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Studies

ARCHAEOLOGICAL MATERIAL

BONES IN A CITY. THE BONE ARTIFACTS FROM NAPOCA AND ITS CLOSE CATCHMENT AREA

Abstract: Many aspects of the topography and history of the Roman city of Napoca are still unknown despite the intensive rescue excavations in the recent years which is partially due to the challenges of urban archaeology in a continuously inhabited settlement. The small finds recovered from these archaeological investigations are usually not published, except for some special type of artefacts (pottery, coins, brooches etc.), thus hardly any aspects of the local economy and handicraft are known. The systematic analysis of eighty-six bone objects recovered from mostly recent excavations carried at four topographical points (Victor Deleu Street no. 1, Museum Square no. 2 – from the densely inhabited intra muros area; Avram Iancu Street 21-23 – southern cemetery of the Roman city, and the villa rustica from the Lombului Hill, outside but still in the territorium of the city) endeavours to complete this lack. The not so numerous bone items seem at the first glance very standardized, simple, and unspectacular, however due to the well-dated and documented find contexts they offer an insight into the bone industry and craftsmanship in Napoca and in the Dacian provinces. Compared to other Dacian (urban) settlements the objects are very simple and “common”, and this simplicity and uniform character of the finds is what make this lot very interesting and intriguing.

Keywords: *Napoca, Roman bone objects, bone working in Dacia, standardization, uniformity, urban context, bone hairpins, Hercules' type of pendants*

INTRODUCTION

Eighty-six artifacts manufactured of animal bone and antler have been collected from four sites within the Roman city of *Napoca* and its immediate catchment area. Considering the general occurrence of Roman bone objects at different sites, this number may not seem so numerous. However, if we take into account the average percentage of bone artifacts recovered from individual sites in the Dacian provinces, this number, moderate though, is able to reflect some general trends and aspects of bone industry in the ancient city of *Napoca*. This is the largest assemblage of bone artifacts ever recovered from the former Roman city of *Napoca*. The chronology of Roman bone artifacts (and of other small finds) in Roman Dacia is usually very restricted due to the short lifespan of the province (roughly 165 years). Within the 2nd-3rd c. AD timeframe the scholars hardly manage to provide a more refined chronology for archaeological contexts and artifacts. The bone artifacts recovered from the analysed sites deliver not only interesting sets of information on the use of such items in *Napoca*, but, meanwhile, due to the well-dated archaeological features they were recovered from, they also offer a more refined dating of

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Tab. 1. The provenance of the bone material

Artifact Type	Villa rustica, Lombului Hill	Victor Deleu Street no. 1,			Museum Square no. 2	Avram Iancu Street no. 21-23	Total
		C1	C2	Stray find			
Hairpins	3	8	10	1	4	-	26
Needles	1	4	6	-	3	-	14
Pins	2	13	8	1	2	-	26
Amulets	-	-	4	-	-	-	4
Gaming pieces	-	5	1	-	-	2	8
Music Instruments	-	1	-	-	-	-	1
Knot loosener	-	1	-	-	-	-	1
Cosmetic/health	-	1	2	-	-	-	3
Weaving implements	-	-	1	-	-	-	1
Varia	-	1	1	-	-	-	2
		34 - 39%	33 - 38%	2 - 3%			
Total	6 - 7%	69 - 80%			9 - 11%	2 - 2%	86 - 100%

some popular bone artifacts type in Dacia. About the Roman bone industry, use of bone objects in Roman *Napoca* we had not so much and thorough information. Compared to other Roman settlements or sites, the bone objects recovered from *Napoca* were reported only from two sites, from the Central Shopping Mall of modern Cluj-Napoca, from the north-eastern extremity of the Roman city¹ and in the eastern part of the Roman city, in the courtyard of Art Museum². At the Central Shopping Mall twenty-three Roman objects have been collected, mostly hairpins and sewing needles, while in the courtyard of the Art Museum three hairpins, a dice and a counter were recovered from a layer dated to the end of the 2nd c. – first half of the 3rd c. AD. Other finds from *Napoca* of mostly uncertain or unknown provenance, as part of the collection of MNIT were published earlier by S. Cociş and D. Alicu in 1993³. Thus, the eighty-six bone objects analysed in this paper are suitable for general observations concerning the bone industry and preference in usage of bone artifacts in *Napoca*.

The bone objects were recovered from four different sites (Tab. 1; Pl. I/1). The largest assemblage (80%) was unearthed from the city of *Napoca*, from a complex of urban buildings (*insula*) at Victor Deleu Street no. 1 (Pl. I/1.1; Pl. II/1). Not far away from this site, still within the precinct of ancient city, nine bone objects (11%) were recovered from the Museum Square no. 2 (Pl. II/2). The cemetery of *Napoca* identified at Avram Iancu Street 21-23 delivered only two gaming pieces (Pl. I/1.3). In the catchment area of *Napoca* a large and important villa building was excavated (today Lombului Street) where six bone objects (7%) were collected (Pl. I/2, 3). Due to the well-dated and excavated sites, the bone objects can be treated as testimonies of the 2nd-3rd c. AD every-day life in an urban context.

In the followings, the artifacts of the mentioned sites will be presented by categories and types, as part of the same (wider) urban context with comments on the findspot

¹ DIACONESCU *et alii* 2012, 140-142, Pl. XIX.

² ANTAL/PUPEZĂ 2012, Pl. III/1-3, 10,15; XI/6-10.

³ COCIŞ/ALICU 1993.

when the nature or type of artifact requires it. Although the *villa rustica* at the Lombului Street was not situated within the perimeter of the Roman city wall, it was located in the territory of the ancient *municipium*, and as such, it might have been in close economic and cultural connection with the urban fabric of *Napoca*⁴.

SITES

The bone artifacts analysed in this paper were recovered from four different topographical units, out which three (Museum Square no. 2, Victor Deleu Street no. 1, Avram Iancu Street no. 21-23) were situated or directly connected to the urban inhabited area of the *vicus/municipium*.

The archaeological features unearthed at Museum Square no. 2 and Victor Deleu Street no. 1 are situated in the north-western extremity of the Roman city, relatively on a close distance to each other. Both sites presented ruins of the densely inhabited urban fabric of the former ancient city. The archaeological excavation at Museum Square no. 2 in 2016 has revealed two inner streets of *vicus/municipium* and two buildings on the two sides of the road, dated to 155-180 AD, to the period of the *municipium Aelium Hadrianum Napoca*. The Roman features, including the outer walls of the buildings, the pavement of streets, channels, or the remains of a porticus were partially destroyed or affected by medieval and modern features, such as wells and pits (Pl. II/2)⁵. Due to the limited research area, the structure, precise function, or the plan of buildings is yet unknown. Nevertheless, the remains could be associated, without any doubt, with the building clusters of the densely inhabited northern parts. The six bone objects (4 hairpins, 3 needles, 2 pins) uncovered from this site were recovered whether from the Roman streets (called by the excavators „Roman road”, see cat. no. 10, 39, 41, 57), or from the floors associated to the two buildings (see cat. no. 3, 6, 14, 42). Close to this site, north-east to it, between 1990 and 2012 large-scale excavations were carried

⁴ COCIŞ *et alii* 2009; COCIŞ *et alii* 2010.

⁵ COCIŞ *et alii* 2017.

out at Victor Deleu Street no. 1. During the twelve-years long investigations, researchers managed to reveal one of the most extensively and best-documented urban *insulae* in Roman Dacia, composed of two separate, almost identical buildings (C1 and C2). The two buildings with a larger courtyard in the front, and a smaller, paved one in the back, and with rooms heated with hypocaust system were intensively inhabited and used from the beginning (from the beginning of the 2nd c. AD) until the abandonment of the province, in the 3rd c. AD (Pl. II/1). According to the observations, the construction and use of *insulae* can be delimited into several well-established building phases: three timber phases, out of which the earliest date to the reign of Trajan, the following to the period between the reigns of emperor Trajan and Hadrian, while the third one can be connected to the period when the Roman settlement was granted the *municipium* rank (reigns of Hadrianus-Antoninus Pius). The two stone building phases, when buildings C1 and C2 have achieved their final shape, were placed by researchers to the 2nd half of the 2nd century – Septimius Severus, respectively to the reign of Septimius Severus and the abandonment of the province⁶. Judging by the find material of the first timber phase with a strong Norico-Pannonian character, the inhabitation of the building parcels is associated with the first colonists originated from the indicated region. The excavations have delivered a large and rich find material, including pottery, terra sigillata, brooches, iron vessels as part of bathing equipment, or a 3rd c. AD coin hoard⁷. Perhaps, due to the careful documentation and find collecting methods, the long period of use of the *insulae*, the overwhelming majority of the bone objects discussed in this paper were recovered from this site (69 pieces, Tab. 1). Considering the distribution of artifacts within the *insula*, their proportion is nearly identical in the two buildings. Relating individual artifacts to specific archaeological contexts, however, is more difficult. The precise contexts of most of the bone objects recovered from building C2 was not recorded or indicated, the ones they were, were, however, found in contexts connected to the oven (cat. no. 1), floors (cat. no. 51, 53), channel (cat. no. 68), or the medieval cubiculum (cat. no. 86). We have more specific information about the find spots within building C1, although the indication of different rooms is usually missing. Most of them were found in layers connected to the hypocaust system (cat. no. 11, 12, 24, 49, 72, 73, 85).

The southern cemetery of *Napoca*, connected to the population of the intramural settlement was identified, in the neighbourhood of extramural buildings of the settlement, along current Avram Iancu Street. In 2014, archaeologists have unearthed six (four incineration and two inhumation) burials at Avram Iancu Street no. 21-23⁸. Since the results of the excavations have not been published yet, details related to the funerary customs, inventories are unknown. In the present material two gaming counters (cat.

no. 33-34) were reported from the same incineration grave (Grave M1), dated to the first half of the second century AD.

Lombului Street (or Lombului Hill) is the only site which is not situated within the urban perimeter of *Napoca*. North to ancient *Napoca*, and to Dâmbul Rotund and Iris districts of the modern city, still within the modern administration limits of Cluj-Napoca, researchers have identified a *villa rustica* in 2008⁹. During the archaeological campaign, a roughly 3900 m²-sized area has been investigated. Located in the chains of *villae* around the city (on a relatively close distance from the *villa rustica* at Chinteni), 500 m from the Roman road to the direction of Chinteni, this large villa was provided with eight different rooms/units (A-G) and has delivered a rich find material, especially pottery and terra sigillata (Pl. I/3)¹⁰. The villa and its rooms have not been interpreted yet, so the function of these is still unclear. Although the villa is located *extra muros* of ancient *Napoca*, it was, with most probability, situated within the extended territory (*territorium*) of the Roman city, hence in close (economic and administrative) connection to it. From this building six bone artifacts (cat. no. 4, 7, 22, 43, 54, 55) have been recovered, all from the same room, room G, and all were dated to the same time sequence (mid-2nd – mid-3rd c. AD). The 15.5 m long and 0.8-0.9 m wide unit, provided with two outer buttresses, was closing the building from north-east. Although no comments have been made on the possible function of this room, judging by its layout and position, it seems that it was a kind external portico or remains of a precinct wall surrounding the building.

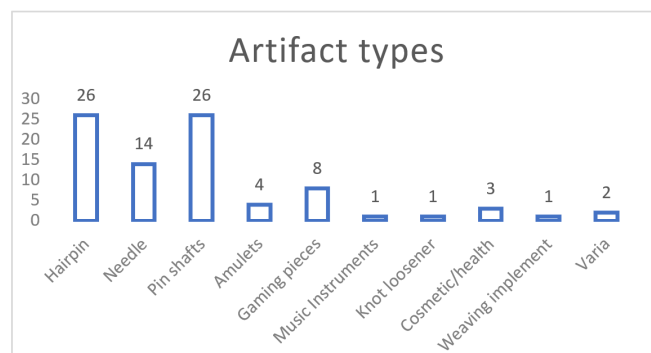


Fig. 1. Distribution of bone artifacts

PRODUCTS AND DISTRIBUTION

According to the standards of bone artifact analysis in the scholarship, I ranged the bone objects into ten functional categories and multiple types. One should state that functional classification of Roman small finds is rather arbitrary and is mostly the result of modern find processing methods, as many artifacts, due to their shape and morphological characteristics, could be used for multiple purposes at the same time. Such artifacts are the large group of “hairpins”, “needles” and “pins”. Due to their elongated shape with circular or oval cross-section they could be equally used for cosmetic, medical, or textile-processing

⁶ COCIȘ *et alii* 1995. For the reconstruction possibilities of the *insulae*, see ARDELEANU 2015.

⁷ See RUSU-BOLINDET 2007; MUSTAȚĂ/COCIȘ/VOIȘIAN 2012; GĂZDAC *et alii* 2010; COCIȘ *et alii* 2001.

⁸ Archaeological reports refer to the site as Avram Iancu Street no. 25. Since no other reports or articles discuss investigations at Avram Iancu Street 21-23, this plot might have been excavated at the same time. See COCIȘ *et alii* 2015.

⁹ COCIȘ *et alii* 2010.

¹⁰ COCIȘ *et alii* 2010, 567-568.

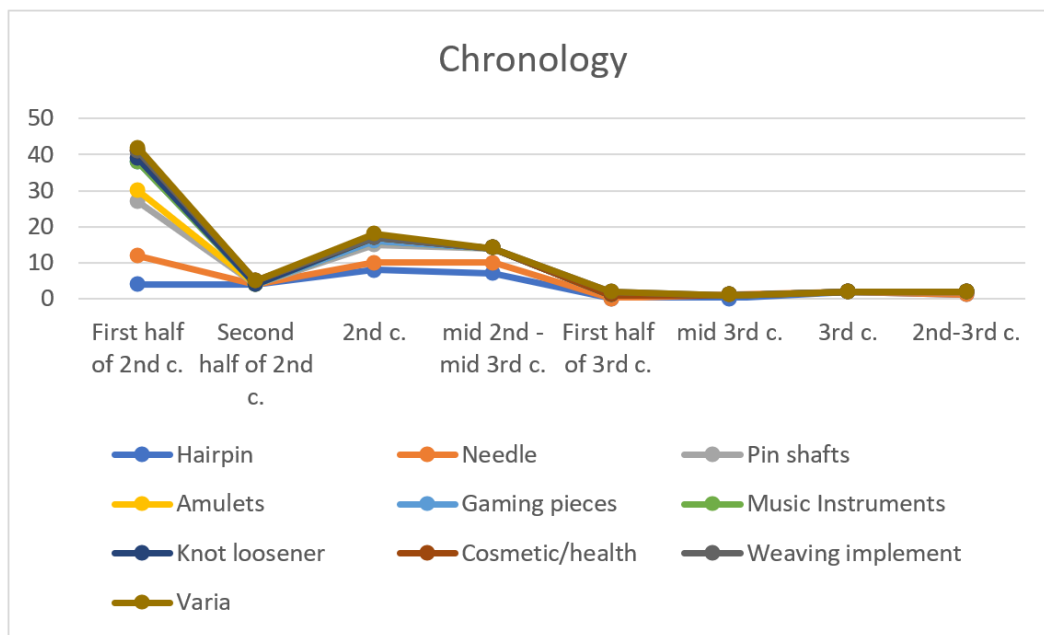


Fig. 2. Chronology of different bone objects

purposes. The large quantity of fragmentary pins hinders the specialists even more to attribute clear functions to these artifacts. Beside these reserves, the distribution of different categories within the spectrum of artifacts in *Napoca*, reflects the typical distribution of a Roman urban settlement in Dacia and in the empire too¹¹. The most popular category is the group of hairpins, followed by the fragmentary pins (all hairpin and needle-like artifacts were ranged into this group with broken head and/or tip) and needles (Fig. 1). The third most popular artifact type, but in a more reduced quantity, are the different gaming pieces, while the other categories are represented only in a very reduced quantity. All artifacts can be related to different aspects of everyday life, such as personal grooming, textile production or repair, gaming, working instruments (knot loosener), personal hygiene. Although not in large number, the four amulets of the same type (Hercules club pendants) may represent a possible local taste for these type of products in *Napoca*. Regarding their distribution, as it is expected from an intensively used living quarter in urban context, artifacts from all categories were met in the two buildings and related archaeological features at Victor Deleu Street (Tab. 1). While other sites delivered not only a limited range of artifacts, but as an interesting addition, the spectrum of the products was reduced only to the category of pins (hairpins, needles, pin shafts). Probably, this is related to a more restricted use of bone artifacts, limited to the main and most profitable bone product, the hairpin, whether due to the relative distance of the building from the actual urban hub (e.g., *Villa rustica* in the Lombului Street), where the constant acquisition of bone products

¹¹ VASS 2013, 55-60, Fig. 26-27. Although the archaeological research of urban settlements in Dacia is strongly underrepresented compared to military sites, the most numerous bone artifacts of various types were still recovered from towns and cities. The reported artifacts from these sites (*Apulum*, *Ulpia Traiana Sarmizegetusa*, *Drobeta*, *Porolissum* etc) are not only numerous, but they represent a large spectrum of products. In almost all cases, the most popular bone objects are the hairpins, followed by needles, gaming pieces, tools, instruments, medical instruments, cosmetic tools, music instruments, furniture implements, dress accessories etc.

was more limited, or due to the character of the excavated features (e.g., Roman road at the Museum Square) which might have been accumulated by the accidental loss of the passer byes. The two gaming counters recovered from graves at the Avram Iancu Street, however, reflects a deliberate and conscious selection of artifacts for funerary purpose, hence the reduced number of artifacts at this site can be partially explained by this fact. The strong urban character of the bone products is further highlighted by the lack of massive tools, handles, instruments, and other utilitarian artifacts, the most characteristic finds of Roman military sites, forts in Dacia¹².

CHRONOLOGY

Most bone artifacts analysed in this study were recovered from well-dated archaeological contexts which is a premier in the Roman archaeology of Dacia. Due to the short period of Roman rule in this province (ca. 165 years), refined dating of small-finds and archaeological features is almost impossible, and researchers can rarely set a shorter interval within the 2nd-3rd c. AD. The bone objects from *Napoca* and the *villa rustica* at Lombului Street were all recovered from contexts dated mostly to the 2nd c. AD, the overwhelming majority being used (or deposited, lost) in the first half of the 2nd c. AD (Fig. 2). The number of artifacts dated to the 3rd century are very reduced and it is limited to hairpins, needles, pin shafts and to one weaving implement. Except for the afore mentioned categories, all the other groups were recovered from earlier contexts.

The well-dated artifacts shed a new light to the period of use and production of certain types which, so far, were only generally dated to the 2nd and 3rd c. AD in lack of clear

¹² See CHIRILĂ *et alii* 1972, Pl. CXX/4-6, CXXVI/3, 5 (Buciumi); COCIȘ/ALICU 1993, Pl. XI/4, 6, XVI/1-5, XVIII/2,3, XIX/1, XX/1,2, PETCULESCU 2002, Fig. 1-4 (*Micia*); PROTASE *et alii* 1997, Pl. LXXXIII/2, LXXXIV/1, 2 (Ilișua); PETICĂ/ZRINYI 2000, Pl. III/8, V/7 (Cristești), BENEĂ 2003, Taf. VII/1,2, 9-12 (*Tibiscum*); VASS 2013, 278-284.

Tab. 2. Typology of hairpins

Type	Name	Victor Deleu Street no. 1	Museum Square no. 2	Avram Iancu Street	Villa rustica, Lombului Hill	Cat. no, Plates.
1	1.1	Hairpin undelimited by the shaft ending in a flat head	1	0	0	Cat. no. 1, Pl. III/1
	1.2	Hairpins undelimited by the shaft with flat rounded head	2	1	0	cat. no. 2-5, Pl. III/2-5
	1.3	Hairpins undelimited by the shaft with conical head	4	2	0	cat. no. 6-12, Pl. III/6-12
2	2.1	Hairpins with globular head delimited by the shaft	1	0	0	Cat. no. 13, Pl. III/13
	2.2	Hairpins with drop-shaped head delimited by the shaft	1	1	0	cat. no. 14-15; Pl. III/14-15.
	2.3	Hairpins with rounded conical head delimited by the shaft	2	0	0	cat. no. 16-17; Pl. III/16-17.
	2.4	Hairpin with cylindrical head delimited by the shaft	1	0	0	cat. no. 18; Pl. III/18.
3	Hairpin with irregular pyramidal head delimited by the shaft	1	0	0	cat. no. 19; Pl. III/19.	
4	Hairpin with flat, discoidal head	1	0	0	cat. no. 20; Pl. III/20.	
5	5.1	Ornamental hairpin with chess-figure-like head	1	0	0	cat. no. 21; Pl. III/21.
	5.2	Ornamental hairpin delimited by the shaft with successive geometrical elements	2	0	0	cat. no. 22.; Pl. III/22.
6	6.1	Ornamental hairpin with undecorated pinecone head delimited by the shaft with one or more collars	3	0	0	cat. no. 23-25; Pl. III/23-25.
	6.2	Ornamental hairpin with pyramidal pinecone head delimited by the shaft by two collars	1	0	0	cat. no. 26.; Pl. III/26.

archaeological contexts. For example, none of the reported antler rose amulets from Dacia could be dated earlier more precisely. The single example from the Victor Deleu Street no. 1, building no. 2 (cat. no. 30), comes from a context dated by the archaeologists to the first half of the 2nd c. AD. This testifies that this type of artifact was used already from the beginning of the province's life. Similar early dating (first half of the 2nd c. AD) were rendered to the Hercules club type of pendant which is usually considered a result of a later, mostly 3rd-4th century trend (see the analysis of these finds). In this concern, the pendants from *Napoca* are the earliest reported finds of this type in Dacia, and probably from the Empire too. The only category of artifact whose chronology spread over the whole existence of the Roman rule in Dacia (2nd-3rd c. AD), is the group of hairpins and needles. The large period of use of these objects is a common phenomenon in the Roman material culture and it testifies the huge demand towards their production which fuelled their constant production. *Napoca* is not an exception either. However, certain types, such as Type 6.2-6.3 (hairpins with pine-cone heads) which were considered by some authors as a typical later, 3rd c. type, were found in *Napoca* in the earliest layers of the first half of the 2nd c. AD. Practically, almost all types of artifacts had an early chronology which definitely pulls back the period of use of some bone objects in Roman Dacia. One should state that this type of chronological refinement does not necessarily reveal a new pattern of use on the level of the

province, but rather emphasises the very large circulation of bone objects type, in general, and may suggest a regional trend in usage and fashion.

HAIRPINS

As mentioned earlier, the largest group of bone artifacts in this assemblage is represented by hairpins. Twenty-six such objects were classified into six different types and multiple sub-types (Tab. 2). One may asset that many of the pin shafts (out of the twenty-six fragments) might have also formed once fragments of former hairpins, thus the total number of objects classified as hairpins might have been considerably higher. As in the case of most hairpin typologies, at the establishment of different types, I followed the morphological evolution, decoration of heads and the manner the heads were separated by the shaft. It should be noted that most of the hairpins from *Napoca* and its catchment area represent the simplest types (Type 1 and 2 – 64% of total hairpins). The popularity of these simple, undecorated pins, attested everywhere in the Roman Empire, can be explained probably by their utilitarian character. Varying from small to middle-sizes, they were suitable for holding sophisticated hairdos, locks together, attaching veils etc. As such, they were real consumable goods, probably more pins were used during one operation which required large quantities of similar items, and this might have determined

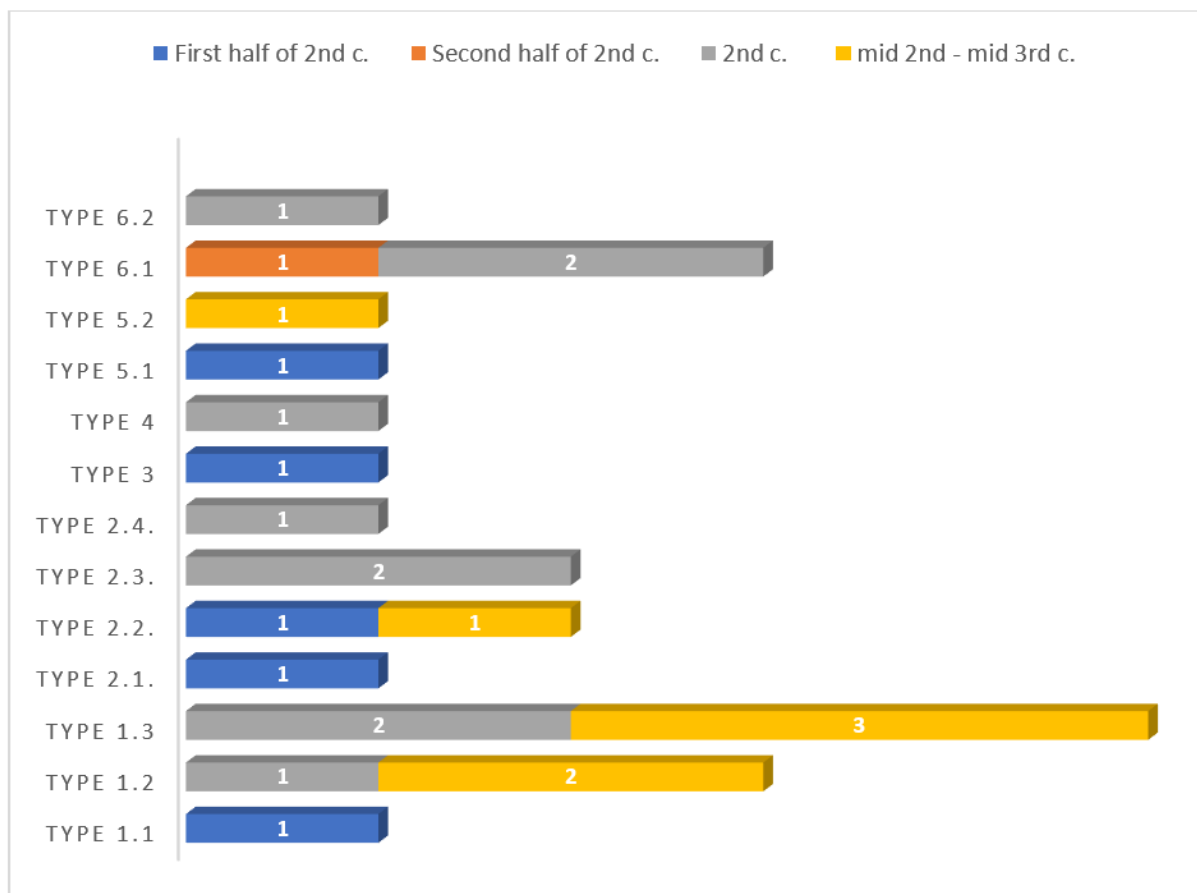


Fig. 3. Chronology of hairpin types

their continuous production. More elaborated hairpins are the one from type 3 and 4, while genuine ornamental hairpins could be considered only those examples whose head was not only more decorated, but which was also visible once fixed in the hair. In our case, hairpins with head composed of different geometrical elements (Type 5) and the one with pinecone head (Type 6) could be classified in this category.

All types of hairpins are well-known, both in Dacia and other provinces of the Roman Empire, none of them can be considered a local characteristic. They are the products of the same standardized production which characterizes the Roman bone production everywhere in this age. The overwhelming majority (19 pieces) were recovered from the two residential buildings from the Victor Deleu Street, and they display the largest variety in types and chronology. In contrast, the pins unearthed from the Museum Square no. 2 or the *villa rustica* from Lombului Hill are very reduced in number, and they all represent the most common, simplest types (reduced to types 1 and 2). The only exception is a more elaborated hairpin (Type 5.2, cat. 22, Pl. III/20) recovered from the *villa rustica* on Lombului Hill. The reduced quantity of hairpins from these latter sites do not enable us for any far-reaching conclusion. However, these can probably be related to the different character of the sites.

Considering the chronology of different hair pin types, one may observe that the main period of use of hairpins can be dated to the 2nd century AD, as most of them were recovered from contexts of this period (Fig. 3).

Type 1 includes the simplest and most functional hairpins. Lacking all kind of decoration their primal purpose was, perhaps, the fixing of deadlocks and hairdos¹³. They are simple not only in terms of their shape, but the manufacturing of these items was also the easiest from technological point of view. Raw chips of bones were fashioned into the required shape with chisels and knives; hence the marks of these tools are very frequent on hairpins of type 1. The difference between type 1.1; 1.2. and 1.3. is mainly technical, and only subtype 1.3 can be considered a distinct variant; they do not reflect different functionality. The sizes of complete items vary from ca. 7 to 12.27 cm, most of them are mainly small to medium size (see catalogue). This type is well-known both in Dacia¹⁴ and in other provinces¹⁵ too, and they benefited

¹³ RUPRECHTSBERGER 1978-1979, 39.

¹⁴ *Type 1.1.*: Apulum: CIUGUDEAN 1997, 154-155, pl. 4/1-5, 5/6, 9/3-4, 7-8, 12-13 (2nd-3rd c. AD); *Ulpia Traiana Sarmizegetusa*: COCIȘ/ALICU 1993, 115, Pl. I/2 (2nd c. AD); Gilău: ISAC 1999, 763, nr. 47, Taf. VII/47 (2nd-3rd c. AD); Ilișua: ISAC/GAIU 2006, 249, Pl. 5/52-54 (mid-2nd c. AD); *Porolissum*: GUDEA/BAJUSZ 1991, Pl. I/1, II/8-9, 14-15.; *Type 1.2.*: Apulum: CIUGUDEAN 1997, Pl. 4/6-7, 5/3-4, 13-14, 9/1-2, 5-6, 9-11, 14 (2nd-3rd c. AD); *Ulpia Traiana Sarmizegetusa*: COCIȘ/ALICU 1993, 116, Pl. 3/7-8 (second half of 2nd c. – 3rd c. AD); Ilișua: ISAC/GAIU 2006, 428, Pl. 5/49-51 (2nd c. AD); *Napoca*: COCIȘ/ALICU 1993, 116, Pl. III/1 (2nd-3rd c. AD).; *Romula*: POPILIAN 1976, 250, Fig. 12/10 (second half of 2nd c. / 3rd c. AD). *Type 1.3.*: Apulum: CIUGUDEAN 1997, Pl. 4/8-13, 5/1,2,5,7-12, 6/1-15, 7/1-13 (2nd-3rd c. AD); Buciumi: CHIRILĂ *et alii* 1972, 92, nr. 5, Taf. C/5 (3rd c. AD); Căței: ISAC 1999, 763, nr. 48, 54-55, Taf. VIII/48, 54-55 (2nd – 3rd c. AD); *Porolissum*: GUDEA/BAJUSZ 1991, Pl. III/2,4,5,6, V/21,27, VII/2; *Ulpia Traiana Sarmizegetusa*: COCIȘ/ALICU 1993, 252, Pl. 1/8 (2nd-3rd c. AD); Ilișua: ISAC/GAIU 2006, 428, 435-436, Pl. 4/43-45, 5/46-48, 51 (2nd-3rd c. AD).

¹⁵ Colchester: CRUMMY 1984, 20, Fig. 17/113, 122, 138 (Type 1.3, 1st-3rd c.

from a large period of use, from the 1st to the 4th c. AD. The items from *Napoca* were being used from the first half of the second century, until the mid-3rd c. AD, with a slight increase in the mid-2nd and mid-3rd c. AD.

Type 2 represents also a very popular hairpin type in Dacia and in other Roman provinces. In contrast to the previous type, the head is fashioned into a globular (Type 2.1), drop-shaped (Type 2.2), conical (Type 2.3.) and cylindrical (Type 2.4) head, so these pins displayed a minimal aestheticism. Their shape is thinner and more fusiform. From a technical point of view pins belonging to all subtypes represent different variants of the bulge-shaped heads, and it is difficult to decide if they were considered different types by the manufacturer. Often, the globular to cylindrical terminals shows rudimental tool marks (knife, chisel) which were not smoothed or polished. Their sizes vary from 6 to 11 cm. The chronology of this type in *Napoca* can be set to the first half of the 2nd c. AD, until the mid-2nd – 3rd c. AD, with a dominance in the 2nd c. AD. This pin type was also reported from the “Central Store” site in ancient *Napoca* which means that the distribution of these hairpins might have been even wider and more popular in the city¹⁶. In other Roman provinces, type 2 pins have also a very large period of use, from the 1st to the 4th c. AD, and only in the case of Type 2.2. seems that the fashion of these hairpins starts no earlier than the 2nd c. AD, with its peak in the 3rd c. AD¹⁷.

The single hairpin of **type 3** (cat. no.19, Pl. III/19) terminates in a biconical head delimited by the shaft with a neck. Compared to the first two types, this pin is less popular, its main distribution area is more restricted both

AD; Nîmes: BÉAL 1984, 52, nr. 175, Pl. 9/175 (Type 1.1), 174 (Type 1.2), 177, 182 (Type 1.3). *Augusta Raurica*: DESCHLER-ERB 1998, Taf. 36/3433 (Type 1.1., 1st – 4th c. AD), 3431 (Type 1.2., 1st – 4th c. AD) Taf. 35/3422, 3423, Taf. 36/3425-3433 (Type 1.3., 1st – 4th c. AD); *Aventicum*: SCHENK 2008, cat. 1-9, Fig. 101/1 (Type 1.1., 1st – 5th c. AD), 30 (Type 1.2, 1st – 4th c. AD) 10-11, 27, 29 (Type 1.3); *Diana*: PETKOVIĆ 1995, 79, nr. 309, Taf. XIV/10 (Type 1.1., 2nd–3rd c. AD), 9 (Type 1.2., 4th c. AD), XV/5 (Type 1.3); *Viminacium*: PETKOVIĆ 1995, 80, nr. 326-327, T. XV/2,3 (Type 1.3., 2nd c. AD); *Aquincum*: BÍRÓ *et alii* 2012, cat.no. 57-61, 583-643 (Type 1.1.); cat. no. 62-71, 644-717 (Type 1.3).

¹⁶ DIACONESCU *et alii* 2012, Pl. XIX/1-4 (Type 2.1), 5 (Type 2.3).

¹⁷ Dacia: *Apulum*: CIUGUDEAN 1997, Pl. II/1; 7 III/23 (Type 2.1., 2nd-3rd c. AD), Pl. II/ 2-6, 8; 10-13, 17; III/1, 4, (Type 2.2); II/9, 14, 15; III/2, 9, 20 (Type 2.3); II/12; III/6-8, 11, 15, 17 (Type 2.4); *Ulpia Traiana Sarmizegetusa*: ALICU *et alii* 1994, nr. 823, Pl. 56/823 (Type 2.1). *Drobeta*: STÎNGA 1998, 116, nr. 2, 1, 4, Pl. LXXXIII/10-11 (Type 2.1); 9, 17 (Type 2.2), LXXXV/3 (Type 2.1), 8 (Type 2.4); LXXXII/8 (Type 2.4); Ilişua: ISAC/GAIU 2006, nr. 41, 42, Pl. 4/41-42 (Type 2.1., 3rd c. AD); Romita: MATEI/BAJUSZ 1997, Pl. XCVI/1, 4-7, 9-10, (Type 2.1., 2nd – 3rd c. AD); 2, 3, 8 (Type 2.4., 2nd – 3rd c. AD). Other provinces: Colchester: CRUMMY 1983, 22, Fig. 19/221, 243, 252 (Type 2.1, 3rd c. AD); 268, 276 (Type 2.2), 30 (Type 2.3., 1st – 3rd c. AD); *Augusta Raurica*: DESCHLER-ERB 1998, Taf. 33/2153, 2157, 2163-2165, 2169 (Type 2.1., 1st – 4th c. AD, more frequent between 190-280), Taf. 32/2090, 2092, 2094 (Type 2.2., 190-280 AD), Taf. 33/2145, 2158, 2159, 2168 (Type 2.3, dating identical with Type 2.1), 2151, 2156, 2162, 2164, 2170 (Type 2.4, dating identical with the previous type); *Aventicum*: SCHENK 2008, cat. 33, Fig. 101/33. (Type 2.1., 2nd half of the 1st c. AD), 126, Fig. 103/281-291 (Type 2.2., 2nd-3rd c. AD), Fig. 101/86 (Type 2.3., 2nd half of the 1st c. AD); Fig. 102/166-167, 187, 199-201, 211 (Type 2.4., dating identical with the previous type); *Mogontiacum*: MIKLER 1997, Taf. 28/1-5. (Type 2.1), 8-11, 18 (Type 2.2), 16-17 (Type 2.3), 15, 20 (Type 2.4); *Diana*: PETKOVIĆ 1995, nr. 189, 191, 213, T. XII/7, 8, 13 (Type 2.1., 2nd-3rd, 5th c. AD), T. XIII/18, 19, 22 (Type 2.3., 3rd – 4th c. AD), 6, 11, 12, 21 (Type 2.4., 3rd – 4th c. AD); *Aquincum*: BÍRÓ *et alii* 2012, cat. no. 75-78, 731-784 (Type 2.1), 91-92, 950-982 (Type 2.2); 85-87 (Type 2.4).

in Dacia¹⁸ and other provinces¹⁹. The general chronology of this type in the Roman period is 2nd-3rd c AD, but it occurs occasionally in the 4th c. AD too²⁰. The hairpin recovered from the Victor Deleu Street was dated to the first half of the 2nd c. AD. The only hairpin belonging to **type 4** (cat. no. 20, Pl. III/20) was recovered also from the Victor Deleu Street, from building C2, dated to the 2nd c. AD. The pin ending in a flat discoidal head, called in the German literature as “*Kegelkopf*” or “*Nagelkopf*” (discoidal or nail-headed) hairpin is usually considered a late type²¹. Although examples from other provinces testifies that they appear already in the 2nd c. AD, they will become more popular in the 3rd, and especially in the 4th c. AD²². In the Roman provinces of Dacia, this type is not so well represented, the only examples were reported from *Apulum*, so far²³. Hairpins of **type 5** represent a more ornamented variant, as the head of the pins were treated with care and more concern. The head is decorated with successive geometrical motifs (collars and railings – type 5.1., and necking, collars, and globe – type 5.2.), similarly to architectural design elements. Judging by the size (12.5 cm) of the hairpin from the *villa rustica* at Lomb Hill (type 5.2., cat. no. 22, Pl. III/22), this type seems to be larger than the previous types and was used probably to fasten larger loads of hair (buns, braids etc.), or as presumed by S. Deschler-Erb, as dress pin²⁴. Often, hairpins of this type are manufactured on lathe which provides the hairpins a regular and proportioned aspects. The hairpins in our collection seem to be fashioned with hand tools (knife, chisel) instead. Comparing the two subtypes, one should state that type 5.1, although a known type in Dacia and the other Roman provinces²⁵, is overshadowed by type 5.2 which seems to be a more preferred type, at least concerning the quantity and spread²⁶. The single hairpin from the Victor Deleu Street of

¹⁸ In Roman Dacia this type was reported from only two sites so far, from *Apulum*: CIUGUDEAN 1997, Pl. III/19 (2nd-3rd c. AD) and *Porolissum*: TAMBA 2008, Fig. VI.1.18.; BAJUSZ-ISAC 2001, 409, nr. 52, Pl. VI/52 (2nd-3rd c. AD).

¹⁹ *Augusta Raurica*: DESCHLER-ERB 1998, Taf. 35/3404 (2nd-3rd c. AD); *Aventicum*: SCHENK 2008, cat. 269, 270, 273, Fig. 103/269-270, 273.; *Mogontiacum*: MIKLER 1997, Taf. 30/1-3; *Brigetio*: BÍRÓ 1994, Pl. XXIV/314-316 (3rd-4th c. AD).

²⁰ Similar items from Colchester were dated to 200 – 4th c. AD. CRUMMY 1983, Fig. 19/288.

²¹ See RUPRECHTSBERGER 1997-1998, 33-34, no. 223-230 (Enns, 2nd – 4th c. AD), OBMANN 1997,69, Taf. 26/366, 373, 380, 389, 3893, 396 (Nida-Heddernheim). For further analogies, see: CRUMMY 1983, 22, Fig. 19/330 (Colchester, 3rd-4th c. AD); MIKLER 1997, 41-42 (*Mogontiacum*), BÍRÓ *et alii* 2012, cat. 93-95 (*Aquincum*).

²² Despite the general late dating of this type, one can observe regionality in use. In *Aventicum* pins recovered from dated contexts, were used mainly in the 1st-2nd c. AD – SCHENK 2008, 179-180, Fig. 102/251, 103/260-232. The earliest example, dated to the age of Claudius/Nero comes from Xanten – JUNG 2013, 81, Taf. 28-30/538-550.

²³ CIUGUDEAN 1997, 60, cat. no. 140, Pl. XI/4 (Dealul Furcilor, 2nd-3rd c. AD).

²⁴ DESCHLER-ERB 1998, 165.

²⁵ In Dacia similar hairpins were reported only from *Apulum*: CIUGUDEAN 1997, 39, cat. no. 135, Pl. 10/10 (2nd-3rd c. AD) and in the baths at Romita: GUDEA/BAJUSZ 1991, 99, cat. 123.2, Pl. XVI/2 (3rd c. AD). In other provinces similar items were reported from Xanten: JUNG 2013, Taf. 35/634; Nida-Heddernheim: OBMANN 1997, Taf. 21/280, 282, 283 (2nd – 3rd c. AD).

²⁶ Precise analogy for the decoration were not reported from Dacia yet, but they are more frequent in the western provinces of the Empire. According to Jung, the hairpin known in the German literature as hairpin with „Balusterkopf” is more characteristic for Britannia and western provinces – JUNG 2013, 82. See further analogies from Xanten: JUNG 2013, Taf. 35/626-628 (2nd-4th c. AD); *Augusta Raurica*: DESCHLER-ERB 1998, Taf.

type 5.1. from *Napoca* (cat. no. 21, Pl. III/21) has an earlier dating (first half of the 2nd c. AD), while the hairpin of the other type (cat. no. 22, Pl. III/22) was recovered from a context dated to the mid-2nd – mid-3rd c. AD.

Finally, the head of hairpins ranged into **type 6** were all fashioned into the shape of a cone delimited by the body by one or two collars. Therefore, I included all items in the same generic type of the pinecone shaped hairpins, regardless the fact that the terminal was decorated or not. Usually, only those items are considered by scholars hairpins with pinecone head whose cone was decorated with incised net motif; practically our type 6.1. All three examples belonging to type 6.1 were recovered from the Victor Deleu Street. They are characterized by a long, tapering shaft (cat. 23-24, Pl. III/23-24 are both longer than 10 cm) and a cone-shaped terminal delimited by a single (cat. 23-24) or two collars (cat. 25, Pl. III/25). The collar of hairpin cat. no. 23 (Pl. III/23) is more rudimentally fashioned, it is marked only by an incised line, in contrast to the other two examples. Hairpin cat. no. 25 has a much longer cone-shaped terminal, however its total length is the shortest (6.5 cm) which could hypothetically indicate that it benefitted of a large period of use and by successive resharping of the broken tip, it became shorter over time. Hairpins of type 6.1. are very popular in the Roman age in Dacia (including the similar type from the “Central Store” site in *Napoca* too²⁷) and the Empire as well with a large period of use, from the 1st to the 4th c. AD²⁸. The items from *Napoca* were recovered all from 2nd c. AD contexts. Type 6.2. represents the well-known group of hairpins ending in a proper, decorated pinecone head, a popular type of ornamental hairpin. Pinecone as the divine attribute of many deities (*Bacchus*, *Sabazios*, *Attis*, *Cybele* etc), also with a strong funerary symbolism (resurrection, eternal life) was a popular general decorative motif in Roman age²⁹. Whether its choice for decorating Roman hairpins was a deliberate act, conferring hidden symbolism, protection for the wearer, is difficult to say. The fragmentary item recovered from the Victor Deleu Street (cat. no. 26, Pl. III/26), building C2 is a carefully fashioned item. The pinecone was decorated with deep incised net motif and separated by the shaft by two regular collars. The hairpin has a very regular and aesthetic aspect. This hairpin from *Napoca* was dated to the 2nd c. AD. Although M. Bíró considers this type of hairpin a type which

35/3405; *Mogontiacum*: MIKLER 1997, 42.; Colchester: CRUMMY 1983, 24-25, Fig. 22/425 (3rd-4th c. AD); *Aquincum*: BÍRÓ *et alii* 2012, 93, cat. no. 164.

²⁷ DIACONESCU *et alii* 2012, Pl. XIX/6.

²⁸ Dacia: *Apulum*: CIUGUDEAN 1997, 59, cat. 134, Pl. X/9 (Type 6.1., 2nd-3rd c. AD); 59, cat. no. 130, Pl. X/5 (Type 6.2, 2nd-3rd c. AD); *Drobeta*: STÎNGA 1998, 116, nr. 4, Pl. CXXXIII/21 (Type 6.1); LXXX/23 (Type 6.2); Buciumi: CHIRILĂ *et alii* 1972, 92, nr. 5, Taf. C/4 (Type 6.1); Ilișua: ISAC/GAIU 2006, nr. 37, Pl. 4/37. (Type 6.1), ISAC/GAIU 2006, nr. 30, Pl. 2/30 (Type 6.2., beginning of the 2nd c. AD); Romita: GUDEA/BAJUSZ 1991, Pl. XIX/6, 8-9 (Type 6.2., 3rd c. AD); Other provinces: Colchester: CRUMMY 1983, 21, Fig. 18/197-198 (Type 6.1., until 200 AD); *Augusta Raurica*: DESCHLER-ERB 1998, Taf. 35/3398; Taf. 32/2068-2070 (Type 6.1., 190-200 AD) 2062-2063, 33/2057 (Type 6.2., 1st – 4th c. AD); *Aventicum*: SCHENK 2008, cat. 300, Fig. 104/300 (Type 6.1., 1st c. AD), Fig. 105/323 (Type 6.2.); *Mogontiacum*: MIKLER 1997, Taf. 28/21 (Type 6.1), Taf. 33/1-11 (Type 6.2); Xanten: JUNG 2013, Taf. 17/275-279, 281, 285 (Type 6.1., 1st – 4th c. AD), Taf. 35/637-638 (Type 6.2.); *Diana*: PETKOVIĆ 1995, 84, nr. 253-254, T. XIII/3, 5. (Type 6.1., 4th – 5th c. AD), T. XV/10 (Type 6.2, 2nd-3rd c. AD); *Aquincum*: BÍRÓ *et alii* 2012, cat. no. 116-117, 123-128 (Type 6.1), cat. no. 99-109 (Type 6.2).

²⁹ CIUGUDEAN 1997, 20.; BÍRÓ 1994, 34.; SCHENK 2008, 35.

appears only in the 3rd c. AD³⁰, earlier examples from Dacia and other sites testify that they benefited from an earlier use, already from the 2nd c. AD.

Type 1.1.

1. Hairpin with thickened, flat head, tapering progressively towards the tip, circular in section. Striking chiselling marks on the length of the shaft, shiny by use. Cluj-Napoca, Str. V. Deleu Street no. 1, building C2, second layer belonging to the oven; first half of the 2nd c. AD; Dimensions: L: 5.23 cm, max. th: 0.73 cm; min. th: 0.51cm, MNIT Cluj-Napoca, inventory no.: v/47793. Pl. III/1.

Type 1.2.

2. Hairpin with flat rounded head not delimited by the shaft, tip missing. Slightly curving shaft, circular in section. Parallel longitudinal chiselling marks on the shaft (prismatic section at the head). Cluj-Napoca, V. Deleu Street no 1, Building C1; 2nd c. AD, Dimensions: L: 6.87 cm, max. th: 0.9 cm, min. th: 0.41 cm, MNIT Cluj-Napoca, inventory no.: v/47818. Pl. III/2.

3. Hairpin with flat, rounded head not delimited by the shaft. Complete. Circular in section, oval towards the tip. Striking longitudinal chiselling marks on the shaft. Cluj-Napoca, Museum Square no. 2, 2016, Roman Road zone B, upper layer of the Roman floor, mid-2nd – mid 3rd c. AD, Dimensions: L: 11.12 cm; max. th.: 0.55 cm; minx. th: 0.2 cm; Deposit IAIA Cluj-Napoca. Pl. III/3.

4. Hairpin with straight, rounded head, not delimited by the shaft. Circular in section. Chiselling and file marks on the surface, broken towards the tip. Cluj-Napoca, 2008, Lombului Hill, *villa rusticae*, Area G; mid-2nd – mid 3rd c. AD; Dimensions: L.: 5.29 cm; max. th.: 0.55 cm; min. th.: 0.45 cm, Deposit IAIA Cluj-Napoca, inventory no.: Inv.3991. Pl. III/4.

5. Hairpin with straight, rounded head, not delimited by the shaft. Circular in section. File and chiselling marks on the shaft, well-polished. Cluj-Napoca, V. Deleu Street no. 1, building C2; 3rd c. AD, Dimensions: L: 8.9 cm, max. th.: 0.46 cm, min th.: 0.39 cm, MNIT Cluj-Napoca, inventory no.: v/47797. Pl. III/5.

Type 1.3.

6. Hairpin with conical head, not delimited by the shaft. Complete, blunt tip. Circular in section. Longitudinal chiselling marks. Cluj-Napoca, Museum Square no. 2, 2016, Roman road, zone D, inner part of the wall, upper layer of Roman floor; mid-2nd – mid 3rd c. AD, Dimensions: L.: 10.43 cm; max. th.: 0.54 cm; min. th.: 0.35 cm; Deposit IAIA Cluj-Napoca. Pl. III/6.

7. Hairpin with conical head not delimited by the shaft. Circular in section. Longitudinal chiselling and file marks on the surface. Tip is missing. Cluj-Napoca, 2008, Lombului Hill, *villa rusticae*, Area G; mid-2nd – mid 3rd c. AD; Dimensions: L.: 6.95 cm; max. th.: 0.34 cm.; min. th.: 0.22 cm; Deposit IAIA Cluj-Napoca; inventory no.: Inv.4008. Pl. III/7.

³⁰ BÍRÓ 1994, 34.

8. Hairpin with conical head not delimited by the shaft, broken. Circular in section. File marks on the shaft, polished by use. Cluj- Napoca, V. Deleu Street no. 1, building C1, soil heap; 3rd c. AD, Dimensions: L.: 8.26 cm, max. th.: 0.65 cm, min. th.: 0.42 cm, MNIT Cluj- Napoca, inventory no.: v/47805. Pl. III/8.

9. Hairpin with conical head, not delimited by the body, almost complete, circular in section. File and chiselling mark on the shaft. Cluj- Napoca, V. Deleu Street no. 1; stray find, Northern section, at the fountain, 2nd – 3rd c. AD; Dimensions: L.: 12.27 cm; max. th.: 0.64cm, min. th.: 0.22cm; MNIT Cluj- Napoca, inventory no.: v/47812. Pl. III/9.

10. Hairpin with conical head not delimited from the body, broken at the tip, circular in section, file and wear marks on the surface, Cluj- Napoca, Museum Square no.2, 2016, Roman road, mid-2nd – mid 3rd c. AD, Dimensions: L.: 6.78 cm; max. th.: 0.58 cm, min. th.: 0.38 cm; Deposit IAIA Cluj- Napoca. Pl. III/10.

11 Hairpin with slightly conical head, not delimited by the shaft. Circular in section. Complete. Chiselling and file marks on the shaft. Well-polished. Cluj- Napoca, V. Deleu Street no. 1, building C1, room 2, on the hypocaust floor, 2nd c. AD; Dimensions: L.: 5.95 cm, max. th.: 0.22 cm, min. th.: 0.1 cm; MNIT Cluj- Napoca, inventory no.: v/47792. Pl. III/11.

12. Hairpin (recorded as stylus on the label) with straight, slightly conical head. Shaft gradually tapering towards the point. Circular section. Complete. Secondary burning mark at the tip. Manufacturing techniques: chiselling, filing, polishing (highly polished). Cluj- Napoca, V. Deleu Street no. 1, building C1, From the tunnel of hypocaust; 2nd c. AD.; Dimensions: L.: 9.92 cm, max. th.: 0.56 cm, min. th.: 0.2 cm, MNIT Cluj- Napoca, inventory no.: v/50986. Pl. III/12.

Type 2.1.

13. Hairpin with globular head delimited by the shaft. Narrow, straight neck, circular section. The shaft is tapering progressively towards the point. Complete. Manufacturing technique: chiselling and filing on the shaft, knife marks on the head. Tool marks are accentuated. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: L.: 10.37 cm, max. th.: 0.51 cm, min. th.: 0.16 cm, MNIT Cluj- Napoca; inventory no.: v/50989. Pl. III/13.

Type 2.2.

14. Hairpin with drop-shaped head, shaft with circular section, broken towards the tip, file and chiselling mark on the shaft. Cluj- Napoca, Museum Square no. 2, Zone D, inner side of the wall, upper floor of the Roman floor, Roman road, mid-2nd – mid 3rd c. AD; Dimensions: L: 6.22 cm; max. th.: 0.49 cm, min. th.: 0.8 cm; Deposit IAIA Cluj- Napoca. Pl. III/14.

15. Hairpin with drop-shaped head, broken into three, circular section, heavily worn surface, Cluj- Napoca, V. Deleu Street no. 1, building C2; first half of the 2nd c. AD; Dimensions: L.: 8 cm, max. th.: 0.38 cm; min th.: 0.29 cm; MNIT Cluj- Napoca; inventory no.: v/50997. Pl. III/15.

Type 2.3.

16. Hairpin with rounded conical head delimited by the body, circular in section. Rudimentary manufacturing: chiselling and file marks on the head and shaft, polished by use. Cluj- Napoca V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L.: 11.05 cm, max. th.: 0.47 cm, min. th.: 0.3 cm, MNIT Cluj- Napoca, inventory no.: v/50987. Pl. III/16.

17. Hairpin with conical head delimited by the shaft. Narrow neck. The curved shaft with slightly rectangular section is tapering towards the point progressively. Complete. Manufacturing marks: striking file and chiselling marks in the middle of the shaft which confers a rudimental aspect to the object. Knife marks on the head. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L.: 11.11 cm, max. th.: 0.45 cm, min. th.: 0.17 cm, MNIT Cluj- Napoca, inventory no.: v/47820. Pl. III/17.

Type 2.4.

18. Hairpin with cylindrical head delimited by the shaft, circular in section, rough chiselling mark on the head, filing marks on the shaft, polished by use. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L.: 7.35 cm, max. th.: 0.31cm, min. th.: 0.2cm, MNIT Cluj- Napoca; inventory no.: v/50993. Pl. III/18.

Type 3

19. Hairpin with irregular biconical head with a neck delimited by the body; shaft circular in section, rough chiselling, knife, and file marks on the head and on the shaft. Cluj- Napoca, V. Deleu Street no. 1, building C1, on the surface of the oven, first half of the 2nd c. AD, Dimensions: L: 6.39 cm, max. th.: 0.59cm min. th.: 0.36cm, MNIT Cluj- Napoca, inventory no.: v/47794. Pl. III/19.

Type 4

20. Hairpin with flat discoidal head, slightly conical on the top. Narrow neck, gradually tapering towards the point. Circular in section. Complete. Technique: chiselling, polishing. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L.: 8.77 cm, max. th.: 0.45 cm, min. th.: 0.17 cm, MNIT Cluj- Napoca, inventory no.: v/47803. Pl. III/20.

Type 5.1.

21 Hairpin with chess figure-like head, broken at the shaft, circular in section, worn surface, chiselling mark on the surface, Cluj- Napoca, V. Deleu Street no. 1, building C1, from building 14, next to the oven, near Z10, C6, first half of the 2nd c. AD, Dimensions: L.: 4.37 cm, max. th.: 0.44 cm. min. th.: 0.34 cm, dm hole: 0.2 cm; Deposit IAIA Cluj- Napoca. Pl. III/21.

Type 5.2.

22. Hairpin with conical head delimited by the shaft by a balustrade-like decoration composed of two circular mold topped by a globular terminal. Complete. Circular in section. Chiselling and file marks on the surface, polished by use. Cluj- Napoca, 2008, Lombului Hill, *villa rusticae*, Area G; mid-2nd – mid 3rd c. AD; Dimensions: L: 12.5 cm; max. th.: 0.51 cm; min. th.: 0.18 cm; Deposit IAIA Cluj- Napoca, inventory no.: Inv. 3950. Pl. III/22.

Type 6.1.

23 Harpin with undecorated pinecone head delimited by the body by an incised collar. Circular in section, broken into two. Polished surface, Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L.: 10.6 cm, max. th.: 0.52 cm, min. th.: 0.3 cm, MNIT Cluj- Napoca, inventory no.: v/51005. Pl. III/23.

24. Decorative hairpin with pinecone-shaped head delimited from the body by a collar; complete. The shaft with circular section is slightly curved, file, chiselling marks on the surface, polished. Cluj- Napoca, V. Deleu Street no. 1, building C1, eastern part of the trench, above the hypocaust, first Roman layer, second half of the 2nd c. AD, Dimensions: L.: 11.42 cm, max. th.: 0.57 cm; min. th.: 0.26 cm; Deposit IAIA Cluj- Napoca. Pl. III/24.

25. Hairpin with pinecone head delimited by the body by two incised concentric collars. Complete. Circular in section. File marks on the surface, well-polished. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L: 6.94 cm, max. th.: 0.46 cm, min. th.: 0.25 cm, MNIT Cluj- Napoca, inventory no.: v/47806. Pl. III/25.

Type 6.2.

26. Hairpin with pinecone head (incised net motif) delimited by the shaft by two incised concentric grooves. Slight parallel chisel marks on the shaft, well-polished. Tip missing. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L: 9.69 cm, L head: 1.2 cm; max. th.: 0.55 cm, min. th.: 0.24 cm, MNIT Cluj- Napoca, inventory no.: v/48041. Pl. III/26.

AMULETS, PENDANTS

Different pendants hanged on necklaces or fastened on cloth represent a special type of artifact in the Roman bone industry, as beside their standard shape and character, their production was highly influenced by the strong apotropaic and magical significance they expressed. Very often they were worn on the body, in a similar manner as simple jewellery items, thus the boundary between jewellery and apotropaic objects is very narrow. In the present assemblage four objects were included in the category of amulets and pendants with possible apotropaic character: three "Hercules' club" type of pendants (cat. no. 27-29, Pl. IV/27-29) and one antler roundel pendant (cat. no. 30, Pl. IV/30). All four objects were recovered from the Victor Deleu Street, building C2, so it is not excluded that they might have belonged to the same owner or workshop. This hypothesis might be supported by the similar chronological horizon too, as they were all dated to the 2nd c. AD.

Long-bodied pedants with widening end, provided on the opposite terminal with suspension holes are known in the special literature as "Hercules' club", or "*Herkuleskeule*" pendants, as their shapes resemble with the famous club of Hercules with the help of which the hero managed to fulfil many of the twelve tasks. Being the symbol of the brutal force, virility and fertility, the copies of the legendary clubs were very popular in Roman age, and according to the reported archaeological contexts, these pendants were worn mostly by children and women as an apotropaic

talisman³¹. The overwhelming majority of this pendant type were manufactured from metal, very often from silver or gold, and they were generally distributed from Britannia to the Middle East, dated mainly to the 3rd and 4th c. AD³². Much smaller in number, similar pendants manufactured of bone did not benefit from the same large distribution. It seems, however, that the fashion of the bone Hercules' club pendants was limited to the Lower Danube region (*Moesia Superior* and *Inferior*), *Dacia* and *Pannonia*³³. Whether this phenomenon can be related to the popularity of the Hercules cult in this region, as scholars believe³⁴, is hard to establish. In the Romanian scholarship these bone pendants were considered of late date, and the copies of the more expensive metal amulets³⁵. Although the late chronology of bone Hercules club pendants seems to be supported by the items from *Moesia Superior*, as most of them were dated to the late 4th-5th c. AD³⁶, similar items from *Dacia* proves that they are known and used already earlier, from the 2nd c. AD too (as it is indicated by the pendant from Napoca too). Hence the chronology of bone and metal pendants seems to be identical, and the bone pendants are not merely the results of necessity in the general impoverishment of population in time of the crisis from the 3rd-4th c. AD. Although this pendant type is not unknown in the Dacian provinces, such a "high" concentration of bone pendants in the same well-defined archaeological context is still an exception. One should mention that the use or wear of these pendants might have had a special significance in *Napoca*, since a similar bone pendant was found during the excavations in the Central Mall in Cluj-Napoca³⁷. Thus, the total number of these objects raises to four in one settlement from two archaeological features. Naturally, this number is very reduced, however, taking into consideration the quantity of this pendant type in *Dacia*, no other Dacian settlement delivered so "many" items of similar pendants so far, except for *Drobeta*³⁸. Morphologically, the three pendants represent three different variants. Two of them are simple pendants with undecorated club (cat. no. 27-28, Pl. IV/27-28), and only the segment between the flat and circular suspension hole and the club is decorated with reels and globe (cat. no. 27). Pendant no. 28 (Pl. IV/28) has been broken under the suspension hole, and only two parallel incised reels are visible, the reconstruction of the type is, thus, not possible. All of the published bone pendants from *Dacia* shows similarities

³¹ WERNER 1964, 177.

³² WERNER 1964, 176-177.

³³ *Moesia: Viminacium* (2nd-3rd c. AD) and *Diana*: PETKOVIĆ 1995, 89, nr. 437, T. XXVII/1., nr. 440., T. XXVII/2.; *Moesia Inferior: Durutorum*: ELEFTERESCU 2008, 271, nr. 282-285, Pl. XII/282-285.; *Pannonia: Brigetio*: BÍRÓ 1997, 182, Fig. 33, this amulet was part of a *crepundium*; Aquincum: BÍRÓ *et alii* 2012, 79, no. 15.

³⁴ CIUGUDEAN 2003, 250.

³⁵ BĂRBULESCU 1994, 178-180.; CIUGUDEAN 2003, 248. They argue for the late dating of these objects with the general impoverishment of late Roman age society, when artifacts manufactured from metal are replaced by „cheaper” substitutes, such as bone artifacts. In this concern they use the arguments of S. Petković's (PETKOVIĆ 1995, 133) valid for the bone industry of Late Roman *Moesia*. However, in the lack of a genuine late Roman horizon (4th-5th c. AD) in *Dacia* make this explanation highly questionable.

³⁶ PETKOVIĆ 1995, 89, cat. no. 440-442.

³⁷ DIACONESCU *et alii* 2012, Pl. XIX/8.

³⁸ Here five such pendants were reported. STÎNGA 1998, 119, nr. 1-4, Pl. LXXXIV/7-10; LXXXV/1.

with these two variants³⁹. The third variant consist of straight, rounded club ending in a circular suspension part followed by a register of incised net motif, margined by two parallel incised lines (cat. no. 29, Pl. IV/29). No similar bone pendants of Hercules' club type are known from the Dacian provinces, so far. Analogies for this type were recovered only from late 4th-5th c. AD contexts in *Moesia Superior*⁴⁰.

Another type of amulet, an antler roundel pendant was recovered from the Victor Deleu Street, building C2 (cat. no. 30, Pl. IV/30). This special type of apotropaic object is usually made from the crown of the antler sawn off from the main beam. The natural, round-shaped object already provides the template and ideal form for a pendant or medal without the need for further decoration or fashioning. The roundel which originally created connection between the antler and the skull of the deer, in most of the cases is transferred into a medal with minimum technical intervention. As in the case of object no. 30, the amulets are perforated in the middle where a leather or textile stripe was introduced and thus fastened to the cloth or worn in the neck⁴¹. The precise function as well as the origin of this type is still under debate in the scholarship. Some of the scholars consider it a harness element⁴², while others an apotropaic talisman⁴³. Although many types of antler roundel pendants are known from the Roman period (based on the additional decoration), the origin of this amulet goes back to the LaTène tradition, and most of the researchers relate this pendant type to the Celtic population and to the strong cultic aspects of the Celtic god, *Cernunnos*⁴⁴. Scholars have observed that the main distribution area of these amulets are the north-western provinces⁴⁵, the area inhabited by the local Celtic population, similar finds were yet not reported from Italy, or the Mediterranean region⁴⁶. The single example from *Napoca* is a very simple type (Grep Type 2⁴⁷). This type is characterized by a central circular bore without any other technical intervention. The backside of the amulet from the Victor Deleu Street displays striking saw marks of different orientation which reveal the technical difficulty of its removal from the central beam. The blade of the saw was introduced from different directions, while the medal has been removed by simply breaking it from the core. This is a very common method otherwise in the Roman bone

working industry, especially in the case of more massive, and stiffer materials, like antler. Antler roundel pendants are well-attested amulets in the Dacian provinces too, however, none of the known examples have a clear dating. It is very interesting that all the known roundel pendants from this province (*Porolissum*, *Apulum*, *Obreja*, *Tibiscum*, *Gherla*⁴⁸) represent the same type as the one from *Napoca*, and unlike in the western provinces, no lathe-turned items or amulets decorated with *phallus* are yet known. Furthermore, the majority of these amulets in Dacia were reported from military sites, mostly from auxiliary forts which camped units of Celtic origin, so the connection between this amulet type and originally Celtic population seems to be confirmed, at least hypothetically, until further evidence⁴⁹. The roundel pendant from *Napoca* is, so far, the only well-dated example in Dacia. If the amulet from the first half of the 2nd century belonged to the first colonists of Norico-Pannonian origin in *Napoca* is very difficult to prove, however, it should be also taken into account.

27. Hercules club type of pendant with undecorated shaft. Under the circular suspension hole, two reels and a globe are decorating the upper part of the club. Circular in section, getting oval and flattened towards the wider edge. File marks on the surface, slightly polished, secondary burn marks on the whole surface. Cluj- Napoca, V. Deleu Street no. 1 C2; first half of the 2nd c. AD. Dimensions: L: 7.5 cm; dm. max: 0.82 cm, min. th.: 0.21 cm, dm eye: 0.19 cm. Deposit IAIA Cluj- Napoca. Pl. IV/27.

28. Hercules club type of pendant broken under the suspension hole. Curved body (rib?). The undecorated, rounded lower part is margined by incised three concentric collars. Highly polished (probably by use). Slight file marks on the lower part. Cluj- Napoca, V. Deleu Street no. 1, building C2; first half of the 2nd c. AD. Dimensions: L: 5.71 cm, max. th.: 0.71 cm, min. th.: 0.63 cm, MNIT Cluj- Napoca, inventory no.: v/47804. Pl. IV/28.

29. Hercules club type pendant, complete. Incised web decoration under the suspension hole, margined by two parallel concentric grooves. Head slightly conical, rounded end. Chiselling mark on the surface, well-polished. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD. Dimensions: L: 6.94 cm, max. th.: 0.73 cm, min. th.: 0.7 cm, dm hole: 0.23 cm. MNIT Cluj- Napoca, inventory no.: v/47801. Pl. IV/29.

30 Antler roundel pendant drilled in the middle. Backside present sharp cutting marks with saw from different directions. Cluj- Napoca, V. Deleu Street no. 1, building C2; first half of the 2nd c. AD. Dimensions: dm: 7.33 cm, min. dm: 0.76 cm, max. th.: 1.39 cm, min. th.: 1.19 cm, MNIT Cluj- Napoca, inventory no.: v/47817. Pl. IV/30.

GAMING PIECES

Gaming counters represent the third largest category of artifacts in this material. The majority of the eight

⁴⁸ BENEÁ 2003, Taf. 6/4.; PROTASE *et alii* 2008, Pl. LVI/7.; CIUGUDEAN 1997, 121, Pl. XIV/1-3 (three examples); PROTASE 2002, Pl. XXXIX/5; VASS 2015, Pl. 2/2 a-b.

⁴⁹ See VASS 2015.

³⁹ Most of the similar pendants in Dacia have their suspension holes set in the middle, on the globular part between the reels, unlike object no. 27. Pendants in the same style are known from *Ampelum* (CIUGUDEAN 2003, Fig. 1/a-b), *Apulum* (RODEAN-CIUGUDEAN 1999, 253, Pl. III/2), *Agnita* (COCIȘ/ALICU 1993, 121, Pl. XVI/5), *Vețel* (COCIȘ/ALICU 1993, Pl. XVI/3).

⁴⁰ PETKOVIĆ 1995, 89, cat. no. 442, T. XXVII/4.

⁴¹ These amulets could be also fastened on walls, as plaster remains on the back of one example from London indicates. MIKLER 1997, 21. They are often provided with ferule elements (BÍRO 1994, 119, cat. no. 848, Pl. LXXXIV/848), or rivets (CIUGUDEAN 1997, 28), so they could be equally hung on belts and carts.

⁴² DESCHLER-ERB 1998, 137.

⁴³ MIKLER 1997, 21; GREEP 1994, 83. These amulets are often found in infant graves and they had the role to protect the deceased. See, DASEN 2003, 174-175.

⁴⁴ Stephen Grep states, however, that no clear association between *Cernunnos* and these amulets can be pointed out, rather the intrinsic, magical power of the antler itself is the reason for the popularity of this amulet type (the idea of death and rebirth). GREEP 1994, 83.

⁴⁵ GREEP 1994, Fig. 2, Fig. 3; MIKLER 1997, Karte 5.; ALONSO 2008, Fig. 2.

⁴⁶ BÉAL 1983, 279.

⁴⁷ GREEP 1994, Fig. 1/2.

examples were found in building C 1 at Victor Deleu Street, while two counters were recovered from an incineration grave, from the southern cemetery of Napoca (cat. no. 33-34, Pl. IV/33, Pl. V/34). The larger quantity of the gaming counters should not be a surprise in an assemblage composed of bone artifacts, as different board games (e.g., *ludus latruncolorum*, *tabula duodecim scriptura*) were very popular in Roman period. Hence the production of these counters met a constant demand. All the eight counters were manufactured on lathe, as the regular shape of the counters and the central indentation mark of the bits reveal. The counters were manufactured from the diaphysis of long bones. Despite the careful and good-quality manufacturing, in one case (cat. no. 31, Pl. IV/31) traces of the spongy tissue are visible, which indicate that during the manufacturing process, the carver has also used the terminal part of the diaphysis, close to the epiphysis. At counter no. 32 (Pl. IV/32), a metapodial long bone has been used as raw material, as the remains of the transversal natural cavity reveal. Due to this cavity, the tool bit used during lathe-turning was blocked and thus the regular circular counterface breaks at this part.

The eight counters can be grouped into three types: 1.

Type 1: Counters with flat sides and conical section (*Aquinum* Type III.1⁵⁰): cat. no. 31 (Pl. IV/31); **Type 2:** Concave countersunk counters (*Aquinum* Type II.2⁵¹): cat. no. 32-33 (Pl. IV/32-33); **Type 3:** Counters decorated with concentric circles (*Aquinum* Type IV⁵²): cat. no. 34-38 (Pl. V/34-38). All counters from the analysed lot were dated to the first half of the 2nd century AD.

Counters of type 1 represent the simplest type. They are flat on both sides. These counters are less popular than the other types, both in *Dacia* and in the Empire⁵³. They benefited of a large period of use, beginning from the 1st c. to the 4th c. AD, although the peak of their fashion was in the 2nd and 3rd c. AD. The second type consists of counters with countersunk which probably facilitated moving the counters on the board. The same function could have served the chopping of the edges on the backside. This type is very popular and is generally spread throughout the whole Empire⁵⁴. The dating of this type is identical with the previous one. The most popular type of counter, both in

Napoca (5 pieces), and other Roman sites, however, are the counters decorated with multiple concentric circles⁵⁵. They may display varying number of concentric circles around the central indentation mark. The edges are usually biconical. Counter no. 34 (Pl. V/34) has an unusual oval shape which could be the result of burning on high temperature, as it (and counter no. 33, Pl. V/35) was recovered from an incineration grave from Avram Iancu Street. Gaming counters as funerary inventories in cremation and inhumation graves are not unknown at other sites either⁵⁶. The period of use of this type in general is equally large, though they seem to get in fashion beginning only with the 2nd c. AD.

Two counters (cat. no. 35, 38, Pl. V/35, 38) from building C1 at Victor Deleu Street display on the backside complex and seemingly chaotic incisions without any specific pattern or distinguishable sign. Maybe a letter "H" was incised on the back of cat. no. 35, although it is not clear. Occasional incised or pinched signs, or graffitis on the backside of counters are the subject of debate among scholars. A. Schenk believes that different signs are, perhaps, symbols which marked the ownership or express lucky numbers, magical formulae⁵⁷. According to K. Gostenčnik, however, these signs could also represent the number of counters won during a game, or signs which distinguish the counters from the adversary's counters⁵⁸.

Type 1

31. Gaming counter with flat sides, indentation mark in the middle, slightly biconical edge. Worked on lathe. Completely smooth and highly polished surface. Traces of spongy tissue on one side. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: Dm: 2.6 cm; max. th.: 0.22 cm; MNIT Cluj- Napoca, inventory no.: v/47791. Pl. V/31.

Type 2

32. Gaming counter with concave countersunk face. It is margined by a narrow rim. In the middle of the counter, at the indentation mark a longitudinal cut can be noticed. It could be the remain of the natural cavity on the metapodial long bones. The backside is chopped obliquely on two sides.

⁵⁰ BÍRÓ *et alii* 2012, 74, 76.

⁵¹ BÍRÓ *et alii* 2012, 73, 76.

⁵² BÍRÓ *et alii* 2012, 74, 76.

⁵³ *Dacia*: Buciumi: CHIRILĂ *et alii* 1972, 86, nr. 18, Taf. CXX/1, nr. 19, Taf. CXX/3, 87, nr. 21, 23-26, 28, 30, 32, Taf. CXXII/1, 3, 4/6, 8, 10, 12 (3rd c. AD); Ilişua: PAKI-COCIŞ 1993, 12, nr. 18. *Gallia*: *Lugdunum*: BÈAL 1983, 286-289, Pl. L/833-838, LIII/839- 871 (1st-2nd c. AD); *Germania Superior*: *Augusta Raurica*: DESCHLER-ERB 1998, 151, Taf. 24/892-895, 913-925.; *Aventicum*: SCHENK 2008, cat. 647-701, Fig. 122/647-653 (1st-3rd c. AD); *Roma*: ST. CLAIR 2003, 112, Fig. 44/b, d. (2nd c. AD); *Pannonia*: *Aquinum*: BÍRÓ *et alii* 2012, cat.no. 303-308,497-522.

⁵⁴ *Dacia*: *Apulum*: CIUGUDEAN 1997, 181, Pl. 31/1,3,6,14, 32/3-8,11-14 (2nd-3rd c. AD); Buciumi: CHIRILĂ *et alii* 1972, 87, nr. 29, Taf. CXXII/9; Ilişua, Odorhei, *Micia*: PAKI-COCIŞ 1993, 12, nr. 16, 19, 21; *Ulpia Traiana Sarmizegetusa*: ALICU-NEMEŞ 1982, 354, Pl. 5/1-6; *Britannia*: Colchester - CRUMMY 1983, 92, Fig.94/2238-2256.; *Gallia*: *Lugdunum* (Lyon, France) -BÈAL 1983, 301-303, Pl. LI/1065-1071; *Germania Inferior*: *Augusta Raurica*- DESCHLER-ERB 1998, 376, Pl. 24/892-1117, 25/1118-1311); *Aventicum* - SCHENK 2008, Fig. 122/766-767, Fig. 123/768-777.; *Mogontiacum* - MIKLER 1997, Pl. 18/9-20, 19/1-20.; *Nida-Hedderheim* -OBMANN 1997, 253, Pl. 41/1652, 1686, 1689, 1720.; *Roma* -ST. CLAIR 2003, 112, Fig. 44/g.; *Pannonia*: *Aquinum*: BÍRÓ *et alii* 2012, cat. no. 303-308,497-522.

⁵⁵ *Dacia*: *Apulum*: CIUGUDEAN 1997, 181, Pl. 31/2,4-5,7-13, 15, 32/2; Buciumi: CHIRILĂ *et alii* 1972, CXXV/1-4.; Brâncovenesti, Cristeşti: PETICĂ/ZRINYI 2000, 127, Pl. VI/3-4.; Gherla: PROTASE *et alii* 2008, 93, nr. 6, Taf. LVI/6; Ilişua: PROTASE *et alii* 1997, Pl. LXXXIII/3,4. *Ulpia Traiana Sarmizegetusa*: ALICU-NEMEŞ 1982, 354, Pl. IV/8-13, V/9-21., *Britannia*: Colchester-CRUMMY 1983, 92, Fig. 24/2268, 2274, 2277 ; *Gallia*: *Lugdunum* - BÈAL 1983, 307-312, Pl. LII/1107, 1139-1140, 1142, 1146, 1151, 1154 (2nd-3rd c. AD.); Nîmes: BÈAL 1984, 79-80, Pl. 15/317, 329-330 (2nd-3rd c. AD); *Germania Superior*: *Augusta Raurica*: DESCHLER-ERB 1998, 377, Taf. 25/1347-1408. (100/110-180/250 AD); *Aventicum*-SCHENK 2008, cat. 811-889, Fig. 123/811-816, Fig. 124/841-846, 857-862. (second half of 1st c. - 3rd c. AD); *Mogontiacum* - MIKLER 1997, 29, Pl. 19/22-26, 20/1-17. (2nd-4th c. AD); *Moesia Superior*: *Singidunum*; *Castra Novae*, *Ulpiana*: PETKOVIČ 1995, 104, 107, T. XL/2, 3, 7 (2nd-5th c. AD); *Pannonia*: *Brigetio*: BÍRÓ 1987A, Fig. 26-174-176., *Aquinum*: BÍRÓ *et alii* 2012, cat.no. 310-318, 563-578.

⁵⁶ DESCHLER-ERB/AMMAN 2019. According to J. Obmann the counters placed in graves represents *pars pro toto* the whole board game, thus their number can vary to grave to grave. There are cemeteries where the number of the counters varies from one, three or even more counters per grave. - OBMANN 1997, 79.

⁵⁷ SCHENK 2008, 71.

⁵⁸ GOSTENČNIK 2005, 176. Among the decipherable incisions, different numerals (X, V etc) are quiet frequent which inclined the researchers to believe that these round objects were used as proper counters in counting operations. EGGER 1958, 157.

Highly polished. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: Dm: 2.18 cm, max. th.: 0.36 cm; MNIT Cluj- Napoca, inventory no.: v/47799. Pl. V/32.

33. Gaming counter with rim and concave countersunk face. Flat back side. Heavily burnt surface. Cluj- Napoca, Avram Iancu Street no. 21-23, cemetery, Grave M1; first half of the 2nd c. AD; Dimensions: Dm: 2.42 cm; th.: 0.35 cm; Deposit IAIA Cluj- Napoca. Pl. V/33.

Type 3

34. Gaming counter, decorated with five concentric grooves. Inner side is slightly concave. Backside is flat with tiny circular marks. Judging by the oval shape and colour, this item could be deformed by fire. Cluj- Napoca, Avram Iancu Street no. 21-23, cemetery, Grave M1; first half of the 2nd c. AD; Dimensions: Dm: 1.8 cm; th.: 0.14 cm; Deposit IAIA Cluj- Napoca. Pl. V/34.

35. Gaming counter with four concentric grooves, slightly concave, flat back side with incised signs, Cluj- Napoca, V. Deleu Street no. 1, C2; south-western corner, first half of the 2nd c. AD; Dimensions: Dm: 1.53 cm; th.: 0.19 cm; Deposit IAIA Cluj- Napoca. Pl. V/35.

36. Gaming counter with four concentric grooves, backside slightly concave, surface very worn, worked on lathe, Cluj- Napoca, V. Deleu Street no. 1, building C1; greenish-yellow layer, under Cl. 1.11, first half of the 2nd c. AD; Dimensions: Dm: 1.54 cm; th.: 0.23 cm, Deposit IAIA Cluj- Napoca. Pl. V/36.

37. Gaming counter decorated with concentric circles and with the indentation mark of the lathe in the middle. Slightly concave. Manufacturing techniques: lathe-turning, polishing. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: Dm: 2.25 cm; max. th.: 0.32 cm, MNIT Cluj- Napoca, inventory no.: v/47800. Pl. V/37.

38. Gaming counter with four concentric grooves, slightly concave. Flat backside with incised signs. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: Dm: 1.8 cm, max. th.: 0.34 cm, MNIT Cluj- Napoca, inventory no.: v/47798. Pl. V/38.

NEEDLES

The second largest category of bone artifacts recovered from *Napoca* and its catchment area are pins which are normally named in references as “sewing needles”. It should be noted, however, that the precise function of this category is highly debatable, probably the most problematic among all bone artifacts. Within the category of the sewing needles, one may find many variants and types, their sizes also display a great variety. The morphological variation can indicate whether different types of sewing methods⁵⁹, varying according to the operation and materials they were

⁵⁹ H. Mikler states that bone needles are too thick to be employed in sewing of fine textiles, they were rather used for sewing gross textiles or preliminary pierced leather pieces. MIKLER 1997, 55. However, in the lack of ancient written sources regarding different sewing techniques, scholars agreed that a delimitation of types on the bases of different sewing operation is not possible. DESCHLER-ERB 1998, 141; SCHENK 2008, 62.

employed in, or they mark a totally different function, e.g., fixing knots and hair nests⁶⁰. Scholars recently acknowledge the employment of needle with one to three eyes also in knitting, or nãlbinding operations too⁶¹. The large quantity of bone needles in the find materials of different sites is a general phenomenon in Roman period, their number usually dominates the same items manufactured of metal. A. Schenk argues that the higher proportion of bone needles compared to metal ones can be explained by the more favorable raw material type, easier manufacturing techniques, and higher resistivity.⁶²

In the delimitation of distinctive types of needles, usually the morphological evolution of the eye and the form of the terminals are considered by scholars⁶³. The chronology of different types of sewing needles is very broad. They are in permanent use beginning from the 1st century A.D. until the 4th century AD⁶⁴. A. Schenk observes that a rigorous chronological delimitation of different types is impossible, since almost every type’s life span is identically long.⁶⁵

As well as in the case of hairpins, the distribution of needles is varied in *Napoca* and its catchment area. The *villa rustica* at Lombului Street delivers one example, while the remaining items were found within the urban perimeter of *Napoca* (6 at Victor Deleu Street no. 1, both from building C1 and C2, and 3 artifacts at Museum Square). The fourteen needles are quite standard, and they can be classified in a restricted number of types. It should be noted that all needles were provided with figure-eight shaped eyes, the most common type of needle eye in the Roman period. The special shape of the eye was executed probably whether with heated tools (as slight burning marks around the eye may reveal, see cat. no. 41, Pl. V/41), or with a regular bow-drill. Two tangential circular bores were performed which were then joined by scraping the space between them, resulting thus the typical figure-eight shape. A typical characteristic element of needles are the raw file marks on the whole surface of the object, but more intensively around the flattened part where the eye is located (these are visible especially on needle no. 40, 42, Pl. V/40, 42). Probably these are the results of the intensive trimming activity around the terminal which were performed with files with more articulated teeth. This flattening operation was aimed to enhance threading the yarn through the eye.

The needles were ranged into main types, according to the number and shape of eyes and terminal. Type 1 includes needles with figure-eight shaped eye, while needles with three eyes were grouped in type 2. According to the terminal, the following subtypes could be distinguished:

Type 1. 1. Needles with figure-eight eye and flat terminal (Ciugudean II.1⁶⁶) – no. 39-41 (Pl. V/39-41).

⁶⁰ E. Ruprechtsberger believes that the smaller-sized and thinner needles were used for web sewing, while larger and thicker examples served as hairpins for fixing knots or hair nets. RUPRECHTSBERGER 1978-1979, 35.

⁶¹ For the proposed function, the scholars usually use the knitted Egyptian socks as well as modern analogies from the Scandinavian nãlbinding. See CORTI/SANFELICI 2018; BÍRÓ 2012, 7; KOVAČ 2012.

⁶² SCHENK 2008, 126.

⁶³ See DESCHLER-ERB 1998, 140.; SCHENK 2008, 62; BÉAL 1983, 182.

⁶⁴ RUPRECHTSBERGER 1978-1979, 35.

⁶⁵ SCHENK 2008, 63.

⁶⁶ For the typology of needles, see CIUGUDEAN 1997, 31-31.

Type 1.2. Needles with figure-eight eye and rounded terminal (Ciugudean II.2) – no. 42-43 (Pl. V/42-43)

Type 1.3. Needles with figure-eight eye and conical terminal (Béal A.XIX.3⁶⁷; Ciugudean II.4). – no. 44 (Pl. V/44).

Type 2.1. Needles with three eyes and flat terminal (Béal A.XIX.10, Ciugudean III) – no. 45 (Pl. V/45).

Type 2.2. Needles with three eyes and rounded terminal (Ciugudean III) – no. 46-47 (Pl. V/46-47).

Furthermore, needle no. 48 (Pl. V/48) could be ranged into type 2, but without the possibility to classify it into any subtypes, due to its fragmentary state. Four needles (no. 49-52, Pl. V/49-52) were broken right along the eye; thus, no typology could be established in their case.

Needles of type 1.1. are all fragmentary, except no. 40 (Pl. V/40), thus their original size was not possible to reconstruct. All have a flat terminal and the segment with the eye was also flattened. Needle no. 40, recovered from building C1 at Victor Deleu Street, has an unusual large dimension. Its 23 cm length, as I believe, would make any kind of sewing or knitting operation uncomfortable and unpractical, hence its classification as a sewing needle is very questionable. Although morphologically it looks like a needle, it is more probable that it was used rather as a hairpin, fixing large volume knots, as the one depicted on Fayyum mummy portraits⁶⁸. Examples of this subvariant were recovered from contexts dated to the 2nd and mid-3rd c. AD. The two needles (cat. no. 42-43, Pl. V/42-43) belonging to type 1.2. are morphologically almost identical, the only difference is the rounded terminal above the eye. Both are fragmentary and display striking file marks on the surface. They were recovered from contexts dated to the mid-2nd – mid 3rd c. AD. The single needle of type 1.3. was recovered from a 2nd c. context from building C2, Victor Deleu Street. In contrast to the previous subtypes, the needle terminal is pointed and the segment with the eye was not flattened. It could be not excluded that the pointed head of the needle might have been also used at sewing operations, maybe thicker textiles were preliminary pierced with it to enhance the sewing. Figure-eight eyed needles ending in a pyramidal or conical head are usually the most popular needle types in the Roman period in the provinces, however, with less occurrence in the Dacian region. Needles of type 1 are well-known and well-distributed items both in the Dacian and in other Roman provinces.⁶⁹ This type was also known in other

⁶⁷ See typology of BÉAL 1983, 182.

⁶⁸ See the funerary portrait of a woman in the collection of the National Museums Scotland (reference number: A.1951.160), displaying similar large pin fixed in the bun. <https://www.nms.ac.uk/explore-our-collections/collection-search-results/mummy-portrait/301634>. Date of access: 11.03.2022.

⁶⁹ Dacia: *Apulum*: CIUGUDEAN 1997, Pl. XV/1-3, XVI/4, 5, 8, XVII/10 (Type 1.1), 5, 6, 11 (Type 1.2); 9-10, XVI/2,7, XVII/1-6 (Type 1.3); Buciumi: CHIRILĂ *et alii* 1972, Pl. CI/1, 3, 4 (Type 1.1); *Drobeta*: STÎNGA 1998, Pl. LXXXIII/2, 5 (Type 1.1, 2nd-3rd c. AD), 6 (Type 1.2., 2nd-3rd c. AD); Ilișua: PROTASE *et alii* 1997, Pl. LXXXII/11. Romita: MATEI/BAJUSZ 1997, Pl. CI/1 (Type 1.2., 2nd-3rd c. AD); *Ulpia Traiana Sarmizegetus*: COCIȘ/ALICU 1993, Pl. XIV/2, 7 (Type 1.3., 2nd-3rd c. AD). Other provinces: Colchester: CRUMMY 1983, Fig. 70/1986 (Type 1.1., 2nd-4th c. AD), 70/1963, 1974 (Type 1.3., 2nd c. AD); *Lugdunum*: BÉAL 1983, Pl. XXXII/17. (Type 1.1.), XXXI/420 (Type 1.2), 395 (Type 1.3); *Mogontiacum*: MIKLER 1997, Taf. 41/5, 6. (Type 1.1), 3, 4 (Type 1.2), 2, 40/15 (Type 1.3); *Nida-Hedderheim*: OBMANN 1997, Taf. 28/1304 (Type 1.1., 1st-3rd c. AD), 1296, 29/1310

sites in *Napoca*, the similar items from the “Central Mall” in Cluj-Napoca were recovered also from the 2nd c. AD, from the early timber phase of the archaeological feature⁷⁰.

Type 2 is represented by needles which display more than one eye, in this case three separate eyes. These items are composed of a central figure-eight eye, margined on the top and bottom by two regular, circular holes. The function of the two or three-eyed needles is very uncertain. According to M. Bíró needles with three eyes were used as dress pins, a cheaper substitute of brooches⁷¹. While other scholars suggest that they were rather used for sewing with more (different colored) yarns at once⁷², or they were employed in special knitting operations, such as *nålbinding*⁷³. K. Gostenčnik, however, claims that they were employed as ornamental hairpins, and the multiple perforations were used to fasten ribbons⁷⁴. The three needles of type 2 from *Napoca* were recovered from the Victor Deleu Street no. 1, one from building C1 (type 2.1., cat. no. 45, Pl. V/45) and two from building C2 (type 2.2., cat. no. 46-47, Pl. V/46-47), and all three are mostly complete. The terminal with the three eye is flattened, while the shaft towards the tip is more circular. One may observe that the two needles from building C2 are almost identical, both in size, shape, and manufacturing technique, so it could be not excluded that they belonged to the same set, or they were manufactured by the same craftsman. All examples were recovered from the 2nd c. AD. In small number though, needles of this type are known also in Dacia, most of them being recovered from *Apulum* and *Romita*⁷⁵. They are much better represented in other provinces of the Roman Empire, and they also benefitted from a large period of use, from the 1st to the 4th c. AD, with its peak in the 2nd and 3rd centuries⁷⁶.

As for the use of the needles in *Napoca*, it is very difficult to establish any patterns. Due to their fragmentary state, the total length is not known. Taking into consideration that they were recovered from each archaeological site analyzed in this paper (except the southern cemetery of the city), one may asset that these items were essential working

(Type 1.3, 1st – 3rd c. AD); *Augusta Raurica*: DESCHLER-ERB 1998, Taf. 17/418, 420, 421; Taf.18/424-437 (Type 1.3., 2nd-3rd c. AD); *Diana, Campsa*: PETKOVIĆ 1995, T. XVII/16, 19 (4th c. AD); 1 (*Singidunum*, Type 1.2., 3rd c. AD), XVIII/1 (*Singidunum*, Type 1.3., 3rd c. AD); *Aquincum*: BÍRÓ *et alii* 2012, cat. no. 256, 418 (Type 1.1); cat. no. 412-417 (Type 1.2), cat. no. 257-262, 419-476 (Type 1.3); *Mursa*: KOVAČ 2012, Tab. 6/53 (Type 1.1., 1st – 5th c. AD); Tab. 5/48 (Type 1.2., 1st – 5th c. AD); Tab. 6/54-55, 7/61-70, 8/71-79. (Type 1.3., 1st – 5th c. AD).

⁷⁰ DIACONESCU *et alii* 2012, 141, Pl. XIX/12 (Type 1.1), 13 (Type 1.2).

⁷¹ BÍRÓ 1983, Fig. 11.

⁷² BÉAL 1983, 1983.

⁷³ CORTI/SANFELICI 2018.

⁷⁴ GOSTENČNIK 2005, 104-105.

⁷⁵ CIUGUDEAN 1997, Pl. XVII/7-8.; MATEI-BAJUSZ 1997, Pl. CI/2,3.

⁷⁶ *Nimes*: BÉAL 1984, 45, 156-160, Pl. 8/159, 160; *Augusta Raurica*: DESCHLER-ERB 1998, Taf. 19/697-701; *Aventicum*: SCHENK 2008, cat. 602-603, 606-608, Fig. 120/602-603, 606-609. (2nd-3rd c. AD); *Mogontiacum* – MIKLER 1997, Taf. 42/8-13; *Nida-Hedderheim*: OBMANN 1997, Taf. 29/1370 (2nd – 3rd c. AD); *Magdalensberg*: GOSTENČNIK 2005, Taf. 22/3,4 (1st c. AD); *Singidunum*: PETKOVIĆ 1995, 94, nr. 511, Taf. XVII/2. (2nd-3rd c. AD); *Roma*: ST. CLAIR 2003, 101, nr. 493-495, Fig. 34/a-c. (2nd-3rd; 4th c. AD); *Mursa*: KOVAČ 2012, Tab. 13/122-130; 14/136 (1st – 3rd c. AD); *Aquincum*: BÍRÓ *et alii* 2012, cat. no. 21-24, 26.

tools employed in repairing, producing different fabrics, or other purposes. On the other hand, their relative limited type-spectrum may suggest a well-defined, yet unknown operation.

Type 1.1.

39. Needle with flat and straight head, elongated figure-eight eye. Rectangular in section at the needle eye, circular at the shaft. Striking file marks around the eye and on surface, chopping and chiselling marks. On one side remains of the epiphysis, and spongy tissue are visible. Cluj-Napoca, Museum Square no. 2, Roman road, mid-2nd – mid 3rd c. AD; Dimensions: L: 5.83 cm; max. th.: 0.55 cm, min. th.: 0.33 cm; dm needle: 0.38 cm; L eye: 0.13 cm; Deposit IAIA Cluj- Napoca. Pl. V/39.

40. Needle/hairpin of large size, flat, straight flattened head with figure-eight eye and sharp point. Slightly curved shaft, circular in section. File marks around the eye and head. Cluj- Napoca, V. Deleu Street no. 1; C1 – C6, pit, first half of the 2nd c. AD; Dimensions: L: 23 cm; max. th.: 0.58 cm; min. th.: 0.18 cm; L eye.: 0.5 cm, Deposit IAIA Cluj- Napoca. Pl. V/40.

41. Needle fragment with flattened, straight head and figure-8 shaped eye. Oval and circular in section. Chiselling and file marks on the shaft. Highly polished. Cluj- Napoca, Museum Square no. 2, Roman road soil heap, mid-2nd - mid 3rd c. AD; Dimensions: L: 7.36 cm; max. th.: 0.48 cm; min. th.: 0.33 cm; dm needle: 0.10 cm; L eye: 0.23cm; Deposit IAIA Cluj- Napoca. Pl. V/41.

Type 1.2.

42. Needle with flattened, rounded head, figure-eight eye, circular in section. Striking file marks on the shaft on each side. Highly polished. Broken at the tip. Cluj- Napoca, Museum Square no. 2, 2016, Zone A, under the Roman floor, in the western corner, Roman road, mid-2nd – mid-3rd c. AD; Dimensions: L: 8.5cm; max. th.: 0.64 cm; min. th.: 0.42 cm; dm needle: 0.17 cm, L eye: 0.45 cm; Deposit IAIA Cluj- Napoca. Pl. V/42.

43. Fragmentary needle with flattened, rounded head and figure-eight eye. Oval in section, traces of spongy tissue around the eye. File marks, well-polished. Cluj- Napoca, 2008, Lombului Street, S 109: *villa rusticae*, Area G; mid-2nd – mid 3rd c. AD; Dimensions: L: 6.98 cm; max. th.: 0.5 cm; min. th.: 0.38 cm; L eye: 0.2 x 0.51 cm, Deposit IAIA Cluj- Napoca, inventory no.: 3963. Pl. V/43.

Type 1.3

44. Needle with pointed conical head and long rectangular eye, complete, circular in section. File marks around the eye. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L: 10.68 cm, L eye.: 0.5 cm, max. th.: 0.33 cm, min. th.: 0.14 cm, MNIT Cluj- Napoca, inventory no.: v/50987. Pl. V/44.

Type 2.1

45. Needle with three eyes, flat and straight head, rounded rectangular section in the middle, tapering towards the point. Complete. File marks on the head. Cluj- Napoca, V. Deleu Street no. 1, building C1; 2nd c. AD., Dimensions: L: 13.25 cm, max. th.: 0.88 cm, min. th.: 0.23 cm, L figure-eight

eye: 0.8 cm; MNIT Cluj- Napoca, inventory no.: v/47811. Pl. V/45.

Type 2.2

46. Three-eyed needle with broken tip. Flattened around the eye, straight, rounded head, shaft circular in section, slightly curved body, dense file marks around the eye, polished or highly worn. Cluj- Napoca, V. Deleu Street no. 1; building C2, first half of the 2nd c. AD; Dimensions: L: 8.4 cm; max. dm: 0.44 cm, min. th.: 0.21 cm, dm eye: 0.16 cm.; Deposit IAIA Cluj- Napoca. Pl. V/46.

47. Three-eyed needle, complete. Same as cat.no. 46. Cluj- Napoca, V. Deleu Street nr. 1; building C2, first half of the 2nd c. AD; Dimensions: L: 10.7 cm; max. dm: 0.412 cm, min. th.: 0.15, dm eye: 0.13 cm; Deposit IAIA Cluj- Napoca. Pl. V/47.

Fragment of type 2

48. Sewing needle with two preserved holes; filing marks on the surface, highly polished, Cluj- Napoca, V. Deleu Street no. 1, building C1, first half of the 2nd c. AD; Dimensions: L:7.71 cm, max. th.: 0.6 cm; min. th.: 0.44 cm; dm eye: 0.2cm; Deposit IAIA Cluj- Napoca. Pl. V/48.

Fragments not related to any types

49. Needle shaft fragment broken right along the rectangular eye. Oval in section, file marks on the shaft, highly polished. Cluj- Napoca, V. Deleu Street no. 1, building C1, under *opus signinum*; first half of the 2nd c. AD; Dimensions: L: 2.83 cm, max. th.: 0.50 cm, min. th.: 0.41 cm, MNIT Cluj- Napoca, inventory no.: v/47807. Pl. V/49.

50. Needle shaft fragment broken along the circular eye and at the tip. Oval and circular in section, polished surface, Cluj- Napoca, V. Deleu Street no. 1, building C2; second half of the 2nd c. AD; Dimensions: L: 5.92 cm, max. th.: 0.52 cm; min. th.: 0.42 cm; MNIT Cluj- Napoca, inventory no.: v/50994. Pl. V/50.

51. Needle shaft fragment broken along the circular eye and towards the tip. Circular in section. Remains of the spongy tissue visible on the upper part. File and chiselling marks. Cluj- Napoca, V. Deleu Street no 1, building C2, clay layer of the floor; 2nd c. AD; Dimensions: L: 5 cm, max. th.: 0.47 cm, min. th.: 0.33 cm, MNIT Cluj- Napoca, inventory no.: v/47795. Pl. V/51.

52 Needle shaft broken right along the circular eye, shaft oval and circular in section. Remains of the spongy tissue on one side. File marks on the shaft, highly polished. Cluj- Napoca, V. Deleu Street no. 1, building C2; first half of the 2nd c. AD; Dimensions: L: 10.2 cm, max. th.: 0.56 cm, min. th.: 0.42 cm, MNIT Cluj- Napoca, inventory no.: v/47815. Pl. V/52.

WEAVING TABLET

A fragmentary triangular flat plate (cat.no. 53, Pl. VI/53) with small circular holes was recovered from building C2 at Victor Deleu Street, from a 3rd c. AD context. It was originally provided with three small-sized holes positioned close to the vertex of the triangle. Similar items are considered by scholars as weaving tablets which helped to produced straps, narrower fabrics by passing the warp

through the holes and creating wefts by turning or twisting the tablets. The number of holes as well as their position might determine the width and complexity of the woven material. As S. Deschler-Erb mentions referring to J. P. Wild, it was believed that tablet weaving was not popular outside the northern Roman provinces⁷⁷. However, similar items were found also in the Danubian provinces⁷⁸ which might suggest that this type of weaving was a generally spread technique in the European provinces. Triangular weaving tablet were also reported in the Dacian provinces, although in small number. All examples from this province were found in *Apulum* so far. D. Ciugudean interpreted these triangular bone plates as ornamental belt appliques, as she adopted the interpretation of similar finds in *Callatis*⁷⁹. The use of bone weaving tablets has also benefitted from a large period of use, from the 1st to the 4th c. AD⁸⁰. It should be noted that the form and technology of weaving tablets have not changed much throughout centuries, tablets of the same shape and size (but of different material) are also used today.

53. Triangular weaving tablet broken at the top, with two circular fastening holes. Flat, even surface with transversal and perpendicular filing marks, Cluj- Napoca, V. Deleu Street no. 1; C2, C4, above the floor, first half of the 3rd c. AD. Dimensions: L: 4.8 cm, w: 3.5 cm, dm holes.: 0.2 cm, th.: 0.1 cm, Deposit IAIA Cluj- Napoca. Pl. VI/53.

PIN SHAFTS

In total, 26 fragmentary, pin-shaped artifacts were separated in this category. Due to their fragmentary state, no precise function or shape could be assigned to these objects, since the most determining part, the head or terminal is missing. For this consideration, they are discussed in a separate, general group. Judging by their shape, they mostly resemble with the known hairpin and needle types, however, this could be also confusing. Pin-shaped artifacts were suitable for several other activities. They could be easily employed in yarn production as spindles (i.e., cat. no. 54, 57, 65, 66, 78, Pl. VI/54, 57, 65, 66, 78), or distaffs (like the unusually large dimensioned cat.no. 59, Pl. VI/59), or used as writing instruments (styli), respectively all of these at once (this is also valid for pins classified as hairpins or needles). Compared to complete items (considering the section and general aspect), the majority of these pins might have belonged to the large group of hairpins and needles, which would also explain their increased number and general distribution in *Napoca* and its catchment area. The dating of these items corresponds with the chronology of the mentioned groups, as they were recovered from contexts dated to the first half of the 2nd c. AD until the mid-3rd c. AD.

54. Pin shaft fragment, circular in section. Chiselling marks on the shaft. Pointed tip preserved. Cluj- Napoca, 2008, Lombului Hill: *villa rusticae*, Area G; mid-2nd - mid 3rd c. AD; Dimensions: L: 6.75 cm; max. th.: 0.37 cm. min. th.:

⁷⁷ DESCHLER-ERB 1998, 138, Taf. 17/394-396.

⁷⁸ *Moesia Superior*. PETKOVIĆ 1995, 45, Pl. XXXIII/4-6. The author asserts that these plates were employed in ribbon making and decoration. Although not of triangular shape, decorated, a rectangular weaving tablet was also recovered from *Aquincum*. – BÍRÓ *et alii* 2012, cat. no. 244.

⁷⁹ CIUGUDEAN 1997, 25, Pl. XII/1-4.

⁸⁰ DESCHLER-ERB 1998, 140.

2.5 cm; Deposit IAIA Cluj- Napoca, inventory no.: 4007. Pl. VI/54.

55. Pin shaft fragment/half-finished pin?, curved body (rib?), oval in section. Chiselling and file marks on the shaft. Cluj- Napoca, 2008, Lombului Hill, *villa rusticae*, Area G; mid-2nd - mid 3rd c. AD; Dimensions: L: 6.1 cm; max. th.: 0.54 cm. min. th.: 0.42 cm; Deposit IAIA Cluj- Napoca, inventory no.: 4009. Pl. VI/55.

56. Pin shaft with circular section, Cluj- Napoca, Museum Square no. 2, Roman road, from the inner part of the wall, upper layer of the Roman floor, mid-2nd - mid 3rd c. AD; Dimensions: L: 4.96 cm; max. th.: 0.39 cm, min. th.: 0.2 cm; Deposit IAIA Cluj- Napoca. Pl. VI/56.

57. Pin shaft with circular section, tip complete, file marks on the surface, Cluj- Napoca, Museum Square no. 2, Roman road, mid-2nd - mid 3rd c. AD; Dimensions: L: 6.53 cm; max. th.: 0.34 cm, min. th.: 0.25 cm; Deposit IAIA Cluj- Napoca. Pl. VI/57.

58. Pin shaft, file marks on the surface, oval in section, Cluj- Napoca, V. Deleu Street no. 1; C1, first half of the 2nd c. AD; Dimensions: L: 4.66 cm, max. th.: 0.3 cm, min. th.: 0.23cm; Deposit IAIA Cluj- Napoca. Pl. VI/58.

59. Shaft of a larger pin, needle, or spindle (?), elongated oval section, circular section towards the broken tip, file marks on the surface. Cluj- Napoca, V. Deleu Street no. 1; C1, second timber phase, first half of the 2nd c. AD; Dimensions: L: 11.12 cm, max. th.: 0.7 cm, min. th.: 0.56 cm; Deposit IAIA Cluj- Napoca. Pl. VI/59.

60. Shaft fragment of a needle (?), broken along the flattened head, under the possible eye, file and chiselling marks on the surfaces, shiny surface by use, Cluj- Napoca, V. Deleu Street no. 1, C2; first half of the 2nd c. AD; Dimensions: L: 7.28 cm, max. th.: 0.55 cm, min. th.: 0.31cm; MNIT Cluj- Napoca, inventory no: v/50998. Pl. VI/60.

61. Pin shaft fragment, circular in section. File marks on the surface, Cluj- Napoca, V. Deleu Street no. 1; first half of the 2nd c. AD; Dimensions: L: 6.1cm, max. th.: 0.38 cm, min. th.: 0.2 cm; MNIT Cluj- Napoca, inventory no.: v/50992. Pl. VI/61.

62. Pin shaft fragment, circular in section, chiselling and file marks on the shaft, Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: L: 2.45 cm, max. th.: 0.27 cm, MNIT Cluj- Napoca, inventory no.: v/50995. Pl. VI/62.

63. Pin shaft fragment, circular in section, file marks on the whole length on one side in the middle, highly polished, Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: L: 4.18 cm, max. th.: 0.43 cm, min. th.: 0.34cm; MNIT Cluj- Napoca, inventory no.: v/50997. Pl. VI/63.

64. Pin shaft fragment, circular in section, Cluj- Napoca, V. Deleu Street np. 1, building C1; first half of the 2nd c. AD; Dimensions: L: 3.1 cm, max. th.: 0.36 cm, min. th.: 0.21 cm; MNIT Cluj- Napoca, inventory no.: v/50998. Pl. VI/64.

65. Pin/spindle shaft fragment, circular in section, file marks on the surface, polished by use, tip burnt. Cluj-

Napoca, V. Deleu Street no. 1, building C2; first half of the 3rd c. AD; Dimensions: L: 11.44 cm, max. th.: 0.48 cm, min. th.: 0.18 cm; MNIT Cluj Napoca, inventory no.: v/47810. Pl. VI/65.

66. Pin shaft (hairpin?). Head and point missing. Tapering towards the point. Circular section. Manufacturing technique: chiselling, filing. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L: 7.9 cm, max. th.: 0.38 cm, min. th.: 0.20 cm, MNIT Cluj- Napoca, inventory no.: v/50900. Pl. VI/66.

67. Pin shaft fragment (half-finished?). Prismatic section with visible file and chiselling marks on each side. Highly polished. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L: 3.48 cm, max. th.: 0.33 cm, MNIT Cluj- Napoca, inventory no.: v/51004. Pl. VI/67.

68. Pin shaft fragment with the tip preserved. Circular in section. Tapering to the point. Chiselling marks (parallel grooves) on the surface. Cluj- Napoca, V. Deleu Street no. 1, building C2, chanel II; 2nd c. AD; Dimensions: L: 6.37 cm, max. th.: 0.38 cm, min. th.: 0.2 cm, MNIT Cluj- Napoca, inventory no.: v/47796. Pl. VI/68.

69. Pin shaft fragment. Circular in section. File marks on the shaft. Cluj- Napoca, V. Deleu Street no. 1, building C1, 2nd c. AD; Dimensions: L: 3.98 cm, max. th.: 0.27 cm, min. th.: 0.18 cm, MNIT Cluj- Napoca, inventory no.: v/50968. Pl. VI/69.

70. Pin shaft fragment. Circular, slightly prismatic in section. Striking longitudinal chiselling and file mark on the surface, Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L: 4.67 cm, max. th.: 0.32 cm, min. th.: 0.19 cm, MNIT Cluj- Napoca, inventory no.: v/50999. Pl. VI/70.

71. Pin shaft fragment with complete tip. File marks on the shaft. Cluj- Napoca, V. Deleu Street no. 1, building C2; 2nd c. AD; Dimensions: L: 5.4 cm, max. th.: 0.28 cm, min. th.: 0.10 cm, MNIT Cluj- Napoca, inventory no.: v/50957. Pl. VI/71.

72. Pin shaft fragment, circular in section. Slightly curved, chiselling and file marks; Cluj- Napoca, V. Deleu Street no. 1, building C1, sub *opus signinum*; first half of the 2nd c. AD; Dimensions: L: 4.73 cm, max. th.: 0.2 cm, min. th.: 0.19 cm, MNIT Cluj- Napoca, inventory no.: v/47809. Pl. VI/72.

73. Pin/needle shaft fragment, oval in section. File marks on the surface, highly polished. Cluj- Napoca, V. Deleu Street no. 1, building C1, sub *opus signinum*; first half of the 2nd c. AD; Dimensions: L: 4.77 cm, max. th.: 0.81 cm, min. th.: 0.71 cm, MNIT Cluj- Napoca, inventory no.: v/47808. Pl. VI/73.

74. Pin/needle shaft fragment. Circular in section. File and chiselling marks on the surface. Well and evenly polished. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: L: 5.22 cm, max. th.: 0.28 cm, min. th.: 0.20 cm, MNIT Cluj- Napoca, inventory no.: v/51001. Pl. VI/74.

75. Pin shaft fragment, slightly uneven surface. Circular in section. Striking file marks and longitudinal

chiselling marks on the shaft. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: L: 4.71 cm, max. th.: 0.38 cm, min th.: 0.24 cm, MNIT Cluj- Napoca, inventory no.: v/50959. Pl. VI/75.

76. Pin shaft fragment, circular in section. Chiselling and file marks on the shaft. Well-polished. Cluj- Napoca, V. Deleu Street no. 1, building C2; first half of the 2nd c. AD; Dimensions: L: 3 cm, max. th.: 0.33 cm, MNIT Cluj- Napoca, inventory no.: v/51003. Pl. VI/76.

77. Pin shaft fragment, circular in section. Tip complete. File marks on the shaft, well-polished. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: L: 5.64 cm, max. th.: 0.38 cm, min. th.: 0.16 cm. MNIT Cluj- Napoca, inventory no.: v/50991. Pl. VI/77.

78. Pin shaft fragment, circular in section. Uneven chiselling and file marks on the surface. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: L: 4.9 cm, max. th.: 0.38 cm, min. th.: 0.25 cm. MNIT Cluj- Napoca, inventory no.: v/51000. Pl. VI/78.

79. Pin shaft fragment, circular in section. Parallel chiselling and file marks on the surface, well-polished. Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: L: 4.3 cm, max. th.: 0.33 cm, min. th.: 0.25 cm. MNIT Cluj- Napoca, inventory no.: v/51002. Pl. VI/79.

ARTIFACTS RELATED TO COSMETIC/HEALTH

A spoon (cat. no. 80) and two *spatulae* (cat. no. 81-82), known in the special literature as ear scoops (Ohrlöffelchen) were included in the general group of artifacts related to cosmetic and health. Since the precise function of these artifacts is uncertain, as they could be employed in many activities of different character at the same time, such as medical care, food preparation, personal hygiene, or administering cosmetic substances, the most convenient solution was to discuss them within the frame of this hybrid functionality. All three examples were unearthed from the private buildings at Victor Deleu Street in *Napoca*.

Spoons

This type of artifacts represents a quite popular bone product in antiquity, and they usually larger in number than their metal counterparts. The higher proportion of bone spoons in comparison with metal ones is usually explained by the special characteristic of the raw material, namely that bone comparing to metals is not exposed to chemical reactions in contact with certain substances⁸¹. The function of these spoons is still under debate in the scholarship, researchers argue for its employment in food preparation as well in medicinal, cosmetical activities⁸². The spoon from

⁸¹ BÍRÓ 1994, 44.

⁸² They were believed to be used as medical instrument for the preparation of medicines - CIUGUDEAN 1997, 46-47; COCIȘ-ALICU 1993, 114. M. Bíró reckons that they were rather employed in cooking, being used as measuring instruments for adding seasons, flavours to foods and drink - BÍRÓ 1994, 45. An interesting find from *Augusta Raurica* showed remains of egg-shells in the scoop, which seems to confirm the employment of such objects in eating. - MIKLER 1997, 23.

building C2 at Victor Deleu Street (cat. no. 80, Pl. VII/ 80) can be ascribed to *cochlear* type of spoons characterized by a circular, mostly shallow scoop and long pointed, straight shaft. The spoon from *Napoca* represents a very simple, undecorated variant, at least judging by what has been preserved from the shaft. Half of the scoop was broken and missing. The scoop seems to be manufactured on lathe, while the shaft manually.

Cochlearia type is certainly the most popular bone spoon type. It was believed that they are better represented in the western provinces of the Roman Empire and their main period of use ends in the second half of the 2nd century A.D.⁸³ The occurrence of the same type in archaeological sites like *Augusta Raurica*, *Roma* or *Scupi* (*Moesia Superior*) in contexts dated between the 2nd and 4th centuries AD seems to discredit this affirmation⁸⁴. The spoon fragment from *Napoca* was recovered from a context from the first half of the 2nd c. AD. They are well-known in the Dacian provinces too, similar *cochlearia* were published, among others, from *Agnita*, *Apulum*, *Drobeta*, *Ilişua*, *Potaissa*⁸⁵.

80. Cochlear type of spoon; scoop broken halfway, shaft with circular section, file marks on the surface, lathe-turned scoop. Cluj- Napoca, V. Deleu Street no. 1; building C2, first half of the 2nd c. AD. Dimensions: L: 8.75 cm; dm scoop: 2.62 cm, min. th.: 0.51 cm, dm eye: 0.73 cm. Deposit IAIA Cluj- Napoca. Pl. VII/80.

Ear scoops

Two *spatulae* with oval (cat. no. 81, Pl. VII/ 81) and slightly rhomboidal (cat. no. 82, Pl. VII/ 82) flat ending were found in buildings C1 and C2 at the Victor Deleu Street. Both examples are complete, and they end in a pointed tip. The *spatula*-like ending is small in rapport to the length of the objects and they show thin use marks, probably do to the repeated spreading and applying of different substances on a surface. This type of *spatulae*, or probes are known in the references as ear scoops or "Ohrlöffel" in the German literature. The precise function of artifacts known in the literature as ear scoops composed of a straight shaft and a flat palette-like head, set at an angle to the shaft has been a subject of debate for a long time. Although the classical function attributed to them is ear-cleaning, researchers agreed that they could have been used also for other purposes: e.g., extracting ointments, balms, powders from cosmetic jars, for preparation of medicines or for treating injuries (cleaning bruises).⁸⁶ The pointed tips of the ear scoops, as illustrated by the examples from *Napoca*, might also have had a functional purpose, as they were suitable for extruding, drilling, cleaning during the treatment of injuries, bruises in case they were used in medical treatments.

⁸³ DESCHLER-ERB 1998, 134.; SCHENK 2008, 54.

⁸⁴ *Augusta Raurica* – DESCHLER-ERB 1998, 134.; *Roma* – ST.CLAIR 2003, NR. 516, Fig. 36/516.; *Scupi* – PETKOVIĆ 1995, NR. 362, T. XIX/5.

⁸⁵ COCIŞ/ALICU 1993, nr. 113, Pl. XII/1. (*Agnita*), nr. 115, Pl. XII/3.; nr. 119-120, Pl. XIII/1-2. (*Apulum*); nr. 114, 116, Pl. XII/2, 4. (*Ilişua*); nr. 118, Pl. XII/6. (*Transilvania*); CIUGUDEAN 1997, Pl. XXVI/1-7; Pl. XXVII/1-4. (*Apulum*); STÎNGA 1998, Pl. LXXXII/13 (*Drobeta*); BĂRBULESCU 1994, Fig. 25/1 (*Potaissa*).

⁸⁶ OBMANN 1997, 62.; RIHA 1986, 56.; K. Gostenčnik, considering some Roman female depictions, presumes that they could have been used as hairpins (*discerniculum*) as well. - GOSTENČNIK 2005, 119.

E. Riha has concluded that the proportion of the ear scoops made of bone is considerably lower than their counterparts in metal⁸⁷. These tools made of bone are relatively wide-spread products of bone industry in Antiquity. They were found in settlements both in the western Roman provinces and in the eastern part of the Roman Empire⁸⁸, and in smaller amount, though, they are known in the Dacian provinces too⁸⁹. These special items made of bone related to cosmetics or personal grooming appear in the late Hellenistic period (1st century BC), but their main period of use can be set between the 1st and 3rd centuries AD⁹⁰. The two artifacts from the Victor Deleu Street are dated to the first (cat. no. 81) and second (cat. no. 82) half of the 2nd c. AD.

81. Complete ear scoop broken into two, flat, rounded scoop set at an oblique angle to the shaft, circular section, file marks on the scoop, shiny surface by use, Cluj- Napoca, V. Deleu Street no. 1, building C1; first half of the 2nd c. AD; Dimensions: L: 17.52 cm, max. th.: 0.66 cm, min. th.: 0.22 cm; dm scoop: 0.8 cm, Deposit IAIA Cluj- Napoca. Pl. VII/81.

82. Ear scoop with flat, slightly pyramidal, straight scoop; circular in section, fusiform shaft. File and chiselling marks on the whole surface. Cluj- Napoca, V. Deleu Street no. 1, building C2; second half of the 2nd c. AD; Dimensions: L: 10.88 cm, max. th.: 0.48 cm; min. th.: 0.16 cm; dm scoop: 0.5 cm. MNIT Cluj- Napoca, inventory no.: v/47819. Pl. VII/82.

MUSIC INSTRUMENT

A small tubular long bone (cat. no. 83, Pl. VII/83) with a transversal long cut, broken at both ends was found at Victor Deleu Street, building C1, from a 2nd c. AD context. Although very fragmentary, it resembles the most with those tubular artifacts which are considered in the scholarship musical instruments. The horizontal perforation was obtained by inserting the blade of a knife obliquely on two opposite sides and cutting out the part between them. No additional finishing, polishing or surface treatment could be observed on this fragment. Since it was broken at both sides, the total number of holes as well as its size is not known. This makes difficult to establish if this fragment belonged to a whistle, or to a flute. However, considering the shape and placement of the perforation on similar items, this object looks more like a whistle. Delimiting the different types of blow music instruments is in general very difficult, as one

⁸⁷ In her excellent monograph consecrated to the toilet and cosmetic objects from *Augusta Raurica* she stated that in *Augusta Raurica* 94% of the ear scoops are made of metal, especially bronze. - RIHA 1986, 58.

⁸⁸ *Augusta Raurica* – DESCHLER-ERB 1998, Taf. 30/2001-2004; *Mogontiacum* – MIKLER 1997, Taf. 27/10-14; *Nida-Heddernheim* – OBMANN 1997, Taf. 15/174-183; *Roma* – ST.CLAIR 2003; Fig. 35/a-f. *Athen, Delos, Knossos, Korinthos, Magdalensberg* – GOSTENČNIK 2005, 121.

⁸⁹ In the available publications, ear scoops were reported only from *Apulum* – CIUGUDEAN 1997, Pl. XXXVI/4; CIUGUDEAN 2002, Pl. V/2. Another similar item is known from Transylvania, with unknown provenance. - COCIŞ/ALICU 1993, Pl. XI/2.

⁹⁰ The earliest bone ear scoop found in literature (from *Delos*) dates to the beginning of the 1st century BC – GOSTENČNIK 2005, 121. Though A. Dular believes that the use of the bone ear scoops ends in the 1st century B.C. – DULAR 1979, 290. – the same type of artifacts recovered from the western provinces of Empire are used in the 2nd -3rd centuries AD as well: *Germania Inferior: Augusta Raurica* (2nd-3rd centuries A.D) – RIHA 1986, 63.; *Nida-Heddernheim* (1st-3rd centuries A.D) – OBMANN 1997, 62.; *Roma* (1st – 4th centuries A.D) – ST. CLAIR 2003, 98, 102.

can rarely find an intact and complete bone blow music instrument which enables closer examination. According to S. Deschler-Erb, shorter instruments provided with one perforation can be considered whistles, while longer and tubular artifacts with more holes are to be classified as flutes⁹¹. Both instrument types, called *tibia* in ancient sources, could be employed in a number of activities, e.g., signalling in army, in religious ritual, spectacles, providing music at dinners etc⁹². Considering the everyday use of blowing instruments in Roman culture, as well as their easy manufacturing (in case of bone items), it is surprising their relatively small number in the Roman provinces⁹³. S. Deschler-Erb asserts that this can be explained rather with current methodological and find recording issues, as these tubular artifacts are hard to observe during excavations, and an unexperienced archaeologist might not collect or record it as such instruments. I am convinced that the scarcity of bone whistles and flutes in Dacia is also the result of such methodological problem too. The whistle fragment from *Napoca* is, so far, the only published whistle in the Dacian provinces. The number of bone blow instruments is very reduced too⁹⁴.

83. Fragment of whistle curved, drilled (?) body, chopped longitudinally on one side. A sharp and deep cut was performed transversal to the longitudinal axis of the object, broken at both terminals. Cluj- Napoca, V. Deleu Street no. 1, building C1; 2nd c. AD. Dimensions: L: 4.61 cm, L cut: 1.2 cm; W cut: 0.4 cm, max. th.: 1.59 cm, min. th.: 1.19 cm, MNIT Cluj- Napoca, inventory no.: v/47813. Pl. VII/83.

KNOT LOOSENER

A roughly and rudimentary worked antler tine (cat. no. 84, Pl. VIII/84) with lateral perforations was unearthed from building C1 at Victor Deleu Street, *Napoca*. The artifact was drilled on two opposing sides, close to the base. The area around the originally circular perforations was notched off with knife and then trimmed. On one side, the rough cutting marks produced by a massive blade were not smoothed. The outer surface of the antler tine was left untouched, the impressions of former rough blood vessel towards the base was not removed or evened. The tip of the tine is smooth and polished as the result of both intensive use and natural anatomical characteristics. Similar artifacts, manufactured, almost exclusively, from antler, are popular finds of the Roman „bone” products. Their function, however, is more problematic. They were interpreted as whistles⁹⁵, fire starters, tools for producing nets, basket weaving, or for cleaning hooves⁹⁶. They were also considered hunting

⁹¹ DESCHLER-ERB 1998, 154.

⁹² BÍRÓ 1994, 60. For the use of different blow instruments, see ALEXANDRESCU 2010.

⁹³ Similar whistles are known from *Augusta Raurica*: DESCHLER-ERB 1998, Taf. 28/1975-1979, 1980.; *Mogontiacum*: MIKLER 1997, Taf. 23/1-3.; *Brigetio* and *Intercisa* (items from these sites are the closest analogies for the whistle from *Napoca*): BÍRÓ 1994, Pl. LXXV/629-635.; *Durustorum*: ELEFTERESCU 2008, Pl. IX/288.; *Pontes*: PETKOVIĆ 1995, nr. 637-638, T. XXXIX/3, 4.

⁹⁴ Only one flute is known from *Apulum*. - CIUGUDEAN 1997, Pl. XXXIV/1, and another example from *Porolissum*. - VASS 2013, 198-199.

⁹⁵ BÍRÓ 1994, 47.

⁹⁶ SCHENK 2008, 67.

whistles⁹⁷ or punchers⁹⁸, or according to N. Crummy, harness fittings, such as bridle-bits⁹⁹. However, the most popular interpretation regarding their function is the one attributed by Jacobi to similar artifacts found in Saalburg. Using modern ethnographic analogies, he assumed that this massive antler tools were used either for rope making or knot looseners, or belt loops for packing animals with burdens¹⁰⁰. In this case, ropes were passed through the perforations of the antler piece, and the curvy shape of the instrument functioned as handles, suitable for tying and wrapping packages. For this reason, in the German references these tools are conventionally named as *Seilerhörnchen* (knot loosener) or *Packnadel* (tool for packing)¹⁰¹. Knot looseners are known and used in Europe since the end of LaTène period, and they are very popular in Roman age too, especially between the 1st and 3rd c. AD¹⁰². One should note that their shape and manufacturing techniques did not change in the Medieval period either¹⁰³. Tools interpreted as knot looseners are widely known in Roman provinces¹⁰⁴, and they are present, although in smaller number, in Dacia too¹⁰⁵.

84. Knot loosener manufactured of antler tine. Two rudimentary transversal perforations were executed by drilling and chiselling on the two opposite sides. Two horizontal striking cut marks are visible on one side, around the transversal hole. The edges of the perforations present striking knife cut marks. The tine was cut off the beam by sawing, and the inner part of the section was drilled until the lateral perforations. The surface of the tool shows intensive use marks. Cluj- Napoca, V. Deleu Street no. 1; building C1, filling layer, first half of the 2nd c. AD. Dimensions: L: 15.63 cm; Max. th.: 2.56 cm, min. th.: 0.61 cm, dm eye: 0.73 x 1.2 cm, L cut: 3 cm. Deposit IAIA Cluj- Napoca. Pl. VIII/84.

VARIA: ARTIFACTS WITH UNKNOWN FUNCTIONALITY

Two artifacts from the V. Deleu Street do not have their close analogies neither in the Dacian or other Roman provinces. Therefore, I could not assign any reasonable functionality to these items. An elongated, hairpin-like bar from building C1 (cat. no. 85, Pl. VIII/85) has its terminal decorated with a curvilinear form between two notches. Although the shaft is straight, circular in section, the decorated part was intentionally flattened which might suggest that this artifact was rather used for a more practical

⁹⁷ OBMANN 1997, 78.; MIKLER 1997, 56.

⁹⁸ DESCHLER-ERB 1998, 192.

⁹⁹ CRUMMY 1983, 105, no. 2538.

¹⁰⁰ BÍRÓ 1994, 47.

¹⁰¹ See OBMANN 1997, 78; DESCHLER-ERB 1998, 192; MIKLER 1997, 55.

¹⁰² SCHENK 2008, 67.

¹⁰³ See RIDDLER/TRZASKA-NARTOWSKI 2018.

¹⁰⁴ *Aventicum*: SCHENK 2008, Fig. 121/643-644.; *Augusta Raurica*: DESCHLER-ERB 1998, Taf. 57/4543, 4545; Taf. 59/4551-4552.; *Mogontiacum*: OBMANN 1997, Taf. 43/1810-1833.; *Vetera*: JUNG 2013, Taf. 68/1273, 1274; Taf. 69/1275-1277.; *Aquincum*: BÍRÓ *et alii* 2012, cat. no. 270-271.

¹⁰⁵ *Ulpia Traiana Sarmizegetusa*: ALICU-NEMEŞ 1982, Pl. VIII/2.; *Ilişua*: PROTASE *et alii* 1997, Pl. LXXXIV/1.; *Porolissum*: VASS 2013, Pl. 16/230-232. In *Apulum* a totally different type is known. The antler tine is decorated on the whole surface and perforation is smaller-sized and more regular. D. Ciugudean hence military insignia, without further explanation. CIUGUDEAN 1997, 38, Pl. XXX/1.

purpose. Seemingly, it looks like an ornamented hairpin, however, no similar hairpin type is known in the available publications. Considering only the “decorated” terminal, this bar slightly resembles with those bone bars which were interpreted either as lantern elements or scale bars¹⁰⁶. In both cases, however, the similar shaped terminals were provided with different perforations, as their main function was to house and fix the hanging elements of a scale or lantern¹⁰⁷. The terminal with moulding from *Napoca* has no such fixing holes, and its relative reduced dimensions (especially of the terminal) make this usage also questionable. If this object was a bar of a small and a very light scale where the hanging weights or plates were rather tied around the terminal, than fixed, or if it represents a yet unknown, unique hairpin type, will stay an open question until similar finds will elucidate its proper functionality.

The second object is an antler tip cut off the tine and drilled inside (cat. no. 86, Pl. VIII/86). The entire outer surface was decorated with dot-and-circle motives. The fact that the inner side of the antler tip was partially eliminated and drilled, could indicate that it was rather attached to an object as an ornamental terminal, or it was used as thimble (?). It must be concluded that the use of dot-and-circle motif is not characteristic for the Roman bone objects in Dacia, and in the neighbouring provinces this decoration pattern becomes very popular also later, in the late Roman age¹⁰⁸. Similar antler tip drilled and decorated (not with the same motif) was published from Campsa, Moesia Superior¹⁰⁹. Although the mentioned object from Campsa looks similar to the one from *Napoca*, at least concerning the general shape and concept, it was dated very late to the 6th c. AD. According to the archaeological reports, the tip from the Victor Deleu Street was found in the medieval cubiculum, however, it was dated to the 2nd c. AD. One may not exclude the possibility that later find material, in this case, a medieval artifact could have been mixed with earlier Roman contexts, as it happens very frequently on sites with an intensive, long period of use.

85. Bar with profiled terminal, flattened by the head, shaft slightly curved, circular in section. File marks on the shaft, polished. Cluj- Napoca, V. Deleu Street no. 1, building C1, on the hypocaust floor; first half of the 2nd c. AD; Dimensions: L: 11.57cm, max. th.: 0.47 cm; min. th.: 0.28 cm, MNIT Cluj- Napoca, inventory no.: v/47814. Pl. VIII/85.

86. Drilled and cut antler tip decorated with dot-and-circle motives on the outer surface. Tip chopped obliquely on one side. Polished by use. Cluj- Napoca, V. Deleu Street no. 1, building C2, found in A4 in the medieval cubiculum; 2nd c. AD; Dimensions: L: 3.63 cm, max. th.: 1.09 cm, min. th.: 0.61 cm, th. perforation: 0.72 cm; MNIT Cluj- Napoca, inventory no.: v/47802. Pl. VIII/86.

CONCLUSION

The eighty-six bone artifacts analysed in this paper is, by far, the largest assemblage of bone artifacts from the Roman city of *Napoca* ever published. As such, it enabled a preliminary insight into the bone industry and use of these artifacts in a Roman urban settlement in the Dacian provinces. Although this number is not significant, especially in the case of a Roman city, considering the general “impoverishment” of non-ceramic small finds in the Dacian provinces (especially, compared to other provinces), this quantity is fair enough for some preliminary general observations and statements, for several reasons. First, all artifacts were recovered from archaeological sites where the archaeological documentation and the record of different contexts were carefully executed. So, the lack or small number of artifacts in certain sites cannot be assigned to the incomplete documentation or careless excavation methods. Second, refined chronological sequences were established and delimited in each site which enabled to observe the evolution of use pattern of these artifacts. Third, the four sites located on different topographical units of the city - two from the intramural perimeter of Roman *Napoca* (Str. Victor Deleu no. 1; Museum Square no. 2); one from the southern cemetery of the city (Avram Iancu Street no. 21-23) and a *villa rustica* outside but within the administrative territory of the city (Lombului Hill) – cover almost all elements of a Roman city: urban centre, cemetery, economic catchment area, hinterland. Last, regardless of the character and topographical situation of the sites, the bone artifacts seem to be related roughly to the same chronological horizon, as most of the bone objects were dated to the first half of/ and the 2nd c. AD, the proportion of objects from the 3rd c. AD being considerably reduced (Fig. 2). The reason for this chronological uniformity is very difficult to interpret in light of the current state of art and lacunary knowledge about the general evolution and life of Roman *Napoca*. Nevertheless, it is very interesting that the bone objects recovered from the continuously and intensively used two buildings (C1 and C2) from the *insula* at Victor Deleu Street (from the beginning of the 2nd c. AD until the abandonment of the province in the 3rd c.) were almost completely recovered from the first half of and the entire 2nd c. AD, and the number of objects from later period is very low. The same situation can one encounter in the case of the artifacts from Museum Square no. 2.

The two sites are both located in the northern extremity of Roman city, in the crowded urban hub of the settlement. The variety and large number of bone objects, especially in the *insula* buildings at the Victor Deleu Street, can be explained by this intensive urban context. In these two buildings one can observe the widest spectrum of bone artifacts which covers several aspects of the everyday life (hair dress, textile repair, production, other working tools, music, games, cosmetics etc). In this concern, the bone objects from Victor Deleu Street and other sites represent the typical bone products used in urban environment in Dacia and everywhere in the Roman Empire. The larger quantity and variety of bone objects at this site could be also explained by the fact that in urban context, in continuously inhabited areas, close to the market, the accumulation and

¹⁰⁶ DESCHLER-ERB 1998, Taf. 54/4492 (lantern element); Taf. 23/871 (scale element).

¹⁰⁷ For the structure, types of Roman scales, see FRANKEN 1993.

¹⁰⁸ In *Pannonia*, for example, this type of decoration is very frequent on late Roman bracelets. See BÍRÓ 1987B, 57-59.

¹⁰⁹ PETKOVIĆ 1995, cat. no. 685, T. XLI/4.

deposition of artifacts is always faster and higher than in the more traditional countryside (e.g., *villa rustica* at Lombului Hill) where the use of artifacts is more selective and adapts to the needs of the villa. This could explain the reduced number and variety of bone artifacts at the *villa rustica* located north to the ancient city. Here the use of bone objects was limited to the most common and basic bone products, hairpins, and needles.

The relative early dating of most of the bone artifacts places the use of these objects in the early history of the settlement, to the period of the *vicus* and/or early phases of the *municipium*. Should these be associated with the early colonists of *Napoca*, of Norico-Pannonian origin, is yet difficult to establish, even if the early dating of the intramural finds would support this theory. More refined data and the correlation with other small finds from this period would be needed for the confirmation of this theory. However, certain artifacts type, like the antler roundel pendant (cat. no. 30, Pl. IV/30), dated to the first half of the 2nd c. AD, are conventionally related to the Celtic indigenous population in the scholarship, and similar pieces reported from the Dacian provinces were mostly recovered from sites which housed Roman garrison recruited originally from this population. Of course, the distribution of this artifact type could be explained with simple fashion trends too. The possible association of this artifact type to Celtic population or LaTène tradition in *Napoca* might not be completely rejected, given the early dating and the origin of the first settlers of the city.

Considering the bone products from these four sites, no special or unknown type could be identified in the analysed assemblage. All forms and types are well-known bone objects both in the Dacian and other Roman provinces, and a certain uniformity can be noticed in case of individual functional categories: e.g., the hairpins represent the most simple and popular types of hair accessories; all needle types have the same type of eyes, while the individual types, or artifacts (such as weaving implement, knot loosener, flute etc.) are also well-known and popular items of the Roman material culture. No “special”, “beautiful” or imported artifacts could be delimited in the lot. This might indicate a preference for the utilitarian, simple artifacts of every-day use in *Napoca*. This uniformity of types and the preference for the simple, utilitarian objects is also expressed by the bone objects at other sites within *Napoca* too. The bone artifacts reported from the Central Shopping Mall and from the court of the Art Museum could all be included into the same functional categories, no additional types occurred in these sites, so far. A possible local taste could be reflected perhaps by the Hercules’ club type pendants. The three pendants, together with another one recovered from the Central Shopping Mall in Cluj-Napoca represent, so far, the largest amount of such pendants delivered by a single site (except for *Drobeta*).

Among the artifacts no bone waste-material, working debris or half-finished items were found, thus no bone-manufacturing workshop could be identified yet. The relative uniform character of the finds (technology, decoration, types etc.), the lack of imported ivory objects, argue for the local origin of these artifacts, and one or more workshops

might have been functioned, without any doubt, in the city. The identification of these, however, will be the task of the future field research. The manufacturing techniques used at the production were the typical Roman bone-working techniques: most of the artifacts were sculpted and fashioned with hand-tools (except for the gaming counters, and the spoon scoops the only artifacts worked on lathe): chisels and especially, files. The file marks are the most popular working traces observable on the surface of the products. There is almost no needle, pin or harpin which do not present the marks of this tool.

ABBREVIATIONS

Catalog:

dm: diameter

IAIA Cluj-Napoca: Institutul de Arheologie și Istoria Artei, Cluj-Napoca

L: length

max. th.: maximum thickness

min. th.: minimum thickness

MNIT: Muzeul Național de Istorie a Transilvaniei

W: width

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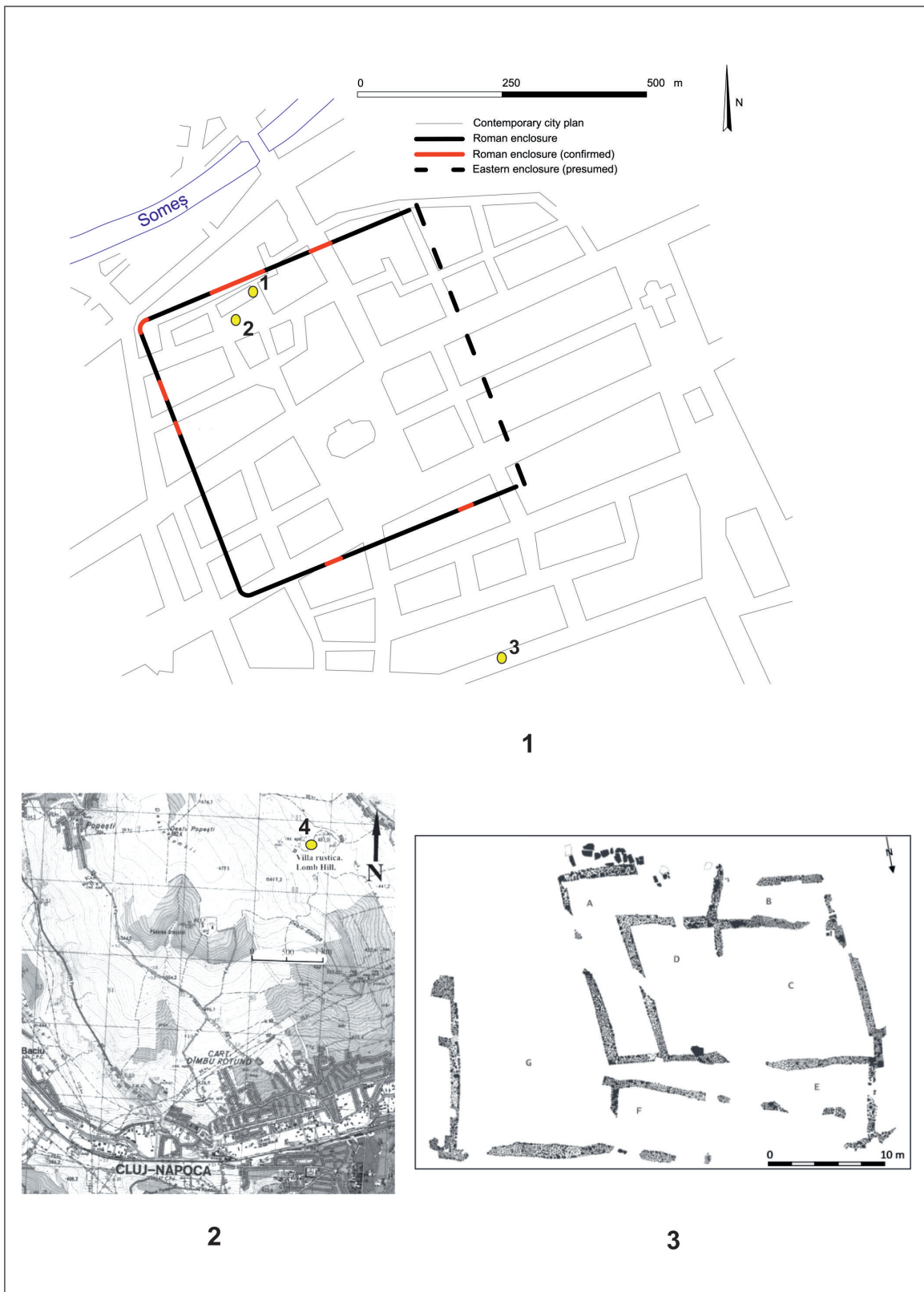
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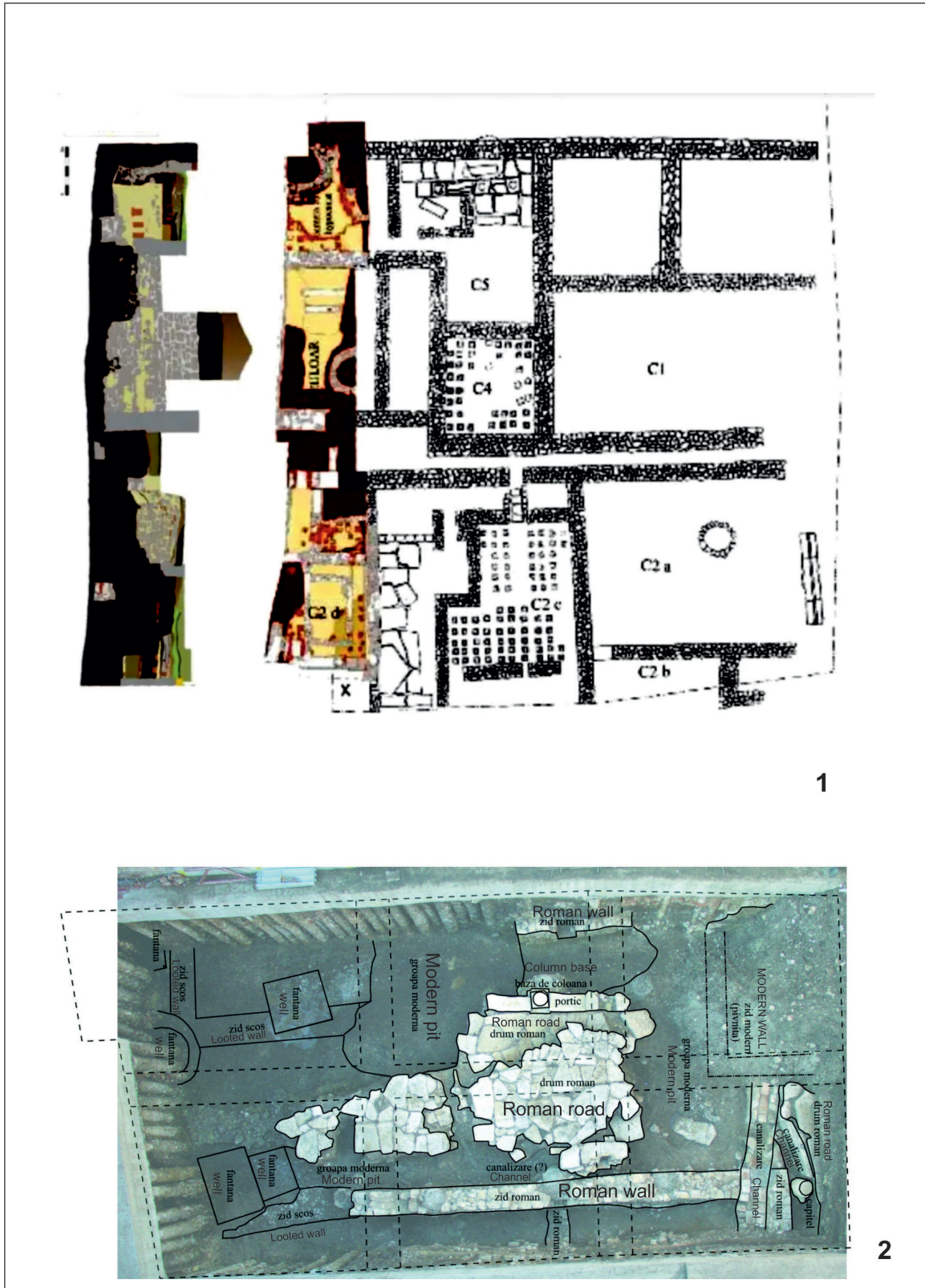
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Pl. I. 1. Topographical distribution of the bone objects: 1. Victor Deleu Street no. 1; 2. Museum Square no. 2; 3. Avram Iancu Street 21-23. (after George Cupcea); 2. Location of the the villa rustica at Lombului Hill, no. 4 (COCIŞ et alii 2010, Fig 1); 3. Plan of villa rustica at Lombului Street (COCIŞ et alii 2010, Fig. 6).



Pl. II. 1. Plan of the insula unearthed at Victor Deleu Street no. 1 (after Ardeleanu 2015, Fig. 1); 2. Plan of the excavations carried out at Museum Square no. 2 (after COCIŞ et alii 2017).



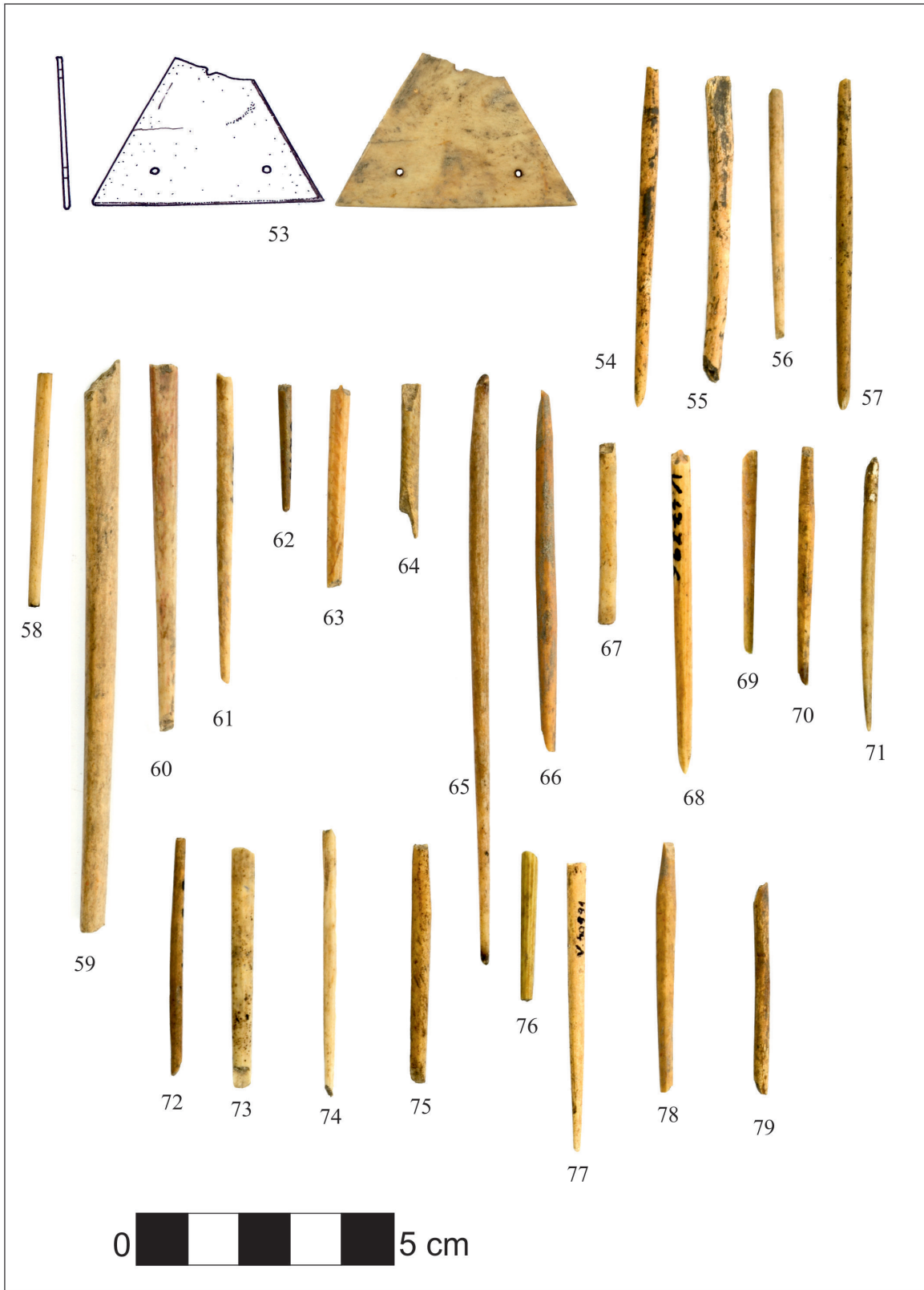
Pl. III. Hairpins: Type 1.1: 1; Type 1.2: 2-5; Type 1.3: 6-12; Type 2.1: 13; Type 2.2: 14-15; Type 2.3: 16-17; Type 2.4: 18; Type 3: 19; Type 4: 20; Type 5.1: 21; Type 5.2: 22; Type 6.1: 23-25; Type 6.2: 26. (Photos: Teodor Talos).



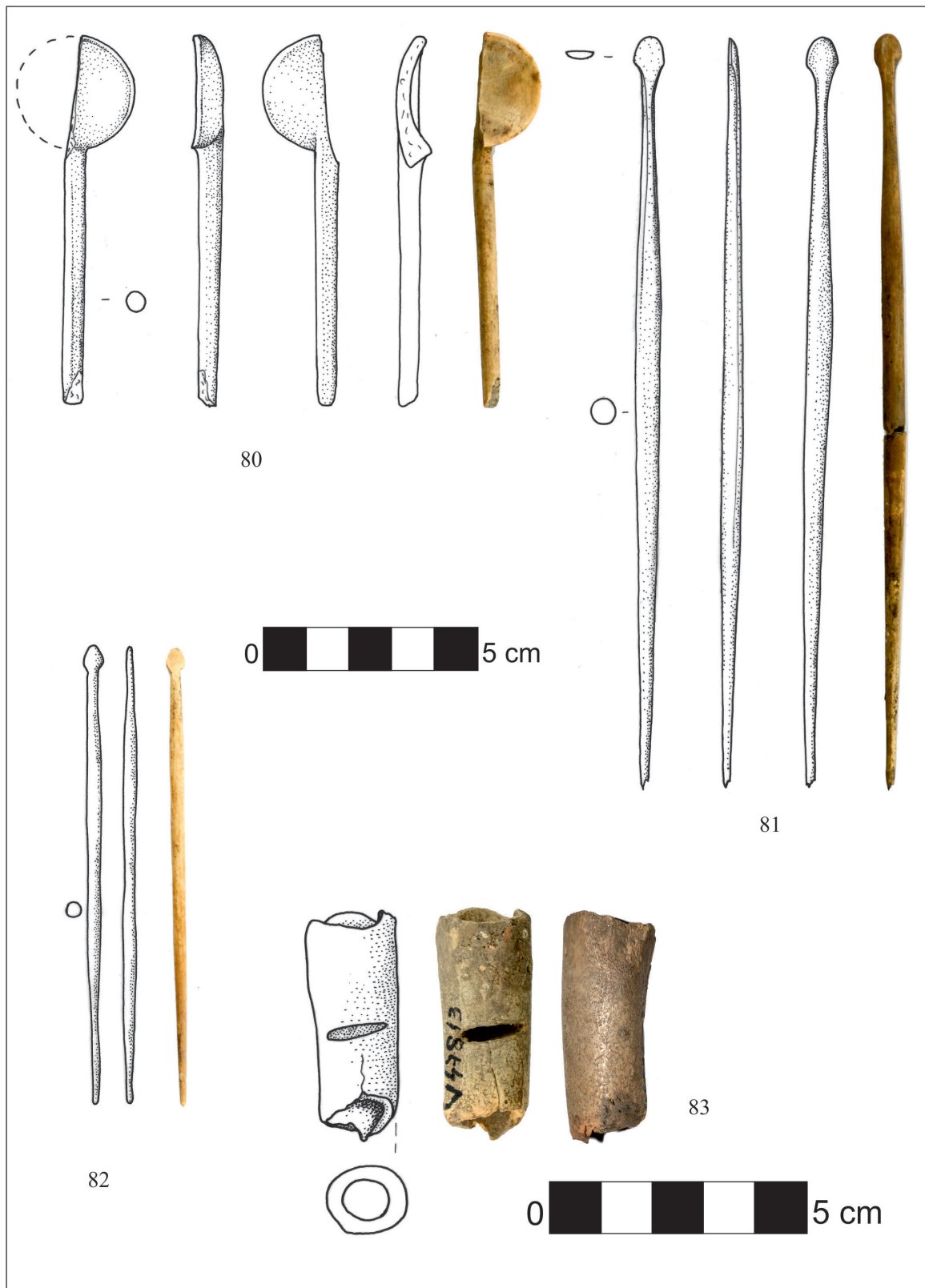
Pl. IV. Amulets, pendants: Hercules' club type of pendant: 27-29; Antler roundel pendant: 30; Gaming counters: Type 1: 31; Type 2: 32-33. (Photos: Teodor Talos; Drawings: Katalin Bitay).



Pl. V. Gaming counters: Type 3: 34-38; Needles: Type 1.1: 39-41; Type 1.2: 42-43; Type 1.3: 44; Type 2.1: 45; Type 2.2: 46-47; Fragment of type 2: 48; Needle fragments not related to types: 49-52 (Photos: Teodor Talos; Drawings: Katalin Bitay).



Pl. VI. Weaving tablet: 53; Pin shafts: 54-79 (Photos: Teodor Talos; Drawings: Katalin Bitay).



Pl. VII. Artifacts related to cosmetics/health: Spoons: 80; Ear scoops: 81-82; Music instrument: 83 (Photos: Teodor Talos; Drawings: Katalin Bitay).



Pl. VIII. Knot loosener: 84; Varia: objects with unknown function: 85-86 (Photos: Teodor Talos; Drawings: Katalin Bitay).