990, 90; Feugère 1992, 146–147.

70 Haevernick 1972, 140–148, Abb. 3.

71 Artefacts, PRL–4002.

72 Tempelmann-Maczyńska 1985, 47; Riha 1990, 90; Feugère 1992, 148.

73 Riha 1990, 90, Tab. 117.

74 Feugère 1992, 148.

75 Find number: 20 (Sáró *et al.* 2024, 149); length: 2.3 cm, cross section: 0.2 × 0.2 cm.

76 Small copper alloy sheet fragments were also found in the grave, but they were too fragmented for identification. Find numbers: 11–12, 16–17 (Sáró *et al.* 2024, 149).

77 Find number: 19 (Sáró *et al.* 2024, 149); diameter: 2.7 cm, cross section (wire): 0.1 × 0.1 cm.



Fig. 7. Silver open hoop earring (photos by B. Deim, Ferenczy Museum Centre).

Roman period earrings came with a variety of locking and fastening mechanisms: a small hook on one end and an eye on the other, an S-shaped hook, and an open hoop.[78] Open-hoop earrings are included in numerous classification frameworks of Roman period earrings, including those by A. Facsády (Type XI), V. Lányi (Abb. 65.24–25, 27–28), B. Milovanović (Type I), and L. Ruseva-Slokoska (Type I, Variant 1).[79]

No exact analogy to this piece is yet known. However, its style seems similar to that of a handful of jewellery items from the Balkans. The shape of some silver bracelets in the treasure from Bare (Serbia) is closely comparable: their bodies are twisted, ending in a small sphere and a stylised snake head, respectively.[80] The torques in the same treasure bear similar decoration; their ends are decorated with small circles, and the terminals resemble stylised bird heads.[81] The find assemblage was dated to the second half of the 1st century AD.

The snake motif was a favoured decorative choice in Roman period ring jewellery, as it was attributed symbolic meaning at the time. As C. Johns pointed out, these snakes were associated with the Asclepian snake and its relatives, huge but non-venomous creatures. The main message of this symbol was healing, regeneration, and rebirth,[82] but snakes were connected not only with Aesculapius but also with the cults of numerous gods and goddesses.[83] Snake bracelets, rings formed from a single snake figurine, and double-headed jewellery items are also known from the Hellenistic period.[84]

C. Johns noted that silver was an unpopular choice for earrings: "...earrings could be made from a very small quantity of gold, and if a person aspired to something more noble than bronze, it might have been felt worth the extra expense to acquire gold rather than the less precious silver."[85] In light of that, the earring found at Páty might have been produced in a region where silver ore was significantly more common and easily available.

78 Facsády 2009, 78.

79 Lányi 1972, 88, Abb. 65; Facsády 2009, 83, Tab. 5; Milovanović 2003, 131, 133, Pl. 2; Ruseva-Slokoska 1991, 24–25.

80 Popović – Borić-Brešković 1994, 22, 30, 66, Cat. 14–15, Fig. 11.3–4; T. 11.3–4; Popović 1994, 207, Cat. 61–62.

81 Popović – Borić-Brešković 1994, 14, 64, Cat. 1, Fig. 1, T. 1.1; Popović 1994, 202, Cat. 50.

82 Johns 1996, 37–38.

83 Hamat – Georgescu 2022, 571.

84 Johns 1996, 38, 44–46, 109–111, Fig. 3.3.

85 Johns 1996, 132.

Open earrings were in vogue during the late Roman period,[86] but early Roman period pieces have also been published, for example from Grave 1 at Nagyvenyim (Fejér County, Hungary).[87]

Discussion

Besides the typological diversity of the dress accessories, their position and combination are also worth studying. The relative positions of all objects within the grave were documented with high precision during fieldwork (Fig. 3). Attention to detail made it possible to identify two types of object: dress accessories that formed part of the mortuary clothing and those that were placed in the grave as personal belongings.

The strongly profiled brooch (Fig. 2.1, Fig. 4.1–2) and the brooch pin (Fig. 2.2) were found on the two shoulders. The garment to which they belonged was most probably a dress fastened with a pair of brooches on the shoulders, a wearing style typical of Pannonia during the early Roman period. As many stone monuments and graves from Pannonia illustrate, strongly profiled brooches were paired either with identical brooches or with those of a different type.[88]

The single silver earring (Fig. 7) was found next to the right side of the skull. It was either worn alone or its pair has perished. Grave 1 at Nagyvenyim, belonging to a woman, also contained only a single copper-alloy open-hoop earring. Originally, it may have had a pair, as this grave was unfortunately disturbed.[89]

The beads (Fig. 6), belt accessories (Fig. 2.7–11,13, Fig. 5), and the wheel brooch (Fig. 2.5, Fig. 4.3–4) were scattered on the left side of the chest (Fig. 3.3–4). Depictions and grave finds suggest that plate brooches were frequently worn on the chest.[90] However, this brooch was found in a heap together with beads and belt accessories, which suggests that it was probably not pinned to the clothing. Considering the position of these objects, two dress accessories can be reconstructed: a bead jewellery item composed of all the beads and the copper-alloy clasp, and a mount-decorated belt. The mounts were categorised into two main groups, namely Norico-Pannonian and military belt mounts. The position of the wheel brooch suggests that it was probably also part of the belt, which indicates secondary use.

All the evidence suggests that the belt had a long use-life and perhaps more than one owner. The original belt was probably of the Norico-Pannonian type. When it became damaged in use and/or was redesigned, the missing mounts were replaced with the rectangular and round mounts and the reused wheel brooch, which thus acquired a new, secondary function. As mentioned above, the round mounts were probably reshaped, i.e. also recycled and reused.

In the Roman period, various materials were reused and recycled. J. Theodore Peña listed numerous categories, such as building materials and artefacts made of glass, pottery and other ceramics, metal, leather, textile, or papyrus, as well as furniture, watercraft, wheeled vehicles, animal bone, murex shell, organic ash, excrement, urine, pomace, and general refuse.[91] Repairing, reshaping, and reusing objects reflect a practical and cost-effective way of thinking.

86 Lányi 1972, 88, Abb. 65; Facsády 2009, 77, 83; Perok 2012, 16, Type 1.1, Cat. 1.

87 Sáró 2020, Vol. 2, 79, 41. tábla 4.

88 Sáró 2020, Vol. 1, 34, 132, 134, Sáró 2020, Vol. 2, 35, 40–41, 53–54, 104–105, 123, Kat. A58, A106, Kat. B98–99, B100, B108, B111–112, B116–117, B123–124, B129–130, B134–135; Sáró 2022a,172, 176, Kat. 7, Kat. 9.

89 Sáró 2020, Vol. 2, 79, 41. tábla 4; Sáró 2022b, 172, Kat. 7,9, 2. kép 7,9.

90 Berecz 2008, 190; Sáró 2020, Vol. 1, 170–171, 179–180.

91 Theodore Peña 2020, 50–60.

This habit can also be documented in Pannonia. The repair and recycling of ceramic, glass, bone, and metal objects are well attested in many cases. Not only objects of daily use but also dress accessories were repaired and recycled;[92] only a handful of examples of this practice are mentioned here. Metal vessels were regularly repaired: holes were patched, and missing parts were replaced. Based on a PhD dissertation on bronze workshops in the Roman period in Pannonia, repaired vessels have been found at Intercisa, Keszthely-Fenékpuszta, Nagyberki-Szalacska, and Savaria.[93] Broken and missing parts of brooches and jewellery items were often repaired. A workshop that repaired brooches is thought to have operated in Aquincum,[94] while repaired jewellery has been published from, for example, Brigetio (brooches)[95] and Aquincum (a gold necklace).[96] Simple objects used on a daily basis were also repaired; for example, the broken or missing rivets of combs were sometimes replaced with new ones.[97]

As it was previously mentioned, an object or a material could be recycled in many ways. Various types of product were created from broken, fragmented, or useless objects. Excellent examples are gaming counters, crafted by reshaping the bases of broken glass bottles and ceramic vessels, besides examples reported from Intercisa and Brigetio,[98] numerous gaming counters made in this way were found throughout Pannonia. Another, probably less well-known, recycled object is a hair ornament: the rectangular decorative pieces were riveted onto a metal sheet and reused as casket fittings (Intercisa).[99] Finally, a simple antler pendant from Aquincum was created at home from workshop waste.[100]

Summary

In 2022, five Roman period graves were unearthed at Páty-Malomi dűlő III. The grave group is situated far from the well-known Roman period cemetery and vicus at Páty Site 13/9. Investigations concluded that the grave group is unrelated to the cemetery excavated and published earlier. It could be the burial ground of a single family; however, proving that requires further investigation. Based on a preliminary analysis of the find material, the grave group was dated to the mid-2nd century AD at the latest.

A preliminary summary of the graves was published in 2024. My future aim is a detailed analysis of the excavation site and the finds. The present paper focuses on Grave 3, a woman's burial that contained numerous dress accessories and jewellery items: two brooches (Almgren 69, Riha 7.6) and a brooch pin, several mounts, including two round mounts, a rectangular mount (~Hoss B.1.b, B.3.1.),

92 According to N. Sey, late Roman metal workshops providing repair services are known from Aquincum and Keszthely-Fenékpuszta (Sey 2013, 118–119).

93 Sey 2013, 32–33, 40, 184–187, 192–193, 204–205, 211–212, 250, Kat. 100–110, Kat. 125–131, Kat. 171, Kat. 177, Kat. 204–208, Kat. 365, 3. tábla 1,3,5.

94 Sey 2013, 40.

95 The analysis encompasses a comprehensive study of all accessible brooches from the site of Brigetio, with particular emphasis on issues related to manufacture, production techniques, and wear. Repaired pieces from the site: a knee brooch (Merczi 2012, 12, Kat. 39, 4. tábla 6), an enamelled disc brooch (Berecz 2008, Kat. C185), a bow brooch with a pelte-shaped part (unpublished, Hungarian National Museum, Budapest), and a brooch with a backward-folded foot (unpublished, Hungarian National Museum, Budapest).

96 Facsády 2009, 115, Kat. 226.

97 Bózsa 2016, Vol. 2, 87, Kat. 387.

98 Bartus *et al.* 2017, 96–97, Kat. 11–12, 15. tábla 1–2; Dévai 2024, 88, Cat. 7–8, Figs 4–5.

99 Radnóti 1957, 305, 333, Abb. 70. 41, LIV.1.

100 T. Bíró *et al.* 2012, 79, Kat. 15.

a baluster-shaped mount (Garbsch R2), a boat-shaped mount (Sáró Ka1), and an openwork mount (Garbsch B4a or B4d), a single silver open-hoop earring, six beads (Riha 11.1.1, Riha 11.1.4, Riha 11.8, Riha 11.24, Guido Fig. 37.4, Guido Fig. 37.5), and small pieces of sheet metal and wire.

The relative positions of all objects were carefully documented during excavation, making possible a complex evaluation, which revealed that only some of the dress accessories and jewellery items formed part of the mortuary clothing, while others were personal belongings. Elements of attire include the Almgren 69-type strongly profiled brooch and, supposedly, another brooch, both of which were probably pinned to the garment on the shoulders. The silver earring was found next to the right side of the skull, and it was presumably worn in the right earlobe. Further objects were found on the left side of the chest. Of these, the beads formed part of the same jewellery item, a necklace or bracelet, while the various types of copper-alloy mounts and a wheel brooch decorated a belt. The belt was the most interesting find in this grave, not only because of the typological diversity of the mounts in the belt set, but also because of the inclusion of the wheel brooch, which is particularly noteworthy. The wheel brooch was likely recycled and reused as part of the belt, which was probably used for a long period. During its use-life, use-related damage was repaired, and the missing parts were replaced with whatever was at hand.

Funding

This paper was supported by the János Bolyai Research Scholarship of the Hungarian Academy of Sciences (Grant BO/0083/23/2).

Acknowledgements

I am grateful to Anikó Bózsa (Ferenczy Museum Centre, Szentendre), who participated in the fieldwork and the preliminary processing of the artefacts, and contributed useful observations to the analysis. I also thank the Ferenczy Museum Center for the opportunity to conduct this research.

Conflict of interest

The author declares no competing financial or non-financial interests regarding the research, authorship, or publication of this article.

Sources

Artefacts: https://artefacts.mom.fr/en/home.php (last accessed: 12 May 2026).

References

Almgren, O. 1923: *Studien über nordeuropäische Fibelformen der ersten nachchristlichen Jahrhunderte mit Berücksichtigung der provinzialrömischen und südrussischen Formen.* Leipzig.

Bartus, D. – Borhy, L. – Delbó, G. – Dévai, K. – Juhász, L. – Hajdu, B. – Kis, Z. – Nagy, A. – Sáró, Cs. – Sey, N. – Számadó, E. 2017: Jelentés a Komárom-Szőny, Vásártéren 2015-ben folytatott régészeti feltárás eredményeiről (Report on the excavations in the civil town of Komárom-Szőny, Vásártér (Brigetio) on 2015). *Kuny Domokos Múzeum Közleményei* 23, 83–153.

Berecz, Vida Tivadarné, K. 2008: *Aucissa és emailos fibulák Pannoniában és a szomszédos Barbaricumban (Aucissa and enamelled brooches in Pannonia and neighbouring Barbaricum).* PhD Dissertation, ELTE Eötvös Loránd University, Budapest.

T. Bíró, M. – Choyke, A. M. – Vass, L. – Vecsey, Á. 2012: *Aquincumi csonttárgyak – Bone objects in Aquincum.* Budapest.

Boelicke, U. 2002: *Die Fibeln aus dem Areal der Colonia Ulpia Traiana.* Xantener Berichte 10. Mainz.

Born, H. 1975: Material und Herstellungstechnik antiker Melonenperlen. *Jahrbuch des Römisch-Germanischen Zentralmuseums* 22.2, 134–140.

Bózsa, A. 2016: *A szépségápolás tárgyi emlékanyaga Pannonia Magyarországra eső részén (Instruments of beauty care from the Hungarian part of Pannonia).* PhD Dissertation, ELTE Eötvös Loránd University, Budapest.

Cociş, S. 2004: *Fibulele din Dacia Romană – The brooches from Roman Dacia.* Cluj-Napoca.

Dévai, K. 2024: Roman glass counters from Intercisa. In: Csirke, O. (Ed.): *"afelé kell hajolnod, amerre tehetséged ereje vonz". Tanulmánykötet Palágyi Sylvia 80. születésnapja alkalmából – "you must lean towards where the power of your talent draws you". Studies for Sylvia Palágyi on her 80th birthday.* Veszprém, 83–94.

Dévai, K. 2025: *Üvegleletek a savariai Iseumból – Glass finds from the Iseum in Savaria.* Sistrum C.3. Szombathely.

Ettlinger, E. 1973: *Die römischen Fibeln in der Schweiz.* Bern.

Facsády, R., A. 2009: *Aquincumi ékszerek – Jewellery in Aquincum.* Budapest.

Feugère, M. 1985: *Les fibules en Gaule Méridionale de la conquête à la fin du Ve s. ap. J.-C.* Revue Archéologique de Narbonnaise Supplément 12. Paris. https://doi.org/10.3406/ran.1985.1668

Feugère, M. 1992: Les perles de type Kempten en Gaule méridionale. *Archéologie en Languedoc* 16, 146–148.

Garbsch, J. 1965: *Die norisch-pannonische Frauentracht im 1. und 2. Jahrhundert.* Münchner Beiträge zur Vor- und Frühgeschichte 11. Munich.

Garbsch, J. 1974: Ein Flügelfibelfragment vom Lorenzberg bei Epfach. Bemerkungen zu Fibeln der Frauentracht von Raetien und Iuvavum. In: Kossak, G. – Ulbert, G. (eds): *Studien zur vor- und frühgeschichtlichen Archäologie. Festschrift für Joachim Werner zum 65. Geburtstag.* Münchner Beiträge zur Vor- und Frühgeschichte, Ergänzungsband, 1.1. München, 163–183.

Gaspar, N. 2007: *Die keltischen und gallo-römischen Fibeln vom Titelberg. Les fibules gauloises et gallo-romaines du Titelberg.* Dossiers d'Archéologie du Musée National d'Histoire et d'Art 11. Luxembourg.

Groh, S. – Sedlmayer, H. 2002: *Forschungen im Kastell Mautern-Favianis. Die Grabungen der Jahre 1996 und 1997.* Der römische Limes in Österreich 42. Wien.

Guido, M. 1978: *The glass beads of the Prehistoric and Roman periods in Britain and Ireland.* Reports of the Research Committee of the Society of Antiquaries of London 35. London. https://doi.org/10.26530/20.500.12657/50812

Haevernick, T. E. 1972: Nadelköpfe von Kempten. *Germania* 50, 136–148. https://doi.org/10.11588/ger.1972.100448

Hamat, A. C. – Georgescu, Ş. V. 2022: Serpentiform rings from the Roman period in Romanian Collections. In: Mustaţă, S. – Lăzărescu, V. A. – Bârcă, V. – Rusu-Bolindeţ, V. – Matei, D. (eds): *FABER. Studies in Honour of Sorin Cociş at his 65th Anniversary.* Bibliotheca Ephemeris Napocensis 10. Cluj-Napoca, 559–587.

Hattatt, R. 2000: *A visual Catalogue of Richard Hattatt's Ancient brooches.* Oxford. https://doi.org/10.2307/j.ctvh1drxn

Hinker, C. 2017: Die norisch-pannonische Frauentracht im Spiegel der Kleinfunde aus dem Stadtterritorium von Flavia Solva. Ein Addendum zur Monografie von Jochen Garbsch unter besonderer Berücksichtigung der Neufunde seit 1965. *Jahreshefte des Österreichischen Archäologischen Institutes in Wien* 86, 33–105.

Hoss, S. 2014: *Cingulum Militare: Studien zum römischen Soldatengürtel des 1. bis 3. Jh. n. Chr.* PhD Dissertation, Leiden University, Faculty of Archaeology, Leiden.

Höpken, C. 2003: Herstellung quarzkeramischer Melonenperlen im römischen Flottenlager Köln Alteburg. Terminologie – Technologie – Befund. In: Liesen, B. – Brandl, U. (eds): *Römische Keramik: Herstellung und Handel. Kolloquium Xanten, 15.–17.6.2000.* Xantener Berichte. Grabung – Forschung – Präsentation 13. Mainz am Rhein, 353–363.

Istenič, J. 1999: *Poetovio, zahodna grobišča I. Grobne celote iz Deželnega muzeja Joanneuma v Gradcu. Poetovio, the western cemeteries I. Grave-Groups in the Landesmuseum Joanneum, Graz.* Katalogi in monografije 32. Ljubljana.

Johns, C. 1996: *The jewellery of Roman Britain. Celtic and Classical traditions.* Ann Arbor.

Košćević, R. 1991: *Antička bronca Siska. Umjetničko-obrtna metalna produkcija iz razdoblja Rimskog carstva.* Zagreb.

Lányi, V. 1972: Die spätantiken Gräberfelder von Pannonien. *Acta Archaeologica Academiae Scientiarum Hungaricae* 24, 53–213.

Mackreth, D. F. 2011: *Brooches in Late Iron Age and Roman Britain.* Oxford. https://doi.org/10.2307/j.ctvh1dv2x

Martin-Kilcher, M. – Martin-Kilcher, S. 1979: *Schmuck und Tracht zur Römerzeit.* Augster Blätter zur Römerzeit 2. Augst.

Mazur, A. 1998: Les fibules romaines d'Avenches I. *Bulletin de l'association Pro Aventico* 40, 5–104.

Merczi, M. 2012: A Budaörs-Kamaraerdei-dűlőben feltárt római vicus fibulái (Die Fibeln des römischen Vicus in Budaörs-Kamaraerdei-dűlő). In: Ottományi, K. (ed.): *Római vicus Budaörsön. Régészeti tanulmányok.* Budapest, 455–528.

Merczi, M. 2017: Római kori fibulák Perbálról és Zsámbékról (Roman fibulae from Perbál and Zsámbék). *Studia Comitatensia* 35, 71–119.

Milovanović, B. 2003: Earrings – Symbol of Feminity of Roman Ladies of Viminacium. In: Novotná, M. – Dufková, M. – Kuzmová, K. – Hnila, P. (eds): *Proceedings of the international conference: Schmuck und Tracht der Antike im Laufe der Zeit (Seit der Bronzezeit bis zur Spätantik). Ancient jewellery and costume in course of time (From the Bronze Age to the Late Antiquity). Modra-Harmónia, 19–22.11.2003.* ANODOS. Studies of the Ancient World 3. Trnava, 131–143.

Ottományi, K. 2007: A pályi római telep újabb kutatási eredményei (Die neuen Forschungsergebnisse der römischen Siedlung von Páty). *Studia Comitatensia* 30, 7–238.

Ottományi, K. 2019: *A pályi temető római sírjai (Malom-dűlő) – Die römische Bestattungen im Gräberfeld von Páty.* Szentendre.

Perok, N. 2012: *Rimske zlatne naušnice iz Arheološkog muzeja u Zagrebu – Roman gold earrings from the Archaeological Museum in Zagreb.* Zagreb.

Philippe, J. 1999: *Les fibules de Seine-et-Marne du 1er siècle av. J.-C. au 5e siècle ap. J.-C.* Mémoire archéologiques de Seine-et-Marne 1. Nemours.

Popović, I. (ed.) 1994: *Antique silver from Serbia.* Belgrade.

Popović, I. – Borić-Brešković, B. 1994: *The Bare hoard.* Archaeological Institute Belgrade Monographies 8. Belgrade.

Radnóti, A. 1957: Möbel- und Kästchenbeschläge, Schlösser und Schlüssel. In: Alföldi, R. M. – Barkóczi, L. – Fitz, J. – Sz. Póczy, K. – Radnóti, A. – Salamon, Á. – Sági, K. – Szilágyi, J. – B. Vágó, E. (eds): *Intercisa II. (Dunapentele). Geschichte der Stadt in der Römerzeit.* Budapest, 241–363.

Riha, E. 1979: *Die römischen Fibeln aus Augst und Kaiseraugst.* Forschungen in Augst 3. Augst.

Riha, E. 1990: *Der römische Schmuck aus Augst und Kaiseraugst.* Forschungen in Augst 10. Augst.

Riha, E. 1994: *Die römischen Fibeln aus Augst und Kaiseraugst. Die Neufunde seit 1975.* Forschungen in Augst 18. Augst.

Rothe, U. 2012: Clothing in the Middle Danube provinces. The garments, their origins, and their distribution. *Jahreshefte des Österreichischen Archäologischen Instituts* 81, 137–231.

Ruseva-Slokoska, L. 1991: *Roman jewellery. A collection of the National Archaeological Museum – Sofia.* Sofia.

Sáró, Cs. 2020: *Hagyományőrzés és romanizáció az eraviscus viselet tükrében (Tradition and romanization by the dress of the Eraviscus tribe).* PhD Dissertation, ELTE Eötvös Loránd University, Budapest.

Sáró, Cs. 2022a: Norico-Pannonian belt accessories from North-Eastern Pannonia. In: Budai Balogh, T. – Láng, O. – Vámos, P. (eds): *Aquincum aeternum. Studia in honorem Paula Zsidi.* Aquincum Nostrum II.9. Budapest, 289–309.

Sáró, Cs. 2022b: Római kori fibulák az Aquincum/Budapest-Graphisoft Park területén végzett feltárások anyagából (Roman fibulae from the cemetery of the Civil Town in Aquincum/Budapest-Graphisoft Park). *Archaeologiai Értesítő* 147, 155–186. https://doi.org/10.1556/0208.2022.00033

Sáró, Cs. – Bózsa, A. – Gátfalvi-Delbó, G. 2024: Előzetes beszámoló a Páty-Malomi-dűlő III. lelőhelyen feltárt római kori sírcsoportról (Preliminary report on the group of Roman graves found at the Páty-Malomi-dűlő III excavation site). *Studia Comitatensia* 42, 144–159.

Sedlmayer, H. 2009: *Die Fibeln vom Magdalensberg.* Archäologische Forschungen zu den Grabungen auf dem Magdalensberg 16. Klagenfurt am Wörthersee.

Sey, N. 2013: *A pannoniai római kori bronzművesség műhelykérdései (Issues of the bronze working workshops in the Roman Age in Pannonia).* PhD Dissertation, ELTE Eötvös Loránd University, Budapest.

Tempelmann-Maczyńska, M. 1985: *Die Perlen der römischen Kaiserzeit und der frühen Phase der Völkerwanderungszeit im mitteleuropäischen Barbaricum.* Römisch-Germanische Forschungen 43. Mainz.

Theodore Peña, J. 2020: Recycling in the Roman World. Concept, Questions, Materials, and Organization. In: Duckworth, N. C. – Wilson, A. (eds): *Recycling and reuse in the Roman economy.* Oxford, 9–58. https://doi.org/10.1093/oso/9780198860846.003.0002

van der Sleen, W. G. N. 1973: *A handbook on beads.* Liège.

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