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Cover: The column shaft with low-relief, depicting god Mercury, discovered on the western part of the Roman town at Napoca (10 Episcop Ioan Bob St.).

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FOREWORD

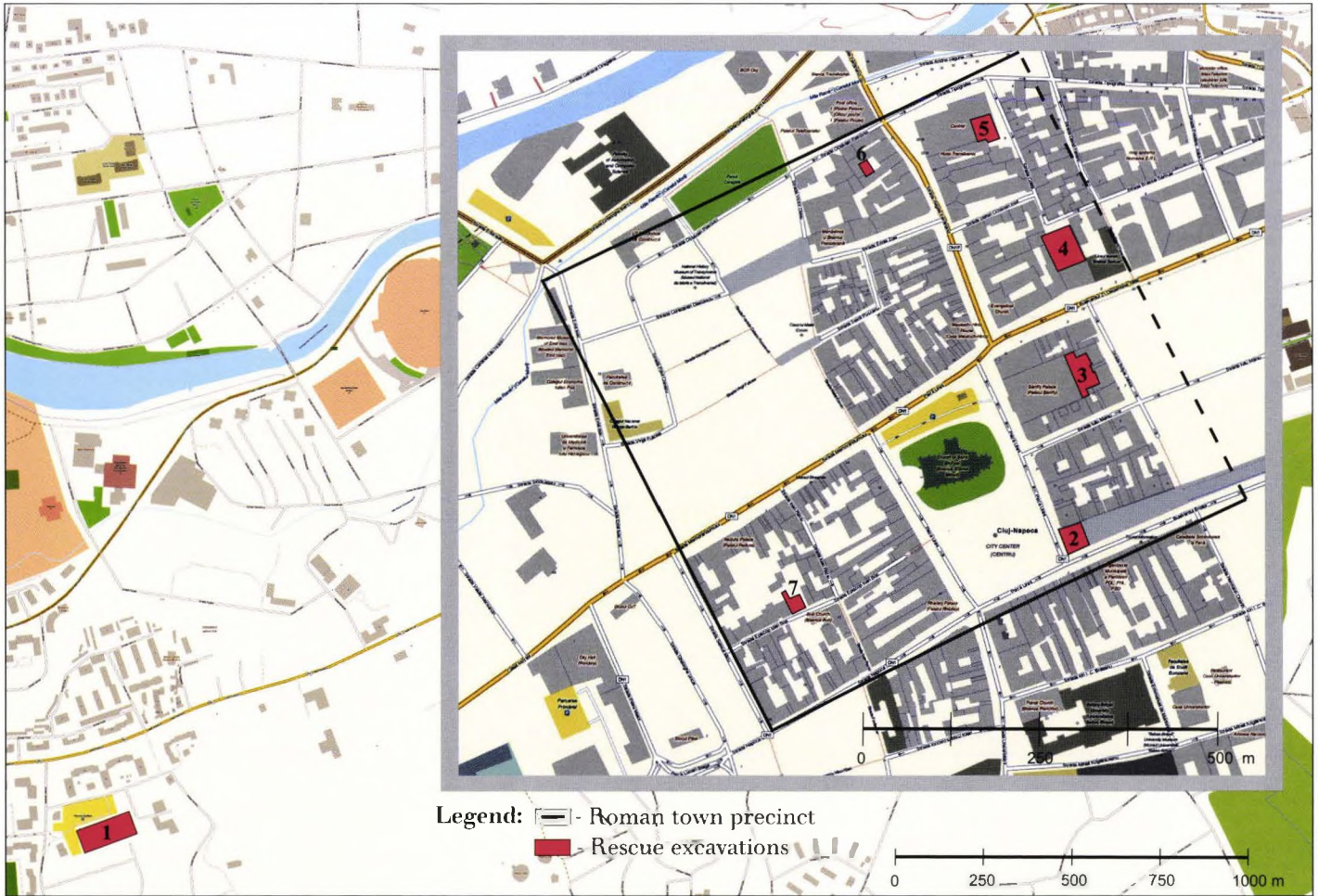
According to the ICOM statute, the museum is the owner of the collections which it acquires, administers based on recognized methods, *studies*, preserves and exhibits based on a well established schedule (ICOM, statute of 14.06.1974, see C. Lapaire, *Kleines Handbuch für Museumskunde*, Bern 1983). The National History Museum of Transylvania counts on 22 archaeologists, the majority expert archaeologists, while a significant part of the museum's research activity is represented by archaeological excavations, both systematic and preventive. The Museum is the institution conducting archaeological research, coordinating the excavations carried out on the systematic archaeological sites at *Colonia Dacica Sarmizegetusa*, *Sarmizegetusa Regia*, Costești-Blidaru (Hunedara county), *Apulum-Alba Iulia* (Alba county), *Samum-Cășieu*, Țaga, Bologa, Luna (Cluj county), Cetatea Zânelor, Covasna (Covasna county) and having specialists involved in the teams working on other large archaeological sites like those at *Histria* (Constanța county) and *Potaissa-Turda* (Cluj county). The institution is provided with the necessary logistics and specialists to conduct and coordinate systematic archaeological sites, but also rescue excavations, which are also a significant part of the archaeological research. For instance, only in 2013, the Museum has carried no less than 28 such preventive archaeological investigations on the territory of Cluj-Napoca city and in Cluj county.

This volume is the result of such research carried out by the specialists of our Museum in Cluj-Napoca city over the last two decades. The editorial team decided to print a separate number of the journal *Acta Musei Napocensis*, seria *Archaeologica*, comprising the results of such excavations only, owing to the major scientific interest enjoyed by any research designed to bring forward new data on *Colonia Aurelia Napoca*, the Roman town overlapped almost entirely by medieval and modern buildings, as well as the prehistory of this area. If excavations inside or the immediate vicinity of the Roman town are predictable from the results' point of view, those performed outside may be spectacular and have unexpected results, like those on street Câmpului no. 9-19 (on the current location of "Kaufland" supermarket), revealing a new Hallstatt settlement, of which nothing was known prior the commencement of the archaeological works. On the other hand, most of the articles in this volume scientifically use the results of the preventive archaeological investigations performed inside the Roman town at Napoca. Thus, they are focused on the north-eastern side of the ancient settlement (Regele Ferdinand St. no. 29; "Central" Store - extension on the southern side; B-dul 21 Decembrie 1989 no. 5 - extension of "Sora" store), in the central part (the research in the Museum of Art courtyard), on the south-eastern side (B-dul Eroilor no. 1, no. 9-11) and nearby its western side (Episcop Ioan Bob St. no. 10). Each of these archaeological excavations presented herein will undoubtedly contribute in the improvement of the image on the urban evolution of the Roman town at Napoca, which may be reconstructed with the aid of archaeology only.

Concurrently, the heritage of the National History Museum of Transylvania has been constantly enriched with artifacts yielded by such archaeological research, of either *small finds* type or with stone monuments, like the god Mercury's depiction on a votive column found following the excavations performed on street Episcop Ioan Bob no. 10.

This journal number is novel and initiates the series of numbers dedicated to the publication of the results of the archaeological research carried out by the specialists of our Museum.

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PL. I*. The plan of the city Cluj-Napoca, with the location of the rescue excavations: 1. Câmpului St. nos. 9-19; 2. Eroilor Blvd., nos. 9-11, 11; 3. Art Museum courtyard; 4. 21 Decembrie 1989 Blvd., no. 5 (“Sora” supermarket extension); 5. “Central” store extension; 6. Regele Ferdinand St., no. 29; 7. Episcop Ioan Bob St., no. 10.

ARCHAEOLOGICAL REPORTS

A NEW FORTIFIED HALLSTATT SETTLEMENT DISCOVERED AT CLUJ-NAPOCA (PRELIMINARY REPORT ON THE ARCHAEOLOGICAL EXCAVATIONS PERFORMED ON 9-19 CÂMPULUI STREET)

EMILIAN BOTA, VALENTIN VOIȘIAN, MONICA TECAR, TIBERIU TECAR

Abstract: Archaeological research in Mănăștur quarter (Cluj-Napoca), Câmpului St. nos. 9-19 led to discovery of a Hallstatt fortified settlement provided with a defensive ditch with an approximately 11 m span in the upper part. The settlement was dated in the Hallstatt period based on the analysis of the main finds (among which counts a bone sceptre), but especially on pottery typology and decoration. We identified also La Tène pottery (C1), a feature-house with pottery of the period, nearby which was found a Celtic knife dated to La Tène C1.

To the post-Roman period were dated two pits containing pottery, a reused Roman brick stamped *R(es) P(ublica) [N(apocensis)]* as well as a rhombic bone object with concentric circles.

Keywords: ditch; fortified settlement; Hallstatt; the Celts; post-Roman period.

Rezumat: Cercetările arheologice din cartierul Mănăștur (Cluj-Napoca), str. Câmpului nr. 9-19 au dus la descoperirea unei așezări fortificate hallstattiene cu un șanț de apărare care avea la partea superioară o deschidere de aproximativ 11 m. Pe baza analizei principalelor descoperiri (dintre care se remarcă un sceptru de os), dar mai ales a tipologiei și a decorului ceramicii, această așezare a fost datată în perioada Hallstatt. Au fost identificate și ceramică La Tène (C1), un complex-locuință cu ceramică din această perioadă, lângă care a fost găsit un cuțit celtic care se datează în perioada La Tène C1.

Din epoca post-romană au fost descoperite două gropi care conțineau ceramică, o cărămidă romană refolosită cu ștampila *R(es) P(ublica) [N(apocensis)]*, precum și un obiect rombic de os cu cercuri concentrice.

Cuvinte cheie: șanț; așezare fortificată; Hallstatt; celți; epoca post-romană.

Rescue archaeological research¹ in Mănăștur quarter, Câmpului St. nos. 9-19 was carried out in April-September 2005 (Pl. I*). The developed surface was ca. 13.600 m², where a Kaufland type trading centre was going to be built. Over time, nearby the surface of our investigation, located close to the junction between Câmpului, Almașului and Calea Mănăștur streets (Pl. I), were recorded isolated finds spreading from prehistory to the medieval period². The renown fortified church at Cluj-Mănăștur (Calvaria), dated to the 9th-14th centuries³, is also nearby. During the excavations performed there, it was noted that the rampart was built on the ancient humus and that its core

¹ The archaeological site supervisor was Valentin Voișian. Adriana Isac, Cosmin Rusu and Cristian Aurel Roman attended the research during its various stages. We thank this way Mr. Valentin Vasilev, who visited us several times during the excavations and provided us with information and suggestions for dating the pottery and the prehistoric archaeological features.

² RepCluj, 118-120.

³ Iambor, Matei 1975; Iambor, Matei 1979, 599-620; Iambor, Matei, Halasu 1981; Iambor, Matei 1983, 131-146.

comprised Hallstatt and Celtic pottery, as well as many Roman and Post-Roman⁴ artifacts resulted from the defensive ditch diggings. Subsequent to the excavations carried out between 1911-1912 by Kovács István were recorded in the vicinity a Bronze Age settlement, another dating from the early La Tène as well as a Roman building and inhabitancy prints from the 4th century AD⁵. Hallstatt and post-Roman pottery was discovered in close proximity, when the blocks of flats were built in the 80'ies of the last century on Almaşului, Câmpului and Ion Meşter streets⁶.

Overall, a number of 32 excavation units were excavated (Pl. I). In the central-eastern area of the surface were identified several modern pits, as well as a natural eastward sloping of the land, very marked, filled with building debris (even entire pre-cast walls) resulted from the construction of the blocks of flats on Câmpului and Calea Mănăştur streets. On large part of the examined surface, such real estate development works destroyed the stratigraphy, reaching the sterile. There, blocks of flats were intended to be built, the land having been prepared for such purpose; however, the events of December 1989 ended the works. This was completed by the destruction resulted from the commencement of the supermarket construction works (Pl. XVI/1), archaeologists being notified a few months after their start. In the western part (the Câmpului street front), the site was destroyed by the foundations of the houses existent there until the 90'ies. In the southern part we identified the water mains of the city.

Despite these modern and contemporary intrusions on the area proposed for archaeological discharge, remains from the first and second Iron Age (Hallstatt and La Tène)⁷ as well as post-Roman remains were discovered.

The following excavation units were excavated:

S1 (Pl. II/1; XVI/2) - oriented north-south, sized 31.00 × 2.00 m, at a maximum depth of -2.70 m. We have a contemporary filling of 0.90 m maximum thickness, in fact building debris resulted from the construction of the nearby blocks of flats. Below this filling comes a deposition and alluvial layer, with a maximum thickness of 1 m. In this layer above the humus were identified a few out of context pottery fragments dating from the first Iron Age. The ancient humus emerges at -2.10 m deep. At this depth, the trench was flooded by underground waters.

S2 (Pl. XVII/1) - oriented east-west, sized 32.00 × 2.20 m, maximum depth of 3.30 m. The stratigraphy is identical to that in S1, except for the fact that between m 17 and m 20, at -2.00 m deep, emerges a 0.25 m thick burning layer with no archaeological material. This burn layer dates to the time of the construction of the blocks of flats, an apartment wall being identified nearby. This section was flooded too.

S3 - oriented east-west, sized 16.50 × 2.00 m, maximum depth of 3.50 m. On the entire trench surface we identified a pit filled with debris coming from the buildings nearby. At this depth, the trench was flooded by underground waters.

S4 (Pl. III/1-2; XVIII/1) - oriented east-west, sized 17.00 × 2.50 m, maximum depth of 3.00 m. The contemporary filling is 2.20 m maximum thick. Follows the deposition and alluvial layer with a 0.75-0.80 m thickness. Below this filling, in the ancient

⁴ Iambor, Matei 1975, 293.

⁵ Pósta 1912, 43; Protase 1966, 114-116; Hica 1974, 165.

⁶ Information P. Iambor.

⁷ Hallstatt and La Tène pottery was supposed to be processed by Monica and Tiberiu Tecar.

humus, were identified two pits termed conventionally G1 and G2, dating, we believe, to the post-Roman period.

The first pit, G1, (Pl. XVIII/2) emerges between m 1.40 and 3.50. It is oval in shape and is sized 2.10 × 1.70 m, the maximum depth being 0.65 m. A fragmentary Roman tile (Pl. XXXIV/2), sized 18.5 × 12.5 cm, was found in this pit; thickness = 4.5 cm. The tile preserves impressed letter R as well as a vertical *hasta*. The two letters may come from stamp *R(es) P(ublica) [N(apocensis)]⁸*. A bone object (Pl. XXXIV/3), sized 2.5 cm, respectively 3 cm, similar to a rhomb, was also discovered; it is decorated with concentric circles on one side, the other being smooth, with no attachment prints.

Still from this pit come several fragments of a large tureen (Pl. XV/1) and a bowl or tureen base (Pl. XV/2). Due to the archaeological context and the identified material, we believe this pit may be dating to the post-Roman period⁹.

G2 is located between m 6.90 and 8.70, is relatively round in shape and its sizes are of 1.80 × 1.70 m, the maximum depth being of 0.40 m. It cuts the northern profile, reason for which we excavated another trench, sized 1.50 × 0.50 m. In the upper part, the pit preserves a few unfinished limestone stones; the resulted archaeological material includes a few atypical potshards.

S5 - oriented east-west on trench S3 axis is sized 23.00 × 2.00 m, with a maximum depth of -3.00 m. We underlined the prints of the pit emerged in S3, having identical stratigraphy.

S6 (Pl. IV/1) - oriented east-west, on the same axis with S5, sized 15.00 × 2.50 m, the maximum depth being -2.00 m. The stratigraphy is identical to that in trenches S3 and S5. Due to water infiltrations, we were unable to deepen excavation.

S7 (Pl. IV/2) - oriented east-west, is sized 24.00 × 2.50 m, has a maximum depth of 2.00 m. It comprises a 0.20-0.25 m layer of contemporary filling, followed by an approximately 1.00 m layer of fills and depositions where a few out of context modern pottery fragments were identified. Beneath this layer emerges the sterile, the ancient humus not being preserved.

S8 (Pl. II/2; XVII/2) - oriented north-south, is sized 16.50 × 2.00 m and has a maximum depth of -1.80 m. The stratigraphy was completely destroyed by the intrusions during the urban development works, so that were identified only three filling-levelling layers with a maximum thickness of 0.75-0.80 m, the lowermost being 0.35 m. Out of context modern pottery fragments were discovered in it, which makes us believe this filling layer was brought once with the construction of the houses in the area. In the northern end of the trench, between meters 2.50 and 5.00 were found the two water mains supplying the city with drinking water. The trench was flooded by underground water.

S9 (Pl. V/1; XIX) - oriented north-south, is sized 14.00 × 2.30 m and has a maximum depth of -3.30 m. Stratigraphy: there is a black earth contemporary filling layer

⁸ Such a brick stamped *R P N* (letters not framed by cartridge) was found as spoil in a medieval *sarcophagus* dated to the 18th century found during the excavations in the fortified settlement Calvaria in Cluj-Mănăştur, located nearby our excavations: Iambor, Matei, Halasu 1981, 143-144, note 11; Petolescu 1983, no. 174; RepCluj, 120; ILD, 573. Other examples: CIL III 8075, 25. Information Carmen Ciongradi, whom we thank herein.

⁹ For the identified post-Roman pottery on the territory of the former Roman town at Napoca and its surroundings see Diaconescu, Bota, Voişian 2006, 885-909.

spreading all over the trench surface, 0.90 m thick. The sterile comes beneath this layer. Between meters 1.20 and 12.20 we identified a “V”-letter shaped ditch, with a maximum span of approximately 11.00 m. The tip of the ditch could not be identified due to underground waters. In the upper part, the ditch is filled by a light brown earth layer, of 1.30 maximum thickness, followed by a dark brown earth layer, the ditch being clogged over time. In the ditch filling were found pottery fragments belonging to the first Iron Age, dated around 1000 BC.

S10 (Pl. V/2; XX) - oriented north-south, sized 22.00 × 3.00 m, with a maximum depth of 3.85 m. This trench was dug in order to follow the route of the ditch found in S9. The stratigraphy is similar to that in the previous trench. The ditch emerges at 4.60 m from the southern end of the trench and has a maximum thickness, in the upper part, of 9.00 m. We could not reach the ditch tip in this trench either, due to the underground waters, the maximum depth reached being -2.00 m. The filling of this ditch is similar to that in section S9 and contained Hallstatt pottery fragments. The ditch is overlapped by two layers of fillings.

S11 - oriented north-south, is sized 14.00 × 2.00 m, has a maximum depth of -2.50 m. We identified again the modern pit filled with debris emerged in trenches S3, S5.

S12 - oriented north-south, sized 20.00 × 3.20 m, maximum depth of -3.50 m. In this trench also we identified the modern pit on the entire surface as well as the two water mains. The trench was flooded by water.

S13 (Pl. III/3) - oriented north-south, is sized de 15.00 × 2.50 m and has a maximum depth of -2.10 m. The stratigraphy is the same to that in S12, as well as the two water mains.

S14 - oriented east-west, sized 11.00 × 2.00 m, maximum depth -2.80 m; the same stratigraphy as in S12.

S15 (Pl. VI; XXII) - oriented north-south, is sized de 16.00 × 3.00 m has a maximum depth of 1.40 m. The stratigraphy is as follows: 0.10 m debris and modern filling, followed by a dark earth layer 0.40 m thick in the southern end, 0.80 m thick in the northern end, followed by the yellow sterile clay. Between m 1.40 and 3.50 (on the eastern profile), at -0.90 m deep, we identified a surface house with a maximum depth of 0.10 m. The pit is irregular, sized 1.50 m on the east-west side and 2.40 m on the north-south direction. After its removal (G1) we identified another rectangular pit sized 0.65 × 0.30 m (G2) and 0.45 m in depth. Westward these pits, at 0.10 m from the western profile, respectively at 1.25 m from the northern profile, we identified a third rectangular pit sized 0.50 × 0.40 m and 0.20 m deep. In G1 and G2 were discovered a few pre-medieval pottery fragments.

S16 (Pl. VII-VIII, XXIII/1) - is sized 4.20 × 4.60 m, maximum depth -3.50 m. Stratigraphy: a debris layer with a maximum thickness of 0.30 m, followed by a filling layer of 1.00 m thickness. Beneath the latter emerged a surface level of battered earth and clay, with burning pigments, with a thickness of 0.15-0.20 m. At 1.20 m deep and 0.50 m from the western profile and 1.60 m from the same profile, in the sterile clay we excavated a pit house sized 4.20 m on the north-south axis and 3.25 m on the east-west axis. In this trench we identified only part of the house, extending in trenches S18, S19 and S20. Inside the house, we identified, below the clay and burning layer spreading over the entire section surface, a filling layer, 0.30-0.40 m thick. Under the house, at -1.60-1.80 m deep, we found another settlement level with a 0.10 m thickness, characterized

by strong burning traces, La Tène pottery and bone fragments. There followed a filling layer of ca. 0.60 m thick. Below, at -2.20 m deep there is another settlement level (0.10 m thick) with burning pigments and a few Hallstatt pottery fragments. This settlement level covers the house bottom, being 1.50 m wide and maximum 0.70 m deep; in the lower part, there was identified a 0.15-0.20 m thick burning layer. Unfortunately, excavations could not be pursued northwards, in order to discover the house limits, as stratigraphy was destroyed by the construction works of the commercial complex.

S17 (Pl. IX-X; XXIV/1) - oriented east-west, sized de 18.50 × 3.00 m, maximum depth -1.40 m. In this trench we identified remains from the first Iron Age, the pre-medieval and modern periods. Stratigraphy: a 0.30 m layer of modern filling, followed by a layer of dark earth with a maximum thickness of 0.45 m, and below, the virgin soil. At -0.35 m deep, at a distance of 0.60 m from the western profile and at 1.90 m from the northern profile emerged a fire place, likely modern, sized 0.80 × 0.50 m. On the southern edge of the fire place, we identified a rectangular stone sized 0.50 × 0.10 × 0.20 m. By the edge of the fire place we found a few modern nails. In order to investigate the entire archaeological feature, we excavated a 2 × 2 m trench. There we discovered Hallstatt potshards, a few wheel-thrown fragments and a pit conventionally termed G6. It was identified in the trench corner, at 0.45 m deep. Its maximum depth was 0.50 m. The pit contained no archaeological materials. Between m 7.45 and 10.50, on the southern profile, at -0.40 m deep, we identified a pit house, B1 (Pl. XXVII), extending northwards to 1.5 m from the northern profile. In order to delimit the entire house we excavated a trench southwards, from m 6.60, sized 4.40 × 2.40 m. The house is rectangular in shape, its sides being 3.20 × 3.00 m and is 0.80 m deep. Inside the house, in the north-western corner, we found a stone cluster, of maximum sizes 1.70 m east-west and 1.20 m north-south. Its thickness was maximum 0.60 m. When removed, we noted that some of the stones preserved processing prints on some of the sides. The earth between the stones contained much charcoal and brick fragments, sherds of a wheel-thrown pot (Pl. XV/3), two loom weights and a few bone fragments. Under these stones we found a Roman tile. It is placed at 0.40 m from the western limit and at 0.50 m from the northern limit. Its sizes are 0.40 × 0.21 × 0.60 cm. Under the brick we identified an almost round fire-place, sized 0.20 × 0.25 m and 0.02 m thick.

At -0.75 m we identified a pit, G1, (Pl. XXIV/2-3) with 1.20 m in diameter and 1.40 m deep. It is located at 6.90 m from the western profile and at 0.45 m from the northern profile. Inside we found a restorable Hallstatt vessel, of large sizes (h = 70 cm) and a few fragments of other pots. On the pit bottom, the lower part of a vessel containing brown earth with red pigments was deposited. The pit filling earth also contained charcoal pigments. Above the pit, over the entire inventory, a grinder fragments was placed. Based on the potshards, the entire archaeological feature may be dated to the Hallstatt period (Ha B).

Another pit, G2, (Pl. XXV) was identified at 5.45 m from the eastern profile, attached to the northern profile. In order to investigate it, we excavated a trench northwards, sized 1.30 × 1.70 m. It emerged at -0.60 m deep, has a 1.30 m diameter and is 0.80 m deep. In this pit surfaced a few Hallstatt pottery fragments.

At 3.70 m from the western profile and 0.60 m from the southern profile we unearthed pit G3 (Pl. XXVI/1), at -0.50 m deep. Its shape is relatively rectangular, with sides 1.00 × 0.90 m and maximum depth of 0.10 m. On the same alignment, northwards, at 0.40 m distance, we found a similar pit (G4). These two pits contained prehistoric potshards mixed with modern pottery fragments.

At 3.55 m from the eastern end of the trench and at 1.00 m from the northern profile, at -0.80 m deep, another pit, G5, (Pl. XXVI/2-3) appeared. It is circular in shape and has a diameter of 0.60 m and a depth of 0.20 m. Inside, we found atypical pottery fragments and burning pigments.

S18 (Pl. VII; XXIII/2) - oriented north-south, is sized 2.00 × 4.00 m, maximum depth of -1.70 m. Stratigraphy: a debris layer with maximum thickness of 0.30 m, followed by a filling layer 0.80 m thick. Below came a surface level with burning pigments, 0.15 m thick. It is above a filling layer with a maximum thickness of 0.40-0.50 m. The ancient humus is maximum 0.05 m thick, being though difficult to identify, followed by the sterile clay. In this trench we found, eastwards, the end of the house identified in S16.

S19 (Pl. VII) - oriented north-south, placed southwards S16, is sized 6.00 × 4.00 m, has a maximum depth of -2.00 m. Stratigraphy: debris layer with a maximum thickness of 0.30 m, followed by a 0.90 m thick filling layer. Beneath it emerged a surface level of battered earth with burning pigments, 0.15 m thick. It overlaps a filling layer of maximum 0.40-0.50 m thickness. The ancient humus is 0.30-0.50 m thick and is followed by the sterile clay. On the eastern profile, between meters 2.50-3.90 emerges a 0.10 m thick burning, which cuts approximately 0.05 m in the sterile clay. The house identified in trenches S16 and S18 continues southwards in this trench as well.

S20 (Pl. VII) - oriented north-south, is sized 2.50 × 8.50 m, maximum depth of -2.60 m. The stratigraphy is identical to that in S19. Stratigraphy: debris layer with a maximum thickness of 0.30 m, followed by a 0.60 m thick filling layer. Beneath it emerged a surface level of battered earth with burning pigments, 0.10 m thick. Below this layer, in the north-eastern corner of the section, at 1.10 m deep, we found beside the La Tène pottery, a Celtic fight knife (Pl. XXXIV/1). The preserved length of the knife is 31 cm, while the maximum width is 3.5 cm. The blade was strongly corroded and was not preserved on the entire length; the blade tip is missing. The handle is 7 cm long and is curved, alike the knife blade, and ends in a slightly rounded knob¹⁰. In this trench we identified, at 1.20 m deep, the end of the house in S16, S18 and S19.

We dug another four excavation units conventionally termed S21-S24, and in the eastern part of trenches S21-S22 we performed a sondage in order to follow the route of the defensive ditch.

S21 (Pl. V/3; XXI) - is sized 5.00 × 5.00 m, maximum depth of -3.10 m. At -0.05 m we identified a contemporary fire place, with 0.30 m in diameter. It is placed at 1.50 m from the western profile and cuts by 0.25 m the southern profile. No archaeological materials were discovered. At 2.60 m distance from the northern profile emerges, at -0.50 m deep, the defensive ditch of the Hallstatt settlement, which also extends in trench S22.

¹⁰ Dima 2008, 81-88.

S22 (Pl. V/3; XXI) - is sized 5.00 × 5.00 m. It is placed southward S21. This trench was excavated in order to identify the southern edge of the defensive ditch. On the eastern profile of trenches S21-S22 (extending to 16.50 m), the ditch was identified up to -2.80 m deep (we could not investigate the ditch depth in this case either, due to underground waters). It has a 10.20 m span in the upper part.

S23 - S24 (Pl. XXI/1). Its stratigraphy is identical to that in sections S21-S22. In these two sections we also identified the Hallstatt defence ditch.

S25 (Pl. XI, XXVIII/1) - oriented east-west, is sized 3.00 × 20.00 m and has a maximum depth of -1.55 m. Stratigraphy: filling with modern levelling with a maximum thickness of 0.30-0.35 m. Between m 0.00 and m 4.00 there is a contemporary intrusion, which is maximum 0.25-0.30 m thick. There follows a settlement layer with a maximum thickness of 0.20 m, comprising out of context Hallstatt pottery fragments. Five pits were identified:

G1 - emerges at -0.55 m deep, at 3.60 m from the eastern profile, on the southern profile. It continues northwards on a 0.60 m distance. Its diameter is 1.65 and is 1.00 m deep. The pit contained prehistoric handmade and wheel made pottery fragments as well as adobe.

G2 - is located at 3.00 m from the eastern profile and at 0.25 m from the northern profile. Its diameter is of 1.00 m, emerges at -0.45 m deep and has a maximum depth of 1.00 m. It contains the same type of archaeological material as G1.

G3 (Pl. XXV; XXVI/1) - is located at 1.60 m from the western profile and at 0.35 m from the northern profile. It has an irregular shape. Sizes: 3.30 × 1.20 m. Emerges at -0.25 cm deep and is only 0.10 m deep. Inside, we found a mix of prehistoric and modern materials.

G4 (Pl. XXVII-XXX) is located south G3, at 2.50 m from the western profile, respectively 2.00 m from the northern profile. It emerges at -0.25 m deep and is 0.05 m deep. Its shape is irregular and has maximum sizes of 2.80 × 0.90 m. It contains the same archaeological material as G3.

G5 (Pl. XXVI/2-3) - is located at 0.15 m from the western profile and at 2.45 m from the southern profile. It emerges at -0.30 m deep and is 0.05 m deep. Its shape is relatively square, has 0.75 m sides. No archaeological material was found.

In the eastern end of the trench, between m 0.00 and 2.80, we identified a pit house (Pl. XXVIII/2) at -0.40 m deep. Its maximum depth is 1.10 m. A stone and Roman bricks cluster was identified, and beneath, at -1.50 m deep, sized 1.90 m east-west and 1.15 m north-south, lay a fire place. Some of the stones showed finishing prints. In-between the stones emerged brick fragments and pre-medieval pottery (Pl. XV/3). The archaeological feature is similar to that identified in section S17.

S26 (Pl. VII) - oriented north-south is sized 6.50 × 2.00 m, maximum depth of -1.80 m. At -1.30 m deep, at 1.00 m from the southern profile, on the western profile and on a 3.70 m length northwards, we identified a corner from the house emerging in trenches S16, S18-S20. This house, identified in 5 sections (S16, S18-S20, S26) had a north-south upper part preserved length of approximately 13 m and was maximum 5 m wide.

S27 (Pl. XXIX/1) - oriented east-west, in parallel to S25, is sized 19.50 × 2.00 m, maximum depth of -1.25 m. Stratigraphy: contemporary filling layer between meters

0.00 and 6.00, followed by the deposition layer with a maximum thickness of 0.50 m, where were discovered out of context Hallstatt pottery fragments. Next layer is the ancient humus, with a maximum thickness of 0.05 m. A pit, G1 (Pl. XXIX/2-3), was identified at -0.40 m deep, located at 6.20 m from the eastern profile and 0.75 m from the northern profile. Its diameter is 0.70 m, and the maximum pit depth is 0.80 m. In this pit we found a few Hallstatt pottery fragments.

S28 (Pl. XXX/1) oriented east - west. It is sized 4.40 × 1.30 m. The section stratigraphy is as follows: to 0.35-0.40 m deep, we identified an earth layer, loose, brownish-black, followed by a brown, clayish earth layer, 0.15-0.20 m thick, which comprised archaeological features. Underneath, followed the sterile clay. We discovered a pit, termed by us G1 (Pl. XXX/2), which we investigated only partially, as approximately half of the archaeological feature was destroyed by modern works. It emerged at 0.50 m deep and at 1.40 m distance from the section's western profile. Its shape was approximately circular, deepening by 0.25 m. It contained few archaeological materials, among which count potshards, a few small animal bone fragments and small stones. Pit G2 (Pl. XXX/3) was identified by the edge of G1, at 0.50 m deep. It is a small pit, circular in shape, with 0.50 m in diameter. It deepened in the sterile by 0.10 m. Its inventory consisted in two river stones, with maximum sizes of 7, 10 cm respectively, and an animal bone fragment sized 17 cm.

S29 (Pl. XII; XXIX/4) was excavated in parallel to S28, a 0.40 m wall being left in-between them. Its sizes are 9 × 3 m and the orientation is east-west. The section stratigraphy is as follows: to 0.35 m deep we noted a loose earth layer, brownish-black, followed by a brown, clayish, 10 cm thick earth layer, containing archaeological features; the sterile followed. Between m 1 and 4 of the section, we discovered a surface house, emerging at 0.30 m deep. Since it could not be traced all over the section, we excavated another trench, sized 2.60 × 1.20 m. We did not notice post holes. Its edges could not be delimited clearly, the entire archaeological feature being marked by several potshards, few animal bones, stones and adobe. The latter was rather small in sizes, larger amounts being noted in the eastern corner of the house. It seems to be oriented north east - south west, being sized 2.50 × 3 m. Compared to the settlement's defence ditch, the house lay approximately at 35-37 m distance, on a northward direction. Inside, on the northern side, we also identified its fireplace, at 0.38 m deep. It was made directly on the ground and its shape was approximately circular, potshards and lot of small and average river stones being found all around it (larger amounts of river stones lay on the southern side of the fireplace).

S30 - oriented east-west is sized 10.60 × 2.20 m, maximum depth -2.00 m. To this depth, we excavated through a modern pit; at same depth excavations could no longer be performed due to water mains infiltrations.

S31 - oriented east-west is sized 10.70 × 2.30 m, maximum depth -2.80 m. Up to the depth of -2.10 m emerged a modern pit, followed by a prehistoric deposition layer, 0.40 m thick, and the sterile clay.

S32 - oriented east-west is sized 14.5 × 4.30 m, maximum depth -4.00 m. The stratigraphy is as follows: up to the depth of -2.40 m there is a modern pit, followed by a 0.80 m layer of prehistoric depositions and a Neolithic level with a maximum

thickness of 0.70 m, where charcoal pigments and a few pottery fragments were found. We could not continue excavations in this section due to water infiltrations.

Independently from these trenches, during the supervision of the construction works of the western perimeter walls, we also identified two features as follows:

a) G3 (Pl. XIII; XXXI). It was delimited under the form of a small pottery cluster. We excavated a 1.70×1.80 m trench in order to examine the entire archaeological feature. The stratigraphy is as follows: 0.00-0.20 - modern gravel layer; 0.20-0.90 m - dark earth layer; 0.90-1.50 (1.63 m) m: dark earth layer, mixed with yellow clay; 1.50-1.70 m - yellow clay layer, sterile archaeologically. The pit was delimited at 0.90 m depth from the current surface level, its maximum depth being of -1.63 m. it was circular in shape, bell-shaped in section, with a diameter of 1.60 m. the inventory consisted of 21 complete and restorable pots, three small animal bones and large stones. They were deposited on the pit bottom, over a layer of approximately 10 cm of burn. The latter, mostly amassed in the middle of the pit, while the feature edges did not contain burning traces. The earth which filled the pit was composed of a mixture of dark earth and yellow clay and is represented by the earth excavated when the pit was dug. The entire inventory, it means of deposition (pots piled up, pots placed with the mouth either upwards or downwards), burning prints makes us deem the archaeological feature as special, cultic, respectively a pit with the deposition of offerings.

b) G4 (Pl. XIV; XXXII) placed at 19.00 m from the southern perimeter, on the location of the western wall. There we excavated a trench sized 2.50×2.40 m. At -1.60 m deep we discovered a round pit with 1.10 m diameter. The pit is 0.50 m deep. Inside the pit we found several Hallstatt pottery fragments. After its removal, we noticed that on its bottom emerged a strong burning layer. When excavating the pit on the north-south axis, we noted below a kiln at -2.05 m deep. The kiln was relatively round, sized 1.50×1.40 m. Kiln walls were strongly fired, this compact burning having a maximum thickness of 0.20 m. Beneath the kiln level we identified yet another pit, relatively round, sized 1.75×1.55 m, the maximum depth of this pit being 0.30 m. In this pit were deposited four vessels and a bone sceptre (Pl. XXXIII).

Archaeological materials¹¹

1. Bone sceptre (Pl. XXXIII). Find spot: trench for western perimeter walls, pit G4. The sceptre is made of deer horn, is polished on one of the sides and is sized: 9 cm on the lower side, 14.5 cm on the upper side, max. thick = 3.9 cm and max. l = 6.5 cm. In the lower part it is provided with a rectangular attachment orifice, sized 2.2×2 cm and respectively 2.8×1.9 cm in the upper part, decorated with two incisions surrounding it. Laterally, on the upper side, it has a round orifice, 0.6 cm in diameter. By one of the ends the deer horn is polished, and by the other end is provided with an orifice, relatively rotund, 2.5 cm in diameter.

¹¹ In the description of the artifacts in the catalogue the following were used: L = length; l = width; thick = thickness; rd = rim diameter; bd = base diameter; h = height. The presented catalogue is selective. The Hallstatt and La Tène pottery was not yet processed.

2. Celtic knife¹² (Pl. XXXIV/1). Find spot: S20, at -1.10 m deep. Sizes: L = 31 cm, max. l = 3.5 cm. Preserving the handle (7 cm) which is slightly curved and ends in a round button. The blade is broken.

3. Fragmentary brick (Pl. XXXIV/2). Find spot: trench S4, pit G1. Sizes: 18.5 × 12.5 cm; thick = 4.5 cm. Stamped Roman brick, preserving impressed letter R as well as a vertical *hasta*. The two letters may come from stamp *R(es) P(ublica) [N(apocensis)]*¹³. MNIT, inv. nr. V 63596.

4. Bone item (Pl. XXXIV/3). Find spot: trench S4, pit G1. L = 2.5 cm, respectively 3 cm sides, being similar to a rhomb; it is decorated with concentric circles on one side, and the other side is smooth, exhibiting no attachment prints. MNIT, inv. nr. V 63595.

5. Fragmentary large tureen¹⁴ (Pl. XV/1); rd = 32 cm; rim and body fragment fine fabric, greenish-grey (Munsell 10GY, 5/1), with fine calcite and mica inclusions; grey slip traces (Munsell 10GY, 7/1) inside; homogeneous firing. Rim with triangular profile, strongly inverted, with a large groove (h = 1 cm), which also resulted in the thinning of the pot wall inside; on the outside, it also exhibits a groove, just below the rim, tilted body, possible ring base. Based on the archaeological context and the reused Roman brick, identified in pit G1 from section S4, we believe it dates to the post-Roman period.

6. Fragmentary bowl or tureen base (?) (Pl. XV/2); bd = 10 cm; it preserved in a 30% proportion; fine fabric, light grey (Munsell 10Y, 7/1), with small and average size quartz and calcite inclusions and fine mica inclusions, homogenous firing. The ring base is short, well profiled and exhibits two concentric circles on the outside, parallel to the ring. Inside, the base smoothening was carelessly made. Possible prints of deposition/secondary firing, coming from the archaeological feature where it was discovered (section S4, pit G1).

7. Fragmentary pot (Pl. XV/3); rd = 12 cm; rim and body fragment; semi fine to coarse fabric, with average size quartz inclusions, fine calcite and mica inclusions, light grey in section and inside (Munsell 5GY, 7/1), greenish-grey (Munsell 5GY, 6/1) on the outside and on the rim (due to the use on open fire); homogenous firing. The irregular appearance of the rim, especially on the inside, and of the neck, on the outside, suggests it was slow wheel-thrown. Reverted rim, slightly bevelled, with a slight marking on the inside of a groove for supporting the lid. The pot neck is tall, the connection to the shoulder being marked by four (or several) grooves, possibly globular body. Due to the archaeological context (S25), we believe these potshards may be dating to the pre-medieval period, respectively the 7th - 9th centuries.

Conclusions

We recorded for the first time in this area a fortified Hallstatt settlement. Some of trenches identified the defensive ditch of the northern side of the settlement, which we believe ran behind the current blocks of flats on Almaşului St., where the land suddenly descends. Unfortunately, the fortification rampart no longer survived and could not be identified in none of the trenches. Based on the analysis of the main finds and

¹² Dima 2008, 81-88.

¹³ For bibliography, see note 8.

¹⁴ We thank herein Mrs. Viorica Rusu-Bolindeţ for the pottery description.

especially on the pottery typology and decoration (bitruncated-cone vessels black on the outer surface and red inside, cups with globular body, pouch-shaped vessels provided with projections and groove decoration placed obliquely, vertically or in garland), we frame this finds in Hallstatt B period. Features similar to these here – pits with offering deposits, vessels piled up – like pits G3 and G4 –, discovered during the supervision of the construction works of the western perimeter walls (archaeological features of special nature), are not singular for the Hallstatt period, such archaeological contexts – especially the cultic pit G3, being also recorded in the settlement at Teleac¹⁵ or that at Tășad¹⁶.

An analogy for the sceptre discovered in the archaeological feature G4 comes from the settlement at Teleac¹⁷, except it was decorated with concentric circles on the entire surface, such items being rather rare. Another sceptre, dated to the first Iron Age, which is a good analogy for our specimen, was recently discovered in the Hallstatt settlement at Alba-Iulia¹⁸. The origin, functionality and role of such power insignia, have been broadly and thoroughly analysed, therefore we shall not further discuss the matter in detail herein¹⁹.

The settlement discovered on street Câmpului nos. 9-19 belongs to the category of fortified settlements, inhabited on a constant basis, located on higher grounds. Until present, a number of 26 fortified settlements are known on the territory of Transylvania²⁰. In terms of the defensive system, we may note that it consisted of a ditch, which must have been also provided with a defence rampart, which, unfortunately, could not be identified archaeologically due to modern and contemporary interventions.

It is very likely that this fortified settlement continued existence also in the second Iron Age, as evidenced by the identified pottery chronologically framed in La Tène C1, as well as by the existence of pottery assemblages from this period. Subsequent to the pottery processing, we shall be able to more accurately date this novel fortified settlement discovered on the current territory of Cluj-Napoca city.

Two of the pits we identified dated to the Roman period and contained pottery, a reused Roman brick stamped *R(es) P(ublica) [N(apocensis)]*, as well as a bone rhomb-shaped token with concentric circles. From the territory of Mănăștur quarter, yet from unspecified spots, come also 14 bronze coins dating from Constantius II to Valentinianus II²¹.

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¹⁵ Vasiliev, Aldea, Ciugudean 1991, 41-42.

¹⁶ Chidioșan 1979, 85-89.

¹⁷ Vasiliev, Aldea, Ciugudean 1991, 73-74, Fig. 22/14.

¹⁸ Lascu, Gheorghiu 2009, 593-599; information Florin Gogâltan, whom we thank herein.

¹⁹ Aldea 1973, 31-33; Vasiliev, Aldea, Ciugudean 1991, 73-74; Popa, Simina 2004, 19, 26-28.

²⁰ Vasiliev 2003, 55.

²¹ RepCluj, 122.

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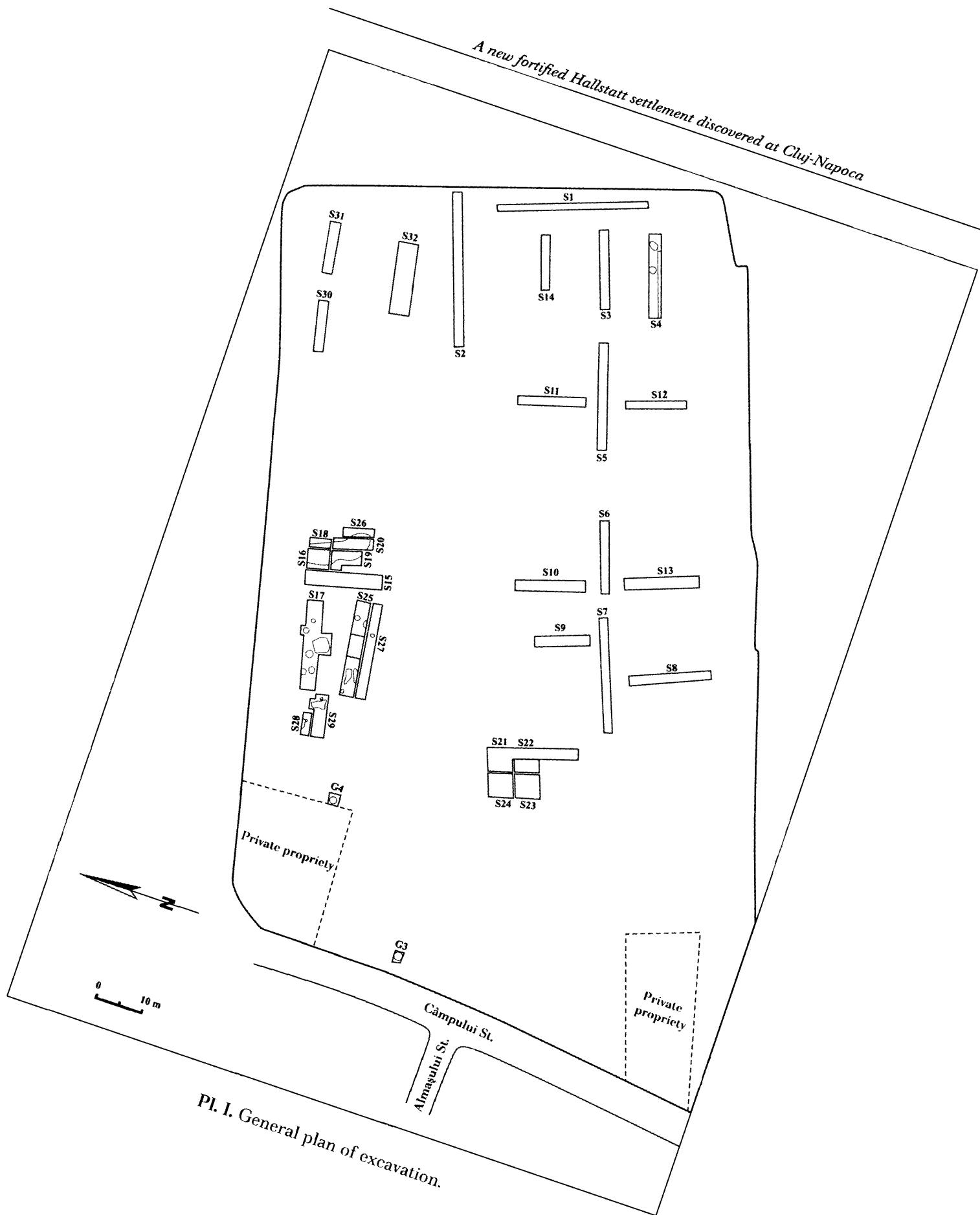
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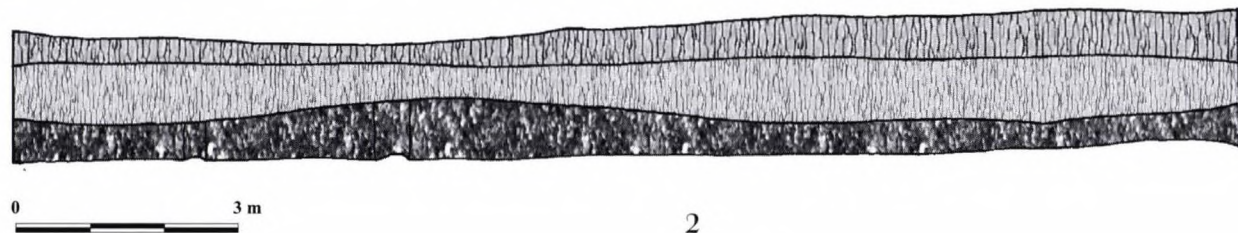
National History Museum of Transylvania, Cluj-Napoca



Pl. I. General plan of excavation.









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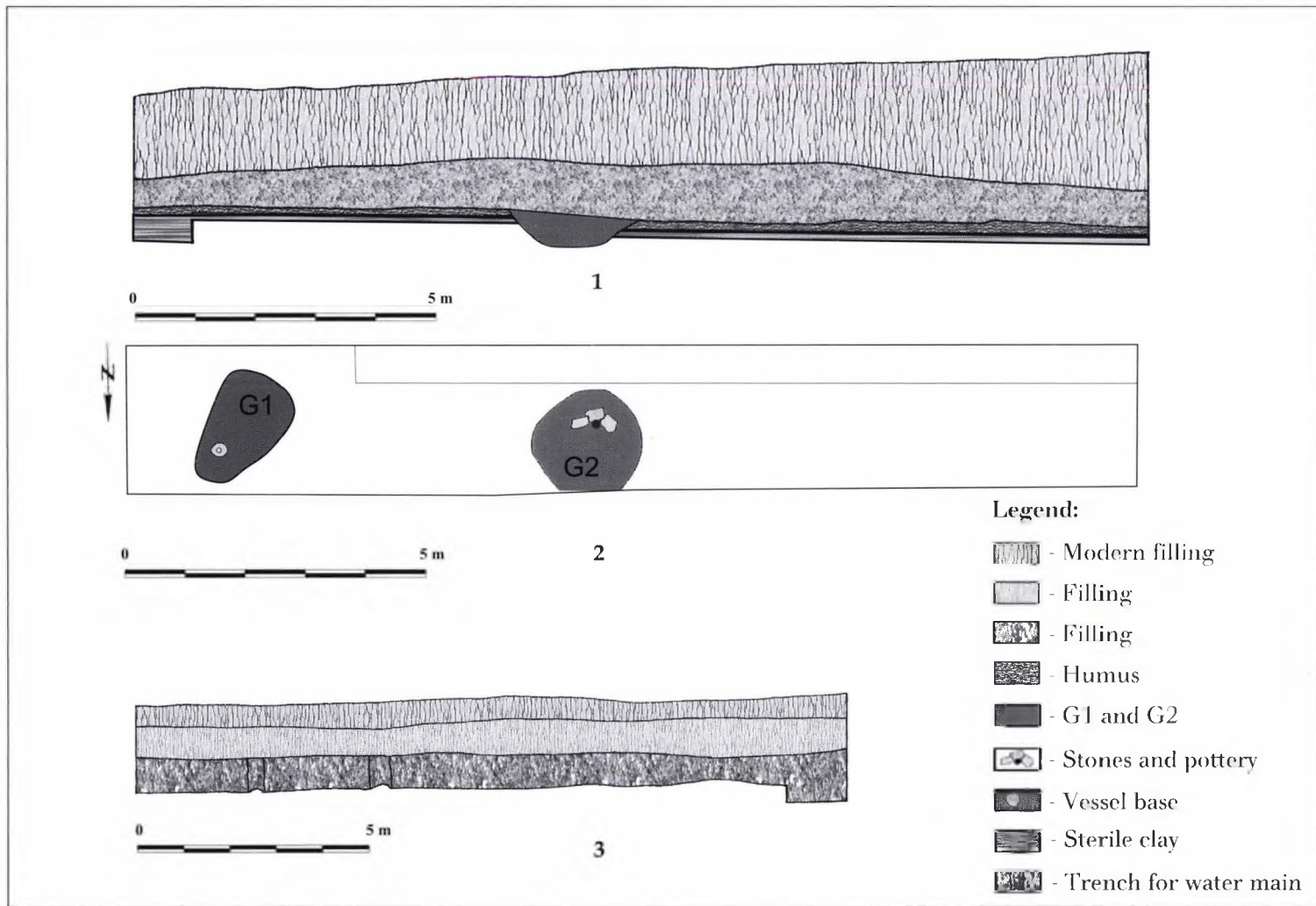


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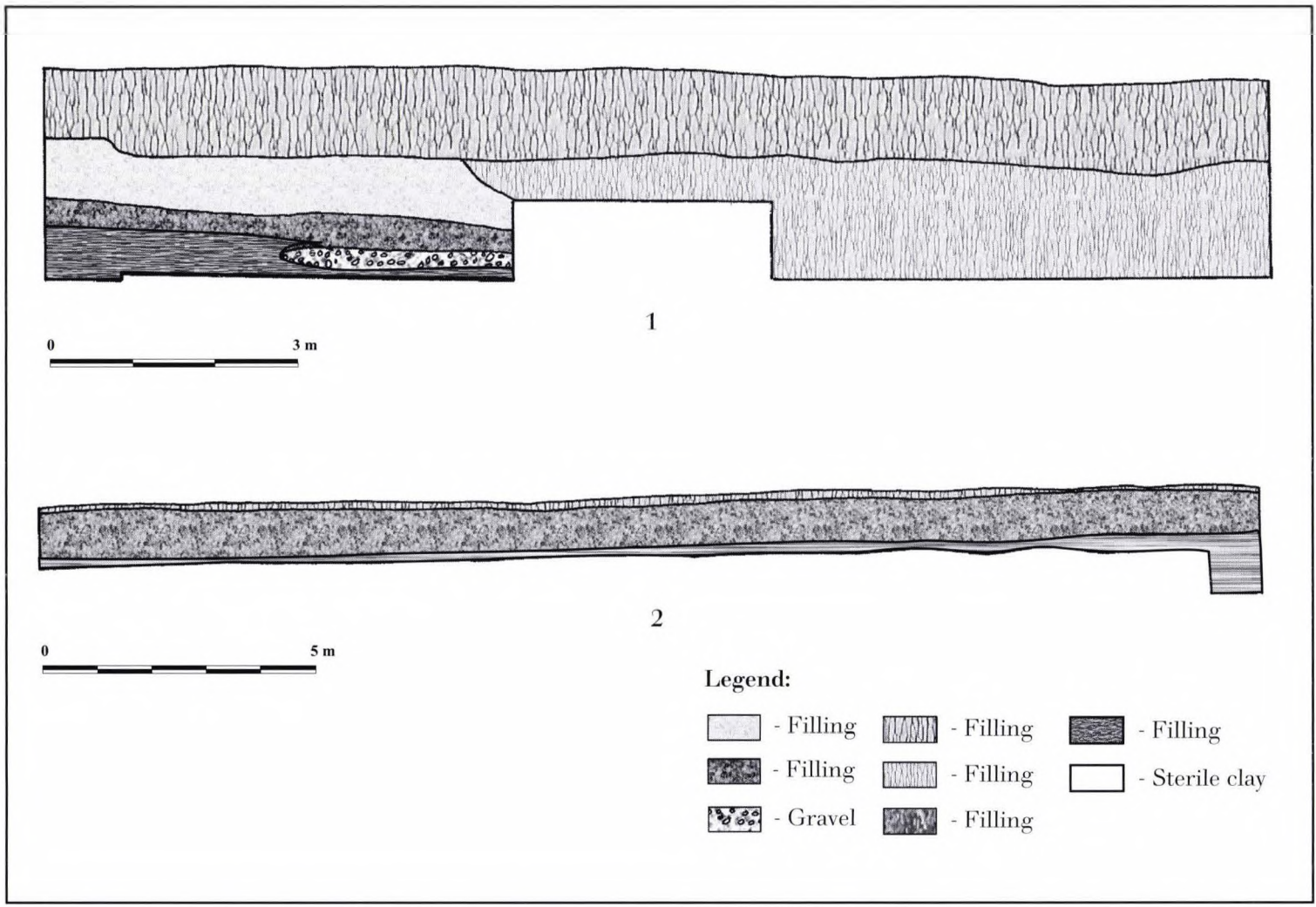
Legend:

- | | |
|---|---|
|  - Modern filling |  - Filling |
|  - Filling |  - Humus |
|  - Filling |  - Trench for water main |

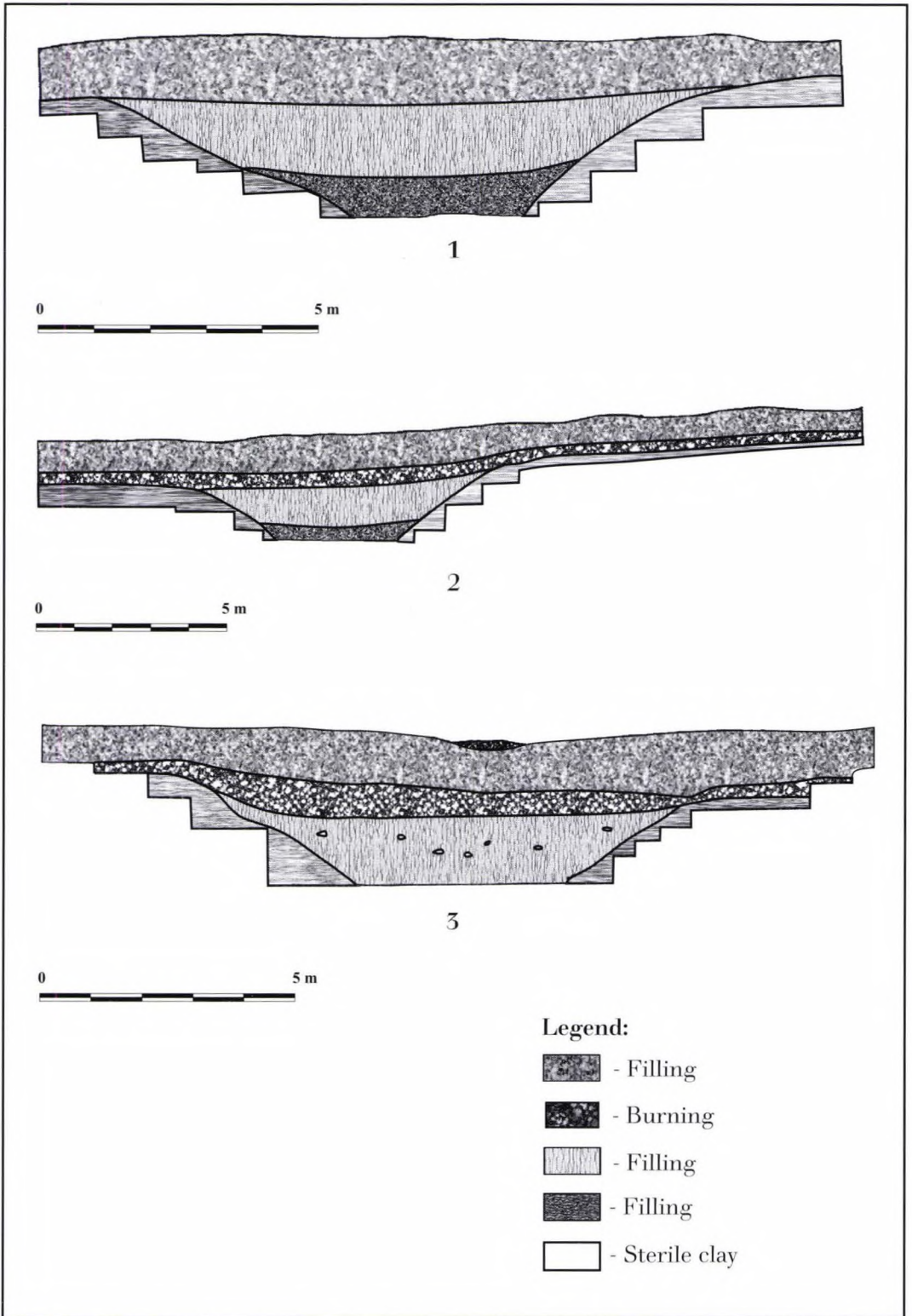
Pl. II. 1. Excavation unit S1, eastern profile; 2. Excavation unit S8, northern profile.



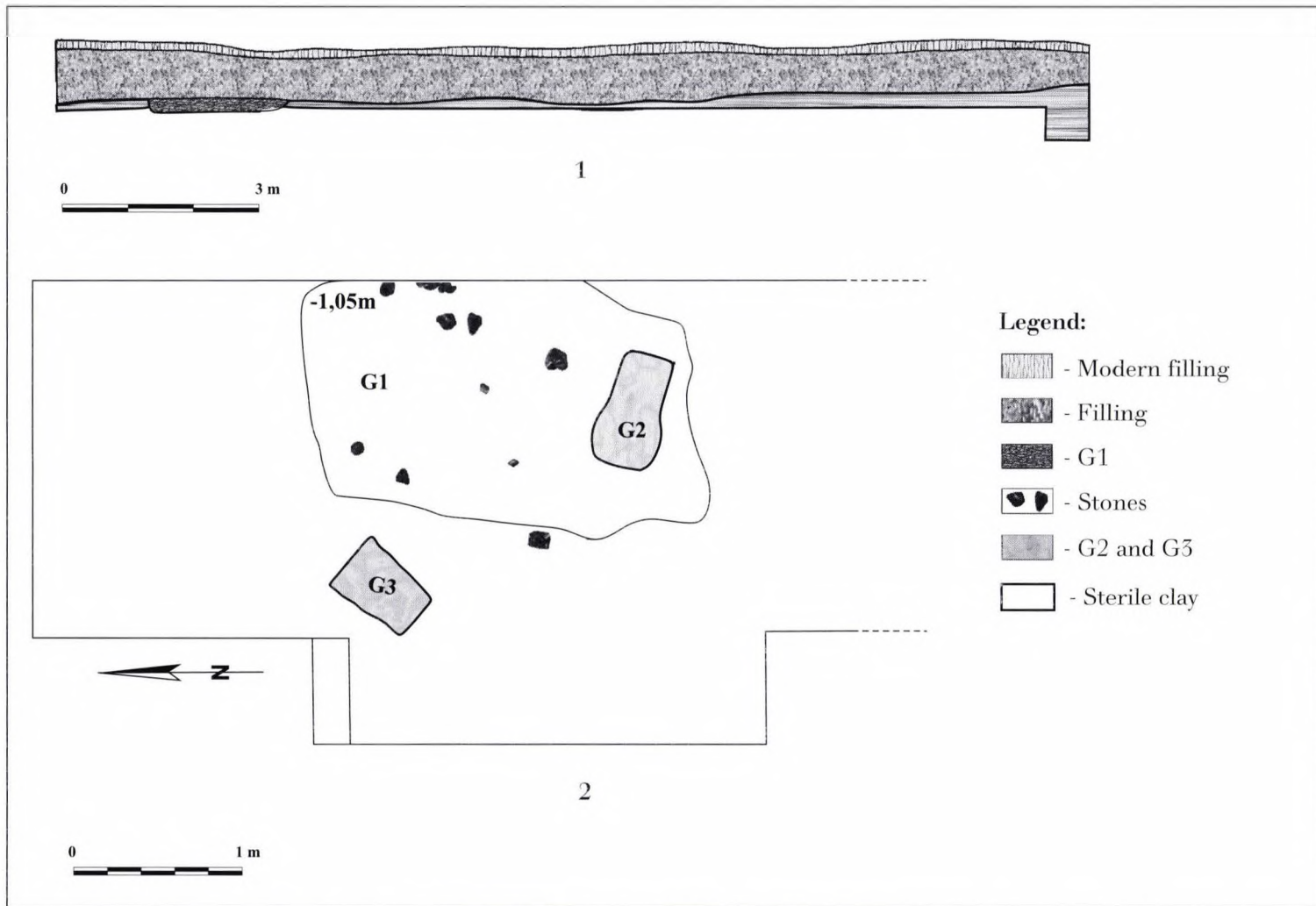
Pl. III. 1. Excavation unit S4, northern profile; 2. Plan; 3. Excavation unit S13, eastern profile.



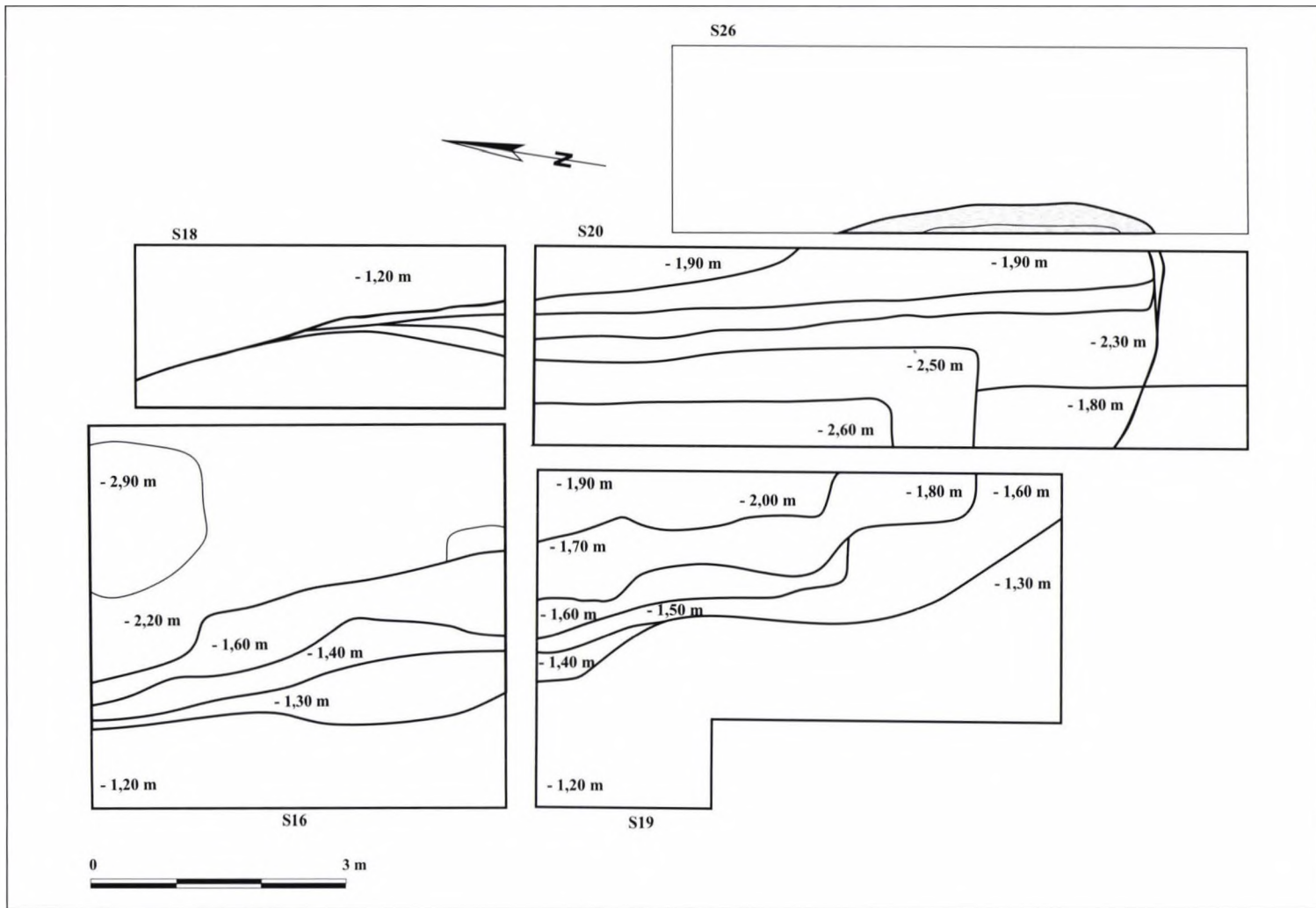
Pl. IV. 1. Excavation unit S6, northern profile ; 2. Excavation unit S7, northern profile.



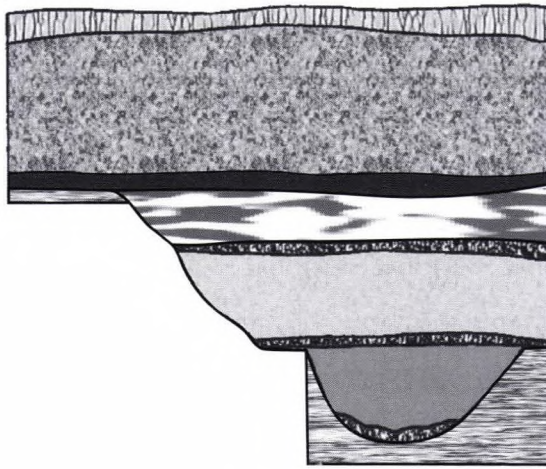
Pl. V. 1. Excavation unit S9, eastern profile; 2. Excavation unit S10, eastern profile; 3. Excavation units S21 and S22, western profile after the demolition of the baulk.



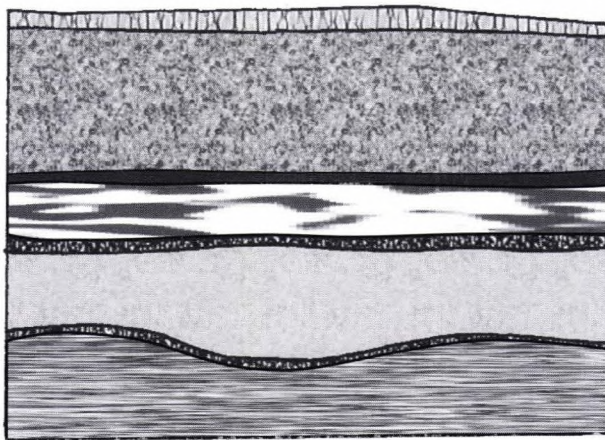
Pl. VI. Excavation unit S15: 1. Eastern profile; 2. Plan with pit G1, pit G2 and pit G3 .



Pl. VII. Excavation units S16, S18-S20, S26, plan with house B1 .



1



2

0 3 m

Legend:



- Modern filling



- Filling



- Earth and clay with burning pigments



- Filling



- Filling



- Filling



- Floor with burn



- Filling

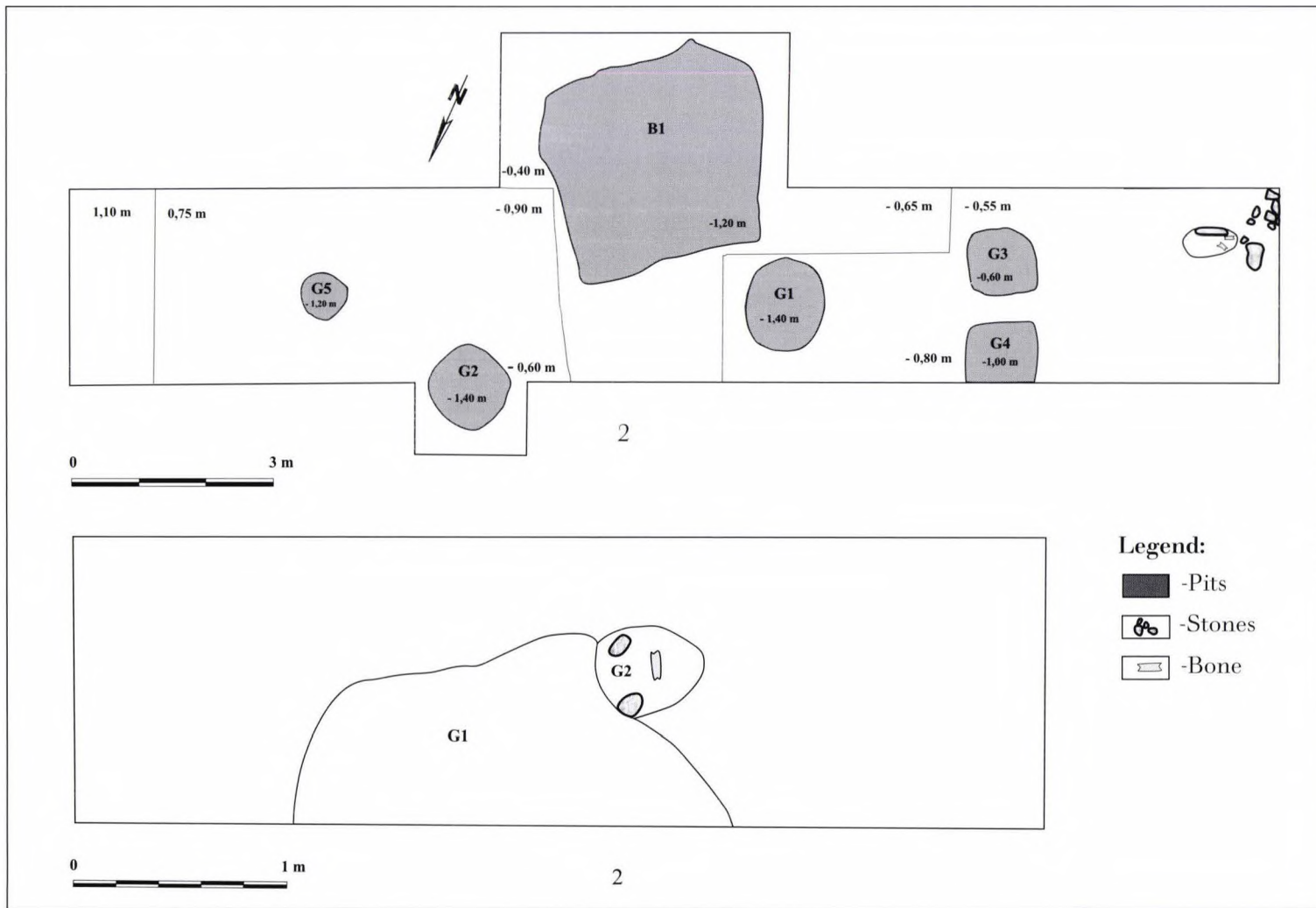


- Filling

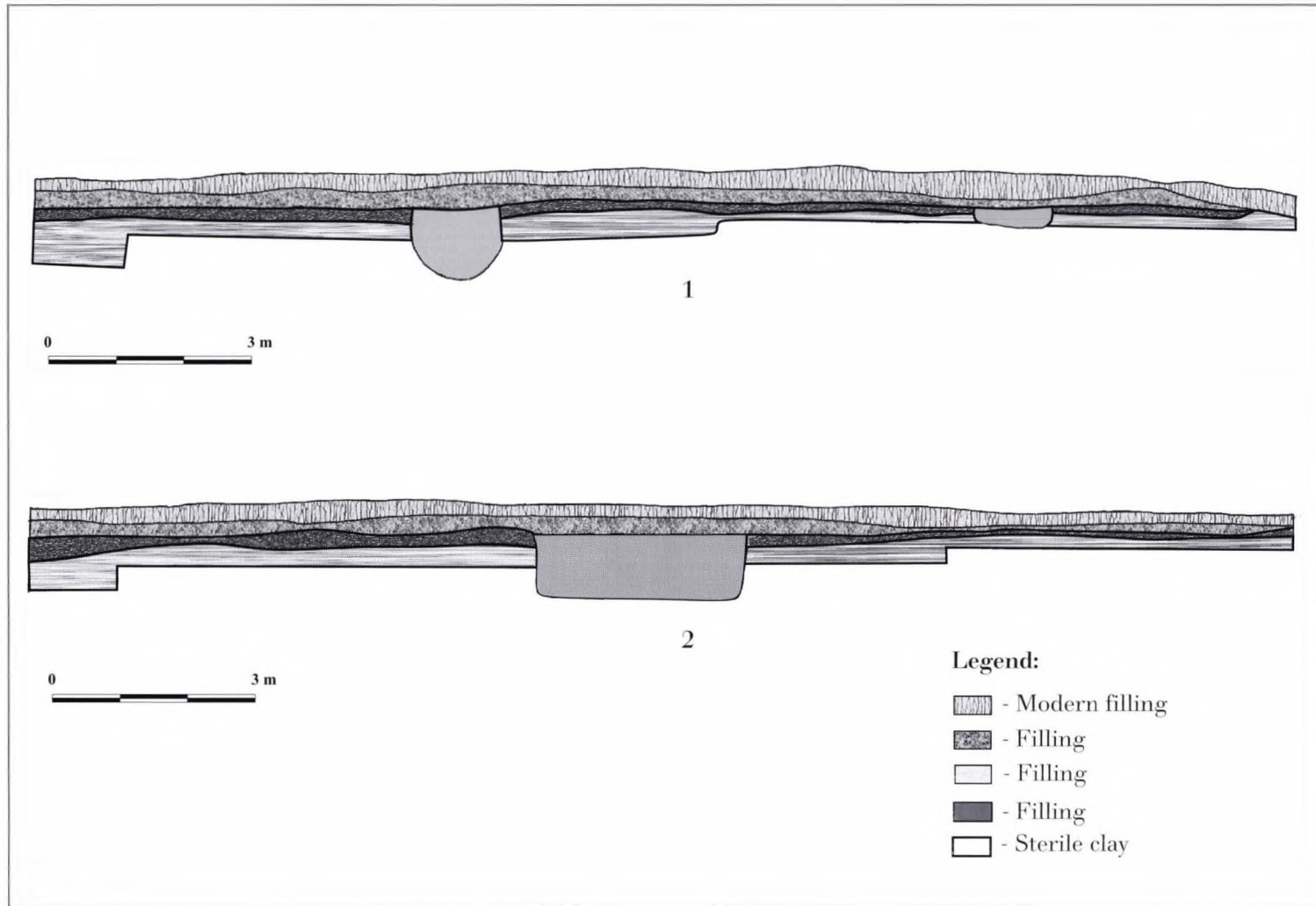


- Sterile clay

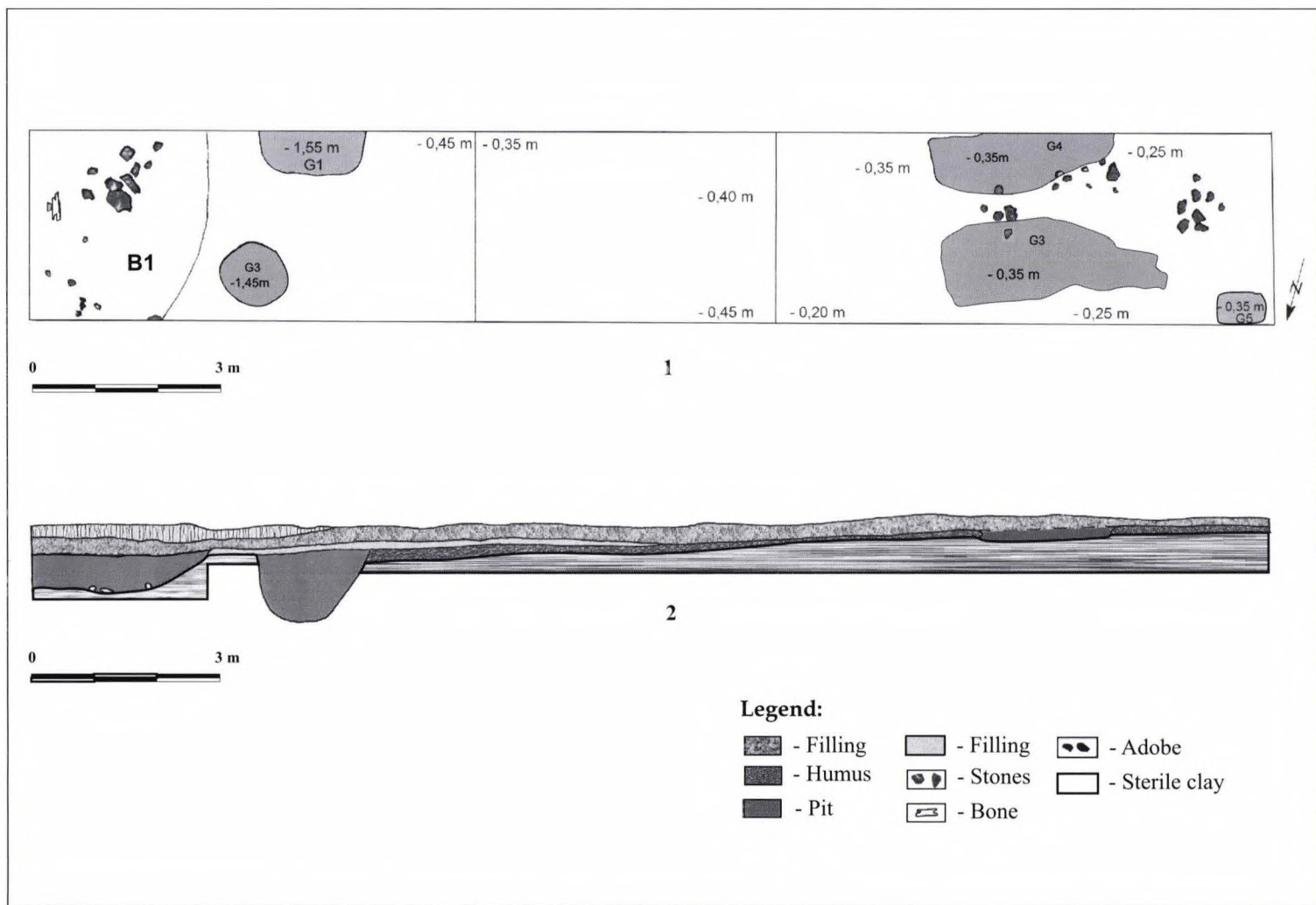
Pl. VIII. Excavation unit S16: 1. Northern profile; 2. Eastern profile.



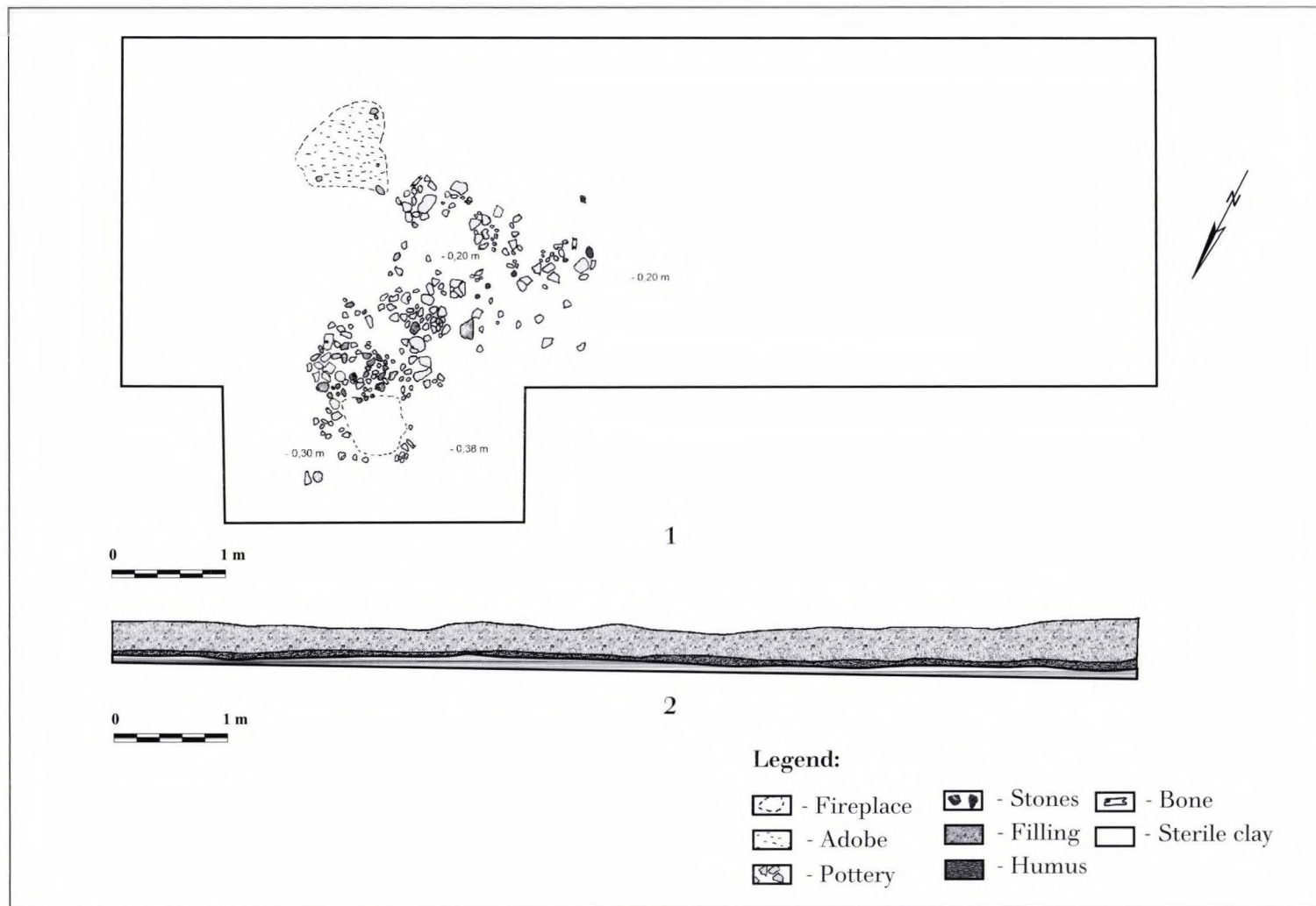
Pl. IX. 1. Excavation unit S17 - plan; 2. Excavation unit S28 - plan.



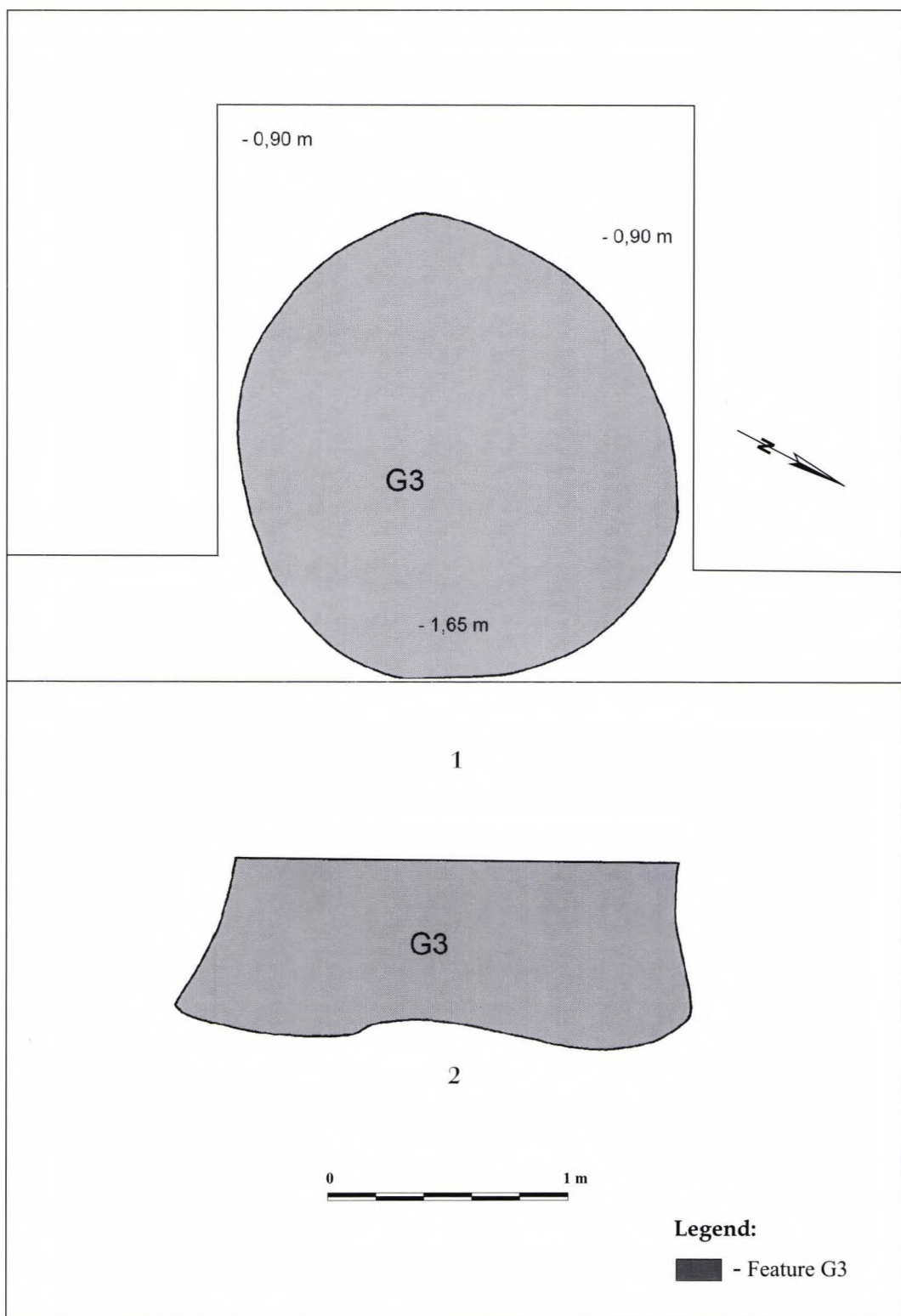
Pl. X. Excavation unit S17: 1. Southern profile; 2. Northern profile.



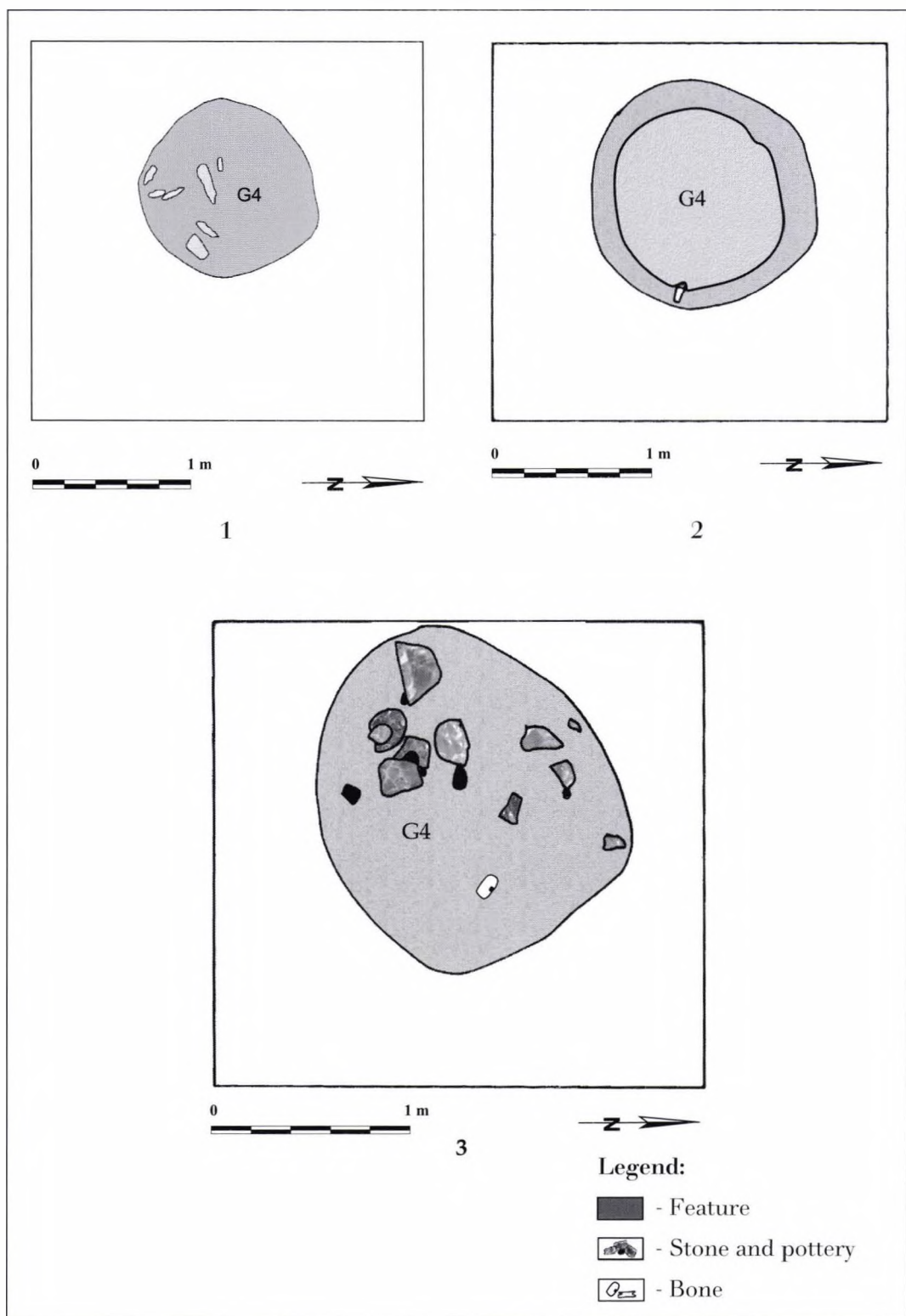
Pl. XI . Excavation unit S25: 1. Plan; 2. Southern profile.



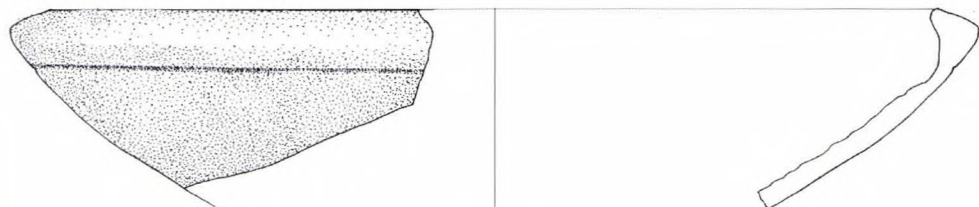
Pl. XII . Excavation unit S29: 1. Plan; 2. Southern profile .



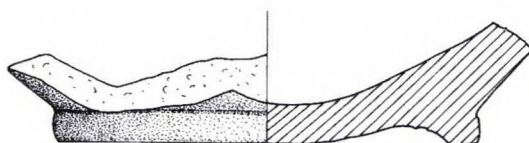
Pl. XIII. Western perimeter walls. Archaeological feature G3: 1. Plan; 2. Eastern profile.



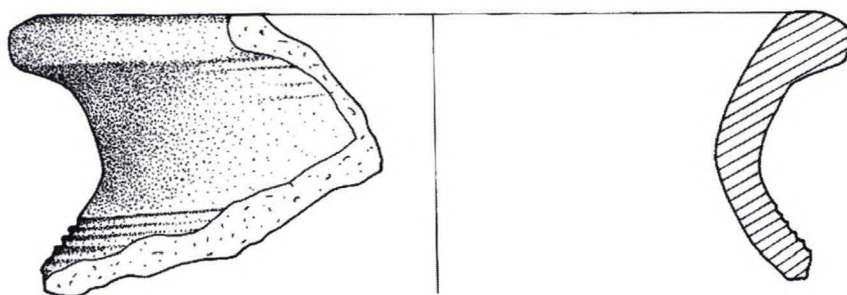
Pl. XIV. Western perimeter walls. Archaeological feature pit G4: 1. G4a; 2. G4 kiln; 3. G4b.



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2



3

Pl. XV. 1-2. Post-Roman pottery; 2. Pre medieval pottery.



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2

Pl. XVI. 1. General view before the archaeological research commencement;
2. Excavation unit S1, general view.



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Pl. XVII. 1. Excavation unit S2, general view; 2. Excavation unit S8, general view.

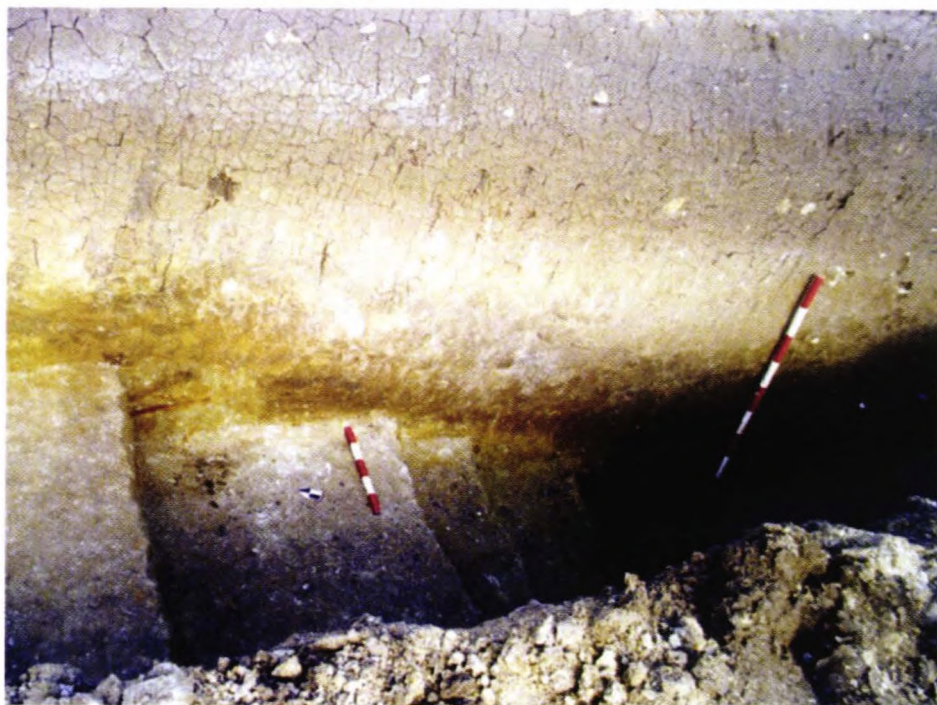


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Pl. XVIII.1. Excavation unit S4, general view; 2. Excavation unit S4, detail with pit G1.



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Pl. XIX. 1-3. Excavation unit S9, general views.



1



2

Pl. XX. 1-2. Excavation unit S10, general views.



1



2

Pl. XXI. 1. Excavation units S21-S24, general view; 2. Eastern profile of excavation units S21 and S22 after the demolition of the baulk.



1



2



3

Pl. XXII. Excavation unit S15. 1. Detail with G1; 2. Detail with G1, G2; 3. Detail with G1, G2 and G3.



1



2



3

Pl. XXIII. 1. Excavation unit S16, northern profile with B1; 2. Excavation unit S18, general view; 3. Excavation unit S20, general view.



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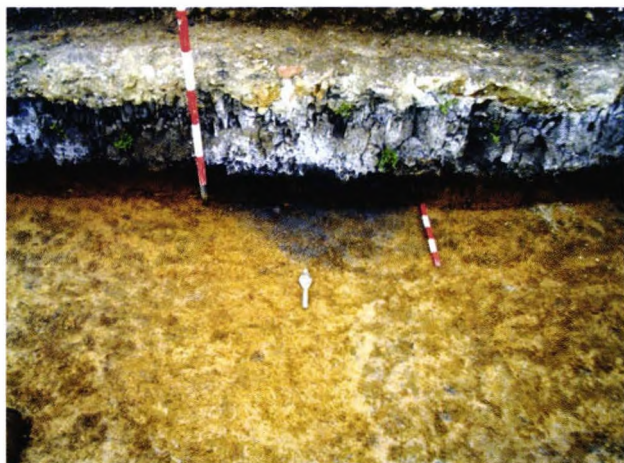


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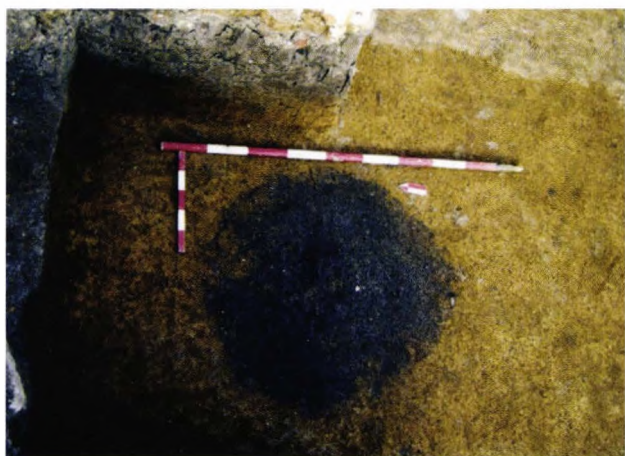


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Pl. XXIV. 1. Excavation unit S17, general view; 2-3. Details with pit G1.



1



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3

Pl. XXV. 1-3. Excavation unit S17, details with G2.



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3

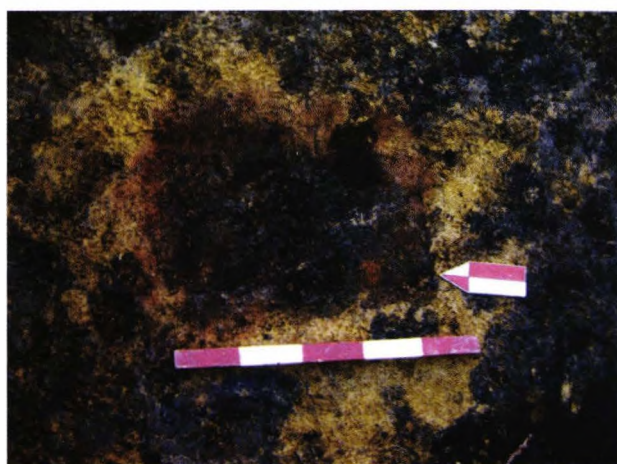
Pl. XXVI. Excavation unit S17, details with: 1. Pit G3 ; 2-3. Pit G5.



1



2



3

Pl. XXVII. 1-3. Excavation unit S17, details with pit house B1.



1



2

Pl. XXVIII. 1. Excavation unit S25, general view; 2. Excavation unit S5, detail with stone and Roman bricks cluster.



1



2



3



4

Pl. XXIX. 1. Excavation unit S27, general view; 2-3. Excavation unit S27, details with pit G1; 4. Excavation unit S29, general view.



1



2



3

Pl. XXX. 1. Excavation unit S28, general view; 2. Excavation unit S28, pit G1;
3. Excavation unit S28, pit G2.



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Pl. XXXI. 1-3. Trench for the Western perimeter wall, details with pit G1.



1



2

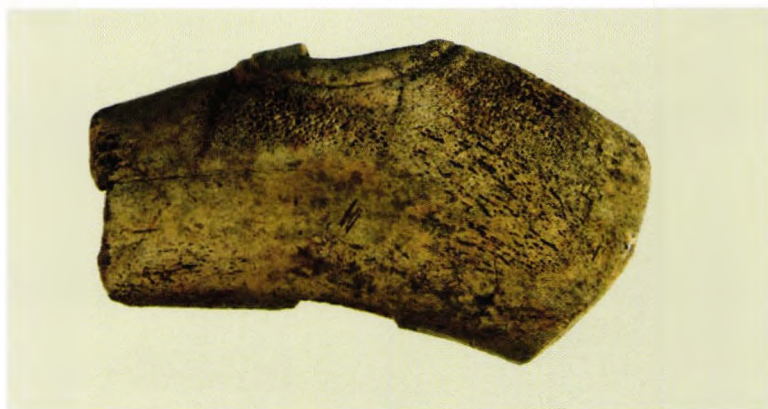


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Pl. XXXII. Trench for the western perimeter wall: 1. Details with G4a; 2. Details with pit G4 kiln; 3. Details with pit G4b.



1



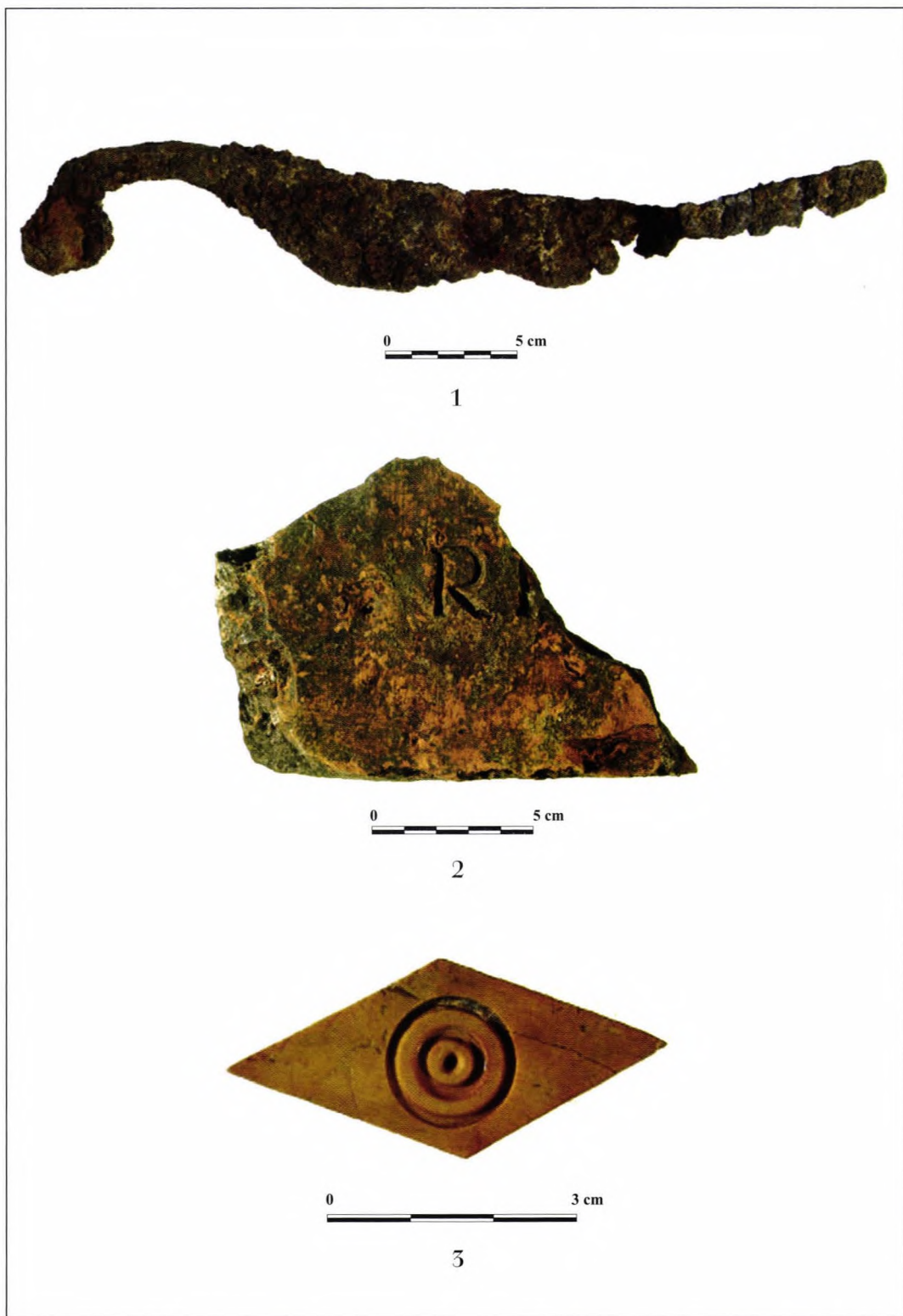
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PI. XXXIII. 1-3. Hallstatt bone sceptre.



Pl. XXXIV. 1. Celtic iron knife; 2. Stamped Roman brick fragment; 3. Bone item.

ROMAN REMAINS IN THE SOUTH-EASTERN AREA OF NAPOCA¹

EUGENIA BEU-DACHIN, LUCA-PAUL PUPEZĂ, DIANA BINDEA

Abstract: In 2007, the National History Museum of Transylvania carried out a rescue archaeological excavation in south-east Napoca. Four different historical periods were recorded: Modern, Medieval, Roman and Prehistoric. According to finds, the most interesting is the Roman level, where some archaeological features were distinguished, and some fragmentary artifacts as well. An imported, Central-Gaulish artifact, in fact a Drag. 37 type decorated bowl, dates our Roman level in the period between AD 140 and 190 (Antoninus Pius - Marcus Aurelius). The bowl was manufactured at Lezoux, in MACRINVS's *officina*, whose name is stamped on the artifact. The bone material (processed by our colleague Diana Bindea) brings forth interesting data on human intervention on some animal bones.

Keywords: Roman period; *terra sigillata*; pipe-clay figurine; stone wall.

Rezumat: Muzeul Național de Istorie a Transilvaniei a întreprins în anul 2007 o cercetare arheologică preventivă în partea sud-estică a Napocăi. În ceea ce privește epocile istorice, sunt atestate patru perioade: modernă, medievală, romană și preistorică. Potrivit descoperirilor, cea mai importantă epocă cercetată este cea romană. Au putut fi determinate câteva complexe arheologice, din care provine și un număr de piese. Un bol Drag. 37 provenind din Gallia centrală datează nivelul roman în perioada 140-190 p. Chr. (Antoninus Pius - Marcus Aurelius). Piesa a fost fabricată la Lezoux, în *officina* lui MACRINVS. Materialul osteologic (prelucrat de colega noastră Diana Bindea) contribuie cu informații interesante privind intervențiile umane asupra unor oase de animale.

Cuvinte cheie: epoca romană; *terra sigillata*; statueta de teracotă; zid de piatră.

Archaeological research performed in recent years on the territory of Cluj-Napoca city has exposed a series of Roman period remains that unquestionably broaden our knowledge on the settlement's history.

Site location. History of research

The site is located on the last terrace of Someș River, at approximately 500 meters south the river (Pl. I*). Having identified the stone enclosure of the town on at least three of its sides², we may locate our finds somewhere in its south-eastern area. The eastern side of the ancient town, still unidentified, was supposed to be between the Greek-Catholic "Schimbarea la Față" Church and the building on 16 Eroilor Blvd.³.

¹ Part of the content herein, including plates, was published in Beu-Dachin, Pupeză 2010, 87-109. The review of such information is designed for the forthcoming collective volume of the National History Museum of Transylvania, beside other similar finds identified on the territory of Cluj-Napoca city.

² Daicoviciu 1974, 25-49; RepCluj, 118-154, Fig. 69, s.v. Cluj; Rusu-Bolindeț 2007, 83-87.

³ Voișian, Bota, Ciongradi 2000, 268.

This would be just nearby our excavation points. Research carried out in 2007 by a team of the National History Museum of Transylvania led by Viorica Rusu-Bolindeț and A. A. Rusu⁴ within the enclosure of the former store Ferrari ABC on 21 Eroilor Blvd., revealed scarce Roman material leading to the conclusion that respective point was located in the extramural area of Napoca⁵.

The south-eastern corner of Napoca's enclosure was examined in a few points by the specialists of the National History Museum of Transylvania. In 1994, a rescue excavation performed⁶ nearby the Memorandiștilor Monument unveiled a brooch workshop dated to the first earth-and-timber phase of Napoca (pre-urban phase), corresponding to Trajan's period and the early rule of Emperor Hadrian (AD 106–118)⁷. In 2007, inside the courtyard of the building on 4 Iuliu Maniu St., the specialists of the Institute of Archaeology and Art History of Cluj-Napoca identified a pit containing pottery waste, among which also the head of a pipe-clay figurine depicting a female face⁸, which led to the assumption that a pottery workshop was located there. An additional argument favouring the hypothetical location of a pottery workshop in the area was the discovery of a *sigillum* for decorating *terra sigillata* moulds near the brooch workshop⁹.

Results of the archaeological research on Eroilor Blvd nos. 1, 9–11, 11

In 2007 still, the National History Museum of Transylvania¹⁰ investigated in this area three points, all framing in the Eroilor Blvd. perimeter, close to the Memorandiștilor Monument. The beneficiary of the works was the City Hall of Cluj-Napoca Municipality, various companies being employed for its completion. Four inhabitancy levels were identified (Modern, Medieval, Roman and Neolithic).

The first of the three points was located at 6 m NW the Memorandiștilor Monument, on 1 Eroilor Blvd. (Pl. I/1-2; II/1-2)¹¹. There, the rescue archaeological research was initiated for the archaeological discharge of the land surface where a manhole was intended.

In the second point (Pl. III/1-2) at no. 11, where the pump chamber of an artesian well was intended, a 3.50 × 2.30 m trench was excavated. Archaeological supervision was requested when the trench was 3.20 m × 2.30 m × 2.20 m; a 0.30 m southward extension was dug under our supervision. There were identified limestone block fragments, likely coming from a wall, which had been destroyed a long time ago. The archaeological material consisted only in a few potshards from different periods, as well as bone material of animal origin.

⁴ Rusu-Bolindeț 2007, 85.

⁵ Rusu-Bolindeț 2007, 85.

⁶ Cociș, Voișian, Rusu-Bolindeț 1995, 24, no. 32 C.

⁷ Rusu-Bolindeț 2007, 99.

⁸ Mustață et alii 2008, 110, no. 49, Pl. 24; 362.

⁹ Rusu-Bolindeț 2007, 50.

¹⁰ The research team was composed of the authors of this article, archaeologists Luca-Paul Pupeză and Eugenia Beu-Dachin.

¹¹ Bota, Beu-Dachin, Pupeză 2008, 108–110, no. 48.

The third point (Pl. IV/1-2) is located at 9-11 Eroilor Blvd., where the statuary group *Lupa Capitolina* was supposed to be placed. A trench was excavated just nearby the base, at 0.50 m west its foundation. Sizes were as follows: 1.00 m (E-W) × 2.00 m (N-S), with a maximum reached depth of 1.30 m. At this depth, a stone platform emerged all over the trench surface. The archaeological material is scarce consisting only in a few potshards from various periods and fragmentary bone material. The function of the stone platform could not be established as the trench could not be extended.

Returning to trench C1 in the point 1 Eroilor Blvd., the Roman level was reached at approximately -2.30 m deep, under successive levelling layers of Modern and Medieval origin¹². Clear features surfaced only in this trench, various archaeological materials being collected from the culture layers.

Archaeological artifacts

Stratigraphically, at least two Roman inhabitancy levels are noticeable (Pl. II/1-2). The most recent level is a debris layer, approximately 1.10 m thick, composed of black soil containing limestone rocks, animal bones, many tiles and potshards. To this stage belongs a massive wall, Z1, oriented N-S, identified in C1, of which a single row of yellow limestone rocks bound with mortar was preserved, its maximum width being 0.80 m. The groundwork, preserved much better, was composed of river stones, placed on layers, with a total thickness of 0.75 m (Pl. X/3).

The tiles identified in this level are rectangular, with raised edges, of average sizes, coarse fabric, orange or brownish, without traces of secondary firing. They are decorated with spiral or meander motifs, finger-imprinted in the raw fabric. A few fragments come from semi-circular shingles made of a fabric similar to that of the tiles.

A fragmentary pipe-clay statuette depicting a child bust (Pl. IX/1-2)¹³ was found still in this layer. Two fragments were recovered, which fit together and represent the bust. The statuette head and left shoulder are missing. Its preserved height is of 8 cm, the base being 4 cm wide. The width in the shoulder area must have been of approximately 7 cm and the total height of the item, including the missing head, must have reached ca. 12 cm.

The item is made of orange fabric, with hue differences between the inside and outside parts, visible on the wall profile. The fabric is of poor quality, the piece being likely made locally, yet copying Gallo-Romanic models, extremely spread in the provinces of Gallia and Britannia.

The item is a bust with arms rendered only to the rounded shoulders and a collar represented in the lower part, of which a *lunula*¹⁴-type pendant is attached. The latter is rather faded, due to the wear and tear of the item. The base is well preserved, three

¹² A Neolithic culture level with pottery material (Iclod-Cheile Turzii group) was identified below Roman levels.

¹³ Beu-Dachin 2010, 237-250.

¹⁴ *Lunula* represented an adornment used as amulet by women and children for protection. Children usually received such *lunulae* at birth; they were occasionally made of precious metal (Forcellini 1831, II, 700).

grooves being noticeable on its front part. Inside, the statuette is empty, which might have ensured the necessary air draught during firing¹⁵ (Pl. IX/1-2; XII/1a-b).

The item is likely to originate in a local workshop¹⁶ or was simply lost by someone. Nonetheless, it was broken then, in Antiquity and the head was lost. Most often, these items appear in funerary environment, in children's graves, being deposited either as toys or for the protection of the dead child.

Pipe-clay figurines depicting children's busts are a very interesting category of objects, their functionality being interpreted manifold. It seems that some of them were used as toys, having occasionally inside clay balls¹⁷ or little stones so to be used as rattles (*crepundia*). In many cases, children are depicted bald-headed and smiling, with naked chest and shoulders.

Pipe-clays depicting children are not very spread in Dacia. Many come from Apulum¹⁸. It is hard to say whether they were produced in special workshops (*figlina*) or in common pottery workshops, modelled beside other categories of clay objects. Rather rarely within the Empire, there are cases when *sigillarii* artisans stamp such figurines, however in Dacia no such case exists.

In what the pottery discovered in this point on Eroilor Blvd. is concerned, it belongs especially to the common category, few *terra sigillata* or luxury vessel fragments being found.

In this Roman inhabitancy level (which is a debris layer), placed between m 2.30 - 3.40, at approximately -3.00 - 3.20 m deep, in the north-eastern corner of the trench, were identified three fragments of a *terra sigillata* vessel of Drag. 37 type (Pl. V/2a-e), one bearing the potter's stamp (Pl. V/2a, XII/2)¹⁹.

The vessel decoration is in relief, placed at least on two registers. The upper register, delimited by the lower one by a pearled line, is composed of simple, unrelated *ovae*. The decoration in the lower register was placed in separate panels, each delimited by a pearled line. Best preserved was the panel displaying Amor, in profile, to the left, holding a bird in the stretched arm and being flanked by two circles. A vegetal motif is depicted in the left panel and in the right, only a single circle survived. The vessel was made of a very good quality fabric, being covered by red-orange slip.

The artisan's, MACRINVS, stamp is very well preserved, being placed obliquely, between the rim and the first register of the decoration. His *officina* may be placed with certainty in central Gaul at Lezoux²⁰.

A single potshard was stamped, yet it was too small to allow identification of the vessel type it belonged to (Pl. V/1). Moreover, a single specimen was red-brownish painted on the yellowish fabric of a vessel with bulging body.

¹⁵ For the requirement of air draught and therefore, of orifices in the base area see Ungurean 2008, 96, 100.

¹⁶ Rusu-Bolindeț 2007, 94: the author supposes in this area a pottery workshop, based, among other, on the discovery of the pit filled with Roman pottery waste on 4 I. Maniu St.

¹⁷ Beu-Dachin 2010, 240: it is a pipe-clay statuette in the collection of the National History Museum of Transylvania (inv. no. 6753 = V. 19834).

¹⁸ Anghel et alii 2011.

¹⁹ We thank our colleague Viorica Rusu-Bolindeț for the information and references put at our disposal.

²⁰ Oswald 1931, 176-177, 399; Hofmann 1971, 23, Pl. XII.

Pottery belonging to common types is made of a fine or semi-fine fabric, with mica schist, sand or crushed shards as inclusions and are mostly oxidised, in various red hues. Of fine fabric vessels, many were jugs (Pl. VI/4, 6) or cups (Pl. VI/2, 8), with rounded rim, sometime grooved, narrow neck and a slightly heightened handle. Some of them may be framed as *amphorae*, likely two-handled, of larger sizes, with reverted, grooved rim (Pl. VI/3, 5). A single potshard came from a small-sized lid (Pl. VI/1), similarly to the case of a bowl with a slightly truncated-cone profile (Pl. VI/12).

Simple pots with bulging body and round rim (Pl. VI/10), either reverted (Pl. VI/9, 13) or inverted, decorated with alveoli or grooves (Pl. VII/13, 16, 18) are best represented. Some of them still preserve traces of handle attachments.

Plate fragments are also present, showing a slightly curved profile (Pl. VIII/1) or almost vertical (Pl. VIII/5-6), round rim and flat base. The single decoration elements are the incised lines, both on the outside and inside of the vessel. Terrine fragments, of smaller sizes, yet taller are rare (Pl. VI/11; VIII/3).

The earliest Roman level identified at - 3.20 m deep was 0.45 m thick and consisted of a black, compact layer, with few potshards and animal bones. In this level also surfaced a wall, Z2, oriented ENE - WSW, identified still in C1, of which were preserved only two rows of limestone rocks bound with mortar and a 0.20 m buttress, placed on its NW side. The wall was 0.60 m wide, stones being placed directly on the ground. Wall Z1, from the preceding stage, overlaps Z2, partially used in its foundation, the angle between the two beings of 78 degrees (Pl. X/2).

A mortar dressing pit, circular in shape, 0.77 m in diameter and 0.30 m in depth (Pl. I/2; X/1) emerged close to the wall. Its filling contained a few limestone rocks of average sizes and a 0.10 m-thick mortar layer was preserved in the lower part.

The discovered pottery was much poorer quantitatively, its main features being approximately the same with those of the pottery identified in the upper layer. No fragment could be definitively framed in one type or another, they likely being simple pots, cups or even dishes.

Chronology

Undeniably, the best chronological indicator is the *terra sigillata* discovered in the upper layer. The operation period of MACRINVS's *officina* at Lezoux covers the period Antoninus Pius - Marcus Aurelius, between AD 140 and 190²¹. The period is that of maximum prosperity of the pottery workshops there.

The start of the pottery centre at Lezoux, in the period Augustus-Tiberius, was rather difficult, being in direct competition with the centre at La Graufesenque, in southern Gaul. As such, the customers of the 1st century AD pottery production were restricted almost exclusively to central Gaul. Circumstances would change though after the arrival of a new wave of artisans, especially decorators, by the end of the 1st century AD, when Lezoux transforms into a complex of production centres which also

²¹ Oswald 1931, 176; Hofmann 1971, 29, no. 112. An *officina* with an identical potter's name also operated under Trajan at La Graufesenque, in southern Gaul. Given the decoration, it is less likely that the vessel was made then.

includes the neighbouring workshops at Les Martres-de-Veyre, Terre Franche, Lubié or Toulon-sur-Allier²².

Once with Hadrian, despite the competition amongst the workshops in north-eastern Gaul, the centre at Lezoux reigns supreme in the production of *terra sigillata* in the western part of the Empire. Such supremacy, which would be also felt in Dacia, would be cut short by the economic events by the end of the 2nd century AD (currency crisis, depreciation, the effects of the Barbarian invasions and the epidemics)²³.

Thus, naturally, most numerous *sigillata* imports from Dacia come from central Gaul, from *officinae* that reach maximum prosperity under the Antonines²⁴. At Napoca, coming from the workshops of Lezoux, were identified products of artisans QVINTILIANVS, CINNAMVS, ALBVCIVS or MERCATOR II²⁵. However MACRINVS, in both Napoca as well as the rest of the province remains a singular example until present date.

The other potshards provide less chronological details, yet none restricts the dating provided by the *terra sigillata* vessel. In what the pipe-clay figurine is concerned, it appears in many finds from Dacia, including at Napoca, without being framed in a well delimited time period.

The lower Roman level could be chronologically framed based only on stratigraphy, being previous to the upper level. For lack of chronological pointers, we may only assume that it belongs to an older stone phase of the town, without knowing with certainty whether it is the first, placed sometime by mid-2nd century AD²⁶.

Conclusions

One cannot simply compare above finds with those similar identified in the immediate neighbourhood (Memorandiștilor Monument, Unirii Square) as no stratigraphic correlation can be operated since the excavation campaigns were performed during different time intervals. In fact, this is also the main flaw of the rescue excavations in the centre of the Roman town, like those on Eroilor Blvd.: despite they were many, the excavations revealed only disparate elements of the general background. Even so, future research at larger scale could prove their usefulness, similarly to the small pieces of a mosaic.

²² Hofmann 1971, 20.

²³ Hofmann 1971, 21.

²⁴ Popilian 1976, 26; Isac 1980, 469. According to a recent statistics, ca. 40% of *terra sigillata* fragments in Napoca come from central Gaul (see Rusu-Bolindeț 2007, 133).

²⁵ Rusu-Bolindeț 2007, 133-135, with references.

²⁶ The succession between the earth-and-timber and stone phases of the town, occurring by mid-2nd century AD, was very well delimited stratigraphically in the finds on V. Deleu St., dated by a rich material (see Cociș et alii 1995, 640).

Catalogue of items²⁷

1. Small amphora, rim fragment, handle: 5.5 × 3 cm; grey inside and greyish-yellow slip outside; inclusions: sand, mica; straight rim, slightly incurved, profiled, with three grooves; the rim inner part is delimited by a notch; heightened handle, with three grooves on the outer part; r. d. = 13 cm; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris layer; MNIT, inv. no. V. 61068; Pl. VI/3.

2. Small amphora (?), rim fragment, handle: 8 × 4 cm; orange; inclusions: sand; everted rim; handle with three grooves, attached just below the rim; r. d. = 14 cm; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris layer; MNIT, inv. no. V. 61069; Pl. VI/5.

3. Bowl Drag. 37, *terra sigillata*, origin Lezoux (central Gaul), two rim fragments and one base fragment; rim: 15 × 6.5 cm; rim: 6 × 6.5 cm; base: 6.6 × 3.5 cm; red fabric, fine, with calcite and mica particles; slip: red, glossy; decoration: in relief, preserved fragmentarily; upper register is decorated with a row of simple *ovae*, not linked to each other; the lower register is grouped in panels delimited in-between by pearly lines. In one of the panels is depicted Amor, to the left, the stretched arm holding a bird. Artisan's MACRINVS stamp preserved, of Lezoux. Dating, based on the workshop: Antoninus Pius - Marcus Aurelius, AD 140-190; Napoca, 1 Eroilor Blvd., -3.00-3.20 m, in the Roman debris layer; MNIT, inv. no. V. 61066; Pl. V/2a-e; XII/2.

4. Bowl, rim fragment: 7 × 4.5 cm; orange; red slip on the entire surface; inclusions: sand, mica; slightly everted rim, slightly spherical body; r. d. = 18 cm; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61070; Pl. VI/12.

5. Bowl, rim fragment: 4.2 × 3.1 cm; r. d. = 11 cm; orange-brownish; inclusions: sand; slightly thickened rim; slightly curved body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61102; Pl. VI/11.

6. Cup, rim fragment: 3.5 × 4.5 cm; orange; inclusions: sand, mica; well delimited rim, narrower inside; likely truncated-cone neck; a sudden shape change is obvious in the lower part of the fragment, which becomes bulging; r. d. = 10 cm; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61071; Pl. VI/8.

7. Cup, rim fragment: 5.0 × 3.5 cm; grey; inclusions: sand, mica schist; slightly oblique rim, everted, neck similar to a funnel; r. d. = 10 cm; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61072; Pl. VI/2.

8. Lid, rim fragment: 4.5 × 3.5 cm; brownish-yellow; inclusions: sand, mica; rolled rim; r. d. = 13 cm; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61073; Pl. VI/1.

9. Terrine, rim fragment: 6.5 × 4 cm; red-brownish; red slip on the entire surface; inclusions: sand, mica; rolled rim, grooved inside, to support the lid; decoration: outer grooving in the bulging part; r. d. = 26.0 cm; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61074; Pl. VIII/3.

10. Dish, rim - wall - base fragment: 5.7 × 4.2 cm; r. d. = 26 cm; orange-brown, red slip; inclusions: sand, mica; out turned straight rim; flat base; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61103; Pl. VIII/4.

11. Stamped fragment: 4 × 2 cm; brownish-orange; red slip on the entire surface; inclusions: sand, mica; stamped decoration: line (Rusu-Bolindeț, 2007, 258: nos. 1-21, Pl. LXIX), semicircle or *lunula* (Rusu-Bolindeț, 2007, 258: nos. 22-70, 71-89, Pl. LXIX), letter-shaped motif (Rusu-Bolindeț, 2007, 258: nos. 279-292, Pl. LXXI); Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61076; Pl. V/1.

²⁷ Authors of this article used the following abbreviations in the catalogue: r. d. = rim diameter, d. = diameter.

12. Vessel base, fragmentary: d. = 6 cm; red-orange; red slip inside the vessel; inclusions: sand, mica; ring base; inward bevelled ring; concentric incisions on the outside of the base; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61077; Pl. VII/7.
13. Vessel base, complete: d. = 3.5 cm; brownish-orange; inclusions: sand, mica; Napoca 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61078; Pl. VII/3.
14. Vessel base, complete: d. = 9 cm; brownish-orange; inclusions: sand; well delimited base, outer groove, traces of the tool detaching it from the wheel are noticeable; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61080; Pl. VII/10.
15. Vessel base, fragmentary: 6 × 3.5 cm; orange; inclusions: sand, mica; bulging middle, similar to an *umbo*; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61081; Pl. VII/8.
16. Vessel base, fragmentary: d. = 13.0 cm; brownish-orange; inclusions: sand, mica. Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61082; Pl. VII/4.
17. Vessel base, fragmentary: 10.3 × 6.2 cm; d. = 16 cm; brownish-orange, reddish slip; inclusions: sand, mica; ring base; wall likely bulging; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61104; Pl. VII/9.
18. Vessel base, fragmentary: 7.1 × 3.9 cm; d. = 12.0 cm; orange-brownish, reddish slip on the inside; inclusions: sand, mica schist; ring base; curved wall; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61105; Pl. VII/6.
19. Vessel base, fragmentary: 7.1 × 4.5 cm; d. = 9 cm; brown-yellowish; inclusions: sand, mica schist; ring base; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61106; Pl. VII/5.
20. Vessel base, fragmentary: 3.9 × 2.1 cm; d. = 4.5 cm; grey, black slip on the outside; inclusions: sand; ring base; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61107; Pl. VII/2.
21. Vessel base, fragmentary: 7.8 × 5.1 cm; d. = 14 cm; brown-yellowish; inclusions: sand, mica; ring base, likely bulging wall; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61108; Pl. VII/1.
22. Pot (handled?), rim fragment: 9 × 4 cm; r. d. = 20.0 cm; brown-orange; inclusions: sand, mica; slightly incurved rim, with three deep grooves; slightly hemispherical body; the attachment print of a handle survived; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61083; Pl. VII/16.
23. Pot (handled?), rim fragment: 6 × 4 cm; r. d. = 19 cm; brown-orange; inclusions: sand, mica; horizontal rim, delimited on the outside by a groove, strongly incurved, with two deep grooves; slightly hemispherical body; what looks like the attachment print of a handle survived; decoration: alveoli on the outer part of the rim; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61084; Pl. VII/13.
24. Handled pot, rim fragment: 7 × 2 cm; r. d. = 20 cm; orange; inclusions: sand; strongly inverted rim, with four grooves; slightly hemispherical body; the attachment print of the handle and a small part of it survived; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61085; Pl. VII/18.
25. Pot, rim fragment: 8 × 5 cm; r. d. = 20 cm; red; inclusions: sand, mica; reverted rim, well delimited by an outer groove, slightly oblique inward, with four grooves; hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61086; Pl. VII/14.
26. Pot, rim fragment: 11 × 4.5 cm; r. d. = 27 cm; orange; inclusions: sand, mica; almost vertical rim, reverted, slightly oblique inward, with one groove; likely hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61087; Pl. VII/11.

27. Pot, rim fragment: 6 × 4.5 cm; r. d. = 19 cm; orange; inclusions: sand, mica, crushed shards; thickened rolled rim, slightly hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61088; Pl. VI/10.

28. Pot, rim fragment: 8.1 × 2.4 cm; r. d. = 21 cm; grey; inclusions: sand, mica; everted rim; likely hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61095; Pl. VII/12.

29. Pot, rim fragment: 6.2 × 3.4 cm; r. d. = 18 cm; black, with firing traces inside; inclusions: sand, mica; downturned rim, exhibits two grooves; likely bulging wall, with two incisions just below the rim; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61096; Pl. VII/15.

30. Pot, rim fragment: 9.2 × 5.1 cm; r. d. = 12 cm; grey; inclusions: sand, mica; downturned rim; hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61097; Pl. VII/17.

31. Pot, rim fragment: 4.5 × 3.8 cm; r. d. = 10 cm; grey; inclusions: sand, mica; downturned rim; hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61098; Pl. VI/13.

32. Pot, rim fragment: 6.9 × 3.5 cm; r. d. = 14 cm; grey; inclusions: sand, mica; rim out turned rim; hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61099; Pl. VI/9.

33. Pot, 4 rim fragments; r. d. = 16 cm; grey, with firing traces on the outside; inclusions: sand, mica; out turned rim, slightly rounded; hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61100; Pl. VII/19.

34. Pot, rim fragment: 4.6 × 3.4 cm; r. d. = 12 cm; grey; inclusions: sand, mica; out turned rim, rounded on the outside; likely hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61101; Pl. VI/7.

35. Plate, rim fragment: 5 × 5.5 cm; r. d. = 24 cm; red; slip on the entire surface; inclusions: quartzite, mica; out turned rim, not delimited, almost vertical, convex body, flat base; an incised line appears on the outside; traces of the wooden tool used to flatten the walls are visible on the inside; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61089; Pl. VIII/1.

36. Plate, rim fragment: 11 × 4.0 cm; r. d. = 24 cm; orange on the outside; the vessel shows a different firing on the inside, the fabric becoming grey; in several points on the outside, the vessel preserves traces of red slip; traces of secondary firing especially in the rim area; inclusions: sand, mica schist; thickened rim, rounded, hemispherical body; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61090; Pl. VIII/2.

37. Plate, rim fragment: 19 × 4.5 cm; r. d. = 35 cm; brown-orange; red slip on the entire surface; inclusions: sand, mica; thickened rim, rounded, hemispherical body, flat base; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61091; Pl. VIII/6.

38. Plate, five rim fragments (one of them preserves the rim, wall and base): r. d. = 30 cm; brownish-orange; red slip on the entire surface; inclusions: sand, mica; downturned rim, delimited on the inside by a groove, convex body, flat base; exhibits traces of secondary firing; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61092; Pl. VIII/5.

39. Jug, rim fragment: 7 × 4.5 cm; r. d. = 10 cm; brownish-orange; inclusions: sand, mica; vertical rim, profiled by a deep groove on the outside, funnel-shaped mouth; preserves a small part of the handle; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61093; Pl. VI/4.

40. Jug, rim fragment: 8 × 6.5 cm; r. d. = 10 cm; brownish-orange; red slip on the entire surface, inclusions: sand, mica; out turned rim, with two grooves; preserving the attachment print of the handle; Napoca, 1 Eroilor Blvd., -2.30-3.40 m, in the Roman debris level; MNIT, inv. no. V. 61094; Pl. VI/6.

41. Pipe-clay statuette, depicting the bust of a child. Preserved fragmentarily, headless. MNIT, inv. no. V. 61067; Pl. IX/1-2; Pl. XII/1a-b.

Archaeozoological determinations

The archaeological material from the most recent Roman level (2.30–3.40 m) consists of 77 determined bone fragments. Except for a complete humerus of a domestic hen, the rest of the pieces are of mammal origin. Their material is strongly fragmented, having the appearance of domestic waste. Some of the pieces exhibit traces of human intervention. No complete mammal bone allowing for any appreciation of the sizes of the identified species was recovered.

The largest ratio belongs to bone remains assigned to domestic cattle (*Bos taurus*), represented by 29 bone fragments. Based on a distal unepiphysed metacarpal we appreciate that one of the two specimens was killed below 2 years of age and the other after 3 years of age, age being estimated based on a distal unepiphysed metatarsal. Some of the cattle remains display processing traces. Thus, a fragmentary radius, cut longitudinally, shows polishing traces at the cuts' level, along the diaphysis and proximal epiphysis. Another radius fragment shows three cuts on the posterior side of the diaphysis, while the back and lateral sides of a phalange exhibit four unequal cuts. It is possible that another two bone remains come still from cattle: a diaphysis wall of a large size animal, calcined and a fragment, likely a proximal radius, burned (red colour).

Domestic swine (*Sus scrofa domestica*) sum up 11 fragments from a minimum of two specimens. Based on an isolate canine tooth and a jaw fragment with lacteal premolars, it is a female killed below 1 year of age. The second specimen was ca. 2 years old; to it belongs a mandible with M_3 (unworn cusp 3) in alveoli. Cut traces are visible on the median side of a scapula fragment and above the distal epiphysis of a humerus.

Sheep and goats (*Ovis aries* / *Capra hircus*) are represented by 9 fragments of which one most definitely belongs to species *Capra hircus*. For the other 8 remains, the differential diagnosis sheep-goat was not possible. Although there are no morphological features that would certify the presence of the *Ovis aries* species in the analysed material, one may not exclude its existence in the settlement. Caprovines are represented by a number of two specimens, of which a ca. 3-year old goat, based on a femur with visible proximal ossification limit and an old *Ovis/Capra*, from which comes a fragmentary left mandible bone with gingival retraction at the premolar level and teeth under advanced erosion. A fragmentary coxal bone exhibits on the surface of the acetabular fossa an orifice made in a concavity obtained by polishing an area of ca. 3 cm on the posterior side.

The canids (*Canis familiaris* and *Canis lupus*) are represented by 4 bone remains. Two of them, a fibula fragment and a metapodial fragment, belong to the dog. Due to their size, we assigned the other two fragments, a distal humerus (distal width = 44.2 mm; trochlea width = 33.0 mm; distal anterior-posterior diameter = 34.4 mm) and a complete calcaneus (maximum length = 57.8 mm; maximum width = 24.3 mm) to the wolf. Although during Roman times, there was an ample size

variability in the dog, we believe these remains belong to the wild species. Therefore, we estimate that canids are represented by 2 adult specimens, a dog and a wolf.

The domestic hen is represented in the analysed lot by a complete humerus with a maximum length of 72.6 mm.

We noticed the existence of a relatively large number of rib fragments, 9 coming from small-average size animals (5 remains belong to dog) and 15 fragments to large size animals (most likely cattle).

The category of bone with traces of anthropic intervention includes a diaphysis wall fragment, of ca. 3 cm in length, unidentified specifically, from a mean-size animal, with all edges polished (transversal and longitudinal).

Metric data are few (also due to the strong fragmentation of the material). Hence, morphological and biometrical specificities of the identified species are hard to assess.

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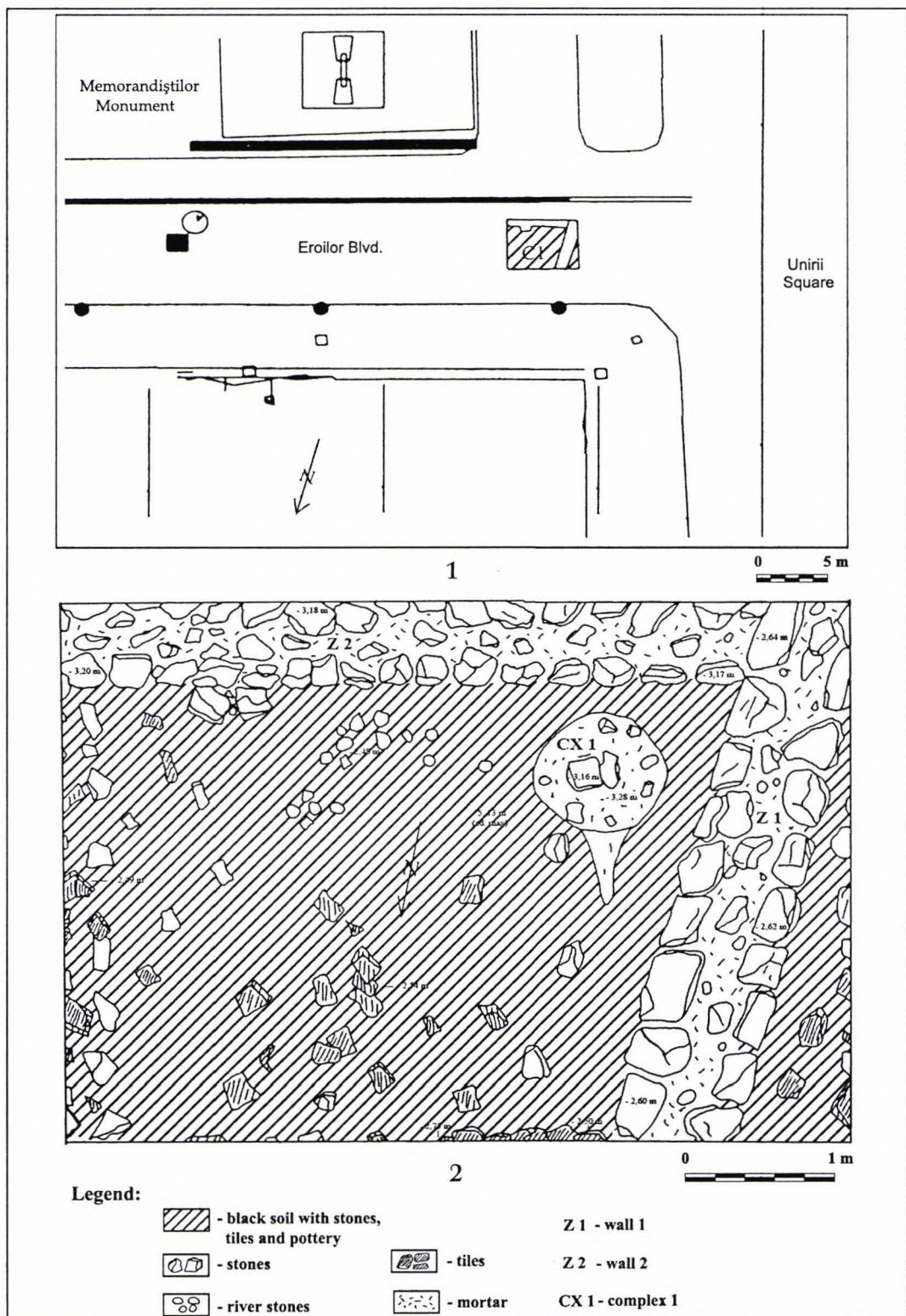
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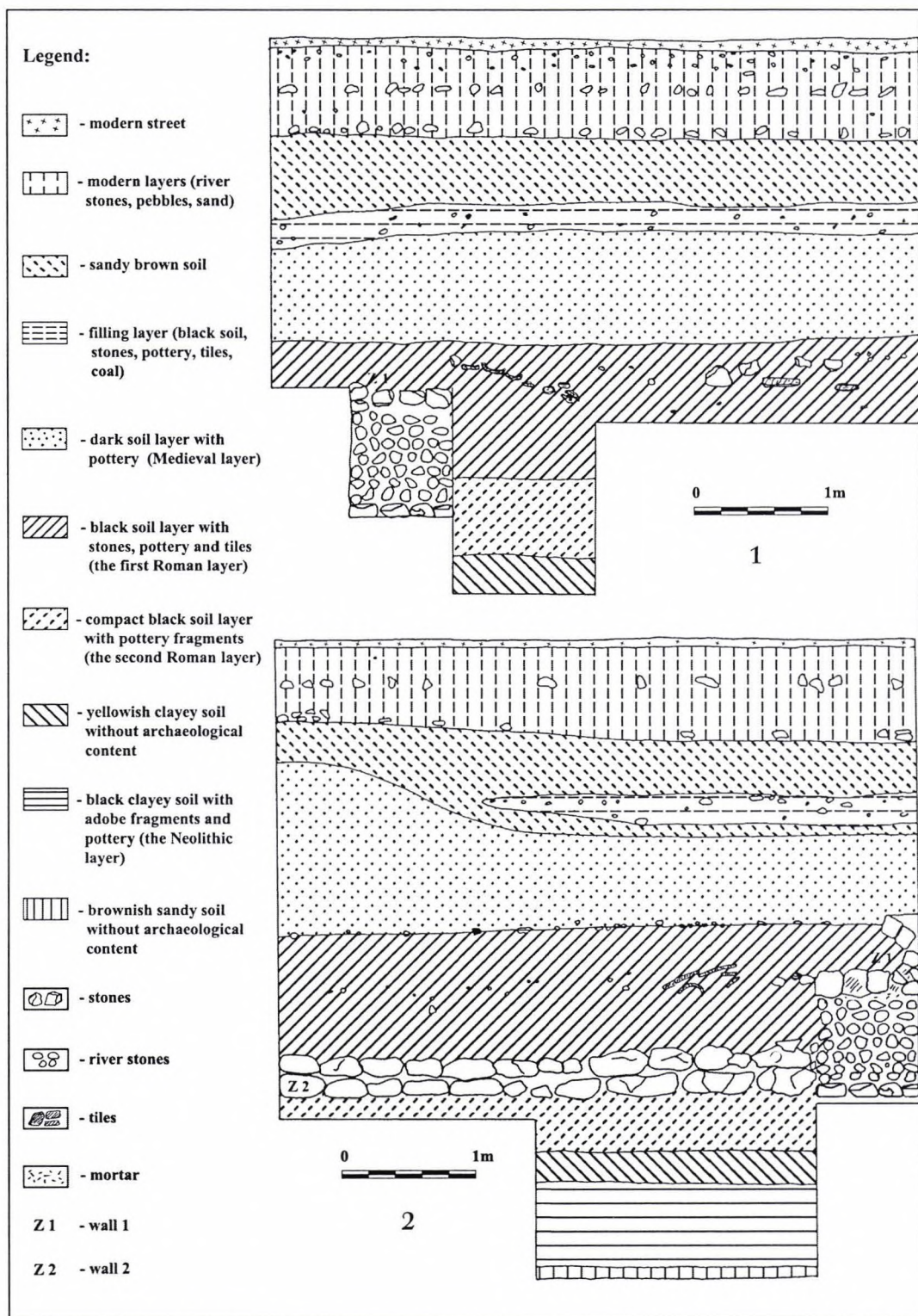
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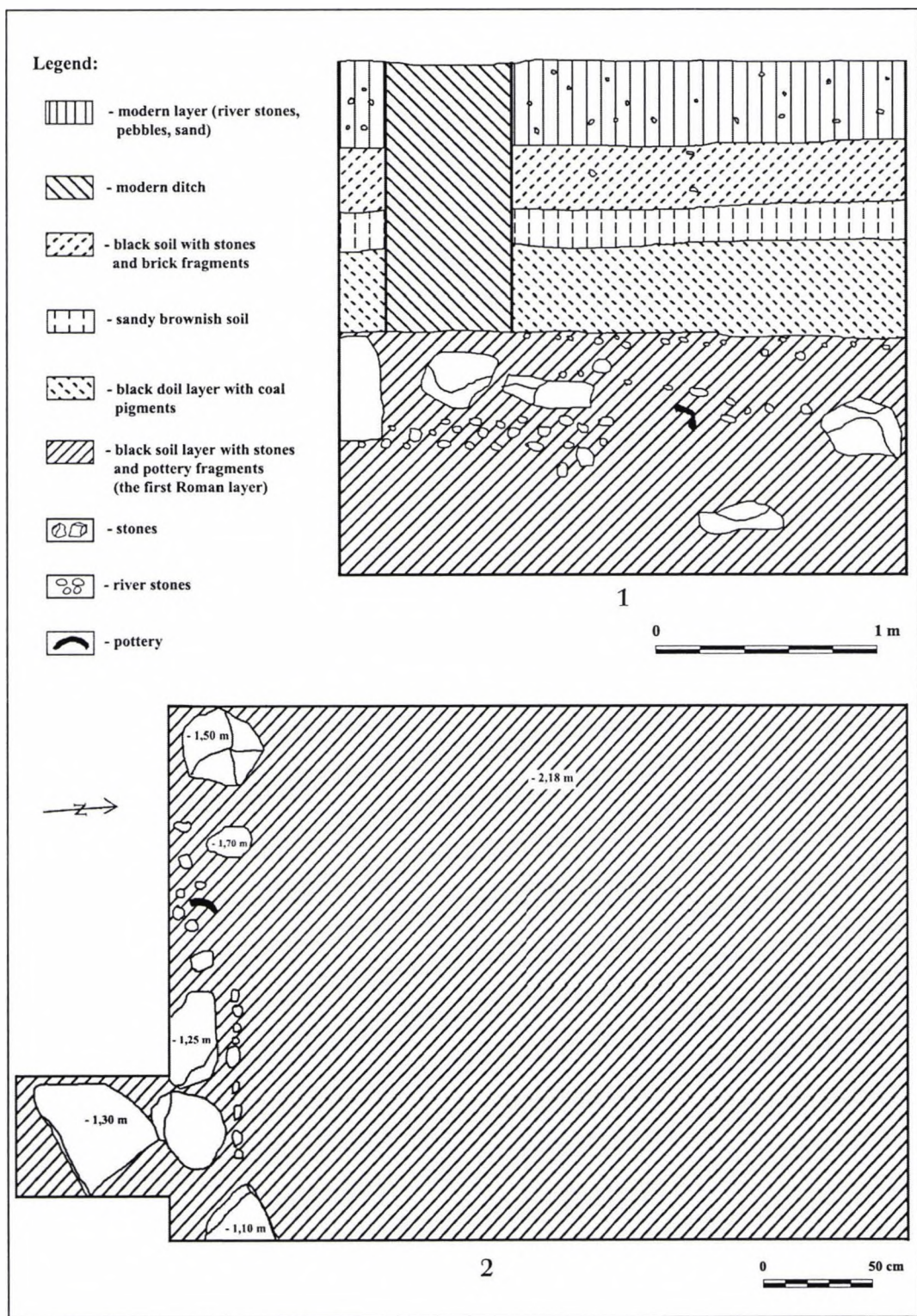
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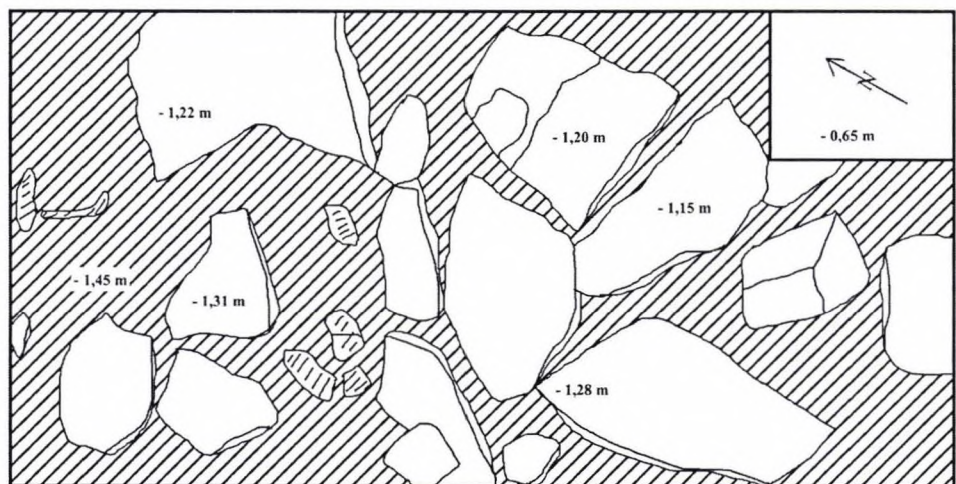
Pl. I. Eroilor Blvd., trench C1: 1. Site location; 2. Layout.



Pl. II. Trench C1: 1. Northern profile; 2. Southern profile.

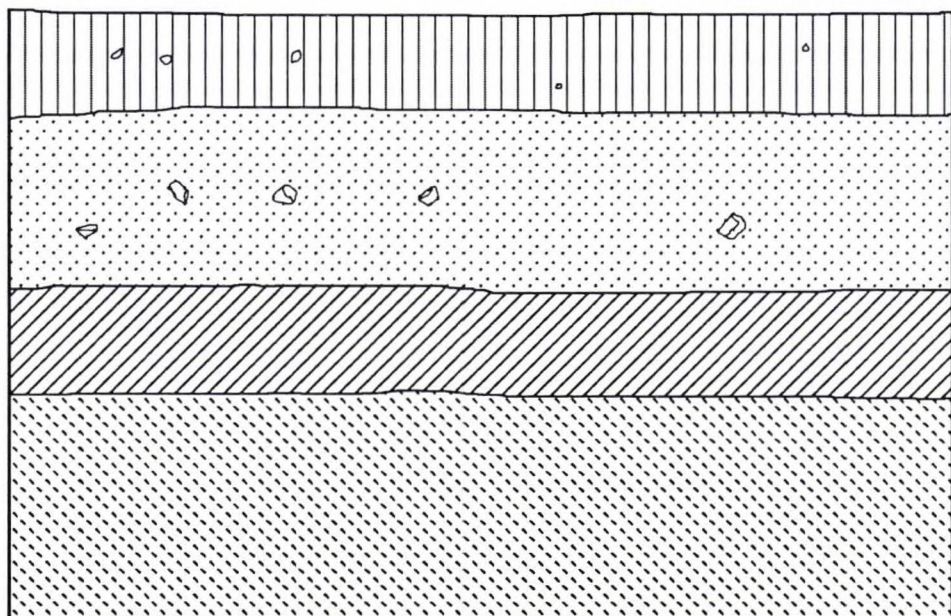


Pl. III. Trench C2: 1. Southern profile; 2. Layout.



1

0 50 cm



2

Legend:



- modern street



- black soil layer



- stones



- modern layer (stones pebbles, sand)

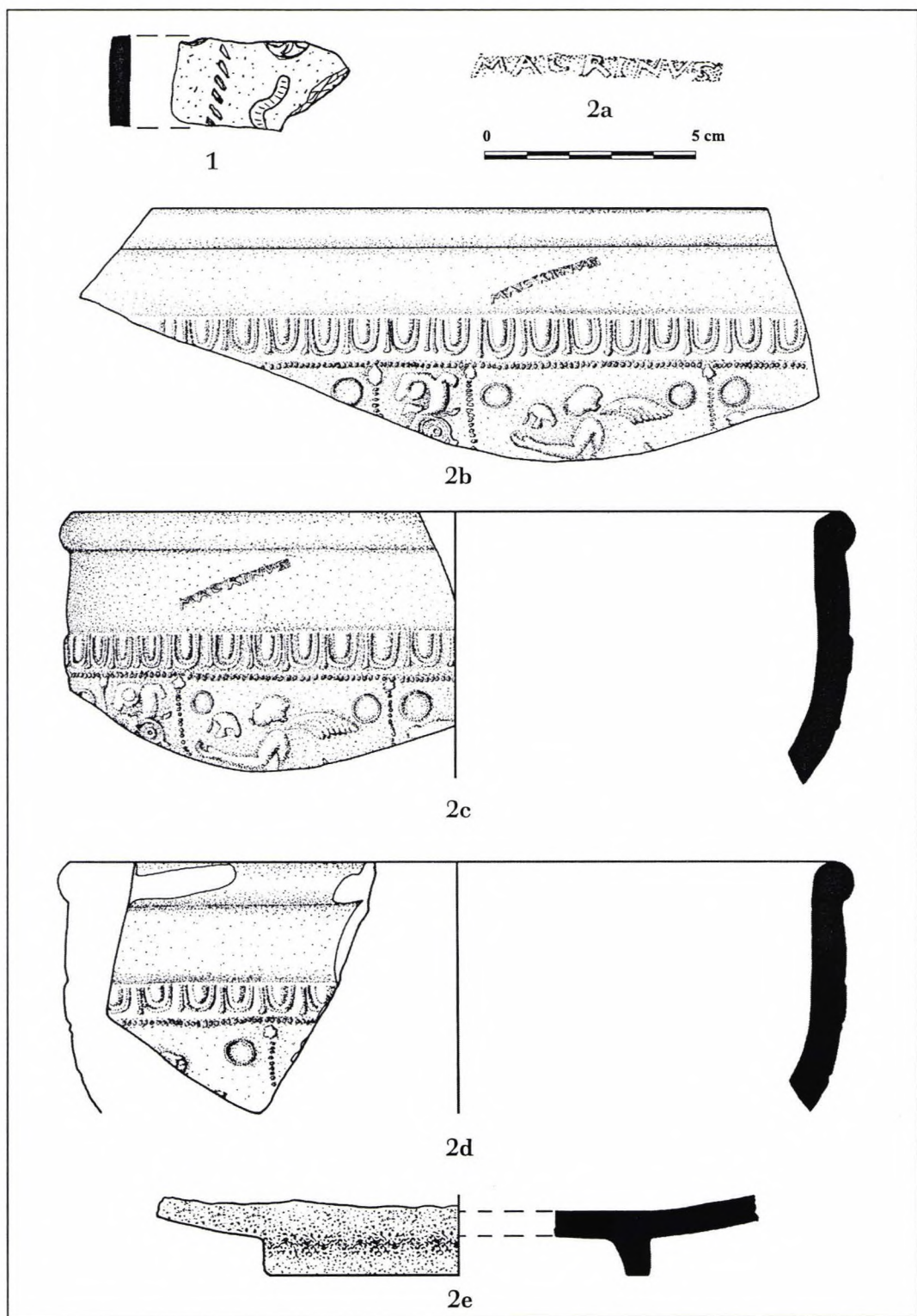


- black soil layer with stones, pottery and tiles (the first Roman layer)

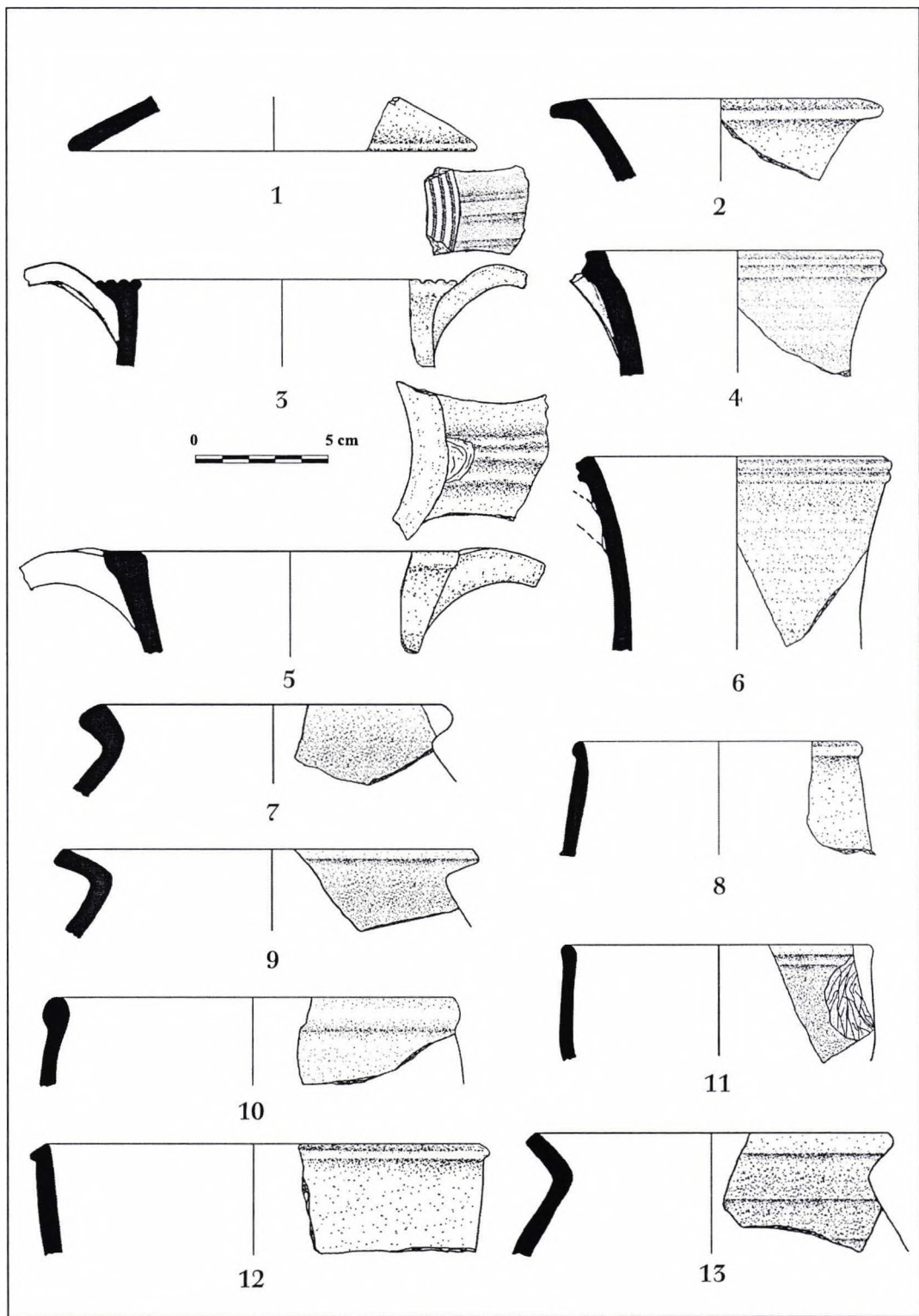


- tiles

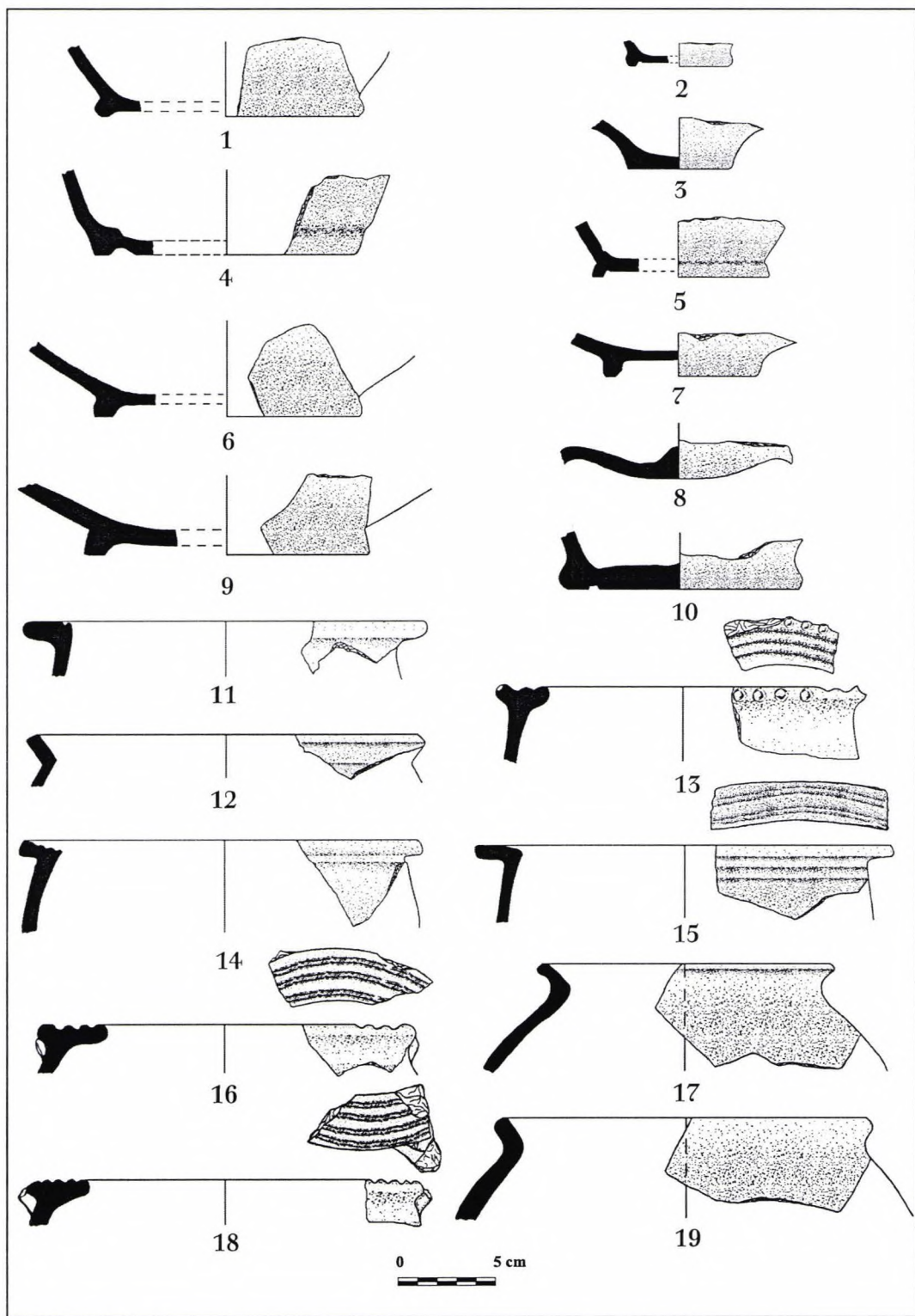
Pl. IV. Trench C3: 1. Western profile; 2. Layout .



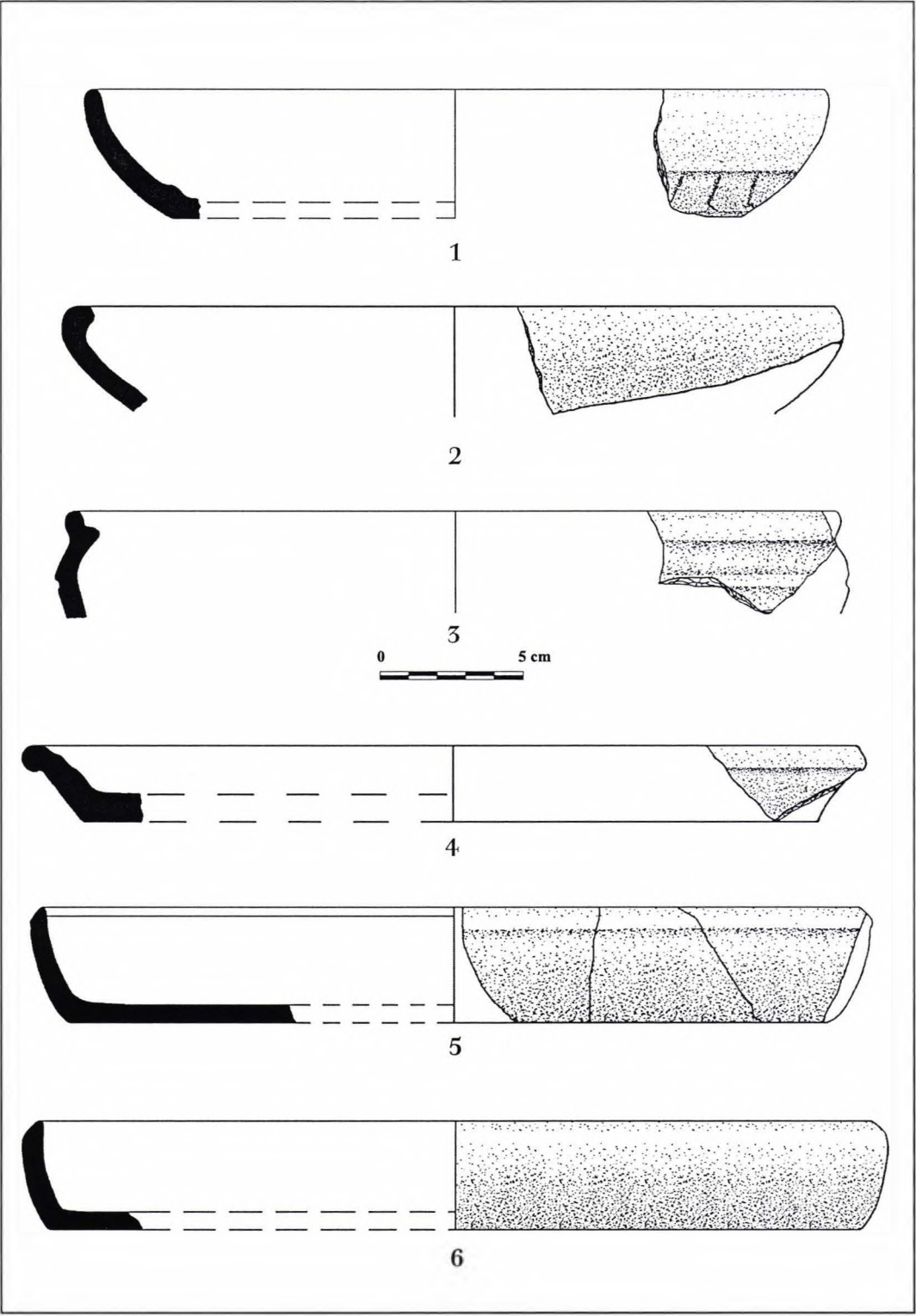
Pl. V. 1-2a-e. Trench C1 - potsherds.



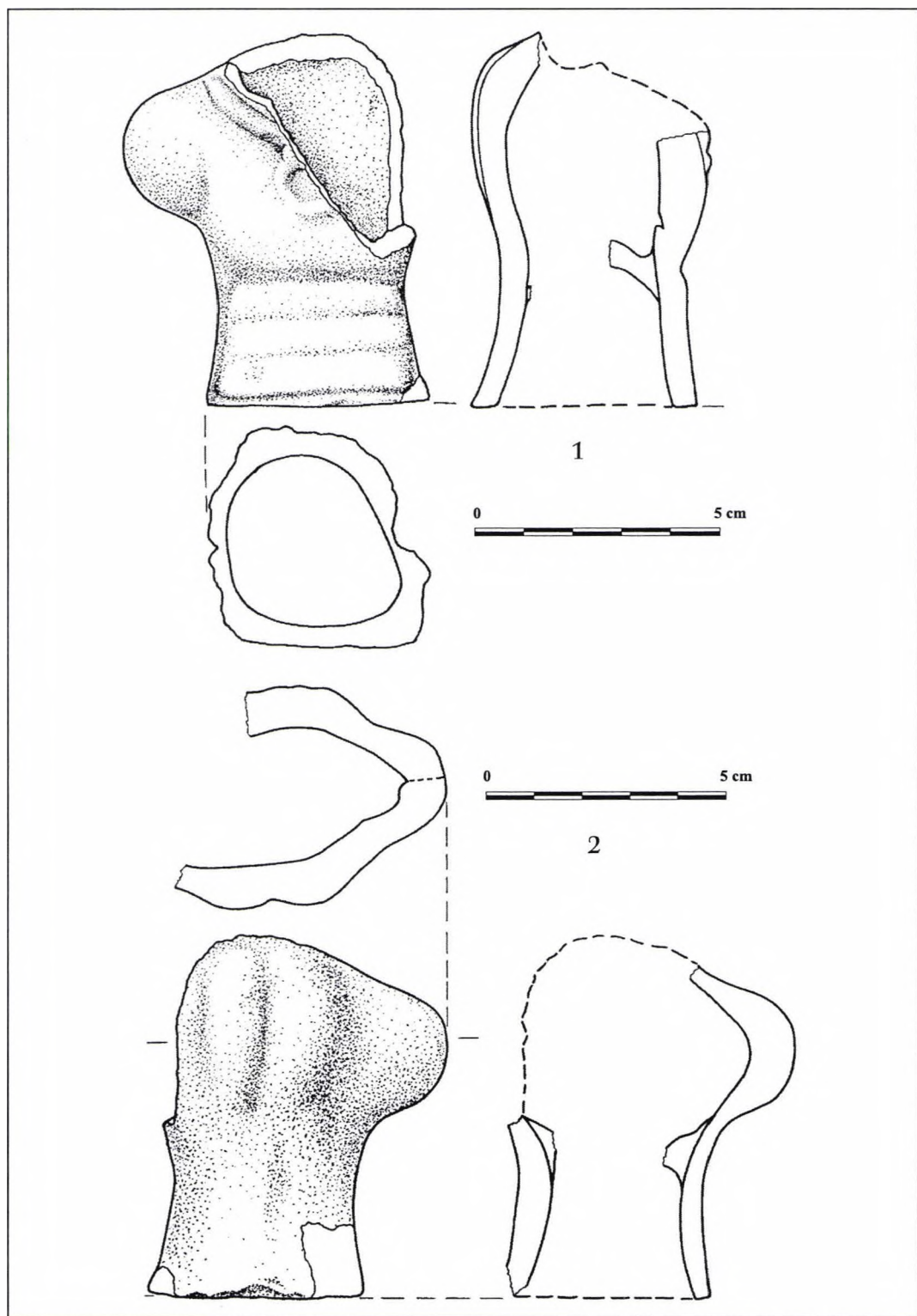
Pl. VI. Trench C1 - potsherds.



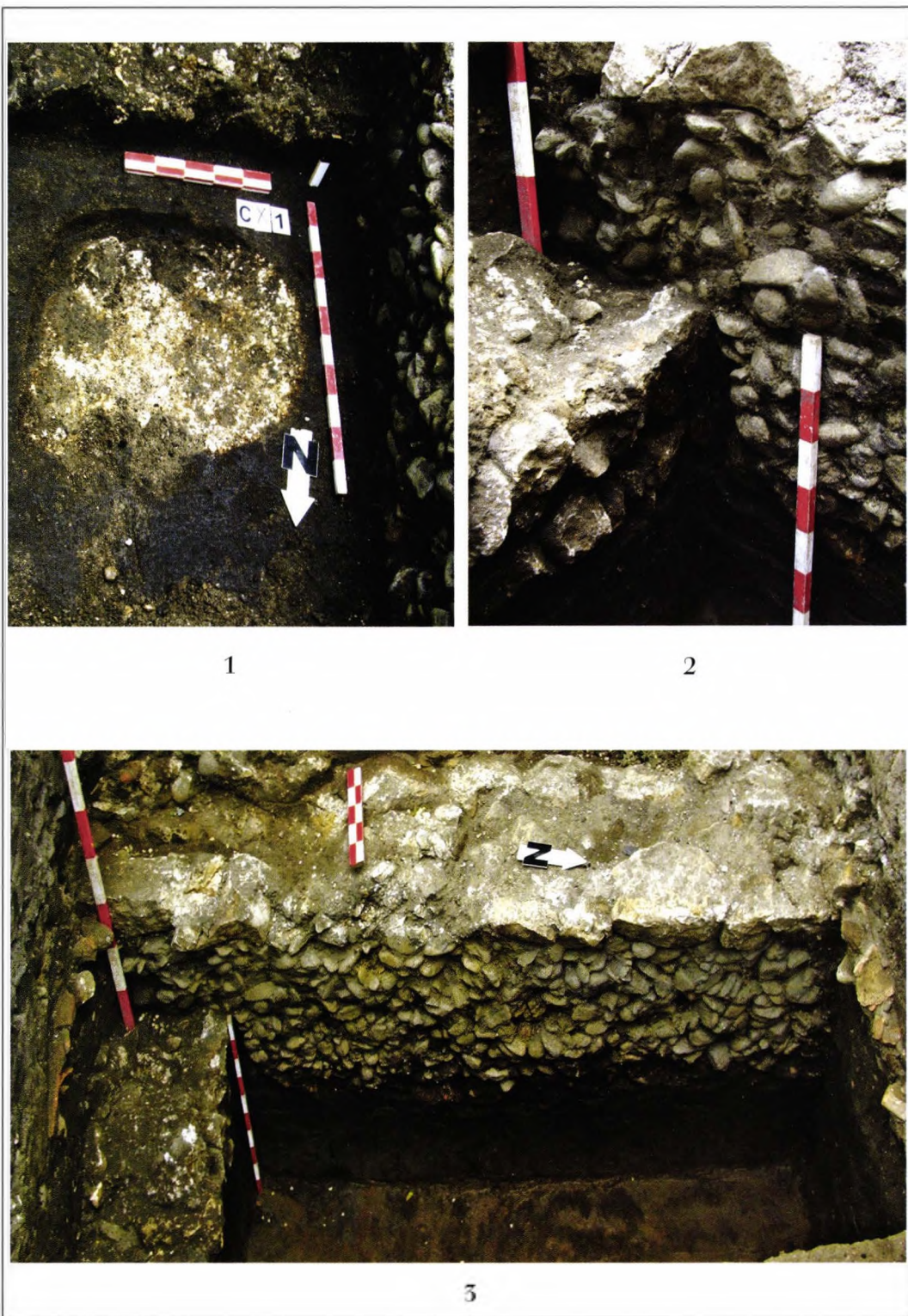
Pl. VII. Trench C1 - potsherds.



Pl. VIII. Trench C1 - potsherds.



Pl. IX. Pipe-clay statuette: 1. Front representation; 2. Back representation.



Pl. X. Trench C1: 1. Archaeological feature CX 1; 2-3. Walls Z1 and Z2.



1



2

Pl. XI. Trench C3: 1. Layout; 2. Trench C2 - southern profile.



1a



1b



2



Pl. XII. Trench C1: 1a-1b. Pipe-clay statuette; 2. *Terra sigillata* bowl fragment.

ROMAN FINDS IN THE ART MUSEUM COURTYARD FROM CLUJ-NAPOCA

ADRIANA ANTAL, LUCA-PAUL PUPEZĂ

Abstract: The archaeological materials identified in the Art Museum courtyard are the result of a rescue archaeological excavation performed inside the Roman town of Napoca. Two Roman layers were determined. The first Roman is represented by a consistent burning layer, likely from a burned building. The burning was extensive, the earth being almost vitrified, while most potshards exhibit secondary burning traces. The archaeological material consists mainly of common ware shards, however bronze, bone or glass objects are not missing either. The second Roman layer is represented by a massive road massive stone slabs pavement. The archaeological material discovered in this layer is varied: coins, a stone funerary cone, bone, glass or bronze objects, as well as potshards (*terra sigillata*, stamped pottery, common wares).

Keywords: Napoca; rescue excavation; coins; stamped pottery.

Résumé: Les matériaux découverts dans la cour du Musée d'Art sont le résultat d'une fouille archéologique préventive. Deux niveaux romains ont été identifiés. Le première niveau est représentée par une brûlure uniforme, probablement d'un bâtiment incendié. Le feu a été très fort: le niveau de gravier et de sable en dessous de la combustion est partiellement vitrifié et la plupart des poteries est fortement brûlée secondaire. Le matériel archéologique se compose principalement de poterie d'usage commune, mais ne manque pas des objets en bronze, en verre ou en os. Le second niveau romain est représenté par un pavage de dalles massives de pierre. Le matériel archéologique est varié: monnaies, un cône funéraire de pierre, objets en os, verre ou bronze et aussi *terre sigillée* ou du céramique estampée.

Mots-clés: Napoca; archéologie préventive; monnaie, poterie estampée.

Rezumat: Materialele arheologice provenite din curtea Muzeului de Artă au fost rezultatul unei săpături arheologice preventive. Au fost identificate două nivele de epocă romană. Nivelul roman timpuriu este reprezentat de un strat consistent de arsură, probabil de la o construcție incendiată. Incendierea a fost puternică, nisipul aflat în amenajare a fost aproape vitrifiat, iar majoritatea fragmentelor ceramice au urme de ardere secundară. Materialul arheologic descoperit a constat în principal din fragmente ceramice de la vase de uz comun, fără a lipsi obiectele din bronz, os sau sticlă. Nivelul roman târziu este reprezentat de un drum / pavaj cu dale masive din piatră. Materialul arheologic din acest nivel este variat: monede, un con funerar din piatră, obiecte din os, sticlă sau bronz precum și fragmente ceramice.

Cuvinte cheie: Napoca; arheologie preventivă; monede; ceramică ștampilată.

I. The Art Museum

The Art Museum, housed in the Bánffy Palace, the most significant accomplishment of the Transylvanian baroque is located in central Cluj-Napoca, Piața Unirii Square, close to Saint Michael Cathedral and the statuary group *Mathias Rex* (Pl. I; I/1). Geographically, the Museum is placed on the first terrace of Someș river, in fact similarly to the entire ancient town centre, at approximately 500 m south the river.

The finds in the Art Museum courtyard, result of rescue archaeological excavations¹, cover the entire urban chronological sequence of the town, from contemporary to Roman periods. The archaeological research was carried out in order to estimate the historical potential and the partial archaeological discharge of the inner courtyard of the palace, space designed for rearrangement.

A single trench was delimited, S1, of 23 × 3 m, oriented N-S (Pl. I/2; II/1; IX/1-2), where culture layers were found to be succeeding to a depth of over 6 meters (Pl. II/2). The most recent identified complex following the archaeological excavations in the Art Museum courtyard belongs to the contemporary period. It is a part of the concrete structure of a cinema (called "Apolló", "Capitol", then "Progresul"), functioning there from the interwar period to 1971. Finds dated to the modern period are closely related to the effective construction of the palace by the Transylvanian governor, G. Bánffy, between 1774 and 1785. Two stone walls of a cellar, of which one was provided with an arch, were identified in the courtyard south-eastern area. The building they belonged to was most likely destroyed when the palace was built. From the same period survived two phases of the original pavement of the palace courtyard, a river stone paving, later covered with massive stone slabs. Most of the complexes that pertain to the modern period are lime slaking pits. Beneath the modern layer, no phase succession of the medieval period could be identified (the 12th -17th centuries), the most consistent layers of the period being levelling layers that comprised mixed archaeological material.

II. The second Roman layer

The second Roman layer² is represented by a road massive stone slab pavement, approximately oriented NW-SE (Pl. II/1; X/1-3). Only three (four?) slabs survived, the road/pavement foundation made of successive pebble, sand or sandy earth layers (Pl. II/2) being best preserved. The culture layer afferent to the road/pavement is a debris layer, containing mixed materials: stone objects (a funerary cone - Pl. III/13; XI/13; a fragment of uncertain function, decorated with vegetal motifs - Pl. III/16; XI/14), building materials (iron nails - Pl. III/4-8; XI/5, tiles, pavement pieces), coins (Pl. XI/1, 3-5), various bronze, glass (Pl. III/11-12) or bone objects (Pl. III/1-3; XI/6-8), potshards (Pl. III/14; IV/2-9, 11-13, 15-18, 20; V/1-2, 5, 7-8, 10-20, 22-28; VI/1-6, 9-11, 13-15, 17-18; VII/1-25; VIII/1-20; XII/2, 4-6, 8-9, 11-17, 19) and animal bones. The layers in this phase are the only ones disturbed by subsequent medieval and modern insertions (Pl. II/1), so that Roman materials identified in the upper layers (potshards - Pl. IV/1, 10, 14, 19; V/3, 6, 9, 21, 29; VI/7-8, 12, 16; bronze items - Pl. III/9, 17; XI/11-12, 15; bone - Pl. III/10, 15; XI/9-10; XII/1, 3, 7, 10, 18) most likely belonged to the second Roman layer.

¹ Alicu et alii 2009, 285-287; Antal, Pupeză 2010, 67-85; Pupeză 2011, 223-240.

² The presentation of the Roman layers of the site is made according to their emergence order (chronologically, from the most recent to the earliest).

Coins

Four coins that belonged to this layer were identified³: a strongly corroded bronze coin dated under Hadrian (catalogue no. 1, Pl. XI/5 a-b) and two silver coins, one issued under Septimius Severus (catalogue no. 3, Pl. XI/4 a-b) and one under Elagabalus (catalogue no. 4, Pl. XI/1 a-b). Another silver coin, issued still under Septimius Severus (catalogue no. 2, Pl. XI/3a-b) and discovered in the upper medieval layer, most likely belonged to this layer as well.

1. HADRIAN; Denomination: as; Axis: 6; D: 26.1 × 23.3 mm; W: 7.848 gr.; Mint: Rome; Dating: AD 125-134; Obv.: HADRIANVS - AVGVSTVS, bust draped, laureate, right; Rv.: SALVS - AVGVSTI COS III, Salus standing left, feeding snake coiled round altar and holding sceptre; RIC II, 427, no. 678; MNIT; inv. no. NIR 10441 (Pl. XI/5 a-b).

2. SEPTIMIUS SEVERUS: Caracalla (Augustus); Denomination: denarius, fragmentary, burnt; Axis: 12; D: 19 mm; W: 1.832 gr.; Mint: Rome; Dating: AD 199-200; Obv.: ANTONIN[us] AVGVSTVS, bust draped, right; Rv.: SAL GEN HVM, Salus standing left raising kneeling figure and holding serpent-wreathed sceptre; RIC IV.1, 218, no. 42 (c); MNIT; inv. no. NIR 10442 (Pl. XI/3 a-b).

3. SEPTIMIUS SEVERUS: Caracalla (Augustus); Denomination: denarius; Axis: 6; D: 19 mm; W: 2.926 gr.; Mint: Rome; Dating: AD 206-210, Obv.: ANTONINVS PIVS AVG, head laureate, right; Rv.: LIBERALITAS AVG VI, Liberalitas standing left, holding *abacus* and *cornucopiae*; RIC IV.1, 235, no. 158; MNIT; inv. no. NIR 10443 (Pl. XI/4 a-b).

4. ELAGABLUS: Julia Paula; Denomination: denarius; Axis: 12; D: 19 mm; W: 2.957 gr.; Mint: Rome; Dating: AD 218-219; Obv.: IVLIA PAVLA AVG, bust draped, right; Rv.: CONCORDIA, Concordia seated left, holding *patera*; RIC IV.2, 45, no. 211; MNIT; inv. no. NIR 10444 (Pl. XI/1 a-b).

*Terra sigillata*⁴

Despite the relatively high quantity of discovered potshards, only two are of *terra sigillata*⁵ type and both were identified in the second Roman layer.

1. Bowl Drag. 37 type; body fragment; 4 × 3 cm; fine, hard red-brown fabric (Munsell 10R, 5/6), with limestone, silver and red-brown iron-rich grains inclusions; dark red slip, smooth and lustrous (Munsell 10R, 3/6).

The decorative motifs seem to have been placed in medallions, of which, due to the much reduced sizes of the fragment, only a small portion of one of them was preserved, inside which appears a decoration, possibly anthropomorphic or zoomorphic (?) barely identifiable. According to the fabric and slip, the discussed fragment may be assigned to the workshops at Lezoux, in Central Gaul, however the artisan is impossible to specify. Dating: starting with the Antonine period; MNIT; inv. no. V. 59362 (Pl. IV/2; XII/4).

2. Bowl Drag. 37 type; rim fragment; 6.6 × 6.5 cm; fine reddish yellow fabric (Munsell 5YR, 7/8), with limestone and silver mica inclusions; smooth and light lustrous slip (Munsell 5YR, 7/6). Decoration: peculiar ovolos, the inside divided into four by two perpendicular lines,

³ The coins were determined by C. Găzduc, whom we thank this way as well.

⁴ The catalogue of the pottery material comprises the following description elements: vessel shape/type, state of conservation, sizes, fabric type and slip, decoration, workshop, dating, analogies, storage, inventory number and plate.

⁵ Determination of the *terra sigillata* fragments was made by V. Rusu-Bolindeț, to whom we express our thanks in this way as well.

with coiled tongues; the decorative seem to have been placed in medallions and panels, of which a fragmentary medallion was preserved, delimited by two concentric circles. A bull head is displayed inside, full-faced (possibly O 1891 A); two four-petalled rosettes were placed on either side of the preserved medallion.

In terms of the assignment of the production centre making the analysed *terra sigillata* fragment, both the peculiar ovolos type as well as the partially preserved decorative motif might belong to artisan PACATVS from Aquincum⁶, who was active starting with Hadrian's reign, reaching maximum development under the Antonines and ceasing activity by the end of the 2nd century AD⁷; dating: based on the workshop and the archaeological context - end of the 2nd century AD; MNIT; inv. no. 59 963 (Pl. IV/12, XII/14).

In the event that the analysed *terra sigillata* fragment belongs beyond any doubt to Pacatus's workshops, its discovery represents a unique fact with regards to *terra sigillata* imports at Napoca, such products being novel to the mentioned site insofar⁸. In fact, Pannonian Samian ware were recorded rather scarce at province scale⁹, which is due to both the state of research of the imported *terra sigillata* in Dacia as well as the publishing of the site monographs, supposed to publicize novel archaeological materials.

Stamped pottery

Among the identified potshards, 19 come from wares decorated by stamping¹⁰. Noticeably, fragments exhibiting stamped decoration were discovered only in this Roman layer and not also in the earlier layer.

1. Bowl (?); wall fragment; L = 3.8 cm, l = 1.9 cm; fine fabric, orange, with mica in composition; red-orange slip, slightly glossy on the outside; stamped decoration, incompletely preserved, representing a rounded-type leaf; MNIT inv. no. V. 59971 (Pl. IV/1).

2. Bowl, likely Drag. 30 or 37 type, *terra nigra* imitation; wall fragment, slightly curved; L = 3.5 cm, l = 2.6 cm; fine fabric, dark grey, with graphite and mica in composition; dark grey

⁶ F. Oswald mentions this Pannonian workshop when including the decorative motif (the full-faced bull head) in the repertoire of figured decoration on *terra sigillata* (Oswald 1936-1937, 122, Pl. LXXVI, 1891 A). It appeared on a Drag. 37 mould assigned to PACATVS - Kuszinski 1932, 166-167, Fig. 142; 191-192, Fig. 171; Pl. XI/20-21; XVII/14. The way of representation of the bull head on the mould fragment at Aquincum mentioned by F. Oswald is different though from the specimen we analysed (the medallions are suggested by wine spindles, exhibiting inside the figured decorative motifs - birds and animals), yet the division into medallions of the decorative panels is found with the same artisan workshop on moulds or *terra sigillata* wares - see Kuszinski 1932, Pl. XII/3a-b; XIII/3 e.

⁷ Zsidi 2009, 59-61; for the illustration of the pottery variety made in Pacatus's workshops see Zsidi 2009, 130-134 (the Hungarian version), 208-210 (the abridged translation into English), catalogue nos. 558-612, *terra sigillata* moulds are catalogued between nos. 590-603.

⁸ Rusu-Bolindeț 2007, 156, 170.

⁹ Isac 1985, 46-47, catalogue nos. 443-456, Pl. 48. Respective products do not come from Pannonian workshops, but rather from those at Viminacium-Margum, in Moesia Superior (see the accurate identification made by L. Bjelajac, based on archaeological research and the specific pottery material - Bjelajac 1990, 143-172) deemed in the specialty literature as produced in the Siscia workshops (or Siscia-Margum). Same circumstances are also noted in what the import *terra sigillata* identified in Oltenia are concerned - see Popilian 1973, 188-189, 208, 210, catalogue nos. 155-169, Pl. X; Popilian, Ciucă 1988; Popilian, Ciucă 1993, 32, 42, catalogue no. 64, Pl. IV/64 etc.

¹⁰ The catalogue composition was based on the information ordering system used by V. Rusu-Bolindeț (Rusu-Bolindeț 2007, 57-67). We also introduced in the catalogue two rouletting-decorated potshards, preserving the description system as well.

slip, glossy, on both sides; stamped decorated, incompletely preserved, composed of three elements: a. rosette floral motif, with petals in outward circular arc, placed around a circle, with small central button; b. Fragmentary leaf, well delimited, likely oval, with bilobate lower part, three buttons in relief, veins being made by double lines; c. Circular arc opened downward, placed below the other motifs; MNIT, inv. no. V. 59966 (Pl. IV/3; XII/1).

3. Bowl, likely Drag. 30 or 37 type; wall fragment, slightly curved; L = 4.3 cm, l = 2.1 cm; semi-fine fabric, pink-orange, with mica in composition; orange slip, glossy to the outside; stamped decoration, incompletely preserved, composed of at least three elements: a. *planta pedis*, composed of two elements, well delimited, inside exhibiting five, respectively three buttons; b. Nine-petal rosette formed of unequal rectangles; c. Fragmentary leaf, likely oval-shaped, outlined, petiole and veins made by double lines; MNIT, inv. no. V. 59961 (Pl. IV/4; XII/6).

4. Bowl, likely Drag. 30 type; wall fragment from curve area; L = 5.4 cm, l = 3.2 cm; fine fabric, pink-orange, with mica in composition; orange-red slip, glossy, on both sides; incised line in curve area; stamped decoration preserved incompletely, composed of at least two elements: a. stylised leaves, placed vertically, well delimited, made by oblique lines; b. rosette/floral motif placed in-between the stylised leaves, with four semi-circular petals, each with central button and crossed lines placed around a button in relief; MNIT, inv. no. V. 59964 (Pl. IV/5).

5. Bowl, likely Drag. 30 type; wall fragment, from rim part; L = 3.8 cm, l = 3.5 cm; fine fabric, pink-orange, with calcite and mica in composition; red slip, glossy, on both sides; stamped decoration, preserved incompletely, composed of at least two elements: a. circular arc, downward opening; b. large rosette, with button on petals, placed in the circular arc opening; MNIT, inv. no. V. 59960 (Pl. IV/6; XII/5).

6. Bowl, likely Drag. 30 type; wall fragment, from rim part; L = 5.2 cm, l = 2.7 cm; fine fabric, orange, with mica in composition; orange-red slip, glossy, on both sides; stamped decoration, preserved incompletely, composed of at least three elements: a. horizontal row of large circular arcs, with downward opening; b. *lunulae*, with downward opening, placed at the joint ends of the large arcs; c. leaf, oval-shaped, well delimited, placed inside the large arcs opening; MNIT, inv. no. V. 59958 (Pl. IV/7; XII/8).

7. Bowl, likely Drag. 30 type; wall fragment; L = 5.1 cm, l = 4.9 cm; light grey fabric, semi fine, with organic material, graphite and mica in composition; dark grey to black slip, on the outside; stamped decoration, incompletely preserved, composed of two elements: a. vertical lines, formed of unequal rectangles; b. stylised "mushroom" representations; MNIT, inv. no. V. 59953 (Pl. IV/8; XII/17).

8. Bowl, likely Drag. 37 type, slightly reverted walls; wall fragment; L = 4.2 cm, l = 3.4 cm; fine fabric, pink-orange, with mica in composition; orange slip, glossy, to the outside; stamped decoration, preserved incompletely, composed of at least two elements: a. rosette, fragmentarily preserved, in the upper part of the wall fragment; b. slightly sharp leaves, tip down, well delimited, veins rendered by oblique lines placed below the rosette; MNIT, inv. no. V. 59957 (Pl. IV/9; XII/2).

9. Bowl (?); wall fragment; L = 4.2 cm, l = 3.1 cm; fine fabric, with mica in composition; red-brownish slip, slightly glossy, both inside and outside; stamped decoration, preserved incompletely, composed of at least two elements: a. rounded tip leaves, well delimited; b. semi-circles or simple circles placed below the leaves; MNIT, inv. no. V. 59974 (Pl. IV/10; XII/3).

10. Bowl, likely Drag. 37 type; wall fragment, strongly curved; L = 5.4 cm, l = 5.2 cm; semi fine fabric, pink-orange, with organic material and mica in composition; red-orange slip, slightly glossy, on the outside; stamped decoration, preserved incompletely, composed of at least three elements: a. circular arcs, upward, downward or rightward opening; they could be incompletely preserved circles; b. oblique lines, placed inside the arcs' openings, or vertical, placed in-between the arcs made of unequal rectangles; c. seven-petal rosettes placed in the arcs' openings (inside the circles); MNIT, inv. no. V. 59959 (Pl. IV/11; XII/13).

11. Bowl, likely Drag. 30 or 37 type; wall fragment; L = 4.6 cm, l = 4.5 cm; semi fine fabric, pink-orange, with calcite, organic material and mica in composition; orange slip, preserved partially on the outside; stamped decoration, incompletely preserved, composed of four elements: a. circular arcs with downward opening; b. vertical row of floral motifs, circularly-shaped, likely six-petalled, each with a dot in relief inside; c. double leafs, extended in shape, opposing tips, veins and petiole rendered by double lines and a circular space in-between the two; d. line, likely horizontal, placed below the double leaf, composed of unequal rectangles; MNIT, inv. no. V. 59954 (Pl. IV/13; XII/12).

12. Bowl, likely Drag. 30 or 37 type, with slightly reverted rim; rim and wall fragment; db = 13 cm; fine fabric, orange, with mica in composition; red, glossy slip, on both sides; stamped decoration, incompletely preserved, composed of at least three elements: a. circular arcs with upward opening, placed in a horizontal row below a groove; b. small-sized rosettes, with seven petals; c. circular arcs with downward opening, placed below the rosette; MNIT, inv. no. V. 59970 (Pl. IV/14; XII/10).

13. Bowl Drag. 30 type, *terra nigra* copy, with slightly reverted rim and short neck; rim and wall fragment; db = 14 cm; black fabric, fine, with organic remains and mica in composition; black slip, slightly glossy, on both sides; incised lines, placed below the rim; stamped decoration, incompletely preserved, composed of three elements: a. horizontal row formed of circular arcs with downwards opening, ends joined; b. human heads, looking left, framed in an oval, placed in the arcs' openings; c. motifs in the "S"-letter shape, preserved fragmentarily, placed by the arcs' ends; MNIT, inv. no. V. 59952 (Pl. IV/15; XII/15).

14. Bowl, likely Drag. 30 or 37 type; wall fragment; L = 7.1 cm, l = 5.8 cm; fine pink-orange fabric, with organic material, calcite and mica in composition; orange slip, slightly glossy, to the outside; stamped decoration, incompletely preserved, composed of three elements: a. row of four rosettes, likely with six petals each, placed vertically; b. "S"- letter shaped motif made of unequal rectangles; c. row of three trilobate leafs, with individualised lobes, slightly arched ends, well delimited and veins rendered by oblique lines; MNIT, inv. no. V. 59965 (Pl. IV/16; XII/16).

15. Bowl, likely Drag. 30 or 37 type, with rounded rim; rim and wall fragment; L = 3.4 cm, l = 3.2 cm; fine fabric, brownish, of orange hue and mica in composition; dark orange slip, glossy, on the outside; incised line under the rim; stamped decoration, preserved incompletely, composed of a horizontal row formed of circular arcs with downward opening; MNIT, inv. no. V. 59956 (Pl. IV/17; XII/11).

16. Bowl Drag. 37 type, with rounded rim; rim and wall fragment; db = 12 cm; incised line below the rim; fine fabric, orange, with crushed potshards and mica in composition; pink-orange slip, slightly glossy, on the outside; stamped decoration, preserved incompletely, composed of two elements: a. oblique lines to the left and, likely, to the right, made by unequal rectangles; b. Rosette placed by the ends of the joint lines, with buttons arranged circularly inside; MNIT, inv. no. V. 59955 (Pl. IV/18; XII/9).

17. Bowl Drag. 37 type; rim and wall fragments; Db = 20.5 cm; fine, orange fabric, with mica in composition; red, glossy slip, on both sides; roulette-made decoration, on the globular part of the wall, in the shape of oblique, parallel rows of small-sized lines; two incised lines are placed horizontally, also in the globular part of the wall MNIT, inv. no. V. 59972 (Pl. IV/19; XII/18).

18. Bowl/terrine with globular body; wall fragment and base; Dr = 10 cm; fine, pink-orange fabric, with calcite, organic material and mica in composition; orange slip, glossy, to the outside; incised line, below the stamped decoration; ring-shaped base; stamped decoration, preserved incompletely, composed of at least two elements: a. circular arcs with upward opening; b. circular arcs with downward opening; MNIT, inv. no. V. 59967 (Pl. IV/20; XII/19).

19. Bowl/dish (?); fragment from the ring-shaped base area; Dr = 12 cm; brownish-orange fabric, with mica in composition; red slip, slightly glossy, on the inside; roulette-made

decoration, on the inner side of the vessel in the shape of circular rows placed concentrically, of small-sized lines; MNIT, inv. no. V. 59973 (Pl. XII/7).

Among pottery finds from the culture layer, stamped fragments are in few percentages, approximately 1%. In what firing is concerned, 16 of the fragments are oxidised in various red and orange hues and only three were fired in a reducing atmosphere, grey or blackish. The 84% oxidising firing percentage is close to the overall percentage of the finds at Napoca, ca. 77%, circumstances being similar to the rest of the sites in Dacia¹¹, except for the centre at Porolissum, where reduction firing predominates¹².

Of the vessel shapes, few could be typologically framed with precision, given their fragmentary state. Most frequent among the stamped pottery finds at Napoca appear the bowls, dishes and terrines. Typologically, vessels with stamped decoration at Napoca were used especially as tableware¹³. Fragments discovered in the Art Museum courtyard frame this general statistics. Most of the fragments come from variously sized bowls, copying especially Drag. 30 and 37 forms. The two bowl types, together with their derived shapes, are mainly used in the workshop at Napoca starting with the second half of the 2nd century AD until mid 3rd century AD¹⁴. The uniformity of the stamped wares production, both typologically and decoratively, is a phenomenon found at the scale of the whole Empire, visibly once with early 3rd century AD¹⁵. It is not excluded that one fragment comes from a dish and the other from a terrine, forms rarely found in the repertoire of stamped pottery from Dacia¹⁶.

In what decorative motifs are concerned, some of them are specific to the workshop at Napoca, however most are frequently found among the stamped pottery in the province. Human head - shaped motifs (Pl. IV/15; XII/15) appear in another six representations at Napoca¹⁷, but also at Porolissum¹⁸ or Gherla¹⁹, however in smaller numbers. The inspiration source might be common²⁰, yet the representation means, at least in these three cases above, are a most obvious differentiation. At Porolissum, on a bowl, human heads are of relatively large sizes, associated with "S"-letter shaped motifs, while on a terrine they are reduced in size, only sketched, without too much care for details²¹. The last situation is also found at Gherla²². On the vessels at Napoca,

¹¹ Ratios are varied, yet generally, oxidised vessels are highly predominant. For instance, at Cristești, 92% of the stamped decoration wares are oxidised (Man 1999, 146-153), and at Potaissa - 81% (Căținaș 1984, 481).

¹² Filip 2008, 103. In 87% of the cases, wares were fired in reducing atmosphere, circumstances entirely reversed compared to the rest of the finds in Dacia. The proper situation is related to the massive export of stamped pottery from Porolissum to the *Barbaricum*.

¹³ Rusu-Bolindeț 2007, 251.

¹⁴ Rusu-Bolindeț 2007, 252-253, 260-261.

¹⁵ Filip 2008, 106, with references. In Britannia or Panonia, type copying Drag. 37 are also the most frequent in the repertoire of the stamped pottery of the 3rd century AD.

¹⁶ Rusu-Bolindeț 2007, 251.

¹⁷ Rusu-Bolindeț 2007, 259, 293.

¹⁸ Filip 2008, 348, 387.

¹⁹ Rusu-Bolindeț 1999, 781.

²⁰ Oswald 1936-1937, 88-91, Pl. LVIII-LIX.

²¹ Filip 2008, 348, 387, Pl. LXII/399; CI /541.

²² Rusu-Bolindeț 1999, 781, Pl. VI/15.

including that identified in the courtyard of the Art Museum, human heads are rendered almost realistically, with well delimited facial features and hair, part of an intricate decoration composed of several decorative motifs²³.

The rest of the decorative motifs on the pottery identified in the courtyard of the Art Museum may be assigned with difficulty to one or another workshops. Circular arcs with rosettes inside also appear at Cășei²⁴, Cristești²⁵, Gherla²⁶ or Porolissum²⁷. The association of stylised leaves and “S”-letter shaped motifs was also identified on the pottery at Cășei²⁸, Gherla²⁹, Potaissa³⁰ or Porolissum³¹. Moreover, *lunulae* appear at Cristești³², Gilău³³, Gherla³⁴ or Porolissum³⁵, while stylised leaves, sharp or rounded are found in all sites where one product was identified or where only stamped pottery was identified. Rare among finds are the representations of stylised leaves, similar to wheat ears or *planta pedis*³⁶, displayed by the vessels at Potaissa³⁷ or Porolissum³⁸.

The rosette or the extremely elaborate floral motif on the bowl fragment *terra nigra* (Pl. IV/3; XII/1) copy does not appear among the motifs in Dacia. The adjoining motif, the bilobate leaf in the lower part also appears at Napoca, as well on bowls copying *terra nigra*³⁹, but also at Gilău⁴⁰, beside simpler rosettes, without circular arcs. The motif in the shape of a stylised “mushroom” (Pl. IV/8; XII/17) does not seem to be too much spread outside the town at Napoca, stamped still on bowls fired in a reducing atmosphere⁴¹.

As general features, one may note that forms identified in the Art Museum courtyard site, similarly to those known in the entire provincial world, do not preserve the standard sizes of the copied *terra sigillata* wares. Furthermore, the stamped motifs are not specific to only one vessel type, even though it copies the original, being found on a broader variety of vessels. For instance, the human head bowl at Porolissum copies the Drag. 30 form, similarly to the fragment discovered in the Art Museum courtyard, both being made of reduction fired fabric compared to the fragments at Gherla, likely copying the same shape, which are oxidised and another two fragments from Napoca, which seem to copy Drag. 37 forms, being brownish-orange or grey in colour. In addition, the chronological framing of these fragments is different.

²³ Rusu-Bolindeț 2007, 259, 293, no. 299, Pl. LIX.

²⁴ Isac 2001, Pl. XV.

²⁵ Man 1999, 147, Pl. II.

²⁶ Rusu-Bolindeț 1999, 785, Pl. XIII.

²⁷ Filip 2008, 436, Pl. CL.

²⁸ Isac 2001, Pl. XIV.

²⁹ Rusu-Bolindeț 1999, 784, Pl. XII.

³⁰ Cătinaș 1984, 483, Fig. 6.

³¹ Filip 2008, 438, Pl. CLII.

³² Man 1999, Pl. I/2; III/10, 13; IV/15; VIII/45.

³³ Isac 2001, Pl. IV/32; VII/57; XVIII/m.

³⁴ Rusu-Bolindeț 1999, Pl. XIII/46.

³⁵ Filip 2008, 398, Pl. CXII (663).

³⁶ The motif also appears on other finds at Napoca (Rusu-Bolindeț 2007, 266, Pl. LXXI).

³⁷ Cătinaș 1982, no. 100, Pl. VI.

³⁸ Filip 2008, 245, Pl. CXCIV.

³⁹ Rusu-Bolindeț 2007, 293, no. 298, Pl. LIX; 298, no. 323, Pl. LXII.

⁴⁰ Isac 2001, Pl. II, no. 15.

⁴¹ Rusu-Bolindeț 2007, 297, no. 322, Pl. LXII.

Common ware

Most potshards come from common wares made of fine or semi-fine fabric, with mica schist, sand or crushed potshards as degreasers. They are wheel-thrown, the majority are oxidised, in various red hues⁴². Most of the fine fabric fragments came from various bowl and terrine types (Pl. VI/1-18), one-handle cups or two-handled small amphorae, with round rim, occasionally grooved (Pl. V/1-12). A few lid fragments were also made of good-quality fabric (Pl. V/13). Simple pots, of semi-fine fabric, had globular body, rounded either everted or inverted rim decorated with alveoli or grooves, flat or ring base, some being provided with handles (Pl. V/16-29). Some coarse fabric fragments came from *turibulum* type vessels, from which either the foot or the upper part survived (Pl. V/14-15). Very few coarse fabric potshards were hand-made.

Chronology

Given the discovered coins and also some of the motifs on the stamped pottery, the second Roman layer in the Art Museum courtyard may be most likely dated in the period Septimius Severus - Severus Alexander (end of the 2nd century AD - first half of the 3rd century AD).

III. The first Roman layer

The earliest Roman layer was identified especially in the northern part of the trench, in the form of a consistent reddish burning layer (Pl. II/2). Evidently, this was a burned building, the fire being extensive. The pebble and sand layer below the burning level exhibits locally a close to vitrifying appearance and most of the pottery there is strongly secondarily fired.

To the same layer belong numerous common ware shards (Pl. VII/1-25; VIII/1-20), animal bones, iron and bronze objects, a significant quantity of bronze slag as well as a massive bronze coin (Pl. XI/2 a-b).

ANTONINUS PIUS: Faustina II; Denomination: sestertius; Axis: 12; D: 30 mm; W: 19.494 gr.; Mint: Rome; Dating: AD 145-150; Av.: [faustina]E AVG [pii] AVG F[il], bust draped, right; Rv.: [ven]VS S C, Venus standing left, holding apple and rudder, round which dolphin is coiled; RIC III, 193, no. 1388 (c); MNIT; inv. no. NIR 10445 (Pl. XI/2 a-b).

Ware types from where fragments belonged to do not differ much from those discovered in the second Roman layer. Bowls and terrines of various types (Pl. VIII/1, 3-7, 9-18, 20), plates and dishes (Pl. VIII/2, 8, 19), cups and small amphorae (Pl. VII/1-9) as well, were made of fine fabric. Plain pots made of semi-fine fabric, with globular body and flat or ring base are not missing either (Pl. VII/10-25).

Concerning the chronology of this layer, only a few remarks can be made. The burning layer, supposedly coming from a building, overlaps two levelling layers. Few

⁴² Given the large number of potshards and the reduced space for this study, the presentation of common wares was made without a catalogue of finds, which shall be published once with the issue of the site monograph.

Roman materials were identified there and it cannot be said whether such levelling was made on a previously uninhabited layer or a possible previous inhabitancy layer was levelled. Therefore, it cannot be stated with accuracy whether the earliest Roman layer identified in the Art Museum courtyard is also the earliest Roman layer of the town at Napoca, from early 2nd century AD, or that it dates to the mid or end of the 2nd century AD.

IV. Conclusions

Concerning the first Roman layer identified in the Art Museum courtyard, few conclusions may be drawn, as it was identified over a relatively small surface. The presence of a significant quantity of bronze slag in the burning layer suggests that a workshop was operating there. Evidence on other economic activities (scrap, kilns) was not found, the majority of the material identified there being pottery. Subsequent to the extensive fire, no other building was erected there, the land being levelled in order to build a road or stone slab pavement.

The second Roman layer identified in the Art Museum courtyard was likely also the last inhabitancy layer of the town at Napoca. It is not a burning layer indicative of a violent end, but rather a debris layer. A dark earth layer, without archaeological material (Pl. II/2) appears locally between this Roman layer and the earliest medieval layer, which may suggest that inhabitancy was discontinued after this last Roman layer identified.

Important evidence on continued inhabitancy of an urban site is represented by the Roman street grid overlapping by that medieval⁴³. If Roman towns had disappeared prior the emergence of those medieval, the street grid would have not preserved the same routes, being most likely covered by vegetation. When a society changes, inhabitancy itself also changes, accidental continuity being almost excluded⁴⁴. Most numerous examples of the kind come from Italy, where several medieval towns preserve the Roman street grid, some almost entirely⁴⁵; other such examples come from Great Britain, France, Spain or Germany. In these towns of certain inhabitancy continuity, black earth was found to have been deposited between the Roman and medieval periods, which originally led to the conclusion that inhabitancy there was abandoned by the end of the Roman Empire. Subsequently, it was noted that such earth layer no longer appeared inside dwelling structures, thus proving reduced rather than disappeared inhabitancy⁴⁶.

Beside the street grid, fortifications represent the other topographical example of continuity. Compared to the preserved street grid or buildings, the use of Roman fortifications did not necessarily imply continued inhabitancy. This is the case of most Roman fortifications reused by early medieval towns. The Roman town ceased to be a centre of urban life in the Middle Ages, functioning as a place of defence. For this

⁴³ Ward-Perkins 1984, 179.

⁴⁴ Banks 1984, 629.

⁴⁵ Ward-Perkins 1988, 18.

⁴⁶ Ward-Perkins 1988, 18, with references.

reason, the street grid did not preserve, except for the main roads joining the gates and possibly the route of the patrol roads⁴⁷.

The situation of some of the urban centres in Dacia after the withdrawal of the Roman administration is integral part to this phenomenon of Roman urban life change to that medieval⁴⁸. Based on the data provided by the archaeological excavations, it was concluded that Roman Napoca had a rectangular-shaped enclosure and an orthogonal street grid⁴⁹ (Pl. I/1). The fortified enclosure of the Roman town was archaeologically identified on three sides, those in the west and north being overlapped by the medieval fortification. The first fortified medieval enclosure, *Castrum Clusium*, seems to have occupied the north-west corner of the Roman town⁵⁰, subsequently the enclosure being extended, exceeding the limits of the ancient settlement. When examining the map location of the streets, one may easily suppose that a *cardo maximus* was in existence along Ferdinand street and then in Unirii Square in front of Bánffy Palace. The route of *decumanus maximus* was likely along 21 Decembrie Boulevard and Memorandumului street. The importance of these street directions is obvious in the Middle Ages, the two important access roads, *Hid utcza* and *Belső Monostor utcza*, following precisely these routes⁵¹.

The stone slabs identified in the second Roman layer from the Art Museum courtyard are approximately N-S oriented, being parallel to the supposed *cardo maximus* along Ferdinand street. The slabs might come from one of the smaller streets of the town, a simple *cardo*, located east of *cardo maximus*. The direction of this street was no longer preserved in the Middle Ages. As evidenced by the stratigraphic sequence identified in the Art Museum courtyard, the possible Roman road was overlapped by medieval houses, two stone walls of a cellar being found above the stone slabs.

A dark earth layer was discovered between the Roman and medieval inhabitancy as early as the first excavations carried out at Cluj-Napoca⁵². The finds in the Art Museum courtyard should be corroborated with those similar performed in recent years in order to determine how much of the street grid of the Roman town was preserved in the succeeding medieval town. Concurrently, it could be thus established with certainty whether only the main roads joining the gates survived, meaning that only the fortification was used in the Middle Ages, or if certain *insulae* were still maintained in use, which would be indicative of proper urban life.

Finds are promising for a single excavation campaign covering only 10% of the inner courtyard of the Art Museum, which makes us hope that future research would bring to light a richer material, as one would expect from a central area of a Roman town.

⁴⁷ Janssen 1988, 50; Russo 1998, with all references on the phenomenon.

⁴⁸ Pupeză 2010, 701-712; Pupeză 2011, 221-238.

⁴⁹ Daicoviciu 1974, 25-49; RepCluj, 118-154, Fig. 69.

⁵⁰ Lukacs 2005, 28-32, with references.

⁵¹ Pupeză 2011, 229.

⁵² Méri 1986, 12, Kép 5-7.

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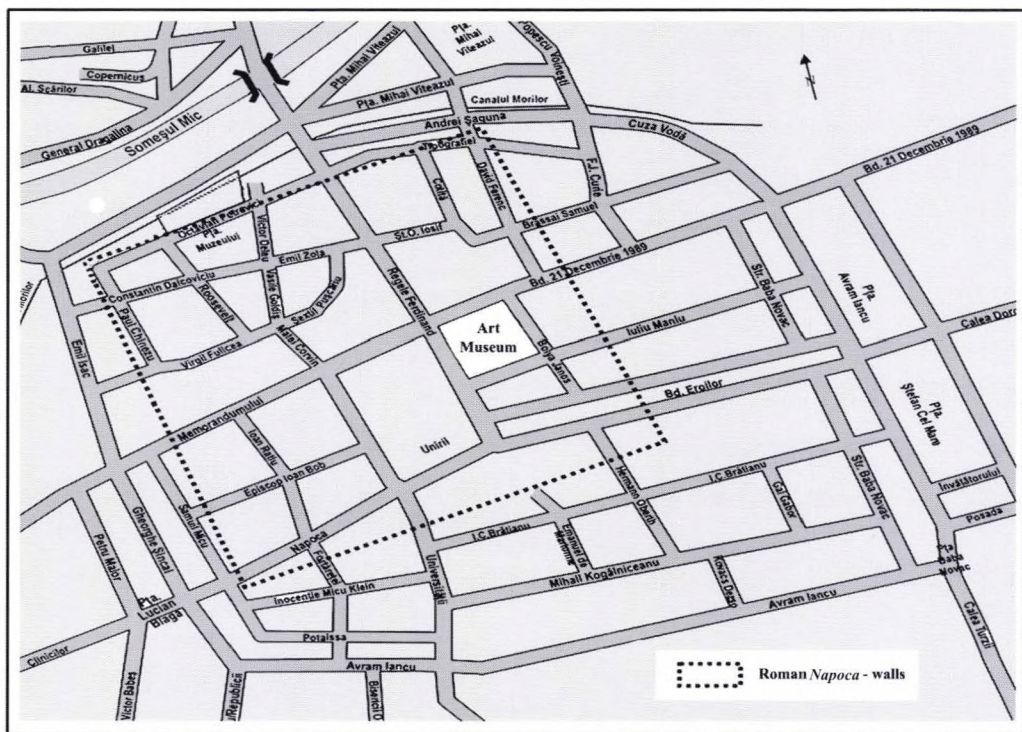
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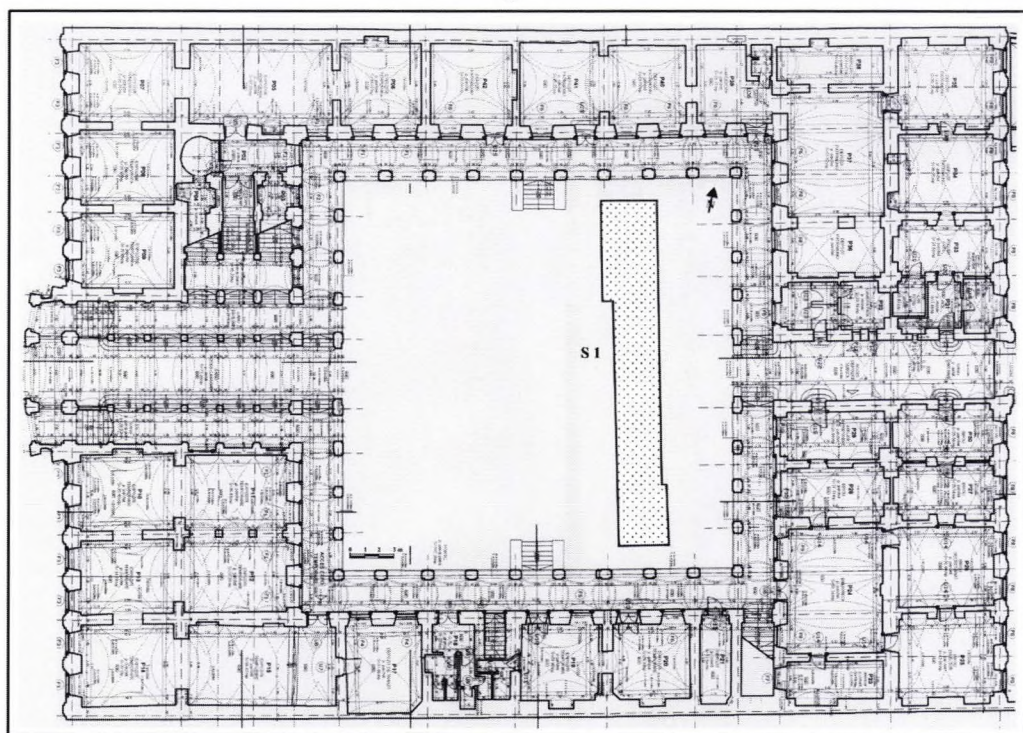
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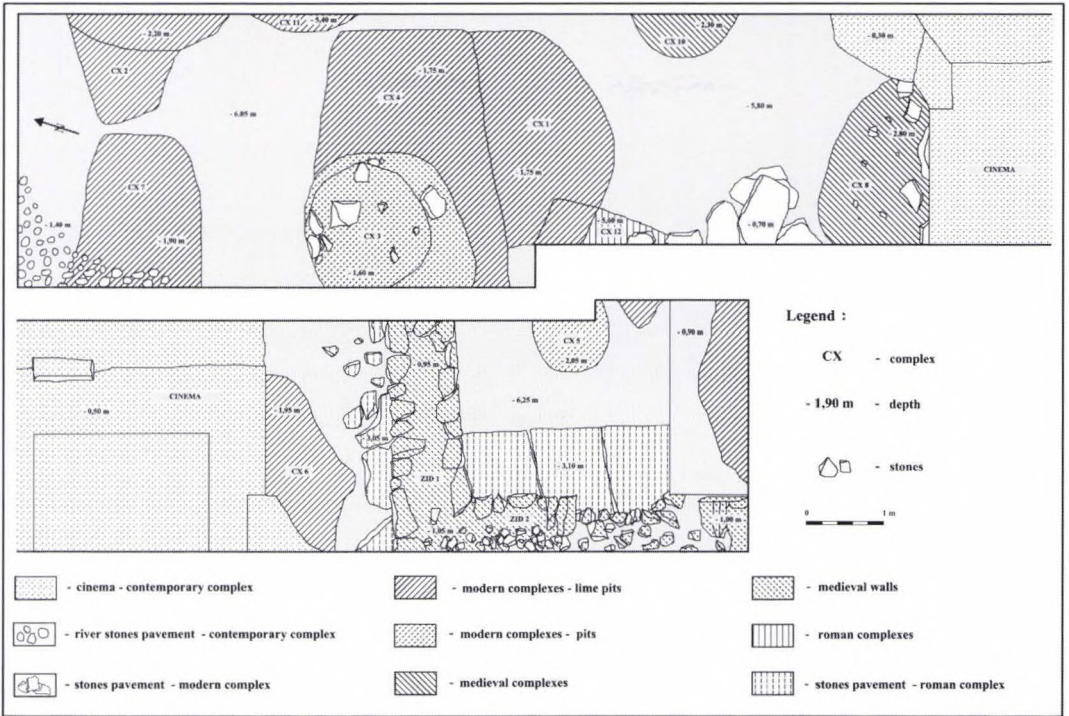


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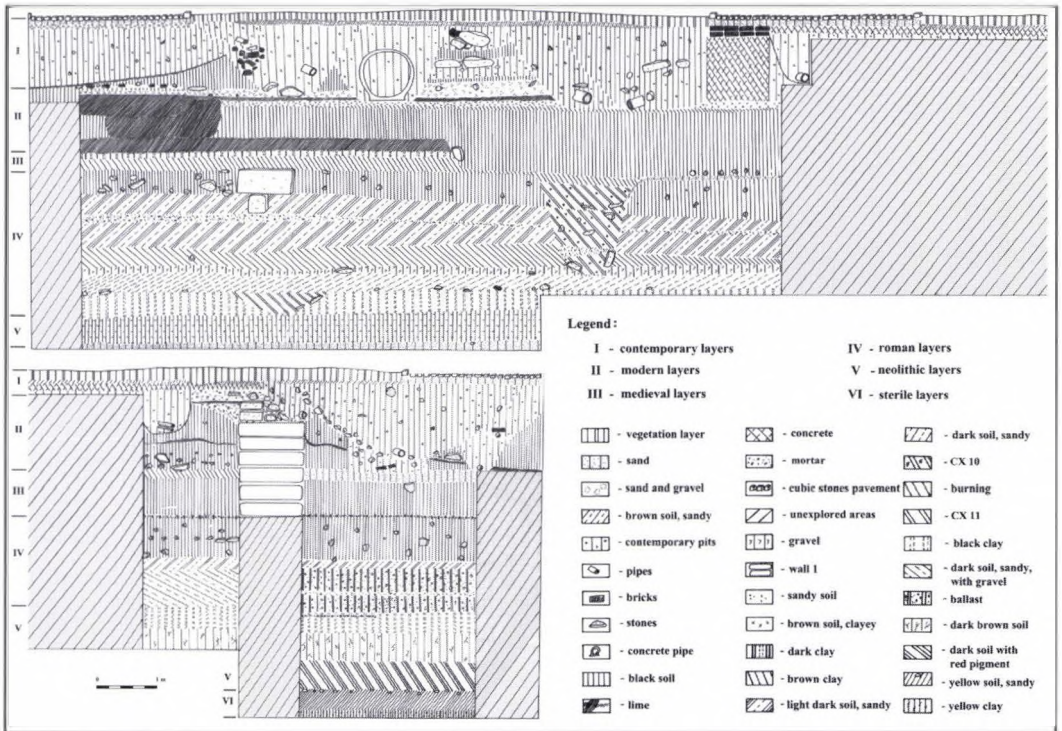


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Pl. I. The site: 1. Cluj-Napoca – central area (Napoca's fortification after RepCluj, 125, Fig. 69). 2. The Art Museum (Bánffy Palace) – plan (after Relevu Architectural – plan parter made by Utilitas SRL, Cluj-Napoca).

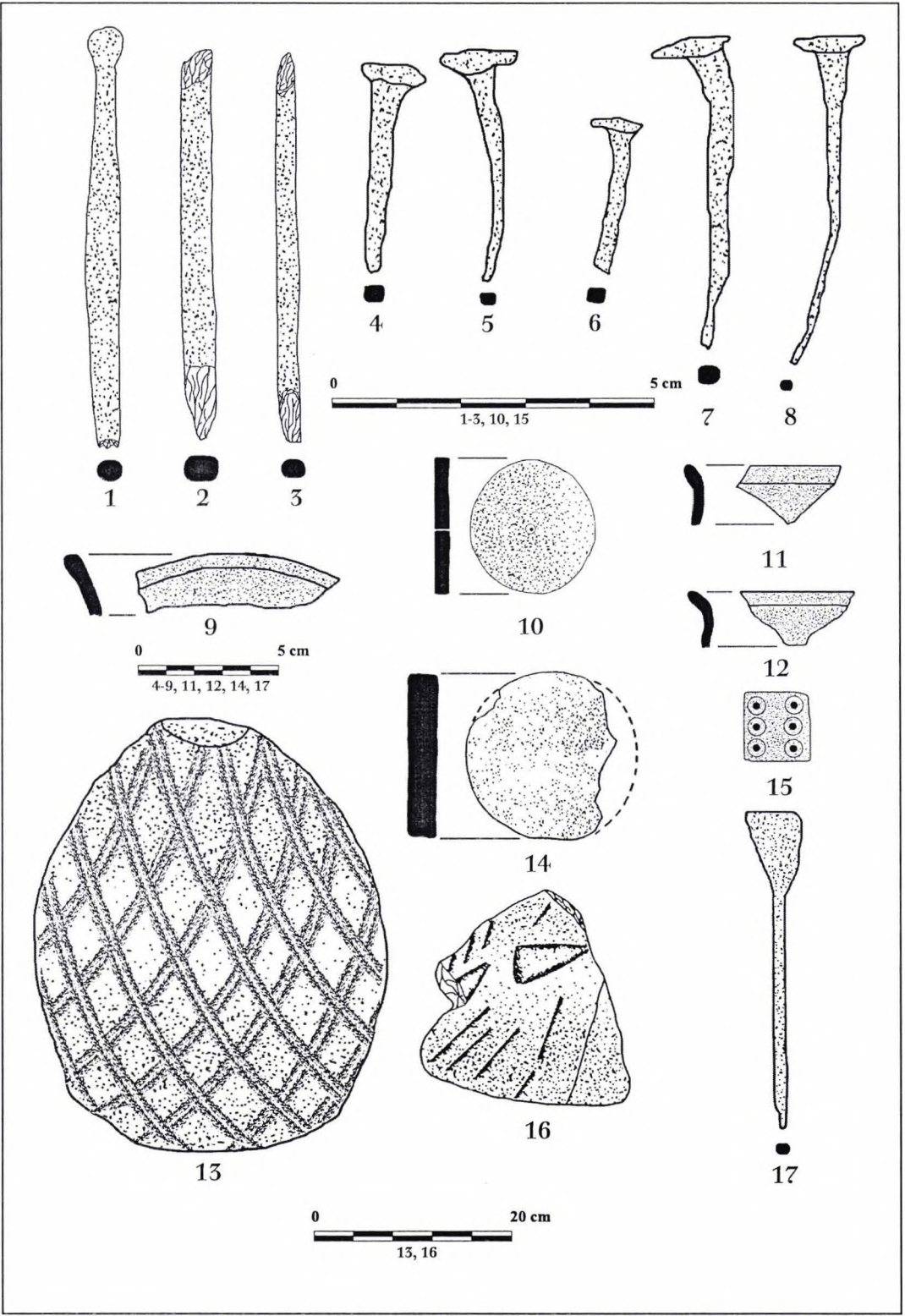


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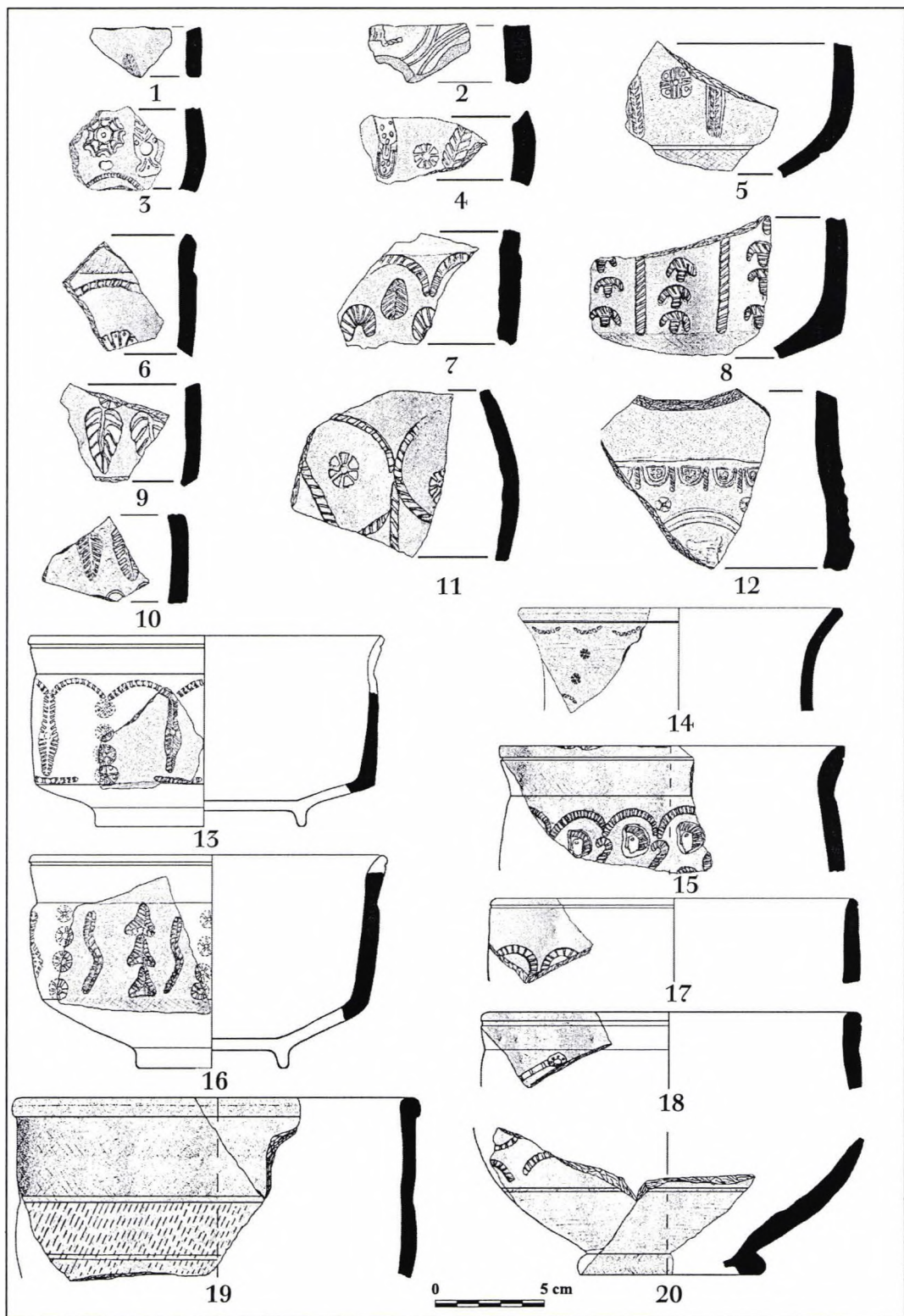


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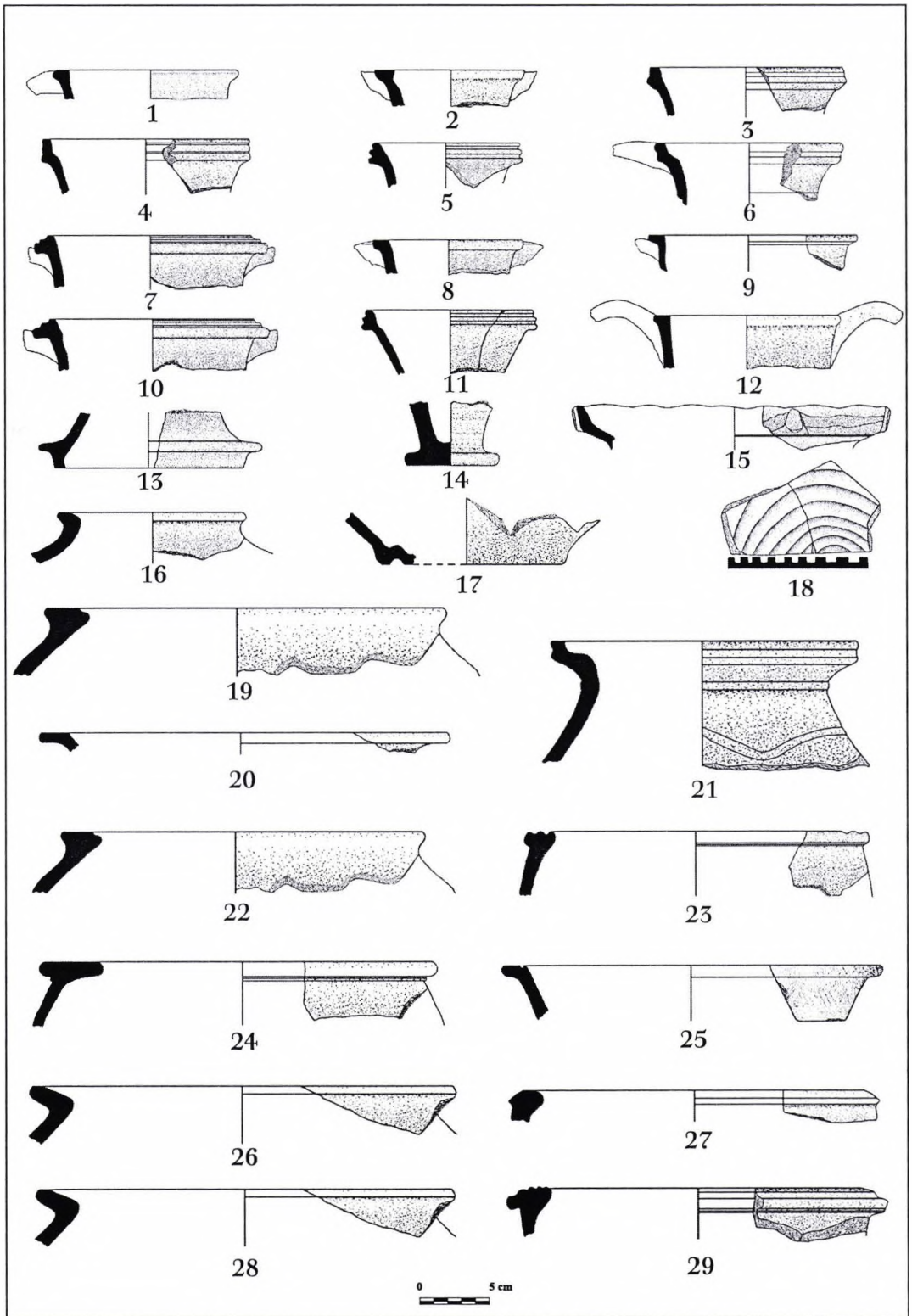
Pl. II. Trench St: 1. Plan; 2. Eastern profile.



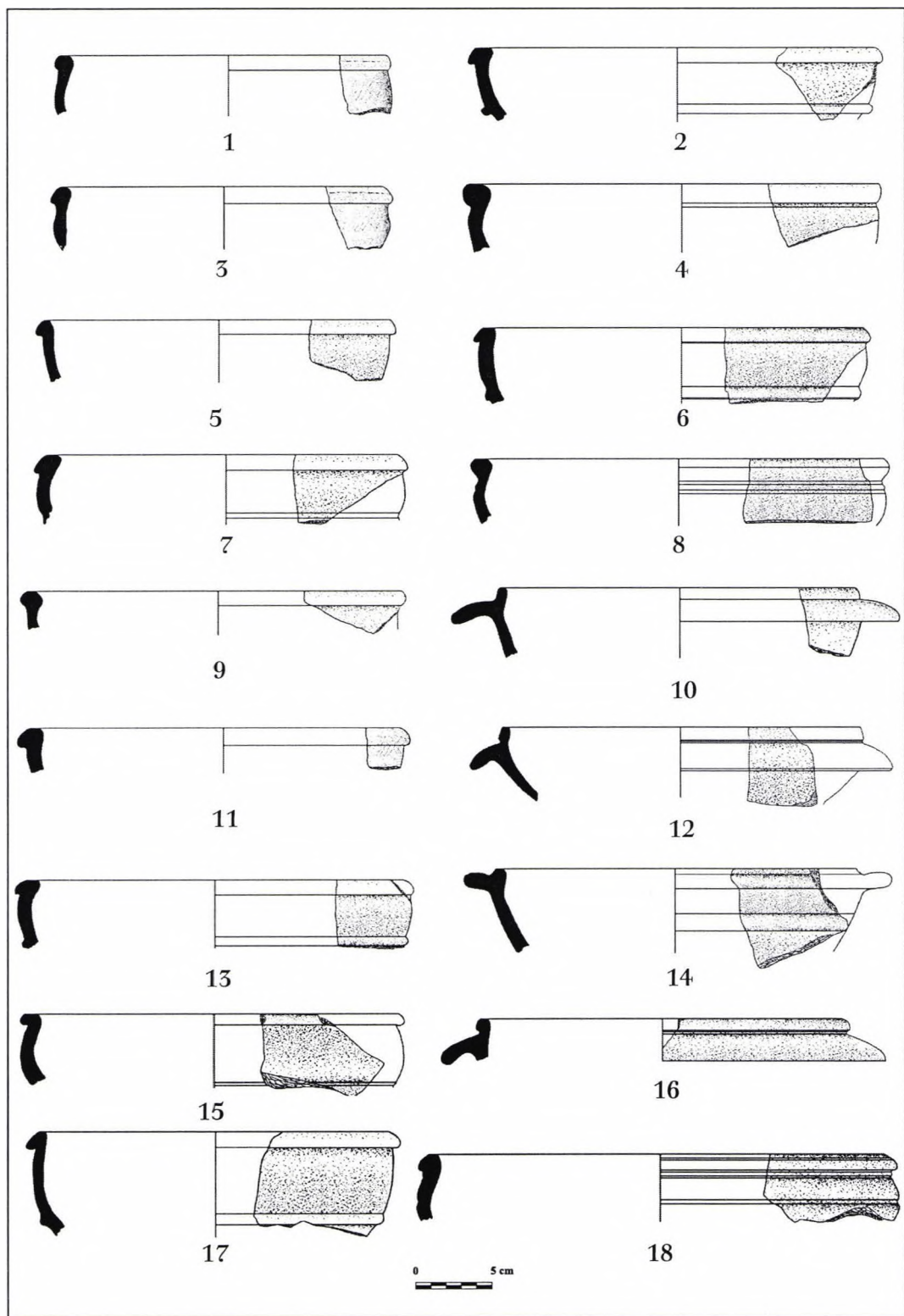
Pl. III. Artifacts discovered in the second Roman layer: 1-3, 10, 15. Bones; 4-8. Iron objects; 8, 17. Bronze artifacts; 11-12. Glass; 14. Pottery; 13, 16. Stone objects.



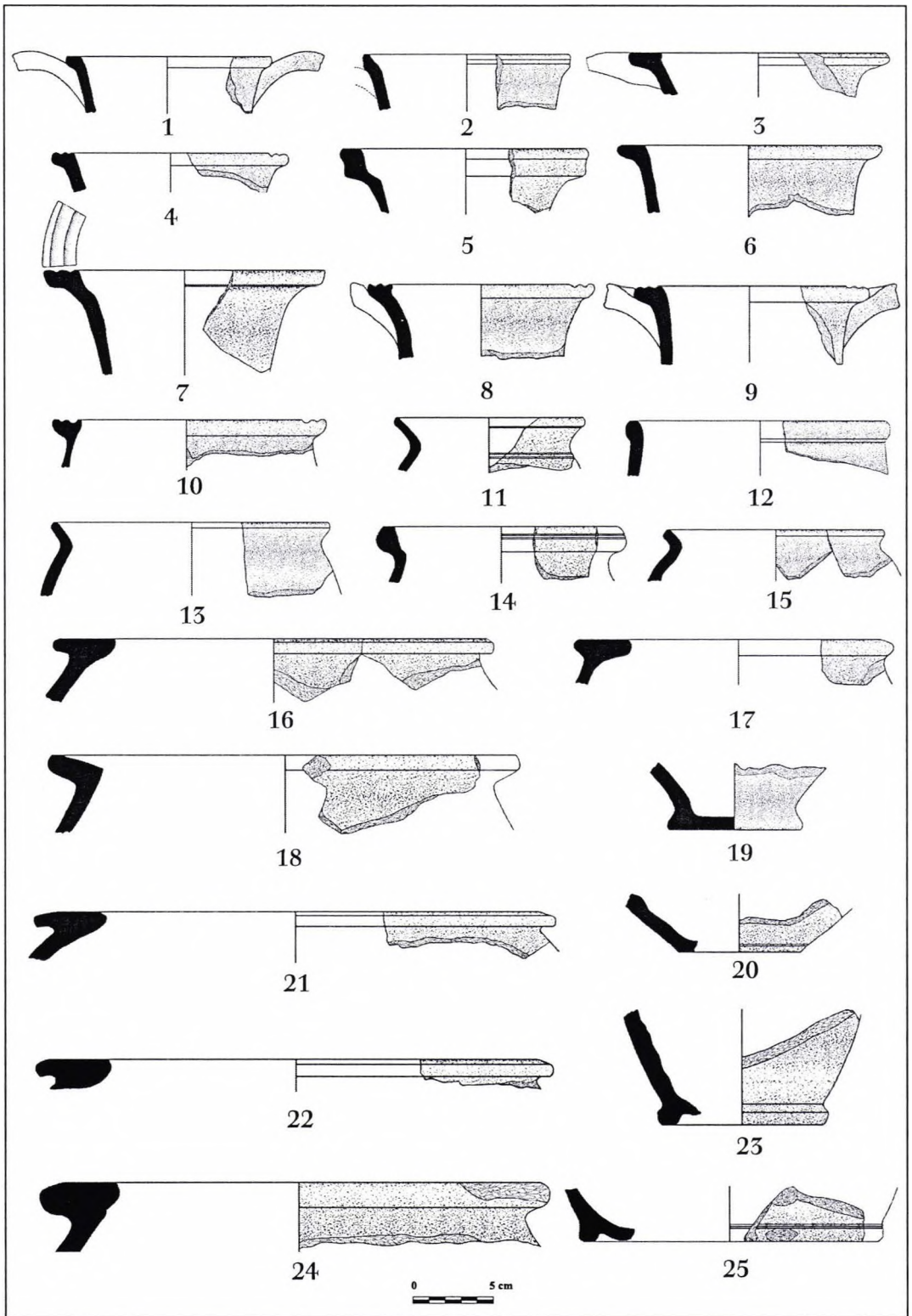
Pl. IV. 1, 10, 14, 19. Roman pottery discovered in the medieval layers; 2-9, 11-13, 15-18, 20. Pottery discovered in the second Roman layer.



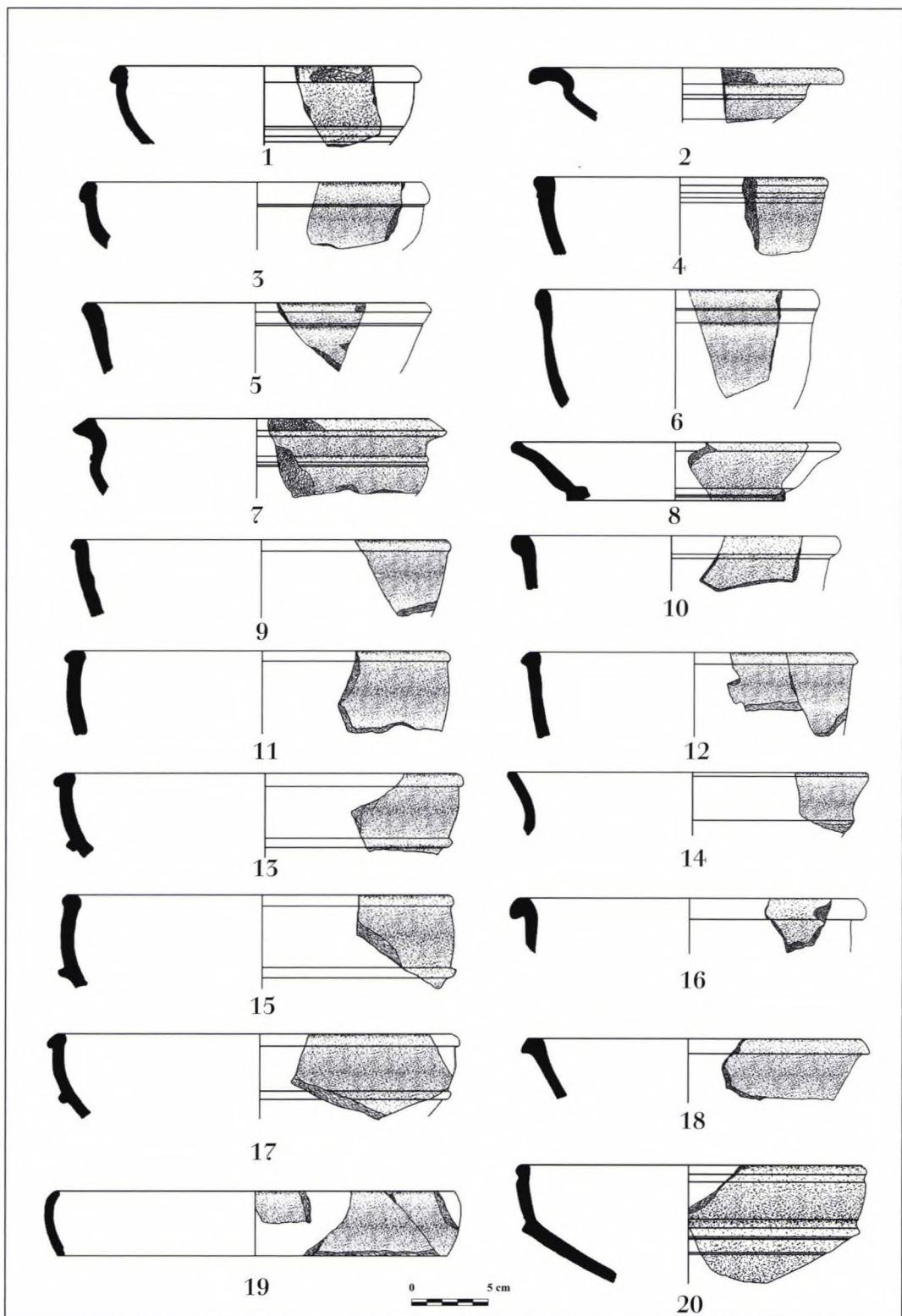
Pl. V. 3-4, 6, 9, 21, 29. Roman pottery discovered in the medieval layers;
1-2, 5, 7-8, 10-20. Pottery discovered in the second Roman layer.



Pl. VI. 7-8, 12, 16. Roman pottery discovered in the medieval layers; 1-6, 9-11, 13-15, 17, 18. Pottery discovered in the second Roman layer.



Pl. VII. 1-25. Pottery discovered in the first Roman layer.



Pl. VIII. 1-20. Pottery in the first Roman layer.



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Pl. IX. Section S1: 1. Southern view. 2. Northern view.



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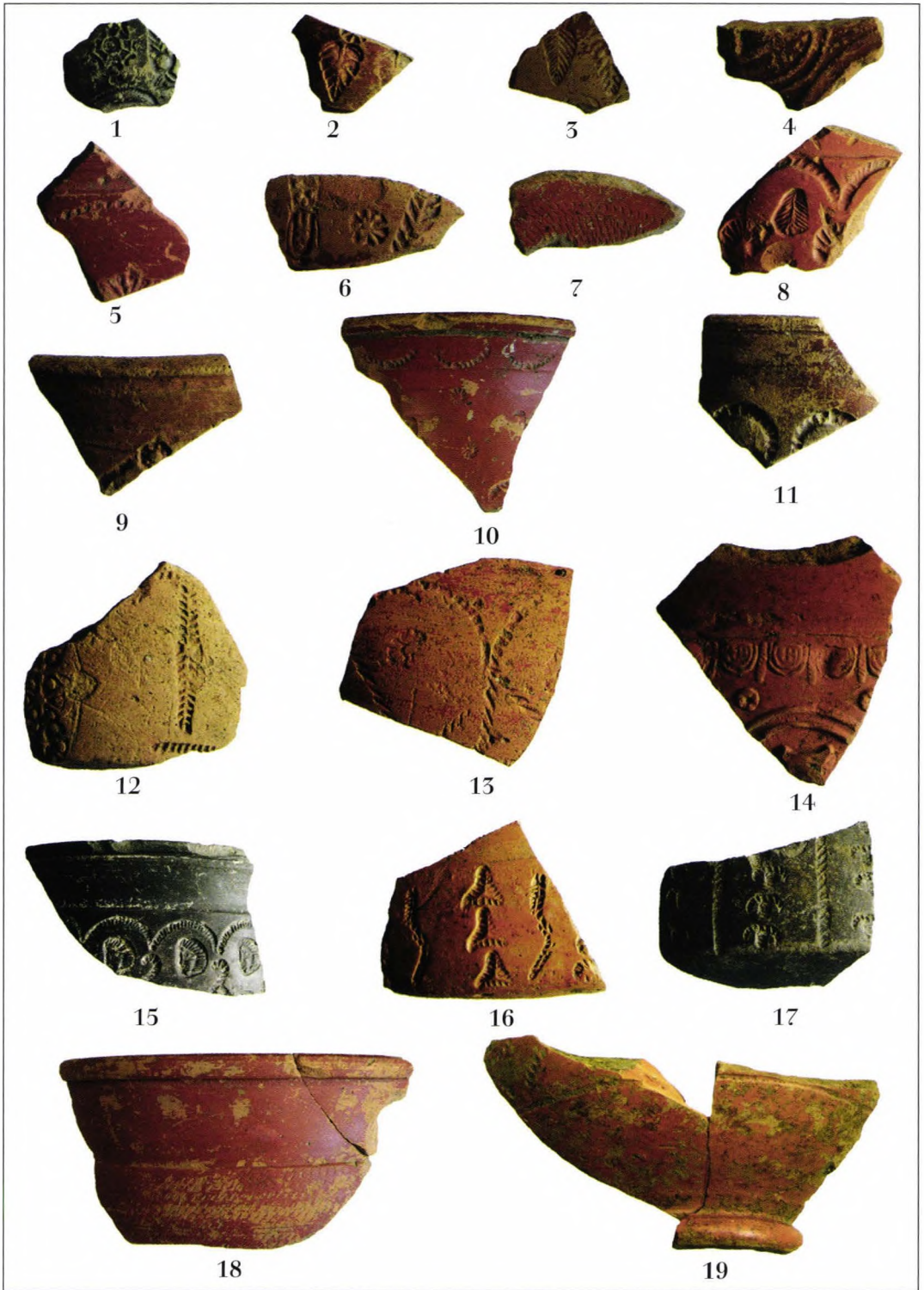


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Pl. X. The second Roman layer: 1-3. Road/stone pavement.



Pl. XI. 3, 9-12, 15. Roman finds in the medieval layers; 1, 2, 4-8, 13, 14. Roman artifacts discovered in the second Roman layer.



Pl. XII. 3, 7, 10, 18. Roman pottery in the medieval layers; 1-2, 4-6, 8, 9, 11-17, 19. Roman artifacts discovered in the second Roman layer.

ARCHAEOLOGICAL RESEARCH ON 21 DECEMBRIE 1989 BOULEVARD NO. 5 FROM CLUJ-NAPOCA

CARMEN CIONGRADI, VALENTIN VOIȘIAN, EMILIAN BOTA

Abstract: Rescue archaeological research on 21 Decembrie 1989 Boulevard no. 5 from Cluj-Napoca was carried out in occasion of the development works for “Sora” shopping center. The area is located nearby the eastern town of the Roman city. Due to medieval and modern interferences, stratigraphy was largely destroyed. The research revealed only the first three Roman levels. We discovered two kilns of a metal processing workshop. A bronze mould of good artistic quality depicting Hercules with the club in the right hand and the Nemean lion skin in the left hand as well as an unfinished statuette of Jupiter come from there.

Keywords: kiln; slag; workshop; Hercules; statuette; Roman period.

Rezumat: Săpăturile arheologice de salvare de pe Bulevardul 21 Decembrie 1989 nr. 5 din Cluj-Napoca au fost ocazionate de extinderea magazinului „Sora”. Zona este situată în imediata apropiere a zidului de est al orașului roman. Datorită intervențiilor medievale și moderne, stratigrafia a fost distrusă în mare parte. În urma cercetărilor au fost identificate doar primele trei niveluri romane. S-au descoperit două cuptoare aparținând unui atelier de prelucrare a metalelor. De la acesta provine o matriță de bronz de bună calitate artistică, reprezentându-l pe Hercules cu ghioaga în mâna dreaptă și cu blana leului din Nemea în mâna stângă, precum și o statueta a lui Jupiter în curs de prelucrare.

Cuvinte cheie: cuptor; zgură; atelier; Hercules; statueta; epoca romană.

In August 2002, in occasion of the westward development works of “Sora” shopping center (Pl. I¹; I/1), we were informed that archaeological remains had surfaced. Respective area was strongly affected both during the modern period and by the civil works carried out by the shopping center developer.

The Roman archaeological finds nearby this site are rather many, which is only natural since they are most likely located inside the Roman town or in its immediate vicinity¹. On 21 Decembrie Boulevard (former Lenin), a 1.40 m wide and 2.00-2.40 m deep ditch was dug in the 60'ies of the last century, resulting in the discovery of the Roman level, emerging at -1.80-1.90 m deep. Among the Roman materials unearthed then, we mention a lamp with three burners, stamped ATIMETI². An architectonic *stela* with *attica* and medallion³ was discovered when building works were performed on 21 Decembrie Boulevard no. 6. On the same Boulevard, at nos. 25-27 this time, four kilns⁴ were identified. Deemed originally baking ovens by

¹ Voișian, Bota, Ciongradi 2000, 270.

² Mitrofan 1964, 200.

³ Vlassa 1965, 36; Pop 1968, 484-485, Fig. 9; Țeposu-Marinescu 1982, 120, no. 71, Taf. VIII; Bianchi 1985, 275, no. 160, Tav. XXXII, Fig. 83.

⁴ RepCluj, 139; Ardevan 2001, 320-322.

the excavator, they were later published as pottery kilns⁵. It seems these kilns were used though for refuse purposes⁶.

Still from the area comes a Dacian cup, which was found in the excavated earth following the building works for the kindergarten by the junction of Dávid Ferenc and Brassai Sámuel streets, behind János Zsigmond High school (former Brassai Sámuel)⁷.

Unfortunately, since news about the shopping center's development works reached us long after their initiation, until our arrival, large part of the surface had been excavated. In certain areas, without archaeological supervision, excavations were performed up to a depth of -2.50 m from the current surface. Hence, large part of the surface was destroyed and we could only excavate five trenches on a 120 m² surface (Pl. I/2).

Trench S1 (10.50 × 2.00 m) was oriented east-west (Pl. II/1-2). Stratigraphy: a filling level of maximum 1.00 m thickness, where Roman and modern potshards were identified. It was followed by the second filling layer, with a maximum thickness of 0.40 m, at whose base, between meters 9.00 and 10.20, we identified a 0.05 m thick burning layer. Between meters 4.00 and 6.30, on the ancient humus, we found several reused architectural fragments (some funerary), forming a platform sized 2.30 × 1.10 m. We did not identify a clear settlement level. The ancient humus emerged at -0.70 m deep and was approximately 0.30 m thick. At -0.80 m deep, the trench was flooded by rain and underground waters.

Trench S2 (7.50 × 2.00 m) (Pl. III/1-2; VI/2; VII) was oriented east-west, being parallel to S1 and located at 19.00 m distance from it. Stratigraphy: between meters 0.00 and 4.90 we are dealing with a filling layer of maximum 0.40 m thickness, where Roman potshards and slag were found. Below this level we identified a walking level maximum 0.15 m thick, spreading from m 0.00 to m 5.00, where it climbs to the preserved soil layer. From m 3.00, at -0.55 m deep, there surfaced another filling layer of maximum 0.55 m thickness. Under it emerged a walking level made of battered earth with burning, 0.15 m thick. This level was cut at certain point by the previously mentioned layer. Between meters 0.00 and 4.40, at -0.60 m deep, there emerged another filling layer of 0.85 m maximum thickness, below which we identified a burning layer climbing at m 4.40 to -0.70 m. At -1.50 m deep, the trench was flooded by underwater. Between meters 4.00 and 7.50, at -0.90 m deep, there emerged a filling-construction layer of 0.40 m maximum thickness, below which surfaced a construction layer of 0.05 m thickness. These two levels were cut by the previously mentioned burning layer (Pl. VI/2). The ancient humus appeared at -1.10 m deep. Still in this trench, by its eastern corner at 0.60 m deep, we identified a part of a wall (Z1) (Pl. VII). The wall is oriented east-west, has a preserved length of 2.50 m and is 0.55 m thick. Its northern side surfaced at 0.70 m distance from the northern profile, being placed by mid trench.

Trench S3 (16.5 × 2.00 m) (Pl. IV/1; VIII-IX) was oriented north-south and placed between S1 and S2. Stratigraphy: a filling layer of 0.40 m by the southern end, descending to -1.10 m by the other end. This level is cut between meters 3.40 and 6.20

⁵ Ardevan 2001, 321-322; see Rusu-Bolindeţ 2007, 49 and note 275.

⁶ Rusu-Bolindeţ 2007, 50.

⁷ Find by E. Bota, the cup being delivered to Mrs. Viorica Crişan from the National History Museum of Transylvania.

by a modern pit descending to the ancient humus (-1.50 m). Inside this pit were identified four wooden poles of 0.20 m in diameter. The first two poles survived on a 1.50 m length and the other on a 0.60 m length. Below the filling layer emerged a walking level of battered earth with burning traces in the upper part on the entire surface. This level is maximum 0.15 m thick and was cut by the modern pit between meters 3.40 and 4.50. Below this ground level follows a filling-construction level of 0.70 m maximum thickness, cut by the modern pit between meters 3.40 and 4.20. In the two filling layers fragmentary Roman pottery, animal bones and slag were identified. Next came a ground level of battered earth, with strong burning traces, with a maximum thickness of 0.20 m. Below, followed the ancient humus, the maximum reachable depth (due to the underground waters) being of 2.00 m. By the end of the trench, on the northern profile, above the ancient humus, we identified the building level of wall Z1 on an approximate distance of 1.00 m.

Trench S4 (8.00 × 3.00 m) (Pl. IV/2-3; X/1-2) was oriented north-south and placed at a distance of 1.00 m from S1 and at the same distance from S3. The stratigraphy is almost identical to that in S3 - two filling layers and two settlement levels with strong burning traces. On the first walking level preserved from above the lower part of two kilns, numbered C1 and C2, was identified. C1 is placed at 1.10 m from the northern profile and at 0.10 m from the eastern profile. It is oval-shaped and sized 0.30 × 0.40 m. Kiln C2 is placed at 1.70 m from the northern profile and cuts 5 cm off the western profile, having a diameter of 0.30 m. On this level we identified much slag as well as bronze and iron residues. We also discovered a bronze unfinished statuette depicting Jupiter⁸ as well as a bronze mould for votive tablets⁹. The mould represents Hercules framed in an *aedicula* (Pl. V/2). The character is depicted nude, bearded, leaning his bodyweight on the right leg, the left leg being slightly bent. He holds in the right hand the club and in the left - the Nemean lion skin¹⁰. The mould was corroded so that Hercules's face is no longer visible and the depiction of the Nemean lion skin did not survive well, while the overall work is of very good quality¹¹.

Trench S5 (12.00 × 2.00 m) (Pl. V/1; XI/1-2) was oriented north-south and is located at 2.00 m distance from S2, perpendicular on the latter. Stratigraphy: it preserved a filling layer with Roman pottery, with a maximum thickness of 0.90 m. Between meters 2.20 and 5.00, this level was cut by a modern pit, with a maximum depth of 0.60 m, and from m 7.00 to m 12.00 it preserved a level of contemporary debris from the shopping center's construction, with a maximum thickness of 0.45 m. In the southern end, below the filling layer, emerged a ground level composed of well hardened earth and stones with burning traces, 0.05 m thick. This level too is cut by the modern pit bottom. The settlement level, from m 3.50 to the end of the trench, is composed of a mortar level 5 cm thick. From m 7.70, this level is covered by a cluster of limestone stones. Below this level there is another filling-construction layer, with a maximum thickness of 0.65 m, where fragmentary Roman pottery was discovered.

⁸ The statuette is currently examined for conservation and restoration in the laboratory of the National History Museum of Transylvania.

⁹ Voişian, Ciongradi 2004, 479-480.

¹⁰ Voişian, Ciongradi 2004, 479.

¹¹ Voişian, Ciongradi 2004, 479.

Follows another walking level with burning, 0.15–0.20 m thick, below which the ancient humus is found. This trench too was flooded by underground waters.

Following the investigations in the area, we identified only the first Roman levels. The stratigraphy was destroyed by the development works for the building extension. In trench S4 we identified the traces of a metal processing workshop in the second construction phase. Unfortunately, there is no element allowing a more restricted dating of the three levels identified during excavation; however we believe they do not exceed mid-2nd century AD.

The discovery of this workshop for metal processing correlated with the relatively recent discovery of a pit with pottery scrap in the courtyard of a building on Iuliu Maniu St. no. 4¹², recording the existence of pottery production in the area¹³, beside the brooch workshop identified on Memorandiştilor Monument¹⁴ as well as the discovery of a very large slag quantity during the excavations in the Unirii Square¹⁵ confirm the hypothesis of the existence during the first layers of the Roman town of a workshop area in its south-eastern part¹⁶.

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¹² Mustaţă et alii 2008, 111.

¹³ Rusu-Bolindeţ 2007, 51.

¹⁴ Cociş, Voişian, Rusu-Bolindeţ 1995, 24; Cociş 2004, 35–36.

¹⁵ New excavations E. Bota, V. Voişian, C. Ciongradi.

¹⁶ Bota 2007, 27.

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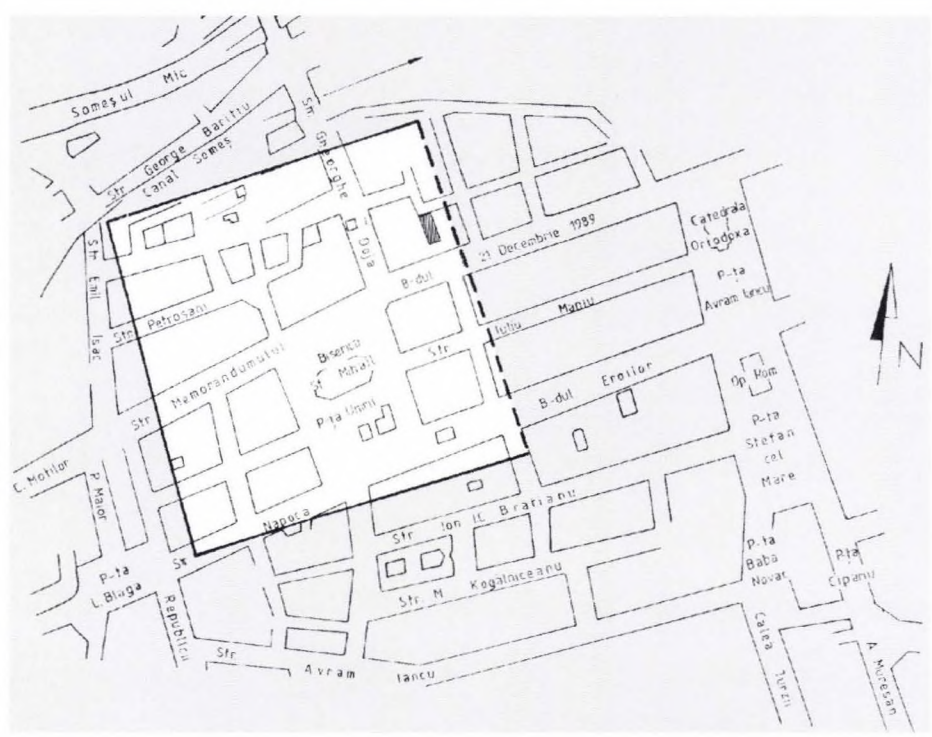
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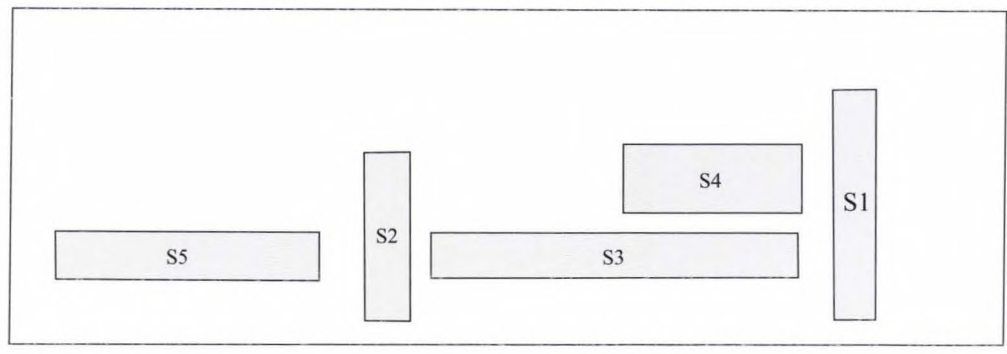
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National History Museum of Transylvania, Cluj-Napoca

Central area – Cluj- Napoca

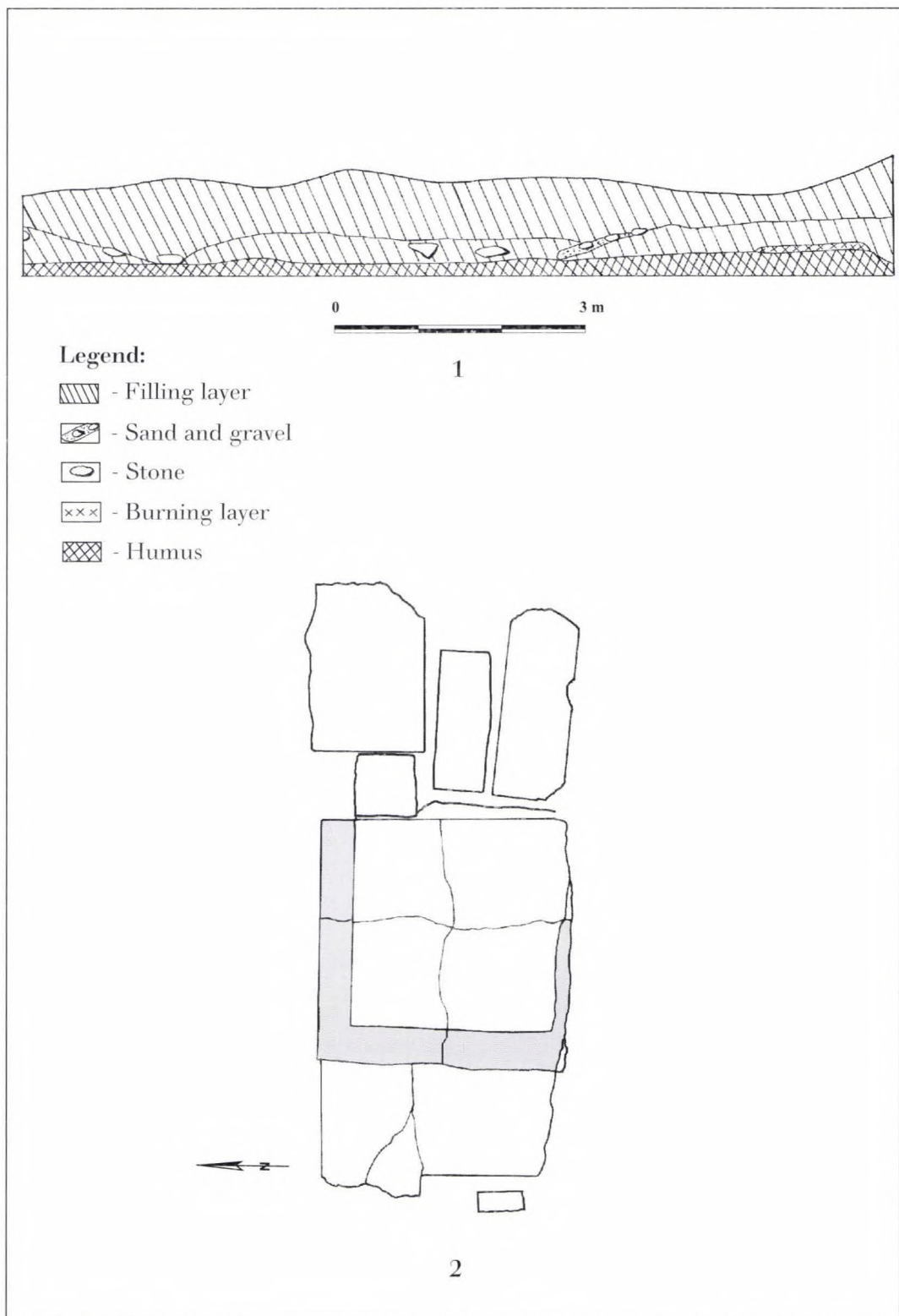


 - Extension – Sora Shopping Center **1**

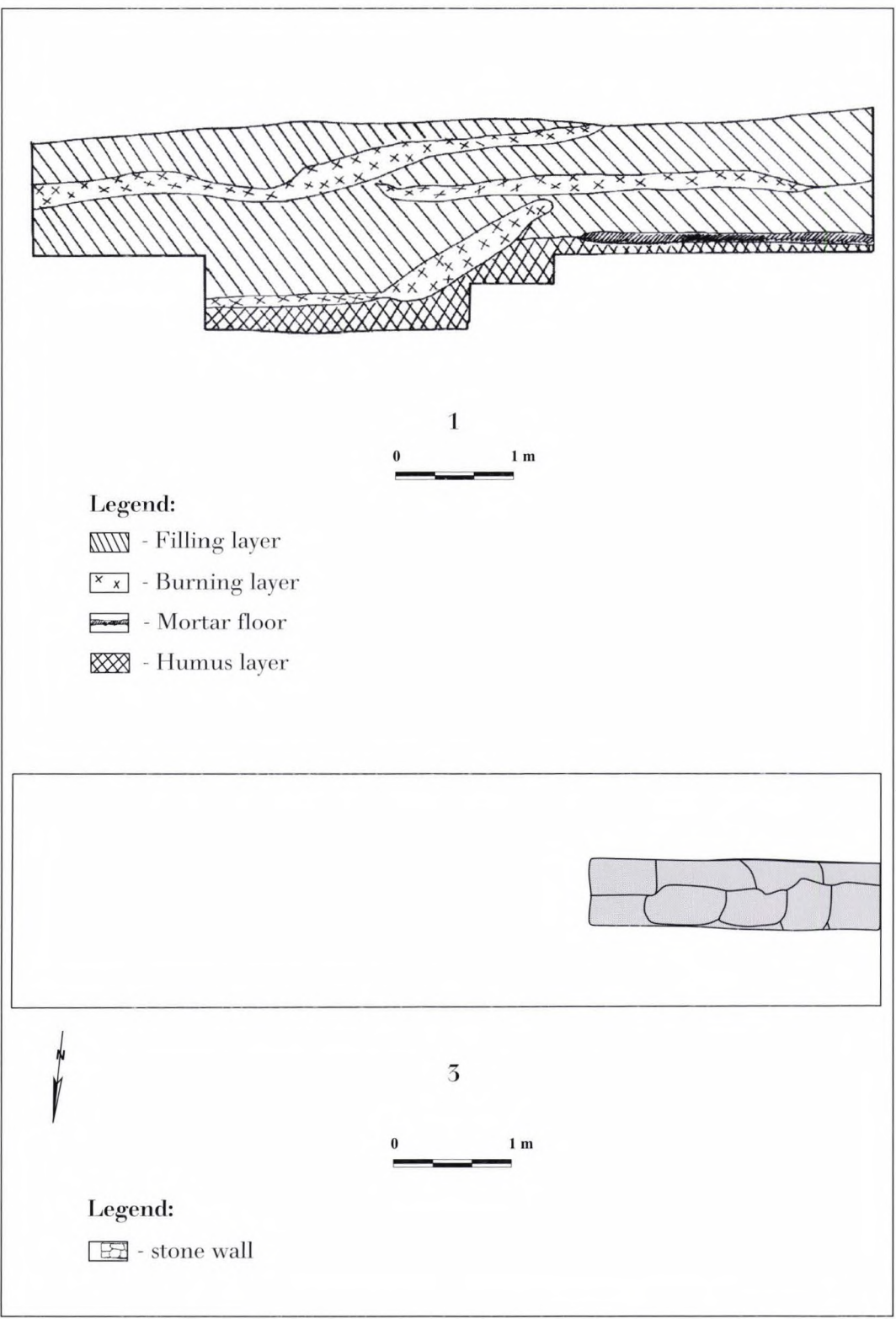


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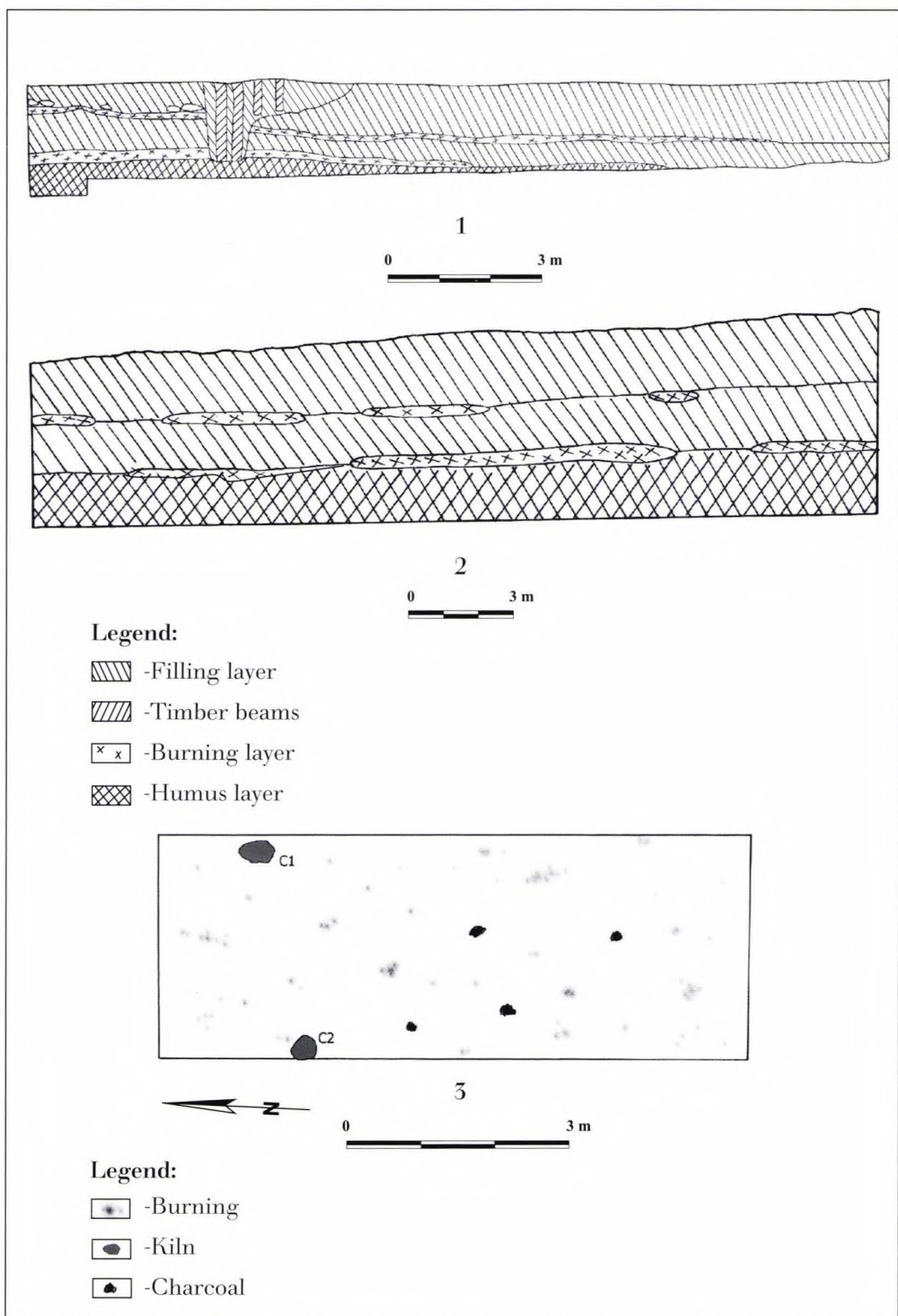
Pl. I. 1. Plan of the central part of city of Cluj, locating the site; 2. Site plan.



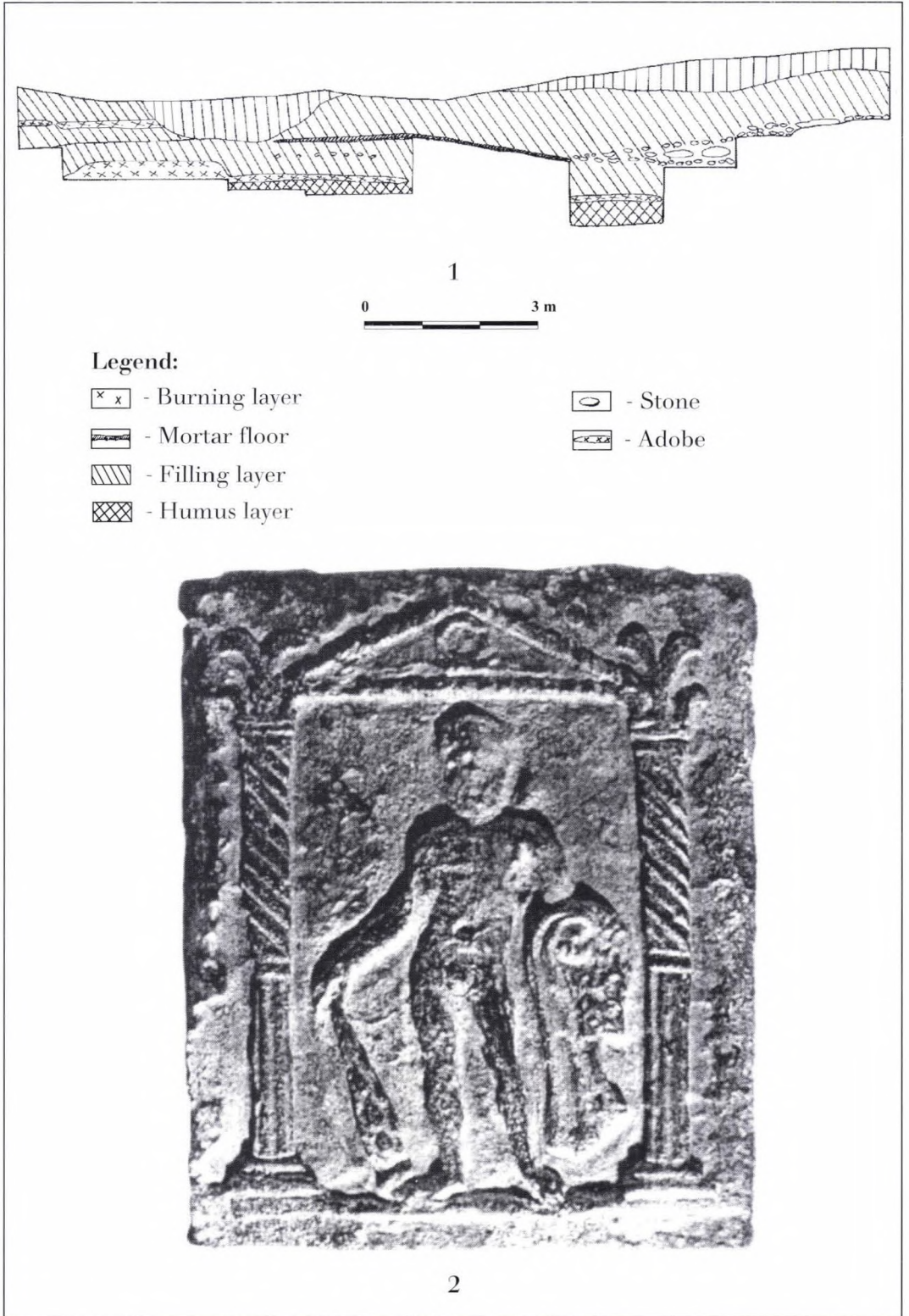
Pl. II. 1. Excavation unit S1, southern profile; 2. Excavation unit S1, reused architectural fragments.



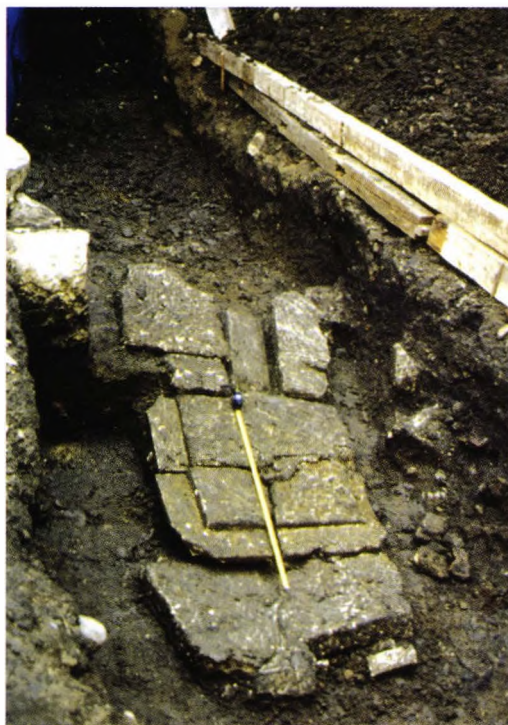
Pl. III. 1-2. Excavation unit S2: 1. Southern profile; 2. Plan.



Pl. IV. 1. Excavation unit S3, southern profile; Excavation unit S4: 2. Western profile; 3. Plan.



Pl. V. 1. Excavation unit S5, western profile; 2. Mould with the depiction of Hercules.



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Pl. VI. 1. Excavation unit S1, reused architectural fragments; 2. Excavation unit S2, ground level with burning.



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PI. VII. 1-2. Excavation unit S2, general views.



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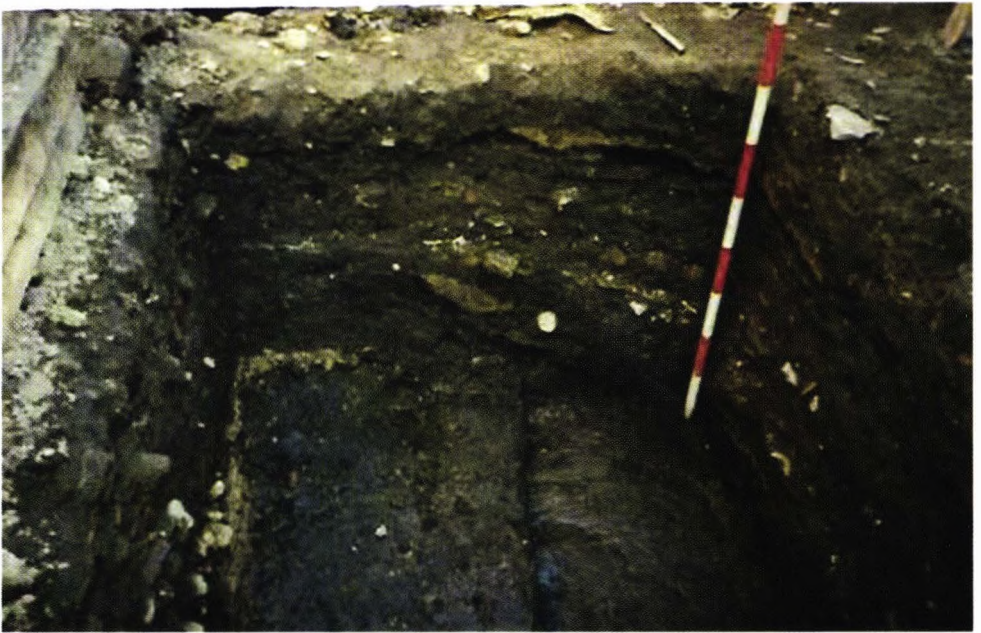


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Pl. VIII. 1. Excavation unit S3: northern extremity of the excavation unit, with ground level and burning; 2. Excavation unit S3, southern extremity of the excavation unit.

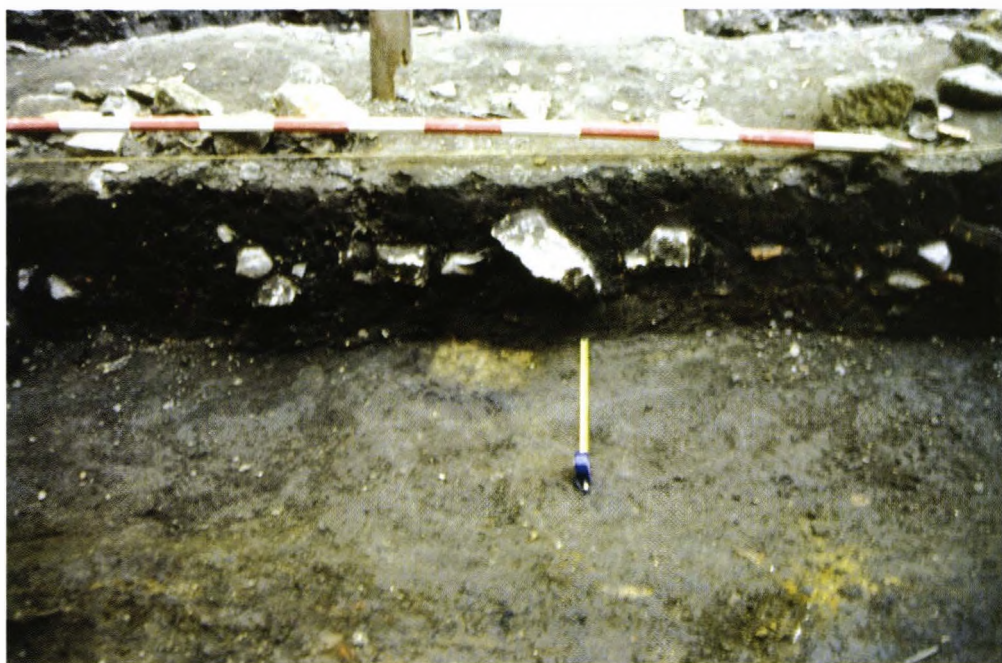


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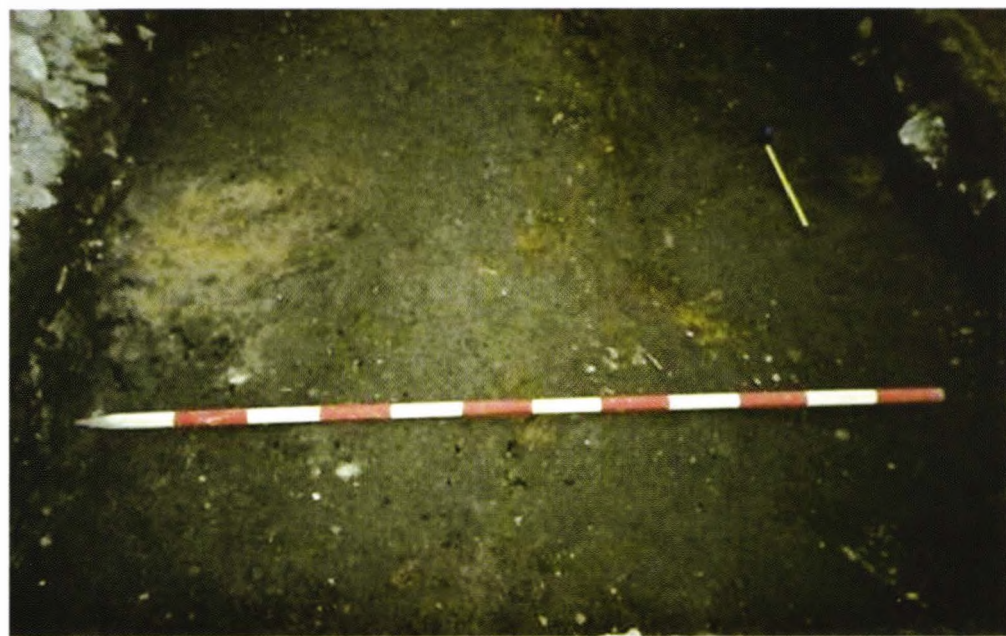


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Pl. IX. 1-2. Excavation unit S3, northern extremity of the excavation unit (details).



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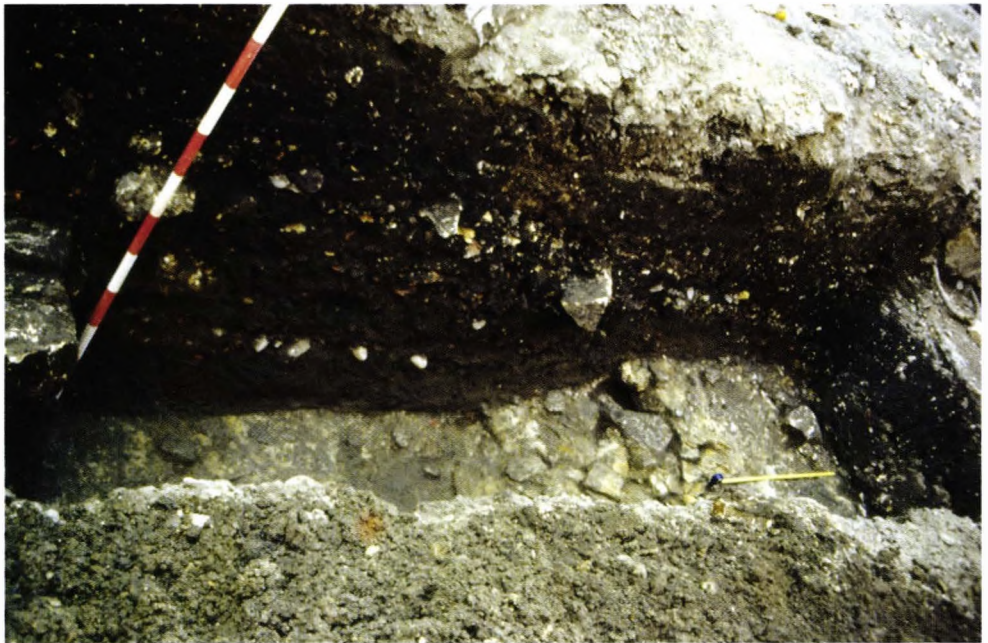


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Pl. X. Excavation unit S4: 1. C1 kiln print; 2. C2 kiln print.



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Pl. XI. 1. Excavation unit S5; 2. General view and detail.

EXCAVATIONS AT “CENTRAL STORE”, CLUJ-NAPOCA

ALEXANDRU DIACONESCU

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Abstract: The excavations due to the extension of „Central Store” reached the extreme north-east *insula* of the Roman town of Napoca. The area is situated east of the first Mediaeval enclosure (Altstadt - Óvár), built in the 13th-14th centuries, but inside the new town (Neustadt - Újvár), built in the 15th century. Some of the main achievements of this investigation are the following:

For the first time traces of a native (Dacian) settlement in the area, later occupied by the Roman town of Napoca, were discovered.

The succession of Roman phases is also significant. In this part of the town the first phase (some poor industrial timber structures) started later than in the rest, and lasted till the middle of the 2nd century. Timber and clay buildings, with the appearance of barrack-blocks (phases 2 and 3), followed in the second half of the 2nd century. The adobe structures of phase 3 had glass windows. Both phases ended in a demolition fire and none can be related directly to the Marcomanic wars. At the turn of the 2nd and 3rd century a stone building with an apse was started in the north area, but was soon abandoned. In the first decade of the 3rd century, a stone house (a *domus*) was erected over most of the surface. To the north it had a yard, followed by a corridor and a row of rooms. The building was repaired at least once and lasted till the end of the Roman province, if not later. A crossbow brooch and a bone amulet in shape of “Hercules club” are the latest Roman artefacts. From the collapsed roof a single tile bearing the stamp of *cohors II Hispanorum*, stationed at Bologa, was found, the rest of the tiles being not stamped.

From the Migrations period dates a Late Roman - Barbarian strep terminal without clear context.

The 11th-12th centuries inhabitants left a few traces of light timber structures, besides pottery and a lot of bones. Most of the still standing Roman walls were now pushed to the ground. Probably in the 14th-15th centuries, when the new mediaeval town was erected, the remaining Roman walls were robbed.

The most interesting finds date from the Renaissance period. In an early 16th century pit, two glazed stove tiles with the coat of arms of Matthias Corvinus were found, along with pottery and roof tiles. In a late 16th pit further stove tiles were found along with glazed pottery, which helps dating the spread of this new technique in the town of Cluj.

Later structures are rare and have little significance.

Keywords: Dacian pottery; Roman timber structures; *domus*; small finds; Mediaeval; Renaissance.

Rezumat: Săpăturile de la “Magazinul Central - extensie” au atins *insula* din extremitatea nord-estică a orașului roman Napoca. Zona este situată la est de prima incintă medievală a “vechiului oraș” (Altstadt - Óvár), construită prin secolele XIII-XIV și în interiorul celei de-a doua, aparținând “orașului nou” (Neustadt - Újvár), care datează începând cu primele decenii ale secolului al XV-lea. Cele mai importante rezultate ale acestei cercetări au fost:

Descoperirea, pentru prima oară pe teritoriul viitorului oraș roman Napoca, a unor urme arheologice dacice.

Sucesiunea fazelor romane s-a dovedit de asemenea semnificativă. În această parte a oraşului prima fază (reprezentată de câteva structuri industriale de tipul cuptoarelor) a început mai târziu decât în rest şi a durat până către mijlocul secolului al II-lea p. Chr. Au urmat, în a doua jumătate a secolului al II-lea p. Chr. (fazele 2 şi 3), clădirile propriu-zise de lemn şi chirpic, cu aspectul unor barăci cu mai multe încăperi aliniate. Clădirile de chirpic ale fazei 3 aveau şi geamuri de sticlă. Ambele faze au sfârşit printr-un incendiu controlat (de demolare) şi prin urmare nici una dintre distrugereri nu poate fi legată direct de războaiele marcomanice. La graniţa dintre secolele II şi III, în partea de nord a suprafeţei cercetate, a început să fie construit primul edificiu de piatră. El cuprindea şi o încăpere cu absidă, dar construcţia a fost abandonată înainte de a fi terminată. Apoi, în cursul primului deceniu al secolului al III-lea p. Chr. a fost construită aici o vilă (*domus*), care acoperea cea mai mare parte a suprafeţei cercetate. În partea de nord se găsea o curte, dincolo de care fusese amplasat un coridor, urmat de un şir de încăperi. Casa a fost refăcută cel puţin o dată şi a durat până în a doua jumătate a secolului al III-lea p. Chr., atingând sfârşitul provinciei, dacă nu l-a şi depăşit. Cele mai târzii artefacte sunt o fibulă în formă de T cu capete incipiente de ceapă şi o amuletă de os în forma ghioagei lui Hercules. Din numeroasele tegule ale acoperişului clădirii romane numai una singură purta o ştampilă, a trupei *cohors II Hispanorum*, staţionată la Bologna.

Din perioada migraţiilor datează un capăt de curea din bronz de tip roman târziu sau barbar, dar fără un context clar de descoperire.

Urmele din secolele XI-XII sunt mai consistente, căci pe lângă ceramică şi oase au fost identificate şi structuri uşoare de lemn. Cea mai mare parte a zidurilor edificiilor romane au fost acum trântite la pământ. Probabil prin secolele XIV-XV, când s-a extins oraşul medieval, a început şi scoaterea zidurilor aflate în pământ (fundaţiile zidurilor făcute din piatră de carieră cu mortar erau foarte adânci).

Cele mai interesante descoperiri datează din perioada Renaşterii. Într-o groapă datată în primele decenii ale secolului al XVI-lea au fost descoperite două cahle glazurate şi decorate cu stema lui Matthias Corvinus, împreună cu ceramică neglazurată şi țigle de acoperiş. Într-o altă groapă, din a doua jumătate a secolului al XVI-lea, au fost găsite numeroase cahle decorate cu mica, precum şi fragmente ceramice glazurate, ceea ce ajută la datarea pătrunderii acestei tehnologii ceramice în oraşul de pe Someş.

Structurile ulterioare sunt puţine şi au o mică relevanţă.

Cuvinte-cheie: ceramică dacică; structuri romane din lemn; *domus*; material special; epoca medievală; Renaştere.

Location, circumstances of excavation and previous research in the area

The Central Store is situated in the north-east corner of the former Roman town of Napoca (Pl. I*). The first Mediaeval town (Altstadt - Óvár), built in the 13th-14th centuries, was situated west of our area, which was to be included only in the new town (Neustadt - Újvár), built in the 15th century. The extension of the previous store, which was to descend to a depth of -4.5 m from ground level, was limited by Cotită street to the east and Tipografiei street to the north (in the rest there are private buildings). The store was built in 1975 when no regular archaeological excavations was carried out. In addition, the area mechanically excavated, and consequently damaged, was larger than the actual building. On that occasion several chance finds were recorded, such as four entire column shafts, an altar dedicated to *I(uppiter) O(ptimus) M(aximus)* and Silvanus, hence the naive supposition there would have been located a temple¹. From the same spot several tiles with the stamp "FISC(I)" were recovered,

¹ RepCluj, 131, no. 22.

which relates this site to the seat of the imperial procurator of Dacia Porolissensis. However no traces of official building were found in our excavation. The excavation was financed by the private society „Magazinul Central S.A., Cluj-Napoca”.

The excavations (Pl. I-III) took place between 15.09.2006 - 15.12.2006. For the record we placed the reference point, m 100E/200N, in the north-eastern corner of the area to be excavated. Its Stereo 70 coordinates are: X = 586904.01; Y = 392457.33. For the level we used as 0 a point at + 355.79 m in Over Sea level. After the excavation the only extending wall with buttresses was reproduced *in situ* on the floor of the basement of Central Store, where it can be visited at any time. After the excavation the area investigated and cleared of any charges has the following coordinates:

1: x = 586905.24 2: x = 586876.41 3: x = 586902.48 4: x = 586873.42
y = 392457.24...y = 392470.73 y = 392445.75 y = 392459.12.

1. The stratigraphic sequence

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1.1. The site prior to the Romans

This site is placed in the meadow of Someşul Mic river, so that below the level -3 m we found a layer of geological gravel (bedrock = soil horizon D), which was covered by a dark surface soil (horizon A). However in the northern and western part of the surface we identified a grey sandy-clay layer (parent rock = horizon C), covered by an ochre clay subsoil (horizon B), but no mature topsoil (A), which must have been damaged by the Romans at their arrival. Here they met some kind of a mound which had to be levelled, the upper soil being pushed towards south-east. The dark surface soil from this area, which covers the gravel, contains small Roman pottery fragments, which must have been removed during this activity (C. 1016, 1036, 1056 and lower part of C. 1063). In the north-western corner (at m 89-90 E / 197-198 N) we found a pit (C. 1037), not easy to define because it was filled with the same ochre-yellowish clay in which it has been originally excavated. It contained three hand made pots. Two are almost complete (catalogue 2.1.1.-2.1.2, Pl. X/1-2). One has a row of sockets on the shoulder, the other a series of stitches in the same area. They belong to the Late Iron Age pottery (1st century - the first decades of 2nd century AD) and should be attributed to the local Dacian inhabitants. We cannot define the nature of the pit and its deposits, but with certitude it was not a grave, since we did not find any ashes or bones, neither in the pots, nor in the pit. This feature might be a trace of the pre Roman settlement, which gave the name of *Napoca* (or *Napuca*) to this place.

1.2. First Roman phase. First half of the 2nd century AD

Among the earliest features encountered by us is a small (maximum depth 30 cm) strait ditch, perfectly aligned north-south. In the trench S II we also found a less deep ditch which runs east-west and meets the first one at a right angle (Pl. IV/1). We have no comments on the function of these features. Above the initial levelling

layers (C. 1016, 1036, 1056 and lower part of 1063) we found in trench S I a kiln (C. 1017, Pl. IV/2) and in trench S II a rectangular pit, filled with burnt clay (mud bricks?) (C. 1038). Quite similar seems to be the pit found in S IV (see for details C. 1063). Their nature is not easy to define, but they look more like some industrial facilities than like traces of average dwellings. The demolition layers of these first timber and clay structures are contexts 1058, 1035, 1053 and the upper part of 1063, all containing burnt clay and charcoal. The area investigated by us seems not to have been intensively inhabited under Trajan, or in the first decades of the province, since the pottery worked in Late Iron Age tradition is scarce here, by comparison to other sites from Roman Napoca². In addition to that it must be taken into consideration that the structures of the first phase were demolished by fire towards the middle of the 2nd century. This is proven by a Samian ware (catalogue 2.2.4.1.2, Pl. XVII/2), discovered in C. 1063 and which was produced at Lezoux in the workshop of CINNAMVS, in the years AD 140-160. Such industrial facilities, demolished towards the middle of the 2nd century could not have been too old, so that the beginning of activity in the area investigated by us must have started later than in other places of Roman Napoca.

1.3. Phases 2 and 3: timber buildings. Second half of the 2nd century AD

The houses (barracks) belonging to these phases had a clay pavement (probably covered by a floor of planks) (C. 1013 - phase 2 and C. 1012 - phase 3, from the trenches S I and S III; C. 1052 - phase 2 and C. 1024A - phase 3, both in trench S II; C. 1066 - phase 3 in S IV). The timber walls had no other foundation but a bean, serving as putlog (see Pl. VI/1). One face of the wall was covered with planks; the other was plastered with white lime. The core had a timber skeleton and a filling with clay and wickerwork (C. 1029 - phase 2 and C. 1026 - phase 3) (Pl. V/1). At least in phase 3 these buildings had glass windows, and one of the rooms had an *opus signinum* floor (C. 1066). The timber phase 3 lasted well after AD 161 when the coin 2.2.1.4 was issued. It was found in the levelling layer of the yard north to the 2nd and 3rd phase buildings, in C. 1011 and might have been lost during the functioning period of these structures. A “knee brooch” (catalogue 2.2.2.1) was found in the same context C. 1011. It is to be dated in the second half of the 2nd century and at the beginning of the next one. Both phases (2 and 3) ended in a fire (cf. C. 1028, Pl. V/2). The lack of any valuable small find or of entire pottery wares pleads against an accidental one. The absence of broken tiles could also be explained by an intentional demolishing of the roofs. In conclusion, there is no element that could relate any of these fire destructions to the Marcomanic wars, although it would be tempting to place the end of 2nd phase around AD 170.

According to the data from trenches S II and S III, the buildings of phases 2 and 3 were some kind of barrack-blocks. The ground plan is far from being complete, not even an entire room could be defined, but it seems that the buildings were “L” shaped, with a wing oriented east-west and another north-south. In addition, in trench S IV we identified another row of rooms, oriented east-west, and parallel to the first one. The

² Some handmade fragments were found in C. 1036, the first leveling layer of the Roman settlement, and another in C. 1023, a late 2nd century context, so that it must be considered residual.

width of the rooms was exceeding 5 m (probably it was 5.60 m = 20 Roman feet) and the length was similar, which indicates rather some industrial facilities than normal houses. A military occupation is out of the question; by then Napoca was a *municipium* for some decades and in the last decades of the 2nd century it gained colonial status. The belt fittings (catalogue 2.2.2.4–2.2.2.6, Pl. XII) which might be considered parts of a *cingulum militare* all belong to the stone phase and are to be dated in the 3rd century. The stone buildings of the next phase do not reproduce the plan of the timber structures, what pleads for a change in function, and even for a transfer of property. However we did not find any industrial outfit, which could give a hint on the functionality of the timber structures of 2nd and 3rd phases.

From the transition period between 2nd and 3rd phase dates a stone ring (C. 1054, Pl. IV/3) and a circular pit (C. 1050), whose use and nature remains beyond our knowledge.

1.4. Transition to stone buildings. End of 2nd century – beginning of 3rd century AD

In the northern part of the area a building with an apse was projected (Z1-1a, 2, Pl. II). The foundation trenches, which descend rather deep and reach the gravel layer, were filled with stones and mortar. The bed-plate of the foundations reaches the same level as the upper part of the demolishing and levelling layer of the timber buildings (C. 1011). There is no trace of any wall or of a floor corresponding to these foundations, so that the most reasonable conclusion is that the building was never finished.

1.5. Phase 5. Stone buildings. A *domus*. 3rd century AD

In the rest of the area, above the debris of timber structures, a levelling layer of sandy clay was brought (C.1010, 1046, 1061). Consequently a rich building, a *domus* was erected. In the northern part a low wall with buttresses was built (Z3), partly over the unfinished stone structure with apse (Pl. II). It was probably marking the northern limit of the property which occupied the south-eastern corner of the *insula*³. The distance between buttresses is around 5.80 m (almost 20 Roman feet), quite large, but acceptable in the case of a precinct wall. A good analogy was encountered by us in Apulum, at the shrine of Liber Pater, where a similar wall with buttresses surrounding the sacred area was identified. In the case of the Napoca wall we could not find any clear and doubtless trace of a demolishing trench, so that our impression is that this wall was not higher than found by us. It was probably a socle for a timber fence⁴.

South of the wall with buttresses (Z3) there was a yard, 8.75 m (30 feet) large. Further south there was an imposing building which had a walking layer some 50 cm higher than that of the yard (see Pl. VI/2). The house was at least once repaired and enlarged. Initially the wall Z5 was the northern limit of the building. A long corridor

³ Further north, under Tipografiei street, we noticed in the next year stone buildings with *opus signinum* floors, but the developers did not allow any further investigation „under color” of safety.

⁴ However, the context 1004 of broken stones could represent the traces of demolition of this wall in the 11th–12th centuries.

(hall) was soon added towards the yard, by erecting Z4. The collapsed portion of this wall (C.1057) which could be followed to a length of 3 m from the line of the foundation (and robbing trench, C. 1059), shows that this wall was around 40 cm thick and was built of local limestone blocks, from the quarry of Baciú, held together with a lot of mortar. Towards west there was a passage door to the yard. The corridor was 3.40 m large and over 10 m long (it could not be followed further away). In a first stage the corridor had a clay floor (C. 1064), probably covered with planks, which already functioned in the first phase of the building, being contemporary with floor 1047 (see below). In a second stage the corridor paved with an *opus signinum* floor (C. 1067). In the third stage a thick levelling layer (C. 1041), consisting mainly of gravel, was spread out and then a white mortar floor was added (C. 1040). It was provided with a foundation of rolling stones. It is possible that this floor was covered with 8 shaped brick *tesserae*, but recent disturbances have damaged large portions of the floor. It is difficult to define the use of this hall, which might have been designated with the term of *cryptopoticus*. Being placed in the back of the house and being oriented towards north, it could have served as a storage room, because it was cooler than the rest of the house.

South of this structure there was a row of rooms, which was almost completely destroyed by later activities. A great deal of the walls was partly demolished and robbed during the Middle Ages. Only a fragment of Z5, separating the corridor from the rest of the rooms, has survived (Pl. VI/2). In addition large parts of the floors were destroyed by huge modern holes, descending to the Roman timber layers. Thus only a portion of around 1 m² from the *opus signinum* floor (C. 1048) of the south western room has survived. Under it there is a thick levelling layer (C. 1045) and then another floor of white mortar (C. 1047), the first one in chronological order. In the room next to it, towards east (a sort of corridor, 2.30 m wide) there is another filling, a clay one (C. 1060), probably a foundation of a more sophisticated floor, which corresponded to the first stone phase. Both floors cover the levelling layer for the first phase of the stone building (C. 1064 and 1046). To the same first phase belongs a fragment of wall dividing the room. Unfortunately no further details on the stone buildings have been registered because of the scarce level of preservation of the Roman layers.

The dating of the two stone phases is quite problematic, but not impossible. From context C. 1046, a filling which precedes the first floor of the stone rooms, comes a brooch with twisted foot from underneath („mit umgeschlagenen Fuss”, catalogue 2.2.2.2, Pl. XI/1), datable in the 3rd century AD. A more accurate dating is provided by two coins of Caracalla (catalogue 2.2.1.6-2.2.1.7) from the period when he was co-emperor of Septimius Severus (AD 198-212). One was found in context C. 1023 (trench S II), a levelling layer for the yard of the first stone phase. It was more probably lost when the levelling was made, then later, during the use of the yard. The second coin of Caracalla was found in C. 1042 (trench S IV), a filling layer for the second stage of the northern corridor. From context C. 1041, which precedes the last floor in the corridor, comes an amulet of “Hercules club” type (“Herkuleskeule”, catalogue 2.2.6.4, Pl. XIX/8), which is dated relatively late, in the 3rd and 4th centuries AD. It follows that the first stone phase did not start earlier than the first decade of

the 3rd century and lasted well after the middle of the 3rd century. The second phase of the stone building was certainly functioning after AD 250 as proven by a cross-bow brooch with emerging onion-head buttons ("T-Fiebel"/ "Zwiebelkopffiebel", catalogue 2.2.2.3, Pl. XI/3), found in the last layer of the Roman yard (C. 1010).

1.6. Middle Ages

We found no clear traces from the Migration Period, excepting a Late Roman - Barbarian strep end, dating probably from the 5th century (catalogue 2.2.2.10, Pl. XI/4). Its finding spot (C. 1007) could not be related to any structure. The roof of the Roman buildings collapsed progressively, the corresponding layer being spread all over the excavated area (C. 1008). Some tiles were entirely preserved which proves that the layer containing the collapsed roof was mainly undisturbed. Despite the impressive quantity of tiles discovered here, no stamp was found, with one exception. It is a tile with the name of *cohors II Hispanorum* from Bologna (Pl. X/3)⁵. His situation is typical for civilian sites (such as Apulum, sanctuary of Liber Pater, where not less than 5 tons of tiles were found and only one stamp of *legio XIII Gemina*, obviously a random piece). It follows that the stone structures of phase 5 represented a private house which had no connection to the seat of the provincial governor, which is supposed to be situated in the *insula* to the west.

In the northern part of the excavation, above the collapsed roof, a 12th century layer was found (C. 1004). An impressive quantity of bones and typical pottery was found (Pl. XX/1-3)⁶. In trench S I, above the collapsed Roman roof, two clay floors were found (C. 1005-1006). They were related to a light timber structure. The presumed demolition layers of the Roman wall Z3 (C. 1008-1009) are quite loose, which makes possible that these timber buildings could be related to the 12th century inhabitants, who established themselves among the Roman ruins. Probably in the same period the north wall of the Roman building (Z4) was pushed to the ground. The structure of this collapsed wall was obvious and we could examine it over a length of 3 m from bottom to top (C. 1057). No windows could be identified, but in the western part an entrance was quite visible.

The 13th-14th centuries' material is scarce, the area being probably not inhabited by those times. Probably in this period could be dated the robbing trenches of the Roman walls and the huge pit from the southern part (C. 1044), which was filled with broken refuse stones, probably abandoned because they were too small to be used at the Mediaeval buildings.

1.7. Renaissance period

The 15th-16th century pits are the most spectacular discovery of this excavation. In the western part of trench S III, a pit with vertical walls (C. 1025) was discovered (Pl. VIII/2; XXIII/1-2). Only half of it was excavated (in a first instance a quarter), the rest of it being cut by the ancient building of "Central Store". The pit was at least 1.80 m deep, measured from the level; it was probably dug (its mouth was partly cut

⁵ Expertise of prof. Nicolae Gudea, to whom we are deeply indebted.

⁶ The material was processed by B. Gergely, who will publish it separately.

by later levelling). It was almost rectangular in plan, with a side 1.20 m long. After being excavated the pit was clad with vertical planks, resulting a circular shape in plan. The first impression was that of a huge barrel, used as a cellar. The other alternative is a well, but since the bottom of C. 1025 does not reach the parental rock, probably it could not get to the underground water table, unless this was higher than today. Actually in the 15th-16th centuries the climate, which was rainy and colder than today, could have caused a rise in the level of the underground water table. In the filling of this pit (C. 1030), many bones and several entire pots and jugs were found, all of good quality fabric but without glaze (Pl. XXI/1-3). In the same spot two identical stove tiles with green glaze were found. The relief on their face depicted the coat of arms of Matthias Corvinus (catalogue 2.4.1.1, Pl. XXII/1)⁷.

These stove tiles come from a richly decorated stove in the house of some local top ranking character, who wanted to express his attachment to the king born in Cluj. As PhD. A. A. Rusu has proven, similar stove tiles found in the residence of Stephen Báthory at Nyírabátor (north-west from Transylvania), might indicate that the owner of the stove from Cluj was the same voivode of Transylvania (between 1479 and 1493). The tiles must have been manufactured before the death of king Matthias in AD 1490. Soon after the end of Corvinus dynasty and the ascent on the Hungarian throne of the Jagello family such stove tiles were not welcome and ended in our pit. If they were just demolishing debris of some stove, we should have found in C. 1030 more traces of such a heating device. In fact there are demolition vestiges of such structures in pit C. 1025 (C. 1031 and 1031A), but they are placed above the filling containing the two stove tiles and cannot be directly related to them. On the other hand, A. A. Rusu rightfully remarked that in the case of a demolished stove, one would expect several tiles, such as in Nyírabátor, not only two. It has little relevance if the stove tiles were picked from a pottery workshop or taken from a functional stove. Anyway their presence indicates a dating of pit 1025 at the end of the 15th century and it's filling at the beginning of the 16th century⁸. A special mentioning deserves C. 1032, the layer of roof tiles in the upper part of pit 1025, which is quite rare in the epoqe. The impressive building from which the materials from C. 1030 come, must have been situated to the west (maybe facing the main street leading to the bridge over Someş river), and was probably destroyed in the mid' 1970-ies when the first body of "Central Store" was built. It could have belonged to the voievode Stephen Báthory. The refuse pit or well was situated in the back of the house, in a yard or a garden⁹.

Next to the above mentioned wall another pit was found (C. 1043, Pl. VI/2; IX/2; XXIII/3), this time conical in shape, with an upper diameter of 3 m and a depth of around 2 m, starting from the level it was dug. It also contains rich ceramic material,

⁷ Rusu 2012, 313-326.

⁸ Rusu 2012, 316.

⁹ The claim of A. A. Rusu (Rusu 2012, 313 and note 2) that the walls are too high to be Roman, so that they might represent 15th-16th centuries structures, cannot be sustained. The robbing trench of Z4, C. 1059, visible on the western profile of trench S III (Pl. VIII/2), starts from the 14th century level (upper part of C. 1007), when the still standing wall was dismantled, resulting a robbing trench. Prior to that, in the 12th century, the main part of the wall was pushed to the ground (C. 1057). To the south, the last Roman floor (C. 1040), associated to Z4, is some 50 cm higher the upper part of C. 1010, representing the leveling layer of the Roman yard.

including a complete stove tile with mica and several other fragments with a similar decoration, datable in the second half of the 16th century. The pit contained glazed pottery, while the previous one had none. It follows that the coarse glazed pottery was introduced in Cluj around the middle of the 16th century.

1.8. 17th – 19th centuries structures and layers

Were identified in the southern part of the investigated area, including a wall, Z8 (Pl. I). In the central and northern part of the excavated surface a small square functioned as a market place in recent time, which explains the absence of recent structures here. The modern layers contained glazed pottery and clay pipes.

2. Archaeological material. Catalogue of main finds

2.1. Pottery from pit 1037 (Pl. X/1-2)

Marius Ardeleanu

Despite the context of discovery, the two complete vessels from pit 1037 do not have all the characteristics of Pre-Roman - Late Iron Age pottery (from the 1st century AD). They have good analogies in the first Roman layers from other sites in Napoca, dating at the beginning of the 2nd century AD (for instance from Victor Deleu street¹⁰). The coarse fabric is typical for Dacian vessels, but the shape is slender and the rim is faceted, which are not common in Pre-Roman times. Such vessels belong to type 1.1 A1 established by V. Rusu-Bolindeț for the pottery of Roman Napoca¹¹. If Dacian, i.e. Pre-Roman, the pit with these pots should be dated in the last decades of the Dacian kingdom.

2.1.1. Cylindrical pot decorated with a row of sockets on the shoulder; 80% of the pot is preserved. Profile complete. H = 26 cm, rd = 14.5 cm, bd = 11.5 cm (Pl. X/1).

The vessel is slightly tapered at both ends. The rim is almost imperceptibly oblique. The bottom is flat. On the shoulder there are four groups of 5 to 6 sockets made with a pressing finger. They are mutually opposed. Obviously it is not an ornament, but a functional feature, serving for grabbing and holding the pot (probably with a dishcloth). The fabric is coarse, spongy, with small grains of sand, not bigger than 1 mm in diameter. In section there is a black core flanked by light brown crusts. On the outside the pot is ochre-brown from shoulder downwards and dark-brown in the upper part. The pot must have been currently buried in embers to the shoulder. On the inside there is a shell of white calcium carbonate, coming probably from the content of the vessel.

2.1.2. Cylindrical pot, decorated with a series of stitches on the shoulder; 70% of the pot is preserved. Profile complete. H = 30 cm, rd = 14.5 cm, bd = 12.5 cm (Pl. X/2).

The shape is similar to the preceding one. The walls are 0.5 to 1.3 thick. On the inner face there are faded traces of vertical stripes from the manufacturing. On the shoulder a series of stitches are barely visible. The fabric is similar to the preceding one. The crusts are brown with a brick like tint.

¹⁰ Cociș et alii 1995, 636.

¹¹ Rusu-Bolindeț 2007, 107, Pl. XIV.

2.2. Roman finds

2.2.1. Coins

Cristian Găzdac¹²

2.2.1.1. Dupondius? Bz. Vespasianus: Obverse: vague silhouette of head. Reverse corroded. S I, C. 1011 (setup wooden phases 2 and 3). SF 127.

2.2.1.2. Denarius. Ag. Vespasianus: Obverse: laureate head. Reverse: corroded. S I, C. 1011 (setup wooden phases 2 and 3). SF 130.

2.2.1.3. Denarius Ag. Illegible: Poor state of preservation. Surface covered with verdigris. Most likely, the pie was burned which led to its partial melting down and becoming illegible. S I, C. 1015, first Roman layer of inhabitancy. SF 253.

2.2.1.4. Sestertius. Bz. L. Verus, type of *Concordia Augustorum*: Obverse: legend erased. Bust silhouette of Lucius Verus. Reverse: two silhouettes (Lucius Verus and Marcus Aurelius) standing and clasping hands. RIC III, 1290, Rome, AD 161; S I, C. 1011 (setup wooden phases 2 and 3). SF 119.

2.2.1.5. Sestertius, Bz. Antoninus Pius or Marcus Aurelius (?): Obverse: vague silhouette of a bust. Reverse: corroded. S IV, C. 1045 (renamed 1046), setup of first stone phase. SF 501.

2.2.1.6. Denarius plated, M. Aurelius Antoninus, Caracalla. AD 198–212: Obverse: silhouette of bust laureate. Reverse: corroded. S II, C. 1023, the setup layer of the courtyard belonging to the stone building, similar to 1010. SF 272.

2.2.1.7. Denarius, Ag. Caracalla co-emperor, AD 198–212. Obverse: silhouette of bust laureate. Reverse: corroded. S IV, C. 1046 (former 1142), the setup for the corridor, first stone phase. SF 345.

2.2.2. Bronze objects (Pl. XI–XIV)

Alexandru Diaconescu

2.2.2.1. Knee brooch („Kniefibel” = „Fibulă cu genunchi”). Rather well preserved. Only the spring with pin is missing. L = 3.3 cm. Found in S I, C. 1011, levelling of yard north of the timber structures of phase 2–3. SF 120 (Pl. XI/2).

The arch is bent at a right angle, hence the similarity with a human knee. The „knee” is rounded and decorated with two moulds behind and below it, and above the head. Typical is the long foot and short catch plate, so that the pin was positioned horizontally.

This small brooch belongs to a variant which is characteristic to the Barbarian world, classified by Almgren in type 137¹³, which equals variant 19e1 by S. Cociș¹⁴. In Dacia, such pieces occurred only in Porolissum, on the *limes*, and one further case is known from Sopor de Câmpie¹⁵, south-east of Napoca (in Dacia Porolissensis). I. Peškař, who dealt with the brooches from Moravia, which are in close relation with those in the Roman Empire, is dating this type of brooch in the second half of the 2nd century and at the beginning of the 3rd one¹⁶.

2.2.2.2. Brooch with returned foot („mit umgeschlagenem Fuss” = „cu piciorul întors pe dedesubt”). Very well preserved. Complete. L = 4.2 mm. Found in S IV, C. 1046 (ex 1047), a levelling layer in view of building of the first stone phase (Pl. XI/1).

¹² Full text will be published in detail later.

¹³ Almgren 1923, Fig. 137.

¹⁴ Cociș 2004, 103.

¹⁵ Cociș 2004, nos. 1220–1222, Pl. LXXX (subvariant 19e1b).

¹⁶ Peškař 1972, 90–91.

The spring fastening mechanism consists of five windings on one side and four on the other side. The axle is made of iron. The catch plate is simple, and the returned foot is attached to the base of the bow by two windings.

Brooches with returned foot represent Cociş type 37, our piece belonging to the sub variant 37a5a2¹⁷. A similar piece was found in Napoca, in Victor Deleu St.¹⁸. This type of brooch is characteristic to the Dacian province and is largely dated in the 3rd century AD, because only a few pieces were found in well dated contexts. At Romula a brooch with returned foot was found in a grave where it was associated to two coins of Severus Alexander. A similar one, with a slight rib on the back, was found near the west gate, in the last layer of *via decumana*, which is to be dated after the middle of the 3rd century AD¹⁹. Another brooch with returned foot was found in a pit from Obreja, together with a crossbow brooch datable at the middle of the 4th century²⁰. Since the period of life of this type can be pushed till the middle of the 4th century, more significant is the moment of birth. Almost 5 decades ago Gh. Diaconu²¹ was placing the beginnings of the type immediately after AD 160, while K. Horedt pleaded for a dating only inside of the 3rd century²², a point of view accepted by S. Cociş too²³. Two coins of Caracalla from AD 198-212 were found in contexts contemporary to the one of our brooch.

2.2.2.3. T-shaped brooch. Well preserved, yet arms and pin are missing. L = 6.4 mm. Found in S III, C. 1010 (former 1032), last Roman level. SF 333 (Pl. XI/3).

The head ends in an egg shaped button. The cross section of the bow is D shaped. The foot with catch plate is faceted. At the end of the bow there are four windings.

Since both arms are broken we cannot say whether they ended in buttons or not. Anyhow this type of brooch (Cociş type 39b5b2a-b²⁴) is the direct predecessor of the crossbow brooches with onion head buttons, which begin with the Tetrarchy. A very close brooch to the one from Napoca was found in Sarmizegetusa, in the building conventionally called EM 23. As I have already shown, such brooches are to be dated in the period between AD 250 and 275, actually in the last decades of the province²⁵. They are more advanced than those on the „Obergermanische-rhetische Limes”, abandoned in 260²⁶ and from Doura-Europos, destroyed in AD 258.

2.2.2.4. Belt fitting with three lobe ends. Rather well preserved. Surface slightly corroded. One volute was broken after discovery, being restored. L = 5.7 cm. Found in S I, C. 1010, levelling of the yard of the stone phase building. SF 116 (Pl. XII/2).

The fitting has a rectangular body, decorated in the central zone with two parallel incisions. The heads have three lobes, the central one is lanceolate, and the lateral ones are in shape of a half a crescent. Only one stud is well preserved.

2.2.2.5. Belt fitting with fretwork decoration. Well preserved. Initially the surface was strongly corroded. L = 7.2 cm. Found in S II, C. 1010, same as the preceding one (Pl. XII/1).

The fitting has a rectangular shape. The sides are slightly in shape of curly brackets. The decoration consists of two rows of half circles, separated by a row of diamonds. In the corners there are four fitting holes. A similar belt fitting was found in the auxiliary fort at Răcari²⁷.

¹⁷ Cociş 2004, 144.

¹⁸ Cociş, Ciogradi, Bota 2001, Pl. IV/35.

¹⁹ Isac, Cociş 1995, 114, no. 43.

²⁰ Protase 2002, 72, Fig. 9 for the context; 180-181 for the brooch with returned foot.

²¹ Diaconu 1971, 248.

²² Horedt 1978, 222.

²³ Cociş 2004, 147.

²⁴ Cociş 2004, 153-154.

²⁵ Diaconescu 1999, 211-212. Surprisingly this study was not taken into consideration by S. Cociş (Cociş 2004, 154) when discussing this piece. Cf. Diaconescu, Bota, Voişian 2006, 886-887, Fig. 2/1.

²⁶ Böhme 1972, 27-28, type 28m.

²⁷ Bondoc, Gudea 2009, 215, no. 551, Pl. XCIX, with previous literature.

2.2.2.6. Belt fastener. Well preserved. L = 4.5 cm. Found in S IV, C. 1041, levelling layer in view of building the second period of the stone phase. SF 239 (Pl. XII/3).

At one end there is a rectangular bail, for a 1 cm large strep. The passage to the body of the fastener is represented by a hole, probably with a decorative purpose. The body, "D" shaped in section, its bottom being flat, is decorated by three grooves and ends in a circular socket. On the back there are two studs, 5-6 mm long, ending in circular heads, 7 mm in diameter, which helped fixing the fastener. The distance between them is 1.8 cm, meaning that on the belt there were several holes separated at this interval. The holes had an additional cut which helped the flattened heads of the studs pass through. By a smart movement the belt could be fastened at once.

2.2.2.7. Two keys joined by a chain. Pretty well preserved. The smallest key is almost entire; the bigger one was broken in ancient times. Probably the broken one was of iron. The chain partly disintegrated after the discovery but was eventually restored. Found in S IV, C. 1063, corresponding to the first timber phase. SF 533 (Pl. XIII/1-3).

The small key (Pl. XIII/3) is 6 cm long. The ring has an inner diameter of 1 cm. To it the coupling link with only one bail remained still attached. The foot, 2.7 cm long, had a pattern in shape of XIX. The bigger key (Pl. XIII/2) is now 6 cm long but is broken. The ring has an inner diameter of 1.8 cm. At the passage to the rod there is a fillet.

The chain had probably 10 links. Initially they had a rounded shape, but the central part was pressed so that an 8 shape was obtained. This chain proves that the keys were related and used together. Probably the bigger key served opening the main door and the small one a secondary door, or a chest (*arca*).

2.2.2.8. Medical pharmacy-cosmetic spoon. Almost entire. Only the end of the bowl is missing. On the other end the handle is bent at a right angle. L to the bent = 11 cm (Pl. XIV/1).

The small spoon had a shallow longue bowl, which helped well balancing the powders. The handle has three segments. The central one, 3.5 cm long, is square in section, which provided a fast hold for the fingers. The end of the handle, now bent, would have some 4 cm in length. It is circular in section and ends in an egg shaped bulb, which facilitated the balance of the tool. The two parts of the handle are separated by three incisions, delimiting two pirouettes. The separation between handle and bowl is marked by a similar decoration, consisting of a pearl and two pirouettes. Such instruments served preparing powders for medical and cosmetic purposes.

2.2.2.9. Chest fittings, two fragments which do not match together. Preserved L = 9.5 cm, respectively 9.2 cm. Found in S IV, C. 1046 (wrongly registered as 1041), levelling for the first stone phase. SF 439 (Pl. XIV/2).

A first bronze plate was rectangular, almost square. In the middle there is an elevated circle, which has a hole in the centre. Here a decorated stud or a handle was fitted. The second fragment belongs to a similar fitting. Such plates were set on chests and boxes, the main deposit device in Roman furniture. Similar pieces were found in the auxiliary fort at Răcari, where they were considered shield ornaments²⁸.

2.2.2.10. Strep terminal. Well preserved. Broken only at the joint to the strep. L = 10.5 cm. Found in S IV, modern hole, C. 1007 (Pl. XI/4).

The strep terminal has the shape of a longue and narrow tongue, ending in a simplified vegetable motive. It is decorated with fine, barely visible incisions. Could be late Roman or Early Migration Period (4th-6th centuries AD).

²⁸ Bondoc, Gudea 2009, 229, nos. 681-682, Pl. CXIV, (of 8, 9 and 11 cm length).

2.2.3. Lamps (Pl. XV–XVI)

Alexandru Diaconescu

2.2.3.1. Wheel made lamp. Rather well preserved. Only nozzle is partly broken, a few parts of the rim and part of the handle are broken. H = 4 cm, rd = 4.5 cm. Discovered in C. 1063 (wrongly registered as 1043). First Roman timber phase. SF 534 (Pl. XV/1).

This lamp has the shape of a spherical ware, with flat bottom and obliquely expanded rim. The handle has a simple circular shape. On the shoulder there are two conical outgrowths, probably with purely decorative purpose. Unfortunately we cannot define the shape of the nozzle. On the bottom there is an incised circle. The fabric is coarse, and has a grey colour on both faces and black in fracture.

Such wheel made lamps inspired by coarse pottery bowls occur in periods of crisis in specialised production and in fine oil supply. Most of such cases come from the Late Roman Period, when both conditions were met, and when imported olive oil was replaced by local sheep suet. Similar dysfunctions existed at the beginnings of the Roman province. For instance in Sarmizegetusa there are wheel made lamps in the first Trajanic layers²⁹, imitating industrial lamps and not small pots, such as this one.

2.2.3.2. Lamp of Loeschcke X type (Firmalampe). Without stamp. Almost complete. Only the point of the nozzle is missing. L = 8 cm. Found in trench S IV, C. 1063. First Roman phase. SF 528 (Pl. XVI/1).

The lamp belongs to the well-known Loeschcke X type, the variant with opened channel. On the shoulder there are two buttons, placed on the sides. The inscription on the bottom is illegible but its presence can be guessed.

The fabric is spongy, light ochre-orange in colour. On the outer surface there are tiny holes, probably from the granules of stones removed while polishing. There are also traces of orange-brown slip. The nozzle is partly smoked.

2.2.3.3. Lamp of Loeschcke X type (Firmalampe). Without stamp. Complete. The surface slightly corroded and part of the glazing was wiped out. L = 7.8 cm. Found in trench S II, C. 1029 (demolishing layer of second timber phase). SF 352 (Pl. XVI/2).

Similar to the preceding. The bottom bears no stamp and the few holes which appear here do not form a coherent pattern.

Slightly spongy fabric, light ochre-orange in colour. The brick-red slip was applied on the upper part of the lamp and flew over the shoulders. In the areas where the paint is thicker it turns reddish-brown. The nozzle is partly smoked.

2.2.3.4. Lamp of Loeschcke X type (Firmalampe), with the stamp "C. DESSI". Almost complete. Only the nozzle is partly broken. Disc is also missing and part of the channel is broken on the length. L = 8 cm. Found in the south-west room, in C. 1045 (former 1048), which is a levelling in view of the second stone phase. SF 485 (Pl. XV/2).

Similar in shape with the two previous ones. On the shoulder there are three buttons. On the bottom, surrounded by three concentric circles, there is a quite dim stamp reading "C. Dessi". Replicas after original lamps of the workshop of C. DESSIVS occur in the second half of the 2nd century and in the 3rd century. In our case the context is mid-3rd century if not later.

²⁹ Roman 2000, 99–140; Roman 2001, 129–168, 200. The article contains several confusions, but for the Trajanic lamps from Sarmizegetusa it is reliable.

2.2.4. Pottery

2.2.4.1. *Terra sigillata* (Pl. XVII)

Viorica Rusu-Bolindeț

2.2.4.1.1. Fragment from the body of a bowl Drag. 37; 5.2 × 4 cm. Found in trench S III, C. 1026. SF 248 (Pl. XVII/1).

Fine dark gray fabric (Munsell N, 4/), with limestone and silver mica inclusions; black slip of high quality on the surface (Munsell, 2.5/N).

Decoration set in medallions and panels, divided by pearled lines. In a double framed medallion there is a hippocampus (marine monster) turned right (O 48 = D 76). Beyond there are three leaves. Made at Lezoux, workshop of LIBERTVS, between AD 100-120³⁰. It comes from the demolishing layer of the 3rd timber phase.

2.2.4.1.2. Fragmentary bowl Drag. 37. Brocken in two pieces, now restored; 8.5 × 5.5 cm. Found in S IV, C. 1063, levelling of first Roman phase. SF 526 (Pl. XVII/2).

Fine, hard red-brown fabric (Munsell 10R, 5/6), with limestone, silver and red-brown iron-rich grains inclusions; red slip, smooth and lustrous (Munsell 10R, 5/8).

The fragments come from the lower part, careen shaped, of a Dragendorf 37 type bowl. Decoration set in panels, delimited by pearled lines (Rogers 1976, A9). Various gods are depicted in the panels: 1. Aesculapius, fragmentarily preserved (O 905 = D 523), wearing a *himation*, descending to the middle of the shank. An end of the mantle, passed over the shoulder, is hanging free on the back; 2. Below Aesculapius, vegetal motif - composite leaf (Rogers 1976, L 11); 3. Vulcanus (O 66 = D 39) wearing a short *chiton* leaving all limbs uncovered, and fastened on the left shoulder. He is turned to our left, with the right foot on an anvil, right hand bent from elbow and leaning on the knee, while the left hand, slightly bent from elbow, rests along the body; 4. Dionyssos (Liber Pater) (O 581 = D 331) nude, turned to the left, *thyrsus* in left hand, *nebris* on the right shoulder. Leaning on the right foot and left foot flexed and bent over the right. 5. Below Dionyssos, emerges a fruit basket, with two combined motifs above (Rogers 1976, Q 58). 6. In the following panel, double rhomb, tilted leftwards (Rogers 1976, U 33).

The complex depiction of certain divinities in the Roman Pantheon (Aesculapius, Vulcanus, Dionyssos-Liber Pater) is specific for the mid style of artisan CINNAMVS at Lezoux, that may be dated around AD 135-170³¹ or around AD 140-160³². The second Roman phase must have lasted well after this date. There are analogies, in terms of the means for the depiction of the gods preserved on the discussed fragment, however under other combinations, on several vessels discovered in Britannia and belonging to the same artisan, in the same activity period³³.

The discovery of the two Drag. 37 type bowl fragments, decorated in relief and produced at Lezoux, confirm the prevalence of imports coming from Central Gaul,

³⁰ PGC, 104-109, Pl. 55; Rogers 1999, 157-161.

³¹ PGC, 310.

³² G. B. Rogers proposed a nuanced dating for the work of CINNAMVS, the artisan from Lezoux, separating among his three decorative styles based on decorative elements, complexity of representations and decorative stamps: the early style (AD 135-145), the mid style (AD 140-160+) and a late style (AD 160-180). In addition, the author improved the general dating proposed by J. A. Stanfield and G. Simpson (PGC, 310), based on more recent archaeological finds from Britannia and the Danube provinces (Rogers 1999, 99-100). See also Rusu-Bolindeț 2007, 153-154.

³³ Aesculapius: PGC, Pl. 157/6, 8; 158/19 (where in medallion, Vulcanus appears beside goddess Venus); Vulcan: PGC, Pl. 158/21; 159/23-25; Dionyssos: PGC, Pls. 157/6; 159/32 etc.

and especially, of those produced in the mentioned *terra sigillata* workshops, both at Napoca³⁴, as well as the rest of the province of Dacia³⁵.

The potter LIBERTVS is the most important among the *terra sigillata* manufacturers from Lezoux, working in the Trajanic period, being the one to exercise prevalent influence on the artisans/potters who followed. It seems he was the creator of more than a quarter of figured decorative motifs used in the pottery workshops at Lezoux. He singled out by both the variety of decoration and the pottery forms it applied on³⁶. Another peculiarity of his products is also the use of the black slip on the produced wares³⁷, which was only occasionally used by his successors, BVTRIO and PATERNVS. The decorative motif preserved on the pottery fragment found at Napoca - the marine monster - is likely to be part of a marine theme of free style³⁸ or in which the depicted characters are not necessarily related to one another or with the ensemble of the decoration on the vessel, these being other peculiarities of the decorative style of LIBERTVS³⁹. In what the vessel fragment discovered at Napoca is concerned, it is hitherto unique among the import *sigillata* identified on the site⁴⁰. It is furthermore valuable since, being produced in the Trajanic period (AD 100-120), the earliest at Lezoux, record the entrance of the *terra sigillata* wares produced in these workshops as early as the establishment of the province of Dacia⁴¹. The only specimens, extremely fragmentary, likely pertaining to the same artisan, were discovered in Oltenia, at Acidava and Romula⁴² but also in Dacia Porolissensis, in the auxiliary forts from Buciumi⁴³ and Ilişua⁴⁴.

Concerning CINNAMVS's products, of very good quality and of great variety of decoration, they are extremely distributed in the province of Dacia, especially in Oltenia⁴⁵, but also at Apulum, Porolissum, Ilişua, Orheiul Bistriţei, Gilău, Buciumi, Cristeşti, Bulci (Arad county), Micia⁴⁶. From Napoca come another two pottery fragments, made by CINNAMVS: one in a very fragmentary state⁴⁷, hence difficult to assign to any of his decorative styles, while the other, much better preserved, the potter's intradecorative stamp included, was framed still in his mid style⁴⁸.

³⁴ Rusu-Bolindeţ 2007, 153-154.

³⁵ Rusu-Bolindeţ 2007, 153.

³⁶ PGC, 108-109, Pls. 51-55.

³⁷ For detail concerning to the production technique of the black firnis wares and the types of wares such coating was applied onto see PGC, 108-109, Pl. 51/600-602.

³⁸ PGC, 106, Pl. 53/626-627.

³⁹ PGC, 106.

⁴⁰ Rusu-Bolindeţ 2007, 152-156, 168-172; Rusu-Bolindeţ 2007a.

⁴¹ Isac 1985, 41.

⁴² Popilian, Ciucă 1988, 62, 74, catalogue nos. 10-11, Fig. 1/10-11.

⁴³ Isac 1985, 101, catalogue no. 40, Pl. 4/40.

⁴⁴ Isac 1985, 101, catalogue no. 41, Pl. 5/41.

⁴⁵ Popilian, Ciucă 1988, 62; Popilian, Ciucă 1993, 30-31; Rusu-Bolindeţ 2007, 153.

⁴⁶ See Isac 1985, 42, who classified 39 samples - 120-126, catalogue nos. 162-201, Pls. 19-24; more recently see Rusu-Bolindeţ 2007, 153 and note 151.

⁴⁷ Rusu-Bolindeţ 2007, 153-154; 180, catalogue no. 101, Pl. XXIV.

⁴⁸ Rusu-Bolindeţ 2007, 162-163; 185, catalogue no. 127, Pl. XXIX - this fragment belongs to the *terra sigillata* warehouse from Napoca - see Rusu-Bolindeţ 2007, 161-168, Pls. XXIX-XXXIII.

2.2.4.2. Stamped pottery (Pl. XVIII)

Sorana Ardeleanu⁴⁹

The number of stamped fragments is rather poor, a total of 18 fragments being discovered in our excavation. All pieces are found in contexts dating in the second half of the 2nd century (C. 1011 and 1015) and in the 3rd century AD (C. 1023), even in its second half (C. 1004 and 1041-1042). Several fragments are residual, being found in late Roman - Mediaeval contexts (C. 1007, 1030, 1032, and 1042). The fragment found in C. 1015 belongs to type 3H of V. Rusu-Bolindeț⁵⁰, which was previously dated under Trajan, but in our case the context of find dates from the second half of the 2nd century AD, when the levelling of the 3rd phase (timber structures) took place. The other pieces were so far dated between Hadrian-Antoninus Pius and the end of the Roman province. Most of them belong to a kind of bowl, type 3 DR37 of V. Rusu-Bolindeț⁵¹. Seven fragments have a similar fabric, light grey with black slip, one is also grey, but has a brown slip. Other eleven fragments have a brick-reddish colour, eight have a red slip, one has a dark brown slip, and other has no slip at all. The decorative patterns, both geometric and vegetal, are common to the pottery from Napoca⁵², but there some which have no previous parallel.

2.2.4.3. Coarse pottery⁵³

2.2.5. Glass⁵⁴

2.2.6. Bone objects (Pl. XIX)

Lóránt Vass

From the 23 bone objects discovered, 53% are hair pins and further 38% sewing needles.

2.2.6.1. Hair-pins: 6 of the 11 hair-pins found during the excavations come from the same context 1041, which represents the levelling layer for the last floor of the northern corridor, one of the latest Roman features. Two further pieces come from the fitting out of the same stone building and date from the beginning of the 3rd century. Other two come from the disturbed C. 1000. All pins are handmade, mostly by the use of a scraper and of a knife, for better delimiting the head from the body or for the collar. Following types were identified:

2.2.6.1.1. Pins with globular head (Type Gudea-Bajusz II/6; Ciugudean 1.1) (Pl. XIX/1-4). The 6 pieces of this type are the simplest pins in Roman times. Similar items were found in Porolissum⁵⁵, Vețel⁵⁶, Buciumi⁵⁷, *colonia Dacica Sarmizegetusa*⁵⁸, Apulum⁵⁹. C. 1141/SF 402.1,

⁴⁹ Full text will be published later.

⁵⁰ Rusu-Bolindeț 2007, 254.

⁵¹ Rusu-Bolindeț 2007, 252.

⁵² Rusu-Bolindeț 2007, Pls. LXIX-LXXI.

⁵³ Processed by S. Ardeleanu. Full text will be published in another context.

⁵⁴ Processed by Sz. Pánczél, who will publish the material later.

⁵⁵ Gudea, Bajusz 1991, Pls. XI/1-7; XII/8-13; XIII/14-22.

⁵⁶ Cociș, Alicu 1993, Pl. IV/4, 7-8.

⁵⁷ Pop 1972, Pl. C/7-9.

⁵⁸ Alicu, Nemeș 1982, Pl. I/8.

⁵⁹ Ciugudean 1997, Pls. II-III.

L = 5.4 cm; C. 1141/SF 402.2, L = 5.5 cm; C. 1141/SF 292, L = 10.5 cm; C. 1061/SF 521, L = 7.5 cm; C. 1000/SF 311; L = 6.8 cm; C. 1000/SF 105, L = 6.9 cm.

2.2.6.1.2. Pin with double pyramid head (Type Gudea-Bajusz IV/5) (Pl. XIX/5). This type was less popular than the previous one. Analogies for the two pins in our catalogue come from the auxiliary fort at Feldioara⁶⁰, and from Porolissum⁶¹, all dated in the 2nd-3rd centuries. C. 1141/SF 409, L = 5.9 cm; C. 1041/SF 356, L = 5.7 cm.

2.2.6.1.3. Pin with double pyramid head and collar (Type Gudea-Bajusz II/6; Ciugudean 1.10) (Pl. XIX/6). Despite its popularity in Dacia⁶², in our excavation only one piece was found: C. 1041/SF 434; L = 8 cm. The type is generally dated in the 2nd century, but in our case it was found in one of the latest Roman layers, which proves that it had a longer period of existence, similar to other provinces⁶³.

2.2.6.1.4. Pin with head separated by a succession of grooves and fillets (Type Gudea-Bajusz V/5, Ciugudean I.10; Bajusz-Isac V.2) (Pl. XIX/7). These kinds of pins are similar to those of previous type, only they are provided with several collars and the shape of head is less uniform. The only pin of the kind in our catalogue, C. 1060/SF 531, L = 8 cm has good analogies in Dacia⁶⁴, and in other provinces⁶⁵.

2.2.6.1.5. Pin with pine cone head (Type Gudea-Bajusz IV/6, Ciugudean 1.6, Bajusz-Isac III). The pine cone is a well-known symbol of afterlife. It has good analogies in Dacia⁶⁶. Such pieces started to be produced at the end of the 2nd century and largely used in the 3rd century⁶⁷. Our pin was found in C. 1000/SF 164, L = 3.9 cm.

2.2.6.1.6. Unfinished pin (probably a pine cone headed one) (Pl. XIX/9). C. 1041/SF 503. L = 8.9 cm.

2.2.6.2. Sewing needles (Pl. XIX/10-16). Most of the 8 needles in our catalogue come from the timber phases. Only three of them are preserved enough to allow a typology.

2.2.6.2.1. Sewing needle with flat head. SF 293, L = 8.9 cm. The hole is 8 shaped, due to the fact that two bores were executed. Such needles are generally dated in the 2nd-3rd centuries⁶⁸. Analogies from Dacia are in Porolissum and Apulum⁶⁹.

2.2.6.2.2. Sewing needle with rounded head. C. 1036/SF 262, L = 6.9 cm. The hole is also 8 shaped. Analogies: Dacia Porolissensis, Porolissum, Apulum⁷⁰.

2.2.6.2.3. Sewing needle with triangular head and oblong, rectangular hole. C. 1024/SF 213, L = 9.4 cm. The large dimensions of the hole, made with a special borer, plead for a special use for sewing leather. Analogies: Dacia Porolissensis⁷¹.

Fragments: C. 1024/SF 213, L = 12 cm; C. unknown/SF 267, L = 13.1 cm; C. 1024/SF 213, L = 11.8 cm; C. 1023, SF 307, L = 7.2 cm; l = 0.5 cm; thick. = 0.4 cm.

2.2.6.3. Handle. C. 1023, S.F. 965, L = 9.9 cm; slightly curved handle, with an interior piercing.

2.2.6.4. „Club of Hercules” (*Herkuleskeule*) type pendant (Pl. XIX/8).

⁶⁰ Gudea 1991, Pl. XVIII/3.

⁶¹ Gudea 1989, 828.

⁶² Porolissum: Gudea, Bajusz 1991, Pl. XVIII/3; Bajusz, Isac 2001, Pl. VI/53; Dacia Porolissensis: Cociş, Alicu 1993, Pl. VII/9; Buciumi: Pop 1972, Pl. C/4.

⁶³ Bajusz, Isac 2001, 403.

⁶⁴ Porolissum: Bajusz, Isac 2001, Pl. VI/50; Dacia Porolissensis: Cociş, Alicu 1993, Pl. VIII/1-13.

⁶⁵ Britannia: Crummy 1979, 162; Germania: Obmann 1997, Pl 24/334.

⁶⁶ Porolissum: Bajusz, Isac 2001, Pl. V/38-43; Apulum: Ciugudean 1997, Pl. X/1-3; *colonia Dacica Sarmizegetusa*: Alicu, Cociş 1988, Pl. VII/67; Dacia Porolissensis: Cociş, Alicu 1993, Pl. VII/1-12.

⁶⁷ Biró 1994, 34.

⁶⁸ Ruprechtsberger 1979, 34-34.

⁶⁹ Ciugudean 1997, Pl. XXIV/2; Vass 2006, Fig. 4/18-22.

⁷⁰ Cociş, Alicu 1993, Pl. XIV/15; Ciugudean 1997, Pl. XVI/1; Vass 2006, Fig. 4/13-17.

⁷¹ Cociş, Alicu 1993, Pl. XIV/10.

Such protective pendants were used mainly by women and children, as several funerary finds seem to indicate⁷². They were usually made of precious metals⁷³, but in moments of crisis, such the 3rd-4th centuries and in the Migration Period⁷⁴, they could be manufactured in cheaper materials⁷⁵. Bone pendants of this kind are known from Drobeta (three pieces)⁷⁶, Ampelum⁷⁷ and Micia⁷⁸. Our piece comes from the latest Roman phases. C. 1041/SF 407, L = 8.5 cm. Worked on the lathe it is carefully polished.

2.2.6.5. Unidentified object

This object comes from a disturbed layer containing also Mediaeval and Modern artefacts. It has a pierced base and a body in shape of a leaf. It might have belonged to a pipe. C. 1023/SF 268; L = 5.4 cm.

2.3. Mediaeval material (11th-12th centuries)⁷⁹ (Pl. XX)

2.4. Renaissance

2.4.1. Stove tiles

2.4.1.1. Two identical tiles with the coat of arms of Matthias Corvinus (Pl. XXII/1).

Found in C. 1030, filling of pit 1025. Each stove tile has an almost square front plate, 23.8 × 25.4 cm and 18.5 cm deep conical tubes attached on the reverse, having each one slightly splay orifice with a diameter of 20 cm. Decorated in relief. At the back there is a conical device, 9.5 cm long, in shape of a pot with circular rim (diameter 17 cm). The inside is smoked⁸⁰. The stove tiles were recently published and largely commented by PhD. A. A. Rusu (see above note 6).

In a tournament shield, serving as escutcheon, is inserted a smaller shield bearing the symbols of the Hungarian kingdom: double cross and bars. Above the shield there is coronet from which emerges, as a sort of crest, the raven with the ring in the beak, obviously the symbol of the Hunyadi family. Above it there is a crown supported with the upper two legs by two rampant lions. With a third leg they hold the coronet above the Hungarian state blazon. Due to the originality of the design we have no reason not to believe this was a local product. The perfect analogies found by PhD. A. A. Rusu in north-east Hungary, at Nyírabátor⁸¹, the residence of the voievode of Transylvania Stephen Báthory (between 1479 and 1493), link this high ranking character to our find. The stove tiles from there seem to be copies after the ones in Cluj. They must have been produced before the death of Matthias Corvinus in 1490 and dismantled shortly after.

⁷² Ciugudean 1999, 249.

⁷³ From Dacia such cases are known from: Dierna, Miercurea Sibiului, Târgu-Mureş and Potaissa (Bărbulescu 1980, 179-180, Fig. 5/1-4).

⁷⁴ Werner 1964, 176-177.

⁷⁵ Bărbulescu 1994, 179-180; Ciugudean 1999, 248.

⁷⁶ Stângă 1998, 119, Pl. LXXXIV/8-10.

⁷⁷ Ciugudean 1999, 247-251, Fig. I.

⁷⁸ Cociş, Alicu 1993, Pl. XVI/3.

⁷⁹ Processed by B. Gergely. Material will be published elsewhere.

⁸⁰ At least this was our impression immediately after the discovery. A. A. Rusu, who examined them after cleaning, considers that the tiles were not used in a stove, so that he is inclined to consider them part of the collection of a potter's workshop. Indeed, the presences of entire pots associated with these tiles plead for a workshop. In this case the "*vicus latifigulorum*", the suburb of potters, attested since 1453 (Rusu 2012, 315, note 10), must have been situated in the northeastern part of the Late Mediaeval town. On the other hand the later "lane of potters" is placed in the opposite, western part of the town.

⁸¹ Rusu 2012, 314-315 and Pl. II a-b.

2.4.1.2. Several fragments of green glazed stove tiles (Pl. XXIII/1-2). Found in pit C. 1043. High quality green glaze. Decorated with geometrical and vegetal motifs.

2.4.1.3. Stove tile with decorative pattern (Pl. XXII/2). Found in pit 1043. It cracked in the central area, probably during combustion in the pottery kiln. Since it bears traces of smoke on the backside it was probably never used in a stove. The decorated plate has a square shape, 21 × 21 cm. The face has a lot of mica spangles. The decoration is geometric and contains simplified vegetal patterns. On the back of the tile there is a 3.5 cm high frame which helped fixing it to the stove.

2.4.1.4. Fragments of stove tiles without glaze (Pl. XXIII/3-5). Found in the pit C. 1043. Decorated with vegetal motifs.

2.4.2. Coarse pottery⁸²

2.4.3. Glass⁸⁵

2.5. Modern (18th) finds⁸⁴

2.6. Bones⁸⁵

3. List of contexts

Alexandru Diaconescu

C. 1000 (trench S I) is a filling layer, between 12 and 55 cm thick (frequently around 20–30 cm). It is easy to separate from 1001, which is covered by this context. The colour is greyish-brown. It is made of silky sand, with a firm fine-grained texture. Intrusions: bricks, pieces of mortar and small stones. It is a recent layer containing glass, wire and modern bricks.

C. 1001 (trench S I and III) is a levelling layer, between 15 and 40 cm (frequently 30 cm) thick. It consists of stiff and homogenous brown sandy silk. Contains sporadic tiny pieces of chalk coal. Intrusions: pottery from the 11th to the 18th century, well sorted, with no traces of walking layers or floors. It is similar to C. 1020 and covers the 16th century pits C. 1025 and C. 1043. Probably till late in the 19th century the area was not built and used as a garden behind some house in the south of it. More recently it was a small market place.

C. 1002 (trench S I) is the filling of pit 1003 and consists of a yellowish-brown soft sandy clay. Intrusions: pottery and bones. It was not easy to define from C 1001, 1007–1008, 1010 and 1011 in which the pit was dug. In the upper part of the filling there was a big stone, covering the pit.

C. 1003 (trench S I) is a modern pit with irregular contour in the upper part where it measures 2.40 × 1.60 m. Deeper it becomes round in plan and V shaped in section, descending to -1.60 m. It is filled by 1002 and cuts 1000, 1001, 1004, 1007, 1008, 1010 and 1011, affecting partly the wall of the apse from trench S I.

⁸² Material will be published later.

⁸⁵ Material will be published later.

⁸⁴ Material will be published later.

⁸⁵ See separate report of Al. Gudea herein (ActaMN, 49/I, 2012).

C. 1004 (trench S I) is a stiff greyish-black sandy clay, some 5-10 cm thick. It contains small stones (50/60 %). It could be a subdivision of demolishing layer C. 1008-1009, but the stones in it are considerably smaller. The upper part of C. 1004 is a walking layer above the deposit of Roman debris, and contemporary to the floors 1005-1006, which are associated to 11th-12th century pottery. Over 1004 is placed C. 1007, which appears in several trenches (S I-III), but 1004 is only present in the one of the wall with buttresses. We cannot reject the possibility that this deposit was related to the demolishing of the wall.

C. 1005 (trench S I) is a 5 cm thick fitting up - levelling layer made of an yellowish-ochre clay, with intrusions of dark humus and chalk coal. Sporadically there are red traces of burnt clay. It covers the layers of debris C. 1008-1009, is bounded by C. 1004 and similar to C. 1006. It is a floor laid over the Roman debris. North to it there is another floor of the same kind, C. 1006. Probably a timber wall was separating the two floors. They belonged to light timber structures of the 11th-12th, centuries contemporary with C. 1004.

C. 1006 (trench S I) is a floor made of ochre-orange clay, similar with C. 1005, and belonging to a room north to C. 1005.

C. 1007 (trenches S I-IV) is a deposit above the Roman debris, representing a natural soil which grove in time. It is 15/40 cm thick (mainly 25 cm) stiff sandy-clay dark grey deposit. Intrusions: small pieces of limestone (2/5%) and sporadically a stone. It covers the debris layers C. 1008-1009 and 1057. It is cut by the mediaeval robbing trench (of the Roman wall) C. 1059 and by pits C. 1025 and 1043, belonging to the 16th century. Probably in Renaissance times here was a back garden of an important house (see the roof debris C. 1032).

C. 1008 (trenches S I-III) is a debris layer, 20-50 cm thick. Made of clayey sand, light brown in colour and containing in proportion of 20 % stones from the wall with buttresses and from the north wall of the Roman building. In the lower part there are tiles (35-50 %) broken in large pieces. Sporadically there are pieces of yellowish-white mortar. It is similar to C. 1009, is covered by 1004 and 1007 and is partly intermingled with 1010, which is also covered by it. It is adjacent to the collapsed wall C. 1057.

C. 1009 (trench S I) is a demolishing layer similar to C. 1008, only it contains more stones.

C. 1010 (trenches S I-IV) is a filling layer immediately under the debris of the Roman building (C. 1008, 1009 and 1057) which extends north of the Roman structures. It consists of a soft, dark brown soil, with intrusions of pebbles, mortar and bits of tiles. It looks like a fitting out of a yard, where from time to time broken tiles were spread to avoid the mud. This layer covers the demolition of the last timber phase and is contemporary to the stone buildings. Although it contains several layers of broken tiles it is difficult to distinguish between several adjustments on the yard. From here a T shaped brooch from the second half of the 3rd century was found (catalogue 2.2.2.3).

C. 1011 (trenches S I-II) is a levelling layer, made of a soft, brown, clayey sand, with intrusions of unsorted pebbles. It is 20-30 cm thick. It is covered by C. 1010 and covers C. 1014. It represents the out fitting of the space outside the timber building of phase III, a sort of yard.

C. 1012 (trenches S I-III) is a firm and clean fitting out, 10 cm thick, made of ochre-yellowish sandy clay. It covers layer 1033 and is covered by the demolishing of phase 3 (C. 1026 and 1028). It must be the floor of the western row of rooms of the timber building from phase 3.

C. 1012A (trench S I) clay floor, visible only on the north profile, probably part of C. 1012.

C. 1013 (trenches S I-III) is a fitting out layer, 10 cm thick, made of stiff sandy clay, partly ochre-yellow, partly ochre-grey with small intrusions of charcoal. It is covered by C. 1033 and covers C. 1035, representing the floor of the western row of rooms of phase 2 timber buildings.

C. 1014 (trenches S I and S II), clearly visible on the south profile of S I, similar with C. 1011, which is slightly darker. Covered by C. 1011, it covers C. 1036 and 1056, and represents the out fitting of the yard north to the phase 2 timber buildings (floor C. 1013).

C. 1015 (trench S I) is a stiff layer of light greyish-brown sandy clay, containing sporadically small stones and traces of charcoal. At the bottom there is a layer of pebbles. Covered by C. 1010, it covers C. 1016 and is bound on C. 1012A. It represents the levelling of the space outside phase 3 timber buildings.

C. 1016 (trench S I) is a stiff levelling layer made of dark brown well sorted silky sand. It has intrusions of small pieces of charcoal and burnt clay. Along with C. 1056 it covers the undisturbed ground clay, being covered by 1015 and 1012. It belongs to 1st and 2nd phase.

C. 1017 (trench S I) is a kiln, circular in plan. D = 65 cm. The walls were built in yellow clay with a few stones, more frequent in the southern and eastern side. The charge whole was to the north and is partly contained by the wall of trench S I, and consequently could not be excavated. Because of the high temperatures the inside of the kiln turned red. Over the hearth there is a 2-3 cm thick layer of ashes, covered by the collapsed walls. Some 0.5 m west of the kiln we found a calcinated beam, which was limiting a layer of ashes. It must have been connected to the kiln, but was later cut by pit C. 1003. The kiln was built over the levelling layer C. 1036 and belongs to the first Roman phase. We cannot say whether the kiln had a domestic or an industrial use.

C. 1018 = abolished.

C. 1019 = abolished.

C. 1020 (trench S II) is a deposit similar to C. 1001.

C. 1021 (trench S II) is the filling of a Modern-Contemporary pit (19th-20th centuries), C. 1022, not easy to distinguish from 1020, merely by its consistency and not by colour.

C. 1022 (trench S II) is a pit, rectangular in plan, with vertical walls and horizontal bottom. It cuts 1020 and is filled by 1021. It is a recent pit, which was partly damaged by works from 1975.

C. 1023 (trench S II) is the levelling layer between the wall with buttresses (Z3) and the building to the south (wall Z5, later Z4). It is 35-40 cm thick, and made of loose clayey sand, with sporadic intrusions of charcoal, small pieces of mortar, tiny stones, and traces of burnt clay and bits of tiles. A coin from the end of the 2nd and the

beginning of the 3rd century was found here (2.2.1.6.) It is easy to separate from the debris layer. Probably is the same as C. 1010, being covered by C. 1057, 1008, 1009 and covers C. 1026, 1050, 1029, 1024.

C. 1024 (trench S III) is a levelling layer for the last timber building complex. It consists of a stiff dark greyish-brown sandy clay with quite frequent intrusions of charcoal, and sporadic pieces of mortar, and burnt clay. It is 15-20 cm thick, being covered by C. 1026, 1023 and covering 1029. At the top of this layer, towards west, there is a yellow-greenish clay floor C. 1024 A.

C. 1025 (trench S III) is a pit, rectangular in plan, with the sides 120 cm long, very well defined. The walls are slightly oblique, and the bottom is horizontal. Maximum depth -1.80 m. It cuts C. 1001, 1007, 1008, 1026, 1033, 1013, 1031, 1035. Is filled by C. 1030, 1031 and 1032, which contain materials from the first decades of the 16th century. In the lower part another pit, round in plan, emerged in the middle or the first one. Its walls were clad in timber. Possibly a well.

C. 1026 (trench S III and partly in S II, not more than 1 m east from the western edge). It is a collapsed adobe wall, burnt when demolished. One face was clad with planks the other was plastered with white lime. The core was provided with loamed wickerwork. The wall had no foundation. The layer, 8-10 cm thick, consists of brick red burnt clay and traces of rods, which were turned into charcoal. On the top there is a layer of white lime, and at the bottom a dark line from the carbonized planks. It is covered by C. 1023 and covers 1024 and 1028. It belongs to the demolishing of phase 3.

C. 1028 (trench S II) is a demolishing layer of the buildings of the last timber phase (3), which were burnt. This loose layer contains brick-read burnt clay (adobe) and sporadically small pieces of charcoal (under 1 cm) and mortar. Actually the roof, after the tiles must have been collected, was set on fire. The still standing walls were then pushed to the ground (C. 1026). This layer is covered by C. 1026 and 1010 and covers 1033 and 1012.

C. 1028A is a subdivision of C. 1028 which contains less burnt adobe.

C. 1029 (trench S II) is a demolished wall of phase 2, between 8 and 12 cm thick. It contains burnt adobe. At the bottom there is a black stripe of charcoal. The layer is partly loose, partly compact, ochre and brick-red in colour, with pieces of burnt rods. In the eastern part it is looser and ends strait at 80-90 cm from the edge of S II. Covered by C. 1024 and covers C. 1052, 1058, 1050, 1051.

C. 1030 (trench S III) is the filling of pit C. 1025. The context is ill-sorted, containing several filling layers. It is made of several strata of soil of different origins. The most frequent is a dark grey clayey sand. At the bottom there is a lens of orange and red-brick clay, followed by a stripe of rotten wood, which turned reddish-brown. The edges have the aspect of barrels (a rounded well?). The filling contains a lot of bones and coarse pottery without glaze. In the upper part there is a layer of tiles, coming from a demolished roof (C. 1032). The two glazed stove tiles with the coat of arms of Matthias Corvinus were also found in 1030 towards the bottom of the pit. Stratigraphically they cannot not be directly related to the demolished stove or kiln (C. 1031 and 1031A) which lay above. C. 1030 is covered by C. 1031A and 1031.

C. 1031 (trench S III) is the last filling of pit 1025. Its maximum depth is 35-40 cm. It is a loose, homogenous layer of burnt sandy clay, which turned dark brick-red. It must come from the demolishing of a stove, an oven or a kiln. It is covered by the levelling layer C. 1001, and covers C. 1031A.

C. 1031A (trench S III) is a filling of pit 1025, maximum depth 15 cm. It is a loose grey and pink layer of ashes and burnt clayey sand, coming from a demolished stove or a kiln. It is covered by C. 1031 and covers C. 1030 and C. 1032.

C. 1032. (trench S III) is a filling within C. 1030, maximum 15 cm thick, in the upper part of pit 1025. It consists of roof tiles, in proportion of 80-90%. The part of C. 1030 above this layer is so similar to the one below that we decided not to give it a separate number.

C. 1033 (trench S III) is the levelling layer after demolishing the second phase and the fitting out layer for the third phase. It is 10-15 cm thick and is made of firm greyish-black silky clay. It contains small pieces of charcoal and burnt clay. At the upper part there are layers of yellow clay from the subtractions' of the timber floors. It is covered by C. 1012 and covers C. 1013.

C. 1035 (trench S III) is the demolishing layer of Roman phase 1 and levelling for the next phase. It is a 10-15 cm thick firm mixture of grey, ochre and red silky clay and sandy clay. It contains burnt adobe in a proportion of 35 %. It is covered by C. 1013 and covers C. 1036.

C. 1036 (trenches S I and III) represents a levelling for the first Roman phase. It is difficult to distinguish it from C. 1035. The layer between 8 and 25 cm thick is firm and contains mixed pieces of ochre and grey clay, with sporadic intrusions of burnt clay. It is covered by C. 1035 (in trench S I also by C. 1014) and covers the natural clay.

C. 1037 (trench S II) is a pit, situated in the narrow space between Z1 and Z3, not easy to define because it was filled with the same ochre-grey clay in which it was initially dug. It contained three Late Iron Age type pots.

C. 1038 (trench S II) is a pit, rectangular in plan. H = 35-45 cm. The eastern and southern edges are beyond the limits of the excavation. The pit measured more than 2 m east-west and more than 1.5 m north-south. It was filled with pieces of ochre clay and burnt adobe. It was dug in the natural soil and belongs to the first phase. We cannot determine its use and nature.

C. 1039 (trench S III), is a layer of burnt adobe covering the natural clay. Covered by C. 1036 it belonged to the first Roman phase.

C. 1040 (trench S IV) between Z4 and Z5, it is the foundation of the last floor of the northern corridor of the stone building. It is a compact, well sorted, layer made of white mortar and pebbles. On the top there are traces of *opus signinum*. At the bottom there is a layer of rounded stones (ca. 15 m in diameter). It is cut by several modern pits and by C. 1043 and 1044, and covers C. 1041.

C. 1041 (trench S IV) between Z4 and Z5, is a levelling layer made of a loose silky sand. At the bottom there is a compact layer of greyish-brown gravel. Sporadic traces of charcoal appear. In it a bone pendant in shape of Hercules club was found. It represents a levelling for the last phase of the corridor, being covered by C. 1040. It covers the *opus signinum* floor C. 1067.

C. 1042 (trench S IV) between Z4 and Z5, is a levelling layer belonging to the second stage of the northern corridor of the Roman stone building. The coin of Caracalla (catalogue 2.2.1.7) comes from here. It is made of reddish-brown firm silky clay, with intrusions of white mortar and pebbles. It is covered by C. 1067 floor and covers C. 1064.

C. 1042A equals C. 1064.

C. 1043 (trench S IV, eastern profile) is a residual pit, circular in plan with oblique walls. Diameter of the mouth is around 3 m and the depth is 2 m. The bottom is slightly concave. This pit cuts the robbing trench of Z4 (C. 1059) and C. 1007, 1042, 1041, 1062 and 1063. It is covered by C. 1020.

C. 1043A (S IV) is the filling of pit 1043 made of loose, greyish-ochre, silky sand with intrusions of pebbles and charcoal. It contained 16th-17th centuries' glazed pottery and stove tiles.

C. 1044 (trench S V) is the filling of a modern hole made of a compact, black, silky sand, containing many rubbly stones. At the bottom there are bigger pieces of broken stones and traces of mortar, obviously coming from the Roman walls. The pit descends between 120 and 250 m and is related to the robbing trench of Z4, C. 1059. It is covered by C. 1000.

C. 1045 (trenches S IV-V) south-west room. It is the levelling after demolishing of first phase and in preparation for the second phase of the stone building. The layer is 70 cm thick, with a sub layer of 20 cm, made of mortar and plaster. The rest is made of firm, reddish-brown silky clay, with intrusions of plaster and stones. It is covered by C. 1048 and covers C. 1047.

C. 1046 (trenches S IV-V) south west and south-central room. It is the levelling layer for the first phase of the Roman building, made of a 40-60 cm thick mixed layer of greyish-sepia sandy clay, with intrusions of pebbles and charcoal. It is similar to C. 1061 and is covered by C. 1047, 1064 and 1064A.

C. 1047 (trenches S IV-V) south west room. It is the partly preserved floor of the first phase of the room. It is a compact, white, 7 cm thick layer of mortar with intrusions of small stones. It is covered by C. 1045 and covers C. 1046.

C. 1048 (trenches S IV-V) south-west room. It is the second phase *opus signinum*. It is a weekly cemented, 10 cm thick pink floor containing small pieces of brick. It is covered by C. 1049 and covers C. 1045.

C. 1049 (trenches S IV-V) are the post Roman debris in the south-west room, preserved on a surface of ca. 1 m². It is a 30 cm thick layer of a firm greyish-brown sand with rather big pieces of plaster. It was partly disturbed by a modern hole and covers C. 1048.

C. 1050 (trench S II) is a V shaped pit, circular in plan, with a diameter of 150 cm. Its depth, measured from the level it was dug is 120 cm. The bottom is concave. It cuts C. 1052, 1053, 1056, and the undisturbed clay, reaching to the parent-rock (gravel). It belongs to the transition from the 2nd to the 3rd century, together with C. 1054.

C. 1051 (S II) is the filling of pit 1050. In a first instance stones from structure 1054 were thrown in the pit (25%), then a 30 cm thick layer of grey clay of unknown origin was added (25%) and then burnt adobe from the demolition of phase two timber buildings (C. 1029) (50%), was laid on a depth of 40 cm. The filling and the pit is covered by C. 1029.

C. 1052 (trench S II) is the floor of the east-west oriented timber building from phase 2. It is a 20 cm thick layer, made of a firm dark greyish-brown sandy clay, with frequent intrusions of charcoal and sporadically pebbles. It covers C. 1053 and 1058, and is covered by C. 1029.

C. 1053 (trench S II) is the demolishing layer of timber buildings from first Roman phase. This layer contains 60% charcoal and 40% clay; sporadic intrusions of burnt clay and pebbles. It is covered by C. 1052, cut by C. 1050 and 1054, and covers C. 1056.

C. 1054 (trench S II) is a pit from the transition period between phases 2 and 3. It consists of a ring of stones set on the edges of a circular pit, only 10-15 cm deep, filled with C. 1055. The stones were held together with clay. Above the first row of stones there was at least another one, if not several. Some of these stones felt over the filling C.1055, others felt in and around the pit. We cannot identify the function and purpose of this pit.

C. 1055 (trench S II) is the filling of C. 1054, made of gravel.

C. 1056 (trench S II) is the topsoil of the first Roman phase, containing sporadically pottery sherds from the first out fitting and levelling. It is similar to C. 1036 from trench S III.

C. 1057 (trenches S II and S III) is a collapsed stone wall. It extends around 3 m north of the robbing trench of wall Z4 (C. 1059). It is poorly present in the western part of trench S III, where we suppose there was an entrance. The width of the wall was 30-40 cm. It was built of local limestone blocks, from the quarry of Baciú, held together by an abundance of mortar. Probably the Roman wall was intentionally pushed to the ground when the area was cleaned in the Advanced Middle Ages. Covered by C. 1007, it covers C. 1010-1023 and partly C. 1008-1009, which contains 12th century material. When the demolition took place the Roman walls were still standing at a considerable height.

C. 1058 (trench S II) is a burnt timber and clay wall which belongs to buildings from first Roman phase. It is contemporary with C. 1053.

C. 1059 (trenches S III-IV) is the robbing trench of wall Z4, the northern wall of the Roman building. It is 60 cm large and has a depth of 120 cm (measured from the level it was dug). The trench is filled with mortar and broken stones. On the bottom there is a layer, some 20 cm thick, of gravel (70 %). actually the diggers stopped when they reached the foundation of the wall, for which they paid no interest. Below the gravel there is a layer consisting of two rows of stones, with a depth of 20-30 cm. The trench cuts C. 1007, 1008, 1057, 1010, 1028A, 1052, 1053 and 1060. It is cut by pit C. 1043, dating from the 16th-17th centuries, and covered by C. 1001-1020. Probably the robbing of the Roman walls took place in the 14th-15th centuries, when stone was needed for the extended town (Neustadt - Újvár).

C. 1060 (trench S III) is a levelling layer south of the timber structures of phases 2 and 3, ending somewhere in the proximity of pit C. 1030. The 40 cm thick layer consists of firm greyish-brown silky clay with intrusions of charcoal and sporadic burnt adobe. It is difficult to distinguish it from 1010 and 1060A. It is cut by pit C. 1030 and trench 1059, being covered by C. 1028A, the demolishing of the third phase. It is similar to C. 1011 from S I-II and belongs to the timber structures.

C. 1060A (trench S III) is the levelling layer south of the timber building of phase 2, (floor 1013), difficult to distinguish from C. 1010 and 1060. It is made of a 40 cm thick layer of greyish-brown silky clay with frequent intrusions of charcoal and sporadic burnt clay. In the upper part it has a reddish touch. It covers the grey natural clay and 1036. It is covered and it interferes with C. 1060.

C. 1061 (trenches S IV-V) is a levelling layer for the first stone phase in the central-south room (actually a corridor). The foundations of the walls are dug into it. It is a 60-70 cm thick, stiff mixture of topsoil and ochre-grey sandy clay, with sporadic intrusions of pebbles, charcoal, and mortar. It is similar to C. 1046, 1042, covers 1065 and is covered by 1064.

C. 1062 (trench S IV) is the levelling layer for phase 3, difficult to distinguish from C. 1063 (only due to a tiny lens of gravel). It is made of a 20 cm thick, firm, dark ochre-grey (sepia), silky clay. It is cut by C. 1043 and other less obvious pits. Is covered by C. 1026, the *opus signinum* floor C. 1065, and covers C. 1063.

C. 1063 (trench S IV) is the levelling layer of the first Roman phase. At the lower part it is cleaner (this part probably represents the topsoil at the arrival of the Romans). It is a 30 cm thick layer of firm, grey-brown, silky clay, with frequent intrusions of charcoal, burnt clay and pieces of yellow clay. It contained a Samian ware fragment 2.2.4.1.2 (Pl. XVII/2), produced between AD 140-160. This layer is easy to be distinguished from the natural gravel, but very much alike C. 1062, which covers it. It is cut by C. 1043 and the foundations of the walls of the stone phase.

C. 1064 (trench S IV) northern corridor, between Z4 and Z5. It is the levelling of the first stone phase in this room, contemporary with floor 1047, from the south-west room. The 10-15 cm thick layer of yellowish-ochre sandy clay is easy to separate from other layers. It is covered by C. 1042, and covers C. 1046. Similar to C. 1064A.

C. 1064A (trench S V) is a floor of the first stone phase in the south-east room. It looks like C. 1064.

C. 1065 (S IV) is the demolishing layer of the timber building found in S IV, and consists of burnt clay and charcoal. It is 30 cm thick, loose, and has an average red-brick colour. It is covered by 1061 and covers 1062.

C. 1066 (trench S IV) It is the *opus signinum* floor of the last timber building in S IV. It is 15 cm thick and has a pink colour. The floor has a 10-15 cm thick foundation of ochre clay. The whole structure is easy to distinguish from C. 1042, which lays above it and from C. 1062 below it.

C. 1067 (trench S IV) is the *opus signinum* floor in the north corridor (between Z4 and Z5). It belongs to the second stage of this room, being covered by C. 1041, and covering C. 1042.

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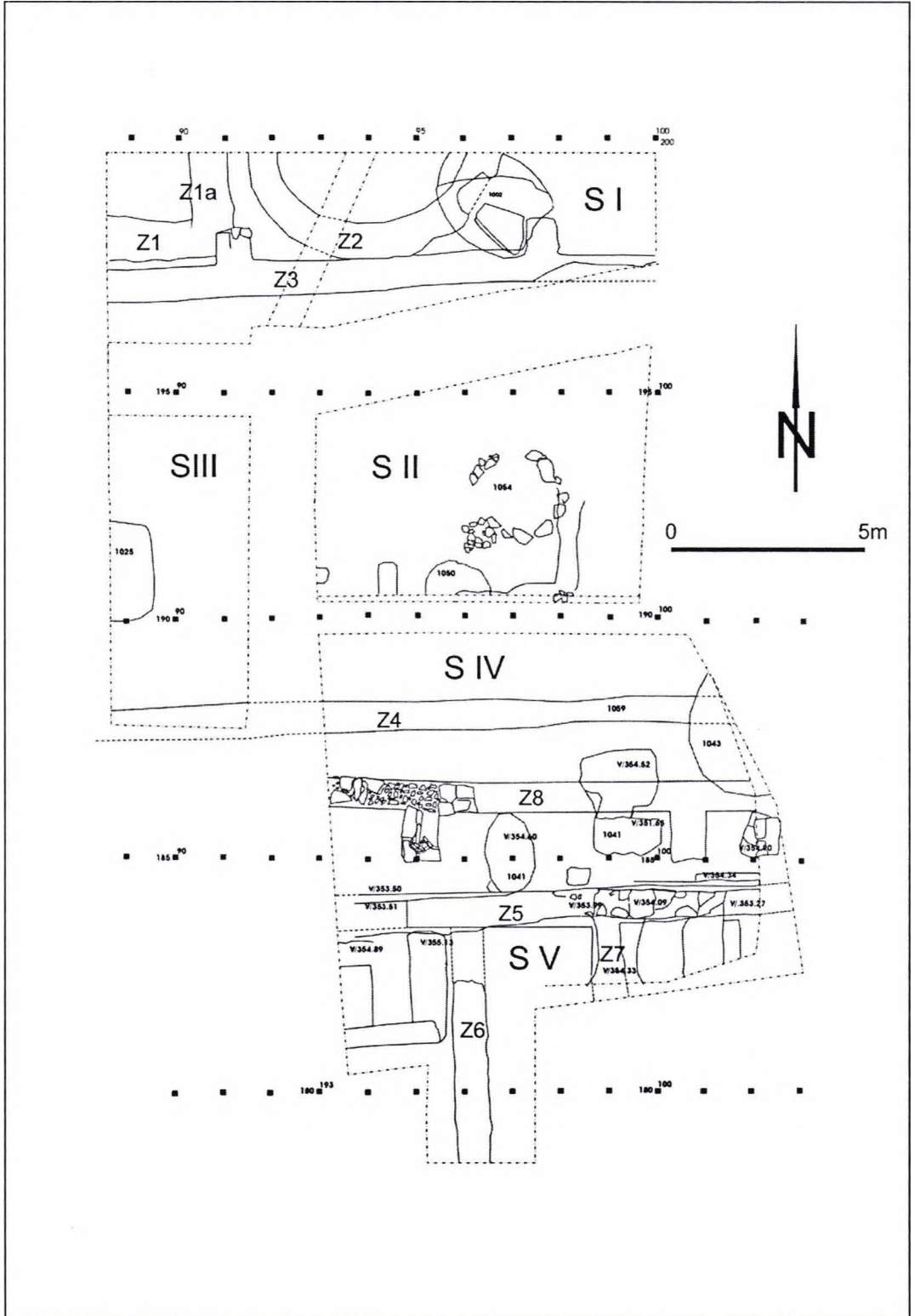
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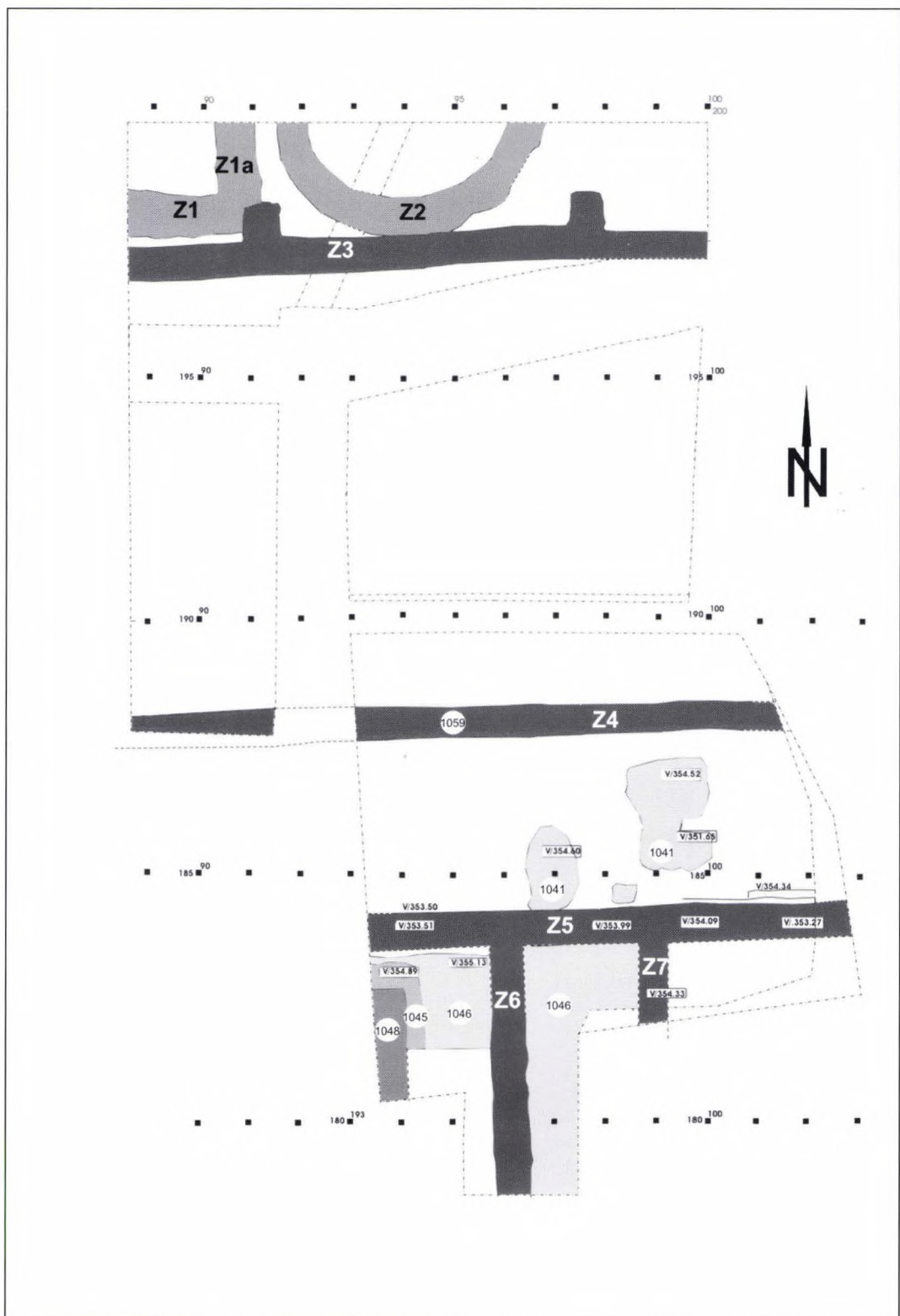
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Pl. I. Central Store general plan with main features.



Pl. II. Central Store plan of Roman stone buildings phase 5.



1



2

Pl. III. 1. General view of the excavation at Cenral Store; 2. Northern part of the excavation with Roman stone structures and earlier burnt layers (contexts 1058, 1035, 1053 and the upper part of 1063).



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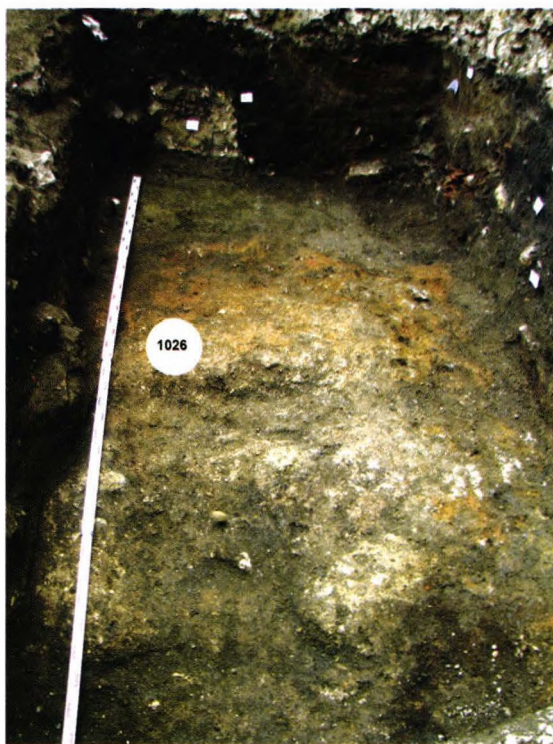


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PI. IV. 1. First structures in the central area; 2. Trench S I, first Roman phase: kiln C. 1017; 3. Stone ring C. 1054, between second and third Roman phase (timber buildings).

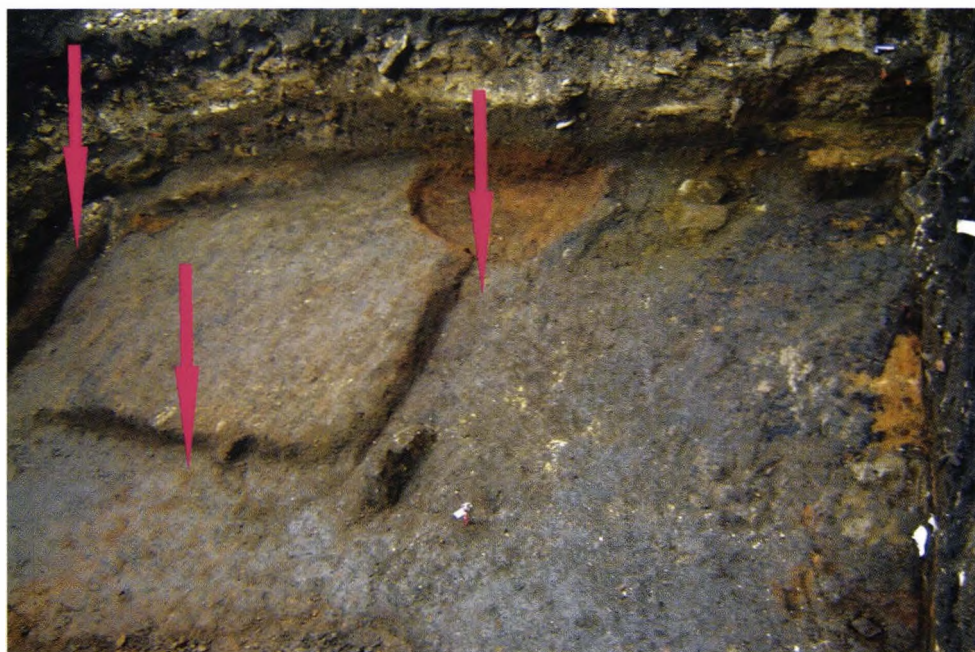


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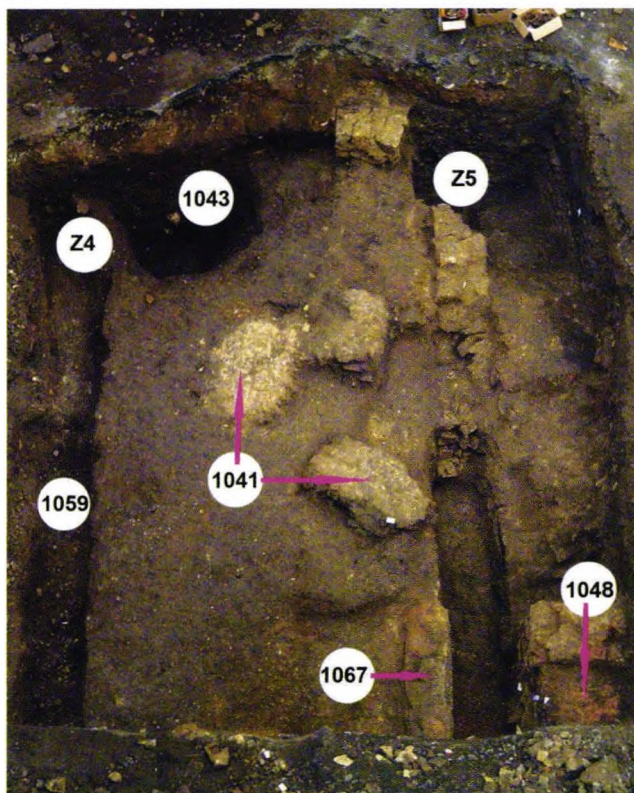


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Pl. V. 1. Demolished timber wall C. 1026 from S III; 2. Demolished timber wall C. 1028 from S II.

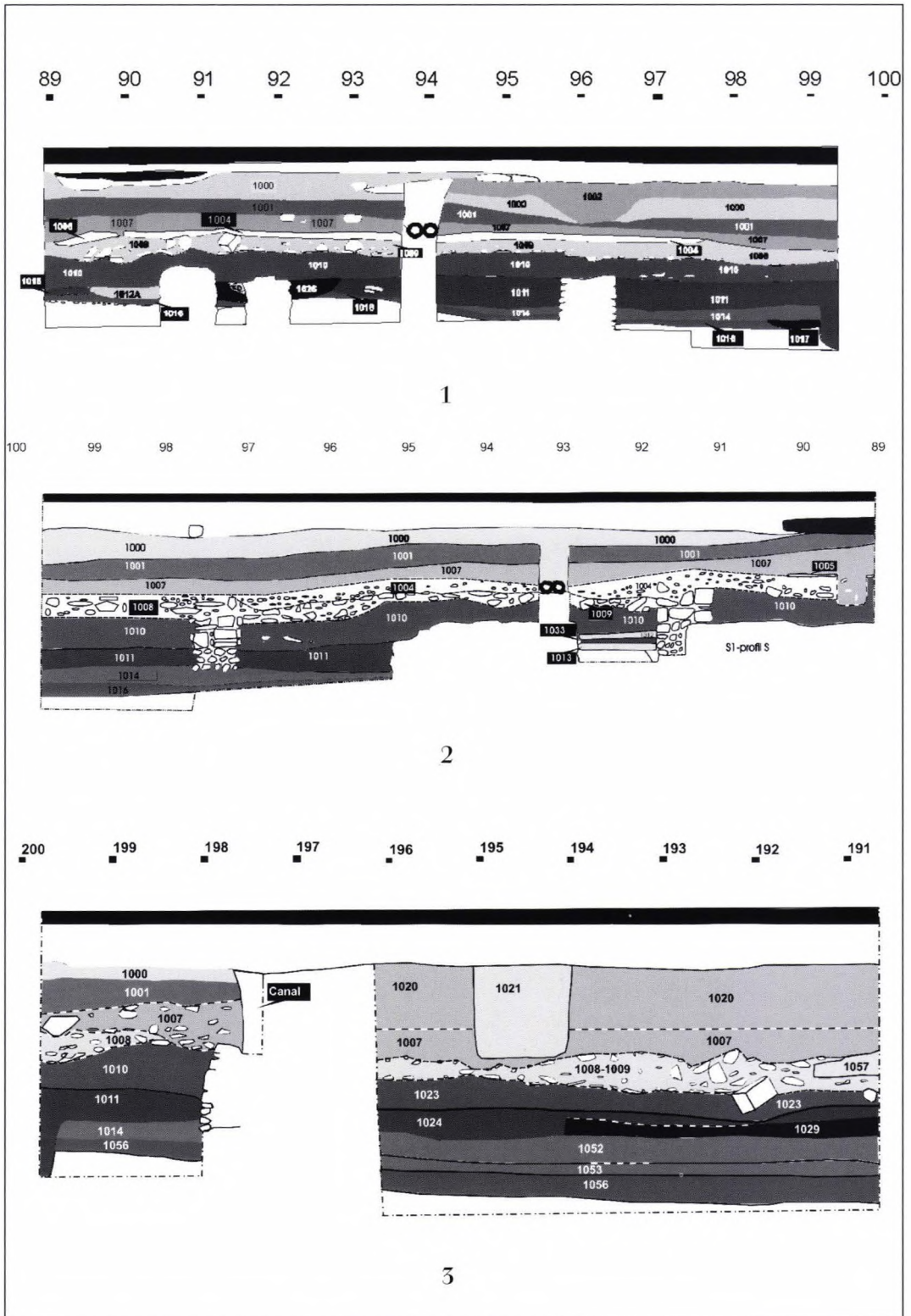


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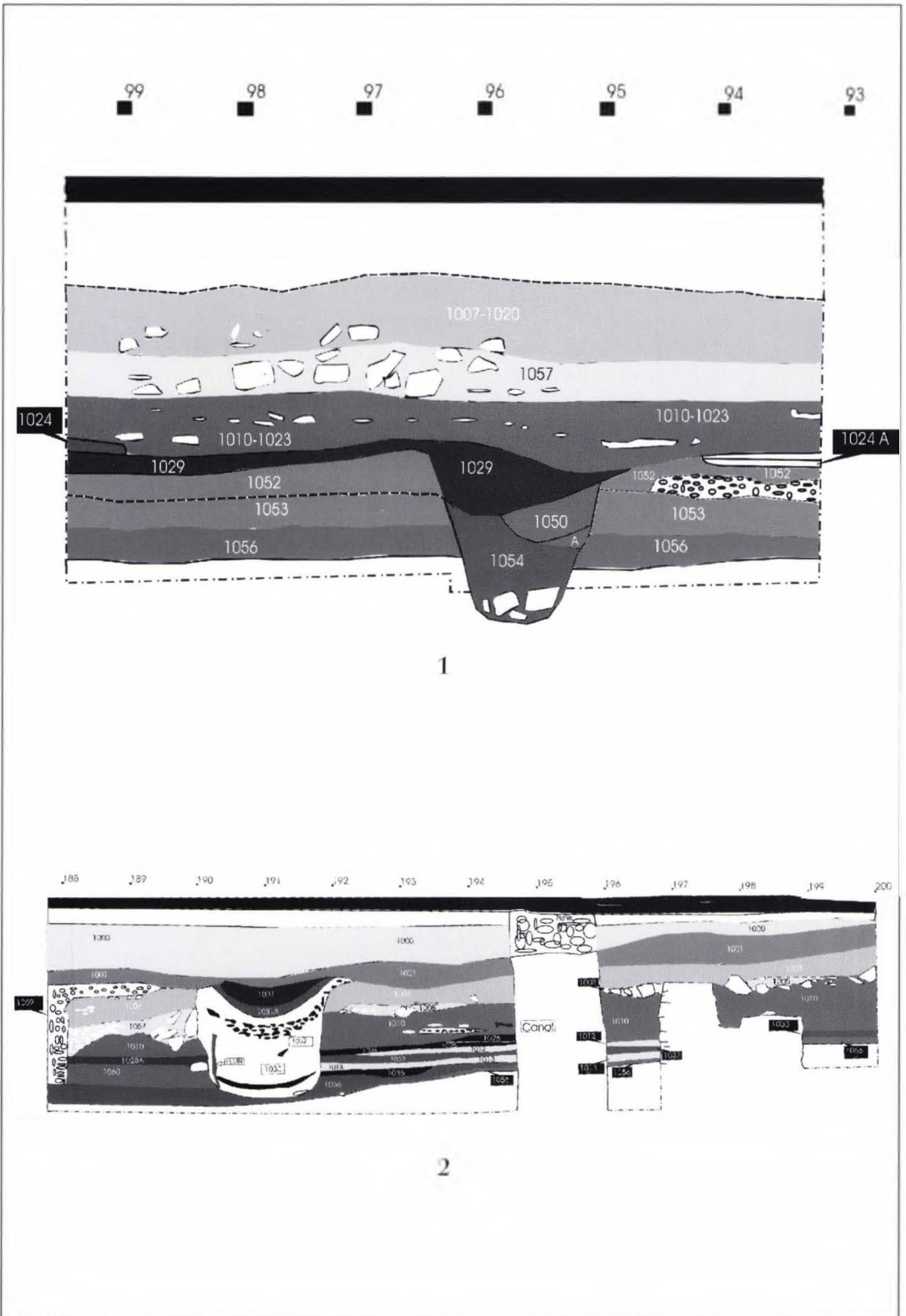


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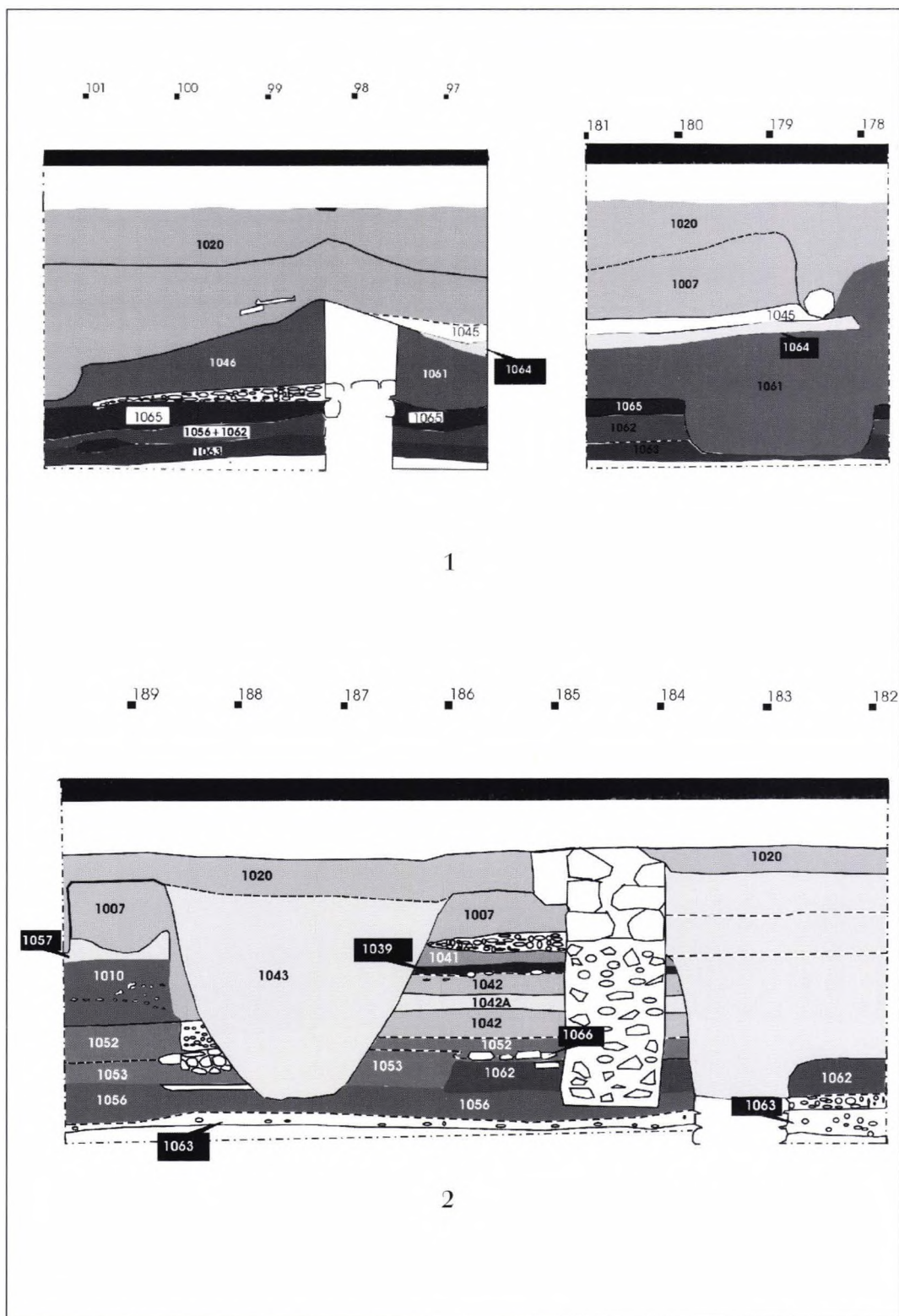
Pl. VI. 1. Traces of timber walls (indicated by arrows); 2. Trench SIV. Southern area. The corridor of the Roman building (phase 5). Robbing trenches of the walls and fragmentary floors.



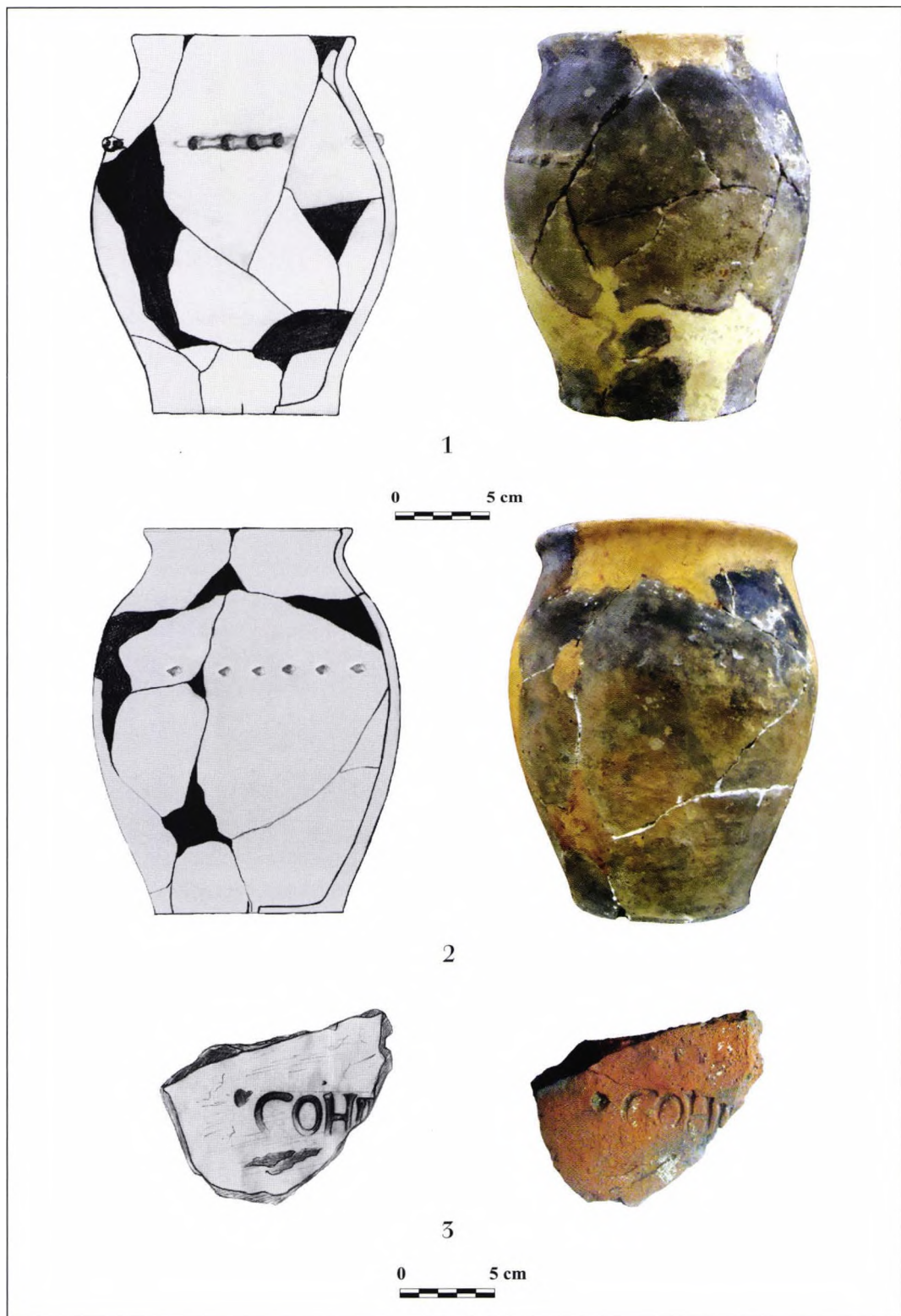
Pl. VII. Trench S I: 1. Northern and southern profiles; 2. Trench S I, southern profile; 3. Trenches S I and S II, eastern profile.



Pl. VIII. 1. Trench S II, south profile; 2. Trenches S III and S I, western profile.



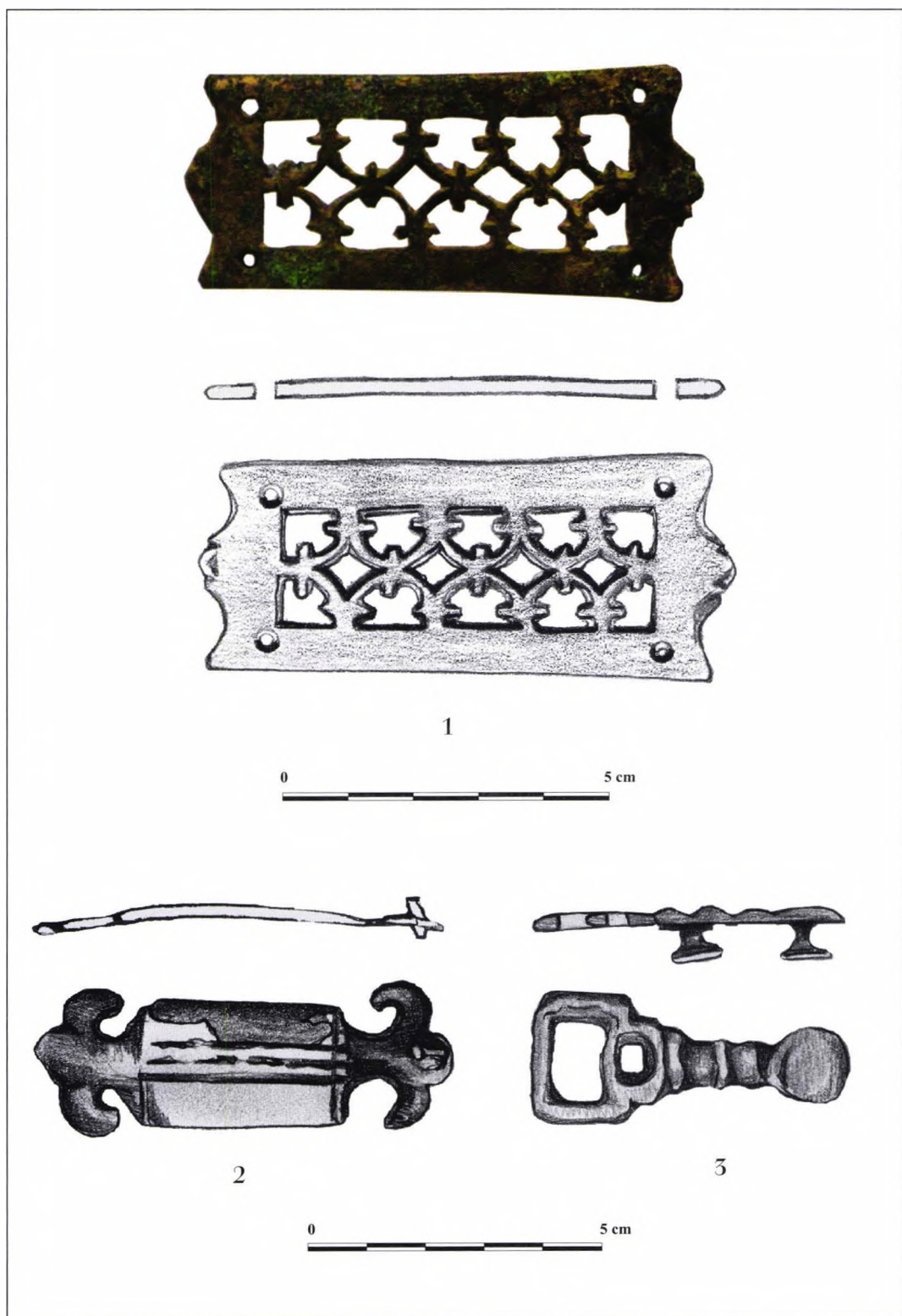
PI. IX. 1. Trench S V, eastern profile; 2. Trench S IV, eastern profile.



Pl. X. 1-2. Late Iron Age – Early Roman pottery (catalogue 2.1.1–2.1.2); 3. Tile with the stamp of *coh. II Hispanorum*.



PL. XI. 1-3. Brooches (catalogue 2.2.2.1–2.2.2.3); 4. Strep terminal (catalogue 2.2.2.10).



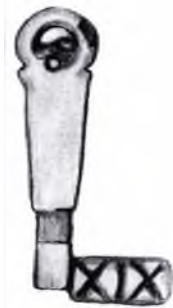
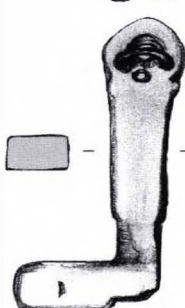
Pl. XII. 1-3. Belt fittings and fastener (catalogue 2.2.2.4–2.2.2.6).



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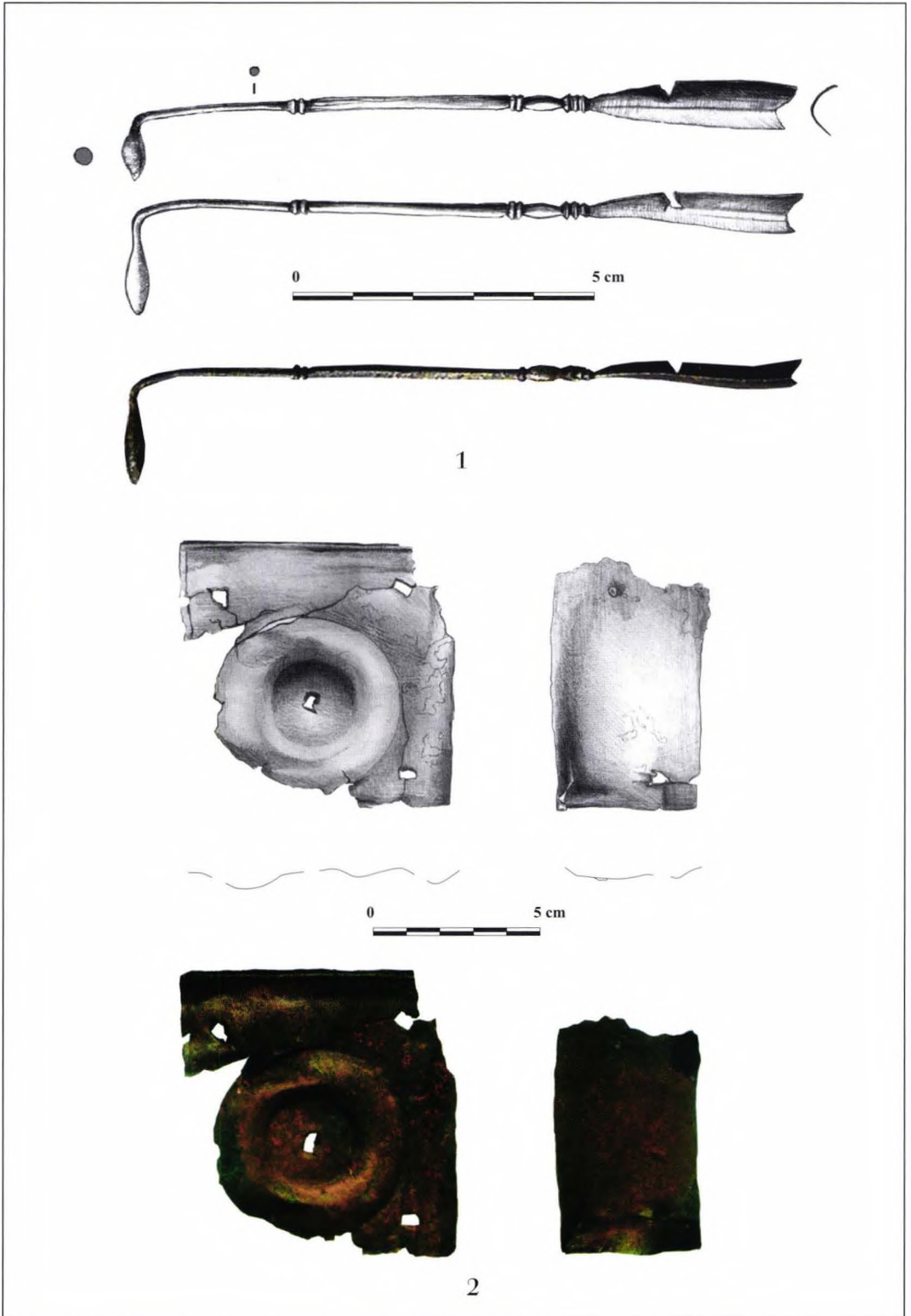


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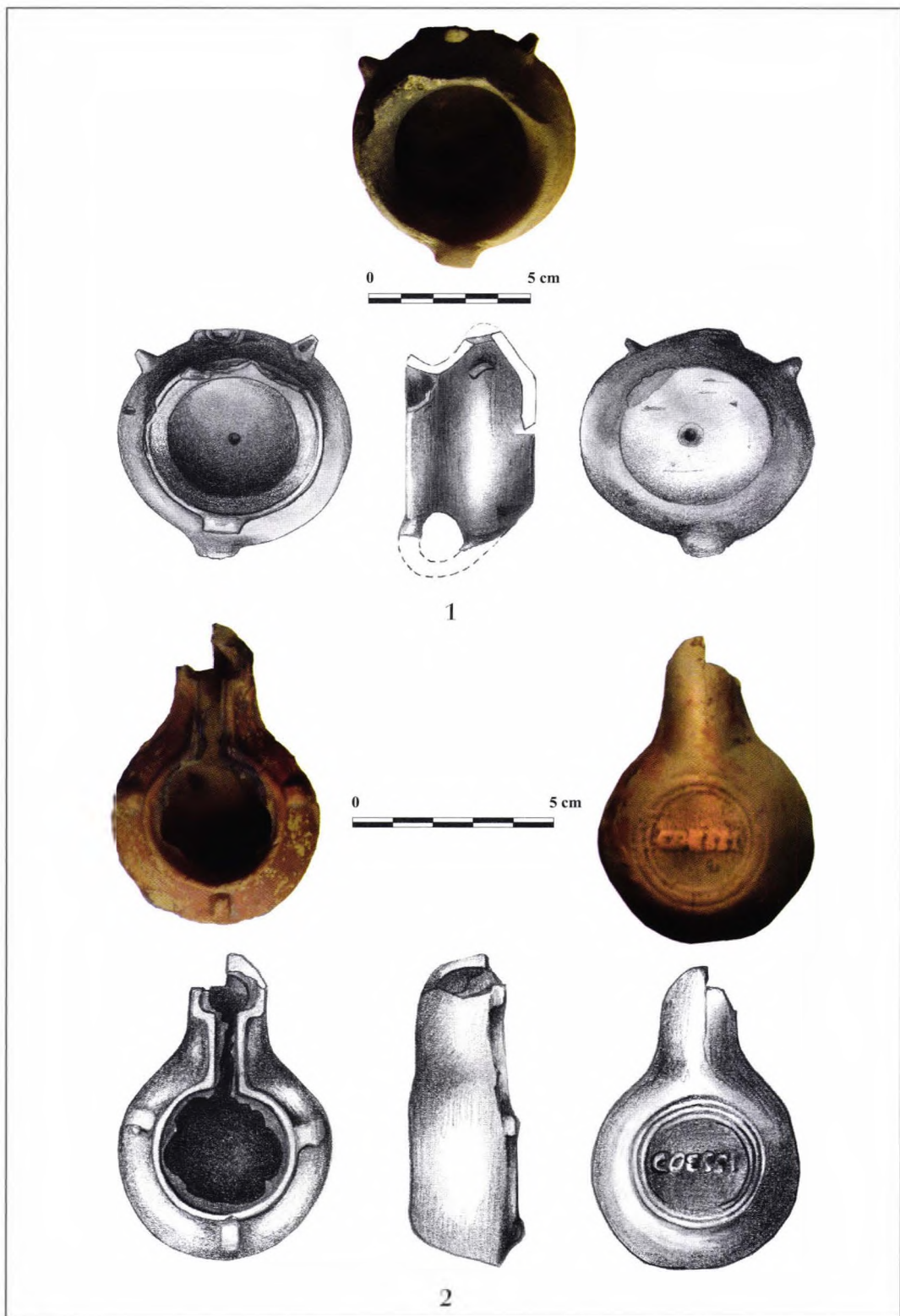


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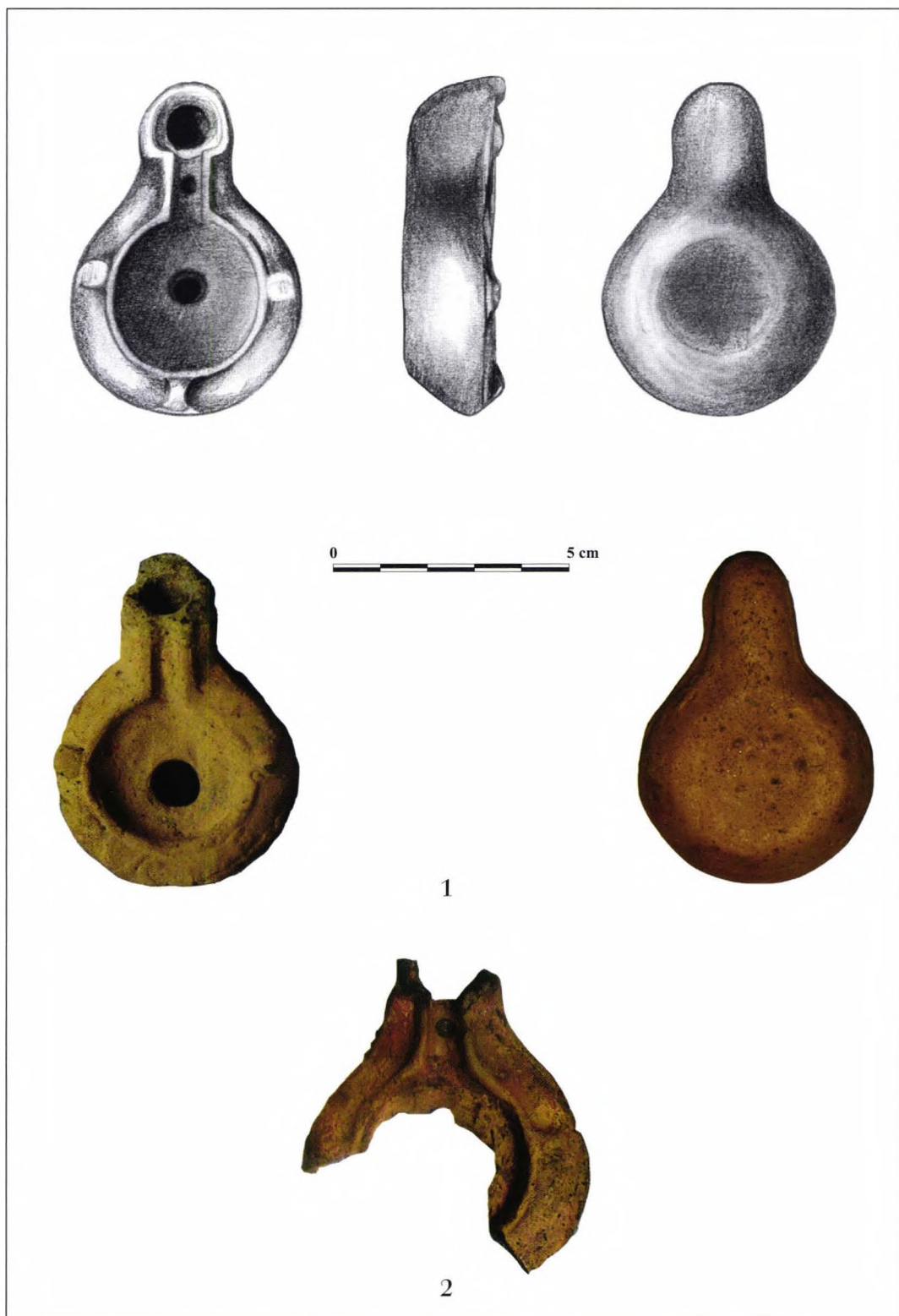
Pl. XIII. 1-3. Keys (catalogue 2.2.2.7).



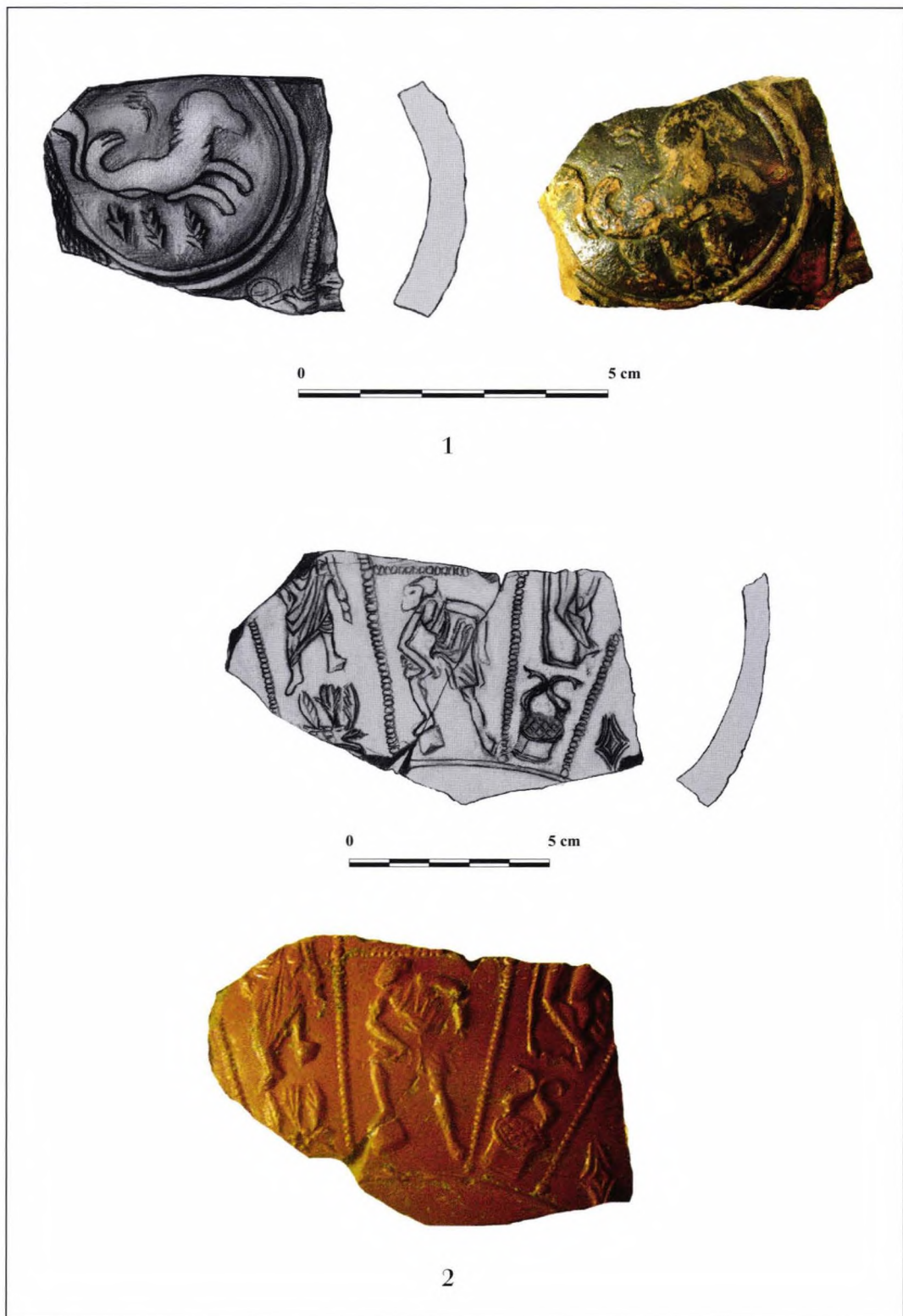
Pl. XIV. 1. Medical pharmacy-cosmetic spoon (catalogue 2.2.2.8); 2. Chest fittings (catalogue 2.2.2.9).



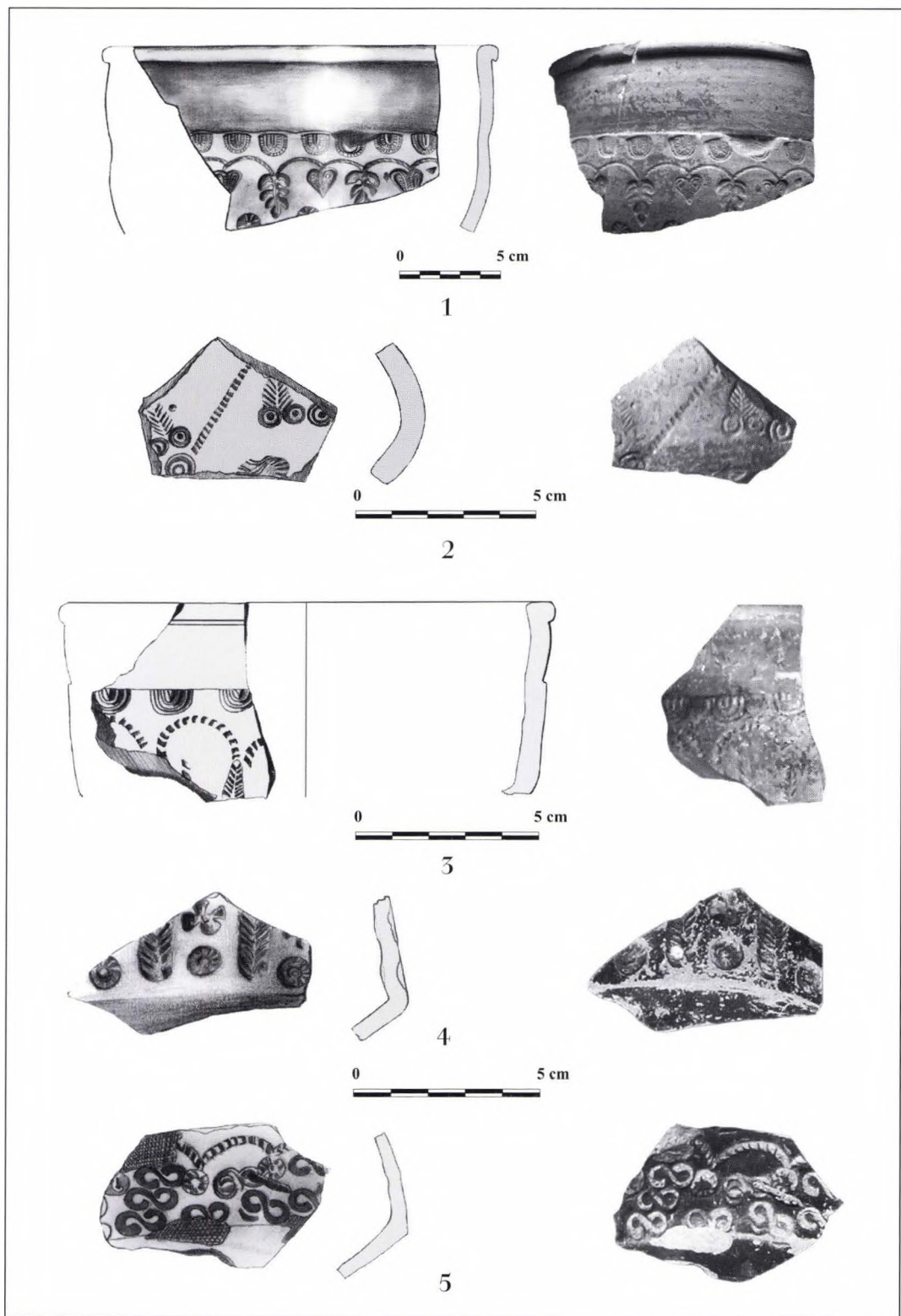
Pl. XV. 1-2. Roman lamps (catalogue 2.2.3.1, 2.2.3.4).



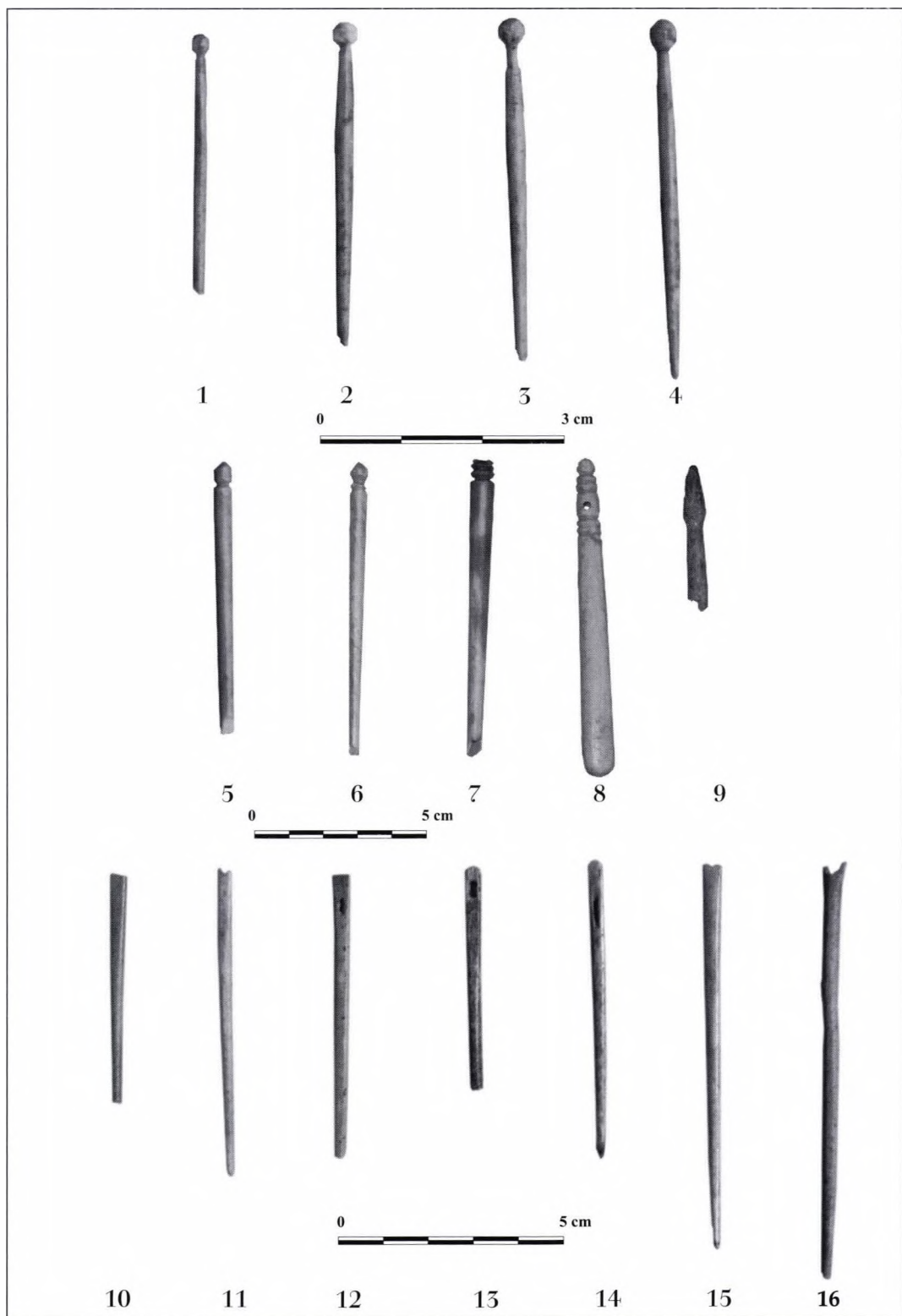
Pl. XVI. 1-2. Roman lamps (catalogue 2.2.3.2–2.2.3.3).



Pl. XVII. 1-2. Samian ware (catalogue 2.2.4.1.1-2.2.4.1.2).



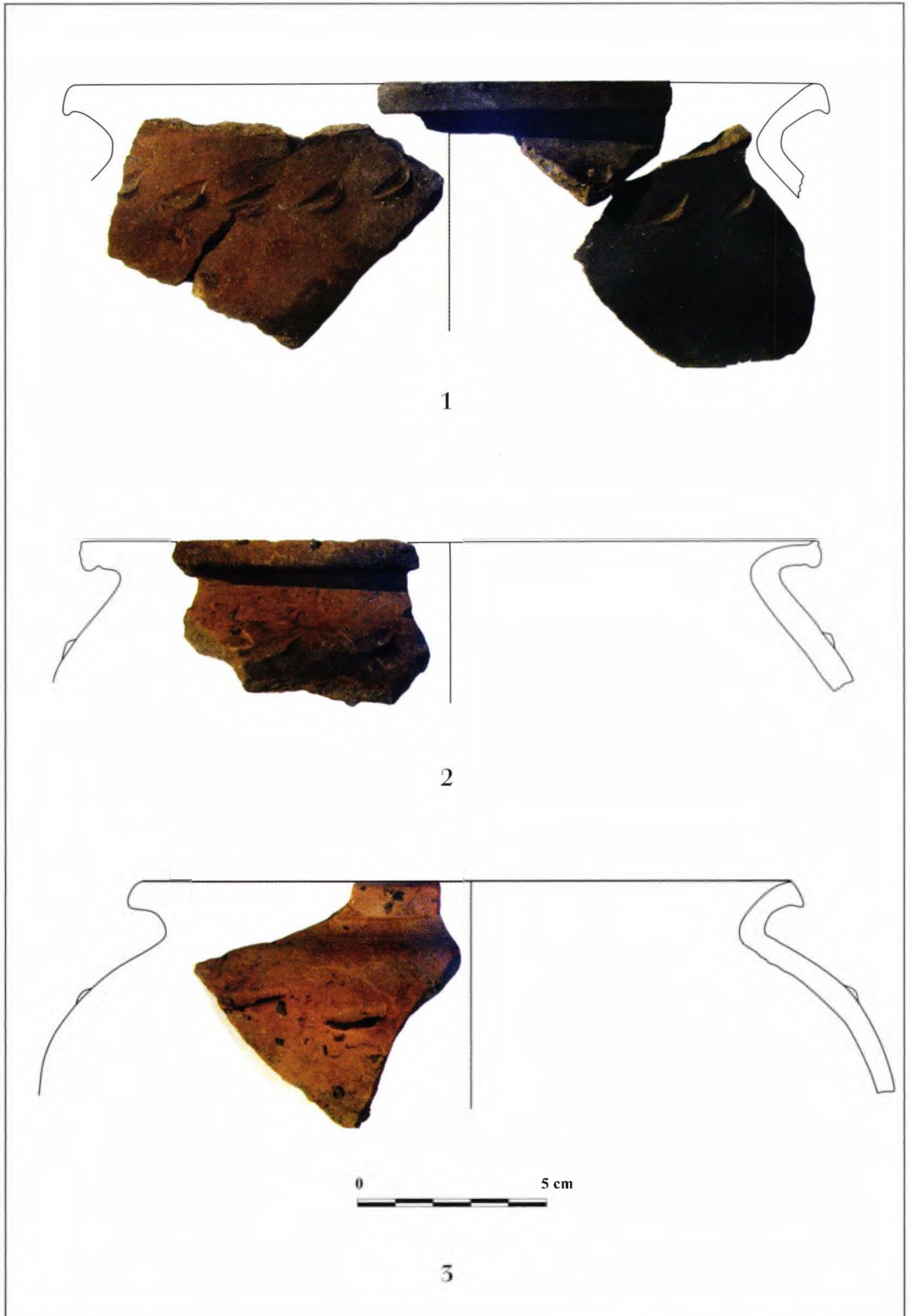
Pl. XVIII. 1-5. Stamped pottery (catalogue 2.4.2.2).



Pl. XIX. Bone objects: 1-4. Pins with globular heads (catalogue 2.2.6.1); 5. Pin with double pyramid head (catalogue 2.2.6.1.2); 6. Pin with double pyramid head and collar (catalogue 2.2.6.1.3); 7. Pin with head separated by a succession of grooves and fillets (catalogue 2.2.6.1.4); 8. Pendant in shape of Hercules club (catalogue 2.2.6.4); 9. Unfinished pin (catalogue 2.2.6.1.6); 10-16. Needles.



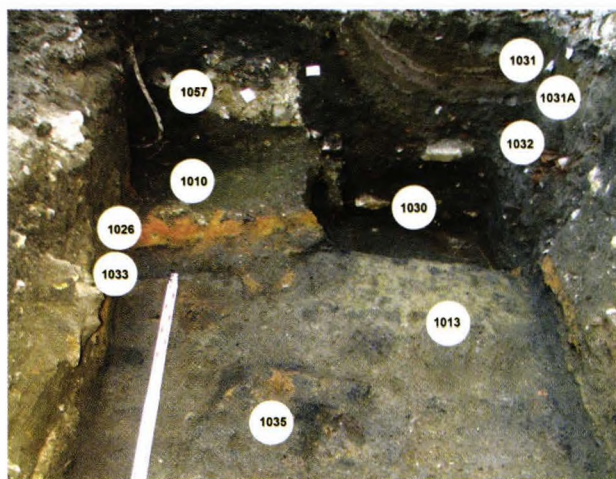
Pl. XXI. 1-3. Early 16th century pottery from C. 1030.



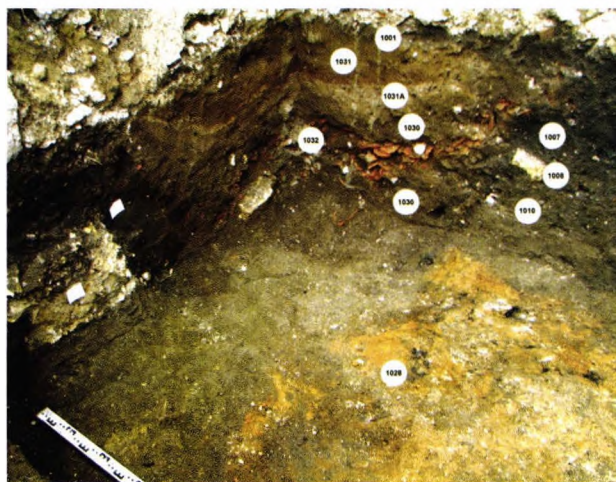
Pl. XX. 1-3. Mediaeval pottery (11th-12th century).



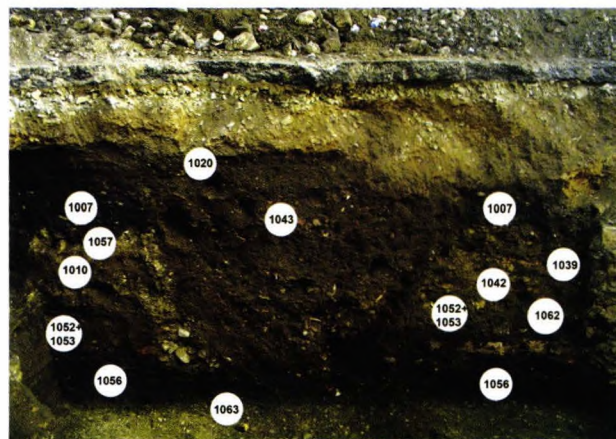
Pl. XXII. 1. Stove tile with the emblem of Mathias Rex; 2. Stove tile with stylized decoration from C. 1043.



1



2



3

Pl. XXIII. 1-2. Early 16th century pit cutting Roman layers. 3. Later 16th century pit, also cutting through Roman layers.

FAUNA IDENTIFIED SUBSEQUENT TO RESCUE EXCAVATIONS PERFORMED AT “CENTRAL” SHOPPING CENTER–DEVELOPMENT¹

ALEXANDRU ION GUDEA

Abstract: This study is an archaeozoological investigation carried out on an animal bone sample collected in occasion of the archaeological discharge excavations performed on Cotită St., in Cluj-Napoca. The excavations revealed Roman, 11th-12th centuries and 17th-18th centuries remains. The analysis of the archaeofaunal remains was made separately, according to the layers of archaeological material suggested by the archaeologists. The largest sample dates to the Roman period (over 2000 bone fragments), while the other two samples are small, consisting of a few hundred bones (1-2).

This article attempts, based on the available data resulting from the three different inhabitancy levels, to present a comparative view of the means by which the specificities of the archaeofaunal sample vary over time on the same surface unit, as well as to make a brief and comparative approach (in the case of the Roman period sample) of the contemporary sites studied from archaeofaunal view.

Keywords: Archaeozoology; animal bones; archaeofaunal sample; Roman period; animal species; animal economy.

Rezumat: Studiul de față este o investigație de tip arheozoologic făcută pe un eșantion de oase de animale recoltate cu prilejul săpăturilor de descărcare arheologică făcute pe strada Cotită, în Cluj-Napoca. Săpăturile au scos la iveală resturi ale perioadei romane, ale secolelor XI-XII și ale secolelor XVII-XVIII. Analiza resturilor arheofaunale a fost făcută separat, în funcție de straturile de material arheologic indicate de către arheologi. Eșantionul cel mai mare este cel de epocă romană (peste 2000 de fragmente osoase), pentru ca celelalte două eșantioane să fie mici, constituite din câteva sute de oase (1-2).

Articolul de față încearcă, în baza datelor disponibile reieșite din cele 3 nivele de locuire diferite, o privire comparativă a modului în care caracteristicile eșantionului arheofaunal variază în timp pe aceeași unitate de suprafață, ca și o scurtă abordare comparativă (pentru eșantionul de epocă romană) cu situri contemporane studiate din această perspectivă arheofaunală.

Cuvinte-cheie: Arheozoologie; oase de animale; eșantion arheofaunal; epoca romană; specii animale; economie animală.

Introduction

Osteoarchaeology (archaeozoology) known in Romania as paleofaunistics or zooarchaeology is a science directed to the study of animal remains discovered in archaeological sites.

The aim of archaeozoology is to provide a meaning and a better understanding of the relations between humans and the environment, especially between human

¹ Material drafted during 2007-2008 (unpublished at the time) and shortly reviewed in 2012.

populations and other animal populations, supplying data referring to the morphological features of the identified animals as well as accurate data on the means these species were exploited by the ancient populations.

Data on the material origin

The analysed bone material comes from the archaeological excavations carried out in the back of "Central" shopping center in central Cluj-Napoca city (Cotită street). These excavations were required due to the extension of the commercial spaces in the above shopping center and were integral part of an archaeological discharge agreement entered with the archaeologists of "Babeş-Bolyai" University.

The archaeological excavations revealed parts of two Roman buildings and a part of an inner courtyard, overlapped by other two inhabitancy levels, one dating to the 11th-12th and the other to the 16th-17th centuries².

Method

The bone material cleaned on the collection spot was taken from storage and transported to the Comparative Anatomy Laboratory of the Faculty of Veterinary Medicine in Cluj-Napoca.

The analysis consisted in separating the bones according to anatomical features and the removal of the unidentifiable fragments, followed by the identification of the species by anatomical examinations³. The bones were allotted to the limb they pertained to (in order to determine the minimum number of individuals).

We took notes concerning human processing prints⁴ in the case of fragments exhibiting cutting tool traces. Age estimations were carried out by both the analysis of bone epiphysation stage⁵ as well as by dental eruption and wear⁶. Measurements were taken via the standard measurements used in osteometry⁷. In addition, where made possible by the material, we recorded the so-called sub-pathological conditions providing information on the use of some of the species for labour purposes⁸.

Results

The analysis results shall be described separately, according to the dating of the examined samples.

² We wish to thank herein lecturer Alexandru Diaconescu for the kindness of having provided us with the material for analysis and also for the supplied information.

³ Gheție 1971; Schmid 1972, 75; Hillson 1992; Popovici et alii 1995.

⁴ Lauwerier 1988, 23-78.

⁵ Schmid 1972, 75.

⁶ Grant 1985; Udrescu, Bejenaru, Hrișcu 1999.

⁷ Desse, Chaix, Desse-Berset 1986.

⁸ Bartosiewicz, van Neer, Lentacker 1997, 45-270.

Roman period sample

It represents the largest part of the material under analysis. The examined bones belong to the following species:

Large ruminants

Bone	Right limb	Left limb	Uncertain
Scapula	12	11	3
Metacarpals	2 complete 7 pe 4 de	3 complete 14 pe 1 de	11 de
Metatarsals	7 de 7 pe 1 complete	4 de 2 pe 1 diaf	12
Humerus	3 pe 5 de	3 pe 7 de	2 diaf
Radius	7 pe 3 de	9 pe 5 de	2 de
Ulna	2	6	
Coxal bone			20
Femur	5 pe 1 de 3 diaf	4 pe 3 de 1 diaf	3 3 diaf
Patella			2
Tibia	4 pe 5 de 1 de Cervus	1 pe 3 de	3
Calcaneus	5	4	
Astragalus	1	7	
Cuboscafoid	1	1	
Mandible	10 symphyseal parts 5 articular parts 15 mandibular ramus	5 symphyseal parts 5 articular parts 14 recurved parts 10 mandibular ramus	
Vertebrae	Atlas-9 Axis-9 Cervical vert 28 Thoracic vertebrae 44 Lumbar vertebrae 7		
Ribs			243
Maxilla	9	11	8
Neurocranium	47 25 horn core (6R,6L)		
Splanchnocranium	9 incisor		
Phalanx I	31		
Phalanx II	11		
Phalanx III	3		
Teeth	64 M-PM		

Bone	Right limb	Left limb	Uncertain
Unidentified	9 mc-mt		

pe-proximal epiphysis, de- distal epiphysis

Scapula

The identified fragments are mostly parts of articular angle, reason for which more detailed measurements of the articular parts were possible. Concurrently, based on the specific morphological elements, we could identify with most certainty a fragment that belonged to species *Cervus elaphus*, while other two supposedly originated in the same species⁹.

Part	4	6	7
R Cervus?	45	46	41
R Cervus	35	42	39
R	58	61	56
R	57	60	54
R	62	62	55
R Cervus?	35		
R	45		
R		58	54
R		59	
R		45	
L	54	57	48
L		49	40
L			44
L	54	56	49
L	58		
L	70	71	58
L	52	58	46
L	51		

4-minimum AP diameter of the colum

5-AP diam in the articular process

6-AP diam glenoid cavity

Most of the fragments exhibited chop marks at the level of the scapular spine, resulting in the spine severing, and the cut off of the edges of the articular angle or even in the articular surface removal.

Humerus

The proximal parts of the identified humeri provided no metrical data. The ossification stage may be estimated only in the case of 2 fragments, evidence for origin in 2 specimens over 3.5-4 years of age. In the case of one fragment, we could note ossification "just barely", evidence of age close to the above mentioned value. Commonly, proximal fragments represent detachment or rupture of the articular head, which hinders the accurate estimation of the epiphysation stage.

⁹ Prummel 1988, 3-52.

More data are offered by the diaphyseal and distal epiphyseal parts. They allow the identification of a minimum number of 7 specimens over 1.5 years of age (distally completed ossification)¹⁰ and provide certain partial metrical data as well.

Part	3	4
R	76	
R	83	
L	67	
L	81	
L	78	36

3-distal epiphysis breadth

4-minimum diaphysis breadth

Radius

There are two almost complete fragments of the left limb. One of them is not distally ossified, lacking the distal epiphyseal fragment. It evidences origin in a specimen aged between 1.5 and 3.5 years old. Another complete fragment, almost distally ossified, points to a specimen of 3.5-4 years of age¹¹. This single fragment also allows size recalculation. The obtained value¹² is 149 cm.

Proximal epiphysis fragments are completely ossified, evidence of origin in specimens over 1-1.5 years of age¹³. Some of them exhibit chop marks, which resulted in the severing of either the lateral articular surface or the lateral tuberosity.

The identified distal epiphysis fragments are ossified, evidence of origin in specimens over 3.5-4 years of age¹⁴. Cut marks were identified in this case too, both at the lateral side level of the distal epiphyseal part as well as on the connection to the cranial side of the extremity.

Ulna

Ulna fragments are largely olecranal. Most often, the tuberosity is noticeably cut off as a result of meat removal. The ossification stage of the tuberosity evidences origin of the fragments in specimens over 3.5-4 years of age, except for a fragment with an obvious unossified tuberosity, pointing to younger age¹⁵.

This segment is of no interest from the metrical data point of view, yet it is obvious that from gross size estimation standpoint, one may establish two categories: smaller fragments and robust fragments (poorly represented numerically).

¹⁰ Schmid 1972, 75.

¹¹ Schmid 1972, 75.

¹² Kokabi 1982, 75, 5-167.

¹³ Schmid 1972, 75.

¹⁴ Schmid 1972, 75.

¹⁵ Schmid 1972, 75.

Metacarpals

Part	1	2 (4)	3 (5)	4 (6)	6 (9)	9	10
R	178	56	35	31	58	F	1123
R	222	65	40	36	68	M	1489
R		57	36				
R		63	36			M?	
R		51	31				
?					70		
?					64		
?					66		
?					62		
?					65		
?					64		
?					62		
?					54		
?					54		
?					52		
?					46		
L	190	51	31	29	52	F	1198
L	185	50	31	26	50	F	1167
L	185	50	29	26	51	F	1167
L		57	34				
L		54	32				
L		60	35				
L				40			
L		64	37			M?	
L		54	32	31			
L		56	34				
L		54	34				
L		52	32				
R Cervus		44	25				

1-maximum length

2-proximal epiphysis breadth

3-maximum proximal antero-posterior diameter

4-minimum diaphyseal breadth

6-distal epiphysis breadth

9-presumed gender

10-height (see Boessnek 1971, 270)

The identified metacarpal fragments are largely coming from adult specimens. Distal epiphyseal parts are ossified, evidence of origin in a minimum 9 specimens over 2-2.5 years of age. The single clues concerning younger animals are provided by 4 distal fragments of the left limb distally unossified, indicator of minimum 4 specimens under 2 years of age.

Due to the proximal epiphysis fragments, the estimation of the minimum number of specimens based on this skeletal segment rises to 14.

Noticeably, these fragments exhibited no sub-pathological aspects specific to animal draught¹⁶ and many of them showed cut marks.

¹⁶ Bartosiewicz, van Neer, Lentacker 1997, 189.

Only a single identified fragment was assigned with certainty to species *Cervus elaphus*¹⁷.

Gender discrimination was made based on diaphyseal and epiphyseal index values (where possible) and on more complex graph methods targeting comparative metrical aspects (in the case of several Roman period sites). Thus, we may argue that a complete fragment comes from a male and the rest of the complete fragments come from females. In the case of the graph representation, other two males may be supposed based on the metrical data of the proximal epiphysis.

Height estimation was possible in the case of 5 complete bones - those of the right limb provided the height for 1489 (male) and 1123 (females) and those of the left limb, the values of 1198 respectively 1167 mm (all females)¹⁸.

Femur

Proximal femoral fragments are represented by articular and nonarticular parts. Most exhibit complete ossification, evidence of origin in specimens over 3.5 years of age¹⁹. One of the left limb fragments, massive, still unossified, belongs to a specimen younger than 3.5 years of age. The identified distal fragments (the distal breadth of 2 fragments is of 95 mm) cannot but to confirm the supposition that minimum 3 specimens (of the estimated 5) over 3.5-4 years of age²⁰ existed.

No chop marks were noticed on these fragments.

Tibia

Proximal tibial fragments come from 4 specimens over 3.5-4 years of age²¹.

The identified distal tibial fragments come from a minimum 5 specimens of *Bos taurus* over 2 years of age²². A single fragment was identified as certainly coming from a *Cervus elaphus* specimen²³.

Notably, some of the fragments exhibited burning traces.

Part	1	2	3	4
L		72		
R cervus		53		34
R		60		
R		60		
R		60		
R	85			39
L	84			
R	84			

1-proximal epiphysis breadth
2-distal epiphysis breadth

3-maximum length
4-minimum diaphyseal breadth

¹⁷ Prummel 1988, 3-52.

¹⁸ Boessnek et alii 1971.

¹⁹ Schmid 1972, 75.

²⁰ Schmid 1972, 75.

²¹ Schmid 1972, 75.

²² Schmid 1972, 75.

²³ Prummel 1988, 3-52.

Tarsals

There were identified 5 right limb and 4 left limb calcanei. The ossified calcaneal tuberosity in all 5 calcanei of the right limb points to 5 specimens over 3 years of age. A single left limb fragment had unossified tuberosity, evidence of origin in a specimen younger than 3.5 years of age²⁴.

Typical meat removal traces were noted, some of the fragments having the calcaneal tuberal portion cut off.

Part	1
R	132
L	123

1-maximum length

Astragali (counting 8, 7 of the left limb and 1 of the right limb) could be measured, being not very decayed.

Part	1	2
L	71	65
L	61	56
L	64	59
L	66	61
L	56	51
L	58	54
L	56	52
R	74	70

1-maximum external length

2-maximum internal length

The morphological features of species *Cervus elaphus* were not identified.

The identified cuboscafoids are rather small in size and they might belong to species *Cervus elaphus*, however for the lack of specific diagnosis elements they were assigned to the general group of large ruminoids.

Metatarsals

The identified metatarsal fragments were entirely assigned to species *Bos taurus*, lacking other morphological aspects leading to the estimation of different species. One may determine that the distal epiphysis fragments come from a minimum 8 specimens over 2-2.5 years of age²⁵.

Part	1	2	3	4	5	6	9	10
L				28		56		
L						56		
L						56		

²⁴ Schmidt 1972, 75.

²⁵ Schmid 1972, 75.

L				23	48		
L		49	48	34			
L		42	40	32			
R	244	57	52	30	63	m	1464
R				21	47		
R					60		
R					62		
R					48		
R				30	54		
R				29	55		
R					56		
R		36	38				
R		44	44				
R		45	44				
R		42	40				
R		45	43				
R		53	49				
R		52	49				

1-maximum length

2-proximal epiphysis breadth

3-maximum proximal antero-posterior diameter

4-minimum diaphyseal breadth

5-minimum diaphyseal antero-posterior diameter

6-distal epiphysis breadth

9-presumed gender

10-height (see Boessnek 1971, 270)

Height may be recalculated for the single complete bone identified. We suppose it comes from a male specimen, whose recalculated height is of 146 cm.

Noteworthy, sub-pathological signs specific to draught animals²⁶ were not visible at the level of the distal metatarsals and only a small number of fragments exhibited cut marks on their surface.

Phalanxes

A rather large number of phalanxes were identified, however data of certain significance are provided by the proximal phalanxes. Noticeably, among these fragments, we suppose the existence of minimum 3 fragments that pertain to species *Cervus elaphus*.

	1	2
	65	28
		28
	52	21
		26
	56	25
Cervus	65	18
Cervus?	54	20
Cervus?	53	20
	55	24
	56	27

²⁶ Bartosiewicz, van Neer, Lentacker 1997, 89.

59	26
56	22
	22
65	28
55	22
63	25
63	28
65	31
66	33
67	29
63	28
55	28
57	27
65	27
62	28
62	26
62	24
67	26
64	25
64	28
61	24

1-maximum length
2-minimum diaphyseal breadth

Cranium

The fragments identified as neurocranium parts come largely from periorbital and cranium base parts. One should not neglect the rather large ratio of frontal bone fragments. Often, cuts are noticeable (most likely made by a saw) on the horn core for detachment from the skull.

Horn core parts (12) could be measured at base. Data are illustrated in the table below:

	1	2
R	59	47
R	45	38
R	57	51
R	53	45
R	67	52
L	55	44
L	75	54
L	54	40
L	56	41
L	52	38
L	55	44
	71	60
	38	35
	67	52
	40	32

54	45
44	35
57	44
53	35
43	38

1-anteroposterior diameter
2-lateral diameter

Unfortunately, the lack of consistent comparative data allows no hazardous estimations on horn types. It is though certain that the flattening index is rather broad in variation, ranging from 92 to 66, with values predominantly placed in the 75-85 interval. Additionally, it was noted that very small-sized fragments were present beside large, massive fragments, however such data could not be correlated with obvious morphological distinctions.

Maxilla

We chose to make a separate description of maxilla fragments since most often this category of bone fragments provides information on animal age classes by the presence of dental series and wear stages.

Since not all fragments have complete molar rows, age estimations were made by inclusion (where the material made it possible) upon age classes or by estimation of a minimum limit of animal age²⁷.

Part	Present dental element	Wear degree	2	Age class
L	PM3, M2	M2+/-	82	Over 2-2.5 a
R	PM3, M2	M2+/-		Over 2-2.5 a
L	PM3, M1, M2			2.5-3 a
L	PM1, PM2, PM3	PM3+		Over 2.5-3 a
L	M1, M2	Slightly worn		Over 1.5-2 a
L	PM1, PM2, PM3	Unworn		Over 2.5-3 a
L	M1, M2, M3		73	Over 2.5-3 a
L	M1			Over 2.5-3 a
L	PM2, PM3, M1, M2, M3	M3+/-	72	3.5-5 a
L	pM2, pM3, M1, M2, M3	M3 exiting		2.5-3 a
L	M1, M2, M3	M3+/-	82	3.5-5 a
L	M1, M2			Over 2.5 a
R	M1sM2	Unworn		Over 1.5-2 a
R	PM2, PM3, M1, M2, M3	M3 not reaching at level	81	2.5-3.5
R	M3	M3+/++		3.5-5 a
R	M1, M2, M3	M3+/-	79	2.5-3,5 a
R	M1, M2, M3	M3+/++		3.5-5 a
R	M1, M2, M3	M3+/++		3.5-5 a
R	PM2, PM3, M1			Over 2.5-3 a
R	M2, M3			Over 2.5-3a

²⁷ Grigson 1985, 7-19; Haimovici, Teodorescu 1995, 195-208.

Part	Present dental element	Wear degree	2	Age class
R	PM1-M3	M3+/-	70	2.5-3.5 a
R	M1sM2			Over 2-2.5 a

2-length of jugal teeth

Based on these fragments we estimated a minimum number of 11 specimens whose age upon sacrifice could be framed in the case of minimum 3 specimens in the 3.5-5 interval and for other 3 specimens in the 2.5-3 age interval, other 5 specimens remaining framed in the category over 2.5 years of age and another in the category over 1.5 years, whilst for the last two categories it was impossible to establish an upper limit.

Mandible

Mandibular fragments are in greater numbers and comprise rather complete dental series. In the case of these fragments also, we categorised the identified portions in 3 classes: mandibular ramus parts (the most important), articular angle parts and symphyseal parts.

In the case of mandibular ramus parts, we collected several metrical data like those referring to eruption and wear stages and estimated, based on their quality, either distinct age classes or minimum age limits²⁸.

Part	Present dental element	Wear degree	Estimated age	1 (7)	2 (8)	3 (9)	4 (18)	5 (17)	6 (16)	7 (10)	8 (11)
R	PM1-M3	M3+/-	2.5-3.5 a	132	61	70	42	51	78	35	14
R	M2, M3	M3++	5-7 a						67	40	16
R	PM3		2.5-3.5 a		86			56	84	38	16
R		M3 exiting	2-2.5						74		
R	PM3-M3	M3+, PM3 unworn	3.5-5 a		87			51	74	37	13
R	M1, M2		Over 2.5-3.5 a					64			
R	M1, M2		Over 2.5-3.5 a					44			
R	M3	M3+	3.5-5 a							38	14
R	M3	M3 unworn	2.5-3.5 a							32	14
R	M1-M3	M3++	5-7 a							38	16
R	PM2-M3	M3+/++	3.5-5 a		87					37	15
R	M2, M3	M3+	3.5-5 a								13
L	M1, M2		2.5-3.5 a		87						
	M3	M3 unworn	2.5-3.5 a							34	13
	PM1, PM2		Over 2-2.5 a						67		
	PM2-M1	Anomalies worn M1++	Over 2.5-3.5 a								
	M1-M3	M3+	3.5-5 a		87					36	15
	M2		Over 2.5-3 a							42	15
	M1-M3	M3+	3.5-5 a		85					36	16
	M1-M3	M3 unworn	2.5-3.5 a	139	86	55		48	70	36	13
	M1-M3	M3 unworn	2.5-3.5 a		84			48	73	36	11
	M3	M3 exiting	2.5-3								
	M3		Over 2.5-3 a							42	15

²⁸ Grigson 1985, 7-19; Haimovici, Teodorescu 1995, 195-208.

PM1-PM3 M1	2.5-3 Over 0.5 y
1-length of jugal teeth (by alveoli)	5-height of ramus before M1
2-molar length	6-height of ramus after M3
3-premolar length	7-M3 length (by the occlusal surface)
4-height of ramus before P2	8-M3 breadth (by the occlusal surface)

Based on the number of this segment fragments, one may estimate a minimum number of 14 specimens. Corroborated data regarding the eruption and dental wear for these segments allowed us to frame one specimen in the 2-2.5 age interval, minimum 5 in the 2.5-3.5 age interval, other 5 in the 3.5-5 age interval and minimum 2 in the 5-7 age interval. In addition, we estimated a minimum 4 specimens over 2.5-3.5 years of age, however their maximum age limit could not be established.

Chop marks made by knife or saw were noticeable on many of these fragments.

Vertebrae

Vertebral fragments are rather many, yet they provide few data for our analysis.

The identified cervical vertebrae are generally fragmentary. Ossified fragments predominate, however a rather large number of still unossified fragments were examined. In addition, sagittal or parasagittal sectioning was noticed.

The identified thoracic vertebrae (most numerous) are present by spinal apophysis parts, the majority broken at the level of the vertebral arch and by much less numerous fragments of vertebral body. The ratio between the ossified and unossified fragments is rather equal, indication of present specimens over and less than 7-8 years of age²⁹. Sagittal and parasagittal cuts on vertebrae were noted.

Capriovids

Bone	Right limb	Left limb	Uncertain
Coxal bone	2	2	5 paleta
Femur		3 pe 1 de	1 pe
Humerus	5 de	4 de	
Mandible	24 mandibular ramus 6 articular angle	9 mandibular ramus 3 articular angle	5 articular angle
Metacarpals	9, 3 Capra	12, 3 Capra	1
Metatarsals	5	6	2
Neurocranium	31, 1 Capreolus		
Radius	1 pe 1 de	1 pe	1 diaf
Ulna			
Scapula			
Calcaneus	2 Capriovids 1 Capreollus	2 Capriovids	
Astragalus	2	1	
Tibia	3	7	

²⁹ Schmid 1972, 75.

Vertebrae	1 axis 2 cervical 3 lumbar		
Phalanx I	1		
Maxilla	2	1	
Teeth	7 M-PM		
Ribs	164		

Scapula

The identified scapular fragments are mainly articular parts. Noteworthy is a small fragment, very porous, whose articular angle is missing, most likely due to the fact it belonged to a young specimen (1-2 months old). The other fragments appear with ossified glenoid cavity, evidence of origin in specimens over 4-5 months³⁰. Additionally, the morphological aspects show that at least one fragments comes from *Capreollus capreollus*. The rest of the fragments are assigned to the generic group of the capriovids.

The identified fragments do not exhibit obvious traces of cuts or processing.

Humerus

Distal humeral fragments are ossified, yet most often exhibit cut marks resulting in the rupture of the articular formations. The single clue provided by these segments is that of origin in specimens over 6 months old³¹. We could not identify species *Capra hircus* based on anatomical elements.

Radius

Only 3 fragments of this segment were identified, 2 of the right limb (proximal epiphysis, distal epiphysis) and one of the left limb (distal epiphyseal part).

Part	3	4	6
R		27	
L		28	
R	26		

- 3-distal epiphysis breadth
- 4-proximal epiphysis breadth
- 6-minimum diaphyseal breadth
- 7-minimum diaphyseal perimeter
- 8-distal articular side breadth

Single determinations allowed concern the estimate age of a specimen - over 3.5 years of age (completed distal ossification)³². We could not make specific identifications, bones being assigned to the capriovids group.

³⁰ Schmid 1972, 75.

³¹ Schmid 1972, 75.

³² Schmid 1972, 75.

Metacarpals

The identified metacarpal fragments come from a minimum number of 12 specimens. In the case of most of them the estimated age stage is that of mature-adult, young pieces being missing. The epiphyseal stage at distal level was noted in 5 fragments only, evidence of their origin in specimens over 18-24 months old³³.

Specific anatomical aspects³⁴ led to the certain³⁵ identification of 3 right limb and 3 left limb fragments of species *Capra hircus*, the rest belonging to species *Ovis aries*.

Part	1	2	4	6	7	8	12	13
R		26	18				C	
R		28	15				C	
R	117	27	17	29	17	10	C	67.2
R	155	26	16	29			O	75.1
R		27	15				O	
R		27	16				O	
R		25	16				O	
R		25	14				O	
R			17	29			O	
L		27	18				C	
L		27					C	
L			17				C	
L		27	16				O	
L		28	15				C?	
L		26	13				O	
L		26	14				O	
L		26	16				O	
L		26	16				O	
L		25	14				O	
L	134	25	14	28	16.4	11.5	O	64.9
L				29	17.4	12.4	O	
				28	17	12	O	

1-maximum length

2-proximal epiphysis breadth

4-minimum diaphyseal breadth

6-distal epiphysis breadth

7-depth medial verticillus = anteroposterior diameter of the medial verticillus

8-medial trochlear condylus depth = breadth of the medial condylus exterior part

12-gender/sex

13-height³⁶

According to the metrical data, we could recalculate height in the case of 3 fragments, of which one of *Capra*. The height for *Ovis* is of 75 and 64 cm and for *Capra* of 67 cm.

We mention that no chop marks are obvious on these fragments.

³³ Schmid 1972, 75.

³⁴ Boessnek 1969, 331-351.

³⁵ Prummel, Frisch 1986, 556-557.

³⁶ Boessnek 1971, 289.

Femur

Femoral fragments belong to the left limb mainly and frame in the generic group of the capriovids. They come from minimum 2 specimens over 3-3.5 years old (ossified proximal epiphysis) and another juvenile specimen (porous aspect). Another non-assigned fragment evidences the existence of another juvenile specimen³⁷. The only distal epiphyseal fragment could be measured at this level, having a distal breadth of 43 mm.

Metatarsals

Most of the identified fragments consist of diaphyseal and distal epiphyseal parts. Except for a single fragment, all are distally ossified, indication of origin in specimens over 18-24 months old³⁸. The previously mentioned fragment comes from a specimen estimated as neonate or, most likely, juvenile.

Part	1	2	4	6	12	13
R		25	14		O	
R		22	13		O	
R			14	27	O	
R	157		16		O	71.4
L			15	29	C?	
L		23	14		O	
L			13		O	
L		27	16		?	
L			14	23	O	
L	139	21	13	24	O	63.2
L	156	24	14	28	O	70.9

1-maximum length

2-proximal epiphysis breadth

4-minimum diaphyseal breadth

6-distal epiphysis breadth

12-gender/sex

13-height³⁹

In the case of one fragment we suppose origin in species *Capra hircus*, however the statement is still hypothetical, the rest of the fragments being assigned to species *Ovis aries*.

Based on total length, we recalculated the height in the case of 3 bones. Values are between 63 and 71 cm.

³⁷ Schmid 1972, 75.

³⁸ Schmid 1972, 75.

³⁹ Boessnek et alii 1971, 289.

Tibia

The identified distal epiphyseal fragments are assigned mostly to species *Ovis aries*, except for one left limb fragment which, most likely, comes from *Capra*⁴⁰. All specimens (7) have been estimated at over 15-18 months old⁴¹.

Part	1	2	3	4
		24		14
R		27		14
R		24		13
L <i>Capra</i>		32		20
L		26		15
L		27		16
		30		18
		27		

1-proximal epiphysis breadth

2-distal epiphysis breadth

3-maximum length

4-minimum diaphyseal breadth

Calcaneus

Of the 5 identified calcaneal fragments, one that belonged to the right limb was assigned to species *Capreollus capreollus*. The fragments assigned to sheep are not ossified at the tuberosity level, indication of an age less than 3 years old⁴². Notably, some of the fragments exhibit cut marks.

Cranium

Cranium fragments were divided into 3 broad categories - the "cranium base" fragments - occipital, parietal and temporal, including some fragments of horn core base, horn core and splanchnocranium parts (mostly maxilla fragments).

For the capriovids group we identified 16 cranium base fragments (including 4 periorbital fragments), all assigned to species *Ovis aries*.

Among horn core fragments are noticeable a horn fragment assigned to species *Capreollus capreollus* (in the second or third year of life) and 2 fragments assigned, most likely, to species *Capra hircus*.

Mandible

Predominant mandible elements were those of mandibular ramus (33 fragments). There were also identified fragments of articular parts (condyli, retrocondylian apophysis). Most consistent data are provided by the teeth at the level of the mandibular ramus - classification upon age categories (classes) or either minimum or maximum age limits upon death⁴³.

⁴⁰ Boessnek 1969, 331-351.

⁴¹ Schmid 1972, 75.

⁴² Schmid 1972, 75.

⁴³ Schmid 1972, 75; Haimovici, Teodorescu 1995, 195-208.

Notable is the presence of minimum 1 specimen of species *Capra hircus* among the identified fragments.

Part	Present dental element	Wear degree	Estimated age	1 (7)	2 (8)	3 (9)	4 (18)	5 (17)	6 (16)	7 (10)	8 (11)
R	PM1-M3	M3+	2-4 a	72	49	23	17	21	38	21	8
R		M3 growing	2-2.5 a								
R	M1-M3	M3 ++/+++	5-7 a		52				39	25	9
R	PM3-M3	M3++	4-5 a					25	41		
R	M2, M3	M3++								22	8
R	PM2-M3	M3-/+	2-3 a					22		23	7
R	PM3-M3	M3++	4-5 a		49			24		23	9
R Capra		M3 broken	Over 2.5-3 a								
R		M3 growing	2-2.5 years								
R	PM3-M3	M3+	2-4 a							21	8
R	M1, M2		Over 1 a								
R Capra?	M2, M3	M3-/+	2-3 a							23	9
R	PM3-M3	M3-/+	2-3 a							20	7
R	M1	M1 erupted	Over 6 months								
R	M1, M2		Over 1 a								
R	M1		Over 6 months								
R	pm		Under 6 months								
R	M3	M3+	2-4 years							24	9
L	PM1-M3	M3+	2-4 a	75	51	24	21	25	40	21	8
L	M1, M2		Over 1 year								
L	M1-M3	M3++	4-5 years								
L	pm-M1	M1 growing	6 months								
L		M3 growing	2 years								
L	M3		Over 2.5 years								
L	M2-M3	M3++	4-5 years							22	9
L	M2-M3	M3-/+	2-3 years							21	8
L	pm		Under 6 months								

1-length of jugal teeth (by alveoli)

2-molar length

3-premolar length

4-height of ramus prior P2

5-height of ramus prior M1

6-height of ramus past M3

7-M3 length (by occlusal surface)

8-M3 breadth (by occlusal surface)

Corroborated data referring to age result in the following age divisions: minimum 2 specimens in the 0-6 months interval, 8 specimens in the 2-4 years interval (of which minimum 5 in the 2-3 years interval), 3 specimens 4-5 years old and one in the 5-7 years interval. In addition, further minimum 4 specimens over 1 year were noted, however the upper age limit could not be established in these cases.

Maxilla

This category includes in fact splanchnocranium parts, which includes the upper dental series (incisor bone parts, palatine bone included and so on). The number of these fragments is much smaller (only 3 parts), yielding only a few age-related data. Thus, in the case of one fragment coming from species *Capra hircus* we estimated an age of approximately 2 years, for another (right side), an age of 2 years and one of 4-5 years.

Swine

Bone	Right limb	Left limb	Uncertain
Coxal bone			5
Denture	3 dogs <i>Sus ferrus</i>		
Femur			1 pe
Humerus	2	6	
Mandible	10 mandibular ramus	14 mandibular ramus	1 symphysis
Maxilla	7	9	
First metacarpals	3 mc III 1 mc IV	1 mc III 2 mc IV	
Secondary metacarpals			
First metatarsals	3 mt III 3 mt IV	4 mt IV	
Radius	1 pe		3 diaf
Scapula	7	5	
Tibia	4 de 2 pe	3 de 1 pe	2 diaf
Ulna	3	7	
Phalange	1 prox		
Astragalus	1		
Vertebrae	4 atlas Cervical Vert -3 Lumbar 3		

Scapula

The identified fragments preserve the articular angle, whose ossification is completed. The porous aspect of the fragments pleads for their origin in young specimens (5 of the 7 estimated specimens based on the frequency of this skeletal segment), whose age may be estimated to a few months. Resulted metrical data are rendered in the table below:

Part	4	6	7
L	23	30	22
L	26		24
L	24		
L	23		
L	21		
R	25	28	24

R	27	28
R	21	

4-antero-posterior diameter of the collum
 6-antero-posterior diameter of the glenoid cavity
 7-diameter

Most of the fragments exhibit cut marks at the level of the scapular spine, some of them resulting in severing the spine tuberosity as well as the cut off of the supraglenoid tuberosity.

Humerus

Distal part fragments are all calcified, indication of their origin in specimens over 6 months. Morphological features as well as size aspects point with certainty to a fragment coming from the wild species (boar *Sus scrofa ferrus*)⁴⁴.

Part	3	4
R	36	
L		15
L	35	
L	36	16
L	38	
L	38	
L	38	
L <i>S.s.ferrus</i>	56	23

1-maximum length
 2-proximal epiphysis breadth
 3-distal epiphysis breadth
 4-minimum diaphyseal breadth

Ulna

The 10 identified fragments comprise articular portions, the tuberosity being cut in most fragments (making thus impossible any age limits estimations). A single robust fragment exhibits an obvious unossified tuberosity, indication of origin in a specimen younger than 3-3.5 years of age⁴⁵.

Femur

Only a single unossified proximal epiphyseal fragment was identified, evidence of origin in a young specimen below 3.5 years of age⁴⁶.

Metapodials

A total number of 5 metacarpals were identified. Among, 2 metacarpals IV (right-left) are unossified, indicatory to a specimen younger than 2 years of age; other

⁴⁴ Bököny 1995, 3-11.

⁴⁵ Schmid 1972, 75.

⁴⁶ Schmid 1972, 75.

2 metacarpals III are also unossified. In the metatarsals' case, circumstances are somewhat similar, a single metatarsal IV and III right, both unossified⁴⁷ being examined. There are a few complete fragments, on the basis of which we may recalculate height.

	1	2
Mc III R	73	75
Mc IV L	64	64
MT IV L	81	71
MT IV L	75	65
MT IV L	92	80
Mt III R	71	66
Mt III R	69	65

1-maximum length
2-recalculated height

Recalculated values⁴⁸ are placed between 64 and 80 cm.

Tibia

The identified fragments are assigned to the domestic species, any morphological indication for their assignment to the wild species being inexistent.

The identified proximal epiphyseal fragments point to a specimen over 3.5 years of age and to one younger than this age (proximal ossification stage)⁴⁹. Due to the porous aspect visible in the unossified fragment, we tend to believe it belongs to a young specimen.

Distal epiphyseal fragments are all ossified, evidence of origin in individuals over 2 years of age (minimum 4 specimens). In the case of one fragment we may speak of a more accurate estimation, it being almost complete, exhibiting an ossified distal epiphysis (hence a specimen of 2-3.5 years of age). Notably, in this fragment we identified a healed fracture at diaphysis level. The calcification process evolved deficiently, leading to a marked change of the bone radius.

Part	1	2	4
L	48		
L			19
R			20
L		31	
L		31	22
L		28	19
R		27	19
R		30	

1-proximal epiphysis breadth
2-distal epiphysis breadth
4-minimum diaphyseal breadth

⁴⁷ Schmid 1972, 75.

⁴⁸ Udrescu, Bejenaru, Hriscu 1999, 98.

⁴⁹ Schmid 1972, 75.

Astragalus

We identified a single astragalus fragment of the right limb. Height could be recalculated based on metrical data - 81 cm.

Part	1	2	3
	44	40	81
	1-external length		
	2-internal length		
	3-height ⁵⁰		

Mandible

Based on the available material, we collected data referring to the wear stage and dental eruption⁵¹ as well as to the size of the molar series or molar 3.

Part	Present dental element	Wear degree	Estimated age	1 (8)	2 (9)	3 (11)	4 (21)	5 (20)	6 (19)	7 (12)	8 (13)	
L	M2, M3	M3++	4-6a							28	14	
	PM3-M3	M3++	4-6a		68					32	15	
	M3	M3+/++	4-6a							30	14	
	M2	M3 in alveoli	1.5 a									
	Pm		Under 6 months									
	M1	M1 erupted	0.5-1 a									
	PM4-M1		Over 1 year									
	Pm		Under 6 months									
	PM1-PM4		Over 2 a									
	Pm	M1 non-erupted	Under 6 months									
R	C, I		Over 1.5 a									
	PM1-M3	M3+	2-4a	100	65	34	43	42	49	30	15	
	M2	M2,M3	1-1.5 a									
		non-erupted										
		M3 growing	1-1.5 a									
	M3	M3 growing	1-1.5 a									
		M3+/++	4-6a								34	15
	C-PM2		Over 1-1.5 a									
	I3-m1	Lacteal	Under 6 months									
	Pm		Under 6 months									
Pm		Under 6 months										
M1, M2		Over 1 year										
M1		Over 0.5 a										
	1-length of jugal teeth (by alveoli)			5-height of ramus before M1								
	2-molar length			6-height of ramus after M3								
	3-premolar length			7-M3 length (by occlusal surface)								
	4-height of ramus before P2			8-M3 breadth (by occlusal surface)								

⁵⁰ Boessnek 1971, 305.

⁵¹ Schmid 1972; Haimovici, Teodorescu 1995, 95.

Correlation of data referring to age with those resulting from the estimation of the minimum number of specimens (14) distribute 4 specimens in the 0-6 months interval, other 4 in the 1-1.5 years interval, one specimen in the 2-4 years interval and 3 specimens in the 4-6 years interval. Moreover, in the case of 2 or 3 specimens, age estimations are allowed only in the minimum value limit (over 1 year, over 2 years).

Maxilla

Maxilla fragments are less numerous than mandible fragments. Collected metrical data target in only two cases the length of molar 3 (31/16, 32/17).

Corroborated data (few) referring to dental eruption and wear allow us to estimate a specimen younger than 6 months, 2 individuals of 2-4 years of age, one over 4 years (specimen for which specific identification tends to place it among the wild species) and of other 3 or 4 specimens over 1 year of age.

Equine

Bone	Right limb	Left limb	Uncertain
Scapula	2	1	
Humerus	1pe 1de	1 de	
Radius	4		
Femur	1 pe	1 diaf	2 condili
Cuboid bone	1		
Tibia	1		
Astragalus	2		
Calcaneus	1		
Phalanx I	3		
Phalanx II	3		
Phalanx III	1 <i>Equus asinus</i>		
Metatarsal III		1	2
Metacarpal III			2
Denture		6 molars	
Mandible		2	
Vertebrae		cervical 1	

Scapula

3 scapular fragments were identified, two of the right limb and one of the left limb.

Part	4	6	7
R		60	51
R		54	48
L	65	60	47

- 4-AP minimum diameter of the collum
 5-DAP in the articular process
 6-DAP glenoid cavity

Notably, the fragments exhibit no chop marks.

Humerus

3 humeral fragments were identified, one proximal and 2 distal. The single indications they provided are those age-related (given the proximal and distal epiphyseal stage), namely we may estimate a specimen over 3.5 years of age and another over 15-18 months old⁵². We benefit of only 2 measurements - distal epiphysis breadth of 77 mm and distal, of 43 mm.

Radius

4 radial fragments were identified, all belonging to the right limb. Among, 2 fragments are complete bones and other two are distal epiphysis fragments.

Part	1	2	3	4	5	6	7	8	9	10	11
R	337	329	330	67	75	35		70	60	9.4	142,8
R							77	65			
R				72	64						
R E asinus?	227			60	50	32				??	759?

- 1-maximum length
- 2-physiological length
- 3-lateral length
- 4-proximal articular side breadth
- 5-proximal epiphysis breadth
- 6-minimum diaphyseal diameter
- 7-minimum diaphyseal perimeter
- 8-distal articular side breadth
- 9-distal articulation breadth
- 10-diaphyseal index
- 11-height⁵³

Notably, this last fragment may likely belong to a donkey, however due to the presence of a rather large quantity of material similar to slag, precipitated on the bone surface, it is impossible to provide a more accurate diagnosis⁵⁴, metrical data also pleading in favour of such assumption.

Based on metrical data we could recalculate the height of one of the specimens, resulting a value of 142 cm. According to the Vitt scale⁵⁵, this specimen is by the limit between classes 5 and 6. For the specimen supposed *Equus asinus*, the approximate height (for the lack of the lateral length value) is around the value of 75 cm.

Completed ossification at distal level pleads for the existence of 4 specimens over 3.5 years of age⁵⁶. Concurrently, it is noteworthy that bones do not exhibit cuts.

⁵² Schmid 1972, 75.

⁵³ Boessnek et alii 1971, 452.

⁵⁴ Peters 1998, 328.

⁵⁵ Lauwerier 1988, 145.

⁵⁶ Schmid 1972, 75.

Metapodials

Only a few metapodal fragments were identified, reason for which they were described together. They are 2 metacarpals whose limb assignment could not be precise, as well as 3 metatarsals of which one was assigned to the left limb.

Part	6	7
Mt	32	
Mc		48
Mc		49
Mt		49

6—minimum diaphyseal breadth

7—antero-posterior minimum diaphysis diameter

8—distal epiphysis breadth

The single data referring to age are those given by the ossification degree: the bones come from specimens over 12–15 months old⁵⁷.

Based on comparisons with the material in the comparative collection, we may subjectively appreciate the origin of these fragments in specimens of average sturdiness. It is also worthy of mention that no processing or cutting marks were found.

Femur

The 2 identified femoral fragments (a femoral head part and one distal diaphysis) provide no metrical data. The single obtainable data are those age-related: the specimen (specimens) seems to have been over 3–3.5 years of age⁵⁸.

Tibia

Only a single tibial fragment was identified, whose proximal epiphysis is missing. The completed distal ossification (distal breadth 69 mm, diaphyseal breadth 38 mm) is indicative of a specimen over 2 years⁵⁹.

Notably, on the distal part of the cranial side of the bone cut marks are visible, most likely as consequence of skinning.

Phalanxes

A total number of 7 phalanxes were identified. They are 3 proximal phalanxes, 3 medial and one distal assigned with certainty to species *Equus asinus*.

	1	4
F1	77	33
F1	85	35
F1	83	35
F2	50	44

⁵⁷ Schmid 1972, 75.

⁵⁸ Schmid 1972, 75.

⁵⁹ Schmid 1972, 75.

F2	46	47
F2	46	47
1-maximum length		
4-minimum diaphyseal breadth		

Subjective and comparative estimations concerning the specimens in the comparative collection led us to small to average heights, however height cannot be estimated exactly. In addition, we noticed the presence of a reduced exostotic formation by the proximal articular surface rim of a medial phalanx.

Mandible

Two mandible fragments coming from 2 different specimens were identified. One of the fragments, which also preserves the symphyseal part bears the incisors, based on whose wear degree we estimated an approximate age of 5-6 years⁶⁰ and, due to the presence of the cuspids, we assume origin in a male. The other mandible fragment exhibits a complete premolar series and M1. Based on these data, we may only estimate a relative age, establishing the minimum limit - over 3 years old⁶¹.

Canidae

Bone	Right limb	Left limb	Uncertain
Scapula	2		
Humerus	1	1	
Radius	1		
Tibia	1 Vulpes		
Metapodials	1 mt III, 1 mc		
Denture	3 molars 1 premolar		
Vertebrae	1 lumbar 1 cervical		

Scapula

For this segment were identified 2 scapular fragments coming from the right limb. We could measure the articular angle, whose DAP minimum of the collum is 25, 27 mm respectively (to the second fragment) and the DAP minimum articular process is 31 mm. These metrical data are yet insufficient to recalculate height, however subjective estimations made in comparison to the specimens in the comparative collection of the Comparative Anatomy Department pointed to average to large height specimens with average slenderness.

Humerus

A single complete bone of the right limb was identified. Several measurements were taken in this case, as shown below:

⁶⁰ Morar, Pusta 1994, 89.

⁶¹ Schmid 1972, 75.

Part	1	5	6	8
r	168	42	12	32
	1-maximum length			
	5-DAP proximal			
	6-minimum diaphyseal breadth			
	8-maximum trochlea breadth			

The recalculated height points to values over 56.6 cm (Koudelka), respectively 54.9 cm (Harcourt)⁶², while the recalculated diaphyseal index is 7.14. This includes the specimen in the category of average height⁶³, average sturdiness⁶⁴ dogs.

Completed ossification is an indication of origin in a specimen over 1 year old⁶⁵.

Radius

A dog radius with pathological aspect was identified. This is a curving of the bone radius resulting in a visible change of the bone anatomy (the specific identification itself was difficult originally), namely a marked curving both anteriorly as well as the presence at the caudal surface level of the superior third of the diaphysis of a bone reconstruction process (without the emergence of proper bone callus), which yet resulted in the formation of small cavities in the compacta area, this being a hyperostosis process with the exacerbation of bone reliefs and the emergence of those relatively circular cavities. These aspects may be the consequence of an osteomyelitis process or more exactly of a granulomatous inflammatory process whose possible cause might have also been an ulna fracture, subsequently healed deficiently with the attachment in the inflammatory mass of this proximal part of the radius caudal face⁶⁶.

The bone comes most likely from a small size specimen, its total length being approximately 210 mm (measured from the proximal to distal epiphysis).

Tibia

A single proximal tibial fragment was identified (proximal epiphysal breadth = 22 mm) assigned to species *Canis vulpes*.

Cranium

An almost complete cranium of a *Canis familiaris* specimen was identified and the measurements below were taken.

⁶² Boessnek et alii 1971, 258.

⁶³ Udrescu 1990, 98.

⁶⁴ Udrescu, Bejenaru, Hrișcu 1999, 56.

⁶⁵ Schmid 1972, 75.

⁶⁶ We wish to thank Professor Cornel Cătoi in the Department of Pathological Anatomy with the Faculty of Veterinary Medicine of Cluj-Napoca, for his help in the identification and description of the pathological aspects.

1	8	25	6
205	105	106	40

1. acrocranium-prosthion length

8. nasion-alveolar length

25. Dt bi-zygomatic

6. DT palate at the canine alveoli level

The dental series is sufficiently complete on both arcades, while only the right M2 and left M1 being missing from alveoli. Dental wear is not pronounced. These data allow the estimation of a specimen over 6 months old, however we believe it is an adult specimen.

Indices calculated with the aid of the previously mentioned measurements show a cephalic index of 51.7, a muzzle index of 51.21 and a muzzle breadth index of 37.73⁶⁷.

Vertebrae

Two vertebral fragments were identified, one cervical (C3 or C4) and one lumbar. The fragments exhibit no processing or chopping traces and are ossified, indication of origin in specimens over 18-24 month old⁶⁸.

11th-12th centuries sample

Large ruminants

Bone	Right limb	Left limb	Uncertain
Scapula	2 articular angle		3 (scapular blade)
Metacarpals			2 ed
Metatarsals	2	1	3
Humerus	2 ed	4 ed	
Radius	2 ed	1 ep 2 ed 1 ed Cervus elaphus	1 ep
Ulna			
Coxal bone			4
Femur		1 ed osif	2 head (1 unossified)
Tibia	2 ed 1 ep	1 ep	
Astragalus	2		
Cuboscafoid	1		
Mandible	4 articular angle	1 articular angle 3 ram	1 ram
Vertebrae	7 cervical 4 thoracic (ap spinal)		
Ribs	32		
Maxilla		3	1

⁶⁷ Udrescu, Bejenaru, Hriscu 1999, 98.

⁶⁸ Schmid 1972, 75.

Bone	Right limb	Left limb	Uncertain
Neurocranium		3 horn core (2 small) 3 fr neurocranium	
Phalanx I		4 (Gl= 57,55,62,55)	
Phalanx II		2	
Phalanx III		1	
Denture		13 molars	

Scapula

The scapular fragments comprise 2 articular angle parts (collum breadth = 60.48 mm) and other 3 scapular body fragments with different scapular spine portions.

Humerus

The 2 right limb fragments and the 4 left limb fragments consist of distal epiphyseal parts. All are ossified, indication of origin in minimum of 4 specimens over 1.5 years of age⁶⁹.

Radius

Among the radial identified fragments, one is certainly coming from species *Cervus elaphus*. The distal epiphyseal fragments are ossified, indication of origin in specimens over 3.5-4 years old. The distal breadths are placed in the 72-60 mm interval (for *Bos taurus* fragments), while for the *Cervus* fragment the value is 52 mm. There is another left proximal epiphyseal fragment, 69 mm wide, assigned to species *Bos taurus*.

Metapodials

Part	2 (4)	4 (6)	6 (9)
Mt R	44	22	
Mt R	39	22	
Mt L	39	20	
Mt fp		25	51

2-proximal epiphysis breadth
4-minimum diaphyseal breadth
6-distal epiphyseal breadth

In the case of metacarpal fragments, we only speak of elements related to the animals' age upon death, namely over 2-2.5 years old (distal completed ossification⁷⁰). Metrical data are unavailable due to the destruction of the found distal epiphysis parts.

A few partial metrical data are available though for metatarsals, however not enough to recalculate height. There are 2 fragments whose distal ossification is not completed, indication of the existence of 2 specimens sacrificed under the age of 2.5

⁶⁹ Schmid 1972, 75.

⁷⁰ Schmid 1972, 75.

years and another fragment pointing to ages higher than 2.5 years⁷¹. A single fragment could be measured, having a distal breadth of 65 mm.

Tibia

The distal epiphyseal fragments are ossified, evidence of origin in 2 specimens over 2-2.5 years old⁷². The values of the distal breadth are of 58 and 52 mm (small compared to the comparative material), while the proximal epiphyseal fragments could not be measured, however relative estimations point to normal sizes.

Cranium

Due to the fact that not all fragments have complete molar series, any age-related estimations were made by including (where the material allowed) them in age classes or by estimating a minimum limit of the animals' age⁷³.

Part	Present denture element	Wear degree	Age class
Mx L	PM2-M2		Over 2.5-3 a
Mx L	PM2-M1		Over 2.5-3 a
Mdb L	PM2 s 3		Over 2 a
Mdb L	M1, M2		Over 1-1.5 a
Mdb L	PM3, M1		Over 2.5-3 a

2-length of jugal teeth

The number of mandibular fragments allows the estimation of a minimum number of 4 specimens. Age estimation based on dental eruption and wear allows us to include a minimum 2 specimens over 2.5-3 years and another over 1-1.5 years old.

Capriovids

Bone	Right limb	Left limb	Uncertain
Scapula	1 juvenile	1	9 scapular body
Metacarpals	1	3	
Metatarsals	2	1	1
Humerus	2 (1 juvenile)	2 de	1
Radius			3 diaf
Femur	1 ep unossified		
Tibia	2 ed	1 ed	
Mandible	8 1 articular angle	4	
Vertebrae		1 axis 2 cervical 2 lumbar	
Ribs		14	

⁷¹ Schmid 1972, 75.

⁷² Schmid 1972, 75.

⁷³ Grigson 1985, 7-19; Haimovici, Teodorescu 1995, 195-204.

Bone	Right limb	Left limb	Uncertain
Maxilla	2		
Neurocranium	2 horn core, 1 Capra		
Denture		1 incisor 1 molar	

Metapodials

Both identified metacarpals and metatarsals comprise proximal diaphysis and epiphysis fragments and not distal epiphyses, hence age estimations are impossible. A few metrical data could be identified in the metacarpals' case:

Part	2 (4)	4 (6)
Mc L	23	14
Mc L		14
Mc L	23	14
Mc R	24	15

2-proximal epiphysis breadth
4-minimum diaphyseal breadth

Notably, all fragments were assigned to species *Ovis aries*, without any suspicion concerning Capra presence among the identified bones.

Tibia

A few distal tibial fragments were identified. Completed ossification at distal level is indicative of origin in minimum 2 specimens over 15-18 months old⁷⁴. The distal epiphyseal values are placed in the interval 25-30 mm (30, 27, 25 mm).

It is possible that one of the fragments assigned to the right limb to come from Capra, however this is only likely for the lack of clear morphological distinction elements.

Mandible

Part	Present denture element	Wear degree	Estimated age	7 (12)	8 (13)
Mdb R	pm		Under 0.5 a		
Mdb R	PM growing M1, M2		1.5-2 a		
Mdb R Capra	M1, M2		Over 1 year		
Mdb R	M1-M3	M3+	2-4 a	21	8
Mdb R	PM1-M1		Over 2 a		
Mdb R	PM1, PM2		Over 1.5-2 a		
Mdb L	PM2-M3	M3 growing	2.5-3 a		
Mdb L	pm2, pm3, M1		1-1.5 a		
	Pm		Under 0.5 a		

7-M3 length (by occlusal surface)
8-M3 breadth (by occlusal surface)

⁷⁴ Schmid 1972, 75.

Based on the number of mandibular fragments, we estimate a minimum number of 8 specimens. The identified morphological data indicate the presence of a *Capra hircus* species individual among the studied fragments.

Dental eruption and wear stages allow the estimation of a specimen younger than 0.5 years, of one of 1.5-2 years, of 2 over 2-3-4 years old and of another 3 specimens over 1 year; the maximum limit could not be specified.

Swine

Bone	Right limb	Left limb	Uncertain
Scapula	3	1	
Metacarpals/secondary metatarsals			1
Humerus	1 ed	1 ed	
Ulna			1 unossified olecran
Femur	1 ed unossified		1 femoral head
Rotula			
Tibia	1		
Mandible	2		3 symphysis 1 recurved part 1 articular angle 1 mandibular ramus
Vertebrae	1 axis		
Denture	1 incisor 2 cuspids		
Unidentified			

Scapula

The identified fragments include parts of articular angle. Collum breadth was measured at their level - 25, 23, 26 mm. Other data could not be obtained at this level.

Cranium

We included in this category the elements that contain dental series - maxilla and mandible.

Part	Present denture element	Wear degree	Estimated age	7 (12)	8 (13)
Mdb	C-PM4		Over 1-1.5 a		
Mdb	I3-PM3		Over 1 a		
Mdb R	M2-M3	M3-/+	2-4 years	26	13
Mdb fp	Lacteal		Under 6 months		
Mx	PM3-M2	M2 +++	Over 2-4 years		

7-M3 length (by the occlusal surface)
8-M3 breadth (by the occlusal surface)

Mandibular and maxillary fragments allow the estimation of minimum 3 specimens. One may argue the existence of a juvenile individual younger than 6 months of age and of other specimens over 1-1.5 years, of which one 2-4 years old.

Equine

Bone	Right limb	Left limb	Uncertain
Proximal phalanx			1
Humerus		2	

Humerus

2 humeral left limb fragments were identified, comprising distal diaphyseal and epiphyseal parts. The completed ossification at this level points to the origin of these bones in 2 specimens over 1.5 years.

Part	2	3	4
L	74	77	34
L	70	74	34

2- distal articular surface breadth
3- distal epiphysis breadth
4- minimum diaphyseal breadth

16th – 17th centuries sample

It represents the second in size among the studied samples, comprising bones from the following species with the listed features:

Large ruminants

Bone	Right limb	Left limb	Uncertain
Scapula	1	2	1
Metacarpals	3		2
Metatarsals	3	1	1 juvenile Cervus? 1 diaphysis
Humerus	2 1 unossified ep 1 hum head 2 pe, diaf	4	1 diaf Cervus?
Radius	2	3	
Ulna	2	1	1
Coxal bone			6 acetabulum 6 ilium fragments
Femur	2 femoral head 1 proximal diaphyseal port 2 distal diaphyseal port 1 ed	2 distal diaphyseal port 2 ed	

Bone	Right limb	Left limb	Uncertain
Tibia	1	1	2
Calcaneus	1		
Astragalus	2	1	
Cuboscafoid			1
Capitato-trapezoid			
Mandible	1 symphyseal portion 2 articular angle	1 symphyseal portion 1 articular angle	3 symphyseal portions 1 condil
Vertebrae	2 atlas 2 axis Cervical 5 Thoracic 9, 2 unossified body! Lumbar 5		
Ribs	23		
Maxilla	4		
Neurocranium	2 horn core 2 periorbital fr 13 large size fr (frontal, parietal, occipital, sphenoid)		
Phalanx	5 F1		
Denture	Incisors 1 Molars 6		

Scapula

In the case of the thoracic zonoskeleton were identified scapula neck fragments, whose breadth is between 56 and 58. Noticeably, the fragments exhibit cut marks, resulting in severing the supraglenoid tuberosity or the spine tuberosity.

Humerus

The distal epiphysis portions are distal ossified, evidence of origin in minimum 4 specimens over 1.5 years of age⁷⁵.

Part	3	4
L	75	36
L	72	36
L	84	
L		32

3-distal epiphysis breadth
4-minimum diaphyseal breadth

Another unossified proximal epiphysis part originates in a specimen younger than 3.5 years of age⁷⁶, while a proximal part may likely come from a *Cervus elaphus* species individual, however for lack of proximal epiphysis elements this is only likely.

⁷⁵ Schmid 1972, 75.

⁷⁶ Schmid 1972, 75.

Radius, ulna

The identified stylopodium fragments provide a few data connected to the animals' age upon death. The distal epiphyseal complete ossification in the radius parts evidences minimum 3 specimens over 3.5 years⁷⁷, the same indication being provided by the found olecranon fragments and the olecranon tuberosity.

Coxal bone

The identified coxal bone fragments provide no significant data. There were identified 6 acetabulum fragments and other 6 iliac body fragments. Notably, these segments exhibit chopmarks, including cuts at the iliac body level in order to split and section the carcass.

Tarsals

A right limb calcaneal fragment was identified, which exhibits a transversal cut at the level of the calcaneal tuberosity, resulting from dismemberment procedures. The ossification at the tuberosity level points to origin in a specimen over 3 years old⁷⁸.

The 3 identified astragali could be measured, having total lengths of 58, respectively 59 mm (those of the right limb). The left limb exhibits a saw cut by the distal trochlea.

Metapodials

Part	1	2 (4)	3 (5)	4 (6)	6 (9)	9	10
Mc fp				31	58	F	1205
Mc fp				31	71		
Mc R	191	57	36	33	61		
Mc R		60	36				
Mc R		63	36				
Mt L	204	40	39	23c	47	f	1148
Mt L		52	46				
Mt L		48	45				
Mt R		48	47				

- 1-maximum length
 2-proximal epiphysis breadth
 3-maximum proximal antero-posterior diameter
 4-minimum diaphyseal breadth
 6-distal epiphysis breadth
 9-presumed gender
 10-height⁷⁹

In the metacarpals' case, a complete fragment coming from a female specimen over 2.5 years old was identified. The recalculated height is of approximately 125 cm.

It is worthy of note that another minimum 2 specimens over 2.5 years may be estimated based on the identified distal metacarpal fragments.

⁷⁷ Schmid 1972, 75.

⁷⁸ Schmid 1972, 75.

⁷⁹ Boessnek et alii 1971, 458.

We identified 4 metatarsal fragments (3 of the left and one right limbs). Most likely, the proximal fragments also come from adults, however for the lack of distal epiphyses this statement is relative. Only in the case of the complete metatarsal we may argue it comes from a specimen over 2.5 years old⁸⁰, while the gender discrimination points to the fact it is a female with a recalculated height of 115 cm.

Noticeably, in the case of the metatarsals' category, a diaphyseal fragment may likely be assigned to the juvenile individual of species *Cervus elaphus*.

Phalanx

Proximal phalanxes provided a few metrical data listed in the table below:

1
66
57
63
63
59

1-maximum length

Cranium

Among cranium fragments, worthy of interest are 2 small horn core bases, of short type, whose base diameters are of 35/30 respectively 45/39 mm. The flattening index is similar for both fragments, being placed in the interval 85-86.

The identified mandible fragments provide insufficient information due both to their marked fragmentation as well as the lack of denture elements.

Two right fragments were identified in the case of the maxilla, provided with some dental elements:

Part	Present denture element	Wear degree	Estimated age	1 (7)	2 (8)
Maxila R	M1				
Maxila R	PM3-M1	Over 2.5-3 a			78
		1-length of jugal teeth (by alveoli)			
		2-molar length			

The single data that may be distinguished are those referring to the possible age of a specimen-over 2.5-3 years⁸¹, without the possibility to set up an upper limit.

It is worth mentioning that the identified neurocranium fragments are less common, meaning they are very well preserved and less fragmentary.

⁸⁰ Schmid 1972, 75.

⁸¹ Schmid 1972, 75.

Capriovids

Bone	Right limb	Left limb	Uncertain
Femur	1 ed		
Humerus		1 ed	
Mandible	1		
Metacarpals	2		
Metatarsals		2	
Radius		2	
Scapula	1 juvenile		
Vertebrae	4 cervical (3 unossified) 5 thoracic (2 unossified) 3 lumbar (1 unossified)		
Ribs	19		

Cranium

This category includes both neurocranium as well as splanchnocranium fragments:

Part	Present denture element	Wear degree	Estimated age
R	Pm		Under 6 months

Radius

The 2 radial fragments comprise proximal epiphyseal and diaphyseal fragments (lep-25/29, ld-16/17). The single data referring to age are those indicated by the proximal ossification, however only as minimum age limit - over 3 months⁸².

Metapodials

Part	1	2	4	6	12	13
MT L	134	21	12	25	O	
MT l		21	12		O	
MC r		27				

1-maximum length

2-proximal epiphyseal breadth

4-minimum diaphyseal breadth

6-distal epiphysis breadth

7-medial verticilum depth = anteroposterior diameter of the medial verticilum

8-depth of medial trochlear condylus = medial condylus outer part breadth

12-gender/sex

13-height⁸³

⁸² Schmid 1972, 75.

⁸³ Boessnek 1971, 289.

Metacarpal fragments are assigned to an individual of *Ovis aries* species and an individual of *Capra hircus*. The fragment assigned to the *Capra* comes from a younger specimen, under 18-24 months old⁸⁴.

The metatarsal is assigned to species *Ovis aries* and comes from an adult specimen with an estimated height of 64.9 cm⁸⁵.

Swine

Bone	Right limb	Left limb	Uncertain
Coxal bone			2 fr acetabulum
Humerus		1 ed	
Mandibula		2	
Maxilla	2		
Calcaneus			
First metacarpals	1 mc III		
Secondary metacarpals			
First metatarsals		1 mt III wild boar 1 mt IV	
Radius	1		1
Scapula	1 juvenile		
Tibia		2	
Ulna		1	
Vertebrae			1 atlas

Cranium

Due to the poor numerical representation, we preferred to describe the fragments under the general term of cranium. Here are included both the splanchnocranium as well as neurocranium elements.

Part	Present denture element	Wear degree	Estimated age	2 (9)	7 (12)	8 (13)
Maxila R	M1-M3	M3 erupted, at level	1.5-2 a	69	32	16
Maxila R	PM4-M3	M3 broken	Over 1.5-2 a			
Mandible L	M1-M3	M3 erupted, at level	1.5-2a	60	25	14
Mandible L	M3	M3++ 2-molar length 7-M3 length (by the occlusal surface) 8-M3 breadth (by the occlusal surface)	4-6 a		26	14

Age-related data show the existence of specimens aged over 1.5-2 years, even of an older specimen, framed in 4-6 years age class⁸⁶.

⁸⁴ Schmid 1972, 75.

⁸⁵ Boessnek et alii 1971, 289.

⁸⁶ Haimovici, Teodorescu 1995, 195-208.

Metapodials

There were identified 3 metapodal fragments. They include 1 metacarpal III of the right limb, with a total length of 67 mm. It comes from a specimen over 2 years old, with a recalculated height of 68.9 cm. A distal unossified metatarsal III (indicative of origin in a specimen younger than 2 years) definitely comes from a *Sus scrofa ferrus* species individual, with an approximate length of over 100 mm.

Radius, ulna

The identified radius fragments (one of the right limb - ld-19 mm, led-31 mm, one not-assigned) are distally ossified, indication of origin in specimens over 3.5 years. Olecranon fragments point to a specimen over 3 years⁸⁷. There are no further metrical data.

Tibia

The 2 left tibial fragments are not ossified distally, indication of origin in 2 specimens younger than 2 years of age⁸⁸. In addition, in the case of one of the fragments we could approximate a total length of ca. 180 mm (lep 41 mm, ld 20 mm, led 29 mm), which allows us an estimation of a 71 cm height (Teichert)⁸⁹.

Equine

Bone	Right limb	Left limb	Uncertain
Knee cap	1		
Anterior scaphoid			1 Eq asinus?

Only a few number of bone fragments were assigned to this species, therefore descriptions are not necessary.

Notably, a fragment may likely come from species *Equus asinus*.

Investigation results – Roman period contexts

Identified species

Domestic species	
<i>Bos taurus</i>	++
<i>Ovis aries</i>	++
<i>Capra hircus</i>	++
<i>Equus caballus</i>	++
<i>Sus scrofa domesticus</i>	++
<i>Canis familiaris</i>	++
Wild species	
<i>Sus scrofa ferrus</i>	++
<i>Capreollus capreollus</i>	++
<i>Cervus elaphus</i>	++
<i>Canis vulpes</i>	++
<i>Sus scrofa ferrus</i>	++

⁸⁷ Schmid 1972, 75.

⁸⁸ Schmid 1972, 75.

⁸⁹ Udrescu, Bejenaru, Hriscu 1999, 87.

<i>Equus asinus</i>	++
<i>Ursus arctos</i>	++
<i>Gasteropode</i>	++

++ certain identified species
+species whose presence is likely

Bone ratios of main sample species

Species	NISP	%	MNI	%
Large ruminants	835	61.5	17	26.2
Capriovids	340	25	24	36.9
<i>Sus scrofa dom</i>	125	9.2	14	21.5
<i>Equus caballus</i>	36	2.7	4	6.2
<i>Canis familiaris</i>	13	1	3	4.6
<i>Equus asinus</i>	2	0.5	1	1.5
<i>Cervus elaphus</i>	3	0.2	1	1.5
<i>Sus scrofa ferrus</i>	4	0.3	1	1.5
Total identified	1358		65	
Unidentified	22 fragm.			
Large size animals (equine-bovids)	Scapula 30 fr ilium 32 vertebrae 423			
Unidentified average size animals (Capriovids-swine)	10 fr diaf humerus 164			
Total NISP	2039			

When analysing data resulted from the percentage calculation of the number of identified bones, alike that of the minimum number of specimens, one may argue that the three represented species are the bovids, capriovids and swine. Even though from the number of remains standpoint bovid remains dominate, capriovids prevail as number of specimens. Nonetheless, when also computing their ratio in human nutrition by using the sheep- equivalent one may argue that bovids ranked first in the food economy, followed by swine and capriovids.

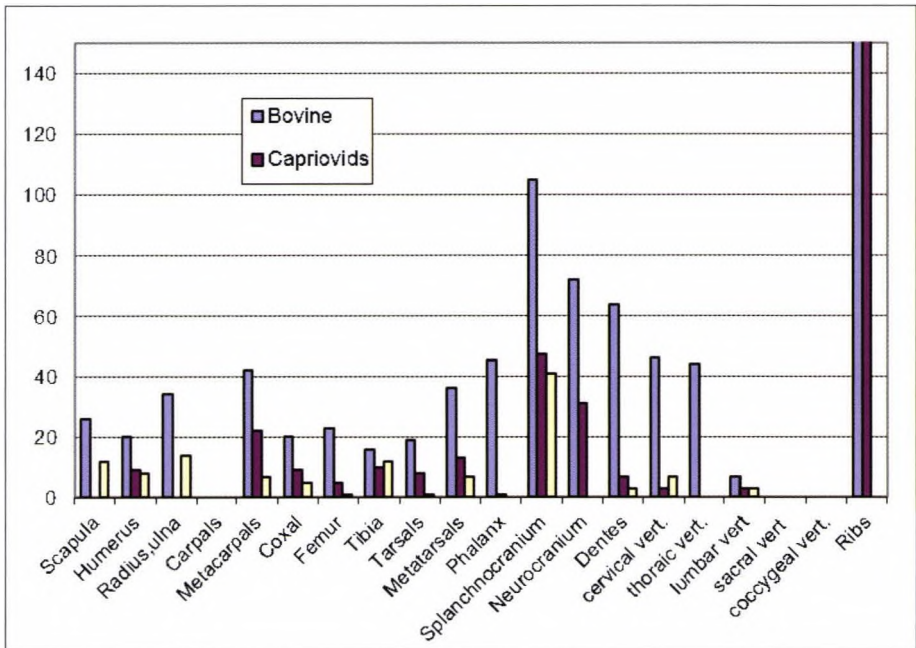
Noteworthy, circumstances are common, being found in almost all studied Roman period sites.

Survival rate of various body segment bones

	Bone segment	Large ruminants	Capriovids	Swine
Anterior limb skeleton	Scapula	26	—	12
	Humerus	20	9	8
	Radius,ulna	34	—	14
	Carpals			
	Metacarpals	42	22	7

	Bone segment	Large ruminants	Capriovids	Swine
Posterior limb skeleton	Coxal bone	20	9	5
	Femur	23	5	1
	Tibia	16	10	12
	Tarsals	19	8	1
	Metatarsals	36	13	7
Cranium		45	1	
	Phalanx	105	47	41
	Neurocranium	72	31	
	Denture	64	7	3
Spinal column	Cervical vertebrae	46	3	7
	Thoracic vertebrae	44		
	Lumbar vertebrae	7	3	3
	Sacral vertebrae			
	Coccygeal vertebrae			
	Ribs	243	164	

For a clear image of the preservation and identification means of the bone fragments, we drafted a chart for the preservation means of the various skeletal elements according to their origin in various body segments.



One may note from the chart below that for the three main species (bovids, capriovids, swine) the preservation means are somewhat similar and typical for archeofaunal

samples of domestic waste type, namely that distal fragments survived in the case of the limb skeleton (they are both less fragmentary following the sectioning-meat removal process as well as less “interesting” due to the poor meat coverage).

In the axial skeleton case (head, spinal column) the predominance of splanchnocranium, teeth and, possibly neurocranium fragments is normal, while the vertebrae fragments are on a descending curve due to strong fragmentation, consequence of carcass splitting.

Data on the identified species

Bovids

The overwhelming majority of the bone fragments included in the large ruminants category come from bovids (*Bos taurus*).

The estimation of the minimum number of specimens points to the existence of minimum 17 specimens. Age structuring indicates the predominance of adult specimens. Thus, the most accurate categorisation is allowed for the identified mandible fragments. Specimens aged between 2.5–3.5 years old (5 specimens) and 3.5–5 years old (5 specimens) predominate.

Recalculated heights correlated to gender estimations point to the presence of a male with an approximate height of 150 cm (148 cm based on metacarpals, 149 cm based on the radius), while for females, recalculated heights are between 112 and 119 cm.

Moreover, it is noteworthy that where estimations concerning the horn type were possible, the predominant flattening index was between 75 and 85.

Typical marks for meat removal were visible, which suggests human consumption (including traces of carcass splitting into semi-carcasses by sagittal or parasagittal cutting at the spinal column level). Correlation between the predominant sacrifice age and the fact that females predominate (even though the number is rather small) is indicative of a mixed breeding system, utilitarian-nutritional.

Capriovids

The capriovids group includes bone fragments coming from 3 species- namely the sheep-*Ovis aries*, goat-*Capra hircus* and roe deer-*Capreollus capreollus*. Where possible, the species were morphologically divided, and where impossible, bones were framed in the generically termed category of the capriovids.

The minimum number of the estimated specimens for the generic group is 24. We could clearly distinguish from this number a minimum number of 3 goat specimens, the existence of another 1 or 2 specimens of this species being also presumed. Additionally, it is certain that an individual in the *Capreollus capreollus* species was present.

In age structuring, the most accurate estimation was made in the case of mandible fragments (for approximately 18 specimens). At least one specimen of species *Capra* is over 2 years old, while the *Capreollus* individual is over 2 years old. The rest are predominantly framed in the 2–4 years category (8 specimens), 4–5 years (3 specimens), 5–7 years (1 specimen), while 2 specimens were determined as juveniles (group 0–6 months). For other 4 specimens, we may only argue they are over 1 year of age.

Recalculated heights point to a value of 67 cm for *Capra* and values of 75, 65, 71, 70, 63 cm for *Ovis*.

Swine

The domestic pig (*Sus scrofa domesticus*) is prevalent among the identified bones. There were also identified a few fragments assigned to the wild species (wild boar).

The minimum number of specimens may be prefigured at the mandibular fragments level-14 specimens, this segment being also that which provides the most accurate data concerning age at the time of death. It may be argued that specimens over 1 year old predominate, more exactly those in group 1-1.5 years, followed by those in group 4-6 years (4 specimens established for each of these classes). We may also argue that the group of juvenile specimens (0-6 months) holds a rather significant ratio, 4 specimens being included in this category.

Based on the collected metrical data, we recalculated heights, whose value is comprised in the interval 64-81 cm (most of the data were supplied by metapodials).

Equine

Identified in all Roman archeofaunal samples, horse bones are not missing from our sample as well. The identified number of the fragments is small, which makes any appreciation related to species rather poor. Based on the frequency of certain skeletal elements we estimated 4 specimens, whose age is over 3.5 years old. The mandibular fragments provide certain additional information concerning one of the specimens, namely that it was aged 5-6 years.

Notably, 2 bone fragments were assigned to the donkey (*Equus asinus*), the rest being designated horse bones (*Equus caballus*).

Height could be recalculated only for a single specimen, it being of 142 cm. This height frames in class 5-6 of the Witt scale. Other appreciations (subjective) led us to the idea of the existence of one/several smaller height specimens.

In addition, it is worth mentioning that at horse bone level no meat removal traces were noticed, most likely fine skinning prints being visible only in a single case.

Canidae

The small number of bones assigned to this group does not allow for many conclusions. Most of the fragments come from dog (*Canis familiaris*), with a fragment belonging to the fox (*Canis vulpes*).

In dog, the minimum number of estimated specimens is 3. Amongst, we calculated for one individual a height of - 54-56 cm, with a diaphyseal index of 7.14, indication of an average height and slenderness specimen. In other specimen we estimated subjectively an average to high height, while another individual, exhibiting the pathological aspects noticed in the radius, was included in the small or sub-small height category.

Other species

Even though their identification was mentioned in the above groups, it is proper to specify again that the studied sample included also red deer bones (*Cervus elaphus*),

roe deer (*Capreollus capreollus*), wild boar (*Sus scrofa ferrus*) in very small proportions, however normal within such a sample. A relatively large number of bird bones⁹⁰ (approximately 20 fragments) were also identified, mostly coming from chicken (*Gallus gallus*).

In addition, our analysis identified a single bone fragment each coming from fox (*Canis vulpes*) and brown bear (*Ursus arctos*) and a few snail shells (gastropods).

Investigation results: 11th–12th centuries contexts

Identified species

Domestic species	
<i>Bos taurus</i>	++
<i>Ovis aries</i>	++
<i>Capra hircus</i>	++
<i>Equus caballus</i>	++
<i>Sus scrofa domesticus</i>	++
Wild species	
<i>Cervus elaphus</i>	++
++species identified with certainty	
+species whose presence is likely	

Bone proportions within the sample

Species	NISP	%	MNI	%
Large ruminants	122	56.6	4	25
Capriovids	68	31.5	8	50
<i>Sus scrofa dom</i>	23	10.6	3	18.8
<i>Equus caballus</i>	3	1.6	1	6.3
Unidentified	20			
Large size animals (equine-bovids)				
Unidentified average size animals (Capriovids-swine)	13			

Data concerning the identified species

Large ruminants

Except for a single bone fragment, identified with certainty as *Cervus elaphus*, the rest of the fragments were attributed to bovids (*Bos taurus*).

The minimum number of specimens where bones originate is 4. Corroborating the few data resulting from these bones analysis, both from the appendicular skeleton as well as the axial skeleton, we may argue that all the 4 specimens were over 1.5 years old, with the mention that for 2 of them, we could estimate a more restricted interval - over 2-2.5 years.

⁹⁰ Bird bone material was analysed by an ornithologist - Dr. Erika Gál from the Hungarian Academy of Sciences of Budapest, however the analysis results are still forthcoming.

Height could not be estimated, metrical data for such recalculation being non-existent.

Capriovids

Of the total 68 bone fragments, only one was assigned with certainty to species *Capra hircus*, the rest being attributed to the generic group of the Capriovids (the majority coming most likely from *Ovis aries*).

The minimum number of specimens is 8. Estimations based on dental wear stages point to predominant adults - 6 specimens over 1 year old, of which 1 is 1.5-2 years, 2 are 2-3-4 years old and other 3 were estimated over 1 year old (with the mention of the existence of a juvenile-younger than 6 months).

Swine

The single discernable data concerning this group of species refer to age estimations for the 3 specimens. Thus, there is a juvenile individual (younger than 6 months), one of 2-4 years and another of over 1-1.5 years.

We could not specifically identify the wild species.

Equines

No data related to this species may be distinguished.

Investigation results: 16th-17th centuries contexts

Identified species

Domestic species	
<i>Bos taurus</i>	++
<i>Ovis aries</i>	++
<i>Capra hircus</i>	++
<i>Equus caballus</i>	++
<i>Sus scrofa domesticus</i>	++
Wild species	
<i>Cervus elaphus</i>	+
<i>Sus scrofa ferrus</i>	++
<i>Equus asinus</i>	+

++ species identified with certainty

+ species whose presence is likely

Bone proportions within the sample

Species	NISP	%	MNI	%
Large ruminants	132	68.4	4	36.4
Capriovids	41	21.2	2	18.2
<i>Sus scrofa dom</i>	17	8.8	3	27.3
<i>Equus caballus</i>	2	1	1	9.1
<i>Sus scrofa ferrus</i>	1	0.5	1	9.1

Unidentified	124
Large size animals (equine-bovids)	7 ribs
Unidentified average size animals (Capriovids-swine)	9 ribs

Data concerning the identified species

Bovids

Except for 2 fragments whose assignment is uncertain (possible deer origin), the rest of the bones were assigned to the bovids (*Bos taurus*).

The estimation of the minimum number of specimens points to minimum 4 specimens of species *Bos taurus*. Age could be determined for minimum 3 specimens as being over 3.5 years. Heights were recalculated for 2 bones. The recalculated values are of 115, respectively 125 cm in the case of 2 females.

Noticeably, in the case of 2 horn cores we dealt with a small, short type horn, with a flattening index of 85-86.

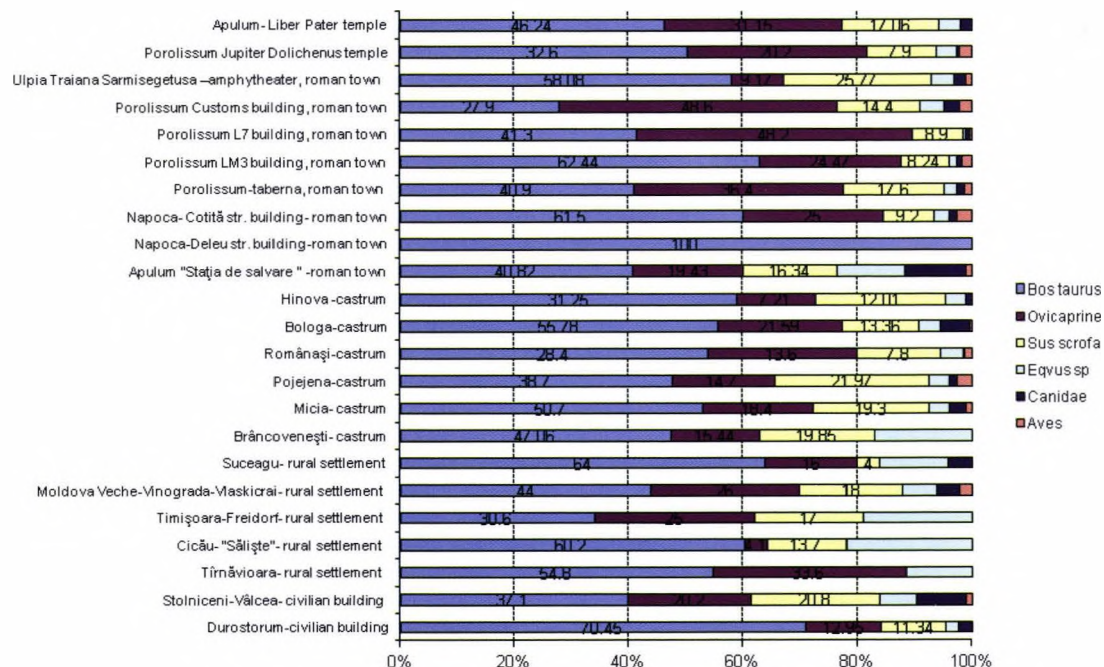
The bones exhibit cut marks, evidence of carcass splitting for consumption purposes.

Capriovids

The very small number of the identified fragments pointed to an individual in *Ovis aries* species and of one *Capra hircus*.

Height was recalculated for the *Ovis* specimen, being 64.9 cm (adult specimen). We could not recalculate height for *Capra*, a young specimen, less than 18-24 months old.

% NISP in Roman sites



Swine

The number of estimated specimens is 3. Amongst, 2 individuals of species *Sus scrofa domestica* are younger than 2 years (for one estimations are more precise - 1.5-2 years according to the dental eruption stage), and another is 4-6 years old.

Recalculated heights are of 68.9 and 71 cm respectively.

There was also identified an individual in *Sus scrofa ferrus* species.

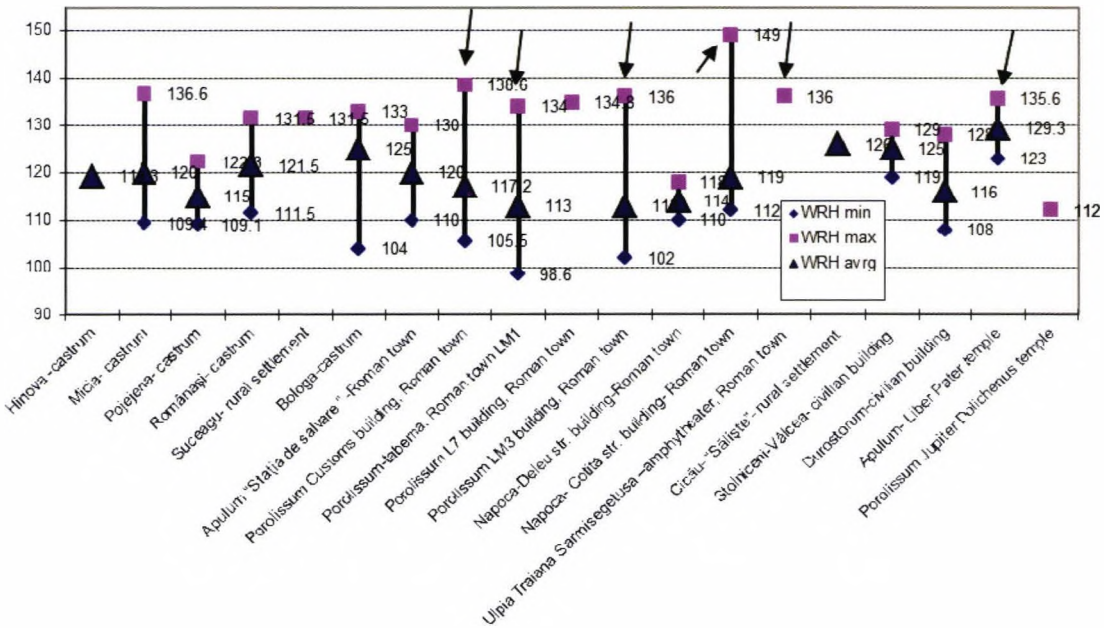
Equine

Only 2 bones were identified, of which one may likely come from a donkey, however clear morphological elements are missing.

No estimations related to the species morphology may be made.

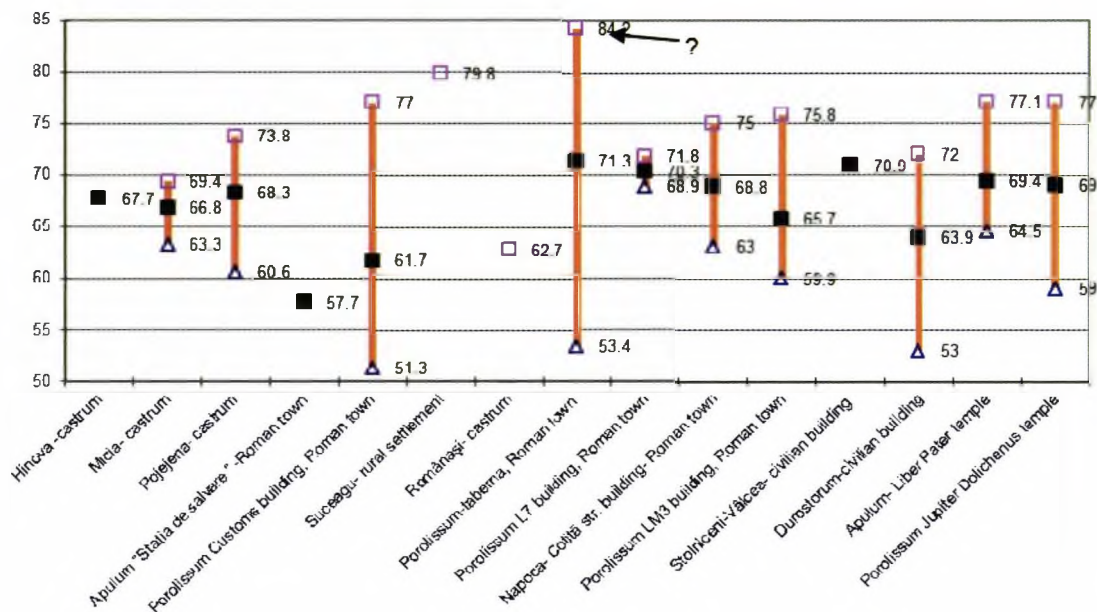
Conclusions

WRH for cattle in Roman sites



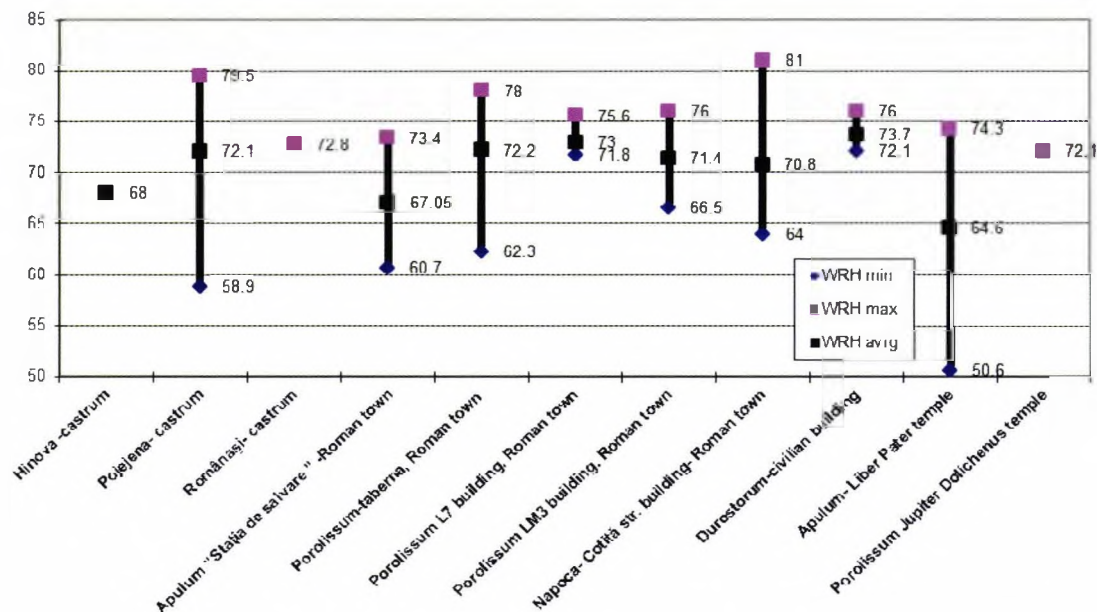
The archaeological sites comprising inhabitancy levels with such an ample chronology are relatively few. Circumstances in this case are rather peculiar, in the sense that faunal samples were assigned to the Roman period, to an 11th - 12th centuries' medieval sample and to one dating to the 16th - 17th centuries. Unfortunately, the sizes of the collected samples differ: the Roman sample is representative by the total number of identified bones (over 1000), while the 11th-12th centuries and the 16th-17th centuries sample hardly exceed 200, respectively 190 identified fragments.

Capriovids' WRH in Roman sites



For the Roman period sample, we may establish the guidelines related to the features of the identified animals: the domestic refuse character and the prevalent ratio of the three species of nutritional character - bovids, capriovids and swine. Moreover, the so-called secondary species were also identified - horse, donkey, dog -, whose presence is also common in archaeofaunal samples. It is also worthy of note the fact that the Roman period sample from the town at Napoca, Cotiță street, also revealed the presence of game among domestic waste, with a rather broad range of species - red deer, roe deer, wild boar, even brown bear -, the proportion of these bones being,

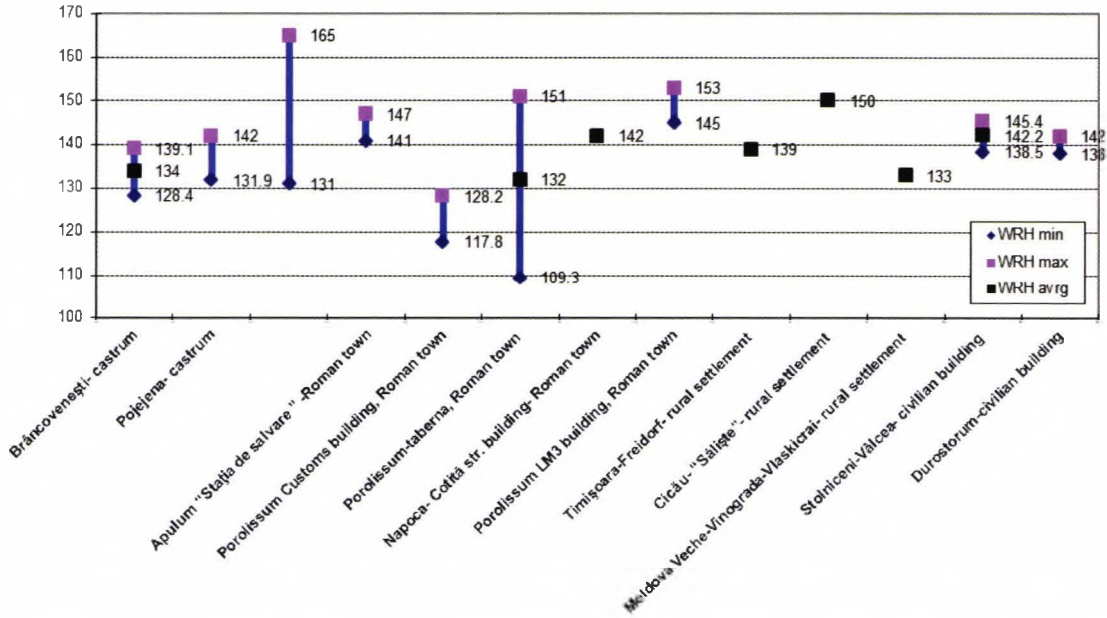
WRH for swine in Roman sites



as one would expect, much reduced. This is indicative of the infrequent or recreational nature of an ancient occupation - hunting.

Comparisons are available for several contemporary sites researched archaeologically⁹¹. Unarguably, from the main identified species proportions view, our sample

WRH for horse in Roman sites



is no different than the others (despite the subjective comparison made based on the number of identified fragments -NISP- and not that of the estimated specimens - which is impossible due to the heterogeneous available data), with a relatively large proportion of cattle bones and rather small proportion of domestic pig bones. This is not confirmed by estimations based on the number of specimens, showing the relatively equal ratio of cattle and domestic pig bones, with a slight difference compared to cattle bones. It is though obvious that the largest ratio in nutrition as meat source belongs to cattle, by the large quantity supplied by one individual, comparatively to that supplied by sheep or pig.

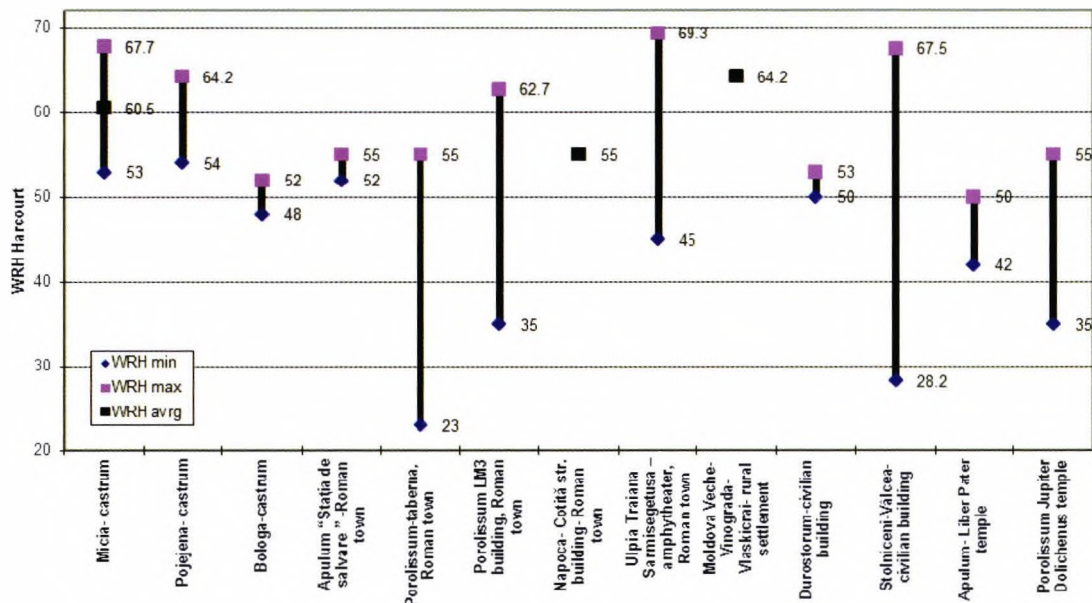
Morphological aspects of the species may be specified for this Roman period sample as well: thus, in cattle, there were specimens used for both utilitarian as well as for nutrition purposes, predominating specimens sacrificed when adult (2.5-5 years old), with heights in females of 112-119 cm and in the single identified male - of 148-149 cm. The comparison with other Roman sites yielded a similar situation - the value range for cattle heights starts still from around 100-110 cm values, with an average value placed around 120 cm. Maximum values (like in fact in most cases) are assigned to males (marked by arrow in the chart), yet in most cases they are singular values whose ratio in the recalculated value series is rather small.

For capriovids, sheep bones among those identified is certain. The age when these specimens were sacrificed furthermore evidences a mixed system (utilitarian- wool, milk - nutritional), yet with a few nuances. This means that adults were preponderant,

⁹¹ Gudea 2005, 103-289.

more precisely the specimens sacrificed at ages over 2 years old (the largest ratio belonging to specimens in 2-4 years old group), however juvenile specimens should not be neglected, evidence for their limited use as food source. Heights determined for sheep point to specimens 63-75 cm tall, and for Capra - a 67 cm height.

WRH for dog in Roman sites



These aspects are specific to Roman samples taken as element of comparison, mean values being obviously placed in the same 65-70 cm interval, the range of the minimum and maximum values being less narrow than in other investigated sites⁹².

The domestic pig was obviously exploited for food purposes. Evidence to this effect is the heterogeneous structure of the sacrificing age, with the ratio preservation of specimens over 1 year old, yet with the rather uniform distribution of the juvenile, young and adults. Heights are between 64 and 81 cm. Available comparative data⁹³ show that the average value is placed in the same mean interval calculated for most of the other sites, the single different LM element being that of the existence of a single maximum value of 81 cm exceeding the recalculated maximum values.

In horse, we calculated a single height - 142 cm - which, from the view of the few available data, is no element of novelty, the value being incorporated in the series of values obtained from other sites (even though for this species not only heights were compared but also the sturdiness index values for a more clear image).

In dog, we determined a single height for the site on Cotiță Street - 54-56 cm. The comparison with sites of same type is hindered by the small number of estimations for this species⁹⁴.

⁹² Gudea 2005, 123-289.

⁹³ Gudea 2005, 123-289.

⁹⁴ Gudea 2005.

Above species is no object of food consumption, their remains being commonly identified in such samples.

The transition to the level dating to the 11th-12th centuries does not allow many comparisons. Due to the small number of identified bones for each species, an objective comparison of the features of the sample itself (the range of identified species) as well as of the noted morphological data is impossible. It seems that the food pattern includes the same 3 species - bovids, capriovids and domestic pig, possibly a higher ratio of capriovids and likely, the higher ratio of sacrificed adults in this group. In the domestic pig's case, circumstances seem identical to those in the Roman period sample.

The sample belonging to the 16th-17th centuries provides a few additional elements. The slightly broader species range is noticeable (comparative to the 11th-12th centuries' sample) as well as the slightly more numerous morphological data. The three main species are numerically represented in common proportions, with almost a numerical equality of the number of estimated number of specimens, however the predominant nutritional ratio of the bovids is most obvious. The identified bovids were used based on a mixed system, utilitarian-food source (which was marked by the age of sacrifice), and determined heights for females are of 115-125 cm. In sheep, we could recalculate height - 64.9 cm, and in the domestic pig, the recalculated heights are in the 68-71 cm interval.

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ROMAN REMAINS DISCOVERED IN THE NORTH-EASTERN AREA OF NAPOCA – THE RESCUE EXCAVATIONS AT 29 REGELE FERDINAND ST.¹

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Abstract: During the rescue archaeological research carried out in the west side extension of the building on 29 Regele Ferdinand St., we excavated the routes of a main drainage channel and of one of its branches, belonging to the sewerage of the Roman town at Napoca throughout its last stage of existence. They were definitely aligned to one of the main roads of the ancient town, oriented north-south (one of the *cardines*). Respective finds are closely connected to those surfaced in 2004–2005 in the same area (Regele Ferdinand St. no. 6, respectively the current Commercial Galleries “Ferdinand Galleries”), where a main drainage channel, a secondary drainage channel and one of its branches were identified, as well as part of the main roads of Roman Napoca, oriented east-west – one of the *decumani*. The two types of remains are **unique** for the Roman town, providing essential information on its grid plan.

Concurrently, we obtained new data on the urban development of the ancient town Napoca, by identifying, beside the mentioned sewerage, other of its development phases. Thus, to the mid 2nd century AD belong the remains of an impressive building with stone wall and mortar floors identified on the entire investigated surface. To another phase, framed likely to the second half / the end of the same century, belonged the remains of a building with stone groundwork and timber walls, destroyed by a strong fire.

Keywords: Roman Napoca; sewerage; grid plan; ancient urbanism.

Rezumat: În urma cercetării arheologice preventive desfășurate în anexa de pe latura de vest a imobilului din str. Regele Ferdinand nr. 29, au fost dezvelite traseele unui canal colector și a unei ramificații a acestuia, ce aparțineau canalizării orașului roman Napoca în ultima fază de existență a acestuia. Acestea erau cu siguranță aliniate la una dintre străzile principale ale orașului antic, cu orientarea nord-sud (unul dintre *cardines*). Descoperirile respective sunt în strânsă legătură cu cele făcute în anii 2004–2005 în aceeași zonă (str. Regele Ferdinand nr. 6, respectiv actualele Galerii comerciale “Ferdinand Galleries”), unde au fost descoperite un canal colector, unul secundar și o ramificație a acestuia, precum și o parte dintr-una dintre străzile principale ale Napocăi romane, orientate est-vest – unul dintre *decumani*. Cele două tipuri de vestigii sunt **unicat** în interiorul orașului roman, ele aducând informații esențiale cu privire la trama stradală a acestuia.

Totodată, s-au obținut noi date cu privire la evoluția urbană a orașului antic Napoca, prin descoperirea, în afara canalizării menționate, a altor faze ale dezvoltării acestuia. Astfel, mijlocului secolului al II-lea p. Chr. i-au aparținut vestigiile unei clădiri impresionante cu zid din piatră și podea din mortar, descoperite pe întreaga suprafață cercetată. Unei alte faze, încădrabile probabil celei de-a doua jumătăți/sfârșitului aceluiași secol, i-au aparținut și resturile unei construcții cu fundație din piatră și pereți din lemn, care a fost distrusă printr-un incendiu puternic.

Cuvinte cheie: Napoca romană; canalizare; tramă stradală; urbanism antic.

¹ At the rescue excavations participated students and MA students of the Faculty of History of the Babeș-Bolyai University, the Archaeology Department: Lavinia Grumeza, Mihai Săsărman, Dan Deac, Mihai Dunca, Daniela Culic, Vlad-Andrei Lăzărescu, to which we thank for their constant support and competent awarded during the archaeological research.

I. Introduction

I. 1. Location and circumstances of excavation

The building on 29 Regele Ferdinand St. (former Gh. Doja St.) is placed within the ancient town, in an *insula* approximately by its north-eastern corner (Pl. I). It is located in the centre of the current city, at ca. 300 m north-east St. Michael Roman-Catholic Church (Unirii Square), with main access from the national road DN 1.

In this area, numerous remains and artifacts belonging to several historical periods, from prehistory (Coțofeni and Sighișoara-Wietenberg cultures) to the medieval period were identified on various occasions (building works or chance finds), respective site being located both inside the Roman and the medieval towns. Roman remains are best recorded, in the close vicinity of the discussed building (where “Central” Department Store lies) being discovered two impressive Roman buildings (likely temples), with columns, as well as many Roman artifacts (votive altars, potshards, stamped bricks, tiles and shingles etc.). In front of the building on 29 Regele Ferdinand St. surfaced roof tiles and shingles as well as much Roman pottery (see below the history of research) were discovered.

Originally, given the nature of the works carried out by the Beneficiary (the trading company Suerom Import Export LTD of Cluj-Napoca, represented by Turcu Ovidiu Iacob) - underground and outbuilding repairs and sanitation works - respective works, initiated in 2007, were supervised by Dr. Mariana-Cristina Popescu. Since in the outbuilding underground surfaced the foundations of a Roman building, the archaeological supervision became rescue archaeological excavation in 2009 in order to unearth the discovered archaeological remains before existent spaces to be re-built as commercial spaces.

I. 2. History of research

Prior to the archaeological research undertaken by us, archaeological finds dated to various historical periods had been previously recorded in the area, amongst which best evidenced are the Roman remains. Thus, in occasion of the building works performed along streets Doja-Horea (from the northern corner of Unirii Square, to the north-west, along street Gh. Doja/Regele Ferdinand to the Someș river canal), were identified several remains belonging to the Roman period, respectively the remains of a heating installation (*hypocaustum*)², which belonged to a building. In addition, in front of the house no. 10 on Gh. Doja/Regele Ferdinand street were discovered Roman potshards; in front house no. 12 emerged ceramic pavement pieces, eight and hexagonally-shaped. In front building no. 9, a column shaft and base surfaced³. In front house no. 17, an altar dedicated to *Silvanus Domesticus* was unearthed and two *tegulae* bearing the stamp of *legio V Macedonica* were retrieved from the front of house no. 7-9; by the corner with E. Zola St., an anepigraphic altar and a column cap-

² RepCluj, 131, no. 22 a.

³ Mitrofan 1976, 199.

ital were found⁴. Concurrently, in front of buildings no. 29 and no. 31 were identified tiles and shingles, numerous *terra sigillata* fragments and common Roman wares⁵.

In 1975, during the construction works carried out for the construction of “Central” Department Store on Gh. Doja/Regele Ferdinand St., corner with Cotitã St., the ruins of a temple dedicated to *Silvanus, Jupiter Optimus Maximus* and the other protecting gods and goddesses⁶ were excavated. Then, impressive architectural elements were found: architrave fragments, stone columns shafts and bases, Corinthian capitals, cornices as well as other building materials: bricks, tiles, shingles, *tegulae mammatae* and an altar fragment, ornamented on one of the sides with grape bunches⁷. The identified epigraphic altar together with the architectural pieces suggest the presence there of a monumental edifice. It might have been a temple dedicated to god *Silvanus*, given the peripheral location⁸ compared to the forum or the seat of the imperial procurator of *Dacia Porolissensis*⁹. Moreover, previous archaeological research noted intense medieval and modern settlement¹⁰ of the area.

Most recently, during the rescue archaeological research performed in 2004–2005 at the “Ferdinand Galleries” on 6 Regele Ferdinand St., one of the main roads of the Roman town, located in its north-eastern side, was found. It is one of the *decumani* (oriented north-east – south-west), identified on a 4.10 m length and 1.70 m width, at -2.15–2.20 m deep¹¹. Moreover, respective monuments were preserved *in situ* at the ground floor of “Ferdinand Galleries”.

Consequently, previous archaeological research evidenced firstly the existence of impressive buildings dated to the Roman period, which is perfectly explainable since they were located within the Roman town. In addition, the building on 29 Regele Ferdinand St. lies within the medieval town as well, many medieval remains being identified in the entire area in its close vicinity.

I.3. Aim of the research

Given the historical-archaeological importance of the area, the aim of the archaeological research was originally to supervise the repair and sanitation works of the underground and outbuilding located on 29 Regele Ferdinand St. Such action occurred over several stages (2007–2009), depending on the financial possibilities and interest of the Beneficiary for the completion of the works on this building site.

The aims presented in the technical report – drainage and removal of waste and debris deposited over time in the underground and outbuilding as well as the removal of the infested soil, partially mud perimeter by a 0.80–0.90 m general excavation – could have endangered any possible medieval and Roman remains. As a consequence, when the upper part of some Roman walls surfaced in the outbuilding, it was decided

⁴ Mitrofan 1976, 199, Pl. II; RepCluj, 131, no. 22 b.

⁵ RepCluj, 131, no. 22 c.

⁶ Mitrofan 1976, 200, Pl. III; Rusu-Pescaru, Alicu 2000, 150.

⁷ Mitrofan 1976, 200.

⁸ Rusu-Pescaru, Alicu 2000, 150–151.

⁹ For this more recent theory, see Piso 2012; Diaconescu et alii 2012.

¹⁰ Mitrofan 1976, 199–200 and note 13.

¹¹ Rusu-Bolindeț 2007, 91.

that the archaeological supervision be replaced by a rescue archaeological research of the area.

The outbuilding surface is 48.50 m². We initiated a rescue archaeological excavation of the outbuilding surface by dividing the area into four trenches, with cross-shaped and 0.60 m width in-between. They were as follows: trench C I, of 5.65 × 2.20 m; trench C II, sized 4.40 × 1.10 m; trench C III, of 2.20 × 2.10 m; trench C IV, sized 2.10 × 2.15 m (Pl. I; VII). Given on one side, the little opportunity for research due to the very small/narrow space and on the other, the collapse danger of the foundations of the respective building (provided with ground floor), we performed trial trenches inside these sections in order to clarify, even though partially, the site stratigraphy. Thus, we dug a trial trench inside trench C I by its north-western extremity (west the Roman drainage found there), termed conventionally Cs 1 (Pl. I; X/2; XIII). Originally, the trial trench was 1.90 × 0.60 m and we reached on this portion a depth of -2.88 m. Later, due to the collapse danger of the western wall of the Roman drainage, as research should have continued below its groundwork, the trial trench was made only on 0.60 × 0.40 m, reaching at a depth of -3.60 m, a layer of geological gravel representing the natural soil. Concurrently, in the south-eastern extremity of trench C I we excavated a 0.90 × 0.80 m trial trench, termed conventionally Cs 2 (Pl. I; XII/3), designed to evidence the stratigraphy inside the Roman drainage and its branch. Due to the proximity of the outbuilding access, we could not go deeper than -2.82 m, on a level of debris resulted from the Roman building dated by mid 2nd century AD (see the description below).

In trench C II, by its southern half, we dug a trial trench of 1.40 × 1.30 m (Cs 3, Pl. XV/2) in order to obtain data on the area stratigraphy, much damaged by previous pits made for the insertion of the modern building foundations. The maximum reached depth was -3.60 m, to the archaeologically sterile level.

In trench C III, due to its location in the outbuilding access area as well as the danger represented by the fact that the outbuilding foundations had not been reinforced on this side (all the other outbuilding walls were reinforced prior to the commencement of the rescue archaeological research), we excavated a trial trench, Cs 4 (Pl. XX) of 1.65 × 0.80 m. The maximum depth reached was -2.80 m, on the mortar floor of the Roman building in the early phase of the site.

In trench C IV, in its NW corner, trial trench Cs 5 (Pl. XXIV/1), sized 0.70 × 0.50 m, dug firstly for examining the foundations of the perimeter wall of the early Roman building, touched the virgin soil represented by the geological gravel at a depth of -4.04 m.

Moreover, given the specific working conditions (inside of a building), for reasons related to the building safety, vertical face trenching of at least 0.70 m was performed on the sides close to the outbuilding foundations.

We supervised the drainage and sanitation works of the building underground and outbuilding. They represented a surface of 223.5 m². In addition, we performed a rescue archaeological research by digging four trenches: C I = 5.65 × 2.20 m, to -3.60 m deep; C II = 4.40 × 1.10 m, to -3.60 m deep, C III, 2.20 × 2.10 m, to a maximum depth of -2.80 m; trench C IV, sized 2.10 × 2.15 m, to -4.04 m deep, totalling a 30 m² surface.

II. Results of the archaeological research

As previously mentioned, the working conditions (the relatively small space of the outbuilding, the danger represented by the foundations collapse following deepening in the excavated trenches, the preservation of vertical face trenching for both the examination of the site stratigraphy as well as in order to remove the earth resulted from the archaeological excavation) determined the choice of research methods adapted to the archaeological site specificity. Due to above conditions, especially the necessity to protect the foundations of the outbuilding located at the ground floor, we could not exhaustively excavate the entire surface available, however the excavated trial trenches provided complete data on the site stratigraphy.

II.1. The stratigraphic sequence

The outbuilding on 29 Regele Ferdinand St., had originally two rooms of 5.00×4.70 m, respectively of 5.40×4.00 m, separated by a 0.70 m thick division wall (Pl. I).

The entire surface of the outbuilding was emptied by the construction company performing its repairs and sanitation. Until the commencement of the rescue archaeological research, in order to gain a vertical level, the original floor of the outbuilding was removed, the ground level being deepened by another 1.50 m and same height underpinning of the outbuilding foundations were carried out, except for the eastern wall of the outbuilding first room, in its entrance area. Therefore, due to the removal of the layers just below the outbuilding floor, the rescue archaeological excavation started from the earliest medieval-modern layers, beneath which lay only the Roman levels. Medieval-modern depth intrusions for the construction of the building foundations, disturbing the previous stratigraphy, also add.

Due to these site peculiarities, the general stratigraphy is partially different in the northern and southern halves.

In trenches C I and C II the stratigraphy is as follows (Pl. II/1; III; XIV; XVII):

-1.20-1.40 m (variable on the eastern profile of trench C I and the western profile of trench C II) - filling layer, made of dark soil mixed with mortar pigments, small brick pieces and yellow limestone; it is one of the modern filling layers, comprised between the outbuilding foundations and its ground level (Cxt 17);

-1.40-1.50 m - grey-yellow layer containing mortar pigments, small limestone pieces and potshards; it belongs to the same modern fills comprised between the outbuilding foundations and its ground level (Cxt 18);

-1.50-1.70 m - modern levelling layer, containing dark brown soil, relatively clear, with the occasional potshards, small brick pieces and charcoal pigments in composition (Cxt 22);

-1.70-1.85 m - compact mortar layer, with sporadic stones in composition; it represents the building layer of a modern wall foundation (the division wall, delimiting the two outbuilding rooms on a E-W direction) (Cxt 3);

-1.85-2.05 m - filling Roman layer, found to the outside of the western Roman drainage identified in trench C I; it is composed of dark soil mixed with limestone and river stones and sporadic potshards (Cxt 12);

- 2.05-2.25 m - demolition layer of a Roman building, of which a few carved limestone stones were preserved in surface by the south-western extremity of trench C II; it contains sand, small pebbles, carved stones, being light yellow in colour (Cxt 16);
- 2.25-2.35 m - debris layer comprising stones of various sizes, sand, mortar pigments; likely a demolition layer of a Roman building, whose constructional elements were not identified in the surface (Cxt 23);
- 2.35-2.75 m - levelling layer, dark brown, composed of variously - sized stones, mortar fragments, sand, *tegulae* pieces and potshards (Cxt 26);
- 2.75-2.95 m - dark brown layer composed of earth mixed with mortar pigments, with occasional stones and brick fragments (Cxt 26');
- 2.95-3.05 m - mortar layer, relatively compact, coming from the demolition of the Roman building in the early phase of the archaeological assembly (Cxt 27);
- 3.05-3.15 m - black layer, relatively compact, in-between the demolition layer of the early Roman building and its mortar floor (Cxt 29);
- 3.15-3.25 m - compact mortar floor, belonging to a Roman building, identified on the entire surface of the outbuilding (Cxt 28);
- 3.25-3.35 m - groundwork of the above mortar floor, comprising river stones bound with mortar (Cxt 28');
- 3.35-3.60/3.70 m - levelling layer, consisting of a brownish soil, relatively clear (Cxt 52);
- 3.60/3.70 m - 3.60/3.70 m - burning layer (Cxt. 53) (identified only in trench C II);
- 3.60/3.70-3.80/3.90 m - brown-yellowish clay layer; virgin soil (Cxt 54);
- 3.80/3.90-4.00/4.05 m - geological gravel; virgin soil (Cxt 55).

In trenches C III and C IV, stratigraphy has the following levels (Pl. II/2; IV-VI; XIX; XXI; XXIV):

- 1.20-1.60 m - modern filling layer consisting of mortar pigments, brick pieces and stones (Cxt 1);
- 1.60-1.75 m - debris layer, consisting of tiles and shingles representing the remains of Roman building roof, whose building elements were not identified in surface (Cxt 5);
- 1.75-1.95 m - demolition layer of the same Roman building, found beneath the roof remains, comprising big stones, much painted coating and tile and shingle fragments (Cxt 8);
- 1.95 m-2.05 m - various size stones layer, especially yellowish limestone, in-between with sand and small pebbles - possible Roman road or courtyard building layer (?) (Cxt 14);
- 2.05-2.10 m - levelling Roman layer, consisting of fragmentary tiles and a brownish soil (Cxt 30);
- 2.10-2.20 m - consistent burning layer comprising large adobe fragments with timber prints, burning pigments, charcoal, charred seeds; it represents the level of a Roman timber-walled house, burned (Cxt 32);

- 2.20-2.25/2.30 m - burning Roman layer comprising charcoal and especially charred seeds, large adobe fragments with timber prints, burning pigments (Cxt 35);
- 2.25-2.65 m - layer of gravel mixed with clayish earth, a possible levelling layer for the construction of the Roman timber-walled house (Cxt 36);
- 2.65-2.75 m - compact earth layer, clayish, relatively clear (Cxt 38), from which starts a burning layer, identified only in trench C III on 0.60 m × 0.60 m in surface and its northern profile (Cxt 46);
- 2.75-2.85 m - compact mortar floor, belonging to a Roman building, identified on the entire surface of the outbuilding (Cxt 28);
- 2.80-3.80 m - Roman wall foundation, which belongs to an early Roman phase building of the site (Cxt 56);
- 3.80 m-3.90 m - brown-yellowish clay layer, archaeologically sterile (Cxt 54);
- 3.90 m-4.05 m - geological gravel, archaeologically sterile (Cxt 55).

II. 2. The archaeological features

a. The archaeological features of trench C I (Pl. I; II/1; III/1; VII-XIV)

During the supervision of the sanitation works of the outbuilding on 29 Regele Ferdinand St., we uncovered two Roman columns bases and the groundwork of two Roman walls that comprised roof tile and shingle remains (Pl. I/2; IX/2) in the upper part filling in-between. From this moment on, based on the Amendment entered between the Beneficiary and the National History Museum of Transylvania (MNIT), the archaeological supervision turned to rescue archaeological excavation. During the rescue archaeological excavations carried out on the entire surface of the outbuilding, the following archaeological features were identified in trench C I:

1. Roman main drainage channel (Pl. I; II/2; VII-XII). It was discovered in the eastern half of trench C I, on a 4.70 m length on the western side and 4.10 m on the eastern side, starting with -1.45 m deep. It laid almost diagonally in the above part of trench C I, being oriented north-south. Its eastern side was damaged by the outbuilding foundation on the same side, which removed the channel wall to a depth of -1.70-1.80 m and overlapped its northern side (Pl. IX/2). Instead, a portion of 2.30 m was preserved from its western side, which seems to represent its 0.90 m original height (Pl. VIII-X). Northwards, the channel is overlapped by the outbuilding foundations, while in the southern extremity its route was obstructed by an adjoining wall. The latter, oriented east-west has a preserved length of 0.80 m and a 0.50 m maximum width, the rest being overlapped by the foundation of the modern wall dividing the outbuilding (Pl. IX/2; XI). Additionally, the eastern side of the channel turns in the southern extremity, together with the mentioned adjoining wall forming one of its branches, oriented east-west (Pl. XII/2). Therefore, the two constructional elements above form a main drainage with one branch, the latter flowing into the first. In fact, the main drainage bottom gradient runs from south to north, flowing into Someș river.

The channel walls, 0.40 m wide, were made of yellow limestone stones, bound with mortar. Inside, the building technique was precise, stones being put right and immersed in mortar (Pl. VIII; X-XI), while on the outside, the walls' structure contains also brick fragments and are less careful worked (Pl. XIII/1). The slabs covering

the main drainage channel and its branch did not preserve, fallen roof tiles and shingles coming from a Roman building (Pl. I/1; IX/1) being identified *in situ* in its upper part, on the filling layer. Moreover, still in the drainage channel area and even on its western wall were discovered a column base fragment and a complete column (Pl. I; II/1; IX; X/1), as well as a Corinthian capital fragment. Unfortunately, since the modern building foundations were too close, the constructional elements that belonged to this building did not preserve and were neither found in the western part of trench C I. Most definitely, this building must have been located in the south-eastern side of a road to which this sewerage must have belonged to. Respective road must have been one of the *cardines*, which functioned in the last existence stage of the Roman town at Napoca.

The archaeological material discovered in the drainage fill consisted of potshards, glass vessels, bone hair pins and a few iron objects. Outside the drainage, in a debris layer by its base, we found a plated denarius, issued in Rome between AD 202–210, under Septimius Severus. This coin can provide a possible chronological landmark for dating the main drainage channel and the possible building aligned to one of the main roads of the ancient town, respectively the first half of the 3rd century AD.

2. The main drainage channel lay over a strong burning layer, coming from a **burned timber wall house** (Pl. II/1; XII/3). Its description shall be made among the archaeological features of trench C III (see below).

3. Below this burning level, under several demolition and levelling Roman layers, at -2.88 m deep, on a portion of 0.90 × 0.60 m, we identified a **compact mortar floor**, 0.10–0.15 m thick (Pl. I/2; II; X/2; XIII). It belonged to a large Roman building, being identified by trial trenches in all four investigated sections. We shall present the discussed Roman building among the archaeological features of trench C IV (see below).

Beneath this floor, whose groundwork was made of stones bound with mortar, we also identified a layer with sporadic burning pigments and another, of brown-yellowish clay, below which was found the geological gravel, sterile archaeologically (Pl. III/1).

b. The archaeological features of trench C II (Pl. I; II/1; XV–XVII)

The stratigraphy of this trench was much disturbed by the medieval-modern insertion pits of the outbuilding foundations (Pl. II/1; XV). The monuments and constructional elements preserved *in situ* are as follows:

1. **Roman monument base** (Pl. I; II/1; XV/1; XVI). It was discovered by the northern extremity of the trench, at -2.10 m deep, being attached to the foundations of a wall demolished by current intrusions. It is massive and this is the reason for which most part of it was preserved *in situ* and reused in modern foundations. It survived intact on the south, east and west sides, being broken on the side facing the northern foundation of the outbuilding (Pl. XVI/1). The preserved sizes are 0.75 × 0.75 × 0.75 × 0.80 m and is provided with two profiles on each of the preserved sides. It was carved of two pieces, of 0.40, respectively 0.30/0.35 × 0.75 m, perfectly joined most likely with the aid of iron cramps. It was located on a stone slab, which exceeded by ca. 0.10 m the southern side and only 0.02–0.3 m the east and west sides, which was also bound in mortar. Unfortunately, except for the monument base and

the mortar it was bound in, the entire surface of trench C II was ravaged by modern pits, so we could not clarify the character and constructional element to which this beautiful sculptural monument belonged to. It is possible it represented a statue base (it lacks though the attachment places of a statue) or an inscription base, located in a courtyard (?). No dating elements are available either - it may possibly belong to the last Roman inhabitancy level, similarly to the main drainage (?).

2. Perimeter wall and mortar floor of a large Roman building (Pl. I/1; II/1; XV).

This is the same building unearthed by trial trenches in all of the sections excavated in the outbuilding. In trial trench Cs 3, the floor and wall foundation were identified at -2.85 m and -2.90 m respectively. The wall was preserved only on a length of 0.70 m, the rest being removed by a modern pit. The floor was identified on a 1.30 m length and a 0.35 m width. The excavation of both elements had to be stopped as they lay dangerously close to the modern foundations, we had to preserve the vertical face trenching in-between trenches C I and C II.

c. The archaeological features of trench C III (Pl. I; II/2; IV/1; V; XVIII-XXI; XXII/1)

1. Possible Roman building dating to the last Roman phase identified on the site, recorded by the presence of its roof debris on the entire surface of the trench (Pl. I/2; II/2; XVIII/1). Below this consistent debris layer, emerged a consistent layer of painted coating, mostly red-coloured (Pompeian red), but also green or yellow, sometimes with lines indicative of division upon registers. Unfortunately, we could not identify the constructional elements that belonged to this building in surface, as it was destroyed by medieval-modern intrusions.

2. Courtyard or alley level (?) (Pl. II/2; XVIII/2; XIX/1). Beneath the demolition of the previously mentioned possible Roman building, at -2.10 m deep, there emerged in surface a cluster of various size stones, where the large predominated. Their position was not regular, which might have been indicative of a road, while a consistent gravel layer lay by its base and in-between the stones. Was this the pavement of a courtyard, dislodged by subsequent depositions?

3. Burnt house (Pl. I/1; II/2; XX). It was identified on the entire surface of trench C III and to the outside of the main drainage channel, in the southern extremity of trench C I, at a depth between -2.15-2.25 m. Below the vertical face trenching between trenches C III and C IV, upon removal, we uncovered a stone foundation, consisting of an alignment of stones oriented approximately north-south, which might represent the western limit of this house. For the rest, no other constructional elements were identified, only variously-sized adobe fragments, exhibiting post prints, much ash, potshards and charred grain seeds.

4. Mortar floor of the Roman building in the first Roman phase of the site (Pl. I/2; II; XIX; XXII) - it was identified in trial trench Cs 4, on a portion of 1.90 × 0.80, along the northern profile of trench C III, at -2.80 m deep.

d. The archaeological features of trench C IV (Pl. I; II/2; XXII/2; XXIII-XXIV)

1. Perimeter wall and mortar floor of a large Roman building (Pl. I/2; II/2; XXII-XXIV).

Elements of the same building were identified in the other investigated trenches too (see above). In trench C IV, we excavated though part of the western perimeter wall foundation of this building, on a 2 m length, practically on the entire trench extent. Part of it (on a 0.60 m length from the northern profile southwards) was removed by a 16th-17th centuries pit (Pl. XXIV/2). The foundation of this wall, 0.80 m thick, was made of large limestone blocks, some carved, bound with mortar. The preserved height of the foundation was of 0.95 m, being placed on a compact yellowish-brown clay layer, beneath which lay the geological level, sterile archaeologically.

The ground level of the discussed building is represented by the mortar floor discovered also in the other investigated trenches, which practically starts from the upper limit of the wall's foundation. In trench C IV, it was excavated on a portion of 2.00 × 0.70 m, at -2.78-2.87 m deep (exhibits a slight gradient from south northwards under the pressure of the succeeding layers).

Based on the surface research, we may approximately establish this building's sizes - 6.00 × 2.90 m - accounting for an impressive building, with possible compartments. Unfortunately, due to the peculiarities of the archaeological site, it could not be excavated entirely, but only parts of it, by trial trenches. Clear elements for a more restricted dating are missing, however, according to the stratigraphic position, it may be framed by mid 2nd century AD.

IV. Archaeological material

The discovered artifacts mainly belong to the Roman period, since the Medieval-Modern levels were removed when the current building was built. Amongst, we shall present below a selection of the most representative, which were a factor in dating the archaeological contexts by the information they provided.

Thus, only one coin was identified, a silver plated denarius, issued in Rome between AD 202-210 under Emperor Septimius Severus (see catalogue no. 1). The archaeological context where it was found - the filling of the Roman sewage - allowed us to date it under the Severans, definitely in the first half of the 3rd century and implicitly, during the last phase of the Roman inhabitancy noted in the area.

Among the bronze objects, the best preserved was a fishhook (or sewing needle?), dated, based on the archaeological context and analogies, to the 3rd century AD (catalogue no. 2, Pl. XXV/1).

The bone objects are represented by two relatively well preserved hairpins, a fragmentary sewing needle (catalogue no. 4, Pl. XXV/3) and another hairpin or sewing needle fragment (catalogue no. 3, Pl. XXV/2).

One of the hairpins has a globular head, type Gudea, Bajusz II/6, Ciugudean 1.1 (catalogue no. 6, Pl. XXV/5), a well known type, very spread both in the Roman empire as well as Dacia, being one of the simplest such accessories produced in the Roman period. Similar items were discovered at Porolissum¹², Buciumi¹³, Apulum¹⁴,

¹² Gudea 1989, 827, catalogue nos. 12-14, Pl. CCLVI; Gudea, Bajusz 1991, Pls. XI/1-7; XII/8-13; XIII/14-22.

¹³ Pop 1972, Pl. C/7-9.

¹⁴ Ciugudean 1997, Pls. II-III.

Ulpia Traiana Sarmizegetusa¹⁵, Micia¹⁶ etc. At Napoca, globular-head hairpins were discovered in the rescue excavations performed in the Central Store¹⁷ extension and on Prahova St.¹⁸.

The other hairpin, with head separated by a succession of grooves and fillets (type Gudea, Bajusz V/5, Ciugudean I.10, Bajusz, Isac V.2) (catalogue no. 6, Pl. XXV/4), very well preserved, is much more elaborate and has also very good analogies in Dacia Porolissensis¹⁹ and the Empire²⁰. On the site at Napoca, a similar hairpin was discovered during the excavations carried out at Central Store²¹.

The few identified glass vessels frame in the bowls (catalogue nos. 10-11, Pl. XXVI/4-5), likely flasks (catalogue no. 9, Pl. XXVI/3) categories. Among the recipients presented in the catalogue, noticeable is a very thin bowl wall (0.5 mm), with a vegetal decoration in relief - a wine leaf - of an exquisite artistic execution (catalogue no. 8, Pl. XXVI/2)²².

Most of the found objects were represented by pottery, belonging to the categories known on the site. Thus, a few import items were identified: a bowl fragment Drag. 37 of *terra sigillata* with relief decoration made by artisan LAXTVCISSA at Lezoux, in Central Gaul (catalogue no. 12, Pl. XXVII/1)²³; a bowl base in type Drag. 33, with the stamp of artisan MACERATVS produced in the same pottery centre, working under Hadrian-the Antonines²⁴ with a *graffiti* made after firing on the base, to the exterior (catalogue no. 13, Pl. XXVII/2); another fragmentary bowl Drag. 33 (catalogue no. 14, Pl. XXVII/3), as well as a *terra sigillata* bowl fragment with relief decoration made locally (catalogue no. 15, Pl. XXVII/4).

The presence of *sigillata* imports from the powerful production centre at Lezoux in Central Gaul is not unusual for the Roman town at Napoca, vessels made there ranking first among the *sigillata* imports in both the analysed settlement²⁵, as well as at province scale²⁶. Instead, artisan LAXTVCISSA, working at Lezoux between AD 145/150-170, is recorded for the first time at Napoca. In fact, the products of the same artisan were rarely discovered in Dacia - either by the identification of his style on relief decorated vessels - at Romula, Stolniceni, unspecified spot in Oltenia²⁷ and Acidava²⁸ -, or by the presence of stamps on plain Samian ware with his name - the only record coming from Apulum²⁹.

¹⁵ Alicu, Nemeş 1982, Pl. I/8.

¹⁶ Cociş, Alicu 1993, Pl. IV/4, 7-8.

¹⁷ Diaconescu et alii 2012, Pl. XIX/1-4.

¹⁸ Crişan 1996, 385, Fig. 5/1, 3.

¹⁹ Bajusz, Isac 2001, Pl. VI/50 - Porolissum; Cociş, Alicu 1993, Pl. VIII/1-13 - Dacia Porolissensis.

²⁰ See similar specimens in Britannia - Crummy 1979, 162 - or Germania - Obmann 1997, Pl. 24/334.

²¹ Diaconescu et alii 2012, Pl. XIX/7.

²² See at Porolissum fragmentary specimens decorated in relief, among which a vessel wall with the depiction of wine spindles - Gudea 1989, 747, catalog nos. 2-3, Pl. CCLXIII (especially no. 2).

²³ PGC, 224-229; Rogers 1999, 155-156.

²⁴ Oswald 1983, 175.

²⁵ Rusu-Bolindeţ 2007, 152-154; Rusu-Bolindeţ 2007a.

²⁶ Rusu-Bolindeţ 2007, 153-155.

²⁷ Popilian 1976, 28, 159, catalogue nos. 18-20, Pl. II; Popilian, Ciucă 1988, 62, 75, catalogue no. 60, Fig. 4.

²⁸ Popilian, Ciucă 1993, 30, 33, catalogue no. 15, Pl. I.

²⁹ Isac 1985, 48, 173, catalogue no. 564, Pl. 64.

We also note the record for the first time at Napoca, as well as in Dacia³⁰, of the products of artisan MACERATVS of Lezoux. The same vessel, with *graffiti* signs on the exterior, whose reading is difficult to interpret (property mark, other significance?) is the second specimen discovered at Napoca, the previous being a *mortarium*-bowl Curle 21, coming from the pottery centre at Rheinzabern³¹. At province scale, such signs incised prior or after firing are present on the walls or base of the vessels discovered on various sites. They were mentioned in different special studies and articles³², the number of those found on *terra sigillata* wares being rather small. We also mention a bowl Drag. 33 discovered at Gherla, where appear a few incised letters, SIV..., likely SEV[ERVS] and other few smaller, difficult to interpret, on the outer part of the vessel base³³. The same recipient has on the base, inside, a rosette-shaped anepigraphic artisan's stamp, yet no other *terra sigillata* ware with signs incised on the base after firing, found in Dacia, bears both the epigraphic stamp of the artisan on the inside as well as incised signs made on the outside³⁴.

The local production of *terra sigillata* with decoration in relief is confirmed by the discovery of a bowl fragment Drag. 37, ornamented with vegetal motifs (Pl. XXVII/4). Respective decoration represents two rosette types, known on the stamped vessels made in the workshops at Napoca³⁵. Compared to the five fragmentary specimens with decoration in relief locally made insofar, including among the ornaments delimiting elements (ovolos) and animal motifs³⁶, the specimen under analysis exhibits in the preserved part only vegetal decoration. This ornamental type was recorded at Napoca only on stamped pottery³⁷, yet the decoration of the local *sigillata* exclusively with vegetal and/or geometric motifs is found also in other production centres from Dacia³⁸.

³⁰ For plain *sigillata* with the artisan's stamp on the vessel base discovered in Dacia until 1985, see Isac 1985, 48-50, Pls. 63-66. For the similar circumstances in Oltenia, see Popilian, Ciucă 1988; Popilian, Ciucă 1993, 40, catalogue nos. 68-70, Pl. IV.

³¹ Rusu-Bolindeț 2007, 164, catalogue no. 133, Pl. XXX.

³² A synthesis on the vessels with *graffiti* made prior or after their firing at province scale was made by Gudea, Cosma 1992; a recent specimen discovered at Apulum, with cursive writing exercises was published by A. Timofan (2009); see also Timofan 2012.

³³ Isac 1985, 50, 177, catalogue no. 590, Pl. 66.

³⁴ *Terra sigillata* specimen at Apulum, indexed by C. L. Băluță in IDR III/6 - nos. 352-357 - have the name incised prior firing either on the base, outside, or on their walls; the same is valid for the items indexed by N. Gudea and C. Cosma in the above mentioned synthesis (see note 32), where among the vessels found in Dacia, *terra sigillata* are an insignificant percentage compared to other pottery categories. Are expressly mentioned as *terra sigillata* with *graffiti* signs yet prior firing the following: a specimen at Romula (Gudea, Cosma 1992, 210, catalogue no. 31), one in Oltenia (Gudea, Cosma 1992, 215, catalogue no. 77 - it might be the same vessel, as the incised name is the same!) and another at Gilău (Gudea, Cosma 1992, 216, catalogue no. 84), which are though the names of the artisans making the moulds in which respective recipients were made as their names were written at their base in cursive prior firing. The specimen at Porolissum (Gudea, Cosma 1992, 218, catalogue no. 105) is the only which seems to have *graffiti* on the base, yet it is not specified whether it was made prior or after firing. For *graffiti* made *ante cocturam* by the potters at Rheinzabern on plain *terra sigillata* see Schücker, Jung, Thomas 2008, with afferent bibliography on the same category of pottery material at the Roman Empire scale.

³⁵ Rusu-Bolindeț 2007, rosettes B1.139 and B1.120, Pl. LXX.

³⁶ Rusu-Bolindeț 2006; Rusu-Bolindeț 2007, 192-195, catalogue nos. 150-156, Pls. XXXIV-XXXV.

³⁷ Rusu-Bolindeț 2007, catalogue no. 272-273, Pl. LV; 275-296, Pls. LVI-LVIII etc.

³⁸ See for instance the circumstances in the large pottery centre at Micasasa, where there are *terra sigillata* moulds, decorated with anthropomorphic and zoomorphic motifs combined with those vegetal, seldom with only vegetal and/or geometric motifs - Rusu-Bolindeț 2011, 99, Fig. 5,3-5, 6,6; at Ampelum

The use by the potters of the same *sigillata* to make the decoration motifs on both the Samian ware as well as the stamped pottery is a practice common to the large Roman pottery centres.

For now, at Napoca the *terra sigillata* wares with decoration in relief is recorded by a very small number of specimens (six), much better recorded being the production of plain Samian ware³⁹ and that of the stamped pottery⁴⁰.

The common ware is represented by the majority of categories known and indexed on the site⁴¹. Among we mention below: the table wares (*vasa escaria*), illustrated by plates (catalogue nos. 16-17, Pl. XXVIII/1-2) and bowls (catalogue nos. 18-19, Pl. XXVIII/3-4); vessels used for transport and food storage - a type of jug unknown to the site (catalogue no. 20, Pl. XXVIII/5); cooking recipients - jars (catalogue no. 21, Pl. XXVIII/6) etc.

The discovered lamps belong to the Firmalampen category and the best known type and well spread in Dacia - Loeschcke X - as the period when such lighting devices are made corresponds to that when Dacia is a Roman province⁴². Of the four specimens identified, one preserved the producer's stamp [FORT]IS (catalogue no. 22, Pl. XXIX/1) - being a local copy of the products of the famous north-Italian producer⁴³. Such specimens - rarely imported, made though on large scale locally - are found in the majority of the sites in Roman Dacia⁴⁴. At Napoca, Loeschcke X type lamps with the stamp of artisan FORTIS were discovered in several points investigated in the ancient town, namely on V. Deleu St.⁴⁵, in the Palatului Telefoanelor area⁴⁶ etc.

Within the rescue excavations carried out on Regele Ferdinand Blvd. no. 29 we also discovered a fragmentary stamped tile (catalogue no. 26, Pl. XXIX/3). The stamped building materials are very rare at Napoca⁴⁷. Except for the tile material with military stamps - the famous stamps *EX(ercitus) D(aciae) P(orolissensis)*⁴⁸, those of *legio V Macedonica*⁴⁹ and with the stamp *FISCI*⁵⁰, at Napoca are not certainly recorded private producers of building materials. The fragment of stamped tile identified had unfortunately the stamp imprinted unequally, so that only two letters are

- Pescaru et alii 2000, Fig. 8/3; Războieni-Cetate - Popovici, Varga 2010, Pls. V/3, VI/5 etc.

³⁹ Rusu-Bolindeț 2007, 195-211, catalogue nos. 157-229, Pls. XXXVI-XLVIII.

⁴⁰ Rusu-Bolindeț 2007, catalogue nos. 230-368, Pls. XLIX-LXV.

⁴¹ Rusu-Bolindeț 2007, 378-433, catalogue nos. 437-641, Pls. LXXXIII-CV.

⁴² Roman 2005, 161-166, 189-190, catalogue nos. 123-125, 166-184, 280-295, Figs. 69-71 - locally made or imported, found at Buciumi, Cășei, Gilău, Ilișua, Napoca, Potaissa and Porolissum.

⁴³ In Dacia Porolissensis, lamps with the producer's stamp FORTIS rank first of total within those of type Firmalampe with stamp, with a percentage of 29% - see Roman 2005, Fig. 70.

⁴⁴ See for instance the lamps stamped FORTIS recorded in a few forts in Dacia Porolissensis at Roman 2006, 64-65, catalogue nos. 77-79, 101-109, 140-142, 144-145, Pls. 13-14, with afferent bibliography.

⁴⁵ Roman 2005, catalogue nos. 173-174, 180, Fig. 68, Pls. 18-19.

⁴⁶ Mitrofan 1964, 202, Fig. 3/2.

⁴⁷ Rusu-Bolindeț 2007, 47.

⁴⁸ Rusu-Bolindeț 2007, 80-81, with the discussion related to the presence of the troops attached to the governor of Dacia Porolissensis at Napoca and the afferent bibliography known until 2007; recently, see the notes on the location of the seat of the financial procurator of Dacia Porolissensis at Napoca based on reinterpreting certain inscriptions and the examination of the spot they were discovered in the toponymy of the town at Piso 2012.

⁴⁹ Mitrofan 1976, 199, 201, Pl. IV/1-3.

⁵⁰ Mitrofan 1976, 200, 202-203, Pls. V-VI; Piso 2012.

visible - M+A in ligature, while other two have only the upper part (or lower part?) visible - S or C and D or E (?). This makes impossible to decipher the stamped name. It is tough possible that the discussed stamp represents the name of a private producer of building material, unknown insofar at Napoca.

V. Chronology elements

For the time being, chronological delimitations imposed by the discovered archaeological material on the site at 29 Regele Ferdinand St. allow for only a general framing of the identified remains. Thus, for the Roman period, we have only one coin from trench C I, a plated denarius issued under Septimius Severus, between AD 202-210. It aids the chronological framing of the last noticed phase of the site between the first half and likely, mid 3rd century AD. The Roman main drainage channel and its branch, alike the possible buildings located by the road they delimited frame in the same phase.

In the case of the burned building identified in trenches C I and C III, given its stratigraphic position - the walls of the Roman main drainage channel were placed directly over this burning layer - one may assume a possible dating to the second half - end of the 2nd century AD, however there are no artefact types to ensure such supposition.

In what the large Roman building is concerned, it may be dated, based on two *terra sigillata* fragments, a Drag. 37 bowl with decoration in relief, produced by potter LAXTVCISSA and a Drag. 33 cup, with the stamp of MACERATVS, both coming from Lezoux (Central Gaul) starting with mid-2nd century AD, which would correspond to the moment when intense building development works were carried out in the Roman town at Napoca.

We did not identify previous earth-and-timber phases for this building; nevertheless one should bear in mind that since the outbuilding foundations were in danger of collapse, we were unable to exhaustively investigate neither the surface nor down to the natural soil, but via trial trenches.

VI. Conclusions

The rescue archaeological research carried out in Cluj-Napoca, in the outbuilding on 29 Regele Ferdinand St., evidenced inhabitancy traces that belonged to the Roman period, the remains of the other periods being destroyed by modern intrusions.

The Roman period - comprises the most important remains discovered on the discussed site, represented by a Roman road (one of the *cardines*), delimited by a main drainage channel, oriented north-south and one of its branches, oriented east-west. This is the second case, within the same area - the north-eastern part of the ancient town - when drainage is found, connected to one of its main roads. Together with the monuments preserved *in situ* at the «Ferdinand Galleries» (drainage with branches and part of a main Roman road - one of the *decumani*) they represent unique monuments discovered within the Roman town at Napoca, designed to provide additional information on its urban development and grid plan.

As regards the part of the street uncovered on Regele Ferdinand St. no. 6, this it frames in the *viae silicae stratae* category, being paved with yellow limestone slabs. Its structure is specific to a Roman road, being built according to *Vitruvius's* principles. Only the southern limit of the road is known, provided by the edge of a main drainage channel, over which the limestone slabs that constituted the respective road sidewalk were placed.

In what the main drainage channel is concerned, it was oriented in parallel to the road and was identified on a 4.10 m length. Its width varied between 0.50 m (at base) and 0.68 m (in the upper part) and 1.20 m in height, being built of large yellow limestone blocks, placed on top of the other, without mortar binding. It had a slight east-west tilt. A secondary channel, differently oriented (north-west - south-east), unearthed on a length of 1.50 m, discharged its drain in the first. It was 0.50 m wide and 0.65 m tall and had its own south-east - north-west oriented branch. Both were built according to the same construction technique as the main drainage channel. The road and channels were dated to the 3rd century AD. Their discovery represented a significant contribution in delimiting the grid plan of the ancient town, much less known at the time⁵¹.

In the central-north-eastern part of the Roman town, other street and sewage portions were discovered. Thus, to the north-east of St. Michael Roman Catholic Church, the archaeological excavations performed by J. Bedäus in 1822 led to the discovery of a one meter deep ditch with walls made of "rectangular cut stone blocks", oriented south-east - north-west, located under the slabs of a courtyard paved with marble blocks, delimited by a portico oriented similarly to the sewerage⁵². The recent rescue archaeological excavations performed in the Museum of Art courtyard unearthed the slabs of another street, approximately oriented north-south⁵³. The authors of the research deemed it one of the *cardines*, oriented parallel to *cardo maximus*, running from Unirii Square to the front of Bánffy Palace and along the Regele Ferdinand St.⁵⁴. The same archaeologists believe that *decumanus maximus* might be located along 21 Decembrie Blvd and Memorandumului St., hypothesis grounded on the fact that during the Middle Ages, these streets were preserved as they represented two main access routes to the medieval town, respectively *Hid utcza* and *Belső Monostor utcza*⁵⁵.

Concurrently, in the Museum Square, the archaeological research carried out there led to the discovery of one of the *cardines* and of a sewage channel oriented south-east - north-west⁵⁶, while in the *insula* investigated on Deleu St., the unearthing of a portico oriented east-west made the archaeologists believe it was aligned to one of the main town streets - one of the *decumani*⁵⁷.

In the specialty literature, attempts were made to identify the street grid of the ancient town at Napoca. Based on the data known related to the route of the Roman town enclosure and on archaeological finds, I. Bogdan-Cătănicu tried to establish the

⁵¹ Rusu-Bolindeț 2007, 91-92.

⁵² Voișian, Bota, Ciongradi 2000, 269 and note 30; Rusu-Bolindeț 2007, 92 and note 199.

⁵³ Pupeză 2011, 226, Pl. XXV; Antal, Pupeza 2012.

⁵⁴ Pupeza 2011, 229; Antal, Pupeza 2012.

⁵⁵ Pupeză 2011, 229.

⁵⁶ Wittenberger et alii 1993, 17, no. 31 A; Bogdan-Cătănicu 1999, 68; Rusu-Bolindeț 2007, 92.

⁵⁷ Cociș et alii 1998, 17; Rusu-Bolindeț 2007, 90.

street grid of Napoca, proposing a modulation into *actus* - 15 on the north-south axis and 12 on the east-west axis⁵⁸.

According to the observations on the original inhabitancy nucleus in the Roman settlement at Napoca, located, as per the author, in the central-western part of the future town⁵⁹, related to the location along the imperial road connecting Potaissa to Porolissum and the presence of the bridge over Someș river, Al. Diaconescu suggested that the two main axes of the town at Napoca, namely *cardo* and *decumanus maximus*, must have been set depending on the two main roads crossing the town. If the first road, running from south to north, came from Potaissa and ran to Porolissum (as mentioned above), the other, oriented east-west, connected the forts at Gilău and Gherla along the Someș river valley⁶⁰.

Based on field research, surveys and use of the known archaeological research results, D. Ursuț⁶¹ and Fl. Fodorean⁶² endeavoured to determine the street grid of the town at Napoca. However, since none of the main roads of the ancient town are known, the authors indicated the route of the Roman road coming from Potaissa, entered by the southern gate of the town and ran to Porolissum, respectively the roads connecting Napoca to the forts at Gilău, Bologa, Gherla and Cășeiu⁶³.

The one scholar to express most recently his view concerning the topography of the ancient town at Napoca is I. Piso. Reviewing the reading of the inscriptions recording the activity of the financial procurators of Dacia Porolissensis at Napoca, the author also reassesses the find spot of respective items, clustering in the north-eastern part of the ancient town (mainly where Central Store is located). This leads to the idea that their residence was located to the eastern end of *cardo maximus* (located along Regele Ferdinand St.), just nearby the northern entrance of the town. The circumstances are similar to those at Ulpia Traiana Sarmizegetusa, where the seat of the financial procurator of Dacia Apulensis occupied *insulae* located south the northern gate of the town and by the eastern limit of *cardo maximus*⁶⁴.

Therefore, the systematic or rescue archaeological excavations performed during the last decades of the 20th and 21th centuries, among which also counts that carried out on 29 Regele Ferdinand St., brought significant contributions in delimiting the street grid of the ancient town, known, for the time being, in a few of the sites. The review of previous and recent archaeological finds together with an accurate topographical location of street parts and afferent sewages will definitely bring new data aimed at providing a much more complete image of the urban planning of the Roman town at Napoca.

Concurrently, the other stages and revealed constructional elements, among which the large building dating to mid 2nd century AD is distinguishable, provide precious information on the urban development of the Roman town at Napoca.

⁵⁸ Bogdan-Cătănicu 1999, 67-68, Fig. II.

⁵⁹ Diaconescu 2004, 118-119, Fig. 4.18.

⁶⁰ Diaconescu 2004, 119.

⁶¹ Ursuț 1997; Ursuț 1999; Ursuț 2008.

⁶² Fodorean 2006, 317-318, Fig. 3.54.

⁶³ Ursuț 1999, 234-238; Fodorean 2006, 189-194, Fig. 3.27; 194-197, Fig. 3.28; 317-318, Fig. 3.54; Ursuț 2008, 83-87, Figs. 43 A-B; 87-103, Figs. 45-63.

⁶⁴ Piso 2012.

The stone building discovered on Regele Ferdinand St. no. 29, alike the other house, with timber structure, which was burnt, are part of an intensively inhabited area in the north-eastern part of the Roman town. Concurrently, fortunately, more rescue excavations were carried out there compared to other areas of the ancient town, which allowed a better understanding of its urban development. Thus, the buildings discovered on St. V. Deleu⁶⁵ and Muzeului Square⁶⁶, those on the location of Central Store⁶⁷ and those along St. Regele Ferdinand (former Horea)⁶⁸, seem to confirm the theory according to which this area must have represented the original nucleus of the Roman settlement, linked, as mentioned, to the northern gate of the town and the bridge over Someş river⁶⁹, whose subsequent evolution was related by the presence there of the seat of the financial procurator of Dacia Porolissensis.

We hope that the preventive archaeological excavations performed on Regele Ferdinand St. no. 29 would contribute, by the unearthed constructional elements (sewage, likely one of the *cardines*, stone and timber buildings), in completing the image concerning the urban development of the Roman town at Napoca. By correlating all similar excavations unfolding on the archaeological site within the territory of the current city, we hope to provide an as much as possible objective view on what the ancient society at Napoca meant.

SELECTIVE CATALOGUE⁷⁰

Coins⁷¹

1. Fragmentary silver plated denarius. Bz. Septimius Severus.

Obverse: [SEVERUS PIV]S AV[G].

Reverse: ADVE[NTVS AVGVSTI]; front legs of a horse moving to the right.

RIC IV.1, 122, no. 249, Roma, 202-210 AD.

Archaeological context: trench CII, Cxt 7, -1.88 m. MNIT, no inv. no.

Bronze objects⁷²

2. Bronze fishhook (?). Pl. XXV/1. Complete. L = 3.2 cm, dmax. = 0.2 cm. Trench C II, Cxt 26, -2.45 m. Dating: 3rd century AD. Analogies: Porolissum, Gudea 1989, 679, Pl. CCXXIV/19 (where is listed though as sewing needle); MNIT, inv. no. V. 61045.

⁶⁵ Cociş et alii 1995.

⁶⁶ Mitrofan 1964, 200, 206, Figs. 1, 3/2, 4-6; Matei, Ardevan 1987-1988, 1065-1068, Pls. I-IV; Wittenberg et alii 1994; Bogdan-Cătănciu 1999, 68; Rusu-Bolindeţ 2007, 90-91.

⁶⁷ Diaconescu et alii 2012.

⁶⁸ Mitrofan 1964, 200; Mitrofan 1976; Rusu-Bolindeţ 2007, 91-92.

⁶⁹ Diaconescu 2004, 118-119, Fig. 4.19.

⁷⁰ The archaeological material yielded by the preventive excavation on Regele Ferdinand St. no. 29 is plentiful, mainly the pottery. However, since any comprehensive presentation would be impossible within the framework of an article, its complete processing shall be made in the site's archaeological monograph.

⁷¹ The coin was determined by Dr. Cristian Găzdac, whom we express our warm thanks for his support.

⁷² The following abbreviations were used in the presentation of the analysed items: L = length; l = width; h = height; rd = rim diameter; bd = base diameter; dmax. = maximum diameter; wt. = wall thickness.

Bone objects

3. Pin or sewing needle. Pl. XXV/2; tip fragment; Lp = 3.8 cm; dmax = 0.3 cm; Trench C III, Cxt 30, -2.10 m. MNIT, inv. no. V. 61041.
4. Sewing needle. Pl. XXV/3; approximately 2/3 of the artifact is preserved - missing tip and part of the upper side; L = 6.2 cm; dmax = 0.4 cm. Trench C II, Cxt 26', -2.60 m deep. 3rd century AD. Analogies: Cociş, Alicu 1993, 114, 120, Pl. XIV/11; Diaconescu et alii 2012, Pl. XIX/15. MNIT, inv. no. V. 61042.
5. Pin with head separated by a succession of grooves and fillets, type Gudea, Bajusz V/2, Ciugudean I.10, Bajusz, Isac V.2. Pl. XXV/4; preserved almost complete, except for the terminal extremity of the head. L = 12.2 cm; dmax. = 0.5 cm. Archaeological context: trench C I, in the modern sewage pit. Dating: according to analogies - the 3rd century AD: Porolissum - Bajusz, Isac 2001, Pl. VI/50; Gherla - Cociş, Alicu 1993, 117, catalogue no. 66, Pl. VII/1; Dacia Porolissensis - Cociş, Alicu 1993, Pl. VIII/1-13. MNIT, inv. no. V. 61041.
6. Pin with globular head, type Gudea, Bajusz type II/6, Ciugudean 1.1. Pl. XXV/5; preserved complete, except for the tip. L = 5 cm, dmax. = 2.5 mm. Trench C I, Cxt 7 (in the Roman sewage filling), -1.77 m. Dating: 3rd century AD, both based on the archaeological context as well as the analogies: Porolissum - Gudea 1989, 827, catalogue nos. 12-14, Pl. CCLVI; Cociş, Alicu 1993, 117, catalogue no. 45, Pl. V/6; Buciumi - Pop 1972, Pl. C/7-9; Apulum - Ciugudean 1997, Pls. II-III; Ulpia Traiana Sarmizegetusa - Alicu, Nemeş 1982, Pl. I/8; Micia - Cociş, Alicu 1993, Pl. IV/4, 7-8 etc. MNIT, inv. no. V. 61043.

Glass vessels

7. Bowl with incised lines on the body, likely type Isings 12, Rützi AR 34/I A, Weinberg-Stern no. 175. Pl. XXVI/1. Wall fragment; 2.1 × 2 cm, wt. = 1-2 mm. Greenish glass, transparent. The vessel exhibits two rows of fine parallel incisions on the outside, in the area below the rim and in that making the transition to the vessel base. Trench C I, Cxt 7 (in the Roman sewage filling), -2.26 m. 3rd century AD based on the archaeological context yet the analogies, both from the Agora of Athens as well as those at Augst and Kaiseraugst belong to earlier contexts, framed from the 1st century to early 2nd century AD. MNIT, without inv. no.
8. Cup wall fragment. Pl. XXVI/2; 2 × 1.5 cm, wt. = 0.5 mm; white glass, semitransparent. A decoration in the shape of wine leaf, with very well outlined lobes and tip down was applied onto the vessel wall. Trench C I, Cxt 7, -2.26 m. Analogies: Porolissum - Gudea 1989, 747, catalog nos. 2-3, Pl. CCLXIII. MNIT, inv. no. V. 61064.
9. Flask base, type Isings 50 or 51. Pl. XXVI/3; vessel base preserved; bd = 11 cm; wt. = 2-3 mm. Greenish, transparent glass. Trench C III, Cxt 30, -2.10 m. 2nd-3rd centuries (both Isings forms are known as early as the 1st century; the earlier appear in Augustan contexts). MNIT, inv. no. V. 61048.
10. Bowl, type Hayes 1975, no. 183, Rützi AR 98.2. Pl. XXVI/4; rim fragment; rd = 11 cm; wt. = 0.07-0.14 mm. Rounded rim, slightly thickened to the exterior and marked by a fine groove, bevelled inward; curved walls. White, transparent glass. Trench C I, Cxt 7 (in the Roman sewage filling), -2.26 m. Dating: 3rd century AD based on the archaeological context, while according to the analogies - AD 150-250 (Hayes 1975) or mid 2nd century until the second half of the 3rd century (Rützi 1991, 94, catalogue no. 1812, Taf. 82). MNIT, inv. no. V. 61047.
11. Bowl, type Hayes 1975, no. 182). Pl. XXVI/5. Rim and body fragment; rd= 10 cm, wt. = 0.13- 0.34 mm. Greenish, transparent glass. Rounded rim, vertical, thickened and faceted on the outside; curved walls. Trench C III, Cxt 30, -2.10 m. 3rd century AD. MNIT, inv. no. V. 61046.

Pottery

Terra sigillata

Import *terra sigillata*

a. *Terra sigillata* with relief decoration

12. Bowl Drag. 37. Pl. XXVII/1. Rim and body fragment; rd = 32 cm; hard red-brown fabric (Munsell 10R, 6/8), with limestone, silver and red-brown iron-rich grains inclusions; dark red slip, smooth and lustrous (Munsell 10R, 4/8). Decoration: 1. Ovolos (Rogers 1974, B70), under which lies 2. an astragal border (Rogers 1974, A10). Below the mentioned delimiting ornamental motifs, decoration was set on panels, delimited by 3. beaded borders (Rogers 1974, A2) with each of the ends with 4. astragals (Rogers 1974, R20; PGC, Fig. 27/3, Pl. 97/4) and 5. medallions or semi-medallions in festoon shape (Rogers 1974, F15). Inside such a semi-medallion, the single preserved of the decorated part of the vessel, was depicted a 6. lion running to the left (PGC, Pl. 99/16). On the lion head is noticeable a trace of careless smoothing, which flattened part of the mane. Lezoux, style of LAXTVCISSA. Dating: according to the artisan and workshop - AD 145/150-170 (PGC, 224-229; Rogers 1999, 155-156), end of the 2nd century based on the archaeological context. Trench C IV, Cxt 30, -2.30 m. MNIT, inv. no. V. 61032.

b. Plain *terra sigillata*

13. Fragmentary cup Drag. 33. Pl. XXVII/2; preserving only the ringbase and small part of the vessel wall; bd = 5 cm; L cartridge stamp = 2.7 cm; letters h = 3 mm. Fine, light reddish fabric (Munsell 10R, 6/8), with very fine calcite, iron oxides and mica inclusions; red slip, smooth and lustrous (Munsell 10R, 5/8).

The vessel is stamped on the inside, namely on the base. The stamp cartridge is rectangular, framed by two concentric circles, with well defined letters in relief. The name of the artisan appears in Genitive as MACERATI - artisan working in the workshops at Lezoux, Central Gaul. The vessel also exhibits *graffiti* on the outside - it is a sign in the shape of X letter (h = 1.3 cm), with approximately equal arms. The right arm is slightly curved in the upper part, and the left arm is much more elongated upward than the other. The latter is cut by another line, poorly incised, shorter and parallel to the right arm of the first sign (L = 1.2 cm). At its turn, the second incised sign is cut by a very short line (L = 0.8 cm), which seems to form with the preceding a sign still similar to letter X, however with a much shorter span of the two sides. MACERATVS, Lezoux, Central Gaul. Activity period: Hadrian- the Antonines (Oswald 1983, 175). Dating based on the archaeological context: first half of the 3rd century AD. Trench C I, Cxt 16, -2.20 m. MNIT, inv. no. V. 61031.

14. Fragmentary cup Drag. 33. Pl. XXVII/3; rim and body fragment; rd = 10 cm. Fine, light reddish fabric (Munsell 10R, 6/8), with fine calcite, iron oxides and mica inclusions; red slip, smooth and lustrous (Munsell 10R, 5/8). Workshops at Lezoux, Central Gaul, according to the fabric and slip. Dating: the Antonines (Webster 1996, 45, Fig. 30, 70). Trench C III, Cxt 13, -1.80 m. MNIT, inv. no. V. 61036.

Local *terra sigillata*

15. Bowl fragment Drag. 37. Pl. XXVII/4; body fragment - the rim-wise part; d = 8 cm. Fine, yellowish fabric (Munsell 10YR, 8/3), with fine calcite and mica inclusions; traces of

yellow-brownish slip (Munsell 10YR, 6/6) on both sides. On the preserved fragment appears a vegetal decoration, consisting of: 1. Row of large rosettes ($d = 2$ cm) (Rusu-Bolindeț 2007, B1.139), placed horizontally, at equal distances in-between, below which appear 2. a row of small rosettes ($d = 1.1$ cm) (Rusu-Bolindeț 2007, B1.120), of which one is located in the space between two large rosettes, while the other cuts the large rosette from the left. The decorated part of the vessel was delimited by the base by a grooving, on top of which appear the small rosettes. Trench C II, Cxt 26, -2.60 m. Dating: the 3rd century AD. MNIT, inv. no. V. 61039.

Common pottery

16. Plate, variant of type Rusu-Bolindeț CC 1 B2. Pl. XXVIII/1; preserved in 40% proportion; $rd = 18$ cm; $bd = 14$ cm; $h = 4$ cm. Fine, light red fabric (Munsell 2,5YR, 7/6), shiny brown-reddish slip (Munsell 2,5YR, 5/8), evenly distributed inside, carelessly distributed on the outside and base. Dating: end of the 2nd century according to the archaeological context. Analogies: form frequently found in both Dacia as well as the other provinces of the Roman empire - see Rusu-Bolindeț 2007, 403, with afferent bibliography; 418, catalogue no. 540, Pl. XCI. Trench C III, Cxt 14, -1.20 m. MNIT, inv. no. V. 61 033.

17. Plate, variant of type Rusu-Bolindeț CC 1 B6. Pl. XXVIII/2; rim fragment; $rd = 29$ cm; fine, red fabric (Munsell 10R, 6/8), with fine iron oxides and mica inclusions; red slip (Munsell 10R, 4/8). Dating: starting with the second half of the 2nd century AD. Analogies: form frequently found in Pannonia and rarely in Dacia - see Rusu-Bolindeț 2007, 404, with afferent bibliography; 418, catalogue no. 546, Pl. XCI. Trench C III, Cxt 30, -1.40 m. MNIT, inv. no. V. 61051.

18. Bowl, copy of type Drag. 30?; Pl. XXVIII/3; rim and body fragment; $rd = 12.5$ cm; $hp = 4$ cm. Fine, orange-yellowish fabric (Munsell 5YR, 6/8), with average calcite and mica inclusions; red slip (Munsell 2,5YR, 6/8), with poor adherence to the vessel wall. Analogies: the form may likely be a distant variant of smaller size of bowl type Drag. 30 - for standard form analogies see Rusu-Bolindeț 2007, 198, with afferent bibliography; 220, catalogue no. 158, Pl. XXXVI. Trench C I, Cxt 29, -1.75 m. MNIT, inv. no. V. 61052.

19. Bowl type Drag. 37, distant variant. Pl. XXVIII/4; rim fragment; $rd = 20$ cm. Fine, orange-yellowish fabric (Munsell 5YR, 7/6), with fine calcite and mica inclusions, sporadic iron oxides; dark orange slip (Munsell 5YR, 7/8). Dating: Marcus Aurelius-Septimius Severus according to the analogies. It is one of the most frequent bowl forms, found both in the repertories of either *sigillata* with relief decoration or plain, as well as the common pottery in Dacia and the western provinces of the Roman empire - see Rusu-Bolindeț 2007, 203-204, with afferent bibliography; 223, catalogue no. 179, Pl. XXXIX. Trench C II, Cxt 27, -1.50 m. MNIT, inv. no. V. 61 050.

20. Fragmentary jug. Pl. XXVIII/5; preserving the mouth, neck and handle, the body art in the upper third; $rd = 4.5$ cm; $hp = 11$ cm. Fine, red fabric (Munsell 10R, 6/8), with fine calcite and iron oxides inclusions, dark red slip (Munsell 10R,5/8) on the outside. The vessel has a narrow mouth, reverted rim, triangular in section, high neck and ovoid body. It has a slightly grooved handle, attached just below the rim and above the maximum diameter. Trench C I, Cxt 7, -1.70 m. Dating: 3rd century AD. Analogies: Histria, form Suceveanu XLV, 146, catalogue no. 11, Pl. 68, dated by the end of the 2nd century and in the 3rd century AD. MNIT, inv. no. V. 61030.

21. Jar type Rusu-Bolindeț CC 10B. Pl. XXVIII/5; rim and body fragment; $rd = 14$ cm. Coarse, dark grey fabric (Munsell 10G, 4/1), with average quartz and calcite inclusions, fine mica inclusions; dark grey slip (10G, 2.5/1) on the outside, incomplete firing. Dating: the second half of the 2nd century - first half of the 3rd century AD based on analogies. Jar form produced starting with mid 2nd century until the first half of the 3rd century AD in Dacia and the western provinces of the Roman empire - see Rusu-Bolindeț 2007, 411, with afferent bibliography; 420, catalogue no. 570, Pl. XCV. Trench C I, Cxt 29, -1.70 m. MNIT, inv. no. V. 61053.

Lamps

22. Fragmentary lamp of type Loeschcke X. Pl. XXIX/1; preserving part of the basin and the recipient base; bd = 5 cm. Fine, orange-yellowish fabric (Munsell 5YR, 7/6), with fine iron oxides, mica and calcite inclusions; orange brown slip (Munsell 5YR, 5/6), distributed unevenly on the basin surface and base of the lamp on the outside. It bears the producer's stamp [FORT]IS on the base, with letters in relief, capitals, of h = 7 mm, framed by three concentric circles. Dating: the 3rd century AD according to the archaeological context. For the numerous analogies of the lamps with the producer's stamp FORTIS in Dacia see the discussion within the text. Trench C II, Cxt 26, -2.60 m; MNIT, inv. no. V. 61038.

23. Lamp of the type Loeschcke X. Pl. XXIX/2; preserved in 90% proportion, except the nozzle and a handle; Lp = 8 cm; db = 5 cm; h = 3 cm. Fine, orange-yellowish fabric (Munsell 5YR, 7/6), with fine and average calcite inclusions, fine mica inclusions; dark orange -brownish slip (Munsell 5YR, 5/6), slightly shining, yet unevenly distributed on the lid and part of basin. The shoulder has two decorative knobs. The handle must have been lamellar. There is no producer sign on the base. Dating: the 3rd century AD based on the archaeological context. Trench C I, Cxt 7 (in the filling of the Roman sewage), -1.77 m. MNIT, inv. no. V. 61034.

24. Fragment of type Loeschcke X lamp discus. Not illustrated; 3.3 × 1.5 cm. Fine, light red fabric (Munsell 2,5 YR, 6/8), with fine inclusions of iron oxides and mica; red slip (Munsell 2,5 YR, 6/8), slightly shining on the outside. Trench C II, Cxt 2, -1.65 m; MNIT, inv. no. V.61 037.

25. Fragment of type Loeschcke X lamp basin. Not illustrated; 4 × 2 cm. Fine, yellowish fabric (Munsell 7,5YR, 8/6), with fine calcite and mica inclusions; dark orange-brownish slip (Munsell 7,5YR, 6/8) distributed unevenly on the basin exterior. Two concentric circles on the base, likely delimiting the producer's stamp. Trench C IV, Cxt 39, -2.70 m; MNIT, inv. no. V. 61049.

Stamped building materials

26. Fragmentary tile. Pl. XXIX/3; 11.5 × 14.5 × 2.8 cm. Coarse, red fabric (Munsell 10R, 4/8), with large quartz, calcite, straws and mica inclusions; complete firing. The tile was stamped. The stamp cartridge is rectangular, yet the punch was not sufficiently pressed except for the upper part, where the cartridge edge is visible and might have caught one of its edges (from the right or left). The cartridge was preserved on a length of 9.8 cm and an h = 3 cm. From the letters in relief inside, with the two by the cartridge extremity are noticeable only the upper part because of the poor imprinting - a C or an S, followed by a D or E (?) The single visible letters are only M+A in ligature, missing the rest of the name. Under such circumstances, it is hard to restore the stamp inscription - likely the name of a private manufacturer of Napoca, unknown until present (?). Trench C III, Cxt 8, -1.30 m; MNIT, inv. no. V. 61040.

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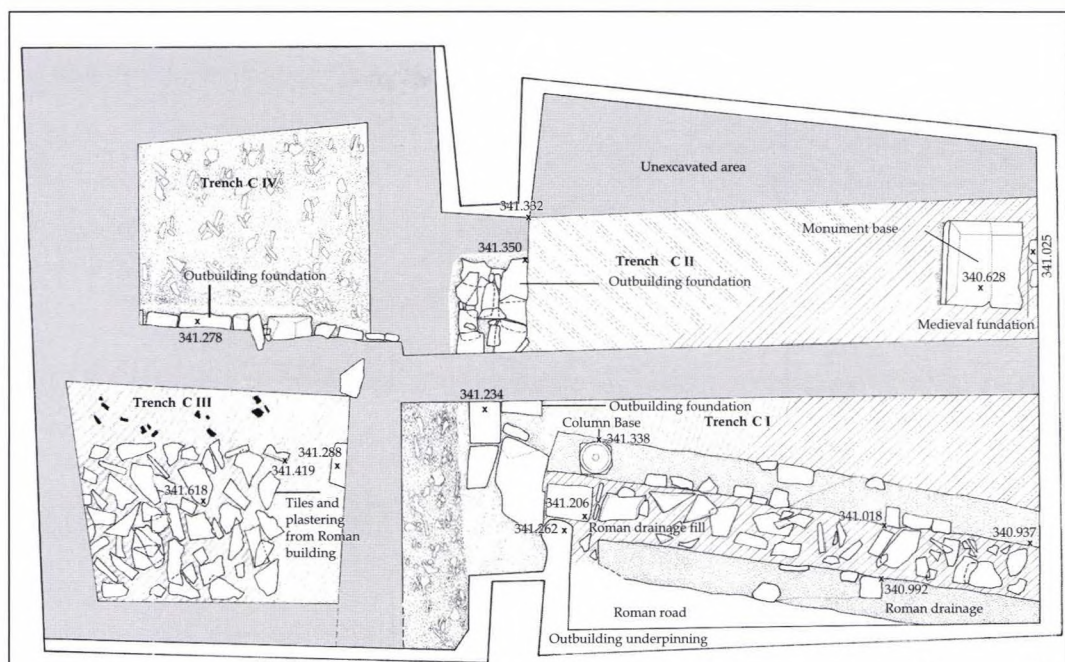
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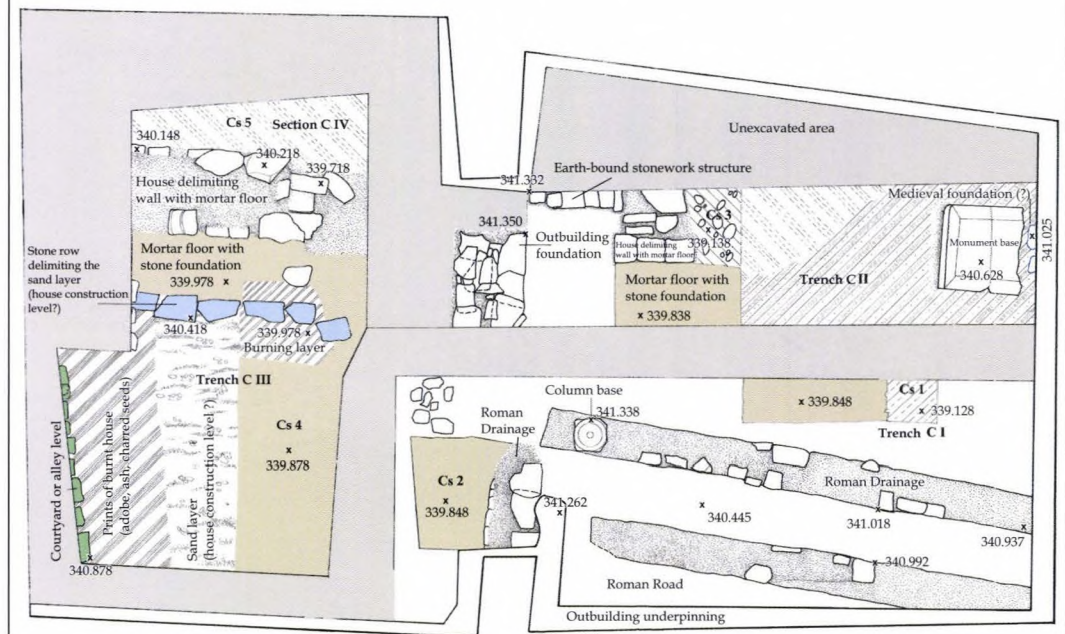
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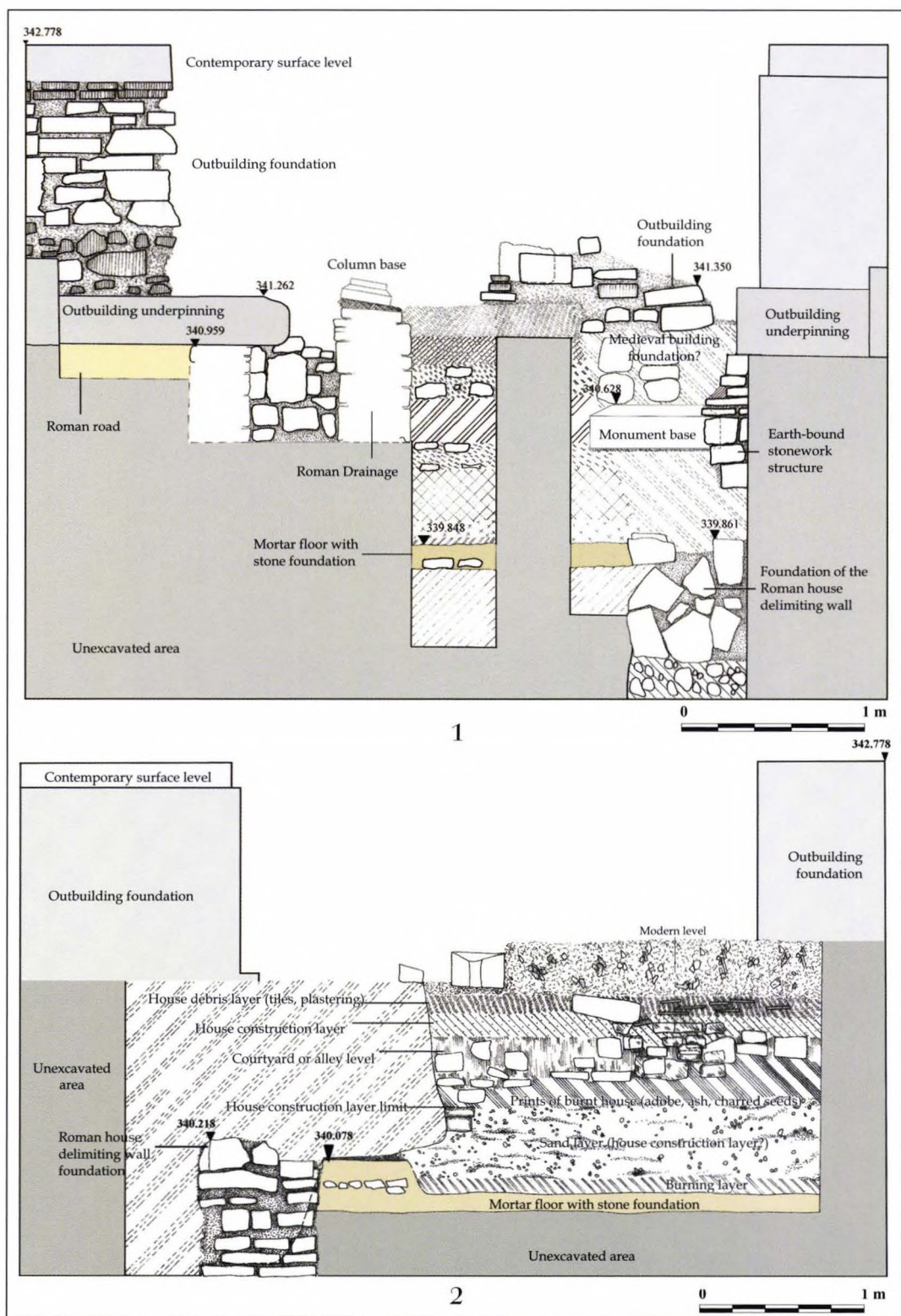


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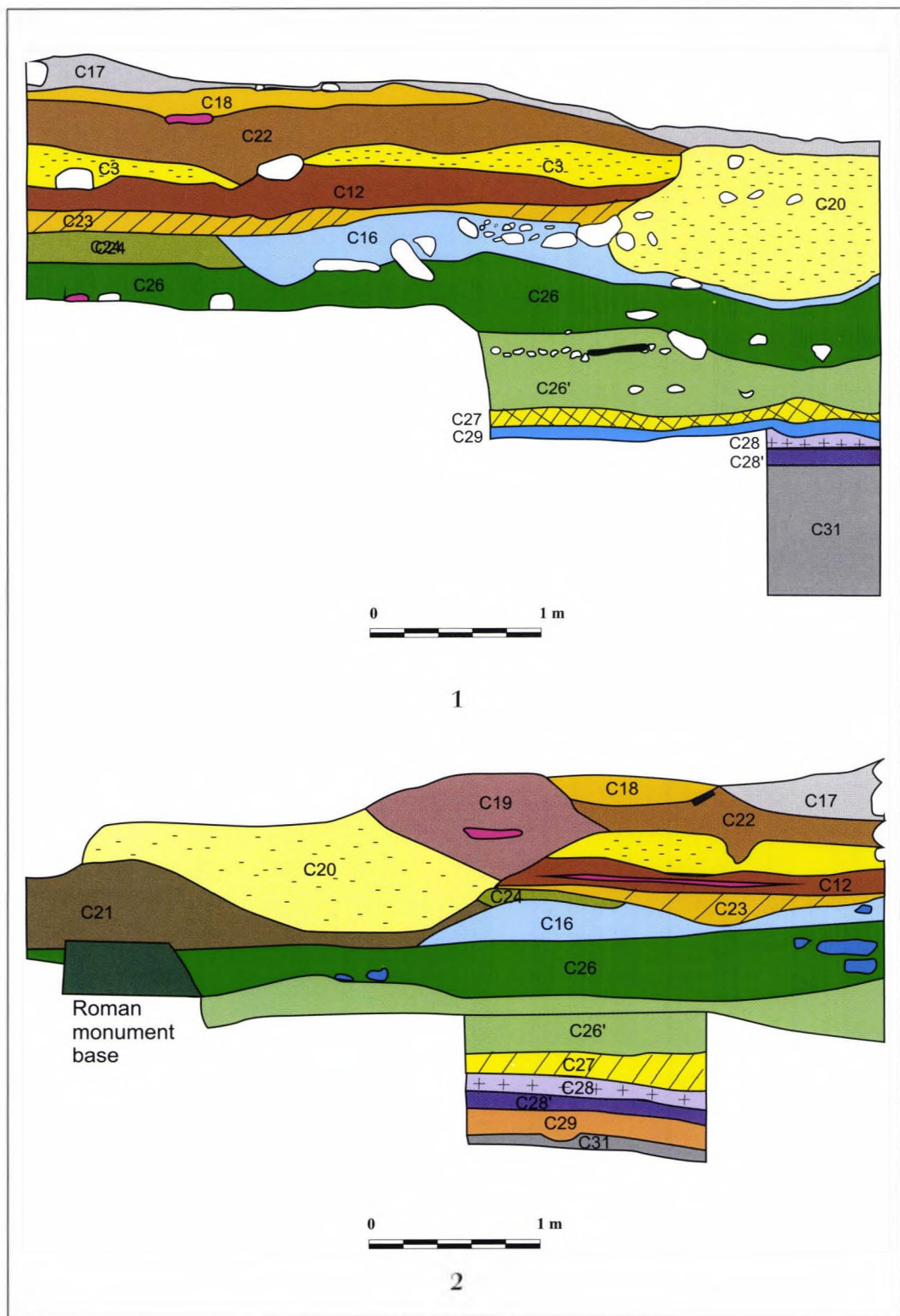


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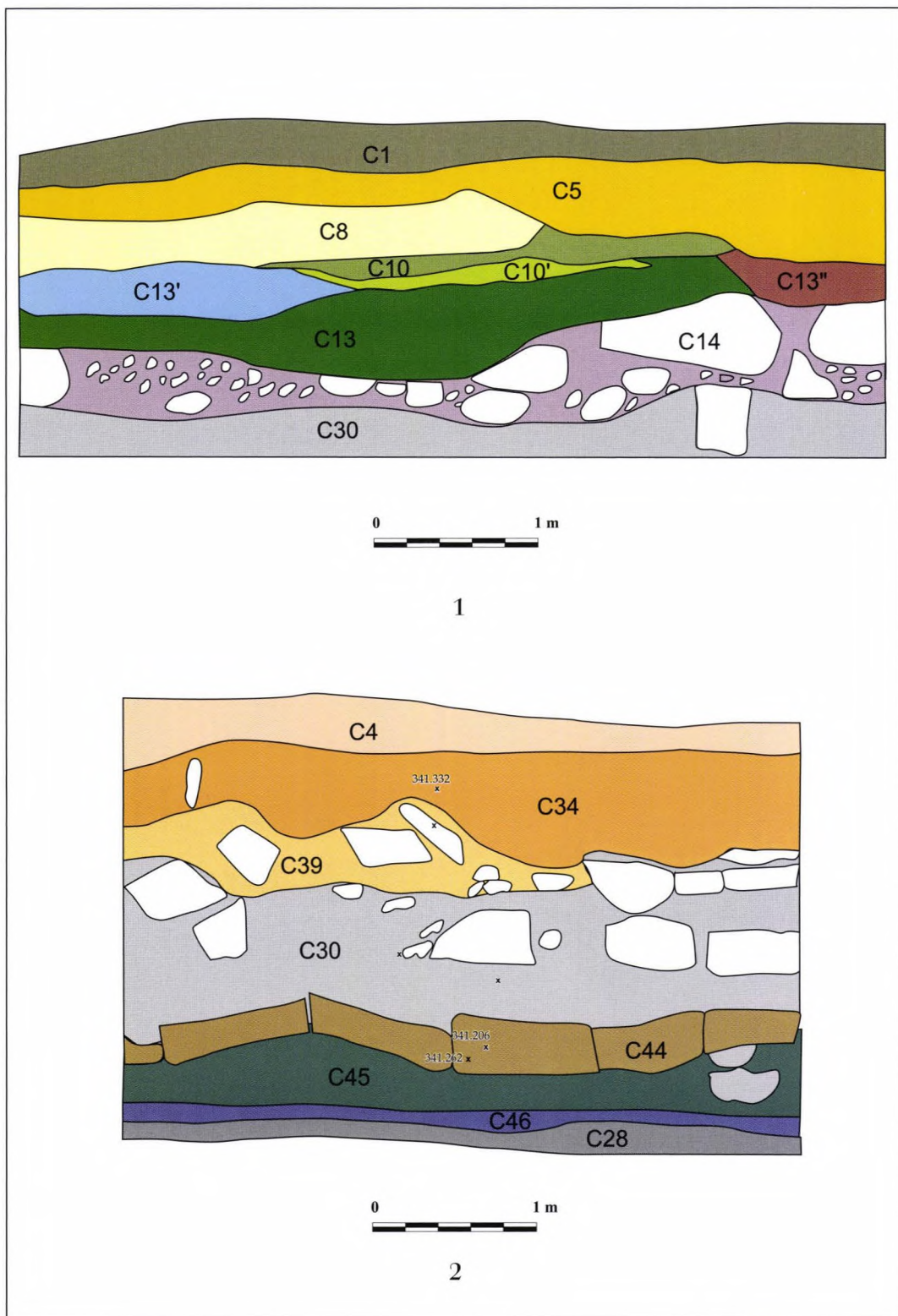
Pl. I. General plan of the excavation: 1. Third Roman phase (3rd century AD); 2. First and second Roman phases (2nd century AD).



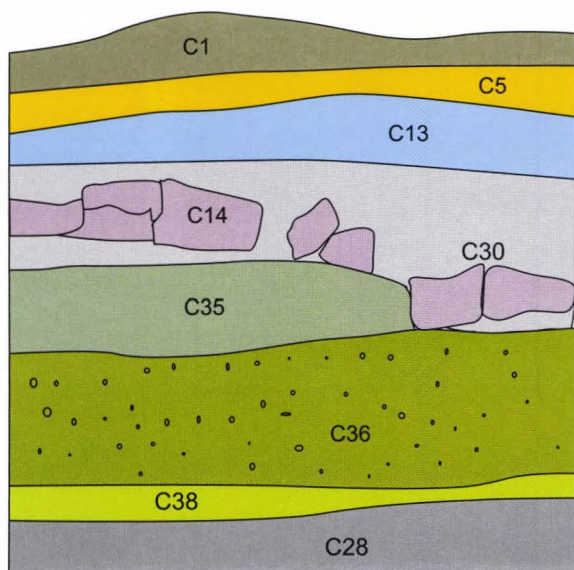
Pl. II. 1. Transverse section through trenches C I and C II; 2. Transverse section through trenches C III and C IV.



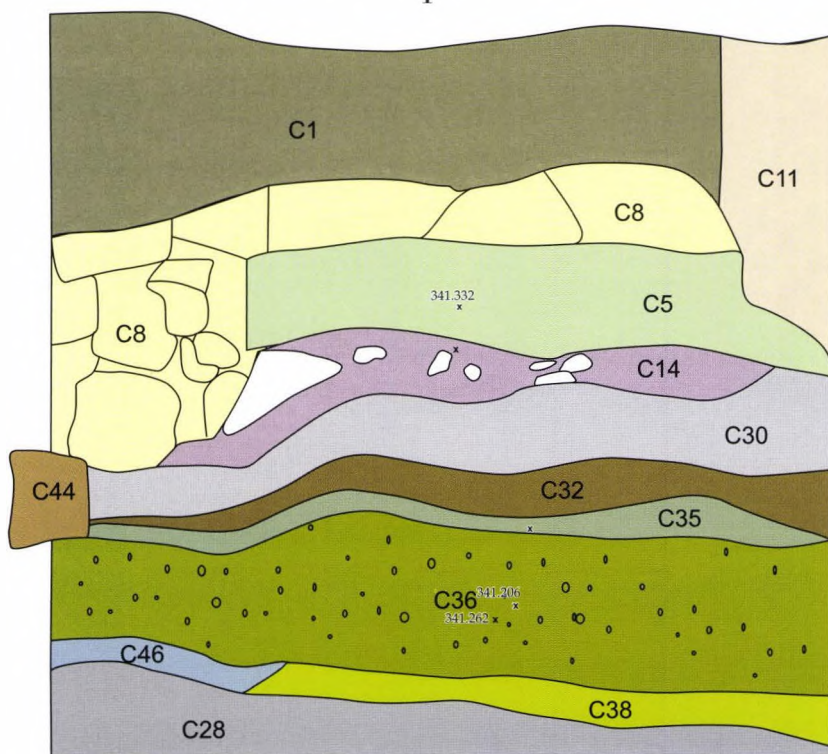
Pl. III. Trench C I, the western profile; 2. Trench C II, the eastern profile.



Pl. IV. 1. Trench C III, the western profile; 2. Trench C IV, the eastern profile.

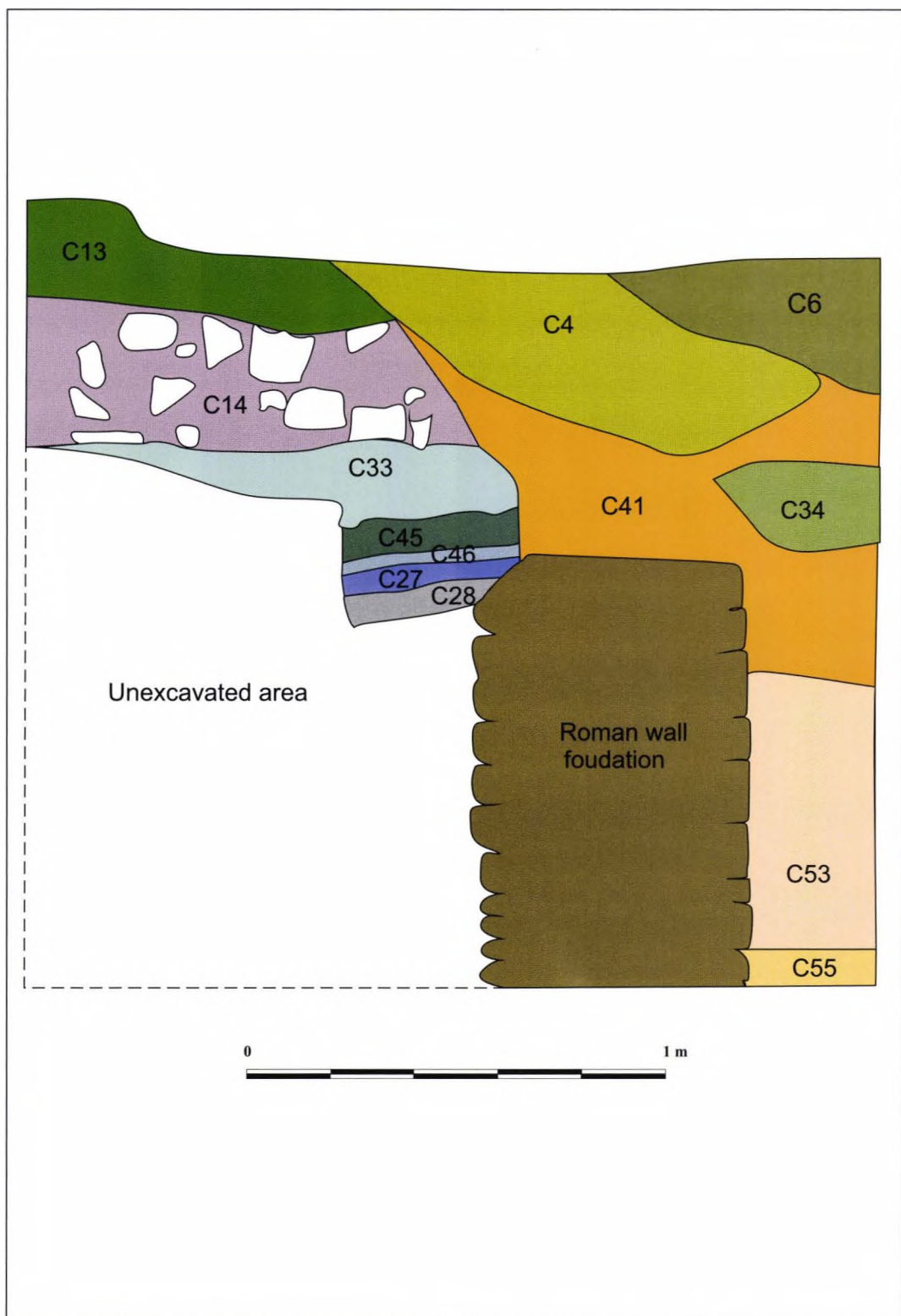


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Pl. V. 1-2. Trench C III, the northern and southern profiles.



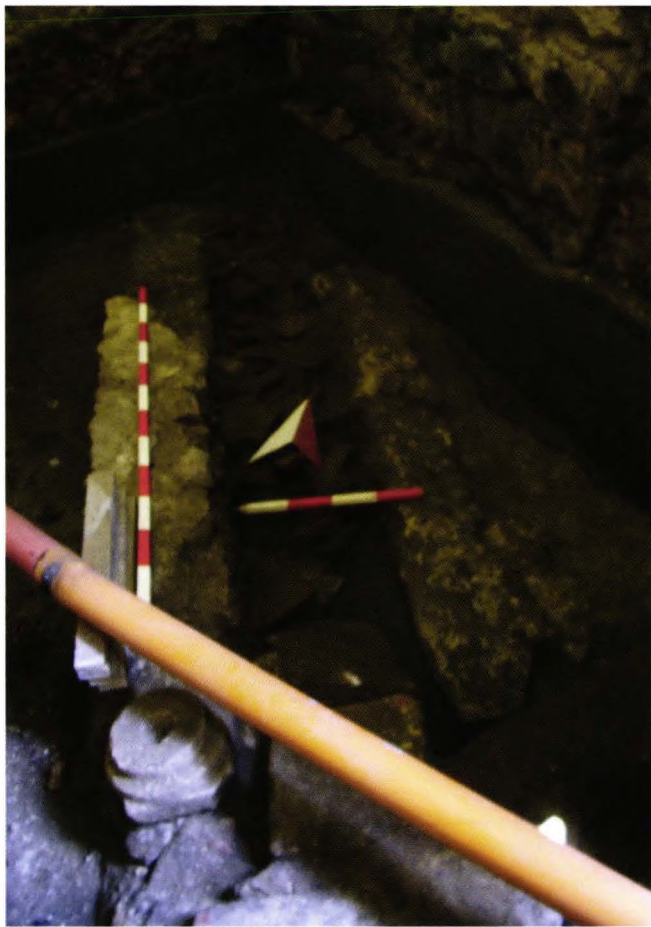
PL. VI. Trench C IV, the southern profile.



Pl. VII. General view of the excavation from south-west.



Pl. VIII. Trenches C I and C II – general view from south-east.

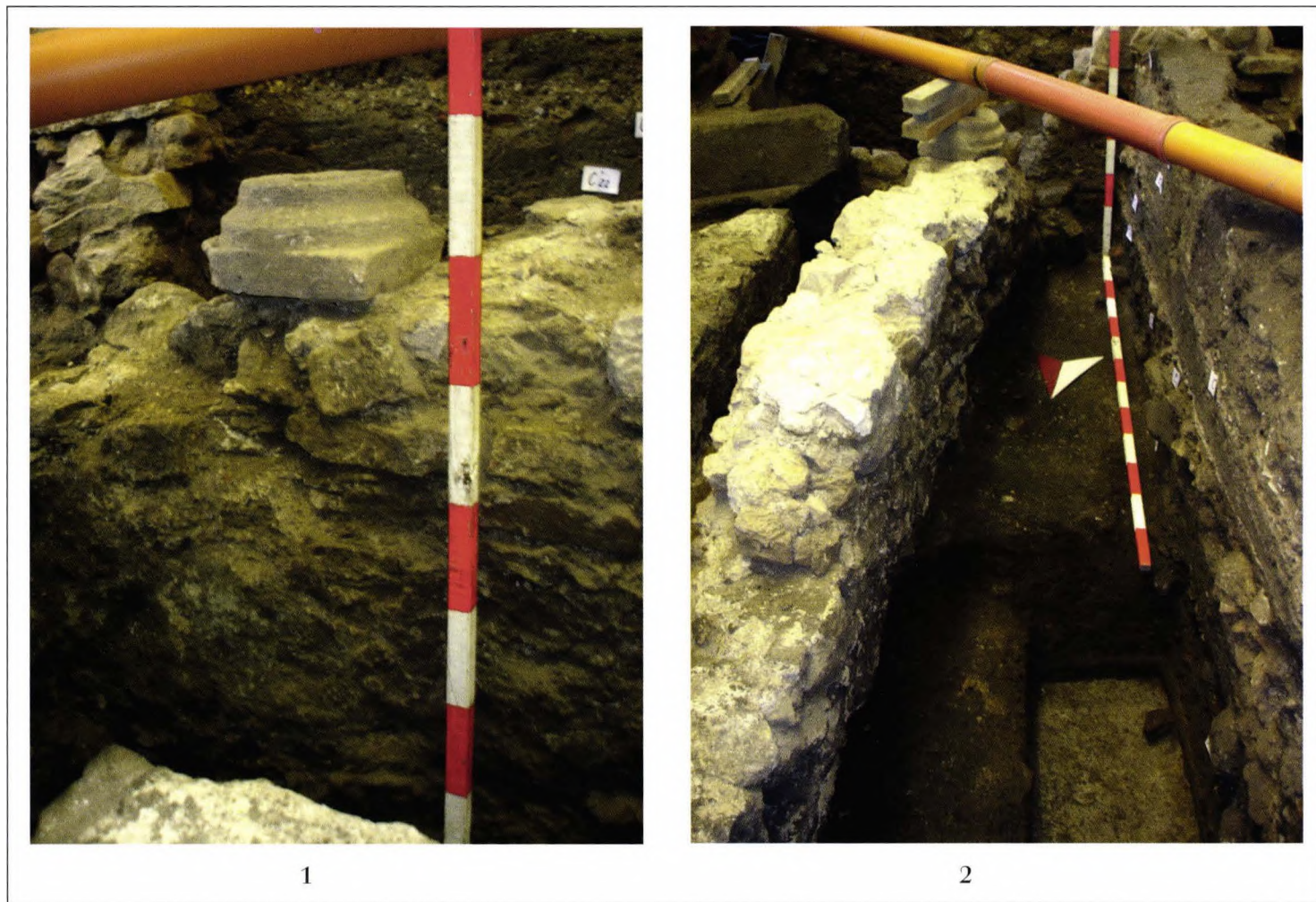


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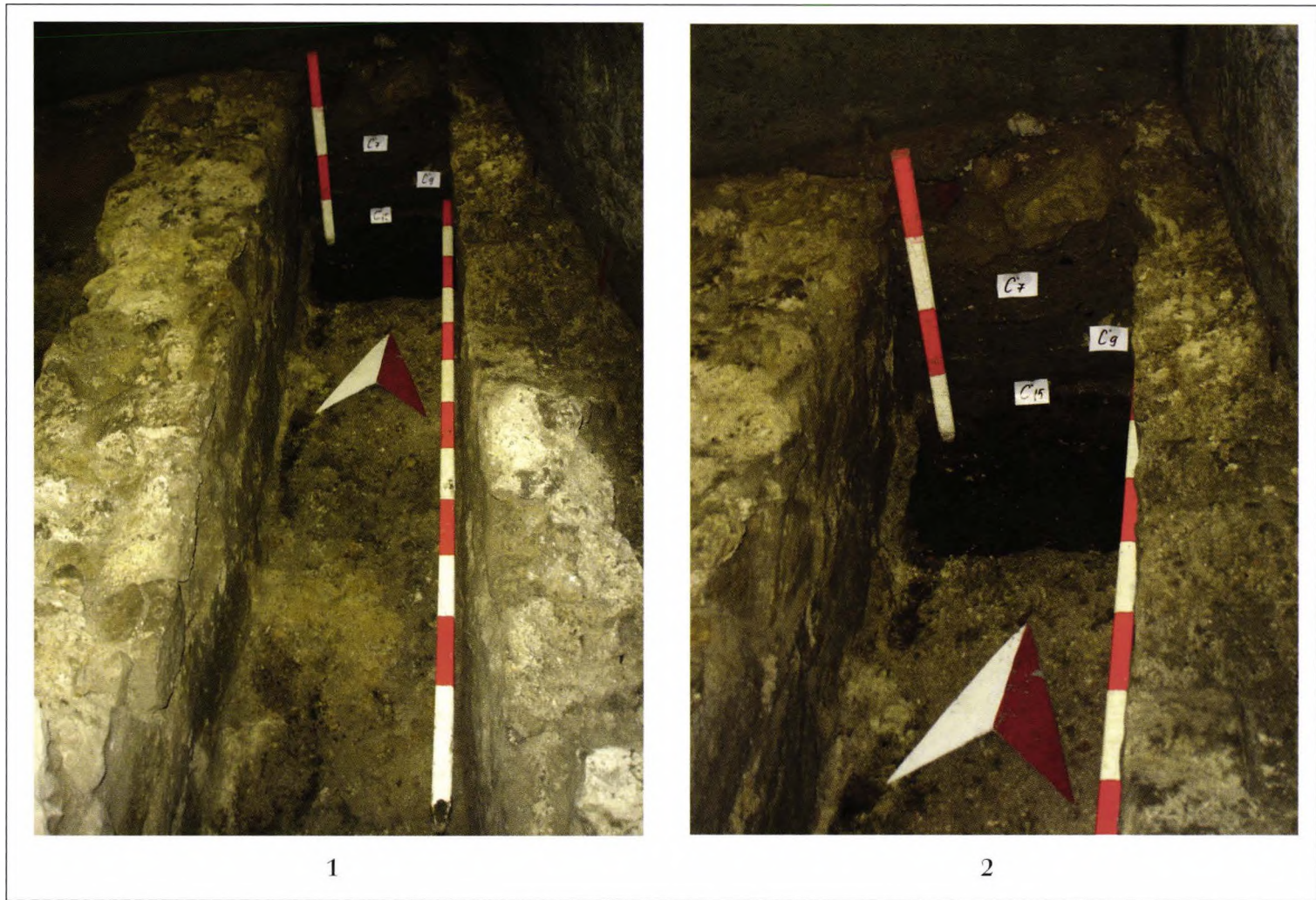


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Pl. IX. Trench C I: 1. Roman drainage with the roof debris of a Roman building in filling (view from south); 2. The Roman drainage (general view from south).



Pl. X. 1. Trench C I: Roman drainage and column base – details from inside the channel (view from north-east); 2. Trench C I and trial trench Cs 1 - detail of the mortar floor of an early Roman building (view from north).



Pl. XI. Trench C I: 1. Roman drainage – inside detail; 2. Sondage detail from inside Roman channel (views from south).



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Pl. XII. Trench C I: 1-2. Roman drainage – details from inside the channel (views from north-east); 3. Detail of the secondary channel branch (view from north).



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Pl. XIII. Trench C I: 1. Trial trench Cs 1, outside of the Roman drainage branch: the mortar floor of an early Roman building; 2. Detail with the Roman floor.



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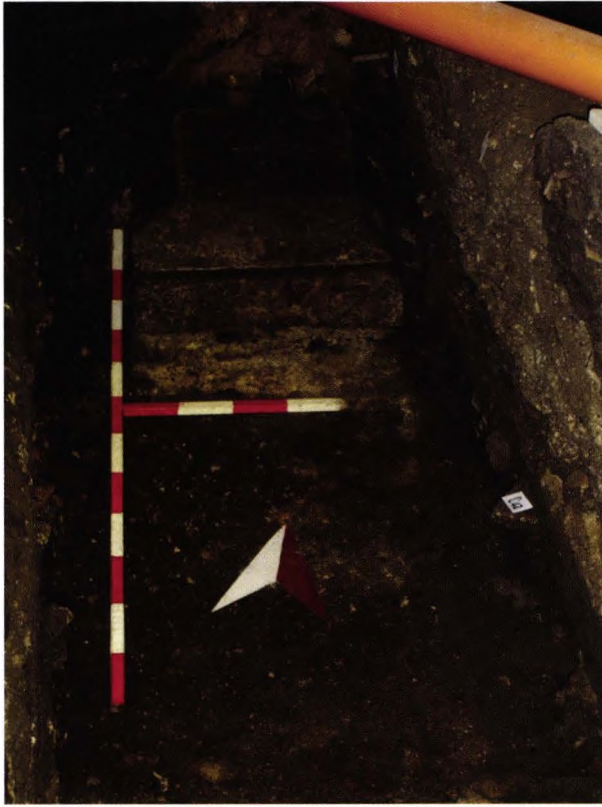


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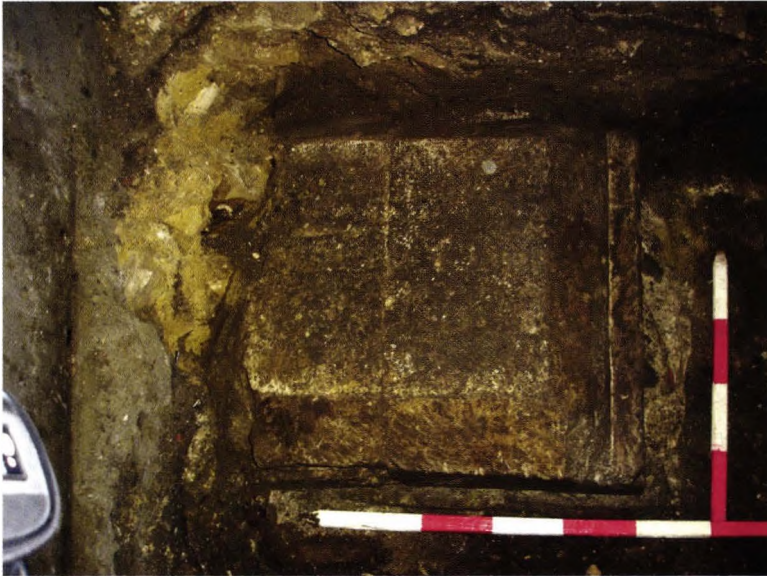
Pl. XIV. Trench C I: 1. Western profile and detail of the mortar floor; 2. Detail with the northern extremity of the western profile.



Pl. XV. 1. Trench C II: general view (from south-west); 2. Trench C II, trial trench Cs 3: details with the western perimeter wall and the mortar floor of an early Roman building.

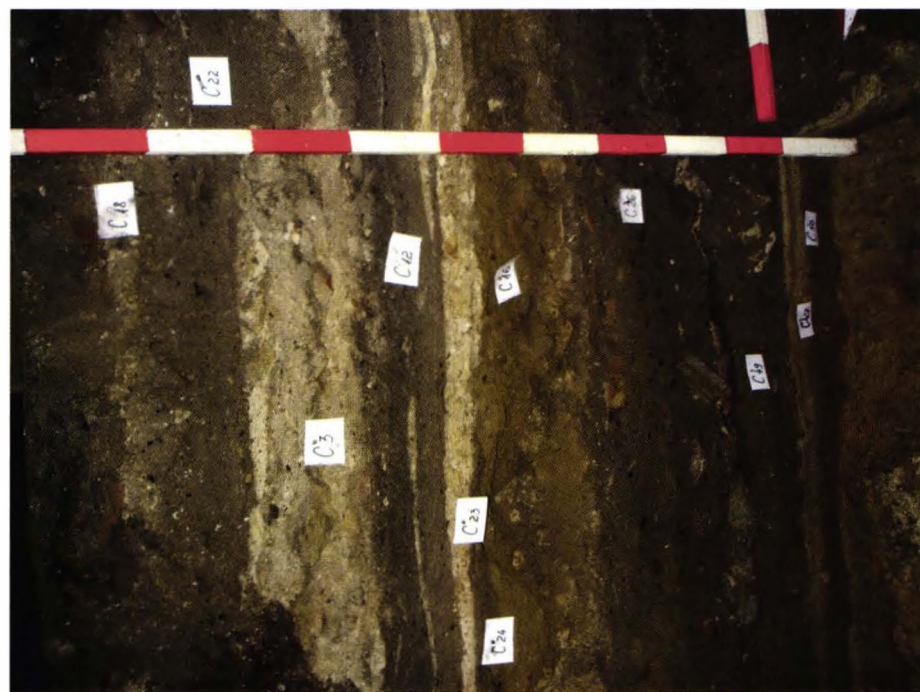


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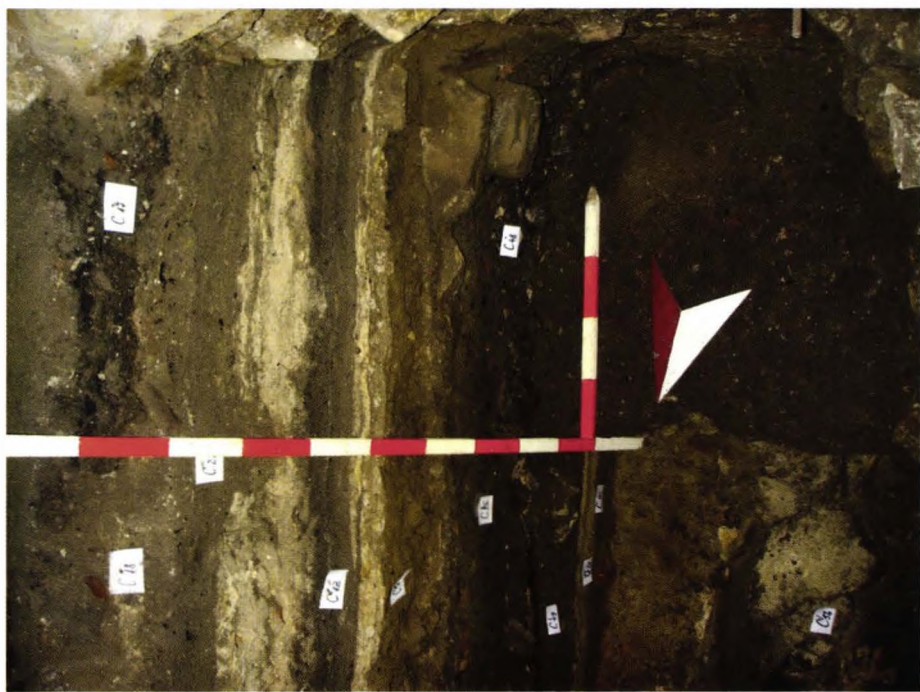


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Pl. XVI. Trench C II: 1-2. Details of a Roman monument base, located *in situ* (views from south-west and west).



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Pl. XVII. 1-2. Trench C II, eastern profile - details of north-western extremity of the trench.



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Pl. XVIII. Trench C III: 1. Detail with the roof remains of a building from the 3rd Roman phase; 2. General view (from north-west).



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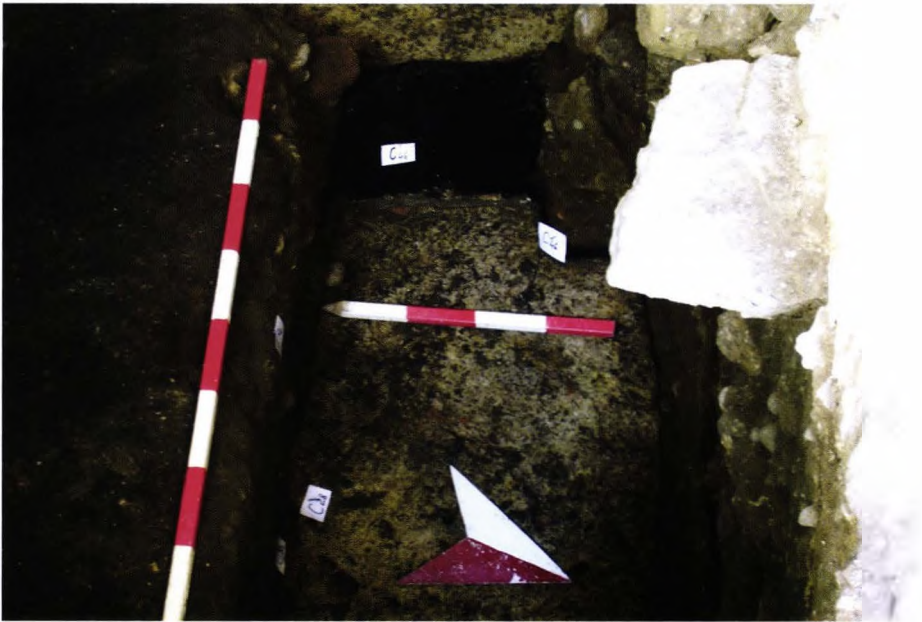


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Pl. XIX. 1-2. Trench C III: general views (from north-west and south-west).

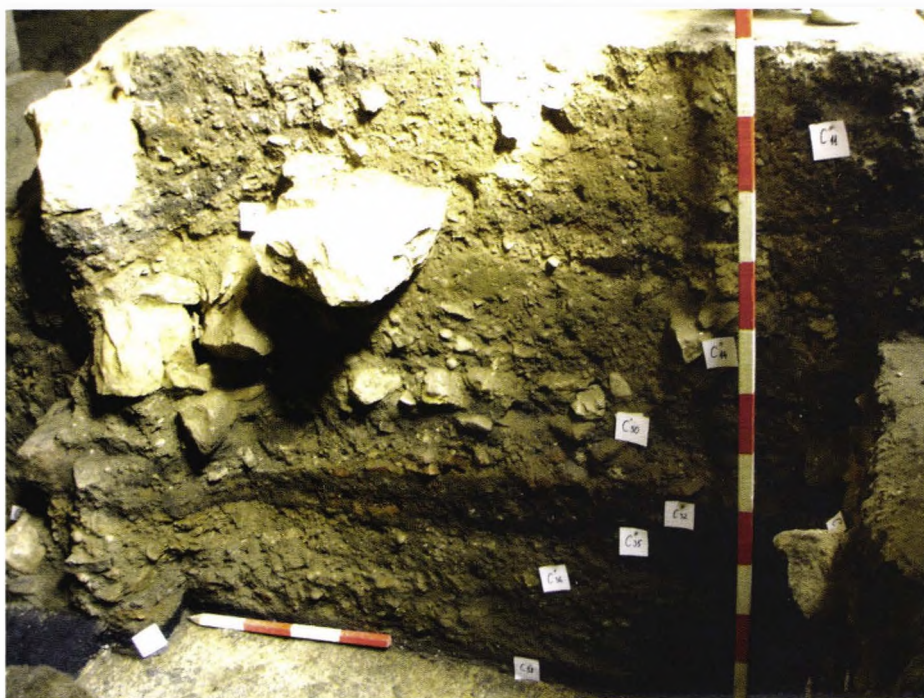


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Pl. XX. Trench C III, trial trench Cs 4: 1. Detail of mortar floor (view from east);
2. Detail of burning on the mortar floor of a Roman building (view from east).



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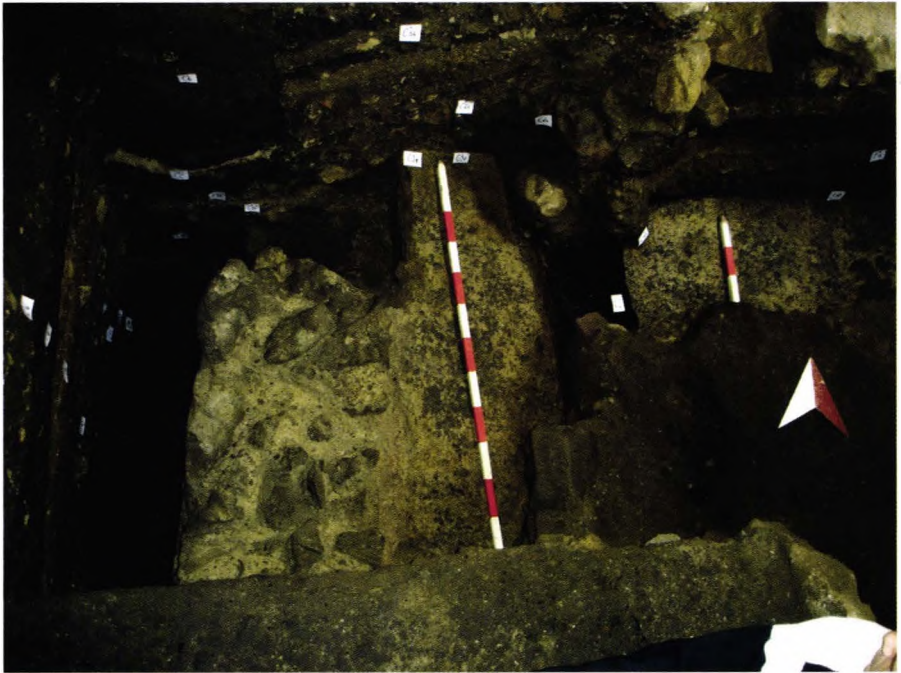


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Pl. XXI. Trench C III: 1. Northern profile; 2. Eastern profile.



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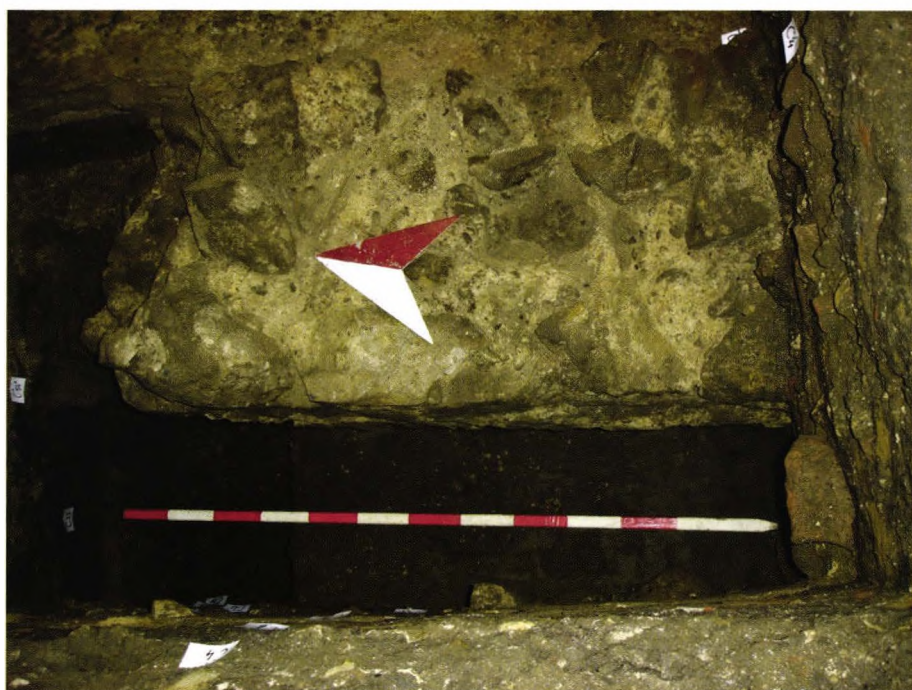


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Pl. XXII. 1. Trenches C III and C IV – general view (from east); 2. Trench C IV – general view (from south-west).



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Pl. XXIII. 1-2. Trench C IV, details of the perimeter wall and mortar floor of an early Roman building (views from south and east).

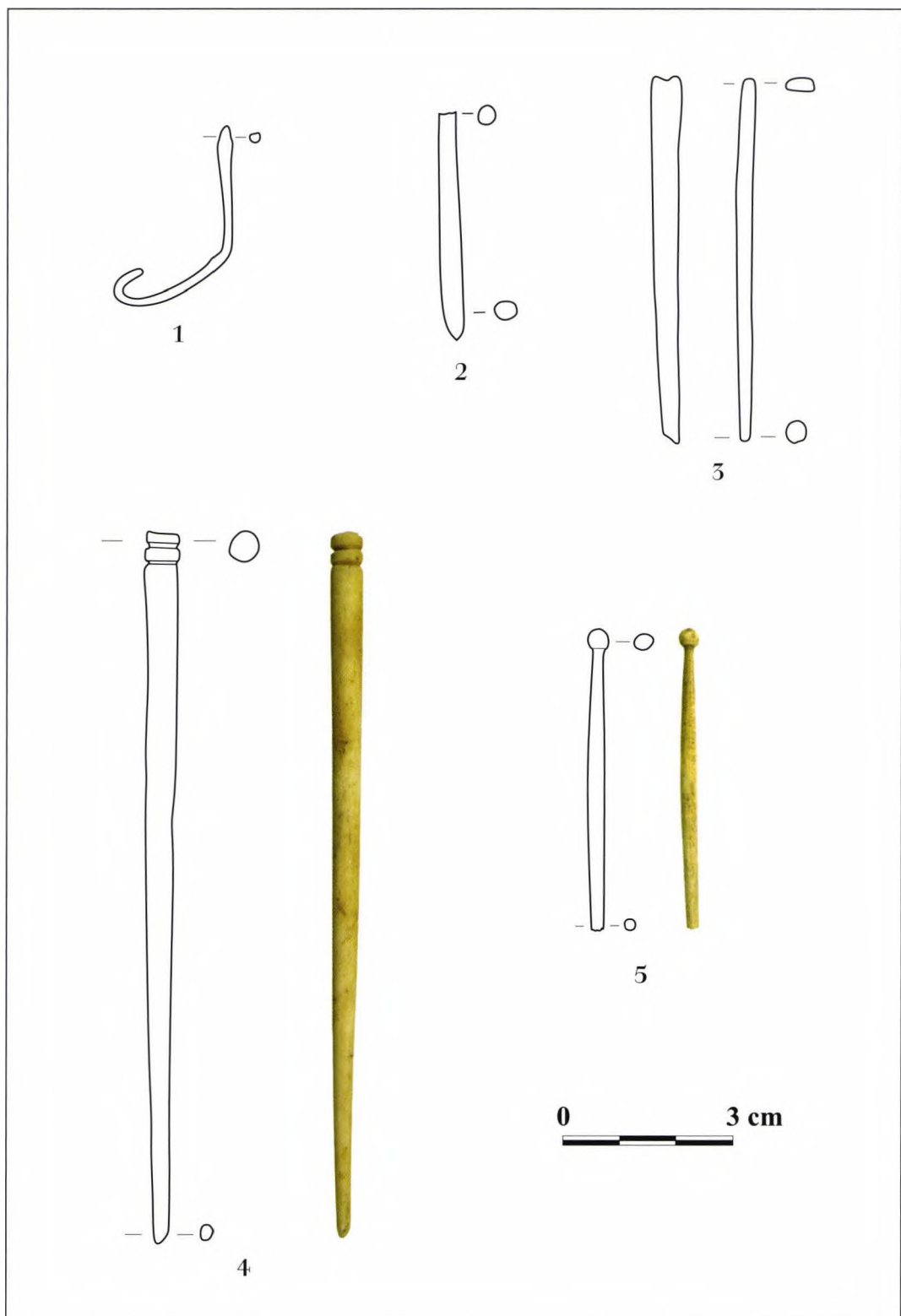


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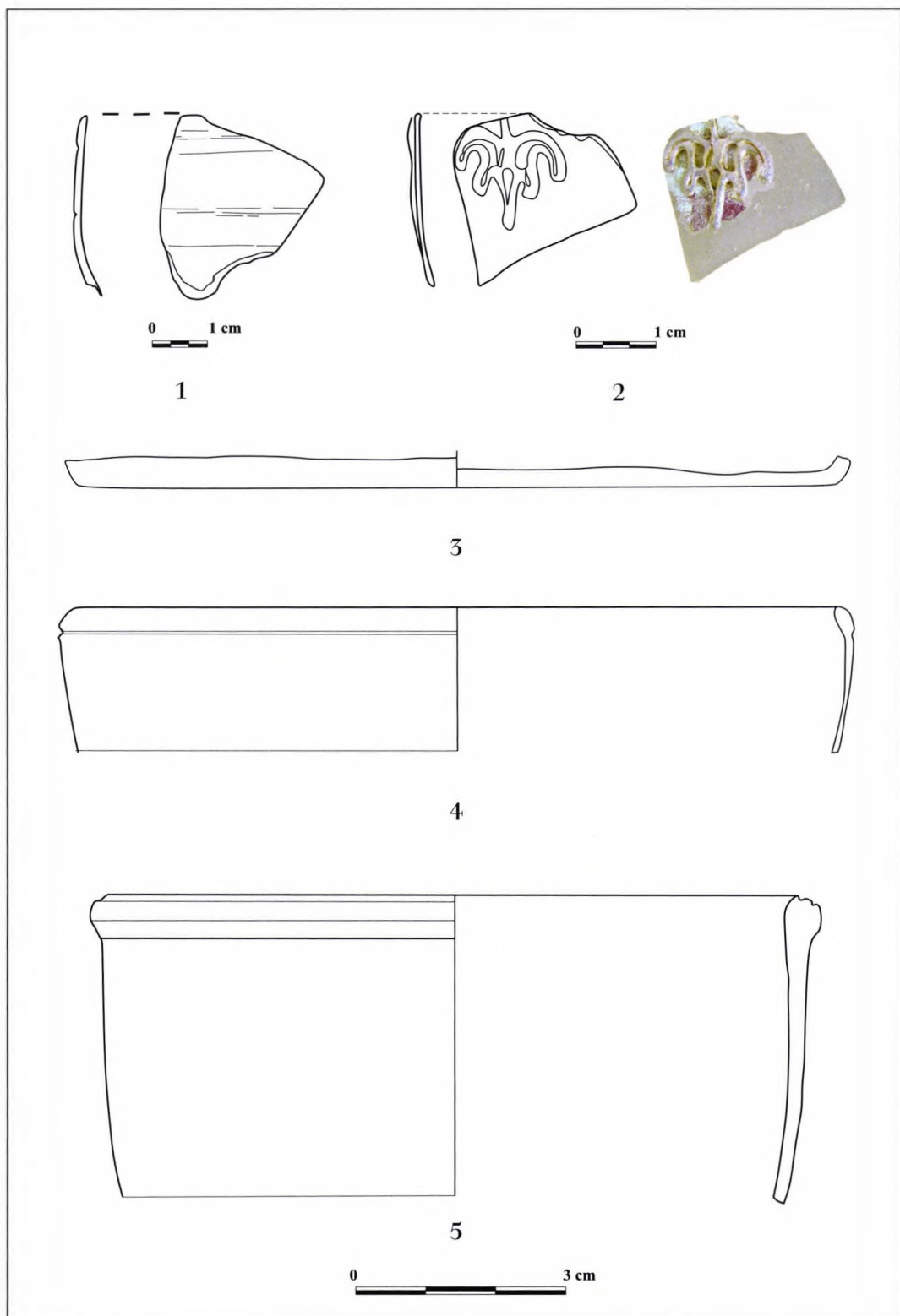


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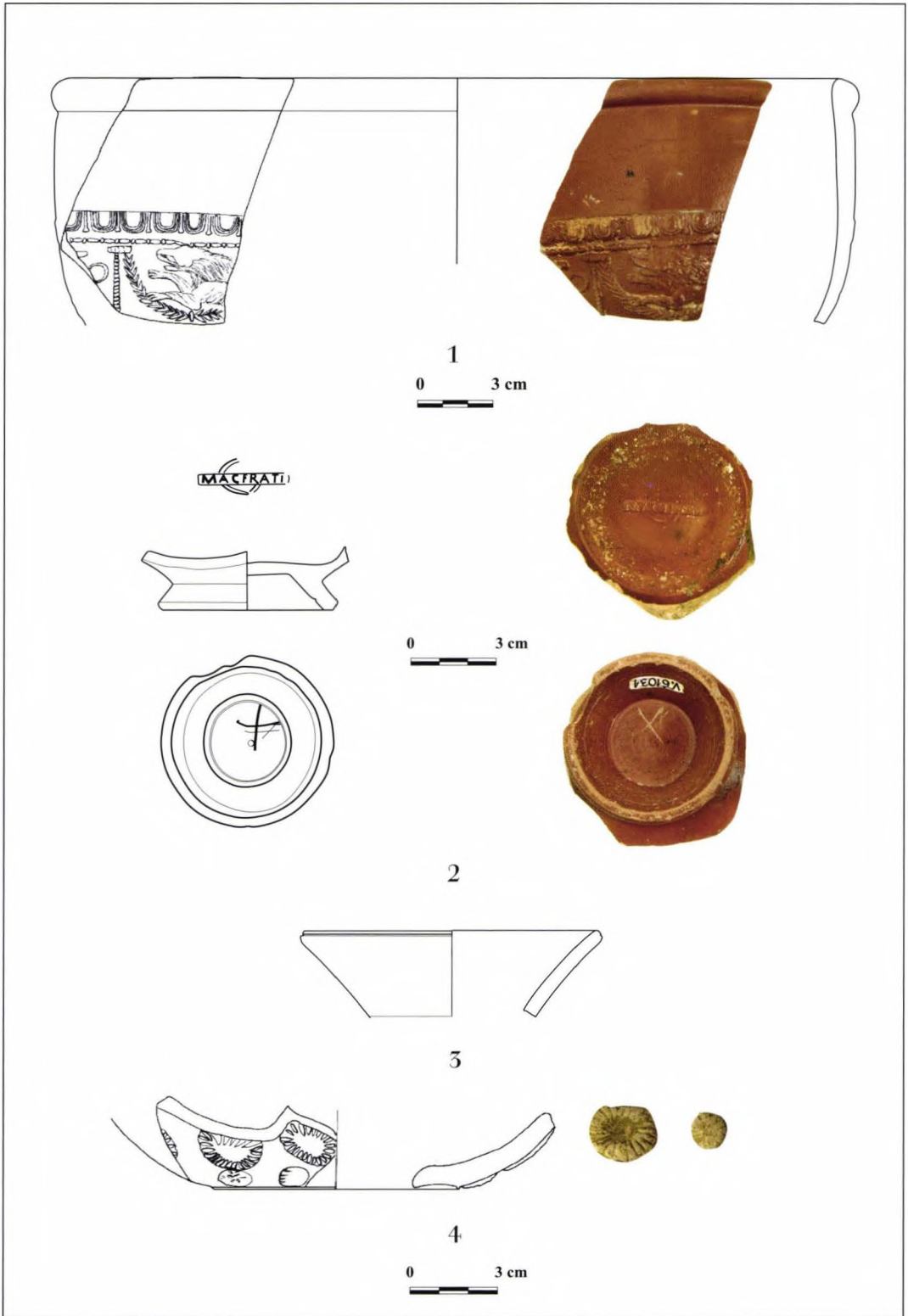
Pl. XXIV. 1. Trench C IV and trial trench Cs 5 – detail of the Roman wall foundation;
2. Trench C IV, detail of the northern profile.



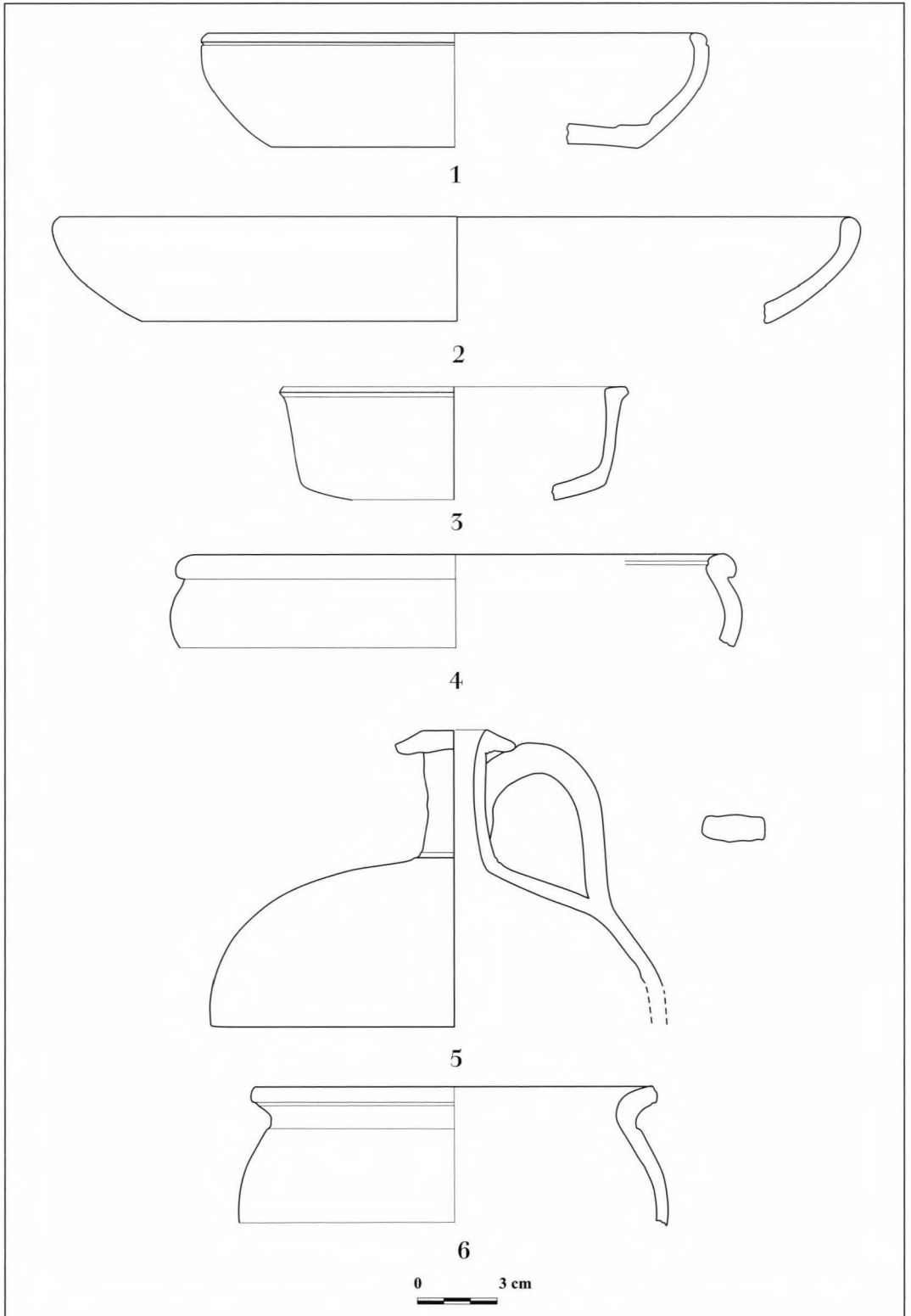
Pl. XXV. 1. Bronze fish hook; Bone artefacts: 2-3. Sewing needles; 4-5. Hair pins.



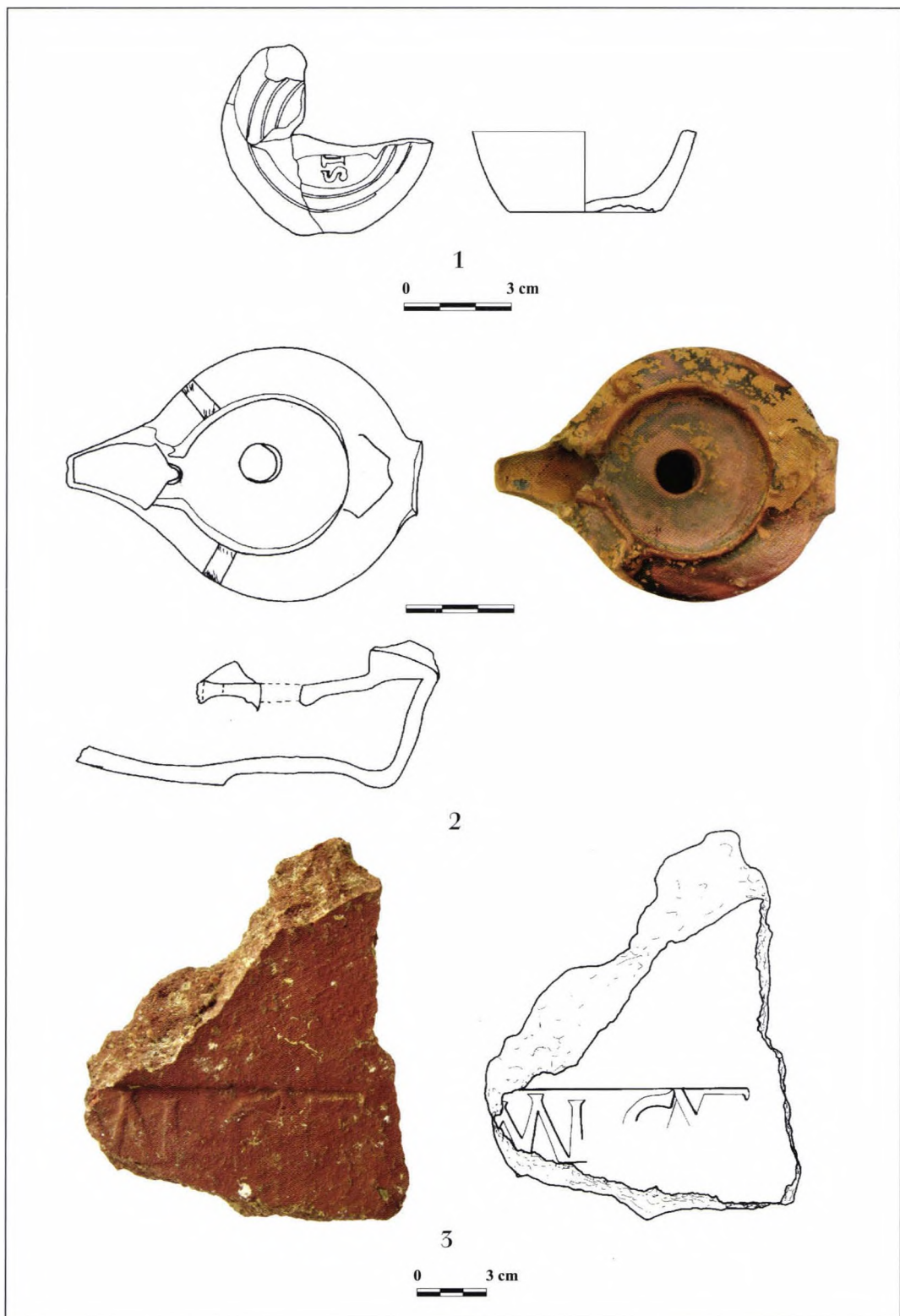
Pl. XXVI. Glass vessels: 1. Bowl's body fragment; 2. Glass vessel fragment, with vegetal decoration; 3. Bottle's bottom fragment; 4-5. Fragmentary bowls.



PI. XXVII. *Terra sigillata* imported from Lezoux (Central Gaul): 1. Bowl Drag. 37, with relief decoration, produced by potter LAXTVXCISSA; 3. Plain Samian ware, cup Drag. 33 with potter's name MACERATI; Fragmentary cup Drag. 33; 4. Fragmentary bowl with relief decoration of local *terra sigillata*.



Pl. XXVIII. Common ware: 1-2. Plates; 3-4. Bowls; 5. Fragmentary jug; 6. Jar.



Pl. XXIX. 1. *Monolychnis* lamp Loescheke X, with the potters mark [FORT]IS;
 2. *Monolychnis* lamp, type Loeschcke X; 3. Stamped tile fragment.

A NEW MONUMENT FROM NAPOCA DEDICATED TO *MERCURIUS*

ADRIANA ISAC, CRISTIAN-AUREL ROMAN

Abstract: In 2008, a rescue excavation was performed at 10 Episcop Ioan Bob St., on a site located in the western part of the Roman town at Napoca, close to the *forum*. The unjustified intervention of the developer as well as the works carried out in the building basement restricted much the research area. Part of a building with porch and courtyard paved with limestone slabs were identified. The most spectacular artifact is a column shaft with low-relief, depicting god Mercury with his specific attributes. The presence of this divinity on an architectural element made us hypothesise in relation to the building function: either a temple dedicated to respective god or a trader's house. The low-relief is the work of a local stonemason and is specific to the second half of the 2nd – early 3rd centuries AD.

Keywords: *Napoca*; porch; building; low-relief; Mercury.

Rezumat: În anul 2008 a fost efectuată cercetarea arheologică preventivă în str. Episcop Ioan Bob nr. 10, într-un punct situat în zona vestică a oraşului roman Napoca, în apropierea forului. Intervenţia intempestivă a constructorului, precum şi efectuarea lucrărilor la subsolul clădirii, au restrâns foarte mult aria cercetării. A fost descoperită o parte dintr-un edificiu cu portic şi curte pavată cu dale de calcar. Cel mai spectaculos artefact îl constituie un fus de coloană cu basorelief, înfăţişându-l pe zeul Mercur, cu atributele specifice. Prezenţa acestei divinităţi pe un element arhitectonic ne-a determinat să emitem două ipoteze în legătură cu destinaţia edificiului: acesta reprezintă fie un templu dedicat respectivului zeu, fie locuinţa unui negustor. Basorelieful este opera unui lapicid local şi este caracteristic celei de-a doua jumătăţi a secolului al II-lea – începutului secolului al III-lea p. Chr.

Cuvinte cheie: *Napoca*; portic; edificiu; basorelief; Mercur.

In February 2008, in occasion of the attic works performed for the “Ioan Bob” School and the construction of a gymnasium there, the archaeologists of the National History Museum of Transylvania were authorized to supervise the development of such works and initiate the rescue archaeological research in the project surface.

The site is located in the western part of the Roman town at *Napoca*, on 10 Episcop Ioan Bob St., at approximately 300 m from Unirii Square, which overlaps the *forum* of the Roman town (Pl. I*). Nearby, namely on 12 Prahovei St. (currently Samuil Micu) rescue archaeological investigations were carried out in 1995, when the first fortification of the Roman town was identified, consisting of a defensive ditch with rampart. According to the site supervisor, Viorica Crişan, this fortification element functioned until mid or second half of the 2nd century AD¹, which corresponds to the second earth-and-timber phase of the settlement at Napoca². The ditch removed

¹ Crişan 1996, 386, Fig. 2.

² A chronology synthesis of the town at Napoca see in Rusu-Bolindeţ 2007, 98-99.

a house dated to the first earth-and-timber phase³ (AD 106-108/110), of the same provisional character as the buildings on V. Deleu St.⁴.

At the time when the research works were initiated, the gymnasium footing, located at a couple of meters from the site on Prahovei St., had already been put in place (Pl. II)⁵, which irreversibly prejudiced any possible correlation of the archaeological results from the two investigated sites. In addition, most part of the building basement was excavated and prepared for the foundation frame execution, by casting the reinforced concrete slab. The single room where any archaeological intervention was possible (ca. 30 m²) was designed for the IT lab, where, in a first stage, the developer removed the concrete floor, excavated ditches along the foundations (at a maximum depth of -2.75 m from street level, 0.50-0.60 m wide, ca. 0.70 m deep) and removed the entire surface level up to the base of the footing reinforcement ditches (Pl. I).

In this area, although it was clear that the Roman level was deranged by medieval and modern buildings, we removed up to a depth of -2.75 m from street level the surface level of the land portion, free of any of the developer's works. The central part (1.20 × 1.20 m) remained unexcavated, the supporting pillar being located there. In order to examine the vertical stratigraphy, we carried out a test trench (1.00 × 1.00 × 2.00 m), towards the west side of the room, up to a depth of -4.65 m from street level and at 1 m distance from the northern wall of the room. Exceeding this level would have significantly put at risk the geological structure of the area and endanger reinforcement works. The entire trench was manually excavated and the collected archaeological material (modern, medieval and Roman pottery) was primarily recorded and transported to the National History Museum of Transylvania.

The archaeological research revealed part of a Roman building, namely its groundwork, as well as of other architectural elements (Pl. III-IV): two fragments of column shafts found *in situ*; a column base; a pedestal and pavement made of limestone slabs. One of the column fragments exhibits a low-relief depicting god Mercury (Pl. XII), which allowed us to hypothesise on the building function: either a temple erected for respective god or the house of a Roman trader, whose protector was Mercury. Unfortunately, further elements that would permit a more accurate chronological framing of the building are missing.

General stratigraphy of the site

The most recent level identified is a poor quality wall fragment, crumbly, cut by the modern building foundations and the current works of the developer, with the elevation composed of two, three rows of cut limestone (0.10-0.35 m), bound with mortar. The wall, oriented north-south, 1.77 m long, 0.45 m wide and between 0.20-0.30 m thick, overlaps a demolition layer of the enclosure, identified on a portion of ca. 2.5 m² in the compaction area of the limestone floor. The mentioned layer was composed of dark-brown earth and many tile, shingle and brick fragments.

³ Crişan 1996, 395.

⁴ Cociş et alii 1995, 639-640.

⁵ Drawings were made by the authors of this article and photos were taken by Cristian-Aurel Roman (Pl. II-XI) and Sergiu Odenie (Pl. XII).

The demolition level partially covered a limestone block ($3.00 \times 0.45 \times 0.30$ m) oriented NW-SE, which was the platform of a column, of which survived the base ($0.56 \times 0.56 \times 0.26$ m) and two drums from the upper part of the shaft (0.90 m long and diameter between 0.36-0.46 cm). The drum in the upper part is decorated with a low-relief. Current data indicate they represent the remains of a possible porch (Pl. V).

The block delimited a paving formed of limestone slabs, of which only seven were identified, among which two, sized $1.10 \times 0.90 \times 0.10$ m, completely preserved. The paving (Pl. VI-VIII) seems to be the inside of a courtyard delimited by the previously mentioned porch and lies on a levelling layer, namely a substructure formed of gravel and sand in a 0.50 m-thick layer.

The whole structure, comprising the porch and pavement, titled to a level difference of over 0.50 m, due to the compaction of the soil on a N-S direction, from ca. 3 m east the western room wall. Such compaction is likely to have occurred in the pre-modern period.

In the western part of the room, at ca. 1.20 m east the porch, a series of levelling/filling layers were noticed, formed of both successive layers of brown earth with mortar and brick fragments and earth mixed with gravel and sand, with a maximum thickness of 0.70 m. The levelling layer covers culture layers, composed of various brown hue earths, potshards, mortar and small pebbles.

Architectonical elements are overlapped by a compact debris layer consisting of Roman tiles, bricks and shingles. The entire building had fallen onto its western side, with a level difference of ca. 0.50 m, likely caused by more recent construction works, which could not be yet identified archaeologically for two reasons: firstly, in the next room the concrete had already been cast; secondly, the alignment of the column platforms is too close to the room wall (0.65 m), which did not allow any further excavation in the area.

The sizes and orientation of the building cannot be specified as it is largely destroyed by medieval and contemporary construction works. The Roman period is practically represented by two inhabitancy levels: that identified below the building's levelling layer and the second, which marks the existence period of the building.

The decorated column shaft

The single particular item discovered following these archaeological investigations is a limestone column fragment, decorated with a character sculpted in relief. The shaft is 0.31 m in diameter and 0.84 m high. The low-relief, 0.64 m high and 0.23 m wide, depicts Mercury, in a slightly deepened niche on the column surface. The god is rendered standing, with its specific attributes: *caduceus* in the left hand, supported on the left shoulder; pouch in the right hand; winged *calcei*; winged *petasos* on the head. His tunic is fastened with a round brooch on the right shoulder and the folds fall over the left forearm. Over the tunic, he wears *sagum*. The god is beardless and his face is framed by curls. The slightly sketched features and details as well as the traces of a jagged chisel, specific to the finishing degree of the monument, point to the work of a local artisan working in the stonecutters workshop in Roman Napoca. The

distinctive elements (*caduceus*, winged *petasus*, the pouch in the right hand) consist in the combination of Hellenistic and Roman origin attributes, specific to the classical Roman depictions of this divinity⁶.

The novelty in the god's image is the low-relief as individual element on the column of a Napoca building, placed so to be seen from the front. Associated with Liber and Hercules, Mercury appears on a pilaster coming still from *Napoca* (yet without the accurate mention of the find spot), which was assigned a funerary function⁷.

The artistic design of the low-relief column exhibits features specific also to other stone items from *Napoca*, the monument framing chronologically in the second half of the 2nd - early 3rd century AD.

In conclusion, we may argue that near the *forum*, on its western side, there existed a building whose function is uncertain. The low-relief rendering the image of god Mercury is the single element that may be associated with either a temple dedicated to respective divinity or a trader's house, who placed his business under the god's protection. Given that the site was overlapped by medieval and modern buildings and the area under archaeological investigation much reduced, neither any building limits could be traced nor any correlation with the archaeological circumstances nearby, namely the former street *Prahova* could be made.

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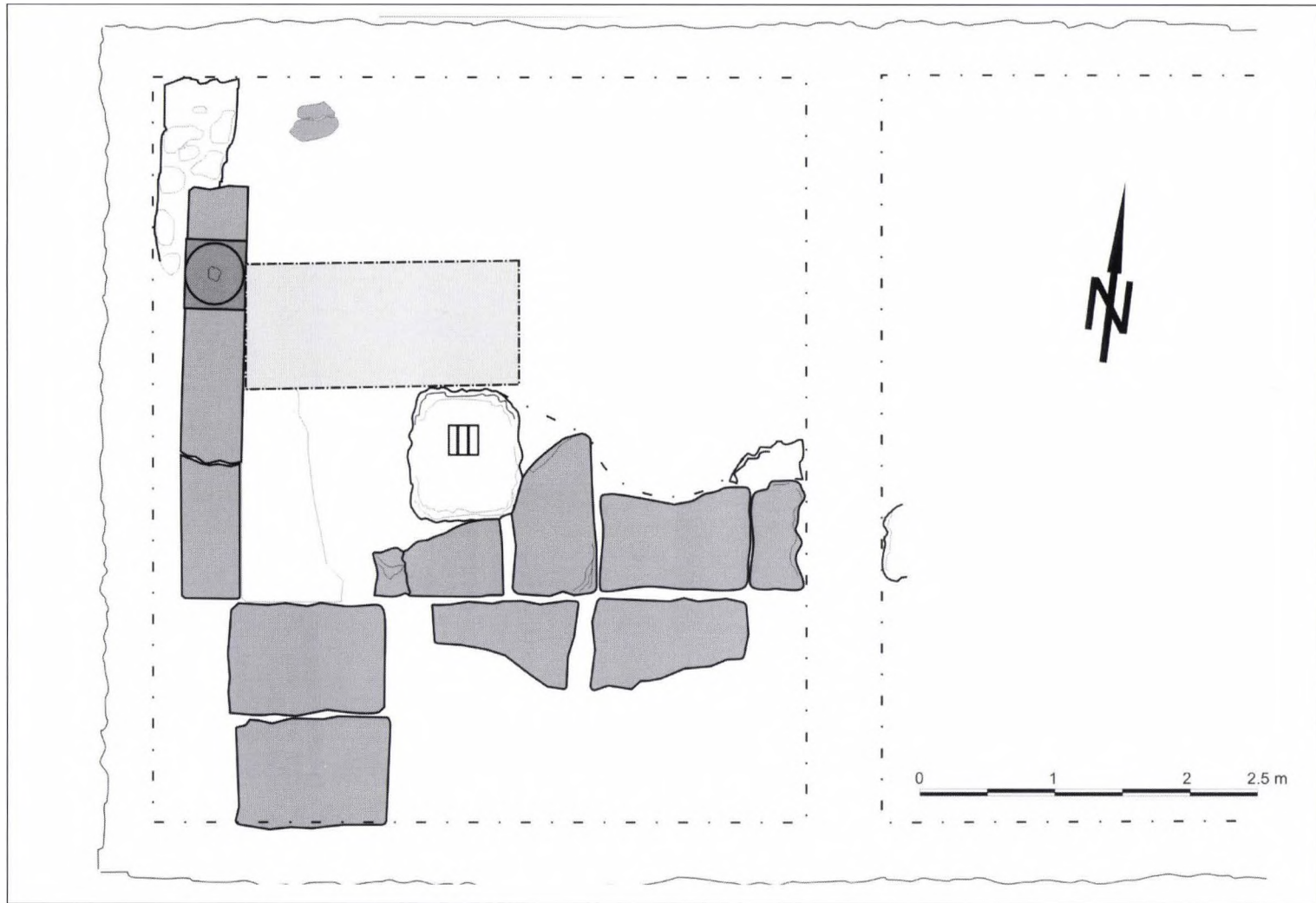
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⁶ DA, s.v. *Mercurius*, 1818-1823 (A. Legnard); Siebert 1992, 370-371.

⁷ Bărbulescu 2003, 116; the pilaster is exhibited in the National History Museum of Transylvania lapidary, inv. no. V. 30697.



Pl. I. Basement layout – part of the room where archaeological research was possible.



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Pl. II. 1-2. "Ioan Bob" School, inner courtyard.



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Pl. III. Column base and demolition layer of the building: 1. Southward view;
2. Westward view.



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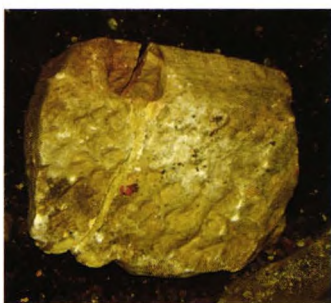


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PI. IV. Wall fragment and column base: 1. Southward view; 2. Northward view.



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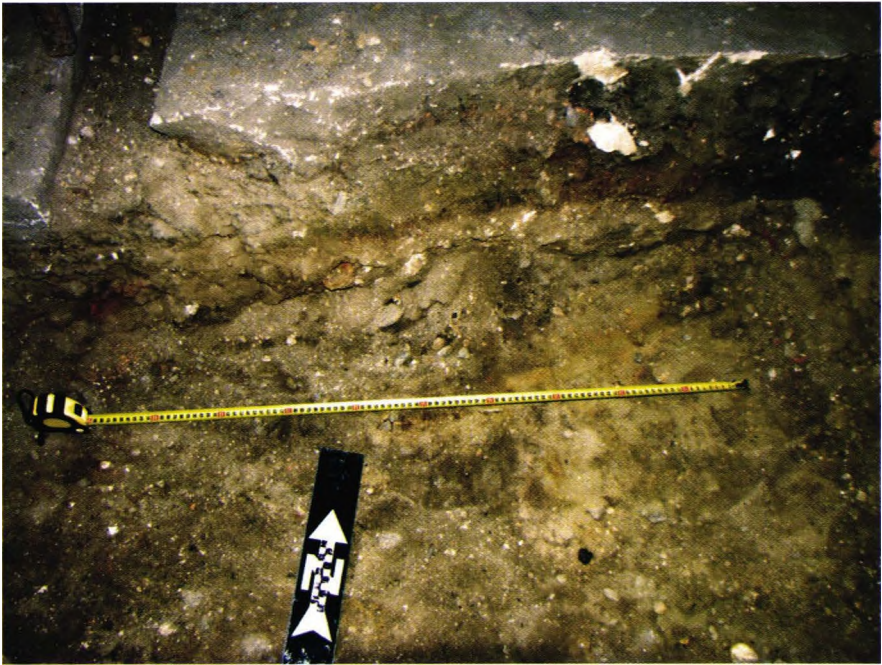


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Pl. V. Porch: 1. Northward view; 2. Perforated limestone block with attachment orifice; 3. Column shaft.



Pl. VI. Limestone slab pavement: eastward view.



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Pl. VII. Limestone plates paving: 1. Northward view; 2. Southward view.



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Pl. VIII. 1. Limestone plates paving - general westward view; 2. Porch and demolition layer with tile and shingle fragments - northward view.



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Pl. IX. 1. Demolition layer with tile and shingle fragments - northward view;
2. Limestone plates paving and substructure: north-eastward view.



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Pl. X. Limestone slab pavement: 1. Southward view; 2. North-eastward view.



1



2

Pl. XI. Trench: 1. Eastward view; 2. Southward view.



Pl. XII. Column fragment with low-relief depicting god Mercurius.

ABBREVIATIONS

The following list contains abbreviations that are not included in the list available at http://www.annee-philologique.com/files/sigles_fr.pdf.

AAH	<i>Acta Archaeologica Academiae Scientiarum Hungaricae</i> , Budapest.
AB	Analele Banatului, Timișoara.
ACMIT	Anuarul Comisiunii Monumentelor Istorice, Secțiunea pentru Transilvania, Cluj.
AE	L'Année Épigraphique, Paris.
AÉrt.	Archeológiai Értesítő, Budapest.
AHB	The Ancient History Bulletin, Calgary.
AIIA	Anuarul Institutului de Istorie și Arheologie A. D. Xenopol, Iași.
AISC	Anuarul Institutului de Studii Clasice, Cluj-Napoca.
ActaMN	<i>Acta Musei Napocensis</i> , Cluj-Napoca.
ActaMP	<i>Acta Musei Porolissensis</i> , Zalău.
Apulum	<i>Apulum</i> . Anuarul Muzeului Național al Unirii din Alba Iulia, Alba Iulia.
ANRW	H. Temporini, W. Haase (Hrsgg.), <i>Aufstieg und Niedergang der römischen Welt</i> , Berlin-New York.
Anthrop. Közl.	Anthropológiai Közlemények, Budapest.
Arch. Anz.	Archäologischer Anzeiger, Berlin.
ArhMold	Arheologia Moldovei, Iași.
AO	Arhivele Olteniei, Craiova.
Banatica	Banatica, Reșița.
BAR	British Archaeological Reports, Oxford.
BGL	Bibliothek der griechischen Literatur, Stuttgart.
BCMI	Buletinul Comisiei Monumentelor Istorice, București.
BHAUT	<i>Bibliotheca Historica et Archaeologica Universitatis Timisiensis</i> , Timișoara.
BZ	Byzantinische Zeitschrift, Berlin.
CA	Cercetări Arheologice, Muzeul Național de Istorie, București.
CAG	Carte archéologique de la Gaule, Paris.
CAH	<i>Communicationes Archaeologicae Hungaricae</i> , Budapest.
CCA	Cronica Cercetărilor Arheologice din România, București.
CCDJ	Cultură și civilizație la Dunărea de Jos, Călărași.
CFHB	<i>Corpus Fontium Historiae Byzantinae, Series Berolinensis</i> .
Chiron	Chiron. Mitteilungen der Kommission für Alte Geschichte und Epigraphik des Deutschen Archäologischen Instituts, München.
CIG	<i>Corpus Inscriptionum Graecarum</i> , Berlin.
CIL	<i>Corpus Inscriptionum Latinarum</i> , Berlin.
CSIR I	<i>Corpus Signorum Imperii Romani</i> - Österreich, Vienna.
CSIR - DE II	<i>Corpus Signorum Imperii Romani</i> - Deutschland, Berlin.
CSIR - GB	<i>Corpus Signorum Imperii Romani</i> - Great Britain, Oxford.
Dacia (N.S.)	Dacia - Recherches et découvertes archéologiques en Roumanie; Nouvelle Série (N. S.): Dacia - Revue d'archéologie et d'histoire ancienne, București.

- DAF Documents d'Archéologie Française, Paris.
- DissPann. *Dissertationes Pannonicae*, Budapest.
- Dizionario Epigrafico E. di Ruggiero (ed.), Dizionario epigrafico di antichità romane, Roma, I (1895) - III (1922).
- Dolgozatok/Travaux Dolgozatok az Erdélyi Nemzeti Múzeum Érem és Régiségtárából, Kolozsvár (Cluj) / Travaux de la section numismatique et archéologique du Musée National de Transylvanie à Kolozsvár (Cluj).
- EKG Enmanns Kaisergeschichte.
- EN *Ephemeris Napocensis*, Cluj-Napoca.
- Epigraphische Studien Epigraphische Studien, Bonn.
- FolArch *Folia Archaeologica. Annales Musei Nationalis Hungarici*, Budapest.
- GCS I. A. Heikel (Hrsg.) Die griechischen christlichen Schriftsteller der ersten drei Jahrhunderte, Berlin 1897 sqq.
- Glasnik Glasnik Srpskog Arheološkog Društva, Belgrad.
- HSCPh Harvard Studies in Classical Philology, Cambridge.
- HTRTÉ A Hunyadmegyei Történelmi és régészeti Társulat Évkönyve, Deva, I (1880)-XXII (1913).
- IAM M. Euzenat, J. Marion, Inscriptions antiques du Maroc. 2. Inscriptions latines (publié par J. Gascou), Paris 1982.
- IDR *Inscriptiones Daciae Romanae*, București-Paris.
- IDRE I C. C. Petolescu, Inscriptions externes concernant l'histoire de la Dacie, I, București 1996.
- IDRE II C. C. Petolescu, Inscriptions externes concernant l'histoire de la Dacie, II, București 2000.
- IGB I² G. Mihailov, *Inscriptiones Graecae in Bulgaria repertae. I. Inscriptiones orae Ponti Euxini. Editio altera emendata*, Serdicae 1970.
- IGB II G. Mihailov, *Inscriptiones Graecae in Bulgaria repertae. II. Inscriptiones inter Danubium et Haemum repertae*, Serdicae 1968.
- IGLNovae J. Kolendo, V. Božilova, Inscriptions grecques et latines de Novae (Mésie Inférieure), Bordeaux-Paris 1997.
- IGLR Em. Popescu, Inscriptiile grecești și latine din secolele IV-XIII descoperite în România: culese, traduse în românește, însoțite de indici și comentate, București 1976.
- ILD C. Petolescu, Inscriptiile latine din Dacia, București 2005.
- ILBulg B. Gerov, *Inscriptiones Latinae in Bulgaria repertae*, I, Sofia 1989.
- ILS (= Dessau) H. Dessau, *Inscriptiones Latinae Selectae*, Berlin, I (1882) - IV (1916).
- IMS II M. Mirković, Inscriptions de la Mésie Supérieure. II. Viminacium et Margum, Belgrade 1986.
- ISM Inscriptiile din Scythia Minor grecești și latine, București.
- JRGZM Jahrbuch des Römisch-Germanischen Zentralmuseums zu Mainz, Mainz.
- LIMC *Lexicon Iconographicum Mythologiae Classicae*, Basel.
- Lupa www.ubi-erat-lupa.org.
- Marisia *Marisia*. Studii și materiale. Arheologie, istorie, etnografie, Muzeul Județean Mureș, Târgu Mureș.
- Marmatia Marmatia, Baia Mare.
- MCA Materiale și cercetări arheologice, București.
- Mel. Bidez *Mélanges Joseph Bidez*, Bruxelles 1934 (= *Annuaire de l'Institut de Philologie et d'Histoire Orientales et Slaves* 2, Bruxelles 1933-1934).
- Memoria Antiquitatis *Acta Musei Petrodavensis*, Piatra Neamț.

- MGH. AA** *Monumenta Germaniae Historica, Auctores Antiquissimi*, Hannover-Berlin 1826 sqq.
- Montana II** V. Velkov, G. Alexandrov (eds.), *Епиграфски паметници от Монтана и района*, София 1994.
- OPEL** B. Lőrincz, F. Redő et alii, *Onomasticon Provinciarum Europae Latinarum*, I-IV, Budapest 1994-2002.
- PamátkyArch** Památky Archeologické, Praga.
- PAS** Prähistorische Archäologie in Südosteuropa, Berlin.
- PBF** Prähistorische Bronzefunde, Berlin.
- PG** J. P. Migne (ed.), *Patrologiae cursus completus. Series Graeca*, Paris 1857-1866.
- PIR²** E. Groag, A. Stein et alii, *Prosopographia Imperii Romani²*, Berlin 1933 sqq.
- PL** J. P. Migne (ed.), *Patrologiae cursus completus. Series Latina*, Paris 1841-1855.
- PLRE** *Prosopography of the Later Roman Empire*, Cambridge University Press 1971 (vol. I), 1980 (vol. II), 1992 (vol. III).
- Pontica** *Pontica. Studii și materiale de istorie, arheologie și muzeografie*, Constanța.
- PZ** Prähistorische Zeitschrift, Berlin.
- PWRE** A. Pauly, G. Wissowa, W. Kroll, K. Ziegler (eds.), *Pauly-Wissowa Realencyclopädie der classischen altertumswissenschaft*, Stuttgart 1893 sqq.
- RE** *Real-Encyclopädie der classischen Altertums-wissenschaft*, Stuttgart 1894 sqq.
- RGZM** B. Pferdehirt, *Römische Militärdiplome und Entlassungsurkunden in der Sammlung des Römisch-Germanischen Zentralmuseums*, I-II, Mainz-Bonn 2004.
- RepCluj** I. H. Crișan, M. Bărbulescu, E. Chirilă, V. Vasiliev, I. Winkler, *Repertoriul arheologic al județului Cluj*, Cluj-Napoca 1992.
- RIB** *The Roman Inscriptions of Britain*, Oxford.
- RIU** *Die römischen Inschriften Ungarns*, I-VI, Budapest-Bonn 1972-2001.
- RMD** M. M. Roxan, P. Holder, *Roman Military Diplomas*, London.
- RevBistriței** *Revista Bistriței*, Bistrița.
- RMI** *Revista Monumentelor Istorice*, București.
- RevMuz** *Revista Muzeelor*, București.
- Sargetia** *Sargetia. Buletinul Muzeului Județean Hunedoara*, Deva.
- SC** R. Gryson (éd.), *Sources chrétiennes*, Paris 1941 sqq.
- SCIV (A)** *Studii și cercetări de istorie veche (și arheologie - since 1975)*, București.
- SCN** *Studii și cercetări numismatice*, București.
- SJ** *Saalburg-Jahrbuch*. Mainz: von Zabern.
- SMMIM** *Studii și materiale de muzeografie și istorie militară*, București.
- StComSatuMare** *Studii și comunicări*, Satu Mare.
- SympThrac** *Symposia Thracologica. Lucrările Simpozionului Anual de Tracologie*, Institutul Român de Tracologie, București.
- TAPA** *Transactions of the American Philological Association*, Baltimore.
- Thraco-Dacica** *Thraco-Dacica*. Institutul de Tracologie, București.
- TIR** *Tabula Imperii Romani*.
- TitAq** P. Kovács, *Tituli Aquincenses*, I - II, Budapest 2009.

