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ARCHAEOLOGICAL MATERIAL

AN ENAMELLED ZOOMORPHIC BROOCH RECENTLY DISCOVERED IN THE NORTHERN CEMETERY OF APULUM (ALBA IULIA)

Abstract: In the spring of 2022, a zoomorphic brooch was discovered during the rescue archaeological excavations conducted in Alba Iulia at no. 3 Republicii Blvd., on the site of the Olympic swimming pool. The investigation was performed as a preliminary phase of an investment project developed by the Alba Iulia Municipality. The plot lies on a high terrace, in an area that yielded multiple archaeological finds, most Roman date burial features. The bronze brooch, surviving fragmentarily, rendered a running bull and had the body decorated with round, enamel inlay alveoli.

Given the use period of enamelled zoomorphic brooches within the province territory of Dacia, we believe that the specimen of Apulum dates sometimes to the 2nd century AD, most likely during its second half.

Keywords: *Apulum, Dacia, zoomorphic brooches, enamelled brooches, Roman period, Barbarian environment, Roman empire.*

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INTRODUCTION

The brooch object herein (Fig. 5) was discovered during the rescue archaeological excavations conducted as a preliminary phase of the investment project “Urban regeneration of the Olympic swimming pool area through the development of green areas and the construction of a sports and leisure centre” in Alba Iulia, at 3 Republicii Boulevard, commissioned by the Municipality of Alba Iulia¹.

The land subject to the research is located nearby the Olympic swimming pool in the northern area of Alba Iulia Municipality (Fig. 1), both within the perimeter of the building’s former courtyard (perimeters 2 and 4), on the eastern and northern sides in relation to the existing structure, as well as outside it (perimeters 1 and 3), on the same sides (Fig. 1-3).

The archaeological excavation was performed in the northern edge of the civilian settlement (*canabae*) developed nearby the XIII Gemina legionary fortress², which was awarded the status of *municipium* after AD 197 (*municipium Septimium Apulense*)³, approximately 1200 meters north of the aforementioned legionary fortress (Fig. 4), in an area that features

¹ For additional information related to the location, description of the perimeter, aims of the research and research description see BĂRCĂ *et alii* 2023, 75-77; PLANTOS *et alii* 2024, 207-208, 209-210.

² MOGA 1998.

³ OTA 2012.

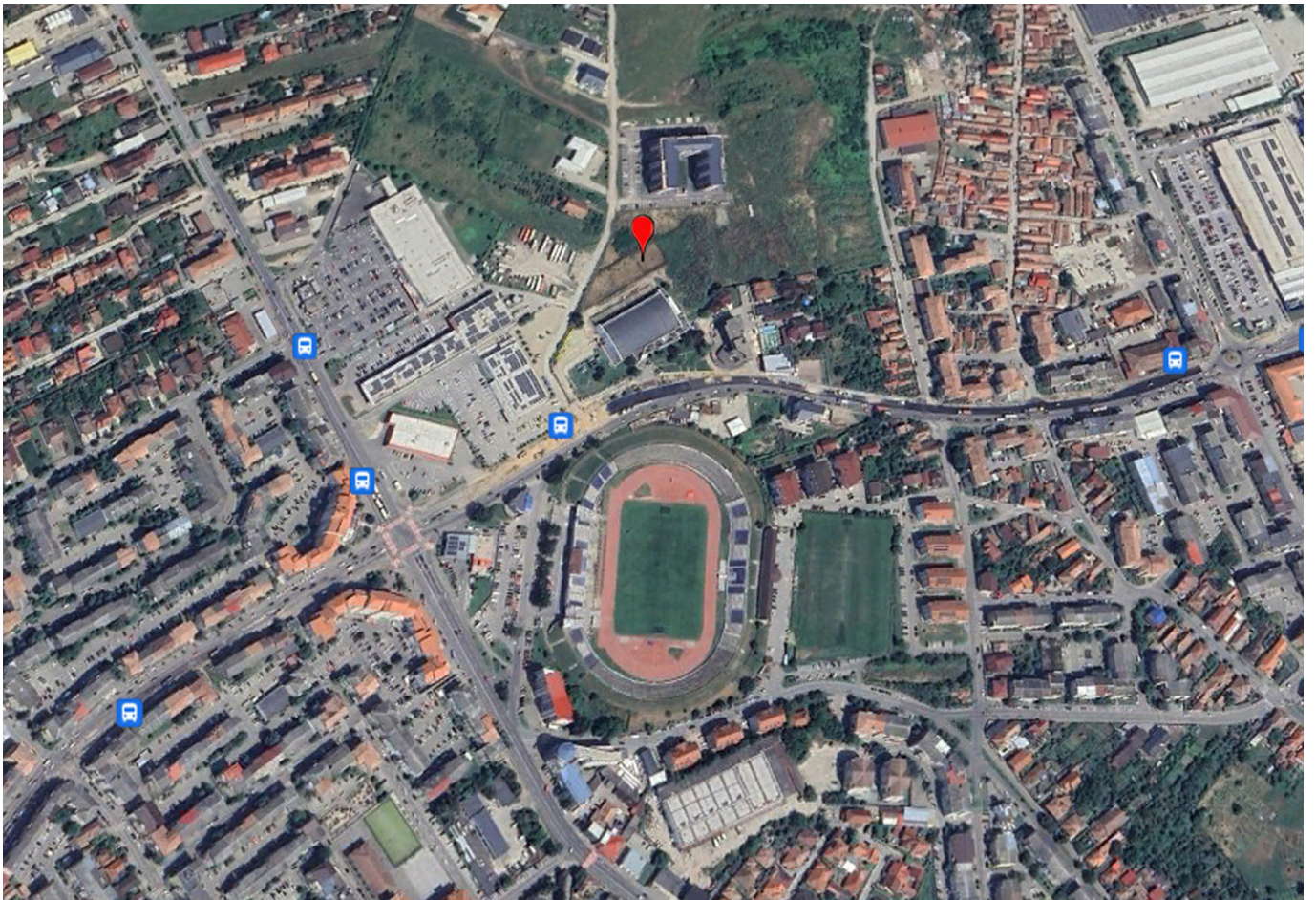


Fig. 1. Site location plan of the investigated area (after BÂRCĂ *et alii* 2023).



Fig. 2. Aerial photo of the excavated perimeter (after BÂRCĂ *et alii* 2023).

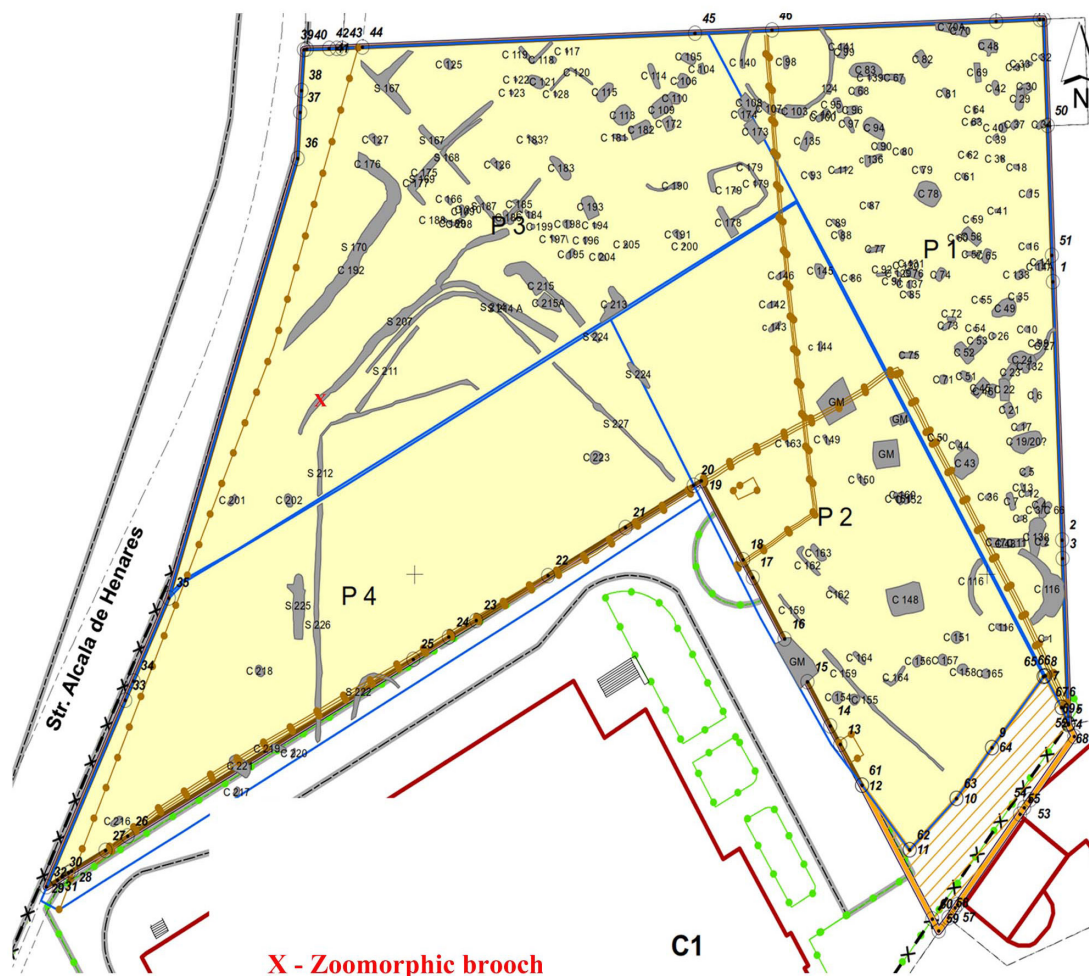


Fig. 3. Plan recording the excavated areas/perimeters and layout of investigated features (after BĂRCĂ *et alii* 2023, with the completion of the find spot of the zoomorphic brooch).

many archaeological sites where yielded finds date to several historical periods, dominated by Roman burial finds associated with the northern cemetery of the ancient town of Apulum⁴.

GENERAL DATA ON THE ARCHAEOLOGICAL FINDS

Subsequent to the archaeological excavations carried out within the area of the investment project, a number of **216** archaeological features (see Fig. 3) were identified and completely investigated, chronologically spanning the periods of the Bronze Age, the Second Iron Age, the Roman period, the post-Roman period (4th–5th/6th century AD) and the modern period⁵.

Statistically, Roman date remains are most numerous within the excavated area, burial features being predominant. A total of one hundred graves⁶ were identified

and investigated, consisting of sixty-one inhumations and thirty-nine cremations⁷. To these add a series of funerary structures in the form of flat circular or rectangular ditches, some containing graves inside⁸. The Roman date finds belong to the period of the 2nd century – middle or third quarter of the 3rd century AD, while the identified graves are part of the northern cemetery of Apulum. The cemetery is related to the *canabae* type settlement there, which became *municipium (Municipium Septimium Apulense)* during the reign of emperor Septimius Severus, located on territory directly administered by the army, in the immediate vicinity of *XIII Gemina* legionary fortress⁹.

or looting, may explain the absent remains of the deceased or their grave goods at the time of research.

⁷ The inhumations were ascribed to forty-eight children, while thirteen belonged to adults (BĂRCĂ *et alii* 2023, 78-81; PLANTOS *et alii* 2024, 211-218).

⁸ BĂRCĂ *et alii* 2023, 79-80, Pl. 27; 31; PLANTOS *et alii* 2024, 214-215, Pl. XIX; XXI with complete references. Such burial structures were discovered at Alba Iulia and the neighbouring areas as well, investigated in previous years. Funerary enclosures with ditches of various flat shapes, with or without graves in their interior, are frequent in the Sarmatian environment (see in this respect with complete references BĂRCĂ/SYMONENKO 2009, 107-108, 215-218; BĂRCĂ/COCIȘ 2013; BĂRCĂ/GRUMEZA 2014; BĂRCĂ 2015; BĂRCĂ 2020; BĂRCĂ *et alii* 2024, 179-186).

⁹ ARDEVAN 1998, 49-50; for a more in-depth analysis see OTA 2012.

⁴ For an overview of the research and finds yielded by this area with complete references see BĂRCĂ *et alii* 2023, 76; PLANTOS *et alii* 2024, 208-209.

⁵ BĂRCĂ *et alii* 2023, 77-83; PLANTOS *et alii* 2024, 210-218; GUDEA *et alii* 2024.

⁶ To these also add a few finds that, judging by the shape and location of the pits, are likely to have been infant graves, which due to taphonomic factors

DATA ON THE BROOCH AND FIND CONTEXT

The brooch was discovered on the outline level of feature 207¹⁰, a drainage ditch (Fig. 3). It was delimited in plan on a north-south alignment that followed the terrain layout and slope and had a U-shaped profile. The feature was identified by the presence of black soil within the archaeologically sterile yellow layer. Roman date archaeological materials (pottery fragments) were discovered inside the ditch. Given that the item was identified on the outline level of feature 207 and not in its filling, it is possible that the brooch originated from a looted or subsequently disused grave, especially since certain sections of the Roman cemetery are overlaid by post-Roman period features as well.

The brooch is made of bronze and consists of two parts. The body depicts a running bull, decorated with a row of four round alveoli with enamel inlay¹¹. Two of these still preserved traces of blue enamel, while the other two contain yellowish enamel with a slightly convex shape¹². The brooch was hinged, with a rectangular catchplate, cast together with the body. Unfortunately, the hinge, pin and part of the brooch body did not survive (Fig. 5)

Since finds of enamelled zoomorphic brooches are relatively rare within the territory of the province of Dacia, we decided to conduct a chemical composition analysis of the item here, with two samples being collected. The EDS (*Energy Dispersive X-Ray spectroscopy*) analysis performed on the specimen indicates that it was made from a copper-based alloy (Cu), which also contains varying amounts of tin (Sn), lead (Pb), iron (Fe), phosphorus (P) and zinc (Zn)¹³, the presence of phosphorus being most likely due to soil contamination (Fig. 6-7).

DATING AND DIFFUSION OF ZOOMORPHIC BROOCHES

Zoomorphic brooches are bronze or more rarely silver ornaments, some decorated with polychrome enamel, with bodies that render various animals in a more or less stylized manner: dogs, hares, wild boars, roosters, ducks, pigeons, peacocks, owls, frogs, fish, panthers, lions, leopards, deer, horses, seahorses, rams, goats, mythical creatures, etc.¹⁴. These brooches are either sprung or hinged, while the catchplate is either rectangular or hook-shaped. They are made of several components, the catchplate and hinge being commonly cast together with the body.

¹⁰ In the two preliminary studies it was erroneously mentioned that the brooch was discovered in the outline level of feature 203 (BĂRCĂ *et alii* 2023, 80; PLANTOS *et alii* 2024, 216).

¹¹ For enamel production technology and representation manner see BATESON 1981, 66-98; HASELOFF sv Email 1989, 198-199.

¹² The enamelled decoration on the brooch discussed here was crafted using the *champlevé* technique, which was a method where small indentations were made in the metal body of the piece into which enamel was inserted for better attachment, the final layer being slightly bulging (for more details see BENEĂ *et alii* 2006, 16-17).

¹³ We thank this way as well dr. Lucian Barbu-Tudoran, Associate professor with the Molecular Biology and Biotechnology Department of the Babeş-Bolyai University and fellow of the National Institute for Research and Development of Isotopic and Molecular Technologies of Cluj-Napoca, for the mirror analysis.

¹⁴ For the origin of the figurines depicted on brooches see FEUGÈRE 1985, 389, 393.

Zoomorphic brooches were diffused during the first centuries AD throughout the Roman world and to a larger or smaller extent in the Barbarian environment as well¹⁵.

Enamelled zoomorphic brooches, such as the example discussed here, are represented in very large numbers particularly in the western provinces of the Roman empire, whereas those without enamelled elements on the body are dominant in the eastern provinces such as Noricum, Pannonia, Moesia and Dacia¹⁶. In the latter, their number and variety are quite significant, most specimens being discovered in sites within the territory of Dacia Superior¹⁷. Following the analysis of finds from Dacia, it was concluded that the number of enamelled zoomorphic brooches is much smaller than that of plain¹⁸ exemplars, including in the Barbarian milieu, case also found in other eastern provinces of the Roman empire. Parenthetically, it should be mentioned that enamelled brooches with geometric body forms, represented by numerous types and variants, are also predominantly spread in the western provinces of the Empire, particularly in northern Gallia, Belgica, Britain and the Rhineland, being somewhat rarer in the eastern provinces¹⁹. The analysis of these brooches evidences great typological diversity, a series of regional influences (Gallia, Britannia, the Rhineland), as well as the existence of production centres in certain provinces, particularly in the western part of the Empire. Enamelled geometric brooches are also present in the Barbarian milieu²⁰. The prevalence of enamelled brooches in sites with a primarily

¹⁵ SELLYE 1939, 49-64; PATEK 1942, Pl. XIX-XXI; LERAT 1956, Pl. XVI-XVII; LERAT 1979, Pl. XXXIII; SILVÉN 1961, 87-88, 117, Fig. 11; AMBROZ 1966, 34-35, Pl. 15/9-21; BÖHME 1972, 40-41, type 43, Pl. 27/1045-1061; ETTLINGER 1973, Pl. 3; JOBST 1975, 113-115; RIHA 1979, 198-203, Pl. 66/1708-1725; 67/1730-1743; 68/1744-1747; RIHA 1994, 171-173, Pl. 46/2907-2911, 2913-2918, 2927; BATESON 1981, 41-42, Fig. 6; FEUGÈRE 1985, 382-416, type 29, Fig. 58-61, Pl. 157; BOJOVIĆ 1983, 67-68, Pl. XXX; MATOUSCHEK/NOWAK 1979, 81-110; MATOUSCHEK/NOWAK 1981-1982, 131-182, Pl. 1-14; MATOUSCHEK/NOWAK 1985-1986, 101-222; WINTER 1985-1986, 323-370; BOELICKE 2002, 128-130, Pl. 52/1111-1118; 53/1119; VADAY 2003, 366-367, Fig. 25; 43; BAYLEY/BUTCHER 2004, 20, 123-125, 173-175, 211-213; GENČEVA 2004, 118-120, Pl. XXVI/9-16; XXVII/1-4; COCIŞ 1986, 161, 167, Pl. III/6-7; COCIŞ 2004, 115-119, type 22, Pl. C-CIII; BENEĂ *et alii* 2006, 54-58, Pl. 1/3-10; GASPARD 2007, 216-220, Pl. 94/2108-2110, 2119-2138; 95/2151-2166; BERECZ 2008, 151-161, 174-176; KROPOTOV 2010, 306-308, 319-321, Fig. 89/forms 10-30; 92/1, 4-5, 9; SCHMID 2010, 57-59, Pl. 39/310-315; 40/316-320; PETKOVIĆ 2010, 199-216, Pl. XXXVI-XXXVIII; MACKRETH 2011, 180-188, Pl. 124-130, Supplementary plate 2; SÁRÓ 2014, 178-181, type X, Pl. 13; BÖHME-SCHÖNBERGER 2016, 435-446, 449, Fig. 5/1; 6; 9; HELLSTRÖM 2018, 115-117, Pl. 64/B; 65/A; GRUMEZA 2019, 39, 58, Pl. 9/3, Fig. 15/d; KRUNIĆ/IGNJATOVIĆ 2022, 317-318, Fig. 7/4; PAULI 2024, 166, 170.

¹⁶ COCIŞ 2004, 118.

¹⁷ COCIŞ 2004, 115-119, Pl. C-CIII, cat. no. 1398-1455.

¹⁸ COCIŞ 2004, 118.

¹⁹ For enamelled brooch finds on the territory of the province of Dacia see COCIŞ 1986, 159-168; COCIŞ 2004, 121-125, Pl. CIV-CVIII; BENEĂ *et alii* 2006, 26-64, 162; for a series of recent finds see MUSTAŢĂ/GĂZDAC 2009, 224, Fig. 3, Pl. 5/1; COCIŞ/LĂZĂRESCU/CIUŢĂ 2023, 368, Pl. 6/76-77; BOUNEGRU 2025, 268, 269, 273-274, Pl. II/11; III/16.

²⁰ For the north and north-west Pontic area see AMBROZ 1966, Pl. 15/1-4, 6-8; KROPOTOV 2010, 308-314, 321-327, Fig. 89/forms 31-36, 89a/forms 37-72; VORNIC/BUBULICI 2024, 199-200, Fig. 1; VORNIC/MATVEEV/DERMENJI 2024, 193-197, Pl. III/1-2. For the Sarmatian *Barbaricum* of the Pannonian Plain in 2003 were known two hundred enamelled brooches originating from 128 sites (VADAY 2003, 315-421). For finds in the Sarmatian environment on the territory of the Banat see GRUMEZA 2014, 66-70, Fig. 18; BĂRCĂ 2014, 107-108, 154, Fig. 23/1, Pl. 25/1; 72/6.

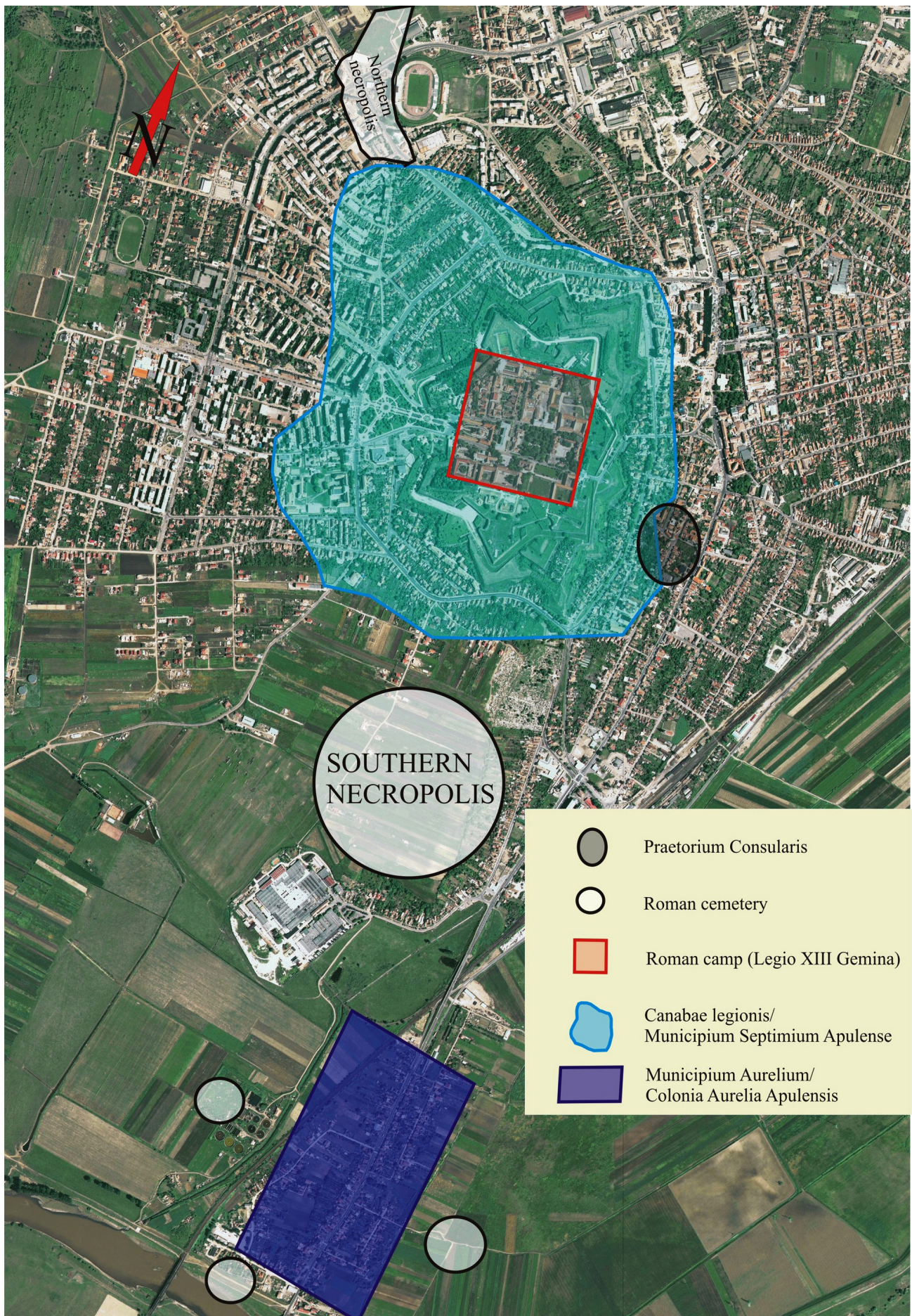


Fig. 4. Location of the northern cemetery in relation to the remaining sites at Apulum (after BÂRCĂ *et alii* 2023).

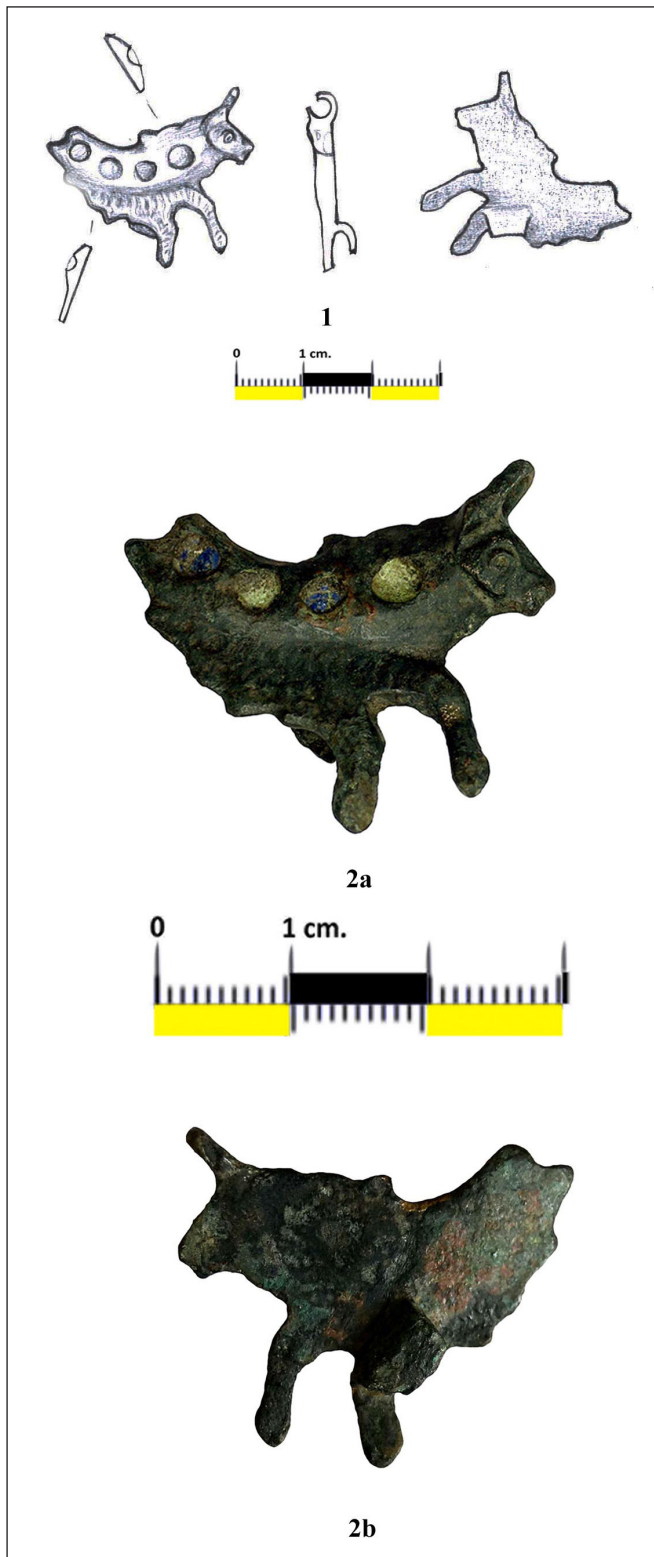


Fig. 5. The enamelled zoomorphic brooch of Apulum (drawing and photo).

military nature within Dacia²¹ evidences that their bearers were predominantly soldiers, as well as individuals closely connected to the military environment. This suggests that enamelled brooches were carried by soldiers, either from their areas of origin or the provinces where their units had been previously stationed. Some of these artefacts also

²¹ See COCIŞ 2004, 121-125, 207-208; BENEÀ *et alii* 2006, 26-62, 64.

reached Dacia through trade²², as imports²³. The stylistic homogeneity of several types and series of enamelled brooches, zoomorphic brooches included, indicates that a large number of workshops existed in the western part of the Roman Empire, where numerous artisans specialised in the making of such artefacts were active. Enamelled brooches are dated to the chronological interval between the first half of the 1st century AD and the 3rd century AD (particularly its middle), with a peak period of use occurring in the 2nd century AD, including within the province of Dacia²⁴.

Enamelled zoomorphic brooches from Dacia are believed imports from Gallia and Britannia²⁵, although the origin of some specimens from the Rhenish regions cannot be excluded. Regarding the zoomorphic exemplars from Dacia undecorated with enamel, it must be noted that most are likely local products²⁶. One argument in this regard is provided by the casting moulds for such brooches with a spring-fastening system from the workshop at Napoca, intended for casting rabbit-shaped body brooches²⁷. To these are added those from Apulum, used to cast hinged brooches that depict a stylised running horse²⁸. Production of various types of undecorated zoomorphic brooches is also archaeologically attested in other provinces of the Roman empire²⁹.

The brooch discussed here (Fig. 5) belongs to type 29a in M. Feugère's typological classification³⁰, being a new variant. Unfortunately, among the numerous enamelled zoomorphic brooches discovered over time in both the provincial Roman and Barbarian environments, we could not find an identical to the one from Apulum. A bull-shaped zoomorphic brooch, which is not, however, enamelled comes from Villiers-le-Duc, fanum du Tremblois (Côte-d'Or)³¹. It is silver-made and has its body decorated by engraving³², being mentioned by M. Feugère in the list of unique zoomorphic exemplars³³. According to the same author, the brooch is an artefact of workshop C, whose highly homogeneous production is technologically early and marks the beginnings of the production of plain zoomorphic brooches, unenamelled³⁴. Another zoomorphic brooch, un-enamelled, which also renders a running bull, left, originates from Nijmegen³⁵

²² Trade with enamelled artefacts in the Roman empire would experience a significantly high inflow, including even commercially, from west to east, beside *terra sigillata*, once with the second half of the 2nd century until mid-3rd century AD (HASELOFF sv. Email 1989, 204).

²³ For the view on existing workshops supporting the production of enamelled artefacts in Dacia during the last decades of the 2nd century – first half of the 3rd century AD see BENEÀ *et alii* 2006, 64, 161, 162; BENEÀ 2009.

²⁴ See COCIŞ 2004, 121-125.

²⁵ COCIŞ 2004, 118.

²⁶ COCIŞ 2004, 118.

²⁷ COCIŞ 2004, 118, Pl. CLXXI/3; COCIŞ 2019, 27-28, Pl. 69/698, 699.

²⁸ COCIŞ/BOUNEGRU 2017, 216-217, Pl. 6/1-2; 7/1a-1d; COCIŞ 2019, 41-42, Pl. 103/25-26; 104/28a-28d.

²⁹ See in this respect COCIŞ 2019.

³⁰ FEUGÈRE 1985, 382-385, Fig. 58-61. Group **a** was ascribed items with plain body rendering one animal only, while group **b** exemplars with complex body depict animals fighting in groups.

³¹ FEUGÈRE 1985, 394.

³² ROLLEY/DEYTS 1973, cat. no. 104e, Pl. XXVI.

³³ FEUGÈRE 1985, 394.

³⁴ FEUGÈRE 1985, 388-389, 393-394.

³⁵ DELMAIRE/NOTTE *et collab.* 1996, 42, Fig. 12/1.

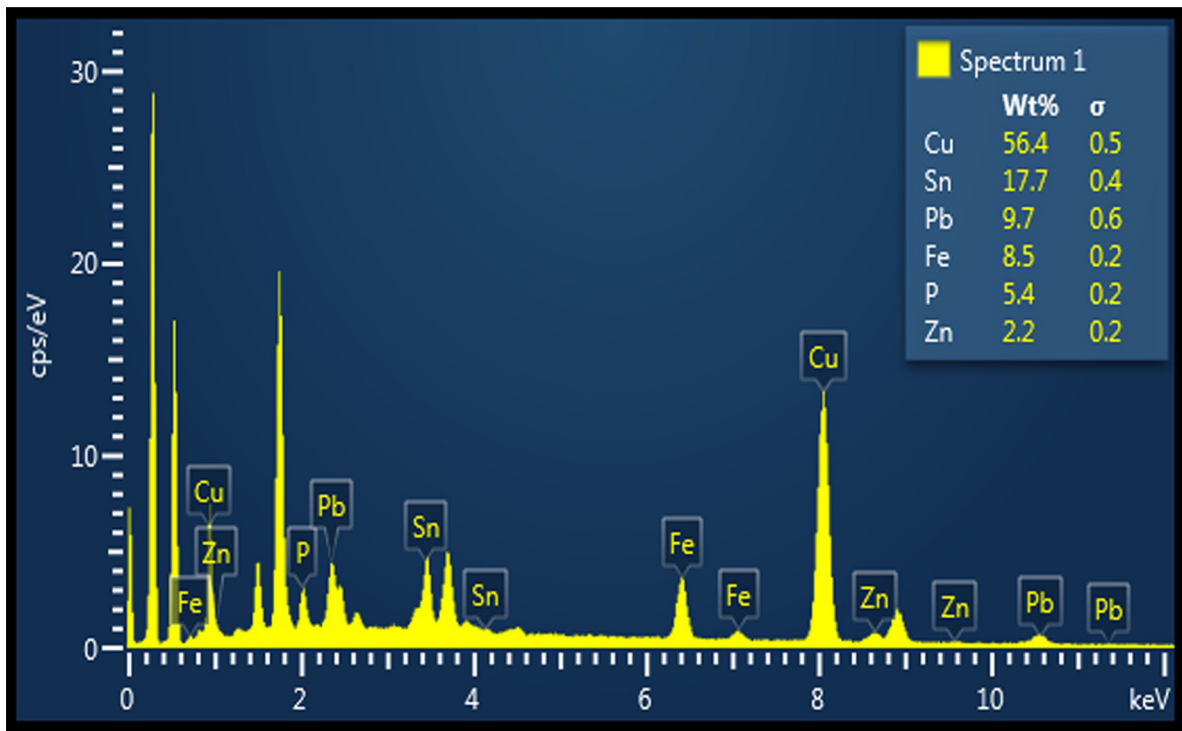
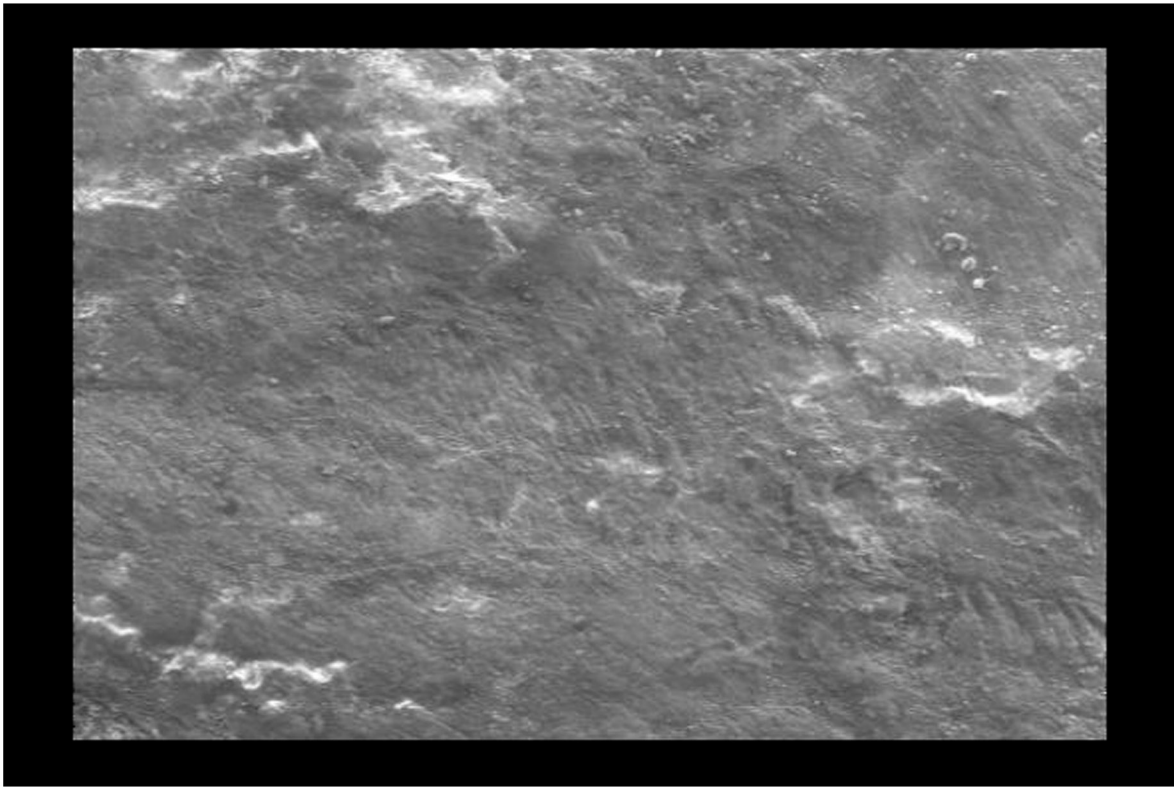


Fig. 6. SEM-EDS analysis, surface.

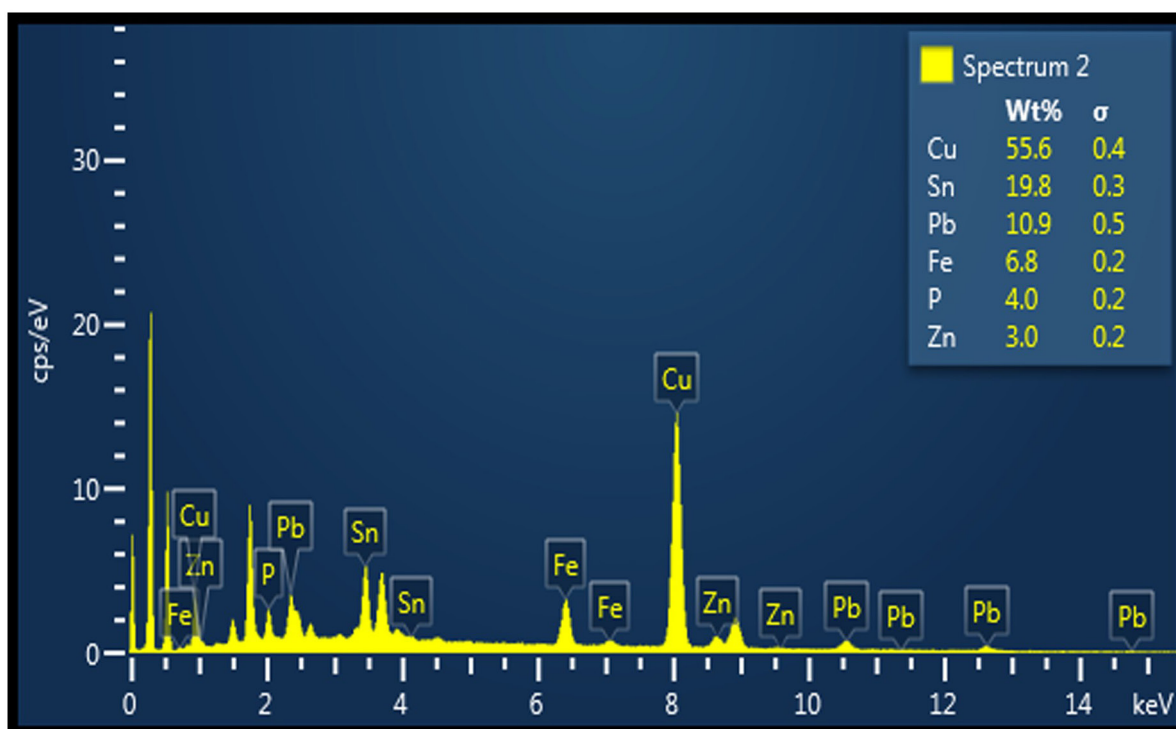
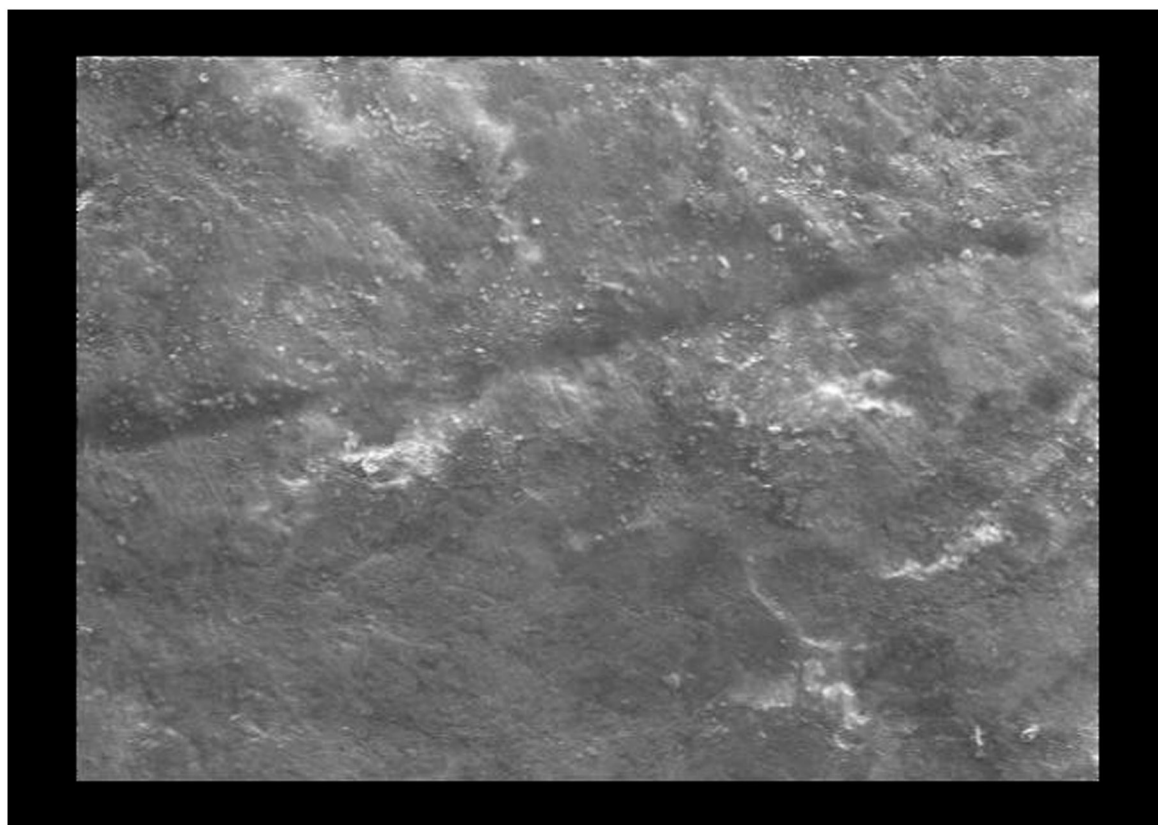


Fig. 7. SEM-EDS analysis, surface.

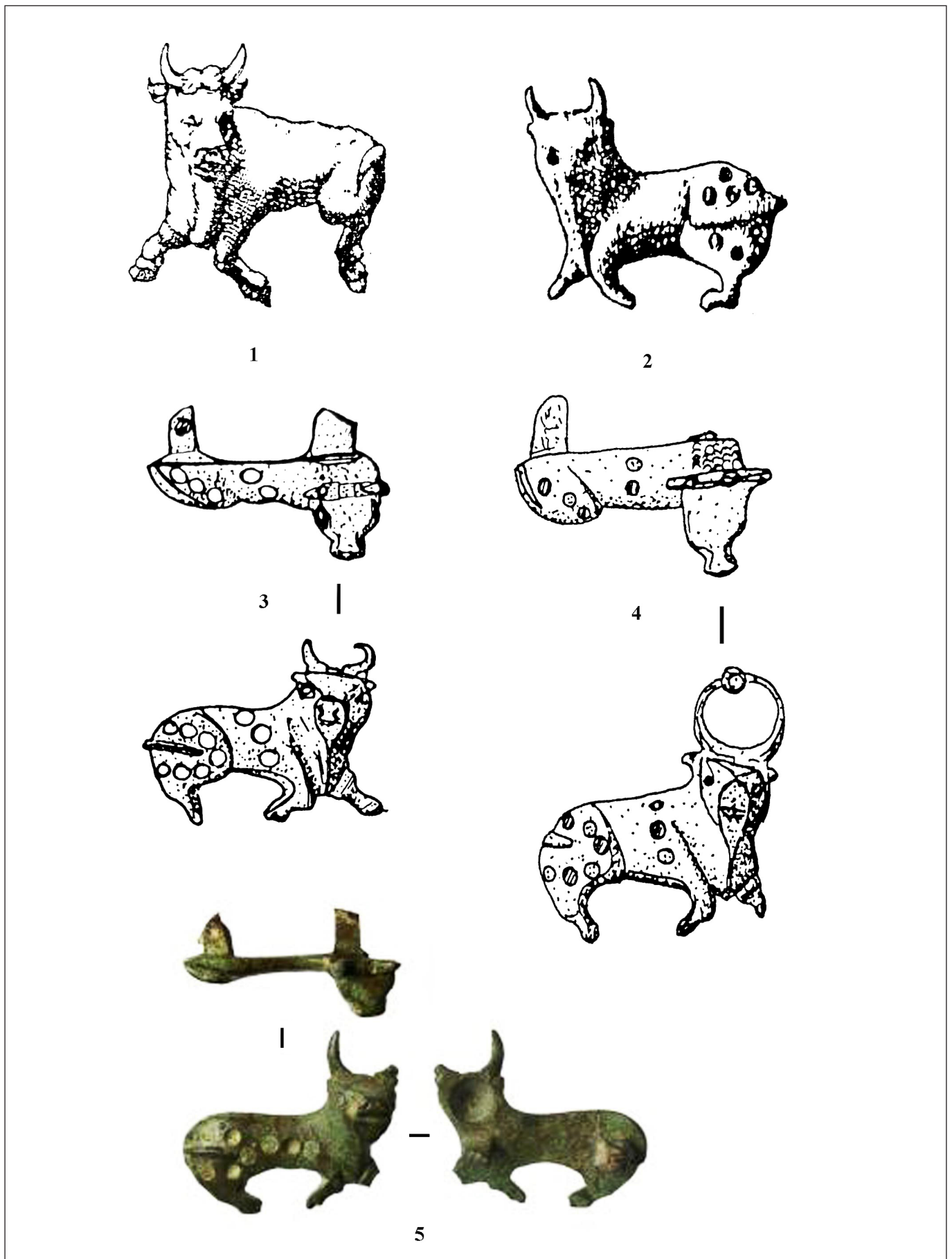


Fig. 8. Zoomorphic fibulae with a bull-shaped body, simple (1) and enamelled (2-5) 1. Nijmegen; 2. Lizy; 3. Vaulx-Vraucourt, *La Voie Jaqueline*; 4. National Museum of Archaeology (Saint-Germain-en-Laye); 5. Nuits-Saint-Georges, *Les Bolards* (1-4 – after DELMAIRE/NOTTE et collab. 1996; 5 – after M. Feugère, *Brooch, zoomorphic: bull* (Artefacts: FIB-4368), [<https://artefacts.mom.fr/result.php?id=FIB-4368>]).

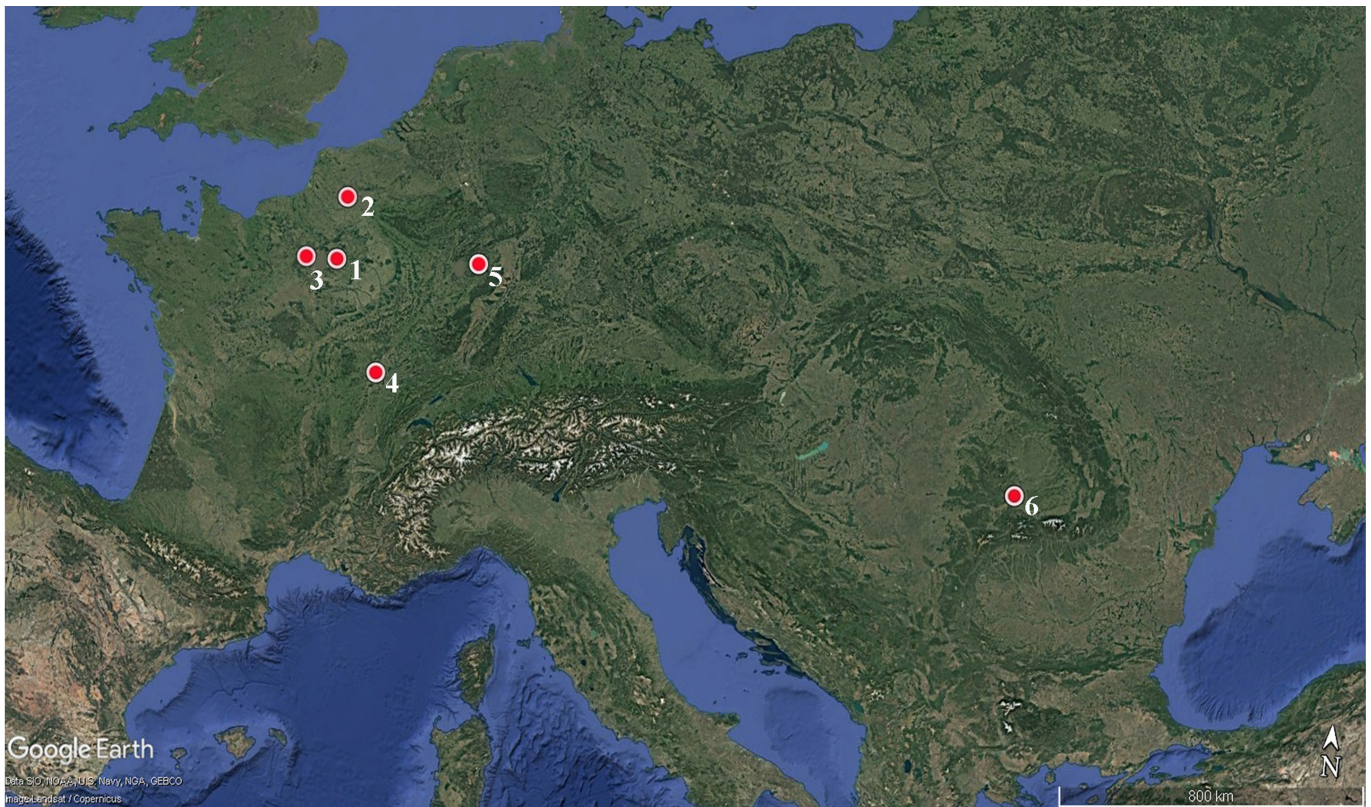


Fig. 9. Map with the spread of enamelled zoomorphic fibulae in the shape of a bull. 1. Lizy; 2. Vaulx-Vraucourt, *La Voie Jaqueline*; 3. National Museum of Archaeology (Saint-Germain-en-Laye); 4. Nuits-Saint-Georges, *Les Bolards* (France); 5. Rhineland (Germany); 6. Apulum (Alba Iulia).

(the Netherlands) (Fig. 8/1). To the latter add another five bull-shaped, enamelled zoomorphic brooches of Lizy³⁶ (Fig. 8/2), Vaulx-Vraucourt, *La Voie Jaqueline*³⁷ (Fig. 8/3), Nuits-Saint-Georges, *Les Bolards*³⁸ (Fig. 8/5) (France), the Rhineland³⁹ (Germany) and the specimen of unknown origin in the collection of the National Museum of Archaeology⁴⁰ (Saint-Germain-en-Laye, France) (Fig. 8/4). All five fibulae have their bodies decorated with round enamelfilled cells, similar to those on the piece from Apulum, yet they belong to variants different from our specimen. The decoration type with round alveoli on the body, with enamel inlay, similar to that of the specimen from Apulum, is found on several variants of zoomorphic brooches from the Roman provincial environment, especially from the western part of the Empire⁴¹.

³⁶ DELMAIRE/NOTTE *et collab.* 1996, 42, Fig. 12/2.

³⁷ DELMAIRE/NOTTE *et collab.* 1996, 40, 41, cat. 49, Fig. 11/49.

³⁸ M. Feugère, *Brooch, zoomorphic: bull* (Artefacts: FIB-4368), [https://artefacts.mom.fr/result.php?id=FIB-4368], accessed on 21/12/2025.

³⁹ M. Feugère, *Brooch, zoomorphic: bull* (Artefacts: FIB-4368), [https://artefacts.mom.fr/result.php?id=FIB-4368], accessed on 21/12/2025

⁴⁰ DELMAIRE/NOTTE *et collab.* 1996, 42, Fig. 12/3.

⁴¹ For a few examples see PATEK 1942, Pl. XX/5, 10-11; XXI/5-6; BÖHME 1972, Pl. 27/1059; RIHA 1979, Pl. 67/1731-1734, 1779; 68/1747; BATESON 1981, Fig. 6/13, 16; MATOUSCHEK/NOWAK 1981-1982, Pl. 5/10, 12/40, 14/50; MATOUSCHEK/NOWAK 1985-1986, 208/1, 7-9; 209/1-3, 13; 216/1-2; FEUGÈRE 1985, Fig. 58/4a, 4b, 6a, 6b, 6c, 7c, 7d, 59/8, 10a, 11a, 11b, 12a, 12b, 12c, Pl. 157/1975, 1978, 1979; GENČEVA 2004, Pl. XXVII/3; GASPAR 2007, Pl. 95/2160-2165; KROPOTOV 2010, Fig. 89/form 21, 29; MACKRETH 2011, Pl. 125/8071; 127/8123, 11687, 14440; 128/8133; BÖHME-SCHÖNBERGER 2016, 449, Fig. 5/2; 6.

Zoomorphic brooches begin to appear in the Roman empire as early as the second quarter of the 1st century AD, as proven by finds from Tiberius-Claudius contexts⁴², while enamelled zoomorphic specimens, based on finds published over the course of time, emerge sometime during the second half of the 1st century AD.

Within the class of zoomorphic brooches, continuous development is also notable between the 1st century and the middle or second half of the 3rd century AD, marked by a progressive increase in decorative complexity (techniques and colours): from plain brooches, finely incised or discreetly enamelled with a single colour in the 1st century – early 2nd century AD, to exemplars with more elaborate enamelling⁴³ featuring polychrome patterns starting from the second half of the 2nd century AD, sometimes reaching mottled and highly ornate compositions during the 3rd century AD.

In the province of Dacia, enamelled zoomorphic brooches were used throughout the 2nd century AD, with some remaining fashionable during the first decades of the 3rd century AD as well. Regarding plain zoomorphic brooches without enamelled decoration, it must be noted these were utilised in Dacia until mid-3rd century AD⁴⁴.

The distribution area and archaeological contexts in which zoomorphic brooches were discovered within the territory of Dacia evidence that their bearers were both civilians and soldiers.

⁴² FEUGÈRE 1985, 393.

⁴³ Predominate two-coloured enamelled items.

⁴⁴ COCIȘ 2004, 118-119.

The appearance, features and enamelled decoration of the brooch of Apulum (Fig. 5) are indicative of a date during the peak use period of enamelled zoomorphic brooches, when the enamelling process was well-established. The exemplar here frames sometime during the 2nd century AD, most likely its second half and is an import from Gallia, where zoomorphic brooches with this decoration type are most numerous. Last but not least, it is worth mentioning that the discovery of the brooch within the perimeter of the northern cemetery at Apulum impedes us to securely ascribe the affiliation of its bearer to a military or civilian environment.

REFERENCES

- AMBROZ 1966
Ambroz, A. K., *Fibuly yuga evropejskoj chasti SSSR*, Arkheologiya SSSR. Svod Arkheologicheskikh Istochnikov D1-30 (Moskva: Nauka).
- ARDEVAN 1998
Ardevan R., *Viața municipală în Dacia Romană* (Timișoara: Mirton).
- BATESON 1981
Bateson, J. D., *Enamel-Working in Iron Age, Roman and Sub-Roman Britain. The Products and Techniques*, British Archaeological Reports, British Series 93 (Oxford: B.A.R.).
- BAYLEY/BUTCHER 2004
Bayley, J./Butcher, S., *Roman Brooches in Britain. A Technological and Typological Study Based on the Richborough Collection* (London: The Society of Antiquaries of London).
- BÂRCĂ 2014
Bârcă, V., *Sarmatian vestiges discovered south of the Lower Mures River. The graves from Hunedoara Timișană and Arad* (Cluj-Napoca: Mega Publishing House).
- BÂRCĂ 2015
Bârcă, V., A few notes on the emergence and distribution in the Sarmatian environment of variously shaped ditched enclosures, with or without graves inside. In: Kogălniceanu, R./Gligor, M./Curcă, R.-G./Stratton, S. (eds.), *Homines, Funera, Astra 2. The Archaeology of Death in Ancient Times (Romanian Case Studies). Proceedings of the International Symposium on Funerary Anthropology, 23-26 September 2012, 1 Decembrie 1918 University (Alba Iulia, Romania)* (Oxford: Archaeopress), 103-118.
- BÂRCĂ 2015a
Bârcă, V., The reinterpretation of the Sarmatian finds from the Romanian Plain (I), *Journal of Ancient History and Archaeology* 2/1, 35-71. DOI: <http://dx.doi.org/10.14795/j.v2i1.105>.
- BÂRCĂ 2020
Bârcă, V., Funerary Ditched Enclosures in the Sarmatian Funerary Ritual. Observations Regarding Their Introduction, Distribution, Use, and Dating, *Ziridava Studia Archaeologica*, 34, 325-376.
- BÂRCĂ/COCIȘ 2013
Bârcă, V./Cociș, S., Sarmatian Graves Surrounded by Flat Circular Ditch Discovered at Nădlac (Arad County, Romania), *Ephemeris Napocensis* 23, 31-50.
- BÂRCĂ et alii 2023
Bârcă, V./Plantos, C./ Bounegru, G. V./Melincianu, A., Preliminary data on the rescue archaeological excavations of Alba Iulia - Republicii Blvd. no. 3, *Journal of Ancient History and Archaeology* 10/3, 75-135. DOI: [10.14795/j.v10i3.924](https://doi.org/10.14795/j.v10i3.924)
- BÂRCĂ et alii 2024
Bârcă, V./Fântâneanu, C./Matiș, A./Florescu, C., Aspects of the Funerary Rite and Ritual in the Sarmatian cemetery of Timișoara - *Hladik 1* (Timiș County). Preliminary observations, *Journal of Ancient History and Archaeology* 11/4, 2024, 166-198. DOI: [10.14795/j.v11i4.1146](https://doi.org/10.14795/j.v11i4.1146)
- BÂRCĂ/GRUMEZA 2014
Bârcă, V./Grumueza, L., Sarmatian burials in coffins and funerary timber features recently discovered in the Western Plain of Romania, *Ephemeris Napocensis* 24, 157-194.
- BÂRCĂ/SYMONENKO 2009
Bârcă, V./Symonenko, O., *Călăreții stepelor. Sarmații în spațiul nord-pontic* (Cluj-Napoca: Mega).
- BENEA 2009
Benea, D., Emailul în Dacia romană. între import și producție locală. In: Benea, D. (ed.), *Studii privind istoria economică a Daciei romane II*. Bibliotheca Historica et Archaeologica Universitatis Temesiensis 11, 9-28.
- BENEA et alii 2006
Benea, D./Crînguș, M./Regep-Vlascici, S./Ștefănescu, A., *Arta și tehnica emailului în Dacia romană* (Timișoara: Excelsior Art).
- BERECZ 2008
Berez, K., *Aucissa es emailos fibulak Pannoniaban es a szomszedes barbaricumban / Aucissa and Enamelled Brooches in Pannonia and the neighbouring Barbaricum*. Unpublished PhDthesis (Budapest).
- BOELICKE 2002
Boelicke, U., *Die Fibeln aus dem Areal der Colonia Ulpia Traiana*. Xantener Berichte 10 (Mainz: Philipp von Zabern Verlag).
- BOJOVIĆ 1983
Bojović, D., *Rimske fibule Singidunuma* (Beograd: Muzej grada Beograda).
- BOUNEGRU 2025
Bounegru, G. V., Restituiri. Un lot de fibule descoperite recent pe teritoriul județului Alba. In: Aparaschivei, D./Bilavschii, G./Bacumenco-Pîrnău, L. (eds.), *Varia Archaeologica (V). Cercetarea arheologică românească actuală: între performanță și austeritate* (Cluj-Napoca: Mega), 265-280.
- BÖHME 1972
Böhme, A., Die Fibelen der Kastele Saalburg und Zugmantel, *Saalburg Jahrbuch* 29, 5-112.
- BÖHME-SCHÖNBERGER 2016
Böhme-Schönberger, A., Emailscheibenfibeln und provincialromische Knifibeln mit halbrunder Kopfplatte. In: Vos, H. U./Scheesel, N. M. (eds.), *Archäologie zwischen Römern und Barbaren. Zur Datierung und Verbreitung römischer Metallarbeiten des 2. und 3. Jahrhunderts n. Chr. im Reich und im Barbaricum - usgewählte Beispiele (Gefäße, Fibeln, Bestandteile militärischer Ausrüstung, Kleingerät, Münzen). Internationales Kolloquium Frankfurt am Main, 19.-22. März 2009. Teil I. Kolloquien zur Vor- und Frühgeschichte* 22, 1 (Bonn: Dr. Rudolf Habelt GmbH), 435-452.
- COCIȘ 1986
Cociș, S., Fibule emailate din Dacia romană, *Apulum* 23, 159-168.
- COCIȘ 2004
Cociș, S., *Fibulele din Dacia romană / The Brooches from Roman Dacia* (Cluj-Napoca: Mega).

- COCIȘ 2019
Cociș, S., *The Brooch Workshops from Dacia and the other Danubian Provinces of the Roman Empire (1st c. bc – 3rd c. ad)*. Patrimonium Archaeologicum Transylvanicum 16 (Cluj-Napoca: Mega Publishing House).
- COCIȘ/BOUNEGRU 2017
Cociș, S./Bounegru, G., The Bronze and Gold Working Workshop of Apulum, *Ephemeris Napocensis* 27, 213-227.
- COCIȘ/LĂZĂRESCU/CIUTĂ 2023
Cociș, S./Lăzărescu, V.-A./Ciută, M. M., Fibule pierdute - Fibule regăsite. *Cazul Alba Iulia*, Apulum 60, 339-385.
- DELMAIRE/NOTTE et collab. 1996
Delmaire, R./Notte, L. et collaborateurs, *Trouvailles archéologiques dans la région de Bapaume. Prospections et fouilles d'Edmond Fontaine (1926-1987)*. Mémorial historique et archéologique du département du Pas-de-Calais XXXII (Arras: Commission départementale d'histoire et d'archéologie du Pas-de-Calais).
- ETTLINGER 1973
Ettlinger, E., *Die römischen Fibeln in der Schweiz* (Bern: Francke Verlag).
- FEUGÈRE 1985
Feugère, M., *Les fibules en Gaule Méridionale de la conquête à la fin du V^e siècle après J.-C.* Revue Archéologique de Narbonnaise, Supplément 12 (Paris: CNRS).
- GASPAR 2007
Gaspar, N., *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, Vol. 11 (Luxembourg: Musée National d'histoire et d'art, Luxembourg).
- GENČEVA 2004
Genčeva, E., Rimskite fibuli ot Blgaria ot kraja na I v. pr. n. e. do kraja na VII v. na n. e. / *Les fibules romaines de Bulgarie de la fin du I^{er} s. av. J.-C. la fin du VI^e s. ap. J.-C.* (Veliko Trnovo: Faber).
- GRUMEZA 2014
Grumeza, L., *Sarmatian Cemeteries from Banat (Late 1st - Early 5th Centuries AD)* (Cluj-Napoca: Mega Publishing House).
- GRUMEZA 2019
Grumeza, L., *Corpus der römischen Funde im europäischen Barbaricum. Rumänien Band 1. Kreis Arad* (Cluj-Napoca: Mega Verlag).
- GUDEA et alii 2024
Gudea, Al./Bărcă, V./Irimie, Al./Martonos, C./Socaciu, A., La Tène Horse Remains from Alba Iulia CX 143 Complex: A Whole Story to Tell, *Animals* 14 (11), 1624, 1-18. DOI: <https://doi.org/10.3390/ani14111624>.
- JOBST 1975
Jobst, W., *Die römischen Fibeln aus Lauriacum*. Forschungen in Lauriacum 10 (Linz: OÖ. Landesmuseum).
- HASELOFF sv. Email 1989
Haseloff, G., sv. Römisches Email, *Reallexikon der Germanischen Altertumskunde* 7/3/4, 197-230.
- HELLSTRÖM 2018
Hellström, K., *Fibeln und Fibeltracht der Sarmatischen Zeit im Nordschwarzmeergebiet (2. Jh. v. Chr. – 3. Jh. n. Chr.)*. Archäologie in Eurasien 39 (Bonn: Habelt-Verlag).
- KROPOTOV 2010
Kropotov, V. V., *Fibuly sarmatskoj epokhi* (Kiev: ADEF-Ukraina).
- KRUNIĆ/IGNJATOVIĆ 2022
Krunić, S./Ignjatović, M., Rimske emajlirane fibule iz Muzeja grada Beograda, *Glasnik Srpskog arheološkog društva / Journal of Serbian Archaeological Society* 38, 303-330.
- LERAT 1956
Lerat, L., *Catalogue des collections archéologiques de Besançon, II Les fibules gallo-romaines*. Annales Littéraires de l'Université de Besançon, 2e série, tome III, fasc. 1, Archeologie 3 (Besançon: Faculté des Lettres; Paris: Les Belles Lettres).
- LERAT 1979
Lerat, L., *Les fibules d'Alesia dans les musées d'Alise-Sainte-Reine*. Bibliothèque Pro Alesia VII (Dijon: Faculté des sciences humaines).
- MACKRETH 2011
Mackreth, D. F., *Brooches in Late Iron Age and Roman Britain*, Vol. I (Oxford: Oxbow Books).
- MATOUSCHEK/NOWAK 1981-1982
Matouschek, J., /Nowak, H., Unpublierte Hasen Und Hundefibeln Aus Österreichischen Privatsammlungen, *Römisches Österreich* 9-10, 131-182.
- MATOUSCHEK/NOWAK 1985-1986
Matouschek, J., /Nowak, H., Unpublierte Tierfibeln und Fibeln mit theriomorphen Gestaltungselementen aus österreichischen Privatsammlungen, *Römisches Österreich* 13-14, 101-222.
- MOGA 1998
Moga, V., *Castrul roman de la Apulum* (Cluj-Napoca: Casa Cărții de Știință).
- MUSTAȚĂ/GĂZDAC 2009
Mustață, S./Găzdac, C., Așezarea romană / The Roman settlement. In: Mustață, S./Gogăltan, F./Cociș, S./Ursuțiu, A. (eds.), *Cercetări arheologice preventive la Florești - Polus Center, jud. Cluj (2007) / Rescue excavations at Florești - Polus Center, Cluj County (2007)*. Patrimonium Archaeologicum Transylvanicum 1 (Cluj-Napoca: Mega), 223-241.
- NOWAKOWSKI 2016
Nowakowski, W., Emailverzierte Sachgüter des 1.–3. Jahrhunderts im Osbaltikum. In: Vos, H. U./Scheesel, N. M. (eds.), *Archäologie zwischen Römern und Barbaren. Zur Datierung und Verbreitung römischer Metallarbeiten des 2. und 3. Jahrhunderts n. Chr. im Reich und im Barbaricum - ausgewählte Beispiele (Gefäße, Fibeln, Bestandteile militärischer Ausrüstung, Kleingerät, Münzen)*. Internationales Kolloquium Frankfurt am Main, 19.-22. März 2009. Teil I. Kolloquien zur Vor- und Frühgeschichte 22, 1 (Bonn: Dr. Rudolf Habelt GmbH), 465–474.
- OTA 2012
Ota, R., *De la canabele Legiunii a XIII-a Gemina la Municipium Septimium Apulense*, (Alba Iulia: Altip).
- PATEK 1942
Patek, E., *Verbreitung und Herkunft der römischen Fibeln in Pannonien*. Dissertationes Pannonicae II, 19 (Budapest: Institut für Münzkunde und Archäologie der Péter Pázmány-Universität).
- PAULI 2024
Pauli, M., *Die römischen Fibeln der frühen und mittleren Kaiserzeit aus Augsburg* Augsburger Beiträge zur Archäologie 10 (Augsburg: Wißner Verlag).
- PEŠKAŘ 1972
Peškař, I., *Fibeln aus der römischen Kaiserzeit in Mähren* (Praha: Československa akademie věd).

- PETKOVIĆ 2010
Petković, S., *Rimske fibule u Srbiji od I do V veka n. e.* (Beograd: Arheološki Institut).
- PLANTOS *et alii* 2024
Plantos, C./Bârcă, V./Bounegru, G. V./Melincianu, A., Cercetări arheologice recente în necropola nordică de la Apulum. Observații preliminare. In: Aparaschivei, D./Bilavski, G./Bacumenco-Pîrnău, L. (eds.), *Varia Archaeologica (IV). Provocări, căutări și certitudini în cercetarea arheologică românească actuală* (Cluj-Napoca: Mega), 207-254.
- RIHA 1979
Riha, E., *Die römischen Fibeln aus Augst und Kaiseraugst*. Forschungen in Augst 3 (Augst: Amt für Museen und Archäologie des Kantons Basel-Landschaft).
- RIHA 1994
Riha, E., *Die römischen Fibeln aus Augst und Kaiseraugst. Die Neufunde seit 1975*. Forschungen in Augst 18 (Augst: Römermuseum).
- ROLLEY/DEYTS 1973
Rolley, C./Deyts, S., *L'art de la Bourgogne romaine, découvertes récentes*. Cat. Expo. Musée Arch. Dijon (Dijon: Musée archéologique de Dijon).
- SÁRÓ 2014
Sáró, Cs., Kora császárkori fibulák a Wosinsky Mór Megyei Múzeum gyűjteményéből, *A Wosinszky Mór Múzeum évkönyve* 36, 159-223.
- SCHMID 2010
Schmid, S., *Die römischen Fibeln aus Wien*. Monografien der Stadtarchäologie Wien 6 (Wien: Phoibos).
- SEDLMAYER 1995
Sedlmayer, H., *Die römischen Fibeln von Wels* (Wels: Musealverein Wels).
- SELLYE 1939
Sellye, I. *Császárkori emailmunkák Pannoniából / Les bronzes émaillés de la Pannonie Romaine*. Disertationes Pannonicae II, 8 (Budapest: Institut de numismatique et d'archéologie de l'Université Pierre Pázmány).
- VADAY 2003
Vaday, A., Cloisonné brooches in the Sarmatian Barbaricum in the Carpathian Basin, *Acta Archaeologica Academiae Scientiarum Hungaricae* 54, 315-412.
- VORNIC/BUBULICI 2024
Vornic Vl./Bubulici, V., O fibulă emailată romană descoperită în raionul Sîngerei (Republica Moldova), *Revista de Arheologie, Antropologie și Studii Interdisciplinare* 6, 199-206.
- VORNIC/MATVEEV/DERMENJI 2024
Vornic Vl./Matveev, S./Dermenji, L., O fibulă romană emailată descoperită la Cajba (r-nul Glodeni), *Arheologia Moldovei* 47, 193-204.