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STUDIA ARCHAEOLOGICA

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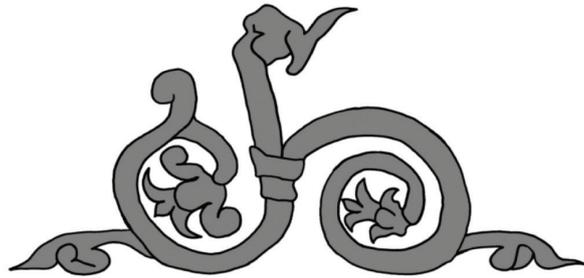
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Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch- Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS</i> . Deva.
SlovArch	<i>Slovenská Archeológia</i> . Nitra.
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări</i> . Satu Mare.
Thrac-Dacica	<i>Thrac-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei</i> . Veszprém.
VTT	<i>Veszprémi Történelmi Tár</i> . Veszprém.
Ziridava	<i>Ziridava, Complexul Muzeal Arad</i> . Arad.

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Percentages in the Study of neolithic Pottery*

Ion Pâslaru, Vitaly Pozhidaev

Abstract: This article discusses examples of percentages in the archaeological research of pottery from the Neolithic period. The use of percentage reports does not always lead to correct results, and thus significantly reduces the value of the authors' conclusions and undermines the credibility of their study. In order to correct this situation, researchers need to accompany the samples used in their studies by information on the size of the samples in question and the way they were computed. This allows one to calculate the empirical percentage of probable error (ΔP) and the confidence intervals (min-max).

Keywords: pottery, percentage, percentage reports, probable error, sampling, confidence interval, statistical methods.

In order to process common archaeological material, either made of stone, flint, bone, or ceramics, specialists often employ certain statistical methods, among which the most often encountered is the use of percentages in order to extract various conclusions. Some researchers envisage percentages in such a simplistic manner that they cease to be a statistical method and this has negative consequences.

The efficiency of using mathematical and statistical methods in archaeological research is no longer doubted. Nevertheless, they are not always used correctly by the archaeologists and thus the credibility of the conclusions part of such studies is disputable. This is the topic of our studies¹.

For the beginning, we will analyze the work of a French researcher from the University of Provence that focused on the technology and morphology of Neolithic pottery from Southern France². The author is well acquainted with statistical methods and uses, together with percentages, certain computer programs in order to process pottery produced during the Late Neolithic. Analyzing the pottery from the site in Mourre du Tendre, the author employs a sample consisting of 6387 fragments among which he stresses 761 structural elements that provide the basis for the typology employed. After researching the morphology of the artefacts, the author ended up stressing 28 types, defined with the aid of various structural elements of the vessels and of the decorative elements. According to the quantity of items included, the types are very different; some include a single item, while others have up to several hundreds. For each type the author under discussion calculated the corresponding percentages. Unfortunately, he was not very careful in rendering the computing exact, in that he ignored the hundreds in the decimal expansion and rounded the values of the tens. At first glance, it seems that the hundreds are insignificant, but in case there are several small samples, the hundreds turn into tens and then into integer parts. Thus, a table presents³ 78 samples that show the complex out of 761 units. We shall hereby present some data in this table, to which we have added the probable error ($\pm\Delta P$) and the confidence intervals (min-max).

	N=761	n	% author	% actual	Difference	$\pm\Delta P$	Min.	Max.
1	Str,95	1	0.1	0.13	-0.03	0.25	0	0.38
2	Str,96	68	8.9	8.93	-0.03	2.02	6.90	10.96
3	Str,99	8	1.1	1.05	+0.05	0.72	0.32	1.77
4	Str,100	9	1.2	1.18	+0.02	0.76	0.41	1.95
5	Str,101	5	0.7	0.65	+0.05	0.57	0.08	1.23

* English translation: Ana M. Gruia.

¹ Pyslaru, Pozhidaev 1982; Pyslaru 1982; Pâslaru 2006; Pâslaru, Colesniuc 2007; Pâslaru, Pozhidaev 2014.

² Cauliez 2011.

³ Cauliez 2011, 132, tab. 69

6	Str,105	21	2.8	2.75	-0.05	1.16	1.59	3.92
7	Str,106	3	0.4	0.39	+0.01	0.44	0	0.83
8	Str,108	6	0.8	0.78	+0.02	0.62	0.16	1.41
9	Str,109	7	0.9	0.91	-0.01	0.67	0.24	1.59
10	Str,113	9	1.2	1.18	+0.02	0.76	0.41	1.95
11	Str,113/114	4	0.5	0.52	-0.02	0.51	0.01	1.03
12	Str,114	7	0.9	0.91	-0.01	0.67	0.24	1.59
13	Str,115	5	0.7	0.65	+0.05	0.57	0.08	1.23
14	Str,127	17	2.2	2.23	-0.03	1.05	1.18	3.28
15	Str,128	3	0.4	0.39	+0.01	0.44	0	0.83
16	Str,129	24	3.2	3.15	+0.05	1.24	1.91	4.39
17	Str,129/132/137	8	1	1.05	-0.05	0.72	0.32	1.77
18	Str,131	1	0.1	0.13	+0.03	0.25	0	0.38
19	Str, 134	1	0.1	0.13	+0.03	0.25	0	0.38
20	Str, 137	2	0.3	0.26	+0.04	0.36	0	0.62
21	Str, 138	96	12.6	12.61	-0.01	2.35	10.25	14.97
22	Str, 139	12	1.6	1.57	+0.03	0.88	0.69	2.46
23	Str, 141	16	2.1	2.10		1.01	1.08	3.12
24	Str, 142	15	2	1.97	+0.03	0.98	0.98	2.95

Table 1. Percentual report on the Neolithic pottery discovered in Southern France. (with data provided by Cauliez 2011)

One must take into account the fact that the percentages calculated by the author are empirical percentages (P), with a probable error ($\pm\Delta P$). After calculating the probable errors, we discovered that they ranged between $\pm 0.25\%$ and $\pm 3.47\%$ for the sample consisting of 761 units, between $\pm 3.53\%$ and $\pm 8.80\%$ for the sample consisting of 55 units, and between $\pm 8.33\%$ and $\pm 11.51\%$ for the sample consisting of 23 units.

Valorizing morphological and typological aspects of the sample consisting of 761 diagnosed elements, the author suggests a formula for calculating the minimum amount of elements indicator (MAEI) in percentages:

$$\text{MAE} / \text{all diagnostic indicators} * 100 = \text{MAEI}.$$

Then, in order to determine the quantity of vessels, the author has counted the rims and thus calculated a minimum of 579 vessels or 76%. Among these, 353 items had structural elements that could be determined, plus the shape of the vessel, thus reaching a percentage of 61%.

These percentages have different probable errors as they are calculated according to different samples, though the author believes they are equal. One must mention the fact that the author has calculated empirical percentages (P). In fact, one should add the probable error to these values, thus obtaining: $76.08\% \pm 3.03\%$ or $73.05\% - 79.11\%$ and $60.96\% \pm 3.87\%$ or $56.99\% - 64.94\%$.

In the work under analysis, the author also employed bar charts in order to illustrate percentual proportions⁴, though such charts do not reflect the actual value of the percentages.

The case analysis of Cauliez's work has indicated the fact that the percentages were carelessly computed, without the probable error and the confidence intervals; the readers should therefore be cautious and careful in accepting some of the author's opinions, i.e. those connected to the empirical percentages.

We shall now continue with another study that aimed at analyzing Neolithic pottery from the Volga Region⁵. The author presented the results of her technical and technological analysis of the pottery discovered in the settlement of Lebeajinka V, on the basis of 73 collected samples. These were represented by "Elşanskaya" pottery and "Srednevolzhskaya" Culture pottery; according to the decoration technique, they were divided into 13 types; one must note that these types are very numerous. Four of them consist of a single item, one type consists of two items, two types include just three items each, one other type includes four items, three types consist of six items each, and just two types group 12 and 21 items, respectively.

⁴ Cauliez 2011, tab. 20; 22.

⁵ Vasilieva 2011, 41-53.

This, nevertheless, does not prevent the author from analyzing the so-called types independently, believing each of them represented 100%. Thus, the author's approach is unacceptable and statistically incorrect (Table 2).

	N=73	NO	P or %	ΔP	Min.	Max.
1	Without inclusions	8	10.95	±7.16	3.79	18.12
2	SO	47	64.38	±10.98	53.39	75.36
3	SO + §1: 6 (<2 mm)	11	15.06	±8.20	6.86	23.27
4	SO + §1: 5 (<4 mm)	6	8.21	±6.30	1.91	14.51
5	SO + others	1	1.36	±2.66	0	4.03
	Total	73	100			

Table 2. Types of fabric of Neolithic pottery items discovered on the site of Lebeazhinka – V

Analyzing Table 2 one notices that the differences among types 1, 3, and 4 are imperceptible. It might be that types 3, 4, and 5 must be unified in a single type consisting of pottery items made of fabric with inclusions of organic matter as temper-material (OP). On the basis of the above mentioned observations, the table thus becomes:

	N=73	NO	P or %	ΔP	Min.	Max.
1	Without inclusions	8	10.95	±7.16	3.79	18.12
2	SO	47	64.38	±10.98	53.39	75.36
3	SO + §1: 6 (<2 mm) SO + §1: 5 (<4 mm) SO + others	18	24.65	±9.88	14.76	34.54
3a	SO + §1: 6 (<2 mm) SO + §1: 5 (<4 mm)	17	23.28	±9.69	13.59	32.98
3b	SO + others	1	1.36	±2.66	0	4.03
		73	100%			

Table 3. Types of fabric of Neolithic pottery items discovered on the site of Lebeazhinka – V after regrouping.

According to the author, the “Elşanskaya” pottery, represented through 30 vessels, was made, in 83% of the cases, of fabric with inclusions of organic matter (SO) – 83.33% ±13.33 or 69.99% – 96.66%.

The author concluded that in the making of pottery belonging to the “Srednevolzhskaya” Culture one can note “a clear process of spread and strengthening of the tradition of employing ceramic fabric with chamotte in complexes with prick-ornamented pottery – 18.5%, and in complexes with comb-decorated pottery – up to 43%.”

	complexes	fabric	N	n	P или %	ΔP	Min.	Max.
1	Prick-ornamented pottery	OP+§	16	3	18.75	±19.12	0	37.87
2	Comb-ornamented pottery	OP+§	23	10	43.47	±20.25	23.21	63.73
			39					

Table 4. Percentual reports on the “srednevolzhskaya”-culture pottery from “prick-ornamented” and “comb-ornamented” pottery complexes”.

We remind our readers that the author performed these calculations by rounding the percentages down to three decimals, thus ignoring the hundreds in the fractional part. Comparing the data provided by the author with those obtained after calculating the probable error for the empirical percentages, one reaches the opinion that the author's conclusions are not statistically confirmed since the confidence intervals overlap and thus cannot be distinguished.

Then, the author stated that the processing the materials from the site of Vilovatovo supported the following conclusion: “the influence of «Elşane» cultural traditions on the arrived population followed an ascending line: – the quantity of vessels with prick-ornamented decoration during the

early period represents 19%; – during the middle period – 36%; and during the late period – 52%.” On the basis of these data, the author stated that “the prick-ornamented pottery complex from the site of Lebeazhinka – V contains some indications of the «Elşane» tradition in pottery making: 64% of the prick-ornamented pottery is made of dusty clay and just 36% is made of silt.” But, the real size of the samples from the sites of Vilovatovo and Lebeajinka V remains unknown. One can say that the author only relies on these materials when mentioning the prick-ornamented vessels from the site of Lebeajinka V that are made out of dusty clay and represent 81%. This percentage has a probable error ($\pm\Delta P$) equal to $\pm 9.03\%$ and thus the value of the percentage calculated by the author should have been between the following values: 71.79% and 89.85%.

Following the above analysis of the case study under discussion, we note that the researcher did not envisage the existence of probable errors (ΔP) for empirical percentages (P) that are described similarly to C14 radiocarbon data. By the way, this researcher also presents some C14 data for the “Elşane” pottery – 6820 \pm 80 BP, 6760 \pm 80 BP, and 6480 \pm 80 BP.

Sometimes, some researchers use percentages only in order to compare stressed groups from the material under analysis. In order to exemplify, we will subsequently study an article dedicated to the description of Neolithic pottery from Lithuania⁶. The authors have analyzed a total of 9440 pottery fragments, out of which just 361 were decorated, and thus, according to the authors’ estimate, represent 0.38%. We mention the fact that the authors have erred in their calculation, making the sample ten times smaller. This fact made us pay closer attention to other percentages calculated by the researchers in question.

In the decoration of the chosen pottery lot, the authors distinguish between 12 elements of decoration; their frequency was expressed in percentages, starting from the total number of decorated fragments:

1 – long stroke impressions (22.16%), 2 – winding impressions (14.13%), 3 – big pits impressions (13.85%), 4 – quadrangular impressions (12.74%), 5 – small pits impressions (9.14%), 6 – knot-like impressions (7.2%), 7 – ellipsis-like impressions (6.09%), 8 – short stroke impressions (5.54%), 9 – triangle-like impressions (3.04%), 10 – wavy impressions (2.22%), 11 – incisions (1.94%), 12 – cord-like impressions (0.56%).

Naturally, the authors did not envisage the existence of a probable error, believing that the empirically calculated percentages are absolute. By employing just percentages, without mentioning the number of fragments, the authors force us to compute. Nevertheless, the sum of the percentages of all groups equals 98.51%; the other percentages up to 100% were not taken into consideration. We have re-calculated the quantity of fragments, adding the error margin and the confidence intervals (Table 5).

	N=361	n	P according to the authors	P	ΔP	Min.	Max.
1	long stroke impressions	80	22.16	22.16	4.28	17.87	26.44
2	winding impressions	51	14.13	14.12	3.59	10.53	17.72
3	big pits impressions	50	13.85	13.85	3.56	10.28	17.41
4	quadrangular impressions	46	12.74	12.74	3.43	9.30	16.18
5	small pits impressions	33	9.14	9.14	2.97	6.16	12.11
6	knot-like impressions	26	7.20	7.20	2.66	4.53	9.86
7	ellipsis-like impressions	22	6.09	6.09	2.46	3.62	8.56
8	short stroke impressions	20	5.54	5.54	2.35	3.18	7.90
9	triangle-like impressions	11	3.04	3.04	1.77	1.27	4.82
10	wavy impressions	8	2.22	2.21	1.51	0.69	3.73
11	incisions	7	1.84	1.93	1.42	0.51	3.36
12	cord impressions	2	0.56	0.55	0.76	0	1.31
	total	356	98.51	98.57			
	unaccounted	5		1.38	1.20	0.17	2.59
	Total	361	100	99.95			

Table 5. The decoration of ceramics.

⁶ Irşėnas, Butrimas 2011, 125–138.

The analysis of this table indicates that the authors were careless in calculating the percentages. The sum of fragments in the table is of 356, though all of the authors' calculations start from a sample of 361 units. The fact is also noticeable when the researchers state that the number of fragments ornamented with a single decorative element each is 34 (9.42%), while those containing two or three decorative elements represent 34: 9.42=360.9.

A researcher from Sweden chose another method, using percentages just in their graphic form⁷. The percentual proportion of Neolithic pottery discovered on the present-day territory of Sweden, Gotland, and the Netherlands is presented with the aid of horizontal bars. We remind the fact that this type of chart does not render the real proportion among the different types of pottery; three ceramic types are presented in this case: coarse, semi-coarse, and fine.

According to the above mentioned graph, one concludes that for the central-eastern region of Sweden, the sample consisted of 75 units, from 11 different sites, among which coarse pottery was predominant. There are only three fragments in the group of semi-coarse pottery.

In the Netherlands, the types of fine, semi-coarse, and coarse pottery are almost equally represented, having the sample of 39 units. In Gotland, the pottery is represented by 14 units; coarse pottery is predominant, while the groups of semi-coarse and fine pottery together do not surpass 20%.

One must observe the fact that these samples, estimated at representing 100% each, were considered equal, by ignoring the probable errors. We shall try to prove this in Table 6.

region	N		n	P	ΔP	Min.	Max.
East-Central Sweden	75	coarse	0	0	0	0	0
		semi-coarse	3	4	4.43	0	8.43
		fine	72	96	4.43	91.56	100
			75	100			
The Netherlands	39	coarse	9	23.07	13.22	9.85	36.30
		semi-coarse	16	41.02	15.05	20.84	50.95
		fine	14	35.89	15.26	23.19	53.73
			39	100			
Gotland	14	coarse	11	78.57	21.49	57.07	100
		semi-coarse	2	14.28	18.33	0	32.61
		fine	1	7.14	13.49	0	20.63
			14	100			

Table 6. Distribution of pottery types according to region.

		N	P	ΔP	Min.	Max.
1	fine	87	67.96	8.08	59.88	76.05
2	half-coarse	21	16.40	6.41	9.99	22.82
3	coarse	20	15.62	6.29	9.33	21.91
		128	100			

Table 7. Proportion of pottery types in Sweden, the Netherlands and Gotland.

Table 6 indicates that according to the semi-coarse pottery presented equally in the central-eastern area of Sweden and in Gotland, on the one hand, and in the central-eastern area of Sweden and the Netherlands, have intersecting confidence intervals. As for the group of fine pottery, one notes that the three regions are clearly different; according to the quantity of fine pottery, the east-central area of Sweden holds the first place (91.56%±4.43%), followed by the Netherlands (35.89%±15.26%) and Gotland (7.14%±13.49%). Coarse pottery is only predominant in Gotland (78.57%±21.49%).

As for the comparison between the types of pottery (Table 7), one must state that among the samples taken by the author, fine pottery is predominant, while semi-coarse and coarse pottery are equally present.

In the technology of pottery production, the author has identified different temper-materials; among them one can mention: granite, sandstone/quartzite, quartz, natural sand, grog (crushed

⁷ Larsson 2009, 239–270, Fig. 10–5, Fig. 10–6, Fig. 10–7.

pottery), limestone, bone, and plant material⁸. In Fig. 10–7 the author presents the number of samples taken according to the temper-material used. As stated from the very beginning, the author takes into consideration 128 samples for microscope analyses. According to the data presented in the table one can note that the total number of samples was wrongly calculated, as the real number reaches 145 units.

Site	Period	Components								Total according to author	Total
		Granite	Sst Qzite	Quartz	Nat. Sand	Grog	Lime stone	Bone	Plant Mat.		
Postboda 2, Up	EN/MN	6	0	0	0	0	0	0	0	7	6
Postboda I, Up	MN A	7	0	0	0	0	0	0	1	7	8
Kopingsvik	MN A	1	9	0	2	0	3	0	6	18	21
Ottenby. Ol	MN A	4	0	0	7	0	1	0	9	21	21
Ire, Go	MN B	1	0	0	0	2	13	0	9	14	25
Bollbacken, Vs	MN B	12	3	0	0	0	2	8	2	26	27
Braennpussen	MN B	1	2	12	3	0	0	19	0	20	37
Ttvper total		32	14	12	12	2	19	27	27	113	145
										134	

Table 8. Types of temper materials employed in pottery production. (Taken from Larsson 2009, Fig. 10–7. Temper materials used in pitted-ware ceramics divided by sites. Rough chronological order, with the oldest sites at the top).

According to Table 8, some quantities of pottery fragments from various sites do not add up. Thus, it is almost impossible to verify the data presented since one does not know the size of the samples used by the author in constructing the percentual proportions.

Through the graphs under discussion, the author wished to see how the pottery production technology during the periods represented by the Early/Middle and Middle A and B stages of Swedish Neolithic.

Describing a practical model of managing and interpreting databases, G. Lazarovici and D. Micle provided an example through their research of a Neolithic pottery collection from the site of Iclod, near Cluj⁹. The complex where the pottery in question has been discovered is one of the earliest; the filling contained, at a depth of – 80 cm, materials influenced by and technically typical to the Petrești Culture, materials part of the Iclod I Group with strong influences from the previous stages, specific to the Middle Neolithic (the Cluj – Cheile Turzii – Lumea Nouă – Iclod Complex), characterized by good quality pottery, fine sand, strong firing, and very good quality polish.

The authors are right in saying that “most often archaeologists used to multiply the percentage of the most frequently encountered materials, believing they were directing elements.” By analyzing this complex, the authors performed a hierarchical classification. The material was divided into three groups: common, semi-fine, and fine pottery. The 1643 pottery fragments were divided into three categories: fine 871, semi-fine 615 and coarse 158.

	N-1643	N	P	ΔP	Min.	Max.
1	fine	870	53.01	2.41	50.59	55.42
2	semi-fine	615	37.43	2.34	35.09	39.77
3	coarse	158	9.61	1.42	8.19	11.04
	Total	1643	100			

Table 9. Pottery categories and their percentages.

Taking into consideration the fact that these categories were analyzed according to the number of fragments and their stratigraphic association, they were divided into three groups: 1) between –40 and –60 cm; 2) from –80 cm; 3) from –140 cm.

⁸ Larsson 2009, 239, Fig. 10–7.

⁹ Lazarovici, Micle 2001, 192–193.

	depth	fine	semi-fine	coarse	sum	P	ΔP	Min.	Max.
1	-40-60 cm	404	478	128	1010	65.07	2.37	62.70	67.44
2	-80 cm	287	116	26	429	29.12	2.26	26.86	31.38
3	-140 cm	105	6	2	113	7.28	1.29	5.98	8.57
		796	600	156	1552	100			

Table 10. Distribution of pottery materials according to depth, from the Late Neolithic site of Iclod.

Taking into consideration the quantitative data, the authors concluded that *fine pottery was most numerous at the depth of -80 cm and semi-fine pottery at -60 cm*, a fact that indicates the development direction of pottery categories, the dynamic evolution of the site. The presence of fine pottery at a depth of 0.80 cm *must be connected to the genesis process of the Iclod Group*.

We shall attempt to verify this opinion. In order to do this we will calculate the percentage of each category, adding the probable error and the confidence intervals.

	depth	categories	N	N	P	ΔP	Min.	Max.
1	-40-60 cm		1010					
		fine		404	40	3.02	36.97	43.02
		semi-fine		478	47.32	3.07	44.24	50.40
		coarse		128	12.67	2.05	10.62	14.72
2	-80 cm		429					
		fine		287	66.89	4.45	62.44	71.35
		semi-fine		116	27.03	4.20	22.83	31.24
		coarse		26	6.06	2.25	3.80	8.31
3	-140 cm		113					
		fine		105	92.92	4.72	88.19	97.64
		semi-fine		6	5.30	4.13	1.17	9.44
		coarse		2	1.76	2.43	0	4.20
			1552					

Table 11. Pottery categories and their percentages according to depth.

The analysis of this table shows that semi-fine pottery discovered at -60cm statistically equals the fine pottery, as the confidence intervals overlap. As for the authors' opinion on fine pottery discovered at the depth of -80 cm, it is substantiated. Correcting the authors' opinion triggers also changes in the interpretation of their results.

In his doctoral dissertation, S. Angeleski analyzed Neolithic pottery from Macedonia and Greece¹⁰. In Tables 19a and 19b he presented the situation of the categories of pottery from Macedonia compared to that from Greece, since the earliest stages of the Neolithic. The author stated that the analysis of Table 19a indicated the fact that pottery in the fine and semi-fine categories forms relatively equal proportions (37.2% and 34.8% respectively), followed shortly by coarse pottery (28%). One must keep in mind that these are empirical percentages, requiring clarification. We have thus added the probable error (ΔP) and calculated the confidence intervals (min.-max.), and this allowed us to correct the researcher's opinion (Table 12).

N-382	pottery	N	P	ΔP	Min.	Max.
	fine	142	37,17	4,84	32,32	42,01
	semi-fine	133	34,81	4,77	30,03	39,59
	coarse	107	28,01	4,50	23,50	32,51
		382				

Table 12. Proportion of the different types of Neolithic pottery from Macedonia and Greece (according to data provided by S. Angeleski).

¹⁰ Angeleski 2009.

Taking into consideration the fact that the confidence intervals overlap, one can say that none of the three ceramic categories predominate. This means that the above mentioned groups of pottery are almost equally represented.

The obtained result was probably constructed on the basis of insignificant samples: nine samples from the presented sites are very small, containing between four and 20 units; only five groups contain between 40 and 84 units. In order to verify our opinion, we have analyzed only the five representative samples:

N=287	pottery	N	P	P	Min.	Max.
1	fine	102	35.54	5.53	30.00	41.07
2	semi-fine	105	36.58	5.57	31.01	42.15
3	coarse	80	27.87	5.18	22.68	33.06
		287	100			

Table 13. Proportion of the different categories of Neolithic pottery from Macedonia and Greece.

As one can observe from Table 13, all pottery categories are equal from a statistic perspective. The fact that the author used small samples leads to arguable opinions. The author states for example, that *the distribution of pottery categories in Table 20a illustrates a clearly larger proportion of fine pottery as compared to coarse and semi-fine pottery; also, the latter two occupy relatively equal positions*. The table in question includes 13 samples from Bulgaria and Macedonia: nine samples contain between four and 20 units, three between 40 and 84 units; the pottery from Vaksevo I–II (Bulgaria) alone consists of 229 units.

Table 20a	fine	coarse	semi-fine	Sum	Percentage
Vaksevo I–II	205	24		229	47.8
Anza Ia	36	7	17	60	12.5
Anza Ib	26	15	8	49	10.2
Pešterica	8	12	24	44	9.2
Anza Ia B1n1	5	7	8	20	4.2
Anza Ib B1n3	2	6	10	18	3.7
Anza Ic	9	7	1	17	3.5
Anza Ib B1n2	3	3	5	11	2.2
Anza Ia B1n2	2	3	3	8	1.7
Rug Bair	6	1	1	8	1.7
Anza Ia Gr. 12	4			4	1
Anza Ia Gr. II	4			4	1
Anza Ia Gr. V	4			4	1
Sum	315	87	77	479	
Percentage	65.8	18.2	16.1		100

Table 14. Neolithic pottery from Macedonia and Bulgaria (according to data provided by S. Angeleski).

In another work that presents some connections between the Neolithic pottery from Macedonia and Transylvania, S. Angeleski included a table with data on the reducing and oxidizing pottery¹¹. After analyzing the table that included a sample of 1148 units, the researcher concluded that good, reducing pottery predominated as compared to good oxidizing pottery, with 42.4% to 36.8%.

Due to the fact that the author based his arguments on comparing empirical percentages, we believe that his conclusion is not reliable. On the other hand, the table also includes pottery undifferentiated according to the reducing or oxidizing firing. For this reason we chose to exclude it from the table. Thus, only seven sites remained from the initial group of 13, providing the sample of 1039 units. Good reducing pottery consists of 468 units instead of 487, poor reducing pottery has 59 units, while good oxidizing pottery has 384 units instead of 422 and the poor oxidizing pottery has 128 units (Table 15).

¹¹ Angeleski 2011, 9–46.

		N-487 r and N-422 o	NO	P	ΔP	Min.	Max.
reducing	1	G.B. B1	112	22.99	3.73	19.26	26.73
oxidizing		G.B. B1	150	35.54	4.56	30.97	40.11
reducing	2	G.B. B20a	136	27.92	3.98	23.94	31.91
oxidizing		G.B. B20a	60	14.21	3.33	10.88	17.55
reducing	3	G.B. M1	105	21.56	3.65	17.90	25.21
oxidizing		G.B. M1	50	11.84	3.08	8.76	14.93
reducing	4	G.B. B10	59	12.11	2.89	9.21	15.01
oxidizing		G.B. B10	63	14.92	3.40	11.52	18.32
reducing	5	G.B. B2A	16	3.28	1.58	1.70	4.86
oxidizing		G.B. B2A	29	6.87	2.41	4.45	9.28
reducing	6	G.B. B9b	32	6.57	2.20	4.37	8.77
oxidizing		G.B. B9b	6	1.42	1.12	0.29	2.55
reducing	7	G.B. B8	8	1.64	1.12	0.51	2.77
oxidizing		G.B. B8	26	6.16	2.29	3.86	8.45
reducing	8	Total out of N-487	468	96.09	1.71	94.37	97.81
oxidizing		Total out of N-422	384	90.99	2.73	88.26	93.72

Table 15. Good reducing and good oxidizing pottery.

The analysis of data in Table 15 indicates that the proportion between good reducing and good oxidizing pottery varies from site to site. In the case of sites 1 and 7 the quantity of good reducing pottery is smaller than that of good oxidizing pottery. In the case of site 4 the two groups are equally represented. In the case of sites 2, 3, 5, and 6, good oxidizing pottery is represented by the largest quantity of pottery fragments.

One must also note that the difference between “good” and “poor” pottery was not made according to exact criteria; all depends on the researcher’s point of view and experience. For this reason, in order to perform a more objective study, we have analyzed separately, but also together, each of the two groups, i.e. reducing and oxidizing pottery, that are included in the sample of 1039 units (Table 16).

	N – 1039	NO	P	ΔP	Min.	Max.
1	Good reducing	468	45.04	3.02	42.01	48.06
	Poor reducing	59	5.67	1.40	4.27	7.08
	Total	527	50.72	3.03	47.68	53.76
2	Good oxidizing	384	36.95	2.93	34.02	39.89
	Poor oxidizing	128	12.31	1.99	10.32	14.31
	Total	512	49.27	3.03	46.23	52.31

Table 16. Comparison of reducing and oxidizing pottery.

The analysis of Table 16 clearly indicates that reducing and oxidizing pottery are present in equal proportions: 50.72%±3.03% or 47.68% – 53.76% and 49.27%±3.03% or 46.23% – 52.31%. Even taking into consideration only the good reducing and good oxidizing pottery, one can still note that the proportion between them is at another level than the one declared by the author – good reducing pottery represents 45.04%±3.02% or 42.01% – 48.06% and good oxidizing pottery – 36.95%±2.93% or 34.02% – 39.89%.

In a work on the Early Neolithic in the area of Transylvania¹², the authors used percentages. In general, they employed 1245 fragments from five samples (188, 382, 141, 423, and 111) in order to *analyze the statistics of the pottery*. In their description of the ceramic material discovered inside dwellings, the authors prefer to use percentages alone, without stating the real quantity of the samples they used. Therefore, dwelling H10/2003 part of the Starčevo Culture contained according to the authors 83% fine and semi-fine pottery and 17% coarse pottery. (In their Table 1 the authors included the value of the three types of pottery – 155, 162, and 65 units) (Table 17).

¹² Luca, Suciú 2008, 39–56.

N=382	NO	P	ΔP	Min.	Max.
fine	155	40.57	4.92	35.65	45.50
semi-fine	162	42.40	4.95	37.45	47.36
coarse	65	17.01	3.76	13.24	20.78
	382	100			

Table 17. Percentual proportion of the types of Early Neolithic pottery from dwelling H10/2003 part of the Starčevo Culture (according to data provided by Luca, Suciuc 2008).

One must note that uniting the two main groups of pottery is justified, as the quantity of fine pottery (35.65%–45.50%) is statistically equal to the quantity of semi-fine pottery (37.45%–47.36%). These two groups are clearly different from the group of coarse pottery (13.24%–20.78%).

The authors identify 13 colors of the pottery items, though they only provide the percentages for six of them. The most numerous fragments are reddish – 27%, followed by *the most often encountered ones*: roasting of brick colour – 19%, dark brown – 11%, whitish brown – 10%, and cherry-color – 7%.

Since the percentages calculated by the authors are empirical (P), one needs to calculate the probable error (ΔP) and the confidence intervals (Min.-Max.) (Table 18).

N=381	NO	P	ΔP	Min.	Max.
reddish	104	27.29	4.47	22.82	31.76
brick	71	18.63	3.91	14.72	22.54
dark brown	44	11.54	3.20	8.33	14.75
grey	42	11.02	3.14	7.87	14.16
whitish brown	40	10.49	3.07	7.42	13.57
cherry-color	26	6.82	2.53	4.29	9.35
	327	85.60	3.52	82.08	89.12

Table 18. Percentual proportions of Neolithic pottery according to color, from dwelling H10/2003 part of the Starčevo Culture (according to data provided by Luca, Suciuc 2008).

Analyzing Table 18 one can see that the authors were not very careful in calculating the percentages, rounding their values selectively. The authors are right in placing reddish pottery on the first place, but on the second place they place not only roasting of brick colour, but also dark brown fragments. The third place is reserved for grey, whitish brown, and cherry-color pottery fragments.

Describing a dwelling [H1 (B1)], part of the Starčevo Culture, the authors provide percentual data on the pottery, without mentioning the actual quantity of the fragments. They also fail to provide data on the size of the pottery sample recovered from the dwelling in question. Their tables alone inform the readers that the sample consisted of 141 fragments (Table 19).

N=141	pottery	NO	P	ΔP	Min.	Max.
1	fine	52	36.87	7.96	28.91	44.84
2	semi-fine	58	41.13	8.12	33.01	49.25
3	coarse	31	21.98	6.83	15.14	28.82
		141	100			

Table 19. R Percentual proportion of the types of Neolithic pottery according to color, from dwelling H1 (B1) part of Starčevo Culture (according to data provided by Luca, Suciuc 2008).

Analyzing this table one must note the fact that coarse pottery (15.14%–28.82%) clearly differs from the other types of pottery. As for the groups of fine pottery (28.91%–44.84%) and semi-fine pottery (33.01%–49.25%), they are similar from a statistical perspective. Discussing the color of the pottery fragments' surface, the authors diminish the sample from 141 to 138 units. The largest percentage, according to their opinion, consists of brick-red pottery – 23%, while reddish fragments only represent 13%.

	N=138	NO	P	ΔP	Min.	Max.
1	Reddish	18	13.04	5.61	7.42	18.66
2	Grey	9	6.52	4.11	2.40	10.64
3	Dark brown	13	9.42	4.87	4.54	14.29
4	Whitish brown	26	18.84	6.52	12.31	25.36
5	Brick-red	32	23.18	7.04	16.14	30.22
6	Cherry-color	16	11.59	5.34	6.25	16.93
7	Brown-reddish	2	1.44	1.99	0	3.44
8	Yellowish	8	5.79	3.89	1.89	9.69
9	Black-grey	1	0.72	1.41	0	2.13
10	Light-brown	12	8.69	4.70	3.99	13.39
11	Brown	1	0.72	1.41	0	2.139
		138	100			

Table 20. Percentual proportion of the types of Neolithic pottery from dwelling H10/2003 part of the Starčevo Culture (according to data provided by Luca, Suciú 2008).

Data in Table 20 shows that the first position is held not only by the brick-red fragments (16.14%–30.22%), as the authors maintained, but also by whitish brown (12.31%–25.36%), reddish (7.42%–18.66%), cherry-color (6.25%–16.93%), and dark brown (4.54%–14.29%) fragments.

Referring to the analysis of the complex discovered inside the Cauce Cave, where a relatively small sample has been found, consisting of 111 units, one remarks that the authors present it as equal to the 114 units in Table 3 and the 110 units presented in Table 4. The proportion between the types of fine, semi-fine, and coarse pottery are presented in percentages – 37%, 57%, and 6%, that include 41, 63, and 7 fragments, respectively.

N=111	NO	P	ΔP	Min.	Max.
fine	41	36.93	8.97	27.95	45.91
semi-fine	63	56.75	9.21	47.54	65.97
coarse	7	6.30	4.52	1.78	10.82
	111	100			

Table 21. Proportion of the types of Neolithic pottery discovered in the complex inside the Cauce Cave (according to data provided by Luca, Suciú 2008).

According to data in Table 4, all the pottery groups strongly differ from a statistical perspective, since their confidence intervals do not overlap.

Passing on to the description of the first migration of the Neolithic population from Transylvania, the authors approach the issue from the perspective of animal herding, trying to show the dynamics of this phenomenon. Thus, on the site from Gura Baciului, the goats represent 33.2% of all domestic animals. Unfortunately, except for the percentual proportions, the authors do not provide other data on the basis of which they have calculated the empirical percentages. The authors proceed in a similar manner when they describe the second migration wave, stating the fact that in the complex from the Cauce Cave, goat and sheep bones represent ca. 75% of the entire bone material discovered; domestic pig bones represent 11.9%, while *boss taurus* represent only 3.5%.

The difference in percentages is so great that, involuntarily, one ranks the goats and sheep first, pigs second, and *boss taurus* third. Readers must trust the authors' words since he/she does not know if these percentages were calculated starting from the number of bones (NO) or the minimum number of individuals (MNI). In order to clarify things, we had to return to the source¹³.

The analysis of the bone remains from the Starčevo-Criș Culture layer of the complex discovered inside the Cauce Cave is represented by a number of 727 units, out of which 631 are bones that can be determined. Among these, domestic animals represent 570 units, coming from 60 individuals. Since the authors of this work analyze the development level of animal husbandry we believe wild animals

¹³ Luca et al. 2005, 98.

should be excluded from the calculations. Thus, the data can be presented according to the following table (Table 22).

Species	NO	P±ΔP	Min.-Max.	MNI	P±ΔP	Min.-Max.
Sheep/Goat	473	82.98±3.08	79.89 – 86.06	45	75.0±10.95	64.04–85.95
Pig	75	13.15±2.77	10.38 – 15.93	10	16.66±9.43	7.23–26.09
Bull	22	3.85±1.58	2.27 – 5.44	5	8.33±6.99	1.33–15.32
Total	570	100		60	100	

Table 22. Proportion of domestic animal species from the complex inside the Cauce Cave (according to data provided by Luca *et al.* 2005).

The analysis of the table indicates that according to the number of bones (NO) goats and sheep form up a percentage of 82.98%±3.08% or 79.89% – 86.06%, while according to the minimum number of individuals (MNI) they represent 75.0%±10.95% or 64.04% – 85.95%. No doubt, this species ranks first, but the authors have provide an inexact percentage, since it was calculated starting from the entire sample (N=631), that also included wild animal bone remains.

Domestic pig remains represent a percentage of 13.15%±2.77% or 10.38% – 15.93% while according to the minimum number of individuals (MNI) they represent 16.66%±9.43% or 7.23% – 26.09%; *boss taurus* individuals represent a percentage of 3.85%±1.58% or 2.27% – 5.44%; as for the minimum number of individuals (MNI), they consisted of 8.33%±6.99% or 1.33% – 15.32%. The above mentioned percentages indicate the fact that these two animal species are equally represented since their confidence intervals overlap. For this reason, the opinion according to which the percentage of bovine remains ranks last is incorrect.

One must note that through the present study we did not aim at analyzing the statements of some researchers, expressed in their works. For us it was important to follow the correct or erroneous use of percentages and percentual proportions on the basis of which researchers reach certain conclusions.

Making a short abstract of the results of our analysis of the studies presented above, one must state that due to the erroneous use of percentages and the hiding of actual data regarding the samples under analysis, the value of some authors' opinions and one's trust in their research is strongly diminished.

It would be very important for researchers employing percentages and percentual proportions to present details on the size of their samples based on which they computed such percentages. Since the samples used by archaeologists are almost always partial, the percentages calculated starting from these samples represent empirical percentages (P). This type of percentages requires corrections through computing the probable error (±ΔP) and the confidence intervals (min.-max.). In this case, researchers are forced to present percentages together with the probable error (P±ΔP) that is similar to the notation of C14 radiocarbon dating.

Thus, researchers' opinions based on quantitative data and accompanied by percentages with the probable error and the confidence intervals will become more reliable.

In order to calculate the probable error ±ΔP we suggest the following formula:

$$\Delta P = t \sqrt{\frac{P(1-P)}{N}}$$

where

For a significance level $\alpha = 0,05$, i.e. with 95% certainty for the width of the confidence interval, the following formula applies:

$$\Delta P = 1.96 \sqrt{\frac{P(1-P)}{N}}$$

Generally speaking, t value equals the Student's distribution quintile. With quantity $N \rightarrow \infty$ according to the Central Limit Theorem value $t \rightarrow 1.96$. The $t = 1.96$ coefficient corresponds to the so-called large sample $N > 30$. In this case, Student's t limit distribution tends to the normal distribution or Gauss' distribution.

P – notation of the empirical percentage

ΔP – delta P or the probable error for the empirical percentage (P)

NO – quantity of material according to which the percentages are calculated

1 – 100%

1.96 – the coefficient that coincides with the 95% level of authenticity, i.e. the probability of an event to take place is of 95% (in statistics, this percentages is a very high level), while it is possible, in 5% of the cases, that the event does not take place.

If the level of probability equals 50%, then one can state, related to the event taking place, that it can take place or not, in equal measure.

The suggested formula can be created as a small program implement through “Microsoft Excel”.

The use of this formula for calculating the probable error and the confidence intervals helps researchers obtain correct data and will prevent them from reaching erroneous conclusions.

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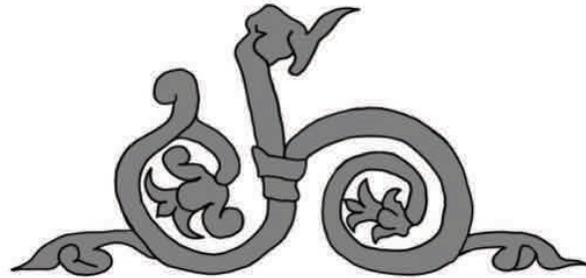
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Between *sacred and profane* – a discovery belonging to the Coțofeni Culture inside “Stanu Cerbului” cave (Bihor County)*

Călin Ghemis, Tudor Rus, Robert Kovacs¹

Homage to Emödi János

Abstract: This brief paper presents a recent ceramic find, discovered inside “Stanu Cerbului” Cave in Vida Valley. One can remark a pattern which is specific to the Coțofeni Culture, in its third stage of evolution. The other three situations in which vessels were discovered in caves: Igrîța, Izbândiș and Moanei, seem to prove a special religious behavior regarding a subterranean deity. These discoveries prove the fact that ritual places were often used in the last stage of the Coțofeni Culture, under others cultural influences, and, as we know from the literature, they are specific to the Pădurea Craiului Mountains.

Keywords: Copper Age, Caves, deposit, ritual, archaeology.

Emödi János, “Jáncsi bacsi” for those close to him, is one of the prominent figures of cave archaeology in Bihor. Passionate about the archaeology of the “world beyond” – of the caves in the Apuseni Mountains and other areas – “Jáncsi bácsi” took care of tenaciously and professionally recovering materials that would have been otherwise lost and he especially took care that these materials saw the light of print, in various publications². In fact, no research of the endokarst of the Apuseni can be made without making reference to the work, comprising more than 40 titles, of the archaeologist from Oradea. The numerous hardships he endured during the period of the “great accomplishments of Socialism”, the difficulty of performing some researches, such as those in Izbucul Topliței Cave, did not make him give up his passion.

Transylvanian archaeology owes him the definition of new cultural horizons, extremely important for the knowledge of prehistory in this area, i.e. the Roșia and Igrîța groups, the discovery of the settlement in Tășad, and the recovery of a significant part of the deposit in Cioclovina; these are but a few of the accomplishments of a man passionate about the archaeology and history of the place, that we wish to bring homage to through this contribution to the knowledge of the archaeology of caves.

Coțofeni Culture is one of the most representative cultures of the Transylvanian Copper Age; discoveries attributed to it cover an enormous geographical area, illustrated by the 1500³ spots with discoveries, among which 686 are in the area of Transylvania⁴.

The spirituality⁵ of this culture is a special one, with extremely diverse manifestations and, at the same time, manifestations typical to certain areas.

* English translation: Ana M. Gruia.

¹ The authors wish to thank their colleagues: Dr. Florin Gogâltan, for some suggestions, Dr. Victor Sava and Gruia Fazecaș for some bibliographic indications.

² Emödi 1978; Emödi 1980; Emödi 1980; Emödi 1982; Emödi 1984; Halasi, Emödi 1985; Emödi 1985; Emödi 1988; Emödi 1992; Emödi 1995; Emödi 1995; Emödi 1997; Emödi 2001; Emödi 2003a; Emödi 2003b; Dénes, Emödi 2003.

³ Popa 2009, 3.

⁴ One must make certain observations on the repertory of discoveries in H. Ciugudean’s synthesis work entitled *Eneoliticul final în Transilvania și Banat: cultura Coțofeni (Ciugudean 2000)*: on p. 63, no. 42, Aștileu is erroneously repertoried (town of Aleșd, Bihor County); “Peștera Igric” (correct Igrîța), at no. 440, Peștere (town of Aleșd, Bihor County), at no. 599. Șuncuiuș, “Igrîța” Cave, the reputed researcher certainly made reference to the discoveries in: Igrîța Cave, village of Peștera, municipality of Aștileu, Bihor County. Thus, his repertory, published in 2000, features three spots with Coțofeni discoveries, when in fact it is just one: Igrîța Cave.

⁵ Popa 2009, 672–864, the author discusses all the aspects related to the spiritual life of the Coțofeni Culture communities. A few corrections are needed in connection to the discoveries in caves located in Pădurea Craiului Mountains. The

The literature connected to cave archaeology indicates that there are few cultic depositions attributed to this culture. The more than 54 caves with Coțofeni materials analyzed by S. M. Petrescu were included in the wider category of seasonal shelters⁶. Besides, in the sixth chapter of this work, the above mentioned researcher distinguishes four type of functionality of caves in the area under discussion for the endokarst from Banat⁷.

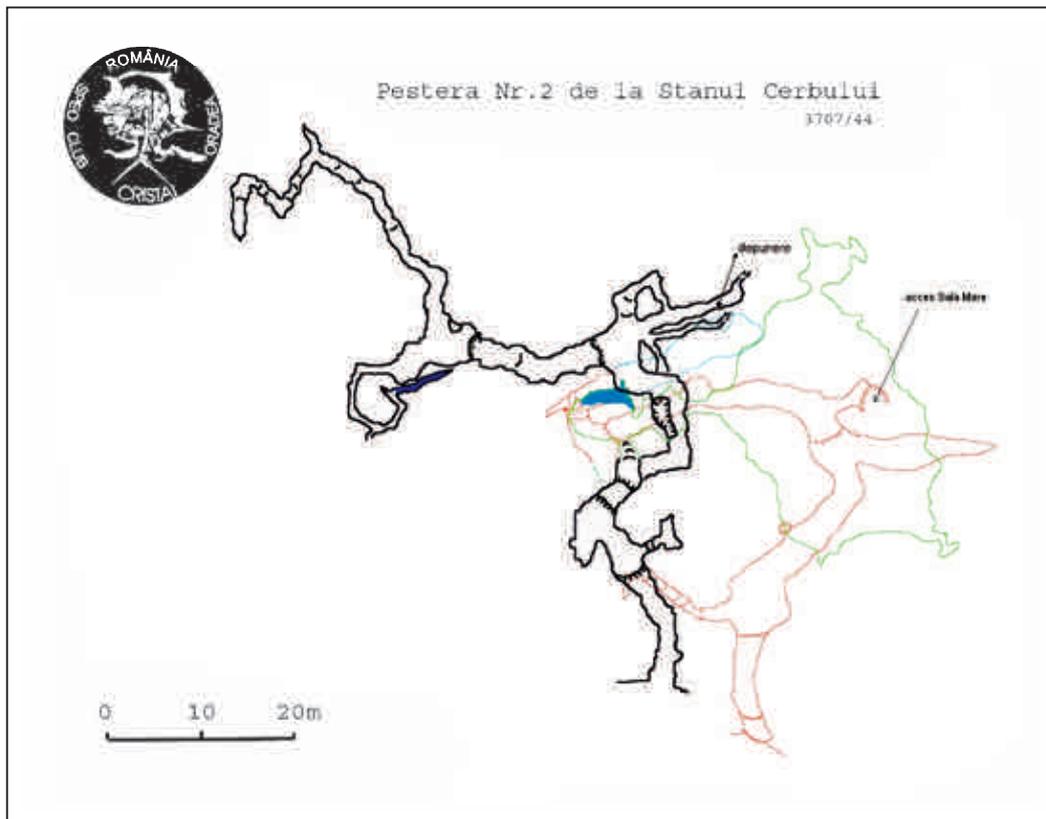


Fig. 1. Ground plan of the “Stanu Cerbului” karstic system.

The situation seems to be similar to south-western Transylvania, where C. Roman, identified no less than nine types of functionalities of the endokarst, but for the Copper Age only seasonal habitations are known⁸.

The majority of the discoveries mentioned above are concentrated in the areas inside the portals of the cavities that most often provided certain and easy-to use shelters.

During a visit in “Stanu Cerbului” Cave, a spot with materials belonging to the Coțofeni Culture was identified (Fig. 1–4)⁹. The on-site verification of this discovery, but also of the cave, has led to the identification of materials belonging to different eras¹⁰.

“Stanu Cerbului” Cave is located in the basin of the Vida Valley, approximately at the middle of it, on the right slope. This cave is part of a wider system, consisting of three caves that open in an extremely large abri. The mapping of the subterranean voids there was performed by members of the “Cristal” speleology club, coordinated by Victor Ursu. Out of the three galleries, the middle one,

materials mentioned by colleague C. I. Popa, taken from Emödi 1984, 405, are in fact materials published by Ghemiș, Sava 2004; in Șuncuiș, there is no Mișid Cave, but there is a Mișidului Valley, with a series of caves with prehistoric discoveries, some yet unpublished.

⁶ Petrescu 2000, 85.

⁷ Petrescu 2000, 75–83.

⁸ Roman C. C. 2008, 223–229.

⁹ The discovery was announced on 23.03.2014 by Tudor Rus; the team also included: Kovacs Robert, Cozma Lavinia, Frentiu Lucian, Lolea Camelia, Țucudean Rodica, Olah Radu, Rus Tudor (Speodava- Ștei) and Posmoșanu Andrei (The Romanian Speleology Federation).

¹⁰ On 22. 06. 2014 we have checked the discovery together with Alina Pitic, Dan Pitic, and Dezideriu Szabo, whom we thank for their support during the field researches.

known in speleological literature as “cave no. 2 in Stanu Cerbului”, code: 3707/44¹¹, is the subject of the present article (Fig. 1).

The research of the cave has led to the identification of two areas with on-surface archaeological materials, outside the gallery where the prehistoric deposition was discovered.

The first is located in the area of the cave entrance, where strongly rolled fragments of pottery were found, while the second is located ca. 15 meters apart, in a diverticulum on the left wall. One cannot exclude the possibility that the pottery fragments at the entrance were rolled on this spot during strong freshets inside the cave.

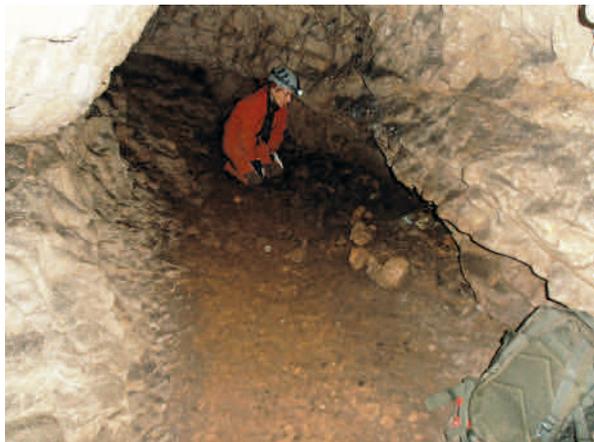


Fig. 2. The gallery with the Coțofeni deposition.



Fig. 3. The Coțofeni deposition.



Fig. 4. Detail the Coțofeni deposition.



Fig. 5. Detail the Coțofeni deposition.

Conditions of discovery

After following the route of the main gallery the cave branches to the left, after a threshold followed by a very tilted step and a chimney, on the right-hand side as one enters the gallery. From a geo-morphological perspective, the gallery is a fossil, suspended gallery. A vessel was deposited in the final part of the gallery, in a small niche, near a bovine hoof. The vessel was not covered with clay or rocks, but simply deposited on the gallery floor¹². In time it broke and some of the fragments show, in some areas, significant depositions of calcite. The deposition was not marked at the time it was made, or if it was, the materials employed were organic and have not been preserved. On the gallery floor one can note small fragments of coal, but also the bones of small animals.

¹¹ Goran 1982, 258.

¹² In a few cases, the vessels were deposited or broken during ceremonies performed outside the caves; besides the examples discussed in the text, we shall mention the discovery of a vessel belonging to the Roșia group discovered in the Meziad cave and a cup discovered in Peștera Roșie in Șuncuiș.

Description of the material

Average-size jug, with bulging walls, arched neck, and slightly flared rim, with rounded edge. The handle is high, strap-like, ornamented on the outer surface. The vessel was made of semi-fine fabric, dark-brown – blackish in color, the walls are unevenly smoothed, with black spots caused by secondary firing. The entire decoration of the item was made in the incision technique.

V-shaped stripes were incised on the handle, filled with dotted lines; a row of vertical lines feature at the base of the neck; the body of the item is decorated with V-shaped stripes, placed with the tip downwards, towards the bottom overlapped/intersected by oblique short lines. Dimensions: height: 22 cm, mouth diameter: 7.5 cm, maximum diameter: 19.9 cm, bottom diameter: 6.8 cm.



Fig. 6. Reconstructed jug (photo).

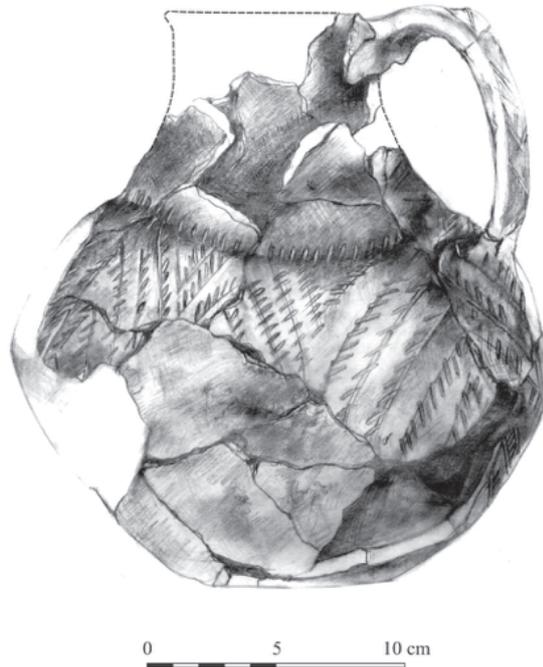


Fig. 7. Reconstructed jug (drawing).

Analogies

From the beginning we must mention that the majority of the analogies place the discovery in the cave under discussion during the third stage of evolution of the Coțofeni Culture.

According to P. Roman's 1976 typology, the jug discovered in "Stanu Cerbului" Cave belongs to Type X, variant 3, represented by jugs with arched walls, slightly flared and rounded rims, and strap handles.

Such vessels feature among discoveries from caves, for example in Igrîța Cave¹³, where an almost identical item was found, dated by Emodi during the third stage of the culture¹⁴.

Discussions

As proven by a series of discoveries from Transylvania and not only, caves were not only a certain shelter against harsh weather or a place of retreat during times of crisis.

The subterranean voids, through their sometimes supra-sized development, impressed people throughout prehistory. This led to the onset of an initial behavior with religious character. In the intimacy of the darkness and of the primordial silence, our ancestors have completed a dialogue between sacred and profane, or, according to I. Ghinoiu, between "the world here and the world beyond"¹⁵.

¹³ Emodi 1984, Fig. 2, no. 3; Fig. 5, no. 24.

¹⁴ Emodi 1984, 408.

¹⁵ Ghinoiu 1990, *passim*.

For prehistory, the archaeological documents are the most relevant sources, but they do not always provide data for the reconstruction of some profane or religious behaviors. We will never know the details of a funerary procession or of a process of founding new dwellings¹⁶, either Neolithic or from other eras.

Besides, this “immaterial archaeology” is in its beginning, not only in Transylvania, but in Romania in general, and the reconstruction of a ritual behavior is difficult in the absence of more in-depth researches¹⁷. It was through chance that the discoveries of the Coțofeni Culture enjoyed more attention from prehistory researchers and thus its monuments are much better known than those of other cultures¹⁸.

Before discussing the elements of ritual connected to this type of discovery, we will present a few discoveries that contribute substantially to the creation of an image on this type of deposition.

Izbîndiș Cave is located in Izbândișului Valley (municipality of Șuncuiuș, Bihor County), above the intermittent spring bearing the same name; one can access the cavity with difficulty. During some archaeological researches, J. Emődi recovered among the boulders of the first room, fragments of an amphora and other, atypical pottery fragments¹⁹.

Igrița Cave is located in a dominant area on the left slope, inside the boundaries of the village of Peștera, municipality of Aștileu, Bihor County. From here, the same J. Emodi recovered a series of artefacts belonging to the Copper Age and the end of the Bronze Age. For the issues hereby discussed, the discovery made in the entrance to the “Long Gallery” of the cave is extremely important. Fragments from an amphora and two cups were recovered from the floor of the cavity, that the discoverer included in the thirds stage of the Coțofeni Culture²⁰.

Moanei Cave is located in the end of Mișidului Valley (municipality of Șuncuiuș, Bihor County), in the vicinity of Lesiana Cave. During an exploration expedition in August 1980, a team under the leadership of T. Borodan discovered a deposition on a bench located eight meters high and 70 m away from the entrance of the cave; the deposition contained three vessels, of which one entirely preserved²¹. The discovery has been dated to the third stage of development of the Coțofeni Culture²².

As the conditions of the discovery in “Stanu Cerbului” Cave – Valea Vida (village of Luncasprie, municipality of Dobrești, Bihor County) have already been discussed above, we will just stress the fact that access to the area of deposition is difficult in this case as well, and for people of the Copper Age it was much harder to reach the area.

The above descriptions indicate the fact that in all the cases the vessels were deposited in isolated areas of the caves, some hard to access. A common trait of these discoveries is the fact that in the majority of cases the deposited vessels are items for the storage of foodstuffs or liquids (amphorae, jugs, cups) and in a single case drinking vessels (mugs).

Another observation that must be made is that the vessels deposited in caves are common wares, not vessels with special function or those created to be used during ceremonies/rituals and thus with a restricted period of use. In almost all cases, traces of ash or coal fragments were also identified in the areas with discoveries.

The areas where these depositions were identified are improper to habitation and this indicates that the mentioned complexes should be interpreted rather as discoveries belonging to the spiritual life of the Copper Age people. This interpretation has been accepted by the majority of researchers who have dwelled upon the vestiges of this culture²³.

The discovery of these areas with depositions in the deep areas of the caves opens up the possibility of wider discussions on what F. Gogâltan labeled ten years ago as the “archaeology of ritual”²⁴.

¹⁶ Ciută 2010.

¹⁷ Among the synthesis works connected to the subject, somewhat hidden, of theoretical archaeology in Romania, we mention here the synthesis work published by in M. Anghelinu 2014 (Anghelinu 2014).

¹⁸ Gogâltan, Molnar 2009 or Popa 2009, with the old literature.

¹⁹ Emodi 1984, 407.

²⁰ Emodi 1984.

²¹ Ghemiș, Sava 2004, 19–31.

²² Ghemiș, Sava 2004, 21.

²³ Among the expressed opinions we will remind C. I. Popa’s; he lists all references made to the discoveries in caves, especially those connected to Igrița Cave in the Crișul Repede Gorge, according to Popa 2009, *passim*.

²⁴ Gogâltan 2004.

The resorts that determined the Coțofeni Culture communities to perform such depositions remain in the intimacy of the Copper Age people; our duty is to try and explain these depositions/offerings.

The majority of researchers of Transylvanian prehistory agree that the third stage of the Coțofeni Culture marks its peak territorial expansion. At the same time, a natural phenomenon of acculturation took place in some areas and this led to the formation of new cultural aspects/groups.

The regionalization of the culture²⁵ during this stage causes the onset of new phenomena connected to the “special” character manifestations, i.e. ritual ones.

The fact that no such manifestations existed or at least that no depositions that can be connected to the spiritual life of people part of the Coțofeni Culture were found in the caves from Transylvania²⁶ or Banat²⁷ can be an indication in interpreting such discoveries as specific to a certain group or, better said, to a certain group of Coțofeni population, to the definition of which one can add this component of the habit of making offerings inside caves. On the other hand, this aspect can reflect a stage of research and a lack of more detailed explorations of the endokarst in the above mentioned areas.

The presence of special places²⁸, of consecrated areas, or better said of places endowed with spiritual load, the existence of patterns in the organization of a these depositions marks the beginning of a tradition that was to survive over several generation and that would lead, in our opinion, to the onset on necropolises inside caves²⁹.

There is, naturally, a possibility, adopted by numerous specialists in prehistory, to interpret all discoveries made inside caves through the perspective of ritual depositions. We believe that discoveries must be analyzed carefully and especially with caution.

It is impossible to establish the place of the individual in this dialogue between the visible and invisible worlds, but the patterns noted on the occasion of the analysis of the discovery under discussion are obvious and they lead to the idea of a subterranean deity, whose attributes remain unknown but whose importance for a certain group of the Coțofeni Culture is hereby underlined. Future researches may bring new contributions to what our colleague C. Roman labeled under the wider notion of “sacred geography”³⁰; this phenomenon is not impossible and its existence will have to be proven through new approaches of discoveries from caves and especially, from mountainous areas.

The discovery of such depositions indicates the fact that this group preferred the area of the Apuseni Mountains and more specifically that of the Pădurea Craiului Mountains; it is nevertheless not excluded that such discoveries will be made also in other areas with an endokarst just as spectacular as the one in the western region of the Carpathians.

Without pretending to have settled the so very attractive issue of prehistoric depositions inside caves, to which we shall return, we will end, instead of a conclusion, with a paraphrase of J. P. Bayard after M. Random: *“la porte étroite était pour nous ancêtres, celle qui conduisait au lieu le plus sacré de la caverne. La communion avec les dieux devait se mériter par une progression difficile, symbole de la mutation de l’homme, e sa régénération nécessaire à l’approche du sacré”*³¹.

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²⁵ Among the contributions of recent years we mention those of Sava 2008, a final discussion connected to the final stage of the Coțofeni Culture and its relations to neighboring cultures in: Popa, Fazecaș 2013.

²⁶ Roman 2008, *passim*, with the older bibliography connected to the archaeology of caves in the studied area.

²⁷ Petrescu 2000, *passim*.

²⁸ On some cult places in prehistoric Europe: Kacsó 1999.

²⁹ This fact is argued by the recent discovery in the portal of the Meziad Cave, where a ring of rocks located inside the portal, marked since prehistory by a boulder of impressive size, of a human skull with traces of perimortem blows; several pottery fragments and animal bones, among which one with obvious traces of secondary firing, were also discovered beside the skull. The entire complex can be date don the basis of the pottery fragments to thee third stage of the Coțofeni Culture.

³⁰ Roman 2008, 225.

³¹ Bayard 2009.

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Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch- Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

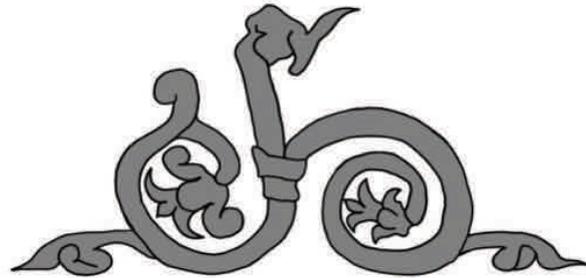
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thrac-Dacica	<i>Thrac-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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Out of ordinary or common burial practice? A Funerary Discovery from the Baden Settlement at Sântana “Cetatea Veche”*

Victor Sava, Luminița Andreica, Xenia Pop, Florin Gogâltan

Abstract: The study brings to attention a discovery made in 2009 during excavations at Sântana “Cetatea Veche”. From a chronological view point, the finding in question belongs to the Baden settlement. It consisted of a pit which contained the osteological remains of a ten-eleven years old child, bones that were not placed in anatomical connection. The anthropological analysis revealed that the surface of the skull bore traces of violence. In addition to the human bone fragments, some pottery sherds, animal bones as well as coal and adobe were placed inside the pit. Similar discoveries were recorded and, in fact, the great number of contexts containing disarticulated human bones suggests a common practice through the end of the Copper Age. Part of a plain burial or of a sacrifice, either way the deposition of human skeletons inside settlements or in more peculiar places, such as caves, can be seen as a manifestation of the transcendent.

Keywords: Lower Mureș valley, Late Copper Age, Baden-style ceramic, violence, funerary discovery.

The Site

Due to the impressive size of the earthen fortification, the site from Sântana “Cetatea Veche”, came into the attention of scholars since the first half of the nineteenth century¹. Towards the end of that century, due to S. Márki’s works, “Cetatea Veche” became one of the most significant historical sites in the county of Arad². But it was only later, through the archaeological excavations led in 1963³, 2009⁴ and 2011⁵, that specialists increased their knowledge of the site in its entire archaeological complexity⁶.

The first mention of Baden-type artifacts found in the perimeter of this site appeared in a 1976 study signed by P. Roman, dedicated to artifacts representative for “the transition period between the Eneolithic and the Bronze Age” which were preserved in the collections of the Arad Museum Complex⁷. In the mentioned study, Roman illustrates a pottery fragment (inv. no. 13325) decorated with rows of circular impressions⁸, discovered by the archaeologists from Arad Museum in 1957, during their research⁹. The same information was later included in the monograph work about the Baden Culture

* English translation: Ana M. Gruia.

¹ Fábíán 1835, 91.

² Márki 1882, 112–121; Márki 1884, 185–194; Márki 1892, 39–40.

³ Rusu *et al.* 1996; Rusu *et al.* 1999.

⁴ Hügel *et al.* 2010; Gogâltan, Sava 2010.

⁵ Gogâltan *et al.* 2012.

⁶ According to present knowledge, the site’s existence began with some Tiszapolgár funerary depositions (Rusu *et al.* 1996, 18, Pl. II.1-Fig. a, V). During the excavation from 1963, in trench II above the sterile level, there was recorded a layer of deposit having about 1 m in thickness that included among isolated Tiszapolgár-type pottery shards, ceramic fragments typical to the end of the Bronze Age (Rusu *et al.* 1996, 17–18). More Tiszapolgár-type pottery fragments were discovered during the 2009 campaign, in trench S01, between the dirtlenses of the earthen rampart belonging to the third enclosure (Enclosure III), dated to the end of the Bronze Age. The Baden settlement is representative for another chronological horizon (Hügel *et al.* 2010, 302; Gogâltan, Sava 2010, 29, Gogâltan *et al.* 2012). As far as we know, a fortification was built towards the end of the Bronze Age and developed throughout three stages (Rusu *et al.* 1996; Rusu *et al.* 1999, Hügel *et al.* 2010; Gogâltan, Sava 2010, Gogâltan *et al.* 2013). Both excavations and systematic field researches led to the identification of traces corresponding to an isolated habitation from the third-fourth and 18th–19th centuries.

⁷ Roman 1976a, 31.

⁸ Roman 1976a, Pl. 2/5.

⁹ The data from the inventory registry belonging to the archaeological department of the Arad Museum Complex were not conclusive with regards to the type of the research mentioned by P. Roman in his work. For as far as we know, the only

on the current territory of Romania¹⁰, as well as in the repertory of Arad County¹¹, and in a study dealing with the end of the Copper Age on the Western Plain of Romania¹².

As we have mentioned on other occasions, the 2009 and 2011 excavations confirmed the existence of a Baden settlement inside the earthen fortification. The archaeological excavation conducted in 2009 has led to the discovery of two pits that can be attributed to the Baden Culture¹³. Namely, the pit labeled Cx 03 which was identified in trench S02¹⁴, and pit Cx 04, under analysis here, found in S03 (Fig. 4–6)¹⁵. In 2011, another trench (S04), measuring 3 × 3 m, was opened in the North-Western part of the second enclosure (Enclosure II), by the railroad track (Fig. 2–3). On that occasion we were able to document a consistent layer of culture, of about 1 m in thickness, which contained numerous Baden-type pottery fragments, parts of a hearth, adobe, and a rich faunal lot¹⁶.



Fig. 1. The Baden settlement view from the east.

Due to the nature of the research performed so far, there is no other available data on the settlement belonging to the end of the Copper Age. The 2011 test trench proves the existence of a consistent culture layer, indicating a significant settlement¹⁷. Thanks to the investigations taken in 2009 and

excavations conducted in the '50s involved some small test trenches, investigated under the leadership of E. Dömer in 1953, as part of the works for the railroad construction (see Gogâltan, Sava 2010, 20–21). Given these facts, we cannot indicate, for now, the nature of the investigations under which the artifacts from 1957 were discovered, thus we will use the set expression – field researches.

¹⁰ Roman, Némethi 1978, 12, Pl. 4/6.

¹¹ Vasiliev, Barbu 1999, 113–114, pt. 4.

¹² Sava 2008, 56, pt. 65.

¹³ Hugel *et al.* 2010, 302.

¹⁴ Cx 03 was circular pit, identified as an agglomeration of adobe fragments. On the surface, its filling was represented by grey clay, pigmented with a lot of coal and adobe. The subsequent layers consisted of yellow soil, different from the archaeological sterile due to the presence of a few adobe and coal pigments. The archaeological material was represented by several pottery fragments, most of them atypical, a few animal bones, and some shells. The pit was rapidly filled with the soil extracted during its original dug; an indicator of this is, besides the composition of the filling, the pottery of the first layer that had matching fragments in the subsequent layer. The final dimensions of the pit were: length 1.96 m, width 1.88 m, absolute depth at identification 107.10 m, inner depth: 0.60 m.

¹⁵ The excavation system was presented in detail on another occasion (Gogâltan, Sava 2010, 28–29).

¹⁶ Gogâltan *et al.* 2012, 126.

¹⁷ One must note that no other Baden settlement, having a complex or a consistent stratigraphy, has been found so far in the Western Plain of Romania. Among the settlements with the most substantial depositions, we ought to mention Sanislău “Curtea fermei C.A.P.” (Sava 2008, 52), where the culture layer reached 0.70 m in thickness (Roman, Némethi 1978, 15, Iercoșan 1991, 43–60; Iercoșan 1993, 81; Némethi 1999, 45).

1963, one can at this point presume the north-eastern and eastern borders of the settlement (Fig. 2). In trenches S02 and S03, excavated in 2009 no deposition layer corresponding to the end of the Copper Age was identified. Likewise, in trench S01, which was set to cut through the fortification of Enclosure III, no Baden-type pottery was discovered, situation that corresponded to the one recorded for SII, dug in the 1963. It is for these particular reasons that one can state, with a fair degree of certitude, that pits Cx 03 and Cx 04 were located on the Eastern edge of the settlement.

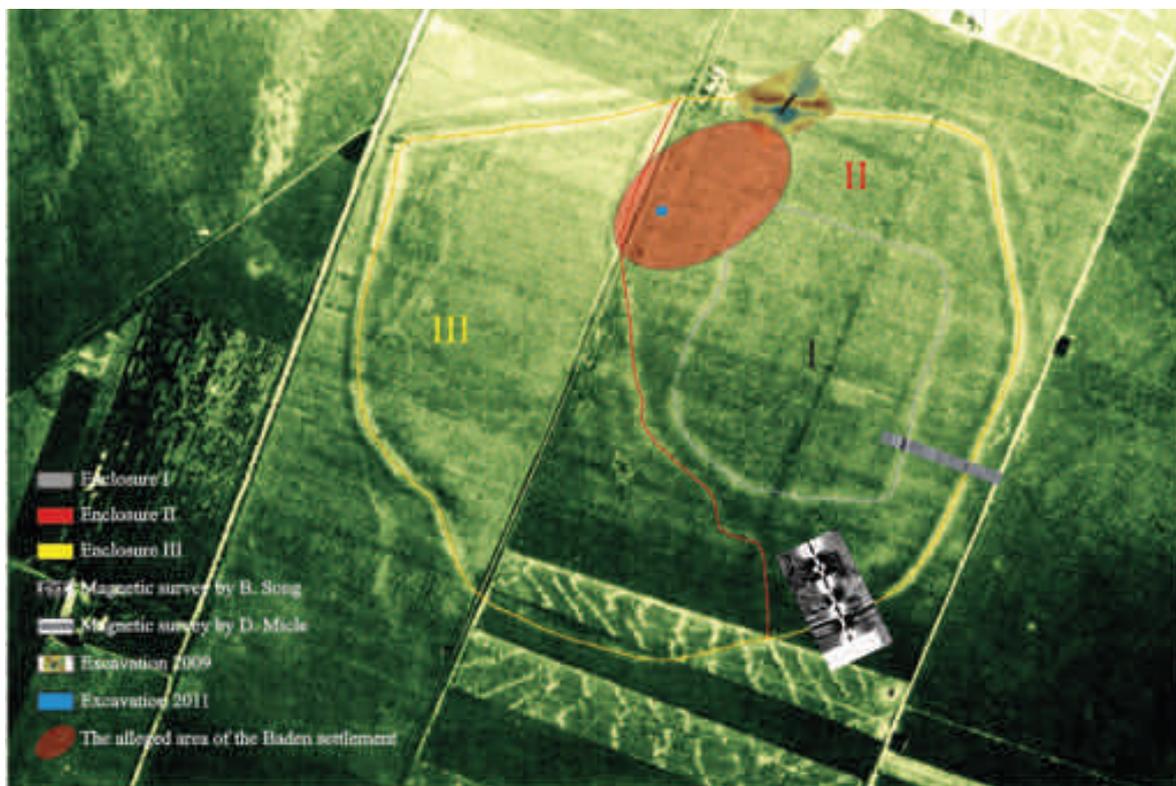


Fig. 2. Aerial photograph with the most recent researches marked.

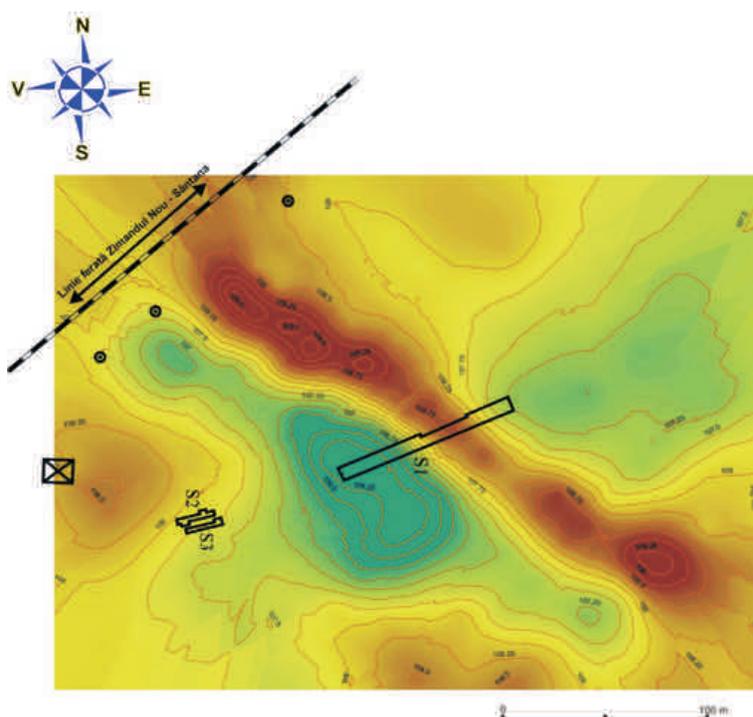


Fig. 3. Ground plan of the 2009 excavation.

Context of discovery

The excavation of trenches S02 and S03 was conducted in order to check if there was a culture layer corresponding to the Bronze Age fortification or any traces from the Baden settlement. The field researches led to the observation that both deposition layers, either the one from the end of the Cooper Age or that from the end of the Bronze Age, were strongly disturbed by modern agricultural works. Thus, we were able to identify only those complexes that went as deep as reaching into the archaeological sterile. A part of the complex, that was labeled Cx 04, was surprised in the eastern corner of trench S03, next to a pit-house (Cx 01), dated to the Modern Era (the eighteenth century) (Fig. 4). The complete uncovering of the complex required the extension of S03 with 1.5 m and the widening of the sector with 2 m. Regarding the excavation technique, the decision made was to correlate the successive horizontal sections with a stratigraphic profile, in order to obtain a clear perspective upon the sequence of layers. In order to do this, a square trench was opened on the eastern side of the pit.

The pit distinguished itself on the ground as a grey spot with a few traces of adobe. For a better understanding and documentation of it, we chose to excavate it in four successive, artificial layers (Fig. 5). Thereby, in the upper layer excavated, which ranged between the absolute depths of 107.12 and 107.17 m, there was identified an irregular agglomeration of adobe, surrounded by a soil very similar in color to the sterile one. The only difference from the latter was given by the traces of adobe that lent it a pale reddish color. At the same time, the filling was strongly pigmented with calcareous concretions. The removal of adobe (107.12–106.95 m) led to identifying a layer consisting of few adobe fragments, several pottery sherds, charcoal, and animal bones. The subsequent layer, identified between 106.95 and 106.80 m, contained a higher number of pottery fragments placed horizontally, as well as animal bones, and two agglomerations of charcoal and adobe. At the absolute depth of 106.75 m, we uncovered a fragmentary skull belonging to a young person, whose age ranged between ten and eleven years (*Infans II*). Some of the long bones were also preserved beside the skull. We were able to note at that point, how a large part of the skull and some of the long bones underwent thermal treatment. Also, by the skull there were several pottery fragments deposited horizontally, a small cup, preserved in its entirety, and a few shells. There should be noted that about half of the pottery discovered in this pit was identified in the layer above the human osteological remains. The total weight of the pottery deposited inside Cx 04 was 5.6 kg. The pit had the following dimensions: length: 1 m, width: 0.70 m, absolute depth from the level of identification: 107.86 m, inner depth: 0.20 m (Fig. 5, 6).

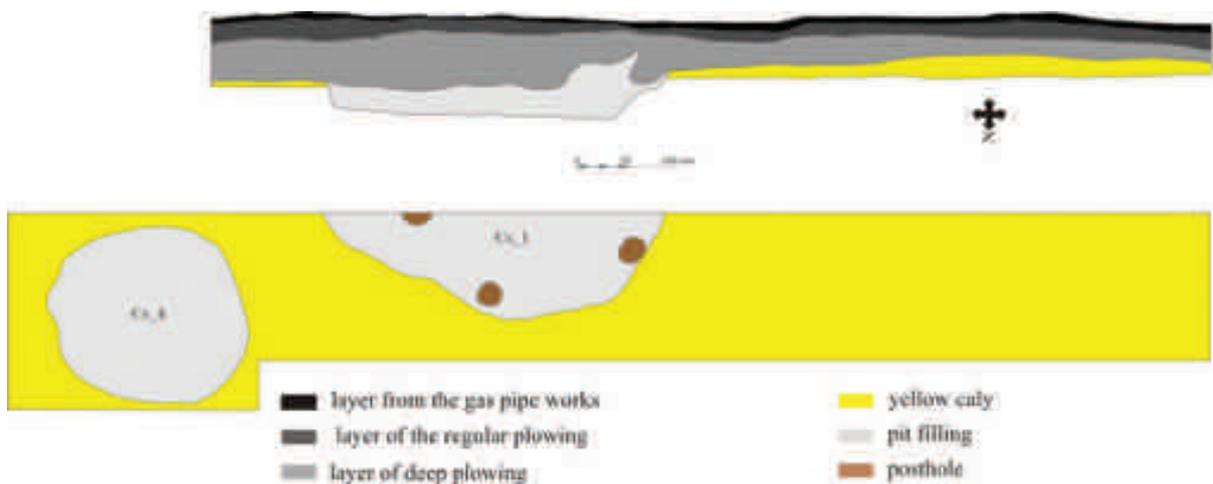


Fig. 4. Trench S03. Profile and horizontal planum.

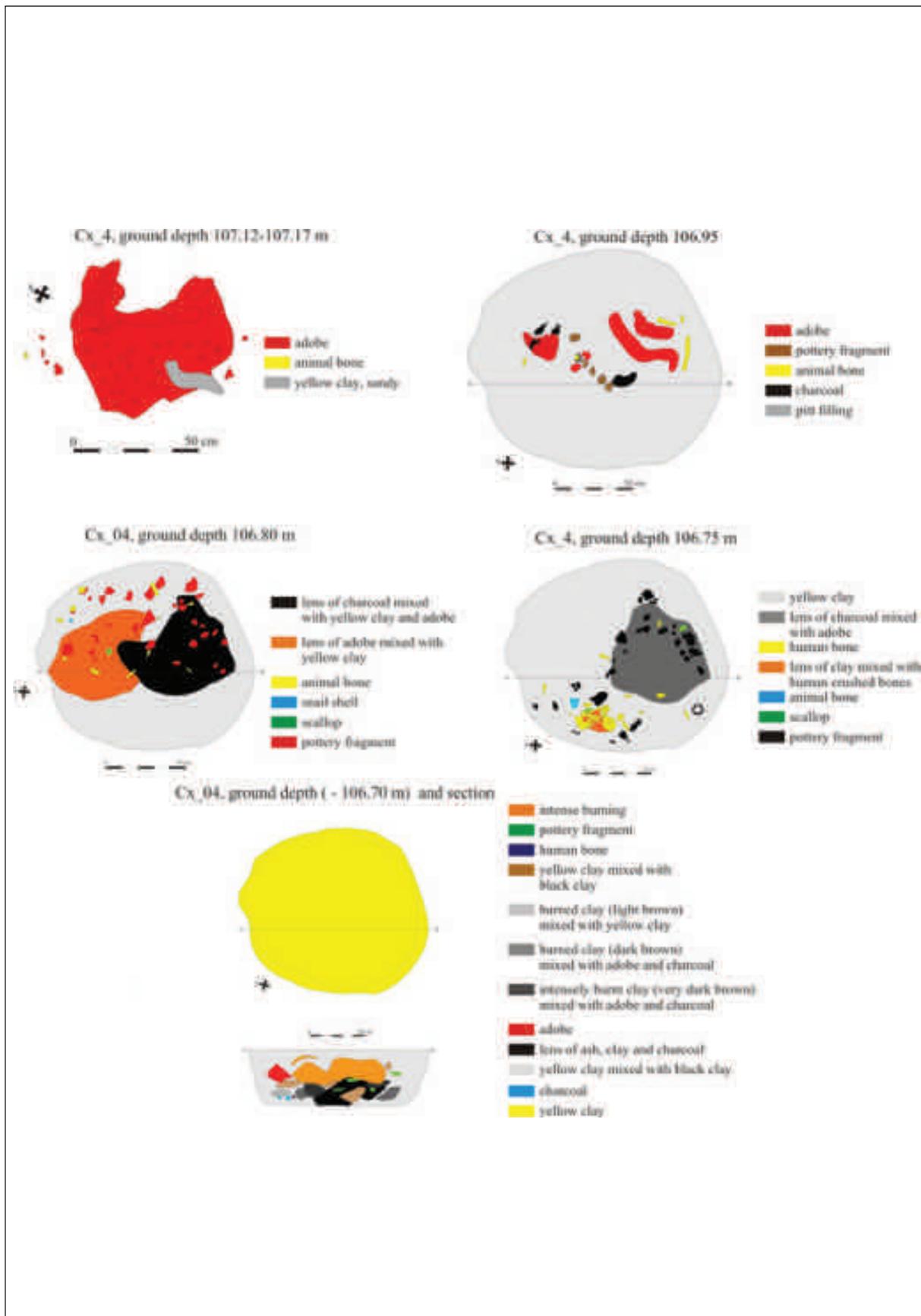


Fig. 5. Drawings of pit Cx 04.



Fig. 6. Photographs of pit Cx 04.

Catalogue of the illustrated pottery

1. Fragment of rim and belly (Fig. 7/1), small cup?, fabric with inclusions of sand, reducing firing, black in color (10YR-2/1)¹⁸, polished both outside and inside.
2. Fragment of rim and belly (Fig. 7/2), small-size tureen, fabric with inclusions of sand, oxidizing/reducing firing, dark yellowish brown in color (10YR-4/4) outside, dark gray inside (10YR-4/1), smoothed.
3. Fragment of rim and belly (Fig. 7/3), pot?, decorated with deep incisions, fabric with inclusions of small pottery fragments, oxidizing firing, reddish yellow in color (5YR-6/6) outside and pale brown (10YR-6/3) inside, poorly smoothed.
4. Fragment of rim and belly (Fig. 7/4), tronconic tureen, decorated with a rectangular prominence, fabric with inclusions of small sand grains, oxidizing/reducing firing, reddish yellow in color (5YR-6/6) outside, brown (10YR-4/3) inside, while the core is black (10YR-2/1), polished both inside and outside.
5. Fragment of rim and belly (Fig. 7/5), bitronconic pot, decorated with a rectangular prominence placed under the rim, two short incisions also placed under the rim, while on the belly it bear a decoration of "sunken triangles"¹⁹, fabric with inclusions of sand grains, oxidizing/reducing firing, reddish yellow in color (5YR-6/6) on the outside, while the inside and the core are dark gray (10YR-4/1), smoothed on the outside and polished on the inside.
6. Fragment of rim and belly (Fig. 8/1), fabric with inclusions of sand as temper material, reducing firing, black in color (10YR-2/1), polished both inside and outside.
7. Fragment of rim and belly (Fig. 8/2), fabric with inclusions of sand as temper material, reducing firing, dark gray (10YR-4/1), smoothed.
8. Fragment of rim and belly (Fig. 8/3), fabric with inclusions of sand as temper material, reducing firing, dark gray (10YR-4/1), polished inside and outside.
9. Fragment of rim and belly (Fig. 8/4), fabric with inclusions of sand and small pieces of crushed pottery as temper materials, reducing firing, reddish brown (5YR-4/3) inside and outside, with black core (10YR-2/1), smoothed.
10. Fragment of rim and belly (Fig. 8/5), fabric with inclusions of sand and small pieces of crushed pottery as temper materials, reducing firing, reddish brown (5YR-4/3) inside and outside, with black core (10YR-2/1), smoothed.
11. Fragment of rim and belly (Fig. 8/6), small-size tureen, reducing firing, dark gray (10YR-4/1), smoothed.
12. Fragment of rim and belly (Fig. 8/7), fabric with inclusions of sand as temper material, oxidizing/reducing firing, pale brown (10YR-6/3) inside and outside, with black core (10YR-2/1), smoothed.
13. Fragment of rim and belly (Fig. 8/8), bowl?, decorated with rows of circular incisions on the belly and alveoli on the rim, fabric with inclusions of sand as temper material, oxidizing firing, reddish brown (5YR-4/3), polished outside and inside.
14. Fragment of rim and belly (Fig. 8/9), small-size tureen?, fabric with inclusions of sand as temper material, reducing firing, black (10YR-2/1), polished both outside and inside.
15. Fragment of rim and belly (Fig. 8/10), pot?, decorated with two rows of impressions placed under the rim, fabric with inclusions of sand as temper material, oxidizing firing, reddish yellow (5YR-6/6), smoothed.

¹⁸ For color determination we used Munsell Soil-Color Charts 2009.

¹⁹ The term "sunken triangles" was used by P. Roman in Roman, Némethi 1978, 37, see also pl. 2/7, or according to Roman 1976, 26, pl. 36/16, ornament type Af.

16. Fragment of rim and belly (Fig. 8/11), pot?, fabric with inclusions of sand grains as temper material, reducing firing, dark reddish brown (5YR-3/3) outside and inside, with black core (10YR-2/1), smoothed.

17. Fragment of rim and belly (Fig. 8/12), small-size tureen, fabric with inclusions of sand as temper material, reducing firing, dark brown (10YR-3/3) inside and outside, and black core (10YR-2/1), smoothed.

18. Fragment of rim, belly, and base (Fig. 8/13), tureen, fabric with inclusions of sand as temper material, reducing/oxidizing firing, light reddish brown (5YR-6/4) outside and inside, and dark gray core (10YR-4/1), polished on the outside, smoothed on the inside.

19. Belly fragment (Fig. 9/1), decorated with deep incisions, fabric with inclusions of small pieces of crushed pottery as temper material, oxidizing firing, light reddish brown (5YR-6/4) on the outside, light yellowish brown (10YR-6/3) on the inside, and gray core (10YR-5/1), smoothed.

20. Belly fragment (Fig. 9/2), bowl?, decorated with circular impressions placed in rows, fabric with inclusions of sand as temper material, oxidizing/reducing firing, dark yellowish brown (10YR-4/4) on the outside, black (10YR-2/1) in the core and on the inside, polished outside and inside.

21. Belly fragment (Fig. 9/3), bowl?, decorated with circular impressions placed in rows, fabric with sand inclusions, oxidizing/reducing firing, dark yellowish brown (10YR-4/4) on the outside, dark gray (10YR-4/1) in the core and on the inside, polished both outside and inside.

22. Belly fragment (Fig. 9/4), decorated with deep incisions, fabric with inclusions of small pieces of crushed pottery as temper material, oxidizing firing, light reddish brown (5YR-6/4) on the outside, light yellowish brown (10YR-6/3) on the inside, and gray (10YR-5/1) core, smoothed.

23. Belly fragment (Fig. 9/5), decorated with deep incisions, fabric with inclusions of small pieces of crushed pottery as temper material, oxidizing firing, light reddish brown (5YR-6/4) on the outside, light yellowish brown (10YR-6/3) on the inside, and gray (10YR-5/1) core, smoothed.

24. Belly fragment (Fig. 9/6), decorated with deep incisions, fabric with inclusions of small pieces of crushed pottery as temper material, oxidizing firing, light reddish brown (5YR-6/4) on the outside, light yellowish brown (10YR-6/3) on the inside, and gray (10YR-5/1) core, smoothed.

25. Belly fragment (Fig. 9/7), decorated with deep incisions, fabric with inclusions of small pieces of crushed pottery as temper material, oxidizing firing, light reddish brown (5YR-6/4) on the outside, light yellowish brown (10YR-6/3) on the inside, and dark gray (10YR-4/1) core, smoothed.

26. Fragment of rim and belly (Fig. 9/8), pot?, fabric with inclusions of sand grains as temper material, oxidizing/reducing firing, reddish yellow (5YR-6/6) on the outside, dark yellowish brown (10YR-3/4) on the inside, and gray (10YR-5/1) core, smoothed.

27. Fragment of rim and belly (Fig. 9/9), pot?, fabric with inclusions of sand, oxidizing/reducing firing, reddish brown (5YR-5/4) on the outside, black (10YR-2/1) on the inside, smoothed.

28. Belly fragment (Fig. 10/1), decorated with circular impressions and incisions, fabric with sand inclusions, oxidizing/reducing firing, on the outside dark yellowish brown (10YR-4/4), while the core and the inside are black (10YR-2/1), polished both outside and inside.

29. Fragment of rim and belly (Fig. 10/2), tronconic tureen with handle placed under the rim, fabric with inclusions of sand grains, reducing firing, black (10YR-2/1), polished inside and outside.

30. Cup (Fig. 10/3), fabric with inclusions of sand grains, reducing firing, dark yellowish brown (10YR-4/4) on the outside and black inside, smoothed.

31. Handle fragment (Fig. 10/4), fabric with inclusions of sand grains, reducing firing, very dark grayish brown (10YR-3/2), smoothed.

32. Fragment of belly and handle (Fig. 10/5), fabric with sand inclusions, oxidizing/reducing firing, yellowish red (5YR-5/8), black (10YR-2/1) core, smoothed.

33. Base fragment (Fig. 10/6), fabric with inclusions of small pottery fragments as temper material, oxidizing/reducing firing, yellowish brown (10YR-5/6) outside, very dark gray (10YR-3/1) inside, smoothed outside, polished inside.

34. Handle fragment (fig. 10/7), fabric with inclusions of sand grains as temper material, reducing firing, dark brown (10YR-3/3) outside and inside, with black (10YR-2/1) core, smoothed.

35. Base fragment (Fig. 10/8), fabric with sand inclusions, reducing firing, brownish yellow (10YR-6/6), smoothed.

36. Base fragment (Fig. 10/9), cup, fabric tempered with small pottery fragments, oxidizing firing, dark yellowish brown (10YR-3/6), polished outside and inside.

37. Base fragment (Fig. 10/10), fabric with sand inclusions, reducing firing, black (10YR-2/1), smoothed.

38. Base fragment (Fig. 10/11), fabric with inclusions of sand and small pieces of crushed pottery as temper materials, oxidizing/reducing firing, reddish brown (5YR-5/4) on the outside, black (10YR-2/1) on the inside, smoothed.

As mentioned before, when the complex was described, we are dealing with a significant number of pottery fragments, of which the vast majority was placed horizontally, above the skeletal remains. Most of the sherds, from the lot of 5.6 kg of pottery identified in the filling of the pit are atypical. Regarding the degree of fragmentation, one should notice that a single pot was found in its entirety, i.e. the cup illustrated in Fig. 10/3; the shape of several other vessels can be reconstructed, though, as follows: two small tureens (Fig. 10/3,9), one bowl (Fig. 7/2), and probably a bitronconic pot (Fig. 7/5). As for the other forms, they can be established on the basis of available analogies. It is also important to mention that no trace of secondary firing has been observed on the surface of the pottery fragments. For as far as we can tell, the sherds belong to about 25–30 vessels.

Despite the fact that the research of the entire pottery lot found in Cx 04 is not the aim of the present study, we will briefly mention the main characteristics of the illustrated pottery. The predominant decoration is represented by deep incisions (Fig. 7/3,5; 9/1, 4–7), although circular impressions (Fig. 8/8; 9/2; 10/1), and knobs (Fig. 7/4–5) are also present. All types of firing are present in almost equal proportion. Oxidizing firing has rendered the vessels red or pale brown, while reducing firing has turned them dark brown, gray, or black. Another category consists of pottery fired both in the presence and absence of oxygen. As to the color range thereby obtained, it varies between red outside and brown inside to red or pale brown outside and gray inside. The technique of finishing the outer and inner surfaces, identified in the most cases is smoothing, sometimes of poor quality, though in several cases both surfaces have been polished.

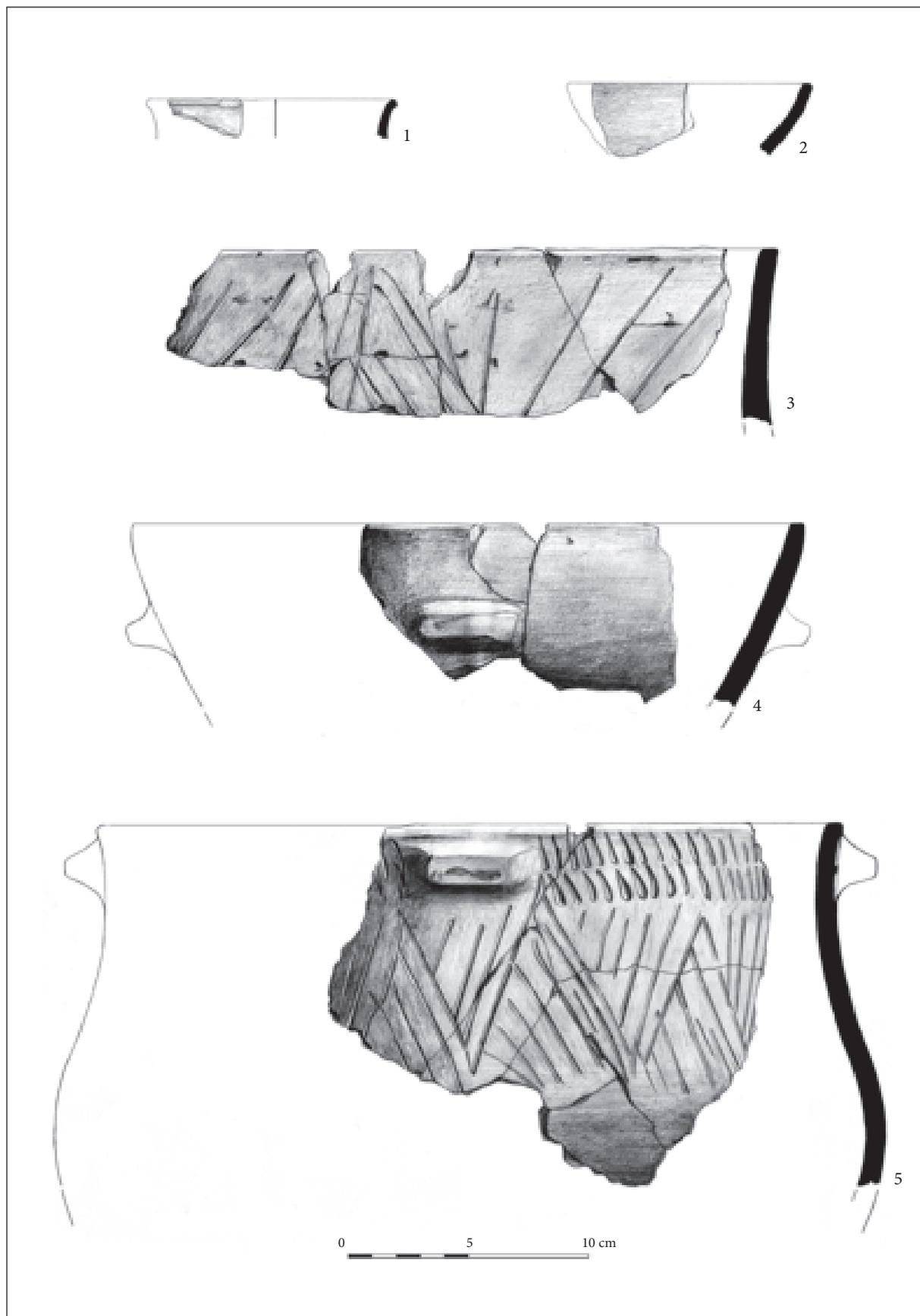


Fig. 7. Pottery discovered in pit Cx 04.

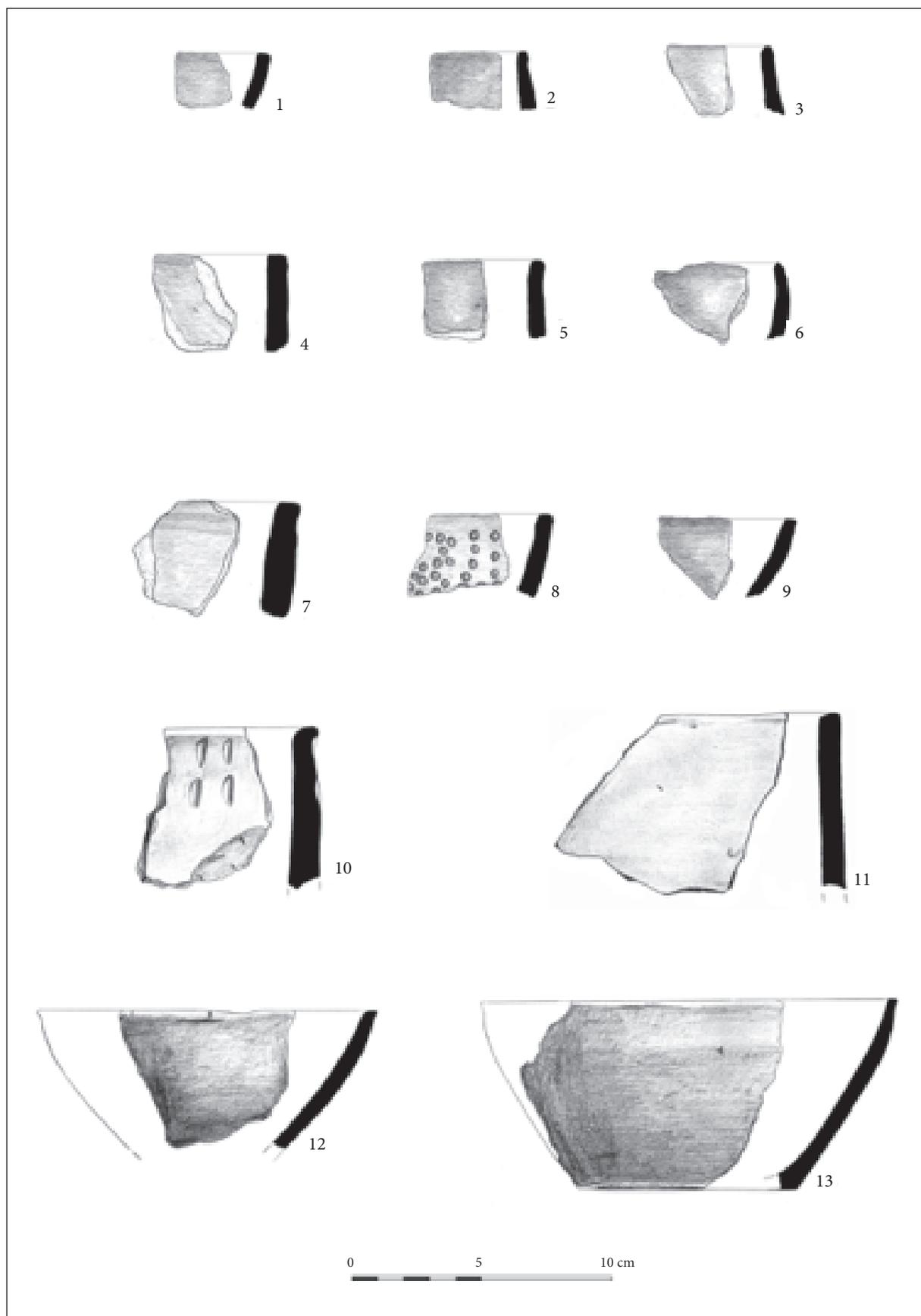


Fig. 8. Pottery discovered in pit Cx 04.

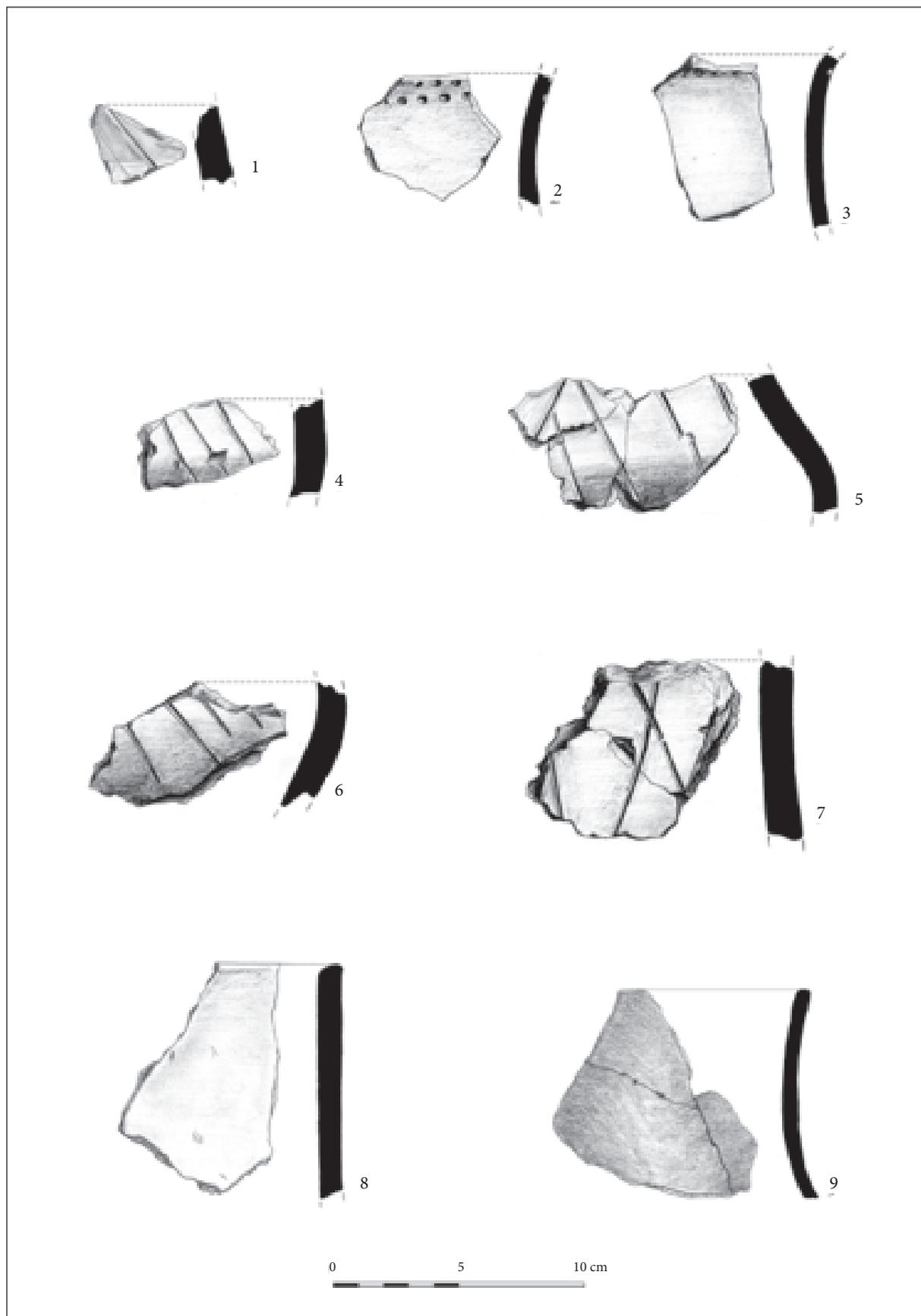


Fig. 9. Pottery discovered in pit Cx 04.



Fig. 10. Pottery discovered in pit Cx 04.

Anthropological analysis

The state of preservation and representation of the osteological fragments recovered from pit Cx 04 is rather poor. The cranial skeleton is the closest to completion, being represented by fragments from the frontal bone, the left-right parietal, right temporal, occipital, the basilar part, and the supraorbital margins with the orbital surface of the frontal bone. From the viscerocranium, archaeologists have recovered the nasal bones, one fragment from the right maxilla (displaying, in their alveoli, M1, M2, M3 permanent), and another fragment that includes two monoradicular teeth. Due to the changes induced by the elevated temperatures they have been subjected to, one cannot identify the teeth with certainty. From the mandible there were recovered the right mandibular body, corresponding to the alveoli of Pm1, Pm2, M1, M2, M3, and its mentonian area. The alveoli preserved I1, I2 right and I1, I2, C left. From the lower jaw was also identified the left coronoid.

The long bones are very poorly represented; the only diaphysis that was partially restored belongs to a femur, possibly the left one. Other fragments were identified as well: several diaphysis fragments, possibly humerus, radius or ulna.

Due to the poor state of preservation and representation of the unearthed bones, the teeth were the only indicators of age. On the jaw fragments one can observe, in the alveoli, three molars, among which molar 3 does not have the root formed, in case of molar 2 the detail is not visible, while in case of molar 1 the length of the root is $\frac{3}{4}$. On the mandible one can note a right-side molar 3 that has still not erupted and its root is not formed. Molar 2 on the right side is missing from its alveolus, and in the case of molar 1 one can note that the apex of the root is not closed. Besides, these dental items, three other were recovered, namely the other two permanent molars 3 and one permanent premolar, with roots unformed yet. Having all this data, and using Ubelaker's diagram of dental eruption²⁰, we could estimate an approximate age of 10–11 years.

The precarious state, under which the bones were found, impeded the determination of the individual's sex, as well.

We will, further on, try to interpret this case, by attempting to give the best suitable answers to a series of questions, such as: Were the traumas identified on the skull suffered during the perimortem or the postmortem interval? Was the individual burnt while the soft tissue was still present or after the corpse had skeletonized completely? How can one explain the color differences on the burnt fragments?

The recovered osteological fragments were found in a secondary-type deposition, while most of the bones, both cranial and postcranial, had undergone different degrees of temperature exposition. In order to obtain an explanation with regards to the way in which the individual was manipulated until the moment of his/her final deposition, one needs to analyze the traumas and reconstruct the taphonomic processes.

Six blows were identified on the skullcap (Fig. 11): five of them are visible on the frontal bone, while the sixth is located on the left parietal bone, near the coronal suture. All six traumas were inflicted with a blunt object or through hitting a blunt surface. When such a force is applied to the skull, it reacts in several ways: first there is a bending of the bone towards the inside, at the place of impact; if a stronger force is applied, fracture lines appear on the outer surface of the bone, in radial direction. In case the force is strong enough to pierce the bone, concentric fracture lines will form around the impact spot²¹. In the case analyzed here, one can suspect that the impact was rather strong, since most of the traumas have generated radial fracture lines. The nature of one of the traumas, located on the frontal bone, near the coronary suture, is also interesting. The particularity is given by the fact that it extends over a much wider area of the skull (it measures ca. 75 mm) and has the aspect of a cut-out piece from the cortex. The trauma was most probably inflicted with a blunt object that, at the moment of impact, also created the cutting-out from the outer plate of the bone.

All these injuries are specific to trauma inflicted to the hydrated bone²²; the fractures on the skull start from the area of impact and are placed radially, while the route of the fracture lines is linear. These details generate another question with respect to the moment when these traumas were caused.

²⁰ Buikstra, Ubelaker 1994, 51.

²¹ Krenzer 2006, 9.

²² Botella *et al.* 2000, 88.

Therefore, did the individual die because of the traumas, or were these traumas inflicted shortly after death? This matter ought not to be neglected, since fractures leave similar marks if inflicted less than 72 hours prior to the time of death or shortly afterwards, when most of the soft tissues are still present²³. It is precisely because of these facts, that we can only suggest an answer, based on the context of discovery. Therefore, one can presume that everything was part of a ritual; which would mean that the traumas in question might have been inflicted in order to kill the child, as a first stage of the ritual.

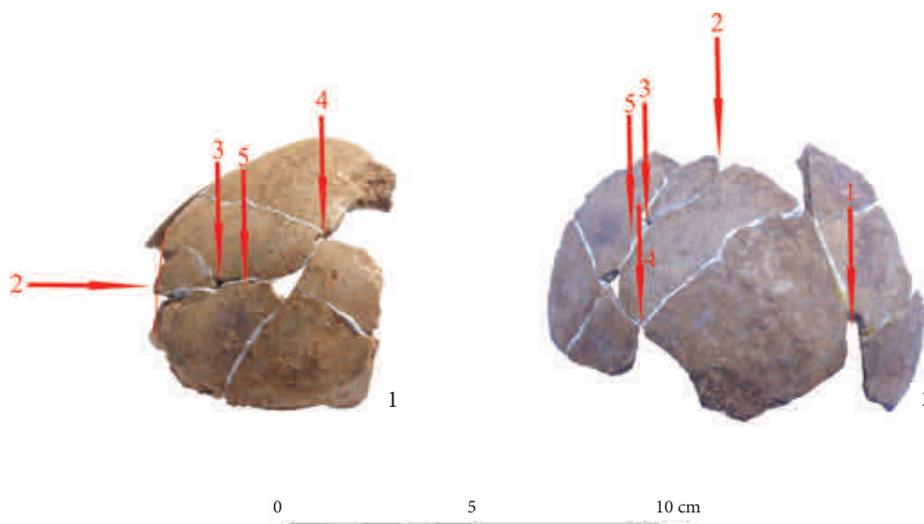


Fig. 11. Traumas to the skull inflicted with a blunt object, generating radial and concentric fracture lines, and bone depression.

Later, the body was left to become a skeleton, in the open air or inhumed. As to approximating the time required by its decomposition, one must take into consideration certain factors, among which the most important ones are temperature, humidity, and accessibility to the body. Temperature has a significant effect on the activity of carrion insects; in the case of bodies kept in environments with warm climate, the activity of these insects is accelerated and thus the decomposition is shorter than in the case of bodies stored in cold climates. Humidity also plays an important role in the process of body decomposition the process taking less time in humid areas than in dry areas. That is because the tissues dry slower in wet environments, allowing therefore a more intense activity of insects and other organisms. Also, when approximating the interval required by a corpse to decompose, it is essential to take into account, as a final factor, the accessibility of carrion insects to the body. As for the location of the body, decomposition is much faster for the corpses kept in the open air, than for those stored in less accessible places²⁴. P. S. Sledzik has analyzed the stages of decomposition according to the two main cases in which a corpse can be stored: in the open air or interred. According to him, the time necessary for a body to decompose in the open air varies between two months and two years, while in the case of interred corpses, the interval is somewhat longer, i.e. between 14 days and three years²⁵.

In the case of Cx 04, after the body became a skeleton, the remainings were exposed to high temperatures. This statement is supported by the aspect of the burnt bones, which is typical to osteological fragments burnt in the absence of soft tissue; the surface of the skull bones lacks strong modifications and the long bones are cracked lengthwise²⁶ (Fig. 12). If these fragments would have been burnt together with the soft tissues, the pattern of the fractures would have been completely different. In the case of long bones, to take an example, when being burnt while the soft tissue is still present, the fractures induced by fire are transversal and perpendicular to the main axis of the bone²⁷, due to the contraction of the muscles under the effect of heat²⁸.

²³ Botella *et al.* 2000, 85.

²⁴ Krenzer 2006, 4.

²⁵ Sledzik 1998, 109–119.

²⁶ Buikstra, Ubelaker 1994, 97.

²⁷ Botella *et al.* 2000, 73

²⁸ Juniper 2007, 98.

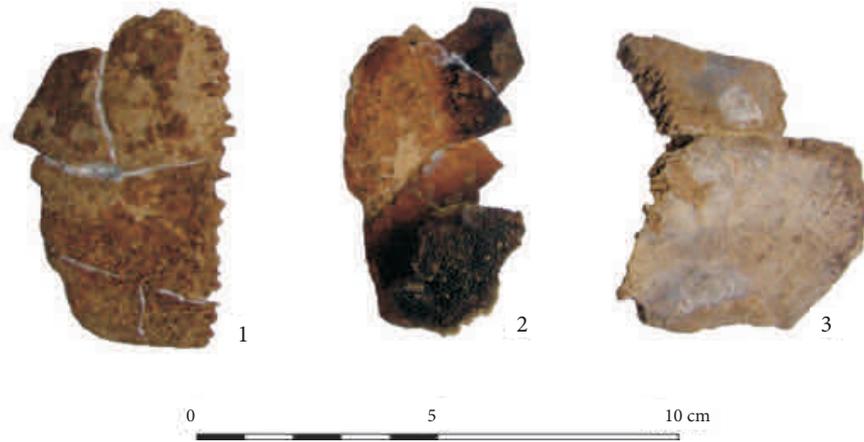


Fig. 12. Color differences among skull fragments under the effect of different temperatures (1: 185 °C – 285 °C; 2: 400 °C – 600 °C; 3: 600 °C – 900 °C).

One should note that the osteological remains have been subjected to different firing temperatures (Fig. 13). The partial reconstruction of the cranium has revealed that the majority of bones on the right side, but also fragments of the upper jaw have been subjected to the highest temperatures span; their color is bluish-gray and the firing temperature can be estimated at 600 °C to 800 °C²⁹, and 645 °C to 940 °C³⁰. Conversely, some occipital fragments along with a few long bone pieces were black, which means that the temperature they had been burned at was lower, of up to 400 °C.³¹ According to studies elaborated by the team led by P. Shipman, black can indicate temperatures varying between 525 °C and 645 °C³². Another osteological fragment from the occipital is reddish, with small asperities on the surface. In this case, the temperature was much lower, of ca. 185 °C – 285 °C³³ (Fig. 21).

These observations can lead to the following conclusion: the skull was placed in a position that allowed the highest temperatures access to the face bones and to the right side of the calvarium (Fig. 21).



Fig. 13. Modifications of the osteological fragments in the form of fissures and splinters, specific to bones burned in the absence of the tissues (1. Mandible fragment; 2, 3. Femur fragments).

²⁹ Buikstra, Ubelaker 1994, 95; Holck 2008, 99.

³⁰ Shipman *et al.* 1984.

³¹ Buikstra, Ubelaker 1994, 95; Holck 2008, 99.

³² Shipman *et al.* 1984.

³³ Shipman *et al.* 1984.

The last stage of the ritual consisted of the final deposition of the osteological remains. There are three possible explanations to the fact that this phase only envisaged some fragments of the long bones and of the cranial skeleton: the first hypothesis refers to the initial selection of these particular fragments to be burned; another one has to do with the process of selection among the bones in the fire; less probable in this case, due to the paucity of osteological fragments, the third hypothesis refers to possible accidental factors, such as the loss of some fragments during manipulation.

By carefully analyzing the photographs taken *in situ*, we were able to note that the cranial skeleton was mostly in anatomical position, with very few fragments displaced. In case of the latter ones, the explanation may reside in the fragmentation of the bones due to perimortem fractures or to fragmentation during firing, while the fact that some fragments were placed incorrectly in pit Cx 04 may be linked to their faulty manipulation.

Fractures that appear on carbonized and calcinated bones³⁴ require temperatures of at least about 500 °C³⁵. Such fractures were especially noted on the long bones; the majority of the cracks are parallel to the main axis of the bone, leading to the latter fracturing lengthwise. This type of fractures often appears in the case of burnt bones³⁶. Another proof is the identical color of the fracture margins and of the adjacent cortical surfaces, suggesting the fact that all of these surfaces were burnt³⁷. Such particular traces were identified both on the long bones and on the cranial skeleton.

Archaeo-zoological analysis

Besides pottery fragments and parts of a human skeleton, 220 paleo-faunal fragments have been identified in the filling of pit Cx 04. Out of them, only 42 could be identified. Their analysis has revealed the fact that they belonged to the following species: ovicaprids, bovines, canidae, leporidae, bivalvia (mollusk), and gasteropoda (snails). We also feel obliged to mention the presence of several bone fragments that have been identified anatomically, but we were unable to attribute to particular species. What can be said is that they certainly belonged to the groups of both large animals and small-average size animals (Fig. 14). Two bone fragments show traces of anthropic interventions. One is a lissoir (probably made of a cow's rib) and the second is an item with a sharp tip. As for the sample's state of conservation, it was rather fragmentary, as few bones have been entirely preserved (it should be mentioned here the ovine calcanea and astragali, and the bovine phalanges). Most of them are burnt. The burning is not equal; some of the bones are black, while the others are reddish-brown. The rest of the fragments show black spots or are completely calcinated. This strong fragmentation was caused by the exposition of the bones to high temperatures.

Species	NISP	%	MNI	%
<i>Ovis aries/Capra hircus</i> (Ovicaprid)	9	21.42	2 (ovis)	40
<i>Bos taurus</i> (Cattle)	5	11.90	1	20
<i>Canis familiaris</i> (Dog)	2	4.76	1	20
<i>Lepus europaeus</i> (Rabbit)	2	4.76	1	20
<i>Unio</i> mollusk	23	54.76		
<i>Snail</i>	1	2.38		
Total identified remains	42	100	5	100
Unidentified, large animal	Teeth 7 frag. Vertebra 1 Ribs 6			

³⁴ Juniper 2007, 51.

³⁵ Shipman *et al.* 1984.

³⁶ Symes *et al.* 2008, 42.

³⁷ Juniper 2007, 52.

Unidentified, small-average size animal	Vertebra 1 (apophysary) Ribs 5 Coxal 2 Long bone 1			
Unidentified, burnt	136			
Unidentified	19			
Total	220			

NISP- Number of Identifiable Specimens; **MNI**-Minimum Number of Individuals

Fig 14. Proportion of bones in the sample.

The group of ovicaprid is documented in pit Cx 04 through bones belonging to at least two individuals, aged over 2.5 – 3 years (Fig. 14). On the basis of the morphological aspects³⁸, we were able to determine the fact that the two individuals belonged to genus *Ovis aries* (sheep). One individual can certainly be identified as female. According to the biometric data collected, the size of the female can be calculated, i.e. 70.3 cm³⁹. Ovine bones are, in fact, one distal humerus (left), one distal tibia (right), one astragalus, and two calcanea from the right leg. Concerning the rest of the fragments (one distal femur and one femur head, one skull fragment, and one metatarsus diaphysis), we were unable to distinguish between sheep and goat (Fig. 15, 17).

Five osteological remains belong to cattle, more precisely to a single individual (Fig. 14–15). Given the degree of ossification of the primary phalanges⁴⁰, we estimate that the individual was older than 2 years at the time it was sacrificed (Fig. 16).

The canidae and leporidae species are only represented by one individual each. For the dog we have identified one fragment from an ulna and one patella (Fig. 19). Two osteological fragments belong to the rabbit: one distal femur⁴¹ and one distal tibia, both fragments from the left leg (Fig. 18).

The 23 shells represent the most numerous archaeo-faunal remains (Fig. 6/3–4, 14). We were able to note traces of firing on them.

		Bone segment	<i>Ovis aries</i> / <i>Capra hircus</i> (Ovicaprid)	<i>Bos taurus</i> (Domestic cattle)	<i>Canis familiaris</i> (Dog)	<i>Lepus europaeus</i> (Rabbit)
Axial skeleton	Cranium	Splanchnocranium	1 ovis/capra			
		Teeth		1		
Appendicular skeleton	Skeleton the forelegs	Humerus	1 ovis			
		Ulna			1	
		Metacarpus	1 (diaph.) ovis/capra			
	Skeleton of the hind legs	Femur	2 ovis/capra			1
		Patella		1	1	
		Tibia	1 ovis			1
		Astragalus	1 ovis			
		Calcaneus	2 ovis			
		Phalanx 1		3		

Fig. 15. Distribution according to anatomical segments.

³⁸ The differentiation between *ovis* and *capra* was made on the basis of Boessneck 1969 and Fernandez 2001.

³⁹ Size was calculated according to Teichert's 1975 coefficients – see Udrescu *et al.* 1999, 97.

⁴⁰ Udrescu *et al.* 1999, 60, 68.

⁴¹ We thank Dr. Alexandru Gudea from the Faculty of Veterinary Medicine in Cluj for his help in determining the rabbit femur, confirming other identifications, and especially for his precious advice on certain aspects related to the individuals.

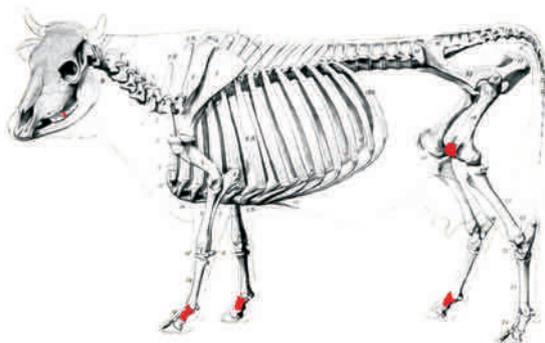


Fig. 16. Skeletal parts of the *Bos taurus* (in red).

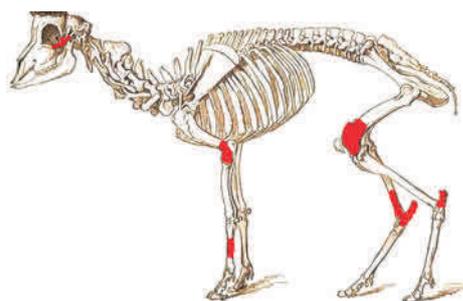


Fig. 17. Skeletal parts of the *Ovis aries*/*Capra Hircus* (in red).

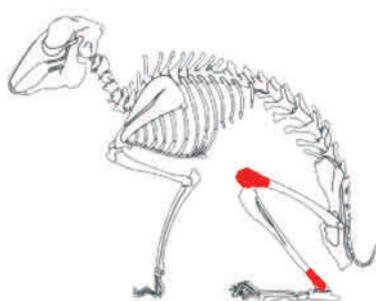


Fig. 18. Skeletal parts of the *Lepus europaeus* (in red).

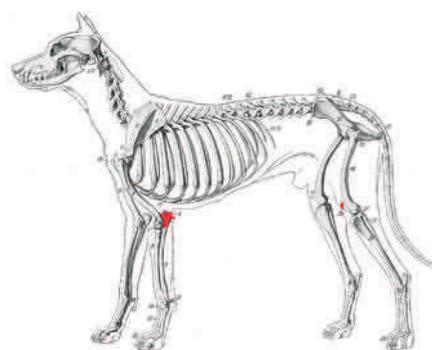


Fig. 19. Skeletal parts of the *Canis familiaris* (in red).

The chronological setting

Baden-type discoveries in the Western Plain of Romania represent a less researched segment for this chronological sequence⁴². The best known sites are those in the northern part, among which one can mention those from Pişcolt "Nisipărie"⁴³, Ciumeşti⁴⁴, Girişul de Criş "Rături"⁴⁵ or Unimăt "Dâlboci"⁴⁶.

The small test trenches executed in the Baden settlement from Sântana cannot provide enough data on the chronology of the site. As we have shown earlier, the two pits (Cx 03, Cx 04) documented in 2009, offered a small lot of pottery sherds. Among them, there is no element typical to one of the stages in the development of the Baden pottery, such as the split tureen with notched handle ends, disk-shaped buttons etc.

Some clues have been offered by the test trench excavated in 2011. The pottery fragments in S04 originate in a deposition layer identified between – 0.45 and – 1.30 m, an even layer, consisting of a gray soil, pigmented with small adobe fragments. Among the fragmentary pottery, a great proportion is decorated with circular incisions, often placed in rows. The tureens, with an elongated S-shaped profile, bear a decoration that represents a clear Kostolač influence⁴⁷ but also a chronological indicator for the final stage of development of Baden pottery (stage IV)⁴⁸. Analogies for the pottery in

⁴² For a recent stage of research, see Sava 2008, 48–52; Sava 2012.

⁴³ Roman 1976, 84; Roman, Néméti 1978, 14–15, 22, pl. 21/13, 14; 23/6–11; 24–42; Néméti 1979, 527, 529, 534; Néméti 1996, 89.

⁴⁴ For "Bostănărie" see: Zirra 1968, footnote 2; Roman, Néméti 1978, 15, pl. 11/4–6; for "Grajdurile C.A.P." see: Zirra 1968, 1, 3, footnote 2, 4; Kacsó 1969, 54; Roman, Néméti 1978, 15–17, pl. 11/7–16; 12–14; 15/1; 16/1a–b; Néméti 1999, 50; for "Pășunea Fântâniei" see: Roman, Néméti 1978, 17, pl. 10; 11/1–3; 19/4.

⁴⁵ Dumitraşcu 1967, 73–74; Dumitraşcu 1968, 257–264; Dumitraşcu, Tăutu 1968, 12; Roman 1976, 51, 82; Roman, Néméti 1978, 13–14, 22, 23, pl. 57/7–13; 58–59; 69/4–12; 70–71; 72/1–3, 5; Dumitraşcu 1986, 693; Crişan 1988, 341; Ciugudean 2000, 10, 72.

⁴⁶ Dumitraşcu 1969, 41–45; Roman 1976, 86; Roman, Néméti 1978, 18, 22, pl. 60; 61; 64–68; 69/1–3; Kalmar 1983, 62; Néméti 1999, 17; Ciugudean 2000, 53, 84.

⁴⁷ Roman 1976, 43. See also Bondár 1984, 59–84; Siklósi 2004, 139–161.

⁴⁸ Sachße 2010, 22–23.

Sântana “Cetatea Veche” can be found on all sites typical to this chronological stage in the Lower Mureș area: Beba Veche “Căramidăria Baravine”⁴⁹, Cladova “Dealul carierei”⁵⁰, Hódmezővásárhely “Bodzáspartról”⁵¹, Hódmezővásárhely “Kishomok”⁵² or Sânpetru German “Fântâna Vacilor”⁵³, and also to the south, at Timișoara “Freidorf”⁵⁴, as well as in other sites from the Romanian Banat region⁵⁵.

Relatively little known remains the pottery in stage IV, as framed by V. Němejcová-Pavúková’s chronological division⁵⁶, or in phase D₂-E of the Baden manifestations, after E. Neustupný⁵⁷, P. Roman and I. Némethi, from the western part of Romania. The same thing happens with the regionalization phenomenon of “Sânpetru German, Beba Veche – type discoveries” from the Lower Mureș area. Unfortunately, there is still no radiocarbon data available⁵⁸. More recently, T. Horváth regarded the groups Ózd-Piliny and Uny⁵⁹, included in this stage, as earlier than previously thought⁶⁰. According to the same researcher, in the south-eastern area of Slovakia and the north-western part of Romania (Satu Mare region), the Baden pottery was strongly influenced by the Coțofeni Culture during this sequence. The phenomenon took place during the classical Baden/Coțofeni II horizon and continued during the subsequent sequence, final Baden/Coțofeni III⁶¹. The classical Baden /Coțofeni II horizon in south-eastern Slovakia includes several Baden sites where Coțofeni pottery has been discovered, among which Zalužice⁶², Zemplínske Kopčany⁶³, Zemplínske Hradište⁶⁴, Prešov⁶⁵ and Šarišské Michaľany⁶⁶. The most numerous Baden sites, where Coțofeni pottery has been identified, were discovered in north-western Romania⁶⁷. For the Baden final/Coțofeni III horizon in Hungary⁶⁸, there were discovered a lot of Baden sites containing elements specific to Coțofeni pottery: Bucsa, Biharugra, Ipolydamásd “Sziget” etc. One should mention the fact that these influences in the field of pottery did not extend beyond the line of the Danube⁶⁹. We did not find clear Coțofeni elements in Sântana “Cetatea Veche” yet, despite the fact that somewhat westwards, in Hódmezővásárhely “Gorzsa”, there are fragments of cups decorated with successive punctures⁷⁰, while clear Kostolač and Coțofeni influences were found in Hódmezővásárhely “Bodzáspartról”⁷¹. As for the absolute chronological background of this final stage in the development of Baden manifestations, a series of data recently obtained for the cemetery in Budakalász “Luppacsárda” as well as for the settlement in Balatonkeresztúr-Réti-dűlő, correlated with older ones (Ószentiván VIII, Szigetcsép “Tangazdaság” etc.) or some corresponding to other contemporary cultural realities (Kostolač, Vučedol, burials under tumuli etc.), place the sequence under discussion at the beginning of the third millennium B.C.⁷²

⁴⁹ Roman, Némethi 1978, 11, Pl. 6/1–6; Kalmar, Oprinescu 1986, 201.

⁵⁰ Sava 2012.

⁵¹ Harkai 2000, 7–46.

⁵² Bondár, Korek 1995, 28–31, Pl. 6–14.

⁵³ Dörner 1970, 455, Fig. 10/5; Roman 1976a, 32, Pl. 5/5–7; Roman, Némethi 1978, 12, Pl. 2/1–10, 3/6–20; Kalmar, Oprinescu 1986, 201, 203; Chirilă, Hügel 1999, 111, pct. 2.

⁵⁴ Ardeț 1988, 121–133.

⁵⁵ Kalmar, Oprinescu 1986, 199–209.

⁵⁶ Němejcová-Pavúková 1981, 261. On the chronological system suggested by Viera Němejcová-Pavúková and its relations to researches in Hungary, see Kalicz 2004, 177–205.

⁵⁷ Neustupný 1973, 324–328.

⁵⁸ Roman, Némethi 1978, 36–37, 47.

⁵⁹ Patay 1999, 45–57.

⁶⁰ Horváth 2009, 111–112.

⁶¹ Horváth 2009, 109–110.

⁶² Horváthova 2008, 115.

⁶³ Horváthova 2008, Fig. 2/1, 4.

⁶⁴ Horváthova, Chovanec 2006; Horváthova 2008, Fig. 3/1.

⁶⁵ Horváthova 2008, Fig. 3/3.

⁶⁶ Horváthova 2008, Fig. 2/5, 8–9.

⁶⁷ Sava 2008, Tb. 1.

⁶⁸ Bondár 1984, 81.

⁶⁹ Horváth 2009, 111.

⁷⁰ Banner 1956, Pl. LV/38–39, 40, 42–43.

⁷¹ Sachße 2010, 48.

⁷² Horváth *et al.* 2008, 447–458; Siklósi 2009, 462–465; Sachße 2010, 38–39; Fábrián 2013, 616–617, Tab. 1, Fig. 1.

Discussion

As previously indicated, the discovery under discussion is a very special funerary find. For such contexts, German authors have employed the term *Sonderbestattung*, while Anglo-Saxon ones used the term *deviant burial*⁷³. Besides these consecrated terms, others have been used as well, such as *verscharren (einscharen)*, *verlochen* or *vergraben*⁷⁴, *disposal*⁷⁵, *human bone deposition*⁷⁶, *morts anormaux et sépultures bizarres*⁷⁷, *atypical burials*⁷⁸, *intramural burials*⁷⁹, *Irreguläre Bestattungen/Irregular Burials*⁸⁰, *Silobestattungen*⁸¹, *unusual funerary practices*⁸² etc.

Naturally, through their unusual character and the issues they raise, the funerary finds deemed "atypical", mostly those inside certain settlements, have attracted the interest of a large number of specialists. Besides numerous studies focusing on such practices, especially from an anthropological viewpoint⁸³, there are monographic archaeological approaches dedicated to different chronological and cultural sequences⁸⁴, and also papers resulted from symposiums that have synthesized as well the discussion from a methodological and contextual perspective⁸⁵. Specialists from Romania have not avoided the topic either, stressing in their analysis particular cases for which anthropological investigations were not absent⁸⁶.

The funerary monuments, part of the Baden world, have been the topic of some monograph studies⁸⁷ and micro-regional researches⁸⁸ that dealt with certain types of funerary rites and rituals⁸⁹. Nevertheless, C. Sachße has recently provided an exhaustive overview of funerary practices in the Baden environment. The analysis of discoveries according to regions and the classification of the burials in two main types, intramural and extramural, attribute C. Sachße's work a coherent and realistic perspective on these archaeological objectives. From a chronological viewpoint, for the early Baden stages one gets a relatively even picture of the funerary context, with incineration tombs placed outside the settlements and inhumation tombs inside them. Later on, during the classical and late phase, as one can notice, the funerary rites acquired regional characteristics. At the same time, there were more numerous and more visible intramural burials, involving numerous secondary burials or human sacrifices⁹⁰.

The large number and spectacular nature of burials inside Baden settlements have determined the elaboration of synthetic works that approach the topic⁹¹. Among some recently studied particular

⁷³ The history of the use of these terms, their definitions, and a comparison of German literature and Anglo-Saxon literature on the topic, can be found in Aspöck 2008, 17–34. Recent explanations in Müller-Scheeßel 2013a, 1–8; Veit 2013, 11–24; Aspöck 2013, 25–38; Pavel 2013, 39–48; Gramsch 2013, 509–518.

⁷⁴ Wahl 1994, 88–89, 92.

⁷⁵ Kroeber 1927, 308–315; Parker Pearson 2003, 5, 25.

⁷⁶ Chapman 2000a, 134–182.

⁷⁷ Baray, Boulestin 2010.

⁷⁸ Pavel 2013 uses this term besides *Sonderbestattung* due to its neutral semantic value.

⁷⁹ Kogălniceanu 2008, 101–111; Mishina 2008, 137–146; Sachße 2008, 49–68; Horváth 2010, 1–79; Sachße 2010; Horváth, Köhler 2012, 453–472.

⁸⁰ Müller-Scheeßel 2013a, 1–8; Pechtl, Hofman 2013, 123–138; Sachße 2013, 169–184.

⁸¹ Alterauge 2013, 185–196.

⁸² Czerniak, Pyzel 2013, 139–150.

⁸³ The most often quoted works on the topic are Kroeber 1927, 308–315; Wilke 1931, 202–206; Kyll 1964, 168–183; Schwidetzky 1965, 230–247; Ucko 1969, 262–280; Saxe 1970; Pauli 1978, 44–53; O'Shea 1984, 70–301; Shay 1985, 221–241; Meyer-Orlac 1982, 252–274; Schultz 1997, 11–13. More recently Baray *et al.* 2007; etc.

⁸⁴ Pauli 1975; Happ 1991; Peschel 1992; Veit 1996; Orschiedt 1998; Beilke-Voigt 2007; Sachße 2010; etc.

⁸⁵ Rittershofer 1997; Murphy 2008; Beilke-Voigt, Biermann 2009; Tichý 2010; Müller-Scheeßel 2013.

⁸⁶ On prehistoric discoveries, see more recently Irimia 2003, 251–268; Ailincăi, Topoleanu 2003, 45–50; Ailincăi *et al.* 2003, 307–324; Jugănar 2005, 31–40; Ailincăi *et al.* 2006, 77–108; Ailincăi *et al.* 2006a, 81–99; Ailincăi *et al.* 2007, 46–77; Kogălniceanu 2008, 101–111; Ailincăi, Constantinescu 2008, 121–131; Ion 2008, 109–129; Ailincăi 2008, 11–30; Ailincăi 2008a, 9–33; Gogăltan *et al.* 2008, 109–123; Ion *et al.* 2009, 47–79; Gligor 2009, 117–132; Popescu, Băjenaru 2009, 23–47; Ion 2010, 27–36; Urák, Marta 2011, 155–162; Ailincăi 2013, 57–59; etc. For the funerary contexts from the second Iron Age see Sirbu 1993, 31–36; Sirbu 1997, 193–221; Sirbu 2001, 323–334; Sirbu 2008, 71–90; etc.

⁸⁷ Banner 1956, 184–210; Kalicz 1963, 7–18; Bondár, Raczky 2009; Sachße 2010.

⁸⁸ Roman, Némethi 1978, 38; Mayer 1991, 29–61; Chapman 2000, 125–160.

⁸⁹ Nevizánsky 1985, 249–270; Kovács 1987, 99–105.

⁹⁰ For a general overview of Baden funerary discoveries see Sachße 2008, 49–68; Sachße 2009, 145–177; Sachße 2010, 41–190. Special aspects of the funerary rites, such as tumular burials, are presented in Sachße 2011, 127–134.

⁹¹ Sachße 2013, 169–184 with the older bibliography.

cases, one notes the analysis of the 77 skeletons or skeletal parts from the settlement in Balatonőszöd “Temetői dűlő”⁹² and the investigation of other objectives in the area of Lake Balaton⁹³. As to the geographic distribution of the intramural discoveries, one can observe a significant concentration in the northern area of Transdanubia and in western Slovakia⁹⁴, while few such funerary discoveries were identified in the northern and southern Alföld Plain⁹⁵.

Referring only to the classical and late stage of Baden-type manifestations in the center and eastern parts of the Carpathian Basin, one can find a large diversity of ways in which the deceased were handled inside settlements⁹⁶. To begin with, inhumation⁹⁷ and incineration⁹⁸ were equally practiced. Usually, one⁹⁹ or several entire skeletons were being found, placed in different positions¹⁰⁰, but also separate human bones¹⁰¹. Skulls were mostly found in ovens¹⁰² or in simple household refuse pits¹⁰³. Depending on the region, the number of children is slightly higher than or equal to that of adults. The funerary inventory often consists of entire vessels, in the case of tombs following the norm of “extramural” burials¹⁰⁴, or of pottery fragments¹⁰⁵. We can offer numerous examples of pits where animals were also deposited beside the deceased¹⁰⁶.

In Hódmezővásárhely “Bodzáspartról”, the closest Baden settlement to the site from Sântana “Cetatea Veche” where human bones have been found, only entire skeletons, placed in crouching positions were researched so far. What is interesting to note in that case, is two children’s tombs, where the vessels deposited as inventory were placed upside down¹⁰⁷.

There is rather little information on funerary discoveries from inside Baden settlements on the territory of Romania. One could mention the two incineration graves discovered in the settlement from Valea lui Mihai “Grădina lui Ráthonyi Iosif.” The inventory of the first grave consisted of an urn which contained remains of calcined boned, one cup, and one copper ring. As for the inventory of the

⁹² Horváth 2004, 71–110; Zoffmann 2004, 111–126; Horváth 2008, 71–87; Horváth 2010, 1–79; Honti, Horváth 2013.

⁹³ Sófalvi *et al.* 2007, 151–162; Horváth Köhler 2012, 453–472; Fábíán 2013, 613–626.

⁹⁴ Sachße 2010, 96–112 (region I); Sachße 2013, 173–178.

⁹⁵ Sachße 2010, 167–170 (region IV), 175–176 (region V), 180–185 (region VI); Sachße 2013, 179.

⁹⁶ General considerations in Horváth 2004, 71–110; Sachße 2010, 202–206; Horváth Köhler 2012, 453–472; Sachße 2013, 173–179.

⁹⁷ Balatonkeresztúr “Réti-dűlő” (Sachße 2010, 12–13, no. 14; Fábíán 2013, 620), Balatonlelle “Órszágúti Dűlő” (Sachße 2010, 13–14, no. 16), Balatonőszöd “Temetői dűlő” (Horváth Köhler 2012, 462, Tab. 1), Bogojevo (Sachße 2010, 16–17, no. 23), Budapest “Békásmegyer” (Sachße 2010, 30–31, no. 26), Moha, “Homokbánya” (Sachße 2010, 67, no. 102), etc.

⁹⁸ Budapest “Békásmegyer” (Sachße 2010, 30, no. 26), Budapest “Nagytetény” (Sachße 2010, 33, no. 32), Keszthely “Fenekpuszta II” (Sachße 2010, 55, no. 84), Šarišské Michal’any (Sachße 2010, 104, no. 169), etc.

⁹⁹ Bajč “Vlkanovo II” (Sachße 2010, 9–10, no. 10), Balatonkeresztúr “Réti-dűlő” (Sachße 2010, 12–13, no. 14; Fábíán 2013, 620), Balatonőszöd “Temetői dűlő” (Horváth Köhler 2012, 462, Tab. 1), Balatonlelle “Órszágúti Dűlő” (Sachße 2010, 13–14, no. 16), Esztergom “Szentkirály” (Sachße 2010, 39, no. 48), Kaposújlak (Somogyi 2004, 165; Sachße 2010, 54, no. 82), etc.

¹⁰⁰ One can mention a series of common burials, such as those in Balatonkeresztúr “Réti-dűlő” where specialists have identified three adults, two children, and three babies (Sachße 2010, 12–13, no. 14), another that contained two individuals, and a pit with five individuals, from Balatonszemes “Szemesi Berek” (Sachße 2010, 15, no. 20), a pit in Kaposújlak that contained the skeletons of a man, two women, and five children (Sachße 2010, 54, no. 82) or the situation in Jelšovce I where 13 individuals were deposited together (Sachße 2010, 53, no. 78; Sachße 2013, 175, Abb. 5). Two pits are mentioned in Nitriansky Hrádok: one contained 11 individuals, while the other at least 20 (possibly up to 25) (Točík 1987, 17). Similar contexts are also known in Balatonőszöd “Temetői dűlő” (Horváth Köhler 2012, 454–457, Fig. 2–3, Tab. 1), but they have been dated slightly earlier than the late Baden stage (no. 1099, 1489).

¹⁰¹ Bajč “Vlkanovo II” (Sachße 2010, 9–10, no. 10), Balatonkeresztúr “Réti-dűlő” 13 (Sachße 2010, 12–13, no. 14; Fábíán 2013, 620), Balatonőszöd “Temetői dűlő” (Horváth Köhler 2012, 462) etc. Several examples are discussed below.

¹⁰² Thus, the skeleton of a mature individual and part of a child’s skull were found inside an oven in the settlement in Bajč “Vlkanovo II” (Sachße 2010, 9–10, no. 10). Three children’s skeletons were found in an oven in Slovakia as well, at Svodín (Sachße 2010, 98–99, no. 157). No less than six ovens with human skulls were found in the settlement in Kaposújlak (Sachße 2010, 54, no. 82).

¹⁰³ Bajč “Vlkanovo II” (Sachße 2010, 9–10, no. 10), Balatonőszöd “Temetői dűlő” (Horváth Köhler 2012, Tab. 1), Esztergom “Szentkirály” (Sachße 2010, 39, no. 48), Fertőrákos (Sachße 2010, 39–40, no. 50), Iža (Sachße 2010, 52, no. 76), Kamenín (Sachße 2010, 53, no. 78), Szentes “Naghegy” (Sachße 2010, 100, no. 162), etc.

¹⁰⁴ Balatonkeresztúr “Réti-dűlő” (Sachße 2010, 12–13, no. 14), Balatonőszöd “Temetői dűlő” (Horváth Köhler 2012, Tab. 1), Dobanovici (Sachße 2010, 36–37, no. 41), Hul (Sachße 2010, 50, no. 72),

¹⁰⁵ Bajč “Vlkanovo II” (Sachße 2010, 9–10, no. 10), Balatonőszöd “Temetői dűlő” (Horváth Köhler 2012, Tab. 1), Chl’aba (Sachße 2010, 35, no. 35).

¹⁰⁶ Horváth 2004, 75 with numerous examples.

¹⁰⁷ Banner 1956, 76–86; Harkai 2000, 7–46; Sachße 2010, 48–49, no. 68.

second grave, it did not preserve¹⁰⁸. One can also mention pit no. 2 in the settlement from Sanislău "Ferma C.A.P.". It had a circular shape with a flat bottom, the rim measured 1.80 m in diameter, while the bottom was 1.40 m in diameter, with an inner depth of 1.20 m. As archaeological material, it contained pottery fragments, a large quantity of animal bones, a lot of ash, and one human skull¹⁰⁹.

At the end of the Copper Age, in the Carpathian Basin, besides the Baden cultural unit, one can mention Coțofeni-type discoveries in the eastern part of the region, and Kostolač-type discoveries towards the south-east¹¹⁰. Unlike the Baden environment, where numerous intramural and extramural funerary discoveries were identified¹¹¹, the Coțofeni and Kostolač networks are poor in such finds¹¹².

Though, until now, only few burials have been identified in the Coțofeni environment, C.I. Popa noted a large diversity of funerary rituals (inhumation, incineration, secondary burials etc.)¹¹³. At the same time, one can mention the preference of Coțofeni communities towards burying their children in caves. Researches conducted in Baia de Fier "Peștera Muierii" have led to the discovery of "a skeleton with scattered bones" buried in a habitation layer uncovered in the cave portal, and above which four stone slabs had been placed¹¹⁴. A child's grave was researched also in the south-western part of Romania, in Băile Herculane "Peștera Hoților." In that case, rocks were placed on the top of the grave's pit¹¹⁵. Besides discoveries made in caves, one needs to mention those in the open settlement from Șincai "Cetatea Păgânilor," in the center of Transylvania, where human osteological fragments were discovered¹¹⁶.

A special case, that requires slightly more attention, consists of the human remains documented in Igrîța Cave¹¹⁷. The discoveries there consisted of the deposition of human skeletal remains and numerous artifacts in "Sala Coloanei". The analysis led there, indicated that the skeletal remains belonged to a large number of children, more than 50. I. Emödi identified three main depositions that he called graves. "Grave A" was excavated in a natural alveolus measuring 0.75–0.80 m in diameter and 0.15 m in depth. The following human osteological remains have been identified there: a skull cap, half of the upper jaw, and other skull remains. Besides these osteological remains, Emödi have recovered more than 200 pottery fragments, all from the same vessel, a stone-made amulet, polished and perforated, one bead made of fossil mollusk, one fragment from an *unio* mollusk, one quartzite flake, a small limestone rock with traces of use, and several animal teeth. All of these elements were covered with a 3-cm thick layer of ash, mixed with pieces of charcoal, above which a layer of ochre, 1–2 cm thick, has been deposited, covered likewise with an even layer of grey clay¹¹⁸. "Grave B" was also deposited in a natural alveolus measuring 1 m in diameter, and contained fragments from three vessels, one small axe made of black quartzite, ochre beads, phyllite, mother-of-pearl, and ochre lumps. Besides these artifacts, Emödi have also identified parts of human skeletons; the pit was covered with a layer of yellow clay. According to the anthropological analysis, the osteological remains in "Grave B" belonged

¹⁰⁸ Roska 1932, 73, Fig. 11, 12; Roman, Némethi 1978, 14, 38; Sachße 2010, 108–109, no. 180.

¹⁰⁹ Iercoșan 1991, 44.

¹¹⁰ For the chronological relations between these cultural manifestations see Roman 1976, 51–57; Roman, Némethi 1978, 49–55; Tasić 1995, 51–74; Ciugudean 2000, 51–59; Nikolić 2000, 54–79; Ciugudean *et al.* 2005, 12–18; Horváth 2009, 109–110; Horváthova 2008, 115; etc.

¹¹¹ The catalog of Baden funerary discoveries comprises 199 sites, among which 57 are settlements where funerary discoveries were identified – see Sachße 2010, 1–117.

¹¹² In the Coțofeni cultural environment, we are aware of 19, certain sites with funerary discoveries (see Popa 2009, 673–680, 698–701). Seven sites with such discoveries have been documented until now in the Kostolač environment (Tasić 1995, 62–63; Nicolici 2000, 86).

¹¹³ Popa 2009, 731–750. For the chronological stage subsequent to the Baden/Coțofeni horizon one can mention other funerary depositions, which could be interpreted as secondary burials. Researches performed by teams led by Gheorghe Lazarovici and Horia Ciugudean in the Apuseni Mountains led to the uncovering of several tumuli in the mantle of which secondary tombs were identified; these were characterized by the deposition of the skull and of the long bones (Lazarovici, Meșter 1995, 86–105; Ciugudean 1996, 132–133; Meșter 2001, 267–274; Moldovan 2003, 487–495; Moldovan 2005, 185–204).

¹¹⁴ Roman 1976, 31; Roman 1977, 192.

¹¹⁵ Roman 1976, 33, Pl. 7/3; Roman 1977, 192; Ciugudean 2000, 43.

¹¹⁶ Lazăr 1976, 33.

¹¹⁷ I. Emödi attributes the discoveries in this cave to the Baden Culture (Emödi 1984); both H. Ciugudean and C. I. Popa discuss the "burials" there in the context of the funerary issues typical to the Coțofeni communities, given the preponderance of pottery belonging to this type (Ciugudean 2000, 43; Popa 2009, 677–679).

¹¹⁸ Emödi 1984, 406.

to children who died at the ages of 2.5 and 10–11 years¹¹⁹. “Grave C” was strongly disturbed, but several artifacts were recovered, among which fragments from a cup and a common pot, several fragments from other vessels, one flint tool, another made of quartz, two beads made of fossil mollusk of the Dentalium type, mother-of-pearl beads, and four perforated animal teeth. Numerous pottery fragments and human bones concentrations, mostly skull parts, were discovered near “Grave A.” Pottery fragments associated to artifacts and human bones were also recovered from other parts of the cave¹²⁰.

The Kostolač cultural environment benefits from a restricted number of graves, while as funerary rite, both inhumation and incineration have been practiced. Graves were usually located inside the settlements¹²¹ and it was only in Padina where a small cemetery was researched¹²².

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Returning to the funerary discovery from the Baden settlement in Sântana, the anthropological analysis has helped us reconstruct the rite and ritual practiced by this community from the death of the child until the final deposition of the remains in pit Cx 04 (Fig. 20). Due to the precarious state of preservation of the osteological remains, the stages presented below must be regarded as a possible reconstruction of the post-mortem treatment of the deceased.

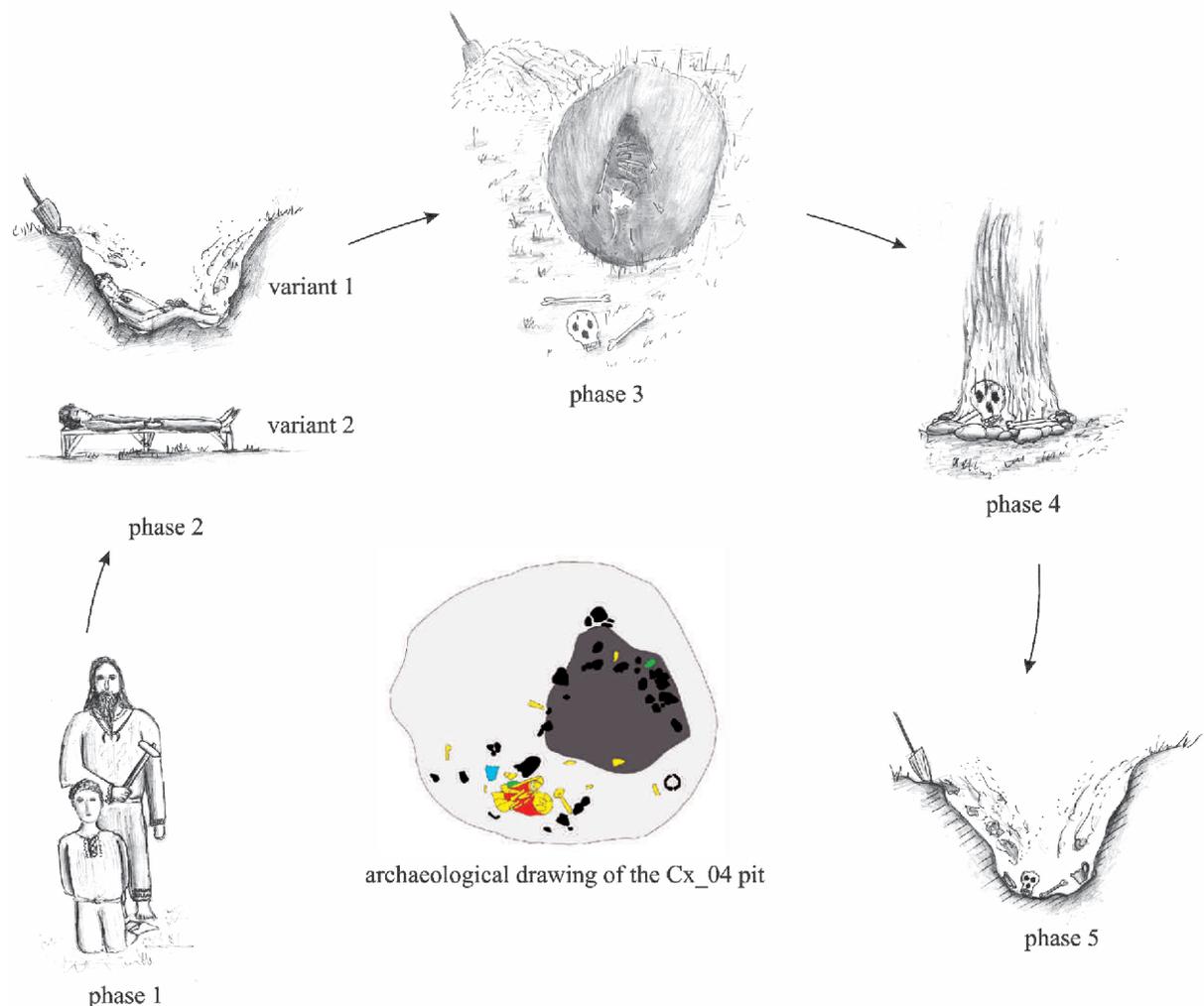


Fig. 20. Brief reconstruction of the presumed stages between the individual's death and the deposition of its remains in pit Cx 04.

¹¹⁹ Emödi 1984, 407.

¹²⁰ Emödi 1984, 406.

¹²¹ It is the well-known case of the site in Gomolava where one double tomb was found (adult and child) and two other inhumation graves (Petrović, Jovanović 2002, 248; Sachße 2010, 45–46, no. 61)

¹²² Tasić 1995, 62–63; Nikolić 2000, 86; Petrović, Jovanović 2002, 248–250.

First, the anthropological analysis has revealed the fact that the six repeated blows identified on the frontal bone, made with a blunt object (axe?) did not fragment the skull. In this situation one cannot determine with precision if the individual died due to these blows, since their traces look similar 72 hours before and after death. It seems more probable that the child, aged between 10 and 11, died due to these blows than that they were performed afterwards, but the latter hypothesis cannot be totally excluded. Naturally, one cannot decide if the child was killed as a sacrifice or the death occurred as result to unhappy events such as domestic violence, incurable disease, warfare etc.

During the second stage, the body was left to decompose. An important observation would be that no traces of flesh removal, disarticulation, or dismembering have been identified¹²³ and, therefore, one can presume that the decomposition process took place naturally. Bearing in mind that the preserved bones were subjected to high temperatures of up to 800 °C, it is impossible to state in which environment the remains decomposed. The following variants can be suggested: the body was either inhumed or deposited on some special construction (home of the dead etc.) in the open air.

The following step also involves several possibilities, depending on the environment where the body was left to decompose. In case it was inhumed, then the third stage envisages phase would imply its exhumation and the selection of the skull and of the long bones. In case it was left to decompose in open air, it cannot be established if the bones preserved in pit Cx 04 were intentionally selected, on the basis of clearly set norms, or if they represented the recovery of just what was left. As it is well known, the bodies left in the open air are affected by various natural factors (weather conditions), birds, or animals¹²⁴, or by other causes¹²⁵. The time passed from the moment of death cannot be estimated, but it can be stated with certitude, that in this phase, the body was completely decomposed.

During the fourth stage, the skull and some of the long bones suffered exposure to temperatures of up to 600–800 °C; the individual was more intensely burnt on the viscerocranium (face) (Fig. 21). Such temperatures can be reached in open fires or by using a hearth¹²⁶, with no need of complex installations or elaborated preparation. A funerary banquet was probably held then, given the animal bones, the entire cup, and the other pottery fragments identified in pit Cx 04. According to the archaeozoological study, the following animals were sacrificed or ended up in the pit: at least two ovicaprids, among which one was female, both aged between 2.5 and 3 years, one cattle older than 2 years, one rabbit, one dog, and 23 *Unio* mollusks (Fig. 16–19). At the same time, it is important to note that the majority of the animal bones, in an obvious fragmentary state, were also exposed to high temperatures.

A circular pit, not too deep, was dug during the final step and ash, coal, pottery fragments, and several animal bones were thrown on the bottom. Above them the bones of the deceased were placed, together with other pottery fragments, several shells, animal bones, and a small cup (Fig. 10/3). The entire pit was covered with strongly fired soil (red in color), resulted during the previous stage.

As previously indicated, among the intramural funerary depositions one finds also burials of certain parts of the deceased (usually skulls and long bones), that reflect post-mortem manipulation. These are funerary depositions distributed over the entire Baden cultural environment, mainly during its classical and late stages of development. Thus, in Bajč "Vlkanovo II" specialists have identified several pits with human remains: one pit contained a mandible, another a skull, hand bones, and some of the vertebrae, while another pit preserved three large bones of the limbs¹²⁷. From another

¹²³ Disarticulation aims at dividing a human body into smaller fragments at the level of the articulations. In such cases one notices certain incisions on the bones, especially on the epiphyses of the long bones, in the peri-articular areas (around the joints). The incisions are almost always transversal, parallel to the articular surface and perpendicular to the main axis of the bone. Due to the specific localization at the level of the articulation, this procedure differs from the process of dismembering. The latter involves cutting and, when the envisaged area cannot be reached with the knife, also traction, torsion, or hitting. Traces of disarticulation are very often found together with other roof of intentional body manipulation, such as traces of flesh removal, scraping, intentional fractures on the hydrated bone or the altering of the medullar channel. Flesh removal is the process through which the muscle mass is removed from the bones. Traces of this process, i.e. incisions, can be found on all bones and in all the places, excepting the articular area. Generally, one needs several attempts in order to cut the flesh from the bone; leading thus to finding several incisions, all in the same direction. For more insight in the matter, see Botella *et al.* 2000.

¹²⁴ The anthropological analysis did not lead to identifying animal-made traces on the bones.

¹²⁵ See Duday 1985, 6–13.

¹²⁶ Stewart 1987; Odgaard 2007.

¹²⁷ Sachße 2010, 9–10, no. 10.

settlement, in Palotabozsok, two pits must be mentioned; there several human bones were deposited: one contained a skull and few rib fragments, while a skull was recovered from the second¹²⁸. Other discoveries of the same kind have been mentioned in Vámosgyörk III, where two pits with human remains were found. The skeletons of two children and the skull of a third were deposited inside one of the pits, while a skull was identified inside the second¹²⁹. In Balatonőszöd “Temetői dűlő” there were reported of 15 cases, where the human bones have been manipulated. It was the case of mostly long bones and skull fragments¹³⁰. We have also mentioned above several settlements where pits with only one such deposition have been found¹³¹.

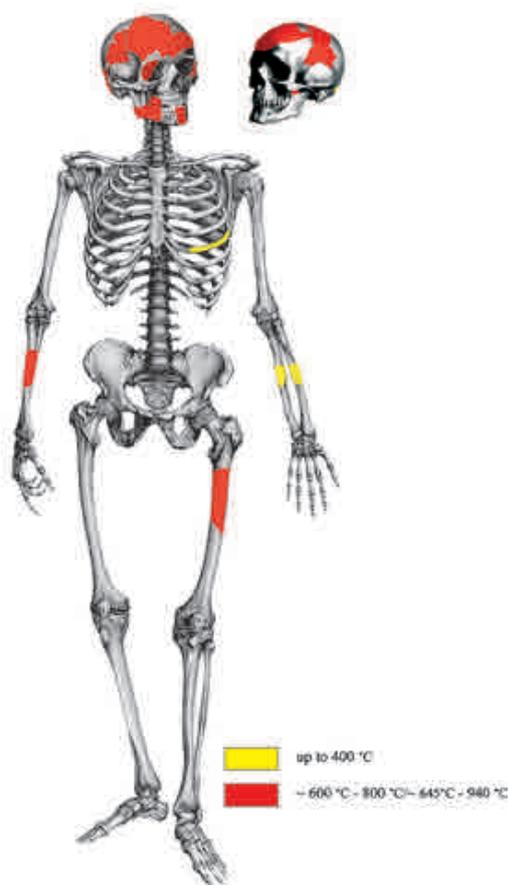


Fig. 21. Skeletal parts of the individual and the temperature of burning (yellow and red).

Signs of violence that most probably caused the death of the individuals in question were noted in several cases. In Mužla “Čenkov” the skull of a woman aged between 30 and 40 years showed, on the right side, a lesion measuring 4.2×3 cm, caused by a blunt object¹³². In Balatonőszöd “Temetői dűlő,” a woman aged 26–32 years had an arrowhead fixed to one vertebra¹³³. At the same site, the skeleton of a man displayed a rib fracture and probably other lesions as well¹³⁴. Other traces of fractures were identified on the *fibulae* of an average-size man aged between 23 and 29¹³⁵.

¹²⁸ Sachße 2010, 85, no. 128.

¹²⁹ Farkas 2001, 21–23.

¹³⁰ Horváth Köhler 2012, 462.

¹³¹ Besides these pits, other cases have been identified, both inside and outside settlements, such as those in Szigetszentmárton (Sachße 2010, 102, no. 165) or Ratzersdorf an der Traisen (Krumpel 2012, 211–231), when the skeletal remains of other individuals were deposited in the grave pit, subsequent to the initial burial.

¹³² Sachße 2010, 68, no. 105.

¹³³ Horváth Köhler 2012, 456, Fig. 3.

¹³⁴ Zoffmann 2004, 113.

¹³⁵ Zoffmann 2004, 114.

Like in the case of pit Cx 04 from Sântana, where ash, charcoal, and burnt soil were identified by the human bones, other pits, with similar filling, were found in the Baden environment. Such a pit can be mentioned in Fertőrákos, where a human femur was preserved near pottery fragments, animal bones, and traces of burning¹³⁶. Other similar examples can be found in Balatonőszöd "Temetői dűlő", where a human skull, several vessels that can be reconstructed, adobe, and coal were deposited in pit no. 2327. In the same settlement, a skull belonging to an adult individual, adobe, ash, and animal bones were uncovered on the bottom of pit no. 2480¹³⁷.

Burnt traces on the skeletons are rather rare. One could mention the example of an individual thrown face down in pit no. 1106 in Balatonőszöd "Temetői dűlő", whose skull shows traces of burning and also ash was found in the filling of the pit¹³⁸. In Nitriansky Hrádok, a pit contained the skeletons of 11 individuals that displayed traces of burning on different parts of the skull¹³⁹.

As previously indicated, the sacrificial slaughtering of animals was also a frequent practice in the context of funerary depositions inside settlements. In Balatonlelle "Órszágúti Dűlő" the skeleton of a dog was found near that of a child¹⁴⁰. A similar situation was encountered in Šarovce I¹⁴¹. The older excavations in Bogajevo have revealed the case of a man who was buried together with one cattle head and bird bones¹⁴². Tomb 2 from Budapest "Káposztásmegyér" contained, besides a woman and a child, a funerary inventory consisting of pottery fragments and a deer skull¹⁴³. In Kaposújlak, besides the skeleton of a man, archaeologists have identified two animal skeletons, probably dogs, while a pit contained remains from the skeletons of two men and the skeleton of one cattle head¹⁴⁴. Individuals from the same species have been recorded in two other cases, one cattle being deposited near a child in pit 153/72 and another one by a man, aged 30–40, in pit 1159/81 from Svodín¹⁴⁵. A pit in Nitriansky Hrádok contained the skeleton of a pig besides the remains of a human skeleton¹⁴⁶. Dogs and other elements of funerary inventory were presumably found on the same site, but in a common grave that contained 11 individuals¹⁴⁷. A vessel deposited by the head of a deceased in Szentes "Naghegy" contained hen bones with traces of burning¹⁴⁸.

*

Why is it important to discuss about the funerary discovery in Sântana, besides the fact that belongs to a settlement? There would be to begin with, the existence of violence signs that probably caused the death of the 10–11-year old child. The following manipulation of the body, through the selection of certain bones and their burning was probably performed in order to deposit them and the remains of a possible funerary banquet, in a small pit. No traces of looting have been observed¹⁴⁹.

Post-mortem manipulations such as those of the individual in pit Cx 04 from Sântana have been interpreted as secondary burials¹⁵⁰. Among the numerous definitions in specialized literature, we have selected I. Kuijt's: "... I define secondary mortuary practice as a social act focused on the regular and socially sanctioned removal of objects, pieces, or all or part of a deceased individual from some place of temporary storage to a permanent resting place. Archaeologically this is expressed by the intentional

¹³⁶ Sachße 2010, pt. 50.

¹³⁷ Horváth 2010, 34–35; 35–36.

¹³⁸ Horváth 2010, 22.

¹³⁹ Točík 1981, 25.

¹⁴⁰ Sachße 2010, 13–14, no. 16.

¹⁴¹ Sachße 2010, 104, no. 170.

¹⁴² Sachße 2010, 17, no. 23.

¹⁴³ Sachße 2010, 31–32, no. 30.

¹⁴⁴ Sachße 2010, 54, no. 82.

¹⁴⁵ Němejcová-Pavúková 1986, 160–161; Sachße 2013, 174, Abb. 4.

¹⁴⁶ Točík 1981, 25.

¹⁴⁷ Točík 1987, 17.

¹⁴⁸ Sachße 2010, 100, no. 162.

¹⁴⁹ The entire discussion and the older bibliography in Kümmel 2009.

¹⁵⁰ For a short history see Schroeder 2001, 79–81; Orschiedt 2002, 11–12; Larsson 2003, 163–164. Recently, "Burial Rites-Secondary Disturbances in Tombs" was the title of a symposium held in January 2011 in Opava (Acta Archaeologica Opaviensia 4, 2011).

removal of skeletal materials from one location to another location and is often, but not always, exemplified by the recovery of disarticulated and relatively incomplete skeletal remains¹⁵¹.

P. Metcalf and R. Huntington have presented both the main characteristics of and the differences between primary and secondary burials. Thus, the main burial involves the activities and behavior following the death of a community member. The related rituals can include, among others, the preparation of the body for the first burial, the funerary banquet, various meetings, and the deposition of the body in the first location. From a temporal perspective, this first set of rituals takes place sometime between several days and several weeks since death. The secondary burial involves ceremonies through which the living commemorate the deceased in order to repair the social rupture caused by his/her death. One can estimate that the period between the primary and the secondary burial varies between several months and several decades, according to the social norms¹⁵². Ethnographic studies have proven the existence of a common element, i.e. the requirement that the body is sufficiently decomposed to allow for the cleaning of the bones¹⁵³.

Practices of this type (the most spectacular among them being the cult of the skulls¹⁵⁴) are known for all historical eras¹⁵⁵ surviving until more recent periods¹⁵⁶. From a geographical perspective, it is a funerary manifestation attested from Northern and Southern America to Australia, Asia, and Europe¹⁵⁷. Studies that attempt to explain its social and ritual mechanisms start from ethnographic or historical analogies and thus one can easily note that the reasons behind such a funerary manifestation are very diverse and pertain to the cultural background of each community¹⁵⁸. They depend on certain circumstances and on the role or status of the deceased in that society (she- and he-witches, criminals, invalids etc.) or the conditions of their death (during birth, as a consequence of disease, accidents, murder etc.)¹⁵⁹. For some, as for the case of burials in pits inside settlements, one must not exclude practical considerations¹⁶⁰. There are also numerous ethnographic and historical examples that attest to the expressed desire of the deceased to be buried in a certain way¹⁶¹.

For a better understanding of the great variability of such mortuary practices it is suggestive to present the conclusions of a study published several years ago by Estella Weiss-Krejci¹⁶². She has analyzed 868 individuals, members of the Habsburg, Babenberg, and Hasburg-Lorraine dynastic houses, who died between 994 and 1993. Among them, due to the circumstances of their deaths (“Unusual death”), their ideological and political position (“Social deviants”), and very young age (“Children who died younger than five years of age”), 257 persons were included in the category of “Deviant Burial.” Written information confirms that these were men killed in battle (crusades) or during military exercises; their bodies were stripped of flesh or eviscerated in order to be transported to their lands of origin. Out of the 30 victims of diseases (smallpox, tuberculosis, plague, flu, typhos), 11 have been eviscerated. In the case of deaths at birth or shortly afterwards, there were common graves, but this was not a rule. Queen Anne for example was buried besides her child that died 6 months old, five years previous. Deaths from accidents (hunting, horseback riding etc.) were not reflected in a “deviant” funerary treatment. The examples could be continued with persons who died following suicide, crime, execution, excommunication etc.

¹⁵¹ Kuijt 1996, 316. Other discussions in Orschiedt 1999.

¹⁵² Metcalf, Huntington 1991, 97, 119.

¹⁵³ Larsson 2003, 163.

¹⁵⁴ Maringer 1982, 703–740; Peter-Röcher 2002, 1–28; Röhrer-Ertl 2005, 107–158; Bonogofsky 2006; Wahl 2007, 169–183; Zalai-Gaál 2009; Wieczorek, Rosendahl 2011; Perschke 2013, 95–110; etc.

¹⁵⁵ Peter-Röcher 1997, 315–324; Furmánek, Jakab 1997, 14–23; Chapman 2000a, table 5.1; Weiss-Krejci 2008, 169–190; Lorentz 2010, 20–29; Chapman 2010, 30–45; Jakab 2013, 75–86; etc.

¹⁵⁶ For example Winter-Livneh *et al.* 2012, 426–428.

¹⁵⁷ Larsson 2003, 162–163.

¹⁵⁸ Brück 1995, 260–264; Meyer-Orlac 1997, 2–10; Chesson 1999, 142; Weiss-Krejci 2008, 169–190; Popescu, Băjenaru 2009, 47 with other bibliographic indications. More recently Kümmel 2009, 181–225; Aspöck 2013, 28–31; Weiss-Krejci 2013, 281, 284–286.

¹⁵⁹ Aspöck 2013, 26–27. For persons with disabilities see Pavel 2013, 41–46.

¹⁶⁰ More recently Pankowská *et al.* 2013, 260–261.

¹⁶¹ Meyer-Orlac 1982, 113–114; Meyer-Orlac 1997, 2. A suggestive example of this is the wish of Emperor Maximilian I, who died in January 1519, that his teeth should be pulled out and buried separately, a fact confirmed by the subsequent opening of his sarcophagus (Weiss-Krejci 2008, 186).

¹⁶² Weiss-Krejci 2008, 169–188.

All of these well-documented cases draw attention to the danger of interpreting such discoveries when their context cannot be clarified. A situation encountered in the Baden settlement in Balatonőszöd "Temetői dűlő" is suggestive for the era corresponding to the deceased from Sântana¹⁶³. The skeleton in grave no. 291 was discovered lacking the lower part of the body, i.e. the pelvis and the legs. These missing parts had been deposited in pit no. 117, identified in close proximity to the tomb. For such contemporary post-mortem manipulations, specialists have mentioned a discovery made in Lower Austria, in Ratzersdorf¹⁶⁴, and one could add the find in Wagram ob der Traisen as well¹⁶⁵. The first impression was that grave no. 291 had clearly been robbed. The hypothesis changed radically after the anthropological analysis. It was noted that the individual has simply been disarticulated before his body decomposed, and was buried in two different pits¹⁶⁶. In this case, looting and secondary burial are out of the question.

At this point of the discussion, one can address the following questions: are the human discoveries inside Baden settlements, such as the one from Sântana, evidences of some funerary practices different from the, let us say, consecrated ritual from the cemeteries of that period? Can they be included in the category of "Sonderbestattung/deviant burial"? Is this case a so-called secondary burial?

In most of the works mentioned above, the archaeological notion of "Sonderbestattung/deviant burial" is understood as an exception from the funerary contexts that are considered "normal." For this reason, the term has a somewhat negative connotation¹⁶⁷. As previously indicated, related to the Baden Culture, there was a great diversity of funerary rites and rituals, both inside and outside settlements. The number of those "irreguläre Befunde" from inside settlements are significantly more numerous, 25% as compared to the 10% of those "extramuralen Bestattungsplätze"¹⁶⁸. At the chronological horizon of the classical and late stage, we are aware of more than 40 settlements with burials and human remains in the central part of the Carpathian Basin, as well as along the Middle Danube, and around Lake Balaton¹⁶⁹. In fact, such contexts were found in all the settlements that were researched more intensely.

We are now facing a situation in which the funerary practices considered "special" or "abnormal," tend to become "normal"¹⁷⁰. Edeltraud Aspöck recently brought to attention the fact that it is dangerous to label phenomena that we no longer understand today as "Sonderbestattungen"¹⁷¹. For this reason, we believe it is better to avoid terms such as "Sonderbestattung/deviant burial" or secondary burial, and to regard the funerary discovery in the settlement from Sântana as the reflection of a complex rite that aimed at preparing the deceased for the meeting with the gods. Instead of interpreting this funerary practice, we would like to remind Estella Weiss-Krejci's conclusions from the above mentioned article: "Despite a certain relationship between deviant life, death and burial, without historic sources it is quite difficult for an archaeologist to understand why an individual was treated in a certain way"¹⁷².

¹⁶³ Horváth, Köhler 2012, 461.

¹⁶⁴ Krumpel *et al.* 2008, 99–165. See also the shortened English variant in Krumpel 2012, 211–231.

¹⁶⁵ Ruttkay, Teschler-Nicola 1984, 71–87.

¹⁶⁶ Horváth, Köhler 2012, 461–462. The interpretation must be taken into consideration.

¹⁶⁷ Meyer-Orlac 1997, 3–4, 10.

¹⁶⁸ Sachße 2013, 170.

¹⁶⁹ Sachße 2013, 174.

¹⁷⁰ Renate Meyer-Orlac made a very important statement, several years ago: "Sonderbestattung" ist also eigentlich nur ein Arbeitsbegriff, da sich die statistische Situation durch Neufunde ständig ändern kann" (Meyer-Orlac 1997, 1).

¹⁷¹ Aspöck 2013, 36: "Außerdem besteht die Gefahr, das Etikett ‚Sonderbestattung‘ als eine scheinbare Erklärung für Phänomene zu verwenden, die man eigentlich nicht versteht". J. Pechtl and D. Hofmann took a similar stand when talking about "the norm of deviance" (Pechtl, Hofman 2013, 136). See also Rinne, Fuchs 2013, 223: "Es handelt sich demnach also nicht um eine irreguläre oder nicht der Norm entsprechende Bestattung, sondern eher um eine normale Beisetzung an einem eher ungewöhnlichen Ort", Langová, Danielisová 2013, 249: "Aber immer mehr zeigt sich, dass die Niederlegung von Verstorbenen in frühbronzezeitlichen Siedlungsgruben nicht nur vereinzelt vorkommt, sondern so häufig, dass sie – zumindest in einigen Varianten – wohl als ein üblicher Teil des damaligen Bestattungsritus angesehen werden muss" or Pankowská *et al.* 2013, 254: "We are of the opinion that the majority of these burial pits correspond to standard graves in cemeteries".

¹⁷² Weiss-Krejci 2008, 187.

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Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch- Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

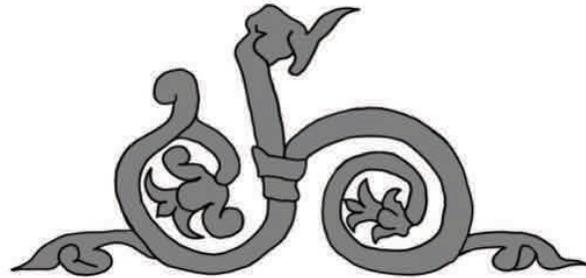
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thraco-Dacica	<i>Thraco-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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Musculoskeletal Markers as Evidence of Physical Activity and Social Differentiation in the Lower Mureș Valley during the Late Bronze Age*

Luminița Andreica

Abstract: The present analysis focuses on the identification of occupational stress markers on the skeletons of four individuals discovered in a late Bronze Age necropolis. The importance of the study resides in the attempt to corroborate the osteological proofs with the funerary inventory, in order to formulate certain hypotheses on the status and main activities of these individuals.

Keywords: occupational stress markers, late Bronze Age, physical activity, social category, weapons.

Introduction

The osteological material has been recovered during rescue excavations performed along the route of the Arad-Nădlac highway, in 2011. From this necropolis, labeled Pecica "Site 14", specialists have recovered 23 inhumation tombs and 14 incineration tombs; from a chronological perspective, on the basis of the funerary inventory, archaeologists have estimated that the inhumation tombs can be dated to the late Bronze Age, more precisely to stage Bz B2-C¹.

The main aim of this study is to attempt to identify the presence of warriors among the individuals recovered from the inhumation necropolis. During the last decades anthropologists have managed to reconstruct various aspects from the daily life of people from the past, on the basis of occupational stress markers². The morphology and size of the long bones can be good indicators of prolonged physical activities. The bone development process is sensitive to outer mechanical forces that can lead to the remodeling of the bone tissue, especially in the case of repeated movements or intense forces³. One must nevertheless note that such bio-pathological observations are in the case under discussion not sufficient in reconstructing daily life, even less in attributing the individuals a certain status, i.e. that of warriors. Most often, social identity is also expressed through the funerary inventory.

Materials and methods

The present study contains the anthropological analysis of just four individuals from the 23 inhumation tombs. The selection criterion was the funerary inventory; in all four cases, the individuals were buried with various weapons⁴.

In order to determine gender I turned to the characteristics of the skull⁵, while for the post-cranial skeleton I took into consideration the modifications of the coxa⁶. In order to estimate age I employed the synostosis degree of the cranial sutures⁷, the evolution of the pubic symphyses,⁸ and the evolution of the auricular surfaces⁹.

* English translation: Ana M. Gruia.

¹ Sava, Andreica 2013, 52.

² Lieverse *et al.* 2009, 458.

³ González, Concepción 2004, 15.

⁴ Sava, Andreica 2013.

⁵ Buikstra, Ubelaker 1994, 19–21.

⁶ Buikstra, Ubelaker 1994, 18.

⁷ White, Folkens 2005, 369–370.

⁸ White, Folkens 2005, 374–379.

⁹ White, Folkens 2005, 380–383.

In the diagnosis and identification of the bone pathology I followed the recommendations in E. González, M. Concepción¹⁰, J. G. Vicente, A. M. Morera¹¹, and A. C. Aufderheide, C. Rodríguez-Martin¹². From this perspective, three of the individuals (Cx_067, Cx_092, and Cx_098¹³) are remarkable through the presence of some occupational stress markers that feature in specialized literature as enthesopathies. Enthesopathic lesions manifest as irregularities, bone projections or osteophytes at the insertion point of muscles, tendons, and ligaments; these modifications are the result of excessive muscular activity and their localization and dimensions on the skeleton can provide clues as to the daily activities that involve certain muscles or groups of muscles¹⁴.

Unlike the other three individuals, the pathological picture of Cx_075 consists of certain degenerative modifications, especially on the articulations of the long bones. These afflictions of the articulations are pathological conditions, non-inflammatory, chronic ones, characterized by the loss of the articular cartilage due to direct inter-bone contact at the level of the diarthrodial articulations¹⁵. The main causes of osteoarthritis are mechanical and most often expressed on the spine, at the level of the hips, and of the knees. One can speak of primary osteoarthritis when it is the result of a combination of factors such as age, gender, mechanical stress, or genetic or secondary predisposition if initiated by trauma or bacterial invasions at the level of the articulation¹⁶. The stature was calculated according to Pearson's method¹⁷ and the identifications were made according to data obtained by G. Farkas, P. Lipták¹⁸.

Results and discussions

Cx 067. The state of preservation and representation of the skeleton is rather poor; the skull is very fragmented, and from the post-cranial skeleton archaeologists have recovered the bones of the left arm (with partially destroyed epiphyses), while from the right side, only one fragment from the diaphysis of the humerus and that of the radius have been preserved. The ribs and the bones of the scapular belt have not been recovered from the lying context and only two lumbar vertebrae have survived from the spine. The coxa is very fragmented. Only the long bones, lacking the epiphyses, have been preserved from the lower limbs.

The funerary inventory consists of several bronze items and two ceramic vessels. In the area of the forearm, probable the right one, archaeologists have found a dagger and a bronze bracelet; another bronze item is a pin discovered between the left humerus and the mandible¹⁹.

The deceased is a man, aged ca. 40–50 years; the auricular surface was, at the time of death, in the 6th stage of development²⁰, and the cranial sutures were obliterated to a proportion of 90%²¹.

Due to the precarious state of preservation of the long bones, the stature could not be calculated.

The left humerus shows accented enthesopathy at the insertion point of the *Pectoralis major* muscle and at the level of the *Deltoid* muscle (Fig. 1/1).

The *Pectoralis major* muscle is involved in rotation and abduction movements, with the bending of the arm²². The development of the deltoid tuberosity can be explained as a response of the bone to constant exercise that involved circular and abduction movements of the arms above the head²³ and pushing of the arms towards the chest (medial rotation.)²⁴ Among the aboriginal population in the

¹⁰ González, Concepción 2004.

¹¹ Vicente, Morera 2007.

¹² Aufderheide, Rodríguez 1998.

¹³ Skeleton Cx_098 was previously published in Sava, Andreica 2013.

¹⁴ Larsen 1997, 188; Campillo 1994.

¹⁵ Aufderheide, Rodríguez-Martin 1998, 93.

¹⁶ White, Folkens 2005, 325.

¹⁷ Olivier 1960, 263.

¹⁸ Farkas, Lipták 1975, 253–254.

¹⁹ Sava, Ignat 2014.

²⁰ White, Folkens 2005, 383.

²¹ White, Folkens 2005, 370.

²² González, Concepción 2004, 186; Lieverse *et al.* 2009, 468.

²³ González, Concepción 2004, 189.

²⁴ Lieverse *et al.* 2009, 468.

Canary Islands for example, this pathological condition has been associated to the repeated use of a weapon called “banot” that involved the throwing of stones. At the same time, these modifications at the level of the *Deltoid* muscle are not only the result of a repeated throwing action, but can also appear through the use of some weapon during hand-to-hand combat, but also through domestic activities and animal husbandry²⁵.



Fig. 1. 1. Example of strong *Pectoralis major* and *Deltoid* muscle attachment on the left humerus; 2. A left radius with marked *Tuberositas radii*; 3. Left radius with a moderately robust expression at the interosseous membrane.

On the left radius, the bicipital tuberosity (the insertion place of the *Biceps Brachii* muscle) is in the second degree of development²⁶ (Fig. 1/2). Dutour²⁷ has associated this enthesopathy with the use of the bow and arrows, an activity during which the elbow is continuously flexed.

A moderately robust expression is visible at the level of the interosseous membrane (Fig. 1/3). The explanation of this modification is not very clear, but specialists presume that it might be the result of a repeated movement of prono-supination of the forearm, as, for example, while transporting certain weights, either with the arms extended or with the arms bent²⁸.

The left ulna is characterized by the presence of some modifications of the osseous tissue at the insertion place of the *Brachialis* (Fig. 2/1) and *Supinator* muscles.

The *Brachialis* and *Biceps brachii* are the main muscles involved in the flexion and extension of the elbow²⁹. After studying a nomad population in southern Asia, Kennedy (1983) has associated the overdevelopment of the supinator crest, on the ulna, with the use of launching weapons, such as spears and boomerangs³⁰, while González and Concepción have associated this enthesopathy with the throwing of stones³¹.

²⁵ González, Concepción 2004, 190.

²⁶ Vicente, Morera 2007, 4.

²⁷ Dutour 1986.

²⁸ González, Concepción 2004, 197.

²⁹ Lieverse *et al.* 2009, 469; Dutour 1986, 222.

³⁰ Larsen 1997, 189.

³¹ González, Concepción 2004, 195.



Fig. 2. 1. Example of moderate *Brachialis* muscle attachment on the left ulna; 2. Rough line marked on both femurs.

The rough line of the femurs is marked (Fig. 2/2); this modification has been attributed to a pressure exerted on a muscular mass as a result of posture habits, such as crouching or maintaining the body in a vertical, straight position³².

On the vertebrae (one thoracic and one lumbar) one can note exostosis collars, both on the upper and lower margins. The body of the lumbar vertebra is strongly subsided (Fig. 3/1; Fig. 3/2). Such degenerative modifications can be, in the present case, related to the individual's age and his performing intense physical activity throughout his life³³.



Fig. 3.1-2. Osteophyte development of vertebral bodies.

Cx 075. Poor state of preservation and representation; the skull cap is very fragmented and could not be reconstructed. The viscerocranium is represented by the mandible and one fragment from the right upper jaw. From the post-cranial skeleton, the long bones are the best preserved (only the distal diaphysis of the right tibia is missing). The scapular belt and the bones of the thoracic cage are very fragmented; only four lumbar vertebrae and several thoracic and cervical vertebrae were recovered from the spine.

In this case, the funerary inventory is rather poor; the individual was interred just with a bronze dagger³⁴.

³² González, Concepción 2004, 293.

³³ Larsen 1997, 163;

³⁴ Sava, Ignat 2014.

The skeleton belonged, undoubtedly, to a male individual, a fact confirmed by both the characters of the skull³⁵ and those of the post-cranial skeleton³⁶. The surface of the pubic symphysis³⁷ and the auricular surface³⁸, at the level of the coxa, indicate an approximate age of 35–45 years.

The 163.8 cm stature was calculated on the basis of the maximum length of the right femur and of the tibia on the left side³⁹; this can be estimated at the upper margin of stature for the period under discussion⁴⁰.

The pathology of this individual leans towards modifications at the level of bone articulations. Signs of osteoarthritis have been noted at the level of the articular facets of the axis with the atlas, with eburnation on the right side of the articular surface, with the condyle of the occipital (Fig. 4/1); in sports medicine, it is explained as the result of sudden, repeated movements of the head⁴¹.

On the long bones, at both proximal epiphyses of the ulnas, one notes arthrosic deformations at the level of the large sigmoid cavity (Fig. 4/2); such modifications have been noted both on the femoral condyles and the proximal epiphyses of the tibias.

The primary factor that contributes to the onset of osteoarthritis is mechanical stress and physical activity. Some activities that involve manual labor, such as in the case of farmers, ballet dancers, various types of athletes, and persons performing rigorous physical exercise can trigger such modifications at the level of the articulations⁴²; knee arthrosis can be the result of prolonged, frequent walking⁴³.

Both radii show a moderately robust expression at the level of the insertion of the *Biceps brachii* muscle (Fig. 4/3).



Fig. 4. 1. Osteoarthritis and eburnation on the articular surface of the axis; 2. Osteoarthritis in the cavity sigmoid of the left ulna; 3. Marked *Tuberositas radii* on both radii.

Cx 092. In this case as well, the conservation and representation state of the skeleton is rather poor; the skull is fragmented; the upper limbs are represented by the humerus on the right side and

³⁵ Buikstra, Ubelaker 1994, 19–21.

³⁶ Buikstra, Ubelaker 1994, 18.

³⁷ White, Folkens 2005, 374–379.

³⁸ White, Folkens 2005, 380–383.

³⁹ Olivier 1960, 263.

⁴⁰ Farkas, Lipták 1975, 253–254.

⁴¹ González, Concepción 2004, 247.

⁴² Larsen 1997, 163–164.

⁴³ González, Concepción 2004, 336.

diaphysis fragments from the humerus on the left side. Out of the forearm bones, only the right radius, one diaphysis fragment from the left radius, the upper half of the right ulna, and the left ulna (missing the distal diaphysis) have been recovered. The ribs are missing and from the spine archaeologists have recovered the lumbar vertebrae (with some destruction), but also a few fragments of the thoracic vertebrae. The pelvic belt is represented by the two coxa, that miss the iliac wings, and the pubic bone, while just the right clavicle was recovered from the scapular belt. The two femurs were recovered from the bones of the lower limbs –the right femur misses the distal epiphysis, while the left shows destructions at the level of both epiphyses. The tibiae are partially destroyed, especially at the level of the proximal diaphyses. The fibulae have been recovered, but are very fragmented. Some of the bones of the feet were also recovered from the lying context.

The funerary inventory is rather rich, as the following items have been recovered from the lying context: a bronze axe discovered by the right scapula, a pin found parallel to the jaw, and a significant quantity of animal bones was found in the area of the lower limbs. Several pottery fragments, possibly from two vessels, were identified near the skull⁴⁴.

This is the skeleton of a male individual; the supraorbital arches are in stage 4 and the menton in stage 3⁴⁵; at the level of the coxa, the greater sciatic notch is of the third degree and the composite arch is almost impossible to see⁴⁶. As for the individual's age, very few indicators have been preserved: according to the auricular surface⁴⁷ he died around 40–44 years of age, and the endocranial sutures are not closed⁴⁸.



Fig. 5. 1. Marked impression of costoclavicular ligament attachment; 2. Example of strong *Pectoralis major* and *Deltoid* muscle attachment on the right humerus; 3. Thoracic vertebra with Schmorl's node.

⁴⁴ Sava, Ignat 2014.

⁴⁵ Buikstra, Ubelaker 1994, 19–21.

⁴⁶ Buikstra, Ubelaker 1994, 18.

⁴⁷ White, Folkens 2005, 380–383.

⁴⁸ White, Folkens 2005, 369–370.

The absence of the epiphyses of the long bones prevented the calculation of the stature.

The individual displays enthesopathies on the clavicle, at the level of the rib impression (Fig. 5/1). The costoclavicular ligament stabilizes and consolidates the articulation of the clavicle with the first rib during energetic movements of the arms⁴⁹.

On the right humerus one notes the arching of the diaphysis, with modifications of the bone on the insertion point of the *Deltoid* and *Pectoralis major* muscles (Fig. 5/2).

On both radii, the bicipital tuberosity is in stage 3⁵⁰, while the rough line of both femurs is marked.

In this case as well the presence of enthesopathies of the upper limbs suggests activities that involved repeated movements of arm rotation and abduction⁵¹.

Arthrosis modifications have been recorded on the sternal end of the clavicle, at the level of the proximal epiphyses of the ulnas, the right radius, and the distal epiphyses of the tibias. Taking into consideration the degree of development of the enthesopathies, one can presume that these signs of osteoarthritis are rather the result of intense physical activity. Schmorl nodules can be observed on the thoracic vertebrae (Fig. 5/3). This pathology can be the result of physical exercise involving the flexion and bending of the spine, but might also originate in traumas caused during weight lifting⁵².

Cx_098⁵³. The skeleton is in a rather poor state of preservation and representation, mainly the scapular belt, the pelvic belt, and the bones of the thorax. Fragments from the frontal and left parietal have been recovered from the skull and just the left side of the mandible and the left zygoma were recovered from the viscerocranium.

The funerary inventory consisted of two bracelets, one pin, and one dagger (all made of bronze), animal bones and pottery vessels placed at the individual's feet⁵⁴.

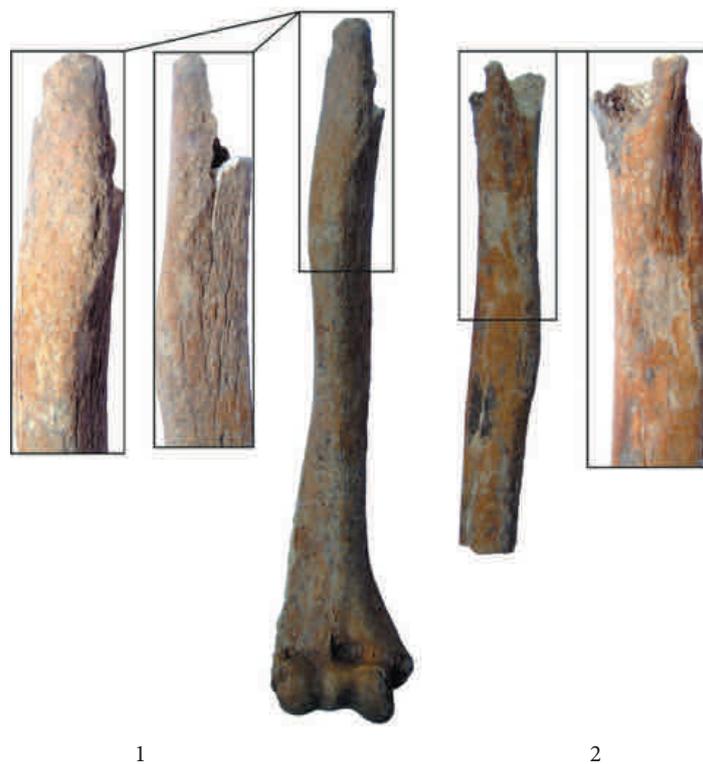


Fig. 6. 1. The presence of enthesopathies on the right humerus; 2. The presence of enthesopathies on the left humerus.

⁴⁹ Lieverse *et al.* 2009, 468.

⁵⁰ Vicente, Morera 2007, 4.

⁵¹ González, Concepción 2004, 186.

⁵² González, Concepción 2004, 259.

⁵³ Sava, Andreica 2013.

⁵⁴ Sava, Ignat 2014.

Both the cranial and postcranial characters indicate, beyond doubt, that the individual was male⁵⁵. The auricular surface of the ilium suggests that he died at 35–39 years of age⁵⁶.

In order to calculate stature, it was only possible to size the maximum length of the left tibia, the only long bone completely preserved; using Pearson's formulae (1960) I have calculated a stature of 169.1 cm. that can be considered large for the period under discussion⁵⁷.

As for the presence of enthesopathies on the bones, the case of this individual is very similar to that of Cx_067 and Cx_092; enthesopathies have been identified at the insertion point of the *Deltoid*, *Pectoralis major*, and *Latissimus dorsi* muscles on the humerus (Fig. 6/1, 2), while on the forearms, due to the poor state of preservation of the epiphyses, osteoarthritis could only be observed at the level of the distal epiphysis of the radius. Osteoarthrotic modifications have also been identified at the level of the articulation of the knee.

The fact that this individual performed rather intense physical effort during his life is also attested by the formation of Schmorl nodules on the superior and inferior surface of the lumbar vertebrae.

Conclusions

As previously mentioned, occupational stress markers on the bones are good indicators of prolonged physical activity. But, for as correct as possible an interpretation of the type of activity performed, one needs to corroborate biopathological data with archaeological information.

The preliminary anthropological analysis has allowed for the identification of two main aspects: marked modifications of the bone on the place of muscle and ligament insertion were only noted among male individuals and only on a reduced number of skeletons.

Furthermore, out of the 23 inhumation tombs, these four individuals were different through a richer funerary inventory and, especially, through their burial with various weapons.

A very similar case is that of skeletons from the Bronze Age discovered in Toppo Daguzzo and Madonna di Loreto, that mostly presented the same occupational stress markers on the bones. As in the case under discussion, such modifications were only identified among male individuals and only on a restricted number of persons. There are also similarities in the nature of the funerary inventories; it was only males with marked enthesopathies on the bones who were buried with weapons. Canci⁵⁸ is of the opinion that all these observations are proof of the existence, during that period, of a special status for a certain category of individuals, possibly that of warriors.

The general robustness of the bones, the high-level stature, marked enthesopathies on the surface of the bones, besides the archaeological proofs, can lead to the following conclusions: three of the individuals discovered in Pecica (Cx_067, Cx_092, and Cx_098) were part of a special social category inside the community and performed intense physical activity during their life. Similarly to the skeletons found in Italy, it is not far-fetched to presume that they belonged to a group of warriors.

The case of Cx_075 is atypical; despite the fact that he was buried with a bronze dagger, he does not display these enthesopathies on the bones. He might have belonged to a different social category than the other three individuals.

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⁵⁵ Buikstra, Ubelaker 1994, 18, 19–21.

⁵⁶ White, Folkens 2005, 380–383.

⁵⁷ Farkas, Lipták 1975, 253–254.

⁵⁸ Canci 1998.

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Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

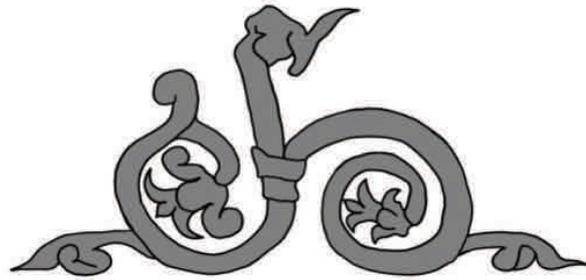
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thraco-Dacica	<i>Thraco-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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Preliminary Considerations on the Dacian Habitation in Vărădia de Mureș “Dealul Cetate”, Arad County (2nd century BC – 1st century A.D.)*

Alexandru Berzovan

Abstract: Regarding the archaeology of Arad County, the 1965–1985 period was characterized by a special energy invested in the archaeological research of the traces of Dacian civilization traces. These researches have led to the discovery of a significant quantity of archaeological materials that have enriched the museum collections of Arad, Oradea, and Cluj-Napoca. For various reasons, the majority of these discoveries have remained, until today, unstudied. The present article aims at providing a general picture of Dacian habitation on the site in Vărădia de Mureș “Cetate;” the discoveries will be exhaustively presented in a future monograph work. From the perspective of the chronology of the discoveries, the oldest traces of habitation on the “Cetate” Plateau can be dated to the First Iron Age. Habitation traces from the Second Iron Age, namely during the period of the Dacian Kingdom, are much more significant. It seems that the plateau was fortified during this period with a defensive ditch. From a stratigraphic perspective, the existence of two distinct levels of habitation has been observed (dated to the 2nd – 1st century B.C. and to the 1st century B.C.–1st century A.D.); furthermore, Dacian habitation was not limited to the plateau but extended beyond it, westwards, under the center of the present-day settlement. The archaeological material mainly consists of pottery; objects made of metal are rarities. The fortification in Săvârșin “Dealul Cetățuia” is located seven kilometers east of the one in Vărădia. The two fortifications, partially contemporaneous, controlled this sector of River Mureș and the entrance way to the Transylvanian nucleus of the Dacian Kingdom. The publication of the monographs of the two sites will certainly provide more numerous possibilities of analysis of these fortified settlements, located so close to each other, that certainly shared a common historical destiny.

Keywords: fortification, Dacian pottery, period of the Dacian Kingdom, Lower Mureș, Vărădia de Mureș.

I. Introduction

Regarding the archaeology of Arad County, the 1965–1985 period was characterized by a special energy invested in the archaeological research of the traces of Dacian civilization's traces¹. Thus, during this interval, excavation campaigns and test trenches were performed in sites such as those in Pecica “Șanțul Mare”², Săvârșin “Dealul Cetății”³, Vărădia de Mureș “Dealul Cetate”⁴, Cladova “Dealul Cetății”⁵, Berindia “Dealul Șindrioara”⁶, Clit “Gurețul Negrilor”⁷, Groșeni “Jidovina”⁸ and others.

These researches – no matter if consisting of simple test trenches (Clit, Groșeni), during several short campaigns (Berindia, Pecica, Vărădia de Mureș) or, on the contrary, of ample researches that continued, with short interruptions, until the middle of the 2000s (Cladova, Săvârșin) – have led to the discovery of significant quantities of archaeological materials that have enriched the collections of museums in Arad, Oradea, and Cluj-Napoca. For various reasons, most of these discoveries, with the exception of those in Pecica⁹, have remained, until today, unpublished.

* English translation: Ana M. Gruia.

¹ Berzovan 2013, 75–76.

² Crișan 1978.

³ Barbu, Hurezan 1982.

⁴ Barbu, Zdroba 1977.

⁵ Boroneanț 1978.

⁶ Dumitrașcu, Ordentlich 1973.

⁷ Dumitrașcu 1970.

⁸ RAJ Arad 1999, 73.

⁹ Crișan 1978.

From my perspective, I have decided to research as many of these materials as possible. Some might argue that publishing items discovered during old excavations, most lacking all context (in the lucky cases, only the name of the surface of discovery and the depth are mentioned), does not provide enough data for the construction of a coherent interpretative discourse based on them. I nevertheless believe that these lots, just like all the others, deserve and must be published as such; the items are mainly valuable in themselves. Even from the analysis of lots lacking a clear context one can extract very precious information on a large number of aspects, such as the general chronology of a habitation, pottery-making technologies, and the issue of circulation of ceramic forms among different cultural areas, to mention just a few examples.

The first and unique study on the Dacian discoveries in Vărădia de Mureș “Dealul Cetății” was published almost four decades ago by the authors of the excavation¹⁰, but it mostly had an introductory character¹¹. The present study¹² aims at providing a general overview of Dacian habitation on this site, while the discoveries will be subsequently presented, in their entirety, in a future monograph work¹³. At the same time, I will bring certain more than necessary clarifications on the issue of the so-called hoard of silver items that the specialized literature states to have been discovered there during the second half of the nineteenth century.

II. The archaeological site in Vărădia de Mureș “Dealul Cetate”

From a geographical perspective, the site is located in the south-eastern area of Zărand Mountains, more precisely in the point where they meet Culoarul Mureșului (Vărădia Depression), in the western area of pre-Roman Dacia (Fig. 1). The spot is located on a hill with steep slopes, Dealul Cetății (180 m in altitude), that dominates with its extra ca. 40 m the lower surrounding areas, providing at the same time very good visibility over a wide sector of the Mureș Valley.

The natural conditions there are favorable to human habitation. In this sector of Culoarul Mureșului, the ample depression of Vărădia could have provided very good conditions to agricultural endeavors. Even the mild and low ridges of Zarand allow for the cultivation, on natural or artificial terraces, of some, more resistant species of wheat. River Mureș, with its ample meadow and pertaining hooks, provided sufficient access to fish, mollusk, and game. The resources of the underground are equally rich and varied. Thus, in the area of the settlements of Julița, Baia, Săvârșin, Toc, Cuiăș one finds iron ores¹⁴. Especially in the area of Baia, iron minerals are close to the surface and could be easily exploited, even with more primitive means. Nonferrous minerals are also present: thus, lead is found in Săvârșin and copper in Roșia Nouă, Vărădia de Mureș, and Bârzava¹⁵. Things that could not be obtained locally were procured through commerce with other communities – the Mureș valley was, back then, an important commercial route that connected the Transylvanian area and the Pannonian Plain. Mountain trails, used almost until the present day, ensured easy access over the ridge of Zarand between the Mureș Valley and Crișul Alb Valley.

The oldest mention of the “Cetate” Hill as a point of archaeological interest can be found in the repertory compiled by Márton Roska¹⁶, where the site is mentioned as a possible spot of interest. Subsequently, during works for the construction of the national Arad – Deva road in 1930–1940, a part of Dealul Cetate was affected¹⁷. Later on, probably during the 1960s, several local inhabitants, D.

¹⁰ Barbu, Zdroba 1977.

¹¹ A number of Dacian pottery materials discovered there were previously presented in the doctoral dissertation of Corina Toma, researcher from Oradea, focusing on western and north-western Dacia between the second century B.C. and the first century A.D. (Toma 2007).

¹² I thank Prof. Univ. Dr. Nicolae Ursulescu, my doctoral supervisor, for taking the time to read this material and for providing extremely useful advice and suggestions.

¹³ I thank the CMA team (Prof. Dr. Peter Hügél, George Pascu Hurezan, Dr. Florin Mărginean, and Dr. Victor Sava) for allowing me to research and publish the Dacian materials discovered on this spot. The future monograph, that will extensively discuss both the discoveries from the Dacian period and those from the Middle Ages, will be written together with Dr. Florin Mărginean.

¹⁴ Giușcă, Bleahu, 1966.

¹⁵ Giușcă, Bleahu, 1966.

¹⁶ Roska 1942, 293/85.

¹⁷ Barbu, Zdroba 1977, 22; Barbu 1996, 48.

Mariș, S. Deac, A. Baciuc, and I. Roșu rescued from the hill and the surrounding areas several pottery fragments that raised the interest of archaeologists Mircea Barbu and Mircea Zdroba from the Museum in Arad.



Fig. 1. Map of ancient Dacia with the location of the site in Vărădia de Mureș.

Thus, the first archaeological excavations started in 1971 and continued during 1972, 1973, and 1974. Both the promontory and the area in its close proximity, westwards, were envisaged.

From the perspective of the chronology of the discoveries, the oldest traces of habitation on the “Cetate” Plateau can be dated to the First Iron Age. There are nevertheless few traces from this period, less than a dozen pottery fragments, while on the preserved excavation plans I was unable to find, as yet, any marking or mentioning of a habitation layer that could be dated during this period. From a cultural perspective, the few materials that I have analyzed can be attributed largely to the Gava and Basarabi Cultures.

Habitation traces from the Second Iron Age, namely from the period of the Dacian Kingdom, are much more significant. It seems that the plateau was fortified during this period through a massive defense ditch that probably had an adjacent rampart. From a stratigraphic perspective, the existence of two distinct habitation layers has been observed; furthermore, Dacian habitation was not limited to the plateau but extended beyond it, westwards, under the center of the present-day settlement (Fig. 2).

Scattered pottery fragments indicate that the area was also inhabited throughout the Roman period (second-third centuries A.D.), though no clear layer attributed to this period has been mentioned in existing documentation. One must state that, at this point, it is uncertain if the materials under discussion were found on the plateau or elsewhere. During the Middle Ages, the promontory was again occupied and a church with stone walls was built there. Subsequently, once the Ottoman Empire conquered the Hungarian Kingdom and the Banat, a fortified place (“palank”) was built there, meant both to supervise the Mureș Valley in this sector and to protect the otherwise rather volatile border area between the Vilayet of Timișoara and the Principality of Transylvania. The conclusion of the Austrian-Turkish wars put an end to habitation in this spot, leaving just a place name to remind us of the past existence of a fortification there.

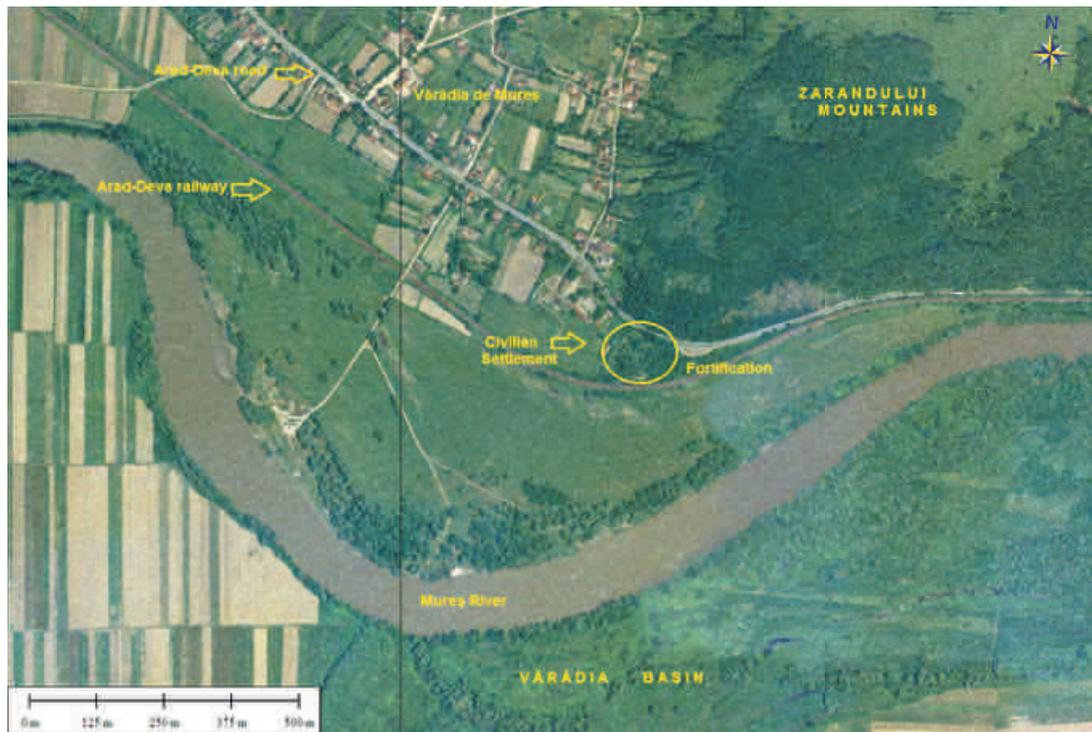


Fig. 2. Vărădia de Mureș “Dealul Cetate”, orthophoto plan.

III. The hoard with silver item(s): the result of historiographical confusions

The so-called hoard – or isolated discovery, consisting of one or, according to other authors, several silver knot brooches, holds a special place among the issues concerning the Dacian vestiges in Vărădia de Mureș. In Romanian-language historiography, the first mention of it can be found in a work signed by the regretted researcher Liviu Mărghitan dedicated to Dacian discoveries in the area of the Middle Mureș¹⁸, where the author mentions the “silver brooches typical to the Dacians” that were presumably found there. The piece of information was taken up again in 1971 in an article signed by the same author together with Sever Dumitrașcu, where they state that “silver knot brooches were found here”¹⁹. From the last work that L. Mărghitan dedicated to the issue of silver hoards in pre-Roman Dacia one finds out about a single knot brooch that was presumably discovered on the spot during the sixth or seventh decade of the nineteenth century²⁰. Data in L. Mărghitan’s works were taken over at face value by the authors of the excavations, M. Barbu and M. Zdroba²¹, and in the Archaeological Repertory of the County of Arad²².

In all these cases the source of information is one study-repertory written by Téglás Gábor²³; in the subchapter dedicated to the discoveries in the Mureș Valley between Zam and Alba Iulia, at no. 36, one finds a lacunal mention of a *single silver knot brooch* that the author saw in the Imperial Collection of Antiquities (Vienna) and that was presumably discovered in Vărădia²⁴, Lower Alba County (present-day village of Oarda, city of Alba Iulia, Alba County)²⁵.

¹⁸ Mărghitan 1970, 17.

¹⁹ Dumitrașcu, Mărghitan 1971, 52.

²⁰ Mărghitan 2008, 166. The author also states that the information according to which one silver brooch was found during the archaeological excavations of 1971–1974 is obviously erroneous.

²¹ Barbu, Zdroba 1977, 21; Barbu 1996, 48.

²² RAJ Arad 1999, 129.

²³ In almost all of the cases quoted (and read) wrongly (see *infra*).

²⁴ Téglás 1887, 65.

²⁵ Téglás’ story clearly indicates another settlement called Vărădia, not Vărădia de Mureș. Though called Vărădia in some medieval documents (Márki 1892, 185), during the eighteenth and nineteenth centuries all of the old maps and name registries that I checked contain the Hungarian name of Tothvárad and the German name of Waradia and it is less probable that the item was recorded from a settlement under a name that cease to be used for more than four centuries. On the contrary, the settlement of Oarda was created through the junction of two other settlements, Oarda de Jos

Unfortunately, the confusions on this discovery continue also in Daniel Spânu’s last – and otherwise successful – work dedicated to Dacian silverworks. Thus, from the entry dedicated to the so-called discoveries from Vărădia de Mureș one learns that four brooches were presumably discovered there and then “deposited at the MNIT in Cluj, where they are mentioned in 1887”²⁶. The only bibliographic sources are two of L. Mărghitan and S. Dumitrașcu’s studies discussed above²⁷, as well as Téglás G.’s work, that the author, nevertheless, almost certainly did not consult²⁸. One is left wondering what was the real source of the statements related to the four brooches and their presence in the collection of the MNIT Cluj in 1887, since none of the mentioned sources reminded of such facts and there is nothing to suggest that the author had access to unpublished documents²⁹. Taking into consideration all these observations, one can conclude that no Dacian silver brooch was found so far in Vărădia de Mureș.

In the same category of confusions I must mention a series of monetary discoveries that are still shrouded in numerous uncertainties as to their real place of discovery – Vărădia de Caraș or Vărădia de Mureș. Thus, the Archaeological Repertory of Arad County mentions republican and imperial Roman *denarii* (Nero, Titus, Vespasian), one *aureus* issued by Nero, and a bronze coin issued by Octavian as having found in Vărădia de Mureș³⁰. But, as Florin Medeleț has indicated³¹, the data from I. Glodariu’s volume on the commercial relations of pre-Roman Dacia³² that mentions “Vărădia” as place of discovery, accompanied by a question mark, it is not correct. The source employed (though incompletely quoted) is Bucur Mitrea’s 1945 study that makes this clear – the settlement in question was Vărădia in Caraș-Severin County³³. Adding all these elements up, one can therefore conclude that, until now, there is no data attesting the discovery of any sort of ancient coins in Vărădia de Mureș.

IV. Dacian habitation

IV.1. Character of the habitation

Though insufficient to allow for the creation of a complex and coherent picture, the results of the four excavation campaigns support certain preliminary observations on the character and length of Dacian habitation on this site. One can thus observe that, from the perspective of spatial organization, it was a *fortified settlement*, plus the nearby civilian settlement the extent of which remains unknown. Furthermore, Dacian traces have been found just several kilometers away, to the north-west, in Julița³⁴.

The relatively small promontory (130 × 60 m) was separated by the rest of the hill through a ditch, measuring ca. two meters in depth and ca. six meters in width (see Fig. 3). It was filled up, probably during the Middle Ages, and this makes it hardly visible today. Though, as far as I am aware of, the excavation did not manage to find it, one should suspect the existence of a rampart with palisade or at least of a wooden fence that could provide the defenders with some minimal protection against projectiles launched by possible attackers.

(*Alsóvárada= Alsómarosvárada*) and Oarda de Sus (*Felsővárada=Felsőmarosvárada*); furthermore, the latter feature on the first Josephine map (see *Sectio186*) just as Vărădia. It is thus almost certain that the item was discovered in the center of this later settlement, as Téglás stated, probably sometime during the second half of the nineteenth century. The editors of the archaeological repertory of the county of Alba placed there the discovery of “silver brooches” (the type or dating is not mentioned), making reference to the same work of Téglás (RAJ Alba 1995, 132). The authors suggest that the item were preserved in the collection of the Museum in Alba Iulia (less likely).

²⁶ Spânu 2012, 249.

²⁷ Mărghitan 1970; Dumitrașcu, Mărghitan 1971.

²⁸ Proof, among other things, of the fact that it is quoted with the error referring to pages (56–57; correctly, page 65) as in L. Mărghitan’s work published in 1970.

²⁹ The author suggests, as a hypothesis, the identification of the so-called four brooches from Vărădia with four items from the MNIT, but as the author itself states, their place of discovery is unknown (Spânu 2012, 249, 251).

³⁰ RAJ Arad 1999, 129.

³¹ Medeleț 1994, 291. Discussing the monetary discoveries attributed to Vărădia de Caraș, Fl. Medeleț mentioned a coin issued in Olbia, that C. Preda first wrote about on the basis of a piece of information received from O. Iliescu (Preda 1980, 39) as originating in “Vărădia”. The archaeologist from Timișoara believed that in this case, the settlement was rather Vărădia de Mureș.

³² Glodariu 1974, 296/342.

³³ Mitrea 1945, 104/23.

³⁴ Unpublished materials (the CMA collection).

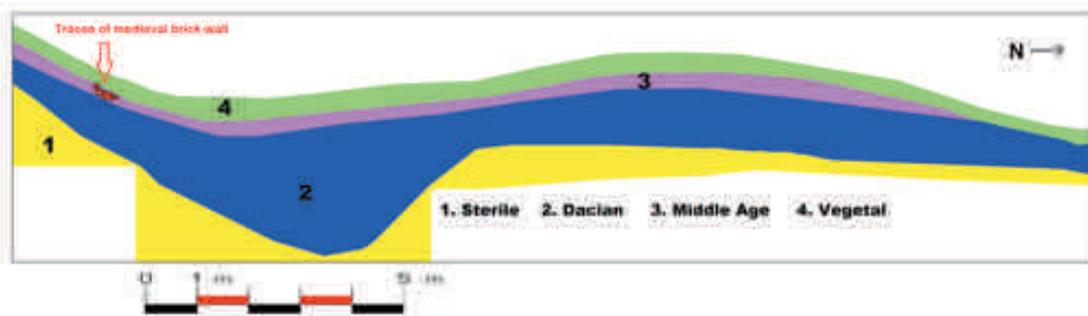


Fig. 3. The defense ditch (image on the basis of ground plans preserved in the CMA archives).

According to the authors of the excavation, two houses were uncovered inside the fortified area, while just one such dwelling was found in the “civilian” settlement. It is difficult to express considerations on the way they were built, but according to some preserved fragments, it seems that here, like in numerous other places in Ancient Dacia³⁵, the walls were constructed from adobe (a network of twigs covered in clay). One illustrated fragment (Pl. 10/2), carefully rendered on one side, seems to have been plastered on the outside.

IV.2. Materials of local tradition

Very large quantities of pottery have been found. A significant number of fragments were once part of jar-vessels, modeled exclusively by hand. From the perspective of their morphology, at first glance one notes that the predominant forms are vessels with the median diameter equal or slightly larger than the diameter of the mouth, with rims most often flared, having rounded ends. The quality of the fabric varies rather much, in quantity and nature of the inclusions, as well as in the treatment of the outer surface: there are items with accented coarseness³⁶ (e.g. no. 11), but also smoothed items in which liquids were probably stored or boiled (no. 10). The ornaments placed on the body of these vessels are varied, including both decorative elements in relief (knobs, girdles, “pills”) and incised elements (simple lines, waves, striations etc.) As it is well known, such types of vessels were used during household activities, mostly in the preparation of food, judging after the traces of secondary firing and smoke, but also in the storage of those categories of foodstuffs that, due to the quantity in which they were produced or due to their quality, could not be properly stored in large vessels³⁷. The common character of this category of vessels, in all Dacian settlements, renders the presentation of analogies useless.

There are also rather numerous fruit-bowls preserved. They have been modeled both by hand and on the potters’ wheel. From a morphological perspective, one notes the predominance of those with shallower cups, more or less profiled shoulder, and wide rim, but there are also items with deep cup, no shoulder, and narrow rim. A very special case consists of a fragment that seems to have belonged to a curiously shaped fruit bowl (rectangular or star-shaped cup, according to the preserved angle), with a projection on the rim (Pl. 7/1); I am yet unaware of similar items in the inner Carpathian area – a somehow similar item was found in Pietroasele “Gruiul Dării”³⁸.

The fruit bowls discovered in Vărădia de Mureș generally display good quality fabric; the clay employed was generally pure – the inclusions are present in lower quantity, and in some cases they are even absent. The treatment of the surfaces consisted in numerous cases in a layer of slip, usually dark brown or blackish, that was subsequently polished; other times, the surface of the vessel itself

³⁵ See Glodariu 1983, 9–11; Antonescu 1984, 16 sq.

³⁶ Some authors explain the coarse character through the perspective of their functionality; see the very interesting discussion of the point in Matei 2011, 48 sqq.

³⁷ Similar opinions in Crișan 1969, 162; Costea 2006, 226.

³⁸ The curious shape of the item has caused certain problems. The determination was made on the basis of information kindly provided by Dr. Sebastian Matei (County Museum Buzău) and Dr. Magdalena Ștefan (the Institute of Archaeology in Cluj-Napoca), to whom I hereby express my gratitude. Compare with Matei 2011, 60 and fig. 39, 6.M.35. Similar projections on the rim of fruit-bowls I had seen in the Dacian materials from Iedera- “DealulCetățuia” (Târgoviște History Museum).

was polished. This is typical for the finds dated in the centuries 2nd – 1st BC. It is interesting to note that on the grey items made on the potters’ wheel, more specific to 1st century BC – 1st century AD timeframe, polishing and polished decoration are less often encountered. The polish was obtained with tools such as bone spatulas, rags, rounded stones, or, in some cases, even pieces of graphite – for example, the foot of one fruit-bowl seems to have been polished thus, and it is possible that the slip contained the same matter (see Pl. 7/7)³⁹ The existence of graphite polishers has been discussed in the specialized literature⁴⁰ and a few such finds have been mentioned from Biharea, Sucidava / Celei, and Sighișoara “Wietenberg”⁴¹. To the already known examples I can add the discoveries in Vărădia de Mureș: one fragment of pure graphite (Pl. 8/7) and several pottery fragments with a very high content of graphite that probably belong to small vessels and show obvious traces of abrasion, proof of having likely been used to this end (Pl. 8/6). As for the role of the fruit-bowls, I believe that it was ceremonial, used during banquets or various other occasions⁴², but anyway with functions deeply connected to the traditional social structures of pre-Roman Dacia⁴³.

Vessels for food consumption *per se*, i.e. tureens and bowls, were also found in significant numbers. Some of them betray older local pottery traditions (no. 21), other show possible Celtic influences (no. 26), possibly even Roman ones (no. 23). The forms vary greatly, on a case-to-case basis, just like the quality and treatment of the fabric.

Vessels for the consumption of liquids, cups and jugs, are somewhat more poorly represented among the discoveries made until now. One torsaded handle (no. 19 and Pl. 3/3), typical to the so-called “luxury” wares, draws one’s attention. The Dacian cups (Ro: “cățui”), not very numerous, are morphologically unitary, generally simple and lacking all ornament; one item stands out – an entirely preserved cup, of the handleless category (no. 47 and Pl. 6/2).

As for the storage vessels, wheel-thrown *pythoi* hold a special place through the quantity and quality of the discoveries. From a morphological perspective, the stepped rims, usually two or three, are typical to this category of vessels from Vărădia⁴⁴. Both oxidizing and reducing fired items are known in this group; as general outlook the surfaces are well smoothed, with wooden spatulas, the fabric is generally of good quality, with inclusions of mica, sometimes in significant quantity. The decoration consists of artistic elements, in rare cases more simple ones such as furrows or steps, pulled from the fabric while the vessel was turning (no. 29; 30); incised ornaments consisted of simple and wavy lines. In some cases, the flute between the two “steps” of the rim was incised with a wavy line (no. 27). As for the two items that belong to *dolia*-type vessels (no. 31, 33), it is not clear if they were found in the Roman or pre-Roman period habitations, as their chronology covers both intervals⁴⁵.

There are also rarer forms, such as the vessel with perforations, tronconic in shape, interpreted either as a “smoker” or a strainer⁴⁶; the rather large orifice on the bottom of it nevertheless supports the first interpretation.

There are numerous objects that speak of the various activities of the inhabitants of the fortification on “Cetate” Hill. There are spindle weights⁴⁷, attesting the domestic craft of wool spinning

³⁹ The case presented here is not singular; a fruit-bowl rim polished with graphite was discovered in Lancrăm- “Glod” (Popa, Simina 2004, 73).

⁴⁰ Popa, Rustoiu, 257–258; Popa, Simina 2004, 73–74.

⁴¹ Popa, Rustoiu, 257–258.

⁴² See also I. Andrițoiu and A. Rustoiu’s observations (1997, 86–87).

⁴³ This could explain the sudden and definitive disappearance, at the time of the Roman conquest, of this type of vessel from the repertory of forms employed by the Dacians in the area of Transylvania and Walachia (Glodariu 1981a, 75; Bichir 1984, 23) and its preservation in the area of Moldavia and of the Lipița Culture, thus precisely in the areas less affected by the consequences of the conflict, where traditional society was able to continue, to a certain extent, its development (see also the suggestions provided by Matei 2011, 58).

⁴⁴ This type of vessel is characteristic to the period of the Dacian kingdom (Glodariu 1995, 49); it was also present, in significant numbers, in the Lower Mureș Valley: Pecica (Crișan 1978, 132, 191–192), Păuliș- DealulBătrân (Pădurean 1990, pl. 31/6–7), possibly Cladova (Boroneanț 1978, 142), Zăbrani (previously unpublished, the CMA collection), Săvârșin (Barbu, Hurezan 1982, 55).

⁴⁵ See the discussion and the bibliographic indications in Glodariu 1995, 49.

⁴⁶ Glodariu, Moga 1989, 68–69.

⁴⁷ Even if today, in the rural areas of Romania and the Balkans this type of objects is no longer used in traditional weaving for hundreds of years, items morphologically identical to the objects archaeologically found on the site under discussion continue to be used as such until the present day in various areas of the Middle East and in Maghreb (Watson 1979, 174).

(Pl. 10/4, 5, 6); in case of need, these items could be used as loom weights as well. The function of the pyramidal, larger items (Pl. 10/11) is more difficult to establish; perforated adobe items (Pl. 10/3) or small stones with perforations (Pl. 10/1, 9) could have been used as fishing weights. It is interesting to note among the discoveries the presence of what seems to be a stone axe fragment, probably Neolithic (Pl. 10/10); as I am unaware of Neolithic traces on “Cetate” Hill, it seems more likely that in ancient times some inhabitant of the settlement found the item elsewhere and later kept it as a curiosity. There are also “game pieces”⁴⁸, made of the walls or bottoms of vessels, some perforated (Pl. 10/7). From the rather poor osteologic material, I have illustrated one shell (Pl. 10/12).

The almost complete absence of metal objects is strange⁴⁹; the authors of the excavation mention two fragments of bent knives and two iron fishing hooks, but I was yet unable to identify them in the CMA collections.

IV.3. Imitations and imports

The location of this community near one of the large commercial routes of Dacia is partially reflected in the archaeological discoveries. Its relations to other “barbarian” peoples, such as the Celts and the Bastarni, played an important role during the second-first centuries B.C.

One thus encounters fragments of *pseudokantharos*-type vessels⁵⁰, wheel-thrown, made of black, polished fabric. Unfortunately, none of the items has been preserved entirely. Due to their size, slim form, and proportion between the diameter of the mouth and the median diameter, the fragments illustrated here (no. 18, see also pl. 8/2, 5), could be included in type 3 according to the typology of A. Rustoiu and M. Egri, thus having analogies in the Celtic environment in Pannonia and the neighboring areas⁵¹. It is difficult to say if the items are imports or creations of traveling Celtic masters; it is nevertheless certain that the presence of these vessels attests to connections with the neighboring Celtic environment, probably during the second half of the second century B.C. The fragments from vessels with graphite in their fabric and the graphite fragment discussed above must be analyzed from the same perspective, i.e. that of the relations with the Celtic tribes.

Among the pottery fragments, one attracts attention: it certainly belonged to a tureen, with strongly flared lip and a small, X-shaped handle (no. 17 and Pl. 3/1). These details, just like its form and presence in a Dacian settlement, seem to make reference, at first glance, to the environment of the Poienești Lukașevka Culture⁵². The presence of such an item would not be surprising – items originating as well in the far area of northern Moldavia have been discovered before on the Lower Mureș and in Pecica “Șanțul Mare”⁵³. Nevertheless, elements such as the absence of faceting on the inside of the rim and the structure of the fabric (see no. 17), less typical to “Bastarnae” pottery, ask for caution⁵⁴.

Local imitations of *situla*-type vessels are present in relatively large numbers. One must state that none of the analyzed fragments shows graphite in the fabric. They have been modeled either on the potters’ wheel (Pl. 8/1) or by hand (no. 20). This type of vessels is encountered in numerous Dacian settlements, throughout the period between the first century B.C. and the first century A.D.

There is only one item that is an imitation of a Hellenistic vessel, namely of a *krater* (Fig. 4). Such vessels are also distributed rather widely, both geographically and chronologically⁵⁵, but the most numerous seem to belong to the second-first centuries B.C.⁵⁶ A bead made of colored glass (not illustrated), completes the otherwise rather restricted series of imports.

⁴⁸ On the possible functions of these items, see Pop 1995–1996.

⁴⁹ The presence of sharpening stones among the discoveries (Pl. 10/8), some with traces of intense usage, suggests that such items must have nevertheless existed.

⁵⁰ See Rustoiu, Egri 2011, 17.

⁵¹ Rustoiu, Egri 2011, 20, fig. 5.

⁵² Babeș 1993, Taf. 38, 588/b, etc.

⁵³ Crișan 1978, 140, Pl. 33/2.

⁵⁴ The vessel, on the finding context of which no data is available, might also be connected to a later habitation horizon, subsequent to the period of the Dacian Kingdom; handles of this type are generally typical to the Germanic environment from the Second Iron Age (Vulpe 1953, 429, n. 47).

⁵⁵ Popa, Simina 2004, 62.

⁵⁶ Matei 2011, 39.

IV.4. Chronology

The absence of coins, jewelry items, dress accessories, and imports hinders significantly the identification of precise chronological limits, while the collection of the material, which was not done according to complexes, makes an already complicated situation even more complicated⁵⁷.

Pre-Roman Dacian habitation on “Cetate” Hill has two distinct layers. According to the analyzed materials, *the earliest* of them could be attributed to the general interval of the second-first centuries B.C. There are a few indications supporting this dating. Thus, the type of tureen no. 21 (see also Pl. 3/5) in the appended catalogue displays morphological traits that support its attribution to an early horizon, having good analogies in Berea (item found in the third-second century B.C. layer)⁵⁸, Florești “Șapca Verde” (second century B.C.)⁵⁹, and Panic (the second half of the second century B.C.)⁶⁰; anyway, it is considered that the tureen form with straight rim as compared to the central axis of the vessel (like the item under discussion) is rather typical to the second century B.C.⁶¹ The vessels with strongly thickened rim, reminding of certain Celtic forms (no. 22), suggest, in their turn, the same early horizon: one analogy can be identified in Zalău “Dealul Lupului” (third-second centuries B.C.), in the local environment⁶². Vessel bottoms “with umbo,” present in Vărădia (see also no. 24 and Pl. 3/8), have analogies on numerous sites, such as those in Ciolăneștii din Deal⁶³ or Florești “Șapca Verde”⁶⁴, mainly dated to the second century B.C. and the beginning of the subsequent century. Adding up all these facts, one can conclude that Dacian habitation here probably started no earlier than in the second half of the second century B.C.

Nevertheless, the most consistent lot of materials displays an aspect as specific as possible to Dacian pottery from the first century B.C. – first century A.D., with the characteristic forms; I therefore it could be possible that just like at Săvârșin, the *upper Dacian layer* dates to this interval. If the beginning of habitation could be established, even in general terms, the dating of its end is somewhat more complicated; the main question that raises is whether this fortification was still in use during the great Dacian-Roman confrontations. M. Barbu and M. Zdroba, in their article mentioned above, stated that the settlement ended destroyed in a violent fire in the beginning of the second century A.D., along with the fortification in Pecica “Șanțul Mare”⁶⁵, in the context of the Dacian-Roman wars. More recently though, starting from the very few materials illustrated by the two archaeologists from Arad (20 vessels and fragments all together), H. Pop restricted the chronology to just until the beginning of the first century A.D.⁶⁶.

Despite the fact that I have examined the entire material, I choose to be more cautious towards the two opinions mentioned above, so different from each other (and not very well supported); in the subsequent lines I will limit myself to making a few observations on the material that might have chronological relevance. The *pythoi* fragments, such as the one displaying a wavy line on the rim, were considered specific to the first century A.D., more precisely to the second half of it⁶⁷, but subsequent researches have noted their presence also in earlier horizons, dated to the first century B.C., on spots such as those in Sighișoara “Wietenberg”⁶⁸, Lančrām “Glod”⁶⁹, and Covasna “Cetatea

⁵⁷ The absence of an adequate and up to date catalogue of the chronology of pottery according to different areas and micro-regions, starting from discoveries made in clearly dated contexts, is strongly felt in the historiography of the Dacian period, especially for the inner Carpathian area; the employed catalogues and studies (Crișan 1966; Glodariu 1981a; Glodariu 1981b), published more than 50 and, respectively, 30 years ago, require numerous completions. There are already two such approaches for the area of Walachia (Trohani 1999; Matei 2011).

⁵⁸ Pupeză 2012, 31, Pl. 7/8.

⁵⁹ Pupeză 2012, 51, Pl. 22/12.

⁶⁰ Pupeză 2012, 80, Pl. 46/3.

⁶¹ Pupeză 2012, 299.

⁶² Pupeză 2012, 114, Pl. 70/5.

⁶³ Pupeză 2012, 135, Pl. 84/2, 4.

⁶⁴ Pupeză 2012, 51, Pl. 22/9.

⁶⁵ Barbu, Zdroba 1977, 25.

⁶⁶ Pop 2006, 44.

⁶⁷ Glodariu 1981b, 157.

⁶⁸ Andrițoiu, Rustoiu 1997, 84–85.

⁶⁹ Popa, Simina 2004, 76.

Zânelor”⁷⁰, and therefore can no longer be used as “markers” in the documentation of a first century A.D. habitation. The two *dolia* fragments, of certain Roman influence, might indicate with more precision a late horizon, but, as I stated previously, their attribution to the pre-Roman Dacian habitation is uncertain.

Fruit-bowls with late morphological characteristics⁷¹, so frequently encountered on sites such as the one in Pecica “Șanțul Mare”, are slightly rarer here, a fact that might (or might not) constitute in itself an indicator of an earlier end⁷². On the other hand, nevertheless, I. Glodariu dated the analogies for the handleless Dacian cups from the sites in Slimnic and Arpașu de Jos only in the second half of the first century A.D.⁷³, but development exceptions from the modern patterns impose caution. Bowls, such as the one illustrated here at no. 23 (Pl. 3/7), are more frequent in north-eastern Walachia during the first century A.D., especially in the second half of the century⁷⁴.

Unfortunately, a possible correlation with the situation in the immediate vicinity, on the better researched site in Săvârșin “Cetățuia” is not possible due to the (illegal) works for the construction of a mobile phone tower in 2004 that has affected the entire upper plateau of the hill, disturbing the habitation layer; the excavation has only identified the sunken complexes; thus, the end of Dacian habitation in Săvârșin cannot be documented precisely either⁷⁵.

In the light of the above said, It could be possible that the habitation on “Cetate” Hill might have continued throughout the entire duration of the first century A.D., until the Dacian-Roman wars, and even for a while afterwards, naturally under different auspices. But it cannot be excluded a slightly earlier ending, maybe due to a tribal conflict or due to other causes. Anyway, it is to be desired that future excavations should complete these observations with more facts.

V. Final considerations

On “Dealul Cetate” there was certainly a fortified settlement, no doubt of some importance, but, at first glance, lacking the ambitions that would characterize a regional power center as the extreme rarity of the metal items and the small number of imports suggests.

The existence of the fortified hill and of a civilian settlement nearby might represent a topographic expression of certain social realities. According to some traces, it is possible that other, smaller settlements existed in the area, westwards, such as the one in Julița, probably in a subordinate relation. The fortification system of the settlement does not represent a serious obstacle in itself, as an organized military force could overcome it easily, but it ensured, no doubt, a feeling of comfort to the inhabitants that it could protect against bands of brigands and occasional raids mounted by rival factions; furthermore, this construction, that certainly required the work of the entire community, implies the presence of a noble clan at the leadership of the settlement.

The analysis of the visibility area (Fig. 4) indicates that the fortification controlled almost the entire depression of Vărădia, but did not grant direct visibility towards the fortification in Săvârșin. It supervised both the course of the Mureș and the pertaining commercial road, and the surrounding agricultural areas. It seems very probable that the settlement in Vărădia was “subordinated” to the one in Săvârșin, defending the area from the west.

Located seven kilometers apart in a straight line, the two settlements, partially contemporary⁷⁶, controlled this sector of the Lower Mureș and, implicitly, the access way to the core of the Dacian Kingdom. The future publication of monograph works detailing the two sites will certainly provide more analysis possibilities of the Dacians’ life in this area and of the two fortifications located so close to each other and that, no doubt, shared a common historical destiny.

⁷⁰ Previously unpublished, information kindly provided Dr. Viorica Crișan (MNIT Cluj-Napoca), to whom I hereby thank.

⁷¹ For the definition of their characteristics, see Crișan 1966, 168–169.

⁷² One must also take into account the specifically regional nuances, starting from the truism that it is not mandatory for a certain type of vessel to have everywhere the same chronology; outside the large settlements and regional centers, in the smaller settlements, it is to be expected that the “innovations” reached later.

⁷³ Glodariu 1981b, 156.

⁷⁴ Matei 2011, 65 (the author calls them bowls).

⁷⁵ Kind information provided by Dr. Valeriu Sirbu (Museum of Brăila), to whom I hereby thank.

⁷⁶ In the sense that habitation in Săvârșin started much earlier.

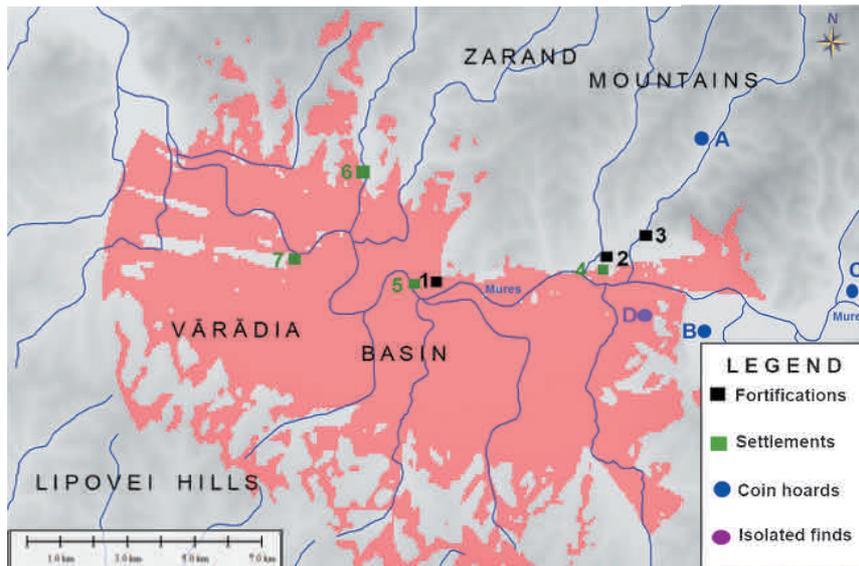


Fig. 4. Vărădia de Mureș Depression. Calculation of the visibility area (10 km) of the Dacian fortification in Vărădia – “Dealul Cetate.” Legend: 1. Vărădia de Mureș – “Dealul Cetate;” 2. Săvârșin – “Dealul Cetățuie;” 3. Săvârșin – “Dealul Cruntava” (uncertain)⁷⁷; 4. Săvârșin – civilian settlement; 5. Vărădia de Mureș – civilian settlement; 6. Julița – Madosza Solomon’s garden⁷⁸; 7. Bulci – “La Cetate”⁷⁹; A. Hoard in Temeșești⁸⁰; B. Hoard in Căprioara⁸¹; C. Hoard in Toc⁸²; D. Stray find in Valea Mare⁸³.

Appendix: Catalog

I will present, in order to illustrate, *a small part* of the Dacian pottery material discovered on the spot of “Cetate.” In order to avoid possible unclarities, I need to make certain brief mentions on the system employed in the description and cataloguing of the pottery. The first field, labeled *indicative*, includes the inventory number of the object (e.g. VM 181_1974) and a current number that I provided while processing it, that can be followed by letters in case there are several graphically reconstructed fragments (e.g. 1a,b). Thus, each processed fragment benefits from a unique code of identification, useful both in transforming the catalogue into databases and in case of future completions. The subsequent field, labeled *type*, signals the type of vessel and the characteristics of its rim, bottom, cup, handle, on a case-to-case basis. In the field *technique* I mention the modeling method (by hand or on the potters’ wheel), the type of firing, treatment of the surfaces (when such applies), the presence of secondary firing and traces of smoking⁸⁴, and if one can identify traces of special tools (combs and brushes used in the decoration of pottery etc.)⁸⁵ The field dedicated to the *dimensions* contains the specific measurements and is followed by the field referring to the aspect of the *fabric*. The latter includes discussions of several factors such as color⁸⁶, coarseness⁸⁷, hardness⁸⁸, nature of the

⁷⁷ Pădurean, Berzovan 2011, 34, footnote 15.

⁷⁸ See supra, footnote 33.

⁷⁹ RAJ Arad 1999, 47.

⁸⁰ RAJ Arad 1999, 127.

⁸¹ RAJ Arad 1999, 49.

⁸² RAJ Arad 1999, 127.

⁸³ Unpublished, republican Roman denarius in the collection of a local inhabitant; kind information provided by E. Pădurean, to whom I hereby thank.

⁸⁴ Important in determining the functionality of the vessel (and not only).

⁸⁵ An extremely useful thing when, on the basis of more ample writings, the issue of household production will be approached and that of workshop production, respectively.

⁸⁶ As, by its very nature, this field involves a high degree of subjectivity, I chose, as much as possible, to employ ample determinations, without too many variants and nuances. I find the use of the Münsellchart irrelevant.

⁸⁷ The tactile aspect of the fabric. In the description of this factor I use five degrees of coarseness: *very accented* (“coarse”); *accented* (“rough”); *average* (“straightened”), *low* (“smoothed”), *very low* (polished pottery, with “soap-like” outlook). The estimation was made on the best preserved surface of the vessel or fragment under analysis. See Teodor 2001, 46.

⁸⁸ Also described according to five degrees, see Teodor 2001, 46.

inclusions⁸⁹ and their proportion. The sixth field is dedicated to the *ornaments*, while in the final field I mention – when able to find out – the *origin* of the vessel, i.e. the place where it was found.

Jar-like vessels

1. (Pl. 1/1).

Indicative: VM 181_1974_1; **Type:** jar; slightly flared rim, flattened end; **Technique:** modeled by hand; mixed firing; wooden spatula and comb; **Dimensions:** $\varnothing_{\text{mouth}}$: 14 cm; $\varnothing_{\text{neck}}$: 13 cm; $\varnothing_{\text{median}}$: 15 cm; H_{upper} : 12,5 cm; Gr_{wall} : 0.3–0.4 cm; **Aspect:** dark brown in color, with brick-red nuances on the inside; accented coarseness; accented hardness; sand in small quantity, occasional pebbles; **Ornaments:** the fragment displays two „pills”, applied on the neck on the best preserved of the two one can note four alveoli, impressed by finger; the body of the vessel was decorated with several rows of slightly arched striations, placed vertically, made with a comb in the soft fabric that already started to harden. In the area of maximum diameter it preserves an oval-shaped knob, not very prominent, with three alveoli. **Origin:** square H, -0.90 m.

2. (Pl. 1/2).

Indicative: VM 181/1974_5; **Type:** jar; slightly flared rim, flattened end; **Technique:** modeled by hand; reducing firing; spatula and blunt-ended instrument; secondary firing and smoked traces on both sides; **Dimensions:** $\varnothing_{\text{mouth}}$: 14 cm; $\varnothing_{\text{neck}}$: 12,5 cm; $\varnothing_{\text{median}}$: 15 cm; H_{upper} : 9.3 cm; Gr_{wall} : 0.5 cm; **Aspect:** dark brown-blackish in color; accented coarseness; accented hardness; sand in average quantity; **Ornaments:** the fragment displays a complex ornament consisting of a series of parallel arches and sharp angles, made with a blunt instrument in the still soft fabric of the vessel; **Origin:** *passim*.

3. (Pl. 1/3).

Indicative: VM 270/1973_20; **Type:** jar; slightly flared rim, rounded end; **Technique:** modeled by hand; reducing firing; smoked on the inside; **Dimensions:** $\varnothing_{\text{mouth}}$: 17 cm; $\varnothing_{\text{neck}}$: 12.3 cm; Gr_{wall} : 0.8 cm; **Aspect:** dark brown-blackish in color; accented coarseness; accented hardness; sand in low quantity, occasional pebbles; **Ornaments:** undecorated; **Origin:** S4, square 13.

4. (Pl. 1/4).

Indicative: VM 265/1973_1a,b,c; **Type:** jar; slightly flared rim, rounded end; **Technique:** modeled by hand; reducing firing; secondary firing and smoked, especially on the inside; spatula, brush; smoothed on the inside; **Dimensions:** $\varnothing_{\text{mouth}}$: 20.5 cm; $\varnothing_{\text{neck}}$: 19.5 cm; $\varnothing_{\text{median}}$: 23.5 cm; H_{upper} : 11 cm; Gr_{wall} : 0.7 cm; **Aspect:** dark brown-blackish in color; average coarseness; without visible inclusions; **Ornaments:** the fragment displays a series of striations, at various angles, made with a brush, and a vertical girdle of alveoli, carefully rendered; **Origin:** square E, -0.60 m.

5. (Pl. 1/5).

Indicative: VM 273/1972_3; **Type:** jar; slightly flared rim, flattened end; **Technique:** modeled by hand; reducing firing; blunt-ended instrument; **Dimensions:** $\varnothing_{\text{mouth}}$: 18 cm; $\varnothing_{\text{neck}}$: 17 cm; $\varnothing_{\text{median}}$: 20.5 cm; H_{upper} : 11.5 cm; Gr_{wall} : 0.5 cm; **Aspect:** dark brown in color; average coarseness; accented hardness; occasional pebbles; **Ornaments:** the fragment displays a circular „pill” on which the potter attempted to create an alveolus by digital imprint; circle segments, carelessly rendered with a blunt instrument, framing the mentioned „pill”; **Origin:** square B, -0.85 m.

6. (Pl. 1/6).

Indicative: VM 195/1973_10; **Type:** jar; flat bottom, weakly profiled sole; **Technique:** modeled by hand; reducing firing; smoked on both sides; comb; **Dimensions:** $\varnothing_{\text{bottom}}$: 13 cm; Gr_{wall} : 1 cm; **Aspect:** blackish fabric; accented coarseness; accented hardness; sand in small quantity, occasional traces of chamotte; **Ornaments:** the fragment displays a series of rows of parallel incisions, almost vertical, made with a comb, in the fabric while it started to harden; **Origin:** square H.

7. (Pl. 1/7).

Indicative: VM 16095/1972; **Type:** jar; flared rim, flattened end; flat bottom, no sole; **Technique:** modeled by hand; mixed firing; slightly smoked; blunt-ended instrument; **Dimensions:** $\varnothing_{\text{mouth}}$: 16 cm; $\varnothing_{\text{neck}}$: 14 cm; $\varnothing_{\text{median}}$: 17 cm; $\varnothing_{\text{bottom}}$: 11 cm; H_{total} : 16 cm; H_{upper} : 7 cm; H_{lower} : 9 cm; Gr_{wall} : 0.7 cm; **Aspect:** yellowish in color; accented coarseness; accented hardness; sand in average quantity; **Ornaments:** the vessel displays four ovoid knobs, flattened, placed at approximately equal distance from each other, placed on the maximum diameter. In the areas delimited by the four knobs one finds two wide incisions, vaguely parallel, with an almost semicircular contour, made rather carelessly; **Origin:** square B, - 0.35 m.

8. (Pl. 2/1).

⁸⁹ I avoid using the term “temper material” since the distinction between the impurities of the clay and the actual “temper materials” cannot be made in the absence of certain analyses (Teodor 2001, 46–47).

Indicative: VM 143/1973_1a,b,c; **Type:** jar; slightly flared rim, rounded end; **Technique:** modeled by hand; reducing firing; traces of secondary firing and smoked on both sides; blunt-ended instrument; **Dimensions:** \emptyset_{mouth} : 19 cm; \emptyset_{neck} : 18 cm; $\emptyset_{\text{median}}$: 23 cm; H_{upper} : 13 cm; Gr_{wall} : 0.7 cm; **Aspect:** blackish in color; average coarseness; accented hardness; large-grain sand in average quantity and occasional pebbles; **Ornaments:** the fragment displays a round, flattened knob and a strap consisting of three wavy lines, carelessly rendered with a blunt instrument in the soft fabric of the vessel. **Origin:** square D, -0.60 m.

9. (Pl. 2/2).

Indicative: VM 143/1973_2a,b; **Type:** jar; slightly flared rim, rounded end; **Technique:** modeled by hand; reducing firing; intense secondary firing and strongly smoked, especially on the inside; **Dimensions:** \emptyset_{mouth} : 19.5 cm; \emptyset_{neck} : 18 cm; $\emptyset_{\text{median}}$: 23 cm; H_{upper} : 13 cm; Gr_{wall} : 0.7 cm; **Aspect:** dark-brown – blackish in color; average coarseness; accented hardness; large-grain sand in average quantity and occasional pebbles; **Ornaments:** undecorated; **Origin:** *passim*.

10. (Pl. 2/3).

Indicative: VM 129/1973_7a,b,c; **Type:** jar; slightly flared rim, rounded end; **Technique:** modeled by hand; oxidizing firing; smoked on the inside; wooden spatula; **Dimensions:** \emptyset_{mouth} : 20.5 cm; \emptyset_{neck} : 20 cm; $\emptyset_{\text{median}}$: 25 cm; H_{upper} : 12 cm; Gr_{wall} : 0.8 cm; **Aspect:** brick-red in color; low coarseness; accented hardness; no visible inclusions; on the outside it shows traces of a hot liquid having trickled; **Ornaments:** the fragment displays an arched girdle of alveoli and a „pill”, probably part of a more complex ornament; **Origin:** square G, -0.75 m.

11. (Pl. 2/4).

Indicative: VM 270/1973_18; **Type:** jar; slightly flared rim, rounded end; **Technique:** modeled by hand; reducing firing; traces of secondary firing and smoked on both sides; **Dimensions:** \emptyset_{mouth} : 14 cm; \emptyset_{neck} : 12.5 cm; $\emptyset_{\text{median}}$: 16.7 cm; H_{upper} : 10 cm; Gr_{wall} : 0.8 cm; **Aspect:** dark-brown – blackish in color; very accented coarseness; accented hardness; large-grain sand and pebbles in large quantity, traces of chaff; **Ornaments:** the fragment displays a horizontal row of alveoli made through digital imprint; **Origin:** S4, square 15, -2.40 m.

12. (Pl. 2/5).

Indicative: VM 265/1973_8; **Type:** jar; flared rim, rounded end; **Technique:** modeled by hand; reducing firing; blunt-ended instrument, spatula; **Dimensions:** Gr_{wall} : 0.7 cm; **Aspect:** dark brown in color; average coarseness; accented hardness; mica in average quantity; **Ornaments:** the fragment displays oblique lines, almost parallel, made with a blunt-ended instrument; **Origin:** S4, square 2, -1.80 m.

13. (Pl. 2/6).

Indicative: VM 265/1973_9; **Type:** jar; flared rim, rounded end; **Technique:** modeled by hand; reducing firing; well smoked on both sides; **Dimensions:** Gr_{wall} : 0.8 cm; **Aspect:** dark brown – blackish in color; average coarseness; accented hardness; mica in average quantity; **Ornaments:** the fragment displays a round, flattened knob; **Origin:** *passim*.

14. (Pl. 2/7).

Indicative: VM 265/1973_10; **Type:** jar (?); straight rim, notched; **Technique:** modeled by hand; reducing firing; smoked on the inside; **Dimensions:** Gr_{wall} : 0.6 cm; **Aspect:** dark brown in color; average coarseness; accented hardness; mica in small quantity, organic inclusions (probably a flour-like matter judging according to the small holes left in the fabric); **Ornaments:** the rim was ornamented with notches, made with one’s nail; **Origin:** *passim*.

15. (Pl. 2/9).

Indicative: VM 273/1973_4; **Type:** jar; flared rim, flattened end; **Technique:** modeled by hand; mixed firing; **Dimensions:** \emptyset_{mouth} : 18 cm; \emptyset_{neck} : 16.5 cm; $\emptyset_{\text{median}}$: 18 cm; H_{upper} : 10 cm; Gr_{wall} : 0.8 cm; **Aspect:** dark brown in color; average coarseness; accented hardness; lacking visible inclusions; **Ornaments:** the fragment displays an ovoid knob with two alveoli; **Origin:** square B, -0.85 m.

Various categories of vessels

16. (Pl. 2/8).

Indicative: VM 16093/1974; **Type:** smoker, strainer (?); **Technique:** modeled by hand; oxidizing firing; the orifices were made in the damp fabric with a blunt-ended instrument, from the inside out, a fact that triggered in numerous cases the formation of small clay „rings” around the perforations, on the outside. The orifices are not placed symmetrically; **Dimensions:** \emptyset_{mouth} : 14 cm; $\emptyset_{\text{bottom}}$: 8 cm; H_{total} : 12 cm; Gr_{wall} : 0.8 cm; **Aspect:** brick-red color; accented coarseness; accented hardness; lacking visible inclusions; **Ornaments:** undecorated; **Origin:** S I, square 11, -0.60m.

17. (Pl. 3/1).

Indicative: VM 245/1972_12; **Type:** tureen; flared rim, pointy end; miniature, lowered handle, prolonged profile; **Technique:** modeled by hand; oxidizing firing; **Dimensions:** \emptyset_{mouth} : 14 cm; Gr_{wall} : 0.4 cm; **Aspect:**

brick-red color; average coarseness; accented hardness; sand in small quantity; **Ornaments:** undecorated; **Origin:** *passim*.

18. (Pl. 3/2; Pl. 8/2).

Indicative: VM 177/1974_9a,b; **Type:** *pseudokantharos*; straight rim, flattened end; **Technique:** wheel-thrown; reducing firing; polished on both sides; blunt-ended instrument; **Dimensions:** \emptyset_{mouth} : 24 cm; \emptyset_{neck} : 22.5 cm; $\emptyset_{\text{median}}$: 24 cm; H_{upper} : 7 cm; Gr_{wall} : 0.6 cm; **Aspect:** blackish in color; very low coarseness; accented hardness; sand in very small quantity; **Ornaments:** the fragments display a poorly profiled horizontal furrow, pulled from the fabric of the vessel during turning; as for the incised ornaments, there are two horizontal, parallel lines placed under the rim, made with a sharp instrument, and a horizontal line made with a blunt instrument, placed on the body of the vessel, that frames an area reserved for ornaments that cannot be easily reconstructed (circles? wavy line?) due to the fragmentary state; **Origin:** square H, -0.50 m.

19. (Pl. 3/3; Pl. 8/3).

Indicative: VM 131/1973_6; **Type:** cup, fragment; torsaded handle; **Technique:** hand modeled; reducing firing; **Dimensions:** Gr_{maximum} : 2 cm; **Aspect:** dark grey – blackish in color; average coarseness; accented hardness; sporadic fragments of chamotte; **Ornaments:** through the fabrication manner, it displays not only functional, but also ornamental values; **Origin:** square H, -0.40 m.

20. (Pl. 3/4).

Indicative: VM 270/1973_6a,b; **Type:** situla, imitation; in-turned rim, rounded end, thickened; **Technique:** hand modeled; reducing firing; wooden spatula, brush; smoked on both sides; **Dimensions:** \emptyset_{mouth} : 30 cm; \emptyset_{neck} : 33.5 cm; Gr_{wall} : 1 cm; **Aspect:** dark brown in color; accented coarseness; accented hardness; large-grain sand and pebbles in significant quantity; **Ornaments:** a horizontal furrow, similar to a step, was pulled from the fabric under the neck; a horizontal strap was delineated with a blunt instrument underneath, followed by a new furrow, more poorly profiled, that frames an area decorated with horizontal striations incised in the fabric as it hardened, with an instrument looking like a comb with blunt tips; **Origin:** square F, -0.55 m.

21. (Pl. 3/5).

Indicative: VM 1973/cm_18; **Type:** tureen; slightly flared rim, rounded end; **Technique:** hand modeled; oxidizing firing; **Dimensions:** \emptyset_{mouth} : 30 cm; Gr_{wall} : 0.6 cm; **Aspect:** yellowish in color; average coarseness; average hardness; without visible inclusions; **Ornaments:** undecorated; **Origin:** *passim*.

22. (Pl. 3/6).

Indicative: VM 153/1973_4; **Type:** pot; slightly flared rim, rounded end, thickened; **Technique:** hand modeled; reducing firing; wooden spatula; secondary firing and smoking on the rim; **Dimensions:** \emptyset_{mouth} : 27 cm; Gr_{wall} : 2 cm; **Aspect:** dark brown – blackish in color; average coarseness; accented hardness; sand in average quantity, pebbles in small quantity; **Ornaments:** undecorated; **Origin:** square F, -0.35 m.

23. (Pl. 3/7).

Indicative: VM 218/1973_1; **Type:** bowl; in-turned rim, flattened end; **Technique:** wheel-thrown; reducing firing; wooden spatula; **Dimensions:** \emptyset_{mouth} : 24.2 cm; Gr_{wall} : 2 cm; **Aspect:** grey in color; low coarseness; accented hardness; mica in small quantity; **Ornaments:** undecorated; **Origin:** S4, square 4, -1.70 m.

24. (Pl. 3/8).

Indicative: VM 180/1973_6; **Type:** fragment; bottom with umbo; **Technique:** hand modeled; mixed firing; dark brown – blackish slip, strongly corroded; **Dimensions:** $\emptyset_{\text{bottom}}$: 10.2 cm; Gr_{wall} : 1 cm; **Aspect:** dark brown in color; low coarseness; accented hardness; without visible inclusions; **Ornaments:** undecorated; **Origin:** square E, -0.20 m.

25. (Pl. 3/9).

Indicative: VM 177/1974_5a,b; **Type:** cup, wall; **Technique:** wheel-thrown; reducing firing; wooden spatula; polished on the outside; **Dimensions:** Gr_{wall} : 1 cm; **Aspect:** reddish brown fabric (on the inside), blackish (outside); low coarseness; accented hardness; mica in small quantity; **Ornaments:** the fragment displays two vertical, parallel profiles, rather carelessly pulled from the fabric while turning. Between these two furrows there is a horizontal strap, 1.5 cm in width, not polished inside with polished wavy line inside; **Origin:** square H, -0.40 m.

26. (Pl. 3/10).

Indicative: VM 181/1974_3; **Type:** bowl; flared rim, rounded end; cup with profiled shoulder; **Technique:** hand modeled; mixed firing; **Dimensions:** \emptyset_{mouth} : 21 cm; Gr_{wall} : 0.7 cm; **Aspect:** dark brown in color (inside), reddish brown (outside); very accented coarseness; accented hardness; large-grain sand and pebbles in large quantity; **Ornaments:** undecorated; **Origin:** square H, -0.90 m.

Storage vessels

27. (Pl. 4/1; Pl. 9/6).

Indicative: VM 194_1974_17; **Type:** *pythos*; strongly flared rim, „in two steps”; **Technique:** wheel-thrown; oxidizing firing; wooden spatula; **Dimensions:** \emptyset_{mouth} : 25 cm; Gr_{wall} : 1–1.2 cm; **Aspect:** orange in color; average

coarseness; accented hardness; mica in average quantity; **Ornaments:** on the groove between the two „steps” of the rim it displays a wavy line, incised in the soft fabric with a blunt-ended instrument, while the vessel was turning; **Origin:** square H, -0.30 m.

28. (Pl. 4/2; Pl. 9/2).

Indicative: VM 194_1974_18; **Type:** *pythos*; ring bottom; **Technique:** wheel-thrown; oxidizing firing; wooden spatula; **Dimensions:** $\emptyset_{\text{bottom}}$: 25 cm; Gr_{wall} : 1–1.2 cm; **Aspect:** orange in color; average coarseness; accented hardness; mica in large quantity, sand in small quantity; **Ornaments:** undecorated; **Origin:** square H, -0.30 m.

29. (Pl. 4/3; Pl. 9/1).

Indicative: VM 194_1974_20; **Type:** *pythos*, wall; **Technique:** wheel-thrown; oxidizing firing; secondary firing on both sides; wooden spatula; **Dimensions:** Gr_{wall} : 1.3 cm; **Aspect:** brick-red in color; low coarseness; accented hardness; mica in average quantity, pebbles in small quantity; **Ornaments:** it displays two horizontal „steps,” pulled from the fabric while the vessel was turning; **Origin:** square H, -0.50 m.

30. (Pl. 4/4; Pl. 9/7).

Indicative: VM 260_1973_21; **Type:** *pythos*, wall; **Technique:** wheel-thrown; oxidizing firing; wooden spatula; **Dimensions:** Gr_{wall} : 1–1.5 cm; **Aspect:** brick-red in color; average coarseness; accented hardness; mica and pebbles in small quantity; **Ornaments:** it displays one furrow, pulled from the fabric probably while the vessel was being smoothed, careless aspect; **Origin:** square H, -0.30 m.

31. (Pl. 4/5; Pl. 9/4).

Indicative: VM 268_1973_2; **Type:** *dolium*; in-turned rim, flattened end; **Technique:** wheel-thrown; reducing firing; wooden spatula; **Dimensions:** \emptyset_{mouth} : 30 cm; Gr_{wall} : 1–1.5 cm; **Aspect:** dark grey in color; average coarseness; accented hardness; sand, pebbles, ferrous concretions in average quantity; **Ornaments:** undecorated; **Origin:** *passim*.

32. (Pl. 4/6; Pl. 9/3).

Indicative: VM 271_1971_6; **Type:** *pythos*, fragment; **Technique:** wheel-thrown; oxidizing firing; wooden spatula; **Dimensions:** Gr_{wall} : 1–1.5 cm; **Aspect:** brick-red in color (grey core); low coarseness; accented hardness; mica and pebbles in small quantity; **Ornaments:** it displays two horizontal line performed while the vessel was turning with a blunt instrument, that frames a wavy lines created in the same way; **Origin:** *passim*.

33. (Pl. 4/7; Pl. 9/5).

Indicative: VM 268_1973_1; **Type:** *dolium*; in-turned rim, T-shaped; **Technique:** wheel-thrown; reducing firing; wooden spatula; **Dimensions:** \emptyset_{mouth} : 50 cm; Gr_{wall} : 1.8–2.3 cm; **Aspect:** grey in color; average coarseness; accented hardness; sand in average quantity; **Ornaments:** undecorated; **Origin:** *passim*.

Fruit-bowls

34. (Pl. 5/1).

Indicative: VM 260/1973_1; **Type:** fruit-bowl; strongly flared rim, rounded end; cup with poorly profiled shoulder; **Technique:** modeled by hand; oxidizing firing; polished on both sides; **Dimensions:** \emptyset_{mouth} : 38.5 cm; Gr_{wall} : 0.8 cm; **Aspect:** dark brown – brick-red in color; very low coarseness; accented hardness; sand in small quantity; **Ornaments:** undecorated; **Origin:** square H, – 0.30 m.

35. (Pl. 5/2).

Indicative: VM 260/1973_2; **Type:** fruit-bowl; slightly down-turned rim, with flattened end; cup with poorly profiled shoulder; **Technique:** modeled by hand; reducing firing; black slip, polished on both sides; **Dimensions:** \emptyset_{mouth} : 35 cm; Gr_{wall} : 1 cm; **Aspect:** black in color; very low coarseness; very accented hardness; lacking visible inclusions; **Ornaments:** undecorated; **Origin:** S4, square 5, –2.10 m.

36. (Pl. 5/3).

Indicative: VM 260/1973_3; **Type:** fruit-bowl; flared rim, rounded end; cup with very well profiled shoulder; **Technique:** modeled by hand; reducing firing; polished on both sides, better on the inside; **Dimensions:** \emptyset_{mouth} : 30.5 cm; Gr_{wall} : 0.5 cm; **Aspect:** reddish-brown in color (inside), blackish (outside); very low coarseness; accented hardness; lacking visible inclusions; **Ornaments:** undecorated; **Origin:** square H.

37. (Pl. 5/4).

Indicative: VM 260/1973_4; **Type:** fruit-bowl; down-turned rim, rounded end; **Technique:** wheel-thrown; reducing firing; black slip, polished on both sides; **Dimensions:** \emptyset_{mouth} : 44 cm; Gr_{wall} : 1 cm; **Aspect:** black in color; very low coarseness; very accented hardness; sporadic pebbles; **Ornaments:** undecorated; **Origin:** square H, -0.30 m.

38. (Pl. 5/5).

Indicative: VM 260/1973_5; **Type:** fruit-bowl; strongly flared rim, rounded end; cup with well-profiled shoulder; **Technique:** wheel-thrown; reducing firing; traces from a spatula; **Dimensions:** \emptyset_{mouth} : 38 cm; Gr_{wall} : 0.8 cm; **Aspect:** grey in color; average coarseness; accented hardness; without visible inclusions; **Ornaments:** undecorated; **Origin:** square E, – 1.25 m.

39. (Pl. 5/6).

Indicative: VM 194/1974_1; **Type:** fruit-bowl; strongly flared rim, rounded end; cup with well-profiled shoulder; **Technique:** modeled by hand; mixed firing; slight secondary fire traces on the outside; **Dimensions:** Ø_{mouth} : 42 cm; Gr_{wall} : 1 cm; **Aspect:** yellowish brown in color; average coarseness; accented hardness; sporadic pebbles and ferrous concretions; **Ornaments:** undecorated; **Origin:** square H, -0.30 m.

40. (Pl. 5/7).

Indicative: VM 194/1974_2; **Type:** fruit-bowl; flared rim, rounded end; cup with poorly-profiled shoulder; **Technique:** modeled by hand; reducing firing; well polished on both sides; **Dimensions:** Ø_{mouth} : 22.5 cm; Gr_{wall} : 0.8 cm; **Aspect:** black in color; very low coarseness; very accented hardness; without visible inclusions; **Ornaments:** undecorated; **Origin:** square H, -0.90 m.

41. (Pl. 5/8).

Indicative: VM 194/1974_3; **Type:** fruit-bowl; slightly down-turned rim, rounded end; **Technique:** wheel-thrown; reducing firing; dark brown – blackish slip on both sides; **Dimensions:** Ø_{mouth} : 37 cm; Gr_{wall} : 0.8 cm; **Aspect:** dark brown – blackish in color; low coarseness; accented hardness; sand in small quantity, sporadic pebbles; **Ornaments:** undecorated; **Origin:** square H, -0.50 m.

42. (Pl. 6/4).

Indicative: VM 129/1973_16; **Type:** fruit-bowl; tronconic foot; **Technique:** wheel-thrown; reducing firing; black slip, well polished on the outside; **Dimensions:** Ø_{bottom} : 16.5 cm; Gr_{wall} : 0.7 cm; **Aspect:** black in color (outside), dark yellowish brown (inside); very low coarseness; accented hardness; sand in average quantity, sporadic pebbles; **Ornaments:** undecorated; **Origin:** square H, -0.30 m.

43. (Pl. 6/5)

Indicative: VM 129/1973_17; **Type:** fruit-bowl; tronconic foot; **Technique:** modeled by hand; reducing firing; polished on the outside; **Dimensions:** Ø_{bottom} : 14.5 cm; Gr_{wall} : 0.6 cm; **Aspect:** dark-yellowish brown in color; very low coarseness; accented hardness; lacking visible inclusions; **Ornaments:** undecorated; **Origin:** square H, -0.30 m.

44. (Pl. 6/6; Pl. 7/4).

Indicative: VM 276/1972_2; **Type:** fruit-bowl; spindle-shaped foot; **Technique:** modeled by hand; reducing firing; polished on the outside; displays a perforation on the bottom of the cup; **Dimensions:** $\text{Ø}_{\text{cupbottom}}$: 8 cm; Gr_{wall} : 0.9 cm; $\text{Ø}_{\text{perforation}}$: 0.9 cm – 1.3 cm; **Aspect:** blackish in color; very low coarseness; accented hardness; sand in average quantity and sporadic pebbles; **Ornaments:** undecorated; **Origin:** square B, -0.60 m.

45. (Pl. 6/7; Pl. 7/7).

Indicative: VM 153/1973_8,a,b; **Type:** fruit-bowl; spindle-shaped foot; **Technique:** wheel-thrown; reducing firing; black slip, polished on both sides; **Dimensions:** Ø_{bottom} : 10.5 cm; Gr_{wall} : 0.5 cm; **Aspect:** black in color; very low coarseness; accented hardness; graphite in low quantity; **Ornaments:** undecorated; **Origin:** square F, -0.35 m.

Dacian cups (“cățui”)

46. (Pl. 6/1).

Indicative: VM 142/1973_4; **Type:** Dacian cup; flat bottom; low handle, ovoid profile; **Technique:** modeled by hand; oxidizing firing; **Dimensions:** Ø_{bottom} : 5 cm; Gr_{wall} : 0.5 cm; **Aspect:** brick-red in color; accented coarseness; accented hardness; sand in average quantity; **Ornaments:** undecorated; **Origin:** square D, -0.40 m.

47. (Pl. 6/2).

Indicative: VM 16094/1974; **Type:** handleless Dacian cup; flared rim, rounded end; flat bottom; **Technique:** modeled by hand; reducing firing; secondary fired and smoked on the inside; **Dimensions:** Ø_{mouth} : 12 cm; Ø_{bottom} : 7 cm; H_{total} : 4.5 cm; Gr_{wall} : 0.6 cm; **Aspect:** dark brown in color; accented coarseness; accented hardness; sand and pebbles in average quantity; **Ornaments:** undecorated; **Origin:** square B, -1.26 m.

48. (Pl. 6/3).

Indicative: VM 212/1972_8; **Type:** Dacian cup; flared rim, flattened end; **Technique:** modeled by hand; oxidizing firing; slightly smoothed; wooden spatula; **Dimensions:** Ø_{bottom} : 25.5 cm; Gr_{wall} : 0.8 cm; **Aspect:** orange in color (inside), reddish (outside); average coarseness; accented hardness; without visible inclusions; **Ornaments:** undecorated; **Origin:** square B, -1.10 m.

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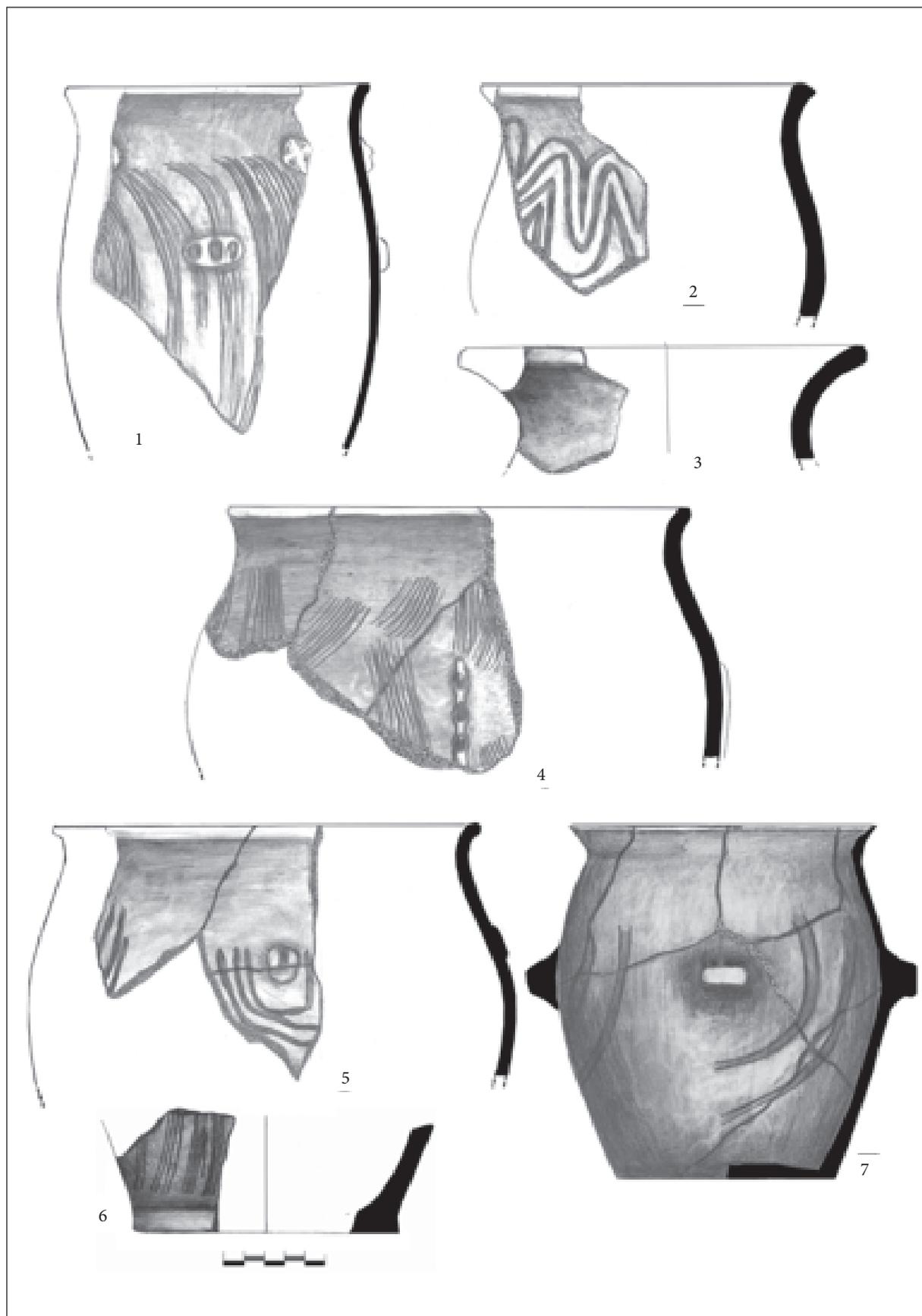


Plate 1. Jars (drawings).

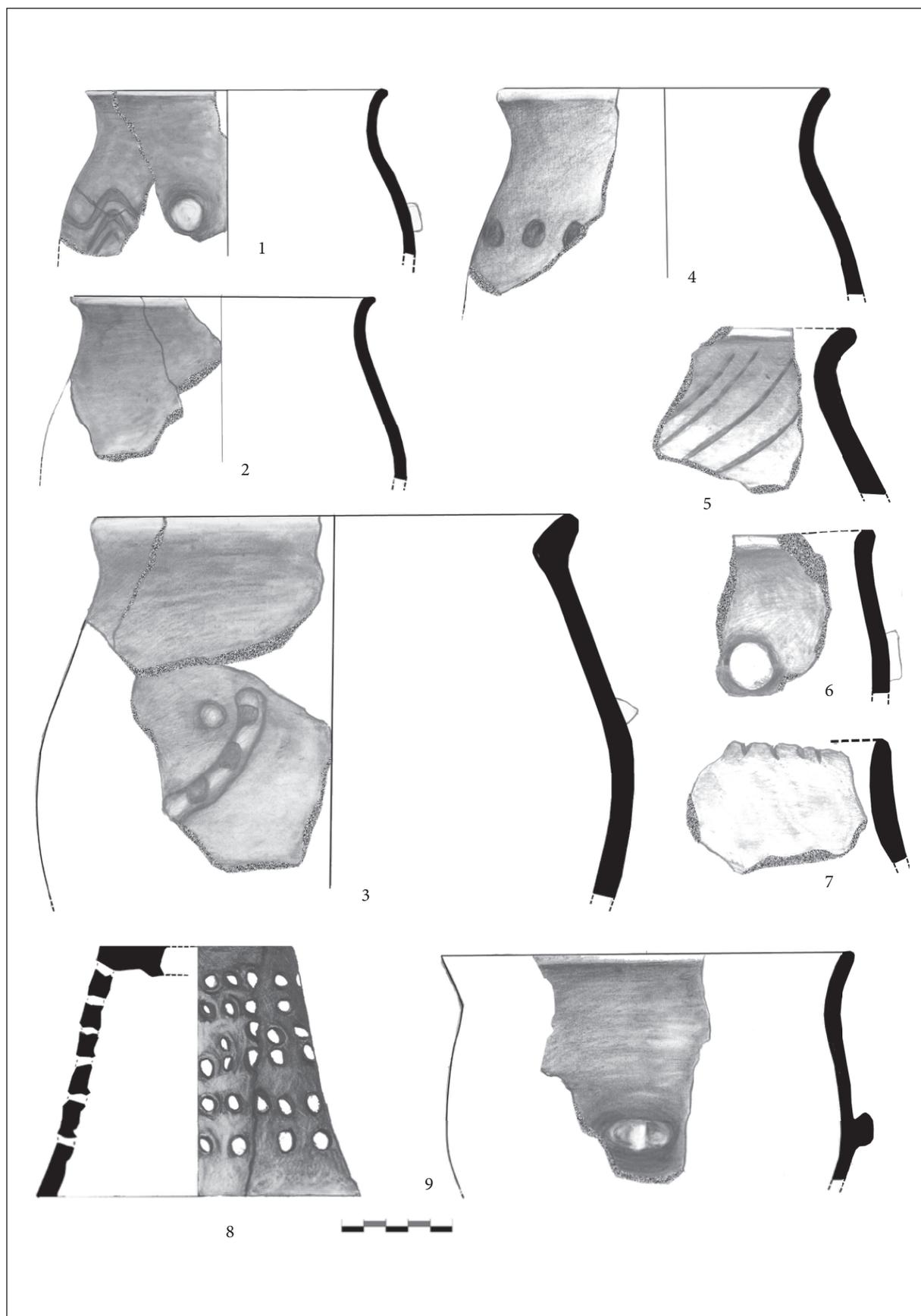


Plate 2. Jars and smoker vessel (drawings).

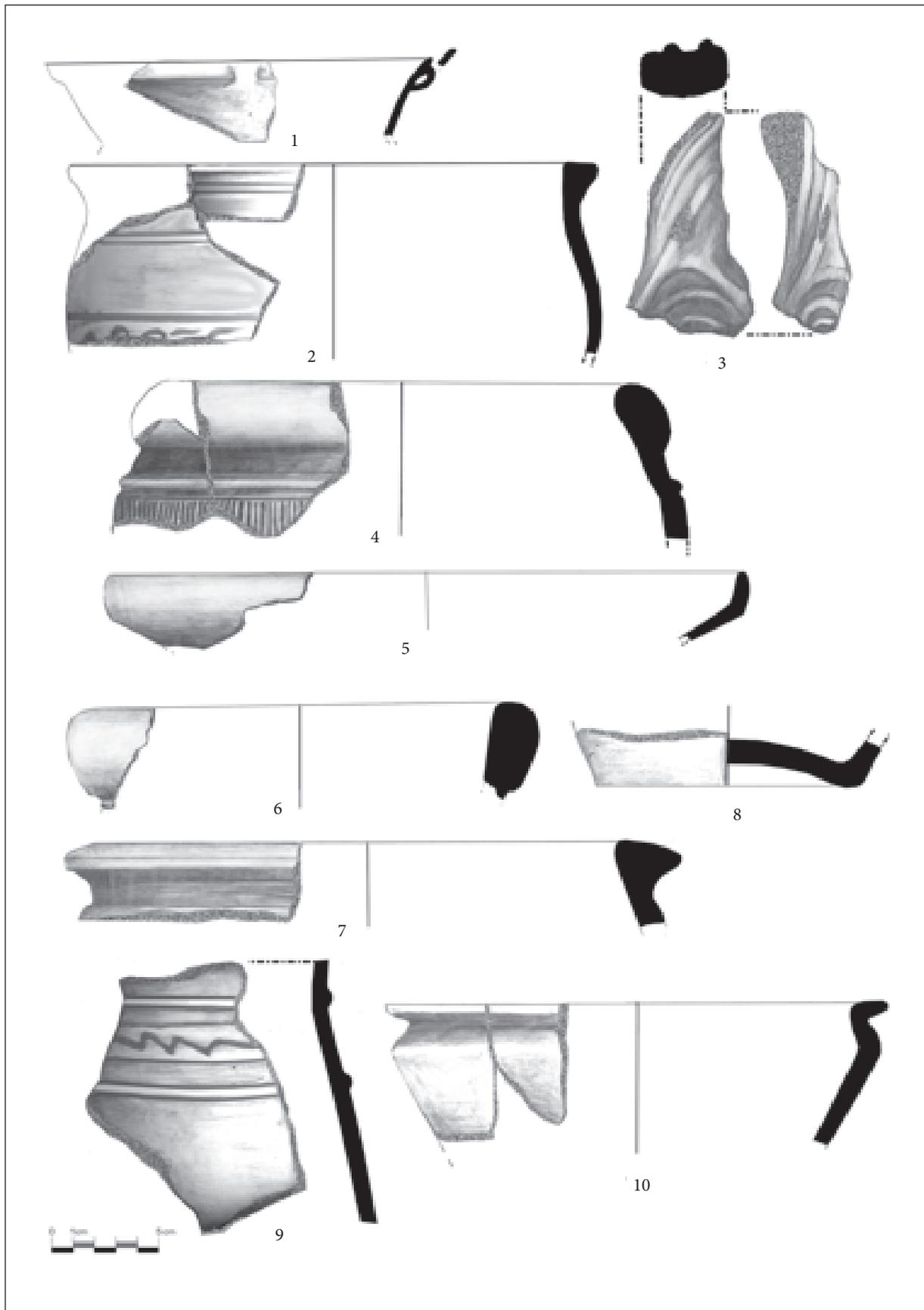


Plate 3. Various categories of vessels (drawings).

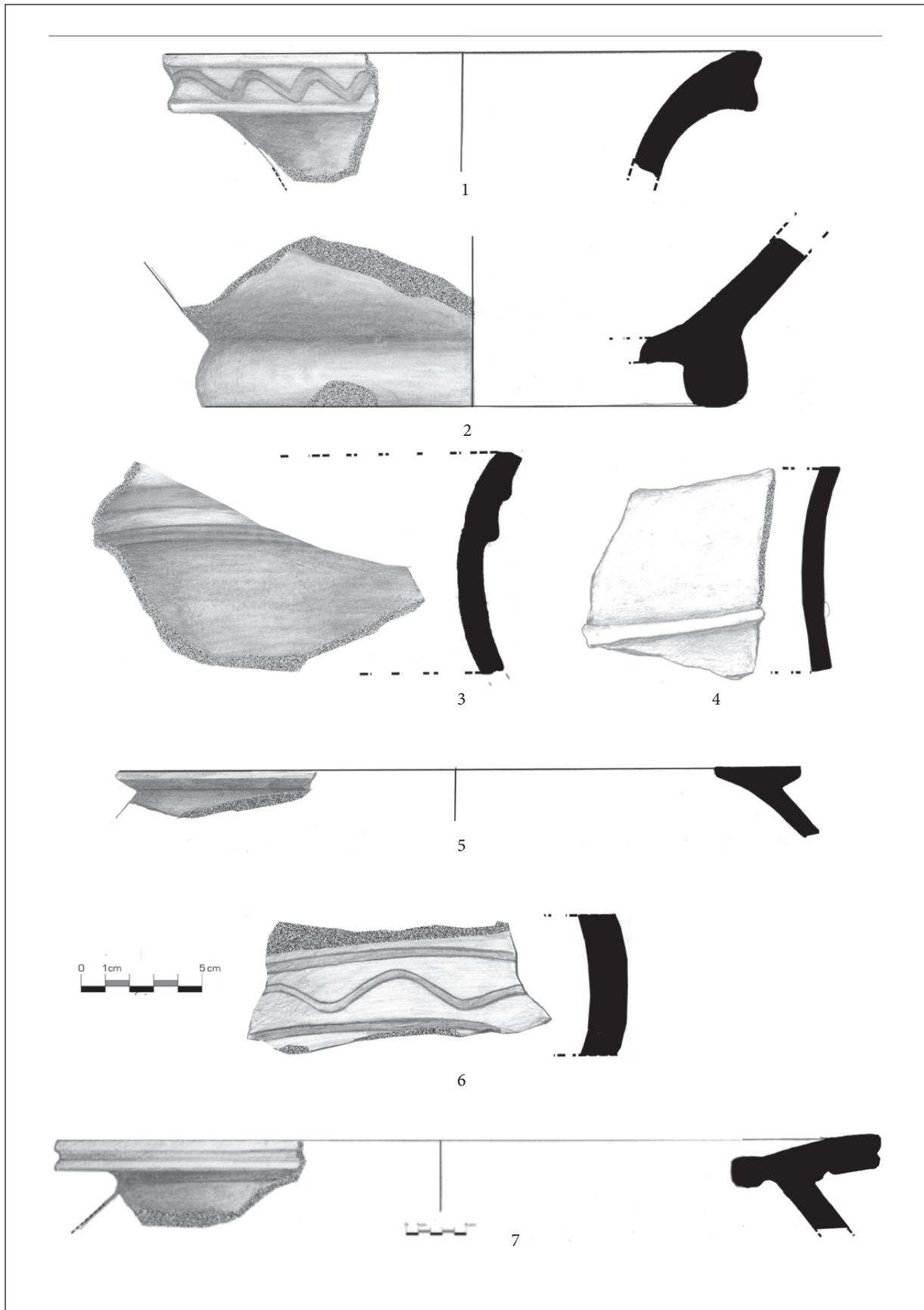


Plate 4. Storage vessels (drawings).

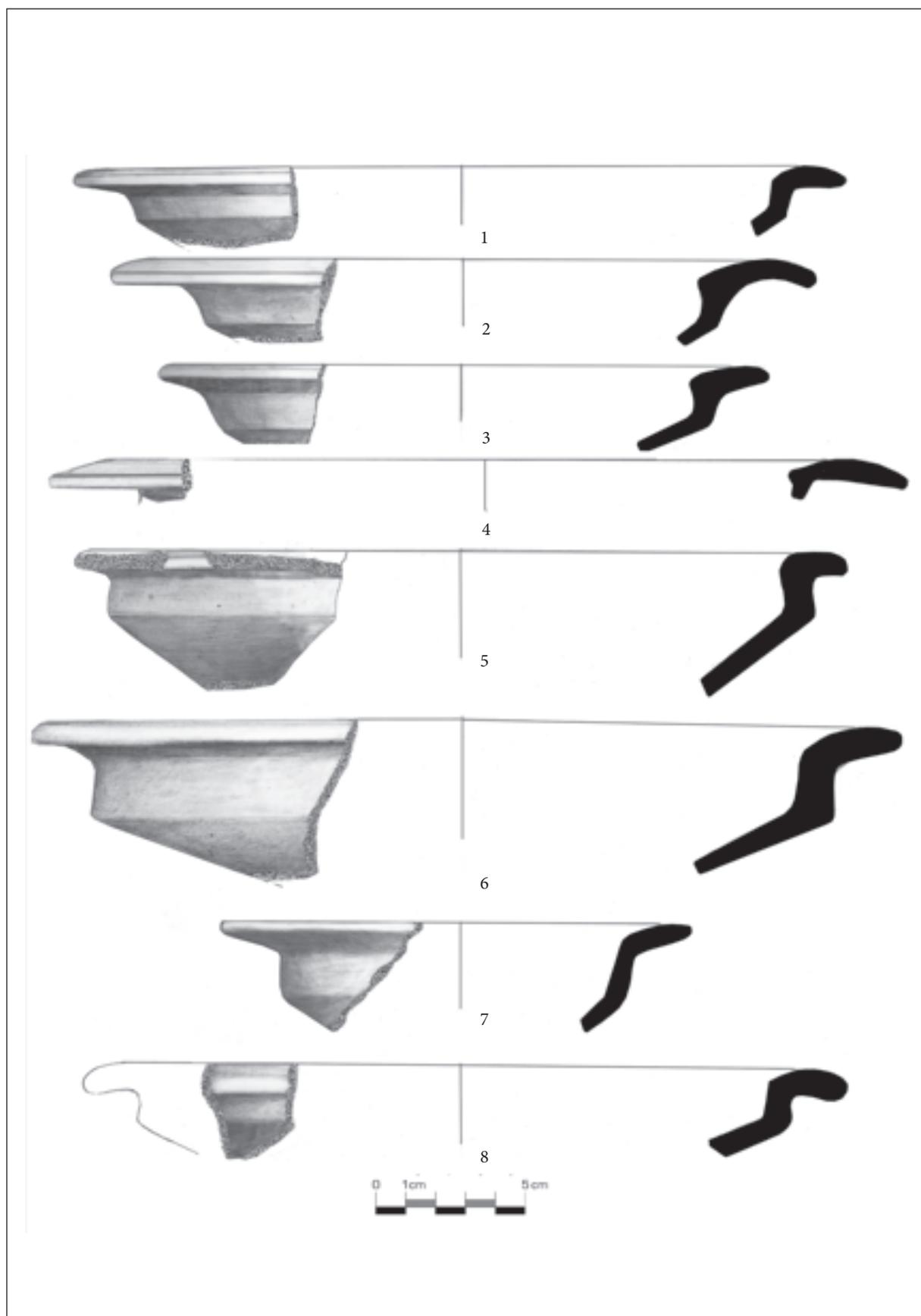


Plate 5. Fruit bowls (drawings).

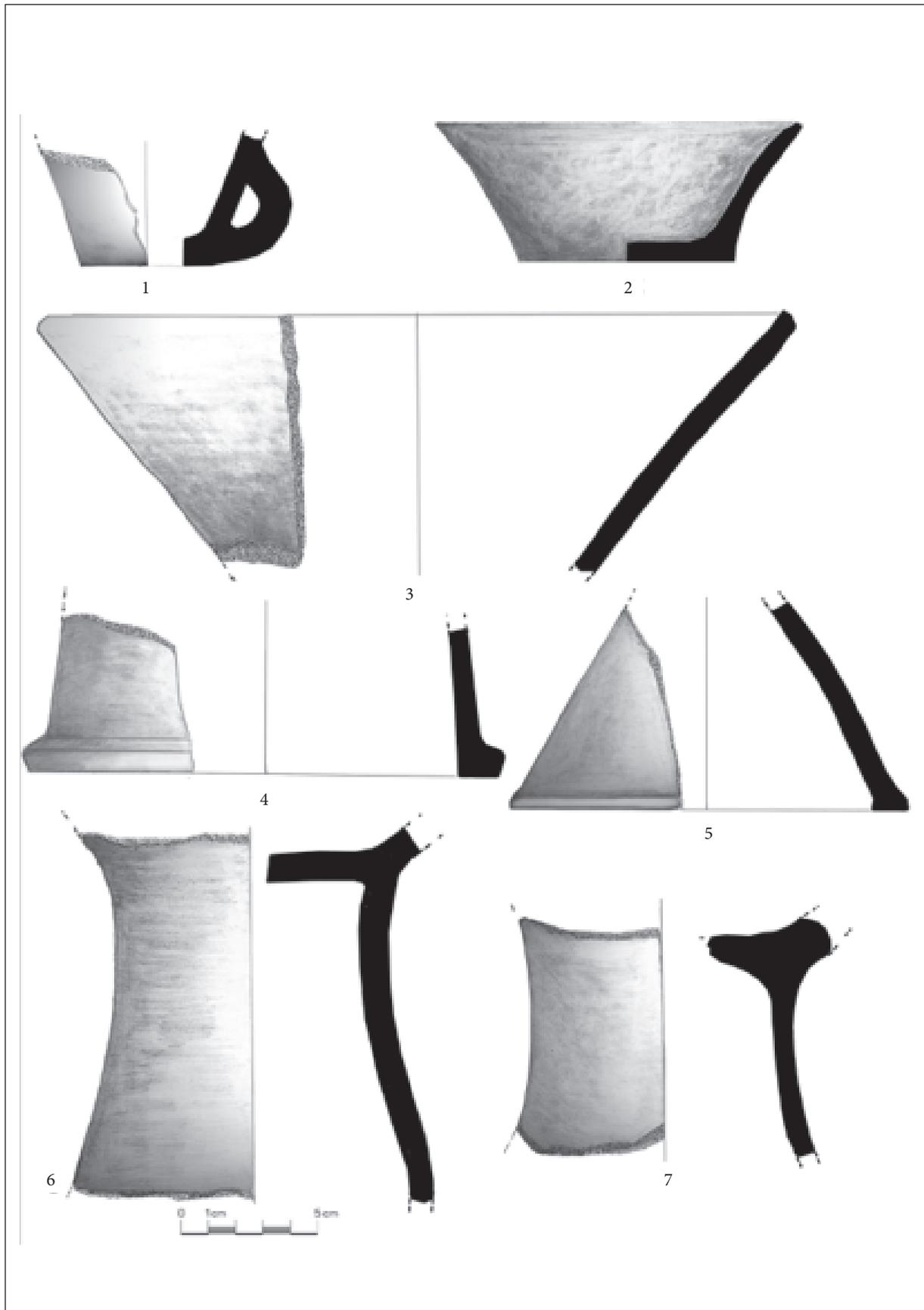


Plate 6. Dacian cups and fruit bowls (drawings).



Plate 7. Fruit bowls (photographs).



Plate 8. Various categories of vessels and fragments (photographs).



Plate 9. Storage vessels (photographs).



Plate 10. Various objects (photographs).

Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolġ	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

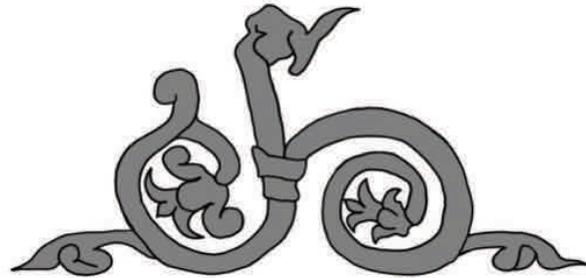
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opvscvla Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thraco-Dacica	<i>Thraco-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei</i> . Veszprém.
VTT	<i>Veszprémi Történelmi Tár</i> . Veszprém.
Ziridava	<i>Ziridava, Complexul Muzeal Arad</i> . Arad.

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“I am Horus the Savior”. Representations of Horus-Harpokrates in Roman Dacia*

Ștefana Cristea

Abstract: As part of a phenomenon spread throughout the Roman Empire, the Egyptian divinities also made their way into Roman Dacia. They were introduced by the most mobile social categories, by soldiers, merchants, but also by representatives of the administration and by slaves. The Egyptian gods can be found in Potaissa, Ulpia Traiana Sarmizegetusa, Apulum, Micia, Romula etc. Together with Isis and Serapis, Harpokrates, Bes, Ammon, and Apis also reached Dacia, but the present article only deals with the child-god Harpokrates (the child Horus). He is only encountered in Dacia under the form of small-size figurative representations and no public cult is known, though it is possible it was associated to the cult of Isida. The use of the representations of the god Harpokrates in a more intimate and personal environment creates a social dimensions that can be followed starting with Ptolemaic Egypt, throughout the Roman Empire, including the province of Dacia. People addressed this god in order to have some of their wishes fulfilled, either through the mediation of religion, or through that of magic.

I find it necessary to include a small catalogue that reunites the discoveries connected to this god in Roman Dacia, as well as gems preserved in the collections of several museum from Romania, but with unknown places of discovery. The catalogue was structured according to the categories of objects and is followed by discussions regarding this discoveries.

Keywords: Harpokrates, Roman Dacia, Egyptian divinities, statuettes, terracotta, gems.

Harpokrates is the Egyptian god represented as a nude boy who raises the index finger of his right hand towards his lips. He is, in fact, the child Horus, son of Isida and Osiris, and after the introduction of Serapis during the Hellenistic period, he becomes part of a “holy family” together with Serapis and Isis. One encounters the god under various forms: Harpokrates (the child Horus), Harsiesis¹ (Horus the son of Isida), Harendotes (Horus avenger of his father Osiris), and Harsomtus or Harsomtours (Horus the one who has united the two countries)².

There are several characteristic elements to the depictions of Harpokrates: the nude child, the braided hair lock on the right side of the head, and, especially, the gesture of the right hand index finger raised to the mouth. He also wears different characteristic crowns³: the *hemhem* crown⁴, the *atef* crown⁵, the double crown (*pschent*)⁶, the crown of Amun⁷, the red crown of the Lower Egypt⁸, the blue crown⁹, or the *nemes*¹⁰. In his hands he sometimes holds a scepter (*heka*) and a whip (*nekhakha*) or an *ankh*¹¹.

* English translation: Ana M. Gruia.

¹ Hart 1986, 71.

² Dunand, Zivie-Coche 1991, 40–41.

³ Bunson 202, 109.

⁴ An elaborated form of the *atef* crown, sometimes called a triple *atef* crown (for all the crowns see Bunson 2002, 90).

⁵ This sacral crown is white, flanked by two ostrich feathers and surmounted by a gold disk. It is often worn by Osiris.

⁶ This crown is a combination of the two: the white crown of the Upper Egypt and the red one of the Lower Egypt.

⁷ The crown worn by the god Amun (Ammon), consisting of two tall feathers.

⁸ It is also known as the *deshret* crown. It was typical to goddess Neith, patron of the city of Sais in the Lower Egypt.

⁹ It is also known as the “war crown” or the *kheprsh* crown. The pharaohs are often depicted wearing it in battle, but could be worn during ceremonies as well. As in the case of the majority of royal crowns, it has an *uraeus* fixed on it.

¹⁰ It is the head cover worn by the pharos. It is stripped, has an *uraeus* fixed on it, and could be combined with the double crown.

¹¹ It represents the symbol of eternal life in ancient Egypt and when it is held by a divinity it represent eternity. It was used during rituals connected to the royal cult and acquired special meaning when used during various ceremonies inside the temples (see Bunson 2002, 38).



Fig. 1. Harpokrates Muzeul Capitolin (photo Ștefana Cristea).

The iconography of Harpokrates includes the same types of representations throughout the Greek-Roman world¹². On the one hand there is the iconographic type of the god standing, nude or wearing a *himation* on his left arm, that also holds the horn of abundance, while the index finger of the right hand is raised to the lips. On his head he initially wore the *pschent* crown, but in time it was downsized and ended up transformed either into a lotus flower or in a hair lock (in the case of bronze statuettes dated to the second-third centuries A.D.) On the other hand, there is the iconographic type of *Isis lactans*, where Harpokrates is depicted in the arms of his mother who is breastfeeding him. Still nude, but sitting on a lotus flower, he represents the sun being born. In Roman iconography he sometimes features in syncretism with other child divinities (Amor – when he has wings, Dionysos – when he wears leaves and grape bunches in his hair or holds them in his hands, Hercules – when he holds the club and is, occasionally, accompanied by snakes) or is even assimilated by these divinities. Starting with the Hellenistic period, his general look ceases to be Egyptian and becomes Greek. His head is no longer shaved, with just a braid typical to youngsters in Egypt (surmounted by various crowns and signs of power), but is covered with wavy hair; his face is no longer hieratic but he becomes a chubby child, according to the Greek artistic canon, or an adolescent with slightly effeminate traits. It seems, though, that his success was minor in the Roman world than in the Greek one¹³ where one finds more numerous epigraphic mentions of him and more numerous figurative depictions of Harpokrates alone (Fig. 1).

In the Roman provinces, the divinities of Egyptian origin mainly spread between the first and the third century A.D., less during the fourth century A.D. Besides Isis, who holds supremacy, we also find Serapis, Anubis, Osiris, and Harpokrates, but just on figurative monuments¹⁴. On bronze statuettes, gems, terracottas, or clay medallions, he is still depicted as a nude boy (or draped in a *chiton* or a mantle) who raises the index finger of the right hand towards the mouth (a gesture that receives a new interpretation, as an advice to be silent, possibly related to the mysteries of his mother, Isis), wearing a *pschent* crown on his head, smaller and more stylized, sometimes with an added crown of rays. The type of hieratic and frontal depiction, typical to Egyptian art is replaced by a more graceful type, with rounded volumes, typical to Greek-Roman art. Here he is also depicted holding *cornucopia* in his left hand as a symbol of his creative and renewing force inherited from his father Osiris (later replaced by Serapis)¹⁵.

Harpokrates is depicted either alone, or in the company of other gods.

¹² Tran Tam Thin 1984, 1731–1732; Cartwright 1929, 184–185.

¹³ Malaise 1972, 1637.

¹⁴ Selem 1980, 58. See also E. Harris, J. Harris 1965, 81.

¹⁵ Selem 1980, 59–60, 65.

It is possible that many of the statuettes and statues that depict him alone were part of groups that included other gods as well.

On terracotta¹⁶, the way in which this god appears is slightly different, being developed certain iconographic types that are less often encountered in statuettes, reliefs, and frescoes: Harpokrates while resting in a papyrus bush, while riding a goose, an elephant, a horse, as an ithyphallic character (which can be identified with Harpokrates by the thin braided lock of hair; this type of representations is also found on statuettes and can be accompanied by a vessel for water or wine libations or by a tambourine). On few of the terracotta, Harpokrates' crowns are depicted at their conventional size, in this case cult statues were chosen as model¹⁷. From the Ptolemaic period Harpokrates starts being depicted not only nude, but also wearing a *chiton*, especially when he is holding a *cornucopia* in his left hand. This manner of depiction tends to become general and becomes one of the accepted postures of the god starting with the third century A.D., probably due to his Hellenization¹⁸.

A particular case of terracotta are the lamps used for religious purposes (ceremonies performed in sanctuaries, homes, tombs), with depictions of the divinities. Some of the models decorated with images of Isis and of the other divinities that accompany her (Serapis, Harpokrates, and Anubis) were created in Italy and the Orient, while others were produced in African workshops. Lamps with Harpokrates alone are a type distributed throughout the Roman Empire (for example those discovered in Carthage, in Tunisia, in El-Djem etc.)¹⁹.

Harpokrates' entrance into the Greek-Roman world is helped, on the one hand, by his close connection to Isis²⁰ (especially through the *Isis lactans* iconographic type) and, on the other hand, by his aspect of apotropaic and savior divinity, with magical powers. The latter aspect manifests itself in the case of a special type of small-size items that can be worn as amulets, i.e. in the case of gems²¹. On such items, like in the case of terracotta, one encounters several specific iconographic types: the most frequent is Harpokrates as a nude child, crouching on a lotus flower – a type that has several variants²². In this case Harpokrates symbolizes the sun being born from inside the first lotus flower that grew from the primordial waters. On some gems he is depicted crouching on a lotus flower (that can be flanked by two or four flower buds), with the right hand raised towards the lips, in the left holding a *flagellum*, a *cornucopia*, or a lotus bud. On his head he sometimes wears the *pschent* crown, other times a solar disk or a crown of rays.

There are also gems decorated with more complicated models – their surface features not only Harpokrates crouching on the lotus flower, but also several groups of three dangerous animals each (crocodiles, snakes, antelopes, or birds)²³. There are variants with three scarabs depicted above Harpokrates' head. Their usual function is to provide protection and their presence in this context can have several explanations: either, due to their position above the god's head, they still play an apotropaic role, or, due to their shape, they were confused with tortoises that often feature on *cippi*²⁴ but not on gems, and thus have acquired a negative connotation. This iconographic type makes reference to the episode in the myth of the goddess Isis and of Osiris²⁵ when he is bitten by a snake or a scorpion sent by Seth and is found almost dead by his mother, Isis. She asks for Ra's help and forces him to help her since, as a great magician, she knew Ra's real name. Thoth is sent to rescue and save Horus/Harpokrates, and gives him the power to dominate this dangerous animals. On these monuments Harpokrates is depicted as a nude child who steps on crocodiles and tortoises and holds in his hands scorpions, snakes, antelopes, donkeys, and lions. The usual gesture or raising the right hand

¹⁶ Ballet 2000, 99–101.

¹⁷ Török 1995, 58, no. 56.

¹⁸ Török 1995, 59–60, no. 58.

¹⁹ Podvin 2008, 2197–2212.

²⁰ Budischovsky 2004.

²¹ Sfameni 2004.

²² Delatte, Derchain 1964, 106–125; Teșosu-David 1965, 97–99.

²³ There is a series of gems related to this one on the basis of their representation. They depict the Egyptian god Bes, with four wings and four arms (that may symbolize the four cardinal points), with knee guards in the shape of lion heads, the legs ending in jackal heads or snakes and stepping / holding in his hands similar animals. The entire scene can be surrounded by an *ouroboros*, symbol of renewal, cyclical repetition, and never-ending time (see Delatte, Derchain 1964, 126–141).

²⁴ Pinch 2004, 16–21, 100–103.

²⁵ Alvar 2008, 39–52.

to the lips is missing here, but on his head, on the right side, we can see the typical braided hair lock, characteristic to the representations of the god. Above his head is represented the head of the god Bes (maybe a mask that represents the god and was worn during certain ceremonies), the protector of families, pregnant women, and children; a series of other divinities involved in this episode of the myth can feature besides him: Isis, Ra, Osiris, Anubis, and Thoth. Images on these magical *stelae* can include stories from the myth, such as spells and incantations. The protective magical power that *cippi* were endowed with could be exerted either upon a place, an individual, or a social group. Besides, the same type of priests who performed the religious rituals were also involved in acts of private magic, and Egyptian magic was largely prophylactic, used to prevent the problems by creating a defensive system²⁶. The Egyptians were convinced of the creative power of words and images. This is how is possible to explain the fact that they avoided to represent Seth, and when he was depicted, he was shown much smaller than the positive character he accompanied. In the same way, Harpokrates is depicted on these *stelae* much larger than the animals he dominated. It was believed that by rendering the negative elements smaller in size, their power was also diminished²⁷. The same type of image can be encountered on magical gems, the persons who wore them wishing to be protected against the bites or actions of the animals deemed as manifestations of the god Seth.

On gems, the lotus flower is sometimes depicted on a boat, either by itself, or besides a series of characters (an ithyphallic cynocephalus or an ibiocephal in the act of adoration), referring to the solar boat. Under the boat, supporting it, we may find the depiction of Nun (the divinity who embodies the primordial waters) and an *ouroboros* was sometimes represented around the entire scene. The origin of the depiction of the lotus on which Harpokrates is seen in a boat, just like the presence of the male character that supports the boat with the arms raised and one knee leaning on the ground, is found in the pharaonic iconography.

Another frequently encountered iconographic type on gems as well is that in which Harpokrates features in the arms of his mother Isis, who is feeding him from her breast; in several cases, the god Bes occupies the reverse²⁸. Isis herself was recognized as a goddess of magic even since the pharaonic period, invoked as a protective divinity of familie and children. These were most probably amulets worn for the protection of children or breastfeeding mothers.

Other divinities that feature besides Harpokrates are Hathor (in some Egyptian texts Horus is considered the son of goddess Hathor, the one who feeds him with divine milk²⁹), Bastet, Neith, Maat, Thoth etc. He may be depicted sitting on a throne, kneeling or crouching on the lotus flower. In more numerous cases though he is depicted walking / taking a step.

The language used by the stone carvers for the inscriptions on these engraved stones is in the absolute majority of cases Greek, but the fact that they transcribed Semitic or Egyptian words with Greek letters make their deciphering often impossible. The analysis of the stones used for the creation of the gems has led to the conclusion that almost all are made of semi-precious stones, thus accessible to the people from the poorer social classes³⁰.

Depictions of the Egyptian gods were also used in zodiacs from the Greek-Roman period. They were not only used as embodiments of the zodiac signs, but also as decans of each sign and as some of the planets³¹. We encounter them with this role in the temple of goddess Hathor in Dendera or on the astrological tablets from Grand³² (where Horus/Harpokrates is the third decan from Pisces).

Roman Dacia

The discoveries connected to these divinities from the territory of Roman Dacia³³ are mainly concentrated in several centers³⁴. The most important center seems to be Potaissa where two inscrip-

²⁶ Pinch 1994, 14.

²⁷ Pinch 1994, 18–19.

²⁸ Frankfurter 1998, 124–131.

²⁹ Tran Tam Tinh, Labrecque 1973, 2–3.

³⁰ Delatte, Derchain 1964, 15–18.

³¹ Clagett 1995, 126–127, 471–488.

³² Abry 1993, 77–112.

³³ Budischovsky 2006.

³⁴ Bricault 2001, 28–29, 34–35.

tions were found³⁵ (one mentions the college of those who adored Isis³⁶), two heads from cult statues that depicted Serapis³⁷, nine statuettes³⁸, one relief that presumably depicts a priestess of Isida³⁹, another relief depicting Apis⁴⁰ and one terracotta (Isis *anasyrmene*)⁴¹. One gem⁴² and a special object⁴³ were also found in Potaissa (the tip of a standard or a scepter with the representation of a sphinx and a Greek inscription).

The next site, according to the number of artifacts and their importance, is Ulpia Traiana Sarmizegetusa, where have been found: six inscriptions⁴⁴, five statuettes⁴⁵, one capital fragment decorated with the face of the god Ammon⁴⁶, a funerary monument⁴⁷, and two gems⁴⁸.

Apulum is also very important from the perspective of these divinities, as the following artifacts were found there: six inscriptions⁴⁹ that mention the gods Isis and Serapis, together with other three inscriptions that feature two personal names with Egyptian resonance (Sarapio⁵⁰ and Isidora⁵¹), as well as three funerary monuments that include depictions of god Ammon⁵², two terracotta (one mould of goddess Isis⁵³ and one medallion⁵⁴) and a fragmentarily preserved statuette⁵⁵.

The Egyptian divinities are more poorly represented in Micia⁵⁶, Napoca (Cluj-Napoca), Drobeta (Drobeta Turnu-Severin), Romula (Reșca), Porolissum (Moigrad), Sucidava (Celei), and Alburnus Maior (Roșia Montană). A series of artifacts were discovered as stray finds in Bădăcin (Sălaj County), Valea Seacă (Covasna County), Cozia (Vâlcea County), Chinteni (Cluj County), Ozd (Mureș County), Perișori (Dolj County), without any trace of habitation present.

Discoveries from Roman Dacia

The catalogue of discoveries from the province of Dacia that bear the image of the Egyptian god Harpokrates was organized according to the types of artifacts: statuettes, reliefs, terracotta, and gems. The third member of the Alexandrine triad, Harpokrates, is known in Dacia through seven certain

³⁵ Neigebaur 1851, 202, no. 14; CIL III, 881; Popescu 1927, 200; Popa 1979, 28–29, no. 39; I. Nemeti 2005, 350, no. 2; Pribac 2006, 263, no. 344.

³⁶ Neigebaur 1851, 202; CIL III, 882; Popescu 1927, 199; Popa 1979, 21–22, no. 39; Ardevan 1998, 426, no. 428; I. Nemeti 2005, 350, no. 1; Pribac 2006, 261, no. 313.

³⁷ Isac 1970, 549–553, fig. 1; Popa 1979, 13–14; Bărbulescu 2006, 351–354, 355.

³⁸ Neigebaur 1851, 209, 211, no. 73, 78, 135, 136; Drexler 1890, 53; Buday 1909, 146–153; Popescu 1927, 201, 202, footnote 7; Popa 1979, 13, 22–23, 34, 42, 47, no. 26, 47, 61, 72; Bărbulescu 1994, 161, 164, pl. XIV/2; Țeposu-Marinescu-Pop 2000, 159, 161, no. 281, 283, pl. 91; Alföldy-Găzdac 2003, 174–175, no. 7, no. 8, pl. 5/1, 2, 3, 4, 5; I. Nemeti 2005, 251, 349–355; Bărbulescu 2006, 355; Sălășan 2008, 164, no. 71.

³⁹ Neigebaur 1851, 40, no. 127; Popa 1979, 32–33, no. 45.

⁴⁰ Popa 1979, 46, no. 70.

⁴¹ Cătinaș 2005, 157, pl. 3/8.

⁴² Bărbulescu 2006, 351–360.

⁴³ Bărbulescu 1994, 165, fig. 35.

⁴⁴ Neigebaur 1851, 25, no. 27; Popescu 1927, 199; Daicoviciu 1928–1932, 83–84, no. 1; Tudor 1957, 251, no. 49; Popa 1979, 14–15, 17, 23–24, no. 12, 16, 28; Russu 1979, 437–438; Daicoviciu, Alicu 1981, 179; Petolescu 1986, 349, no. 332; Piso 1998, 255–258, 263, no. 1, 2, 9; Ardevan 1998, 379, no. 147; Petolescu 1999, 191–192, no. 781, 782, 787; Bulzan 2005, 309, 314, no. 89, 127; ILD, 130, 132–133, no. 265, 266, 273; CIL III, 1428, 7995; IDR III/2, 68, 227, 228, 331.

⁴⁵ Neigebaur 1851, 15, no. 8; Andrițoiu-Mărghitan 1972, fig. 62; Alicu *et al.* 1979, 116, no. 254, 255, 256, pl. XLI, CXX; Popa 1979, 16, 24–27, no. 35, pl. I/3; Russu 1979, 174, no. 4, pl. I, 4a-b; Țeposu-Marinescu – Pop 2000, 103, no. 122, plate 63; CIL III, 1558; IDR III/1, 69.

⁴⁶ Mărghitan-Andrițoiu 1976, 49, fig. 2/6; Popa 1979, 42–43, no. 62.

⁴⁷ Popa 1979, 43, no. 63.

⁴⁸ Neigebaur 1851, 42, no. 169; Drexler 1890, 56; Popescu 1927, 201; Popa 1979, 25.

⁴⁹ Neigebaur 1851, 147, no. 165; Popescu 1927, 199–200, 204; Floca 1935, 239; Isac 1970, 551; Bărbulescu 1972, 204, no. 13; Popa 1965, 147–150; Popa 1979, 9–10, 18–19, 27–28, no. 2, 3, 4, 19, 37, 38; Piso 1993, 77, 105, no. 19, 23, 2; Ardevan 1998, 405, no. 309; Bulzan 2005, 328, no. 226; Pribac 2006, 249, 254, no. 100, 192, 193, 194; Carbó García 2008, no. 286; CIL III, 973, 7768, 7769, 7770, 7771; IDR III/5, 104, 315, 316, 317, 318.

⁵⁰ Can be a shortened form of the name Σαραπίουος (Mora 1990, 69, 423, 871, 989, 1052, 1053).

⁵¹ IDR III/3, no. 394; Ruscu 1998, 152.

⁵² Popa 1979, 36–38, no. 50, 51, 52.

⁵³ Moga 1878, 161–167; Ungurean 2008, 146.

⁵⁴ Popa 1959, 469–471; Popa 1979, 27, no. 36; Ungurean 2008, 155.

⁵⁵ Popa 1979, 31, no. 43, pl. I/6.

⁵⁶ Alicu 1998.

representations, plus seven gems preserved in museum collections from Romania, the places of discoveries of which remain unknown. Despite the fact that one cannot know for certain the fact that these seven gems, with unknown place of discovery, circulated on the territory of Roman Dacia, I deemed their inclusion in this short catalogue useful. I believe it is possible that they came from the areas of the Pannonias, Moesias, and Roman Dacia and that they, or similar gems, circulated on the territory of the province of Dacia.

1. *Sarmizegetusa – Ulpia Traiana Sarmizegetusa* (Hunedoara County). Bronze statuette depicting Isis, Serapis and Harpokrates together. It is preserved in the collection of the National Museum from Budapest (Magyar Nemzeti Múzeum), but was found in Ulpia Traiana Sarmizegetusa. The statuette is fragmentarily preserved and shows strong traces of corrosion. It was made through full casting and the patina is almost faded due to restoration works. The three Egyptian divinities stand on a simple base. In the lower part of the base one finds two modern rivets that have been set to replace the ancient, broken ones. The item shows a casting defect, i.e. Harpokrates' head is connected through a bar to Isida's shoulder. It is dated to the second century A.D. Dimensions: 3.17 × 3.17 cm. Bibliography: Alföldy-Găzdac 2003, 175–176, no. 9, Pl. 4/ 4 and 5.

2. *Turda – Potaissa* (Cluj County). Bronze statuette depicting Harpokrates. It was mentioned by J. F. Neugebauer and W. Drexler. It was probably discovered in Potaissa and became part of the Kemény collection. The depicted god raises one hand, with the raised finger, towards the lips, leading to his identification with Harpokrates. Information on this artifact can no longer be checked because it has been lost. Cannot be dated. Bibliography: Neugebauer 1851, 209, no. 73; Drexler 1890, 53; Popa 1979, 34, no. 47; Bărbulescu 1994, 164; I. Nemeti 2005, 251, no. 8; Sălășan 2008, 164, no. 71.

3. *Corabia-Celei – Sucidava* (Olt County). Marble relief depicting the Alexandrine triad: Isis, Serapis, and Harpokrates. It is fragmentarily preserved in the collection of the Institute of Archaeology in Bucharest, inv. no. L.768. Initially, G. Bordenache believed that the relief originated in Scythia Minor (Tomis or Durostorum), as it was found in the Papazoglu collection. Specialists later believed that it might have been found in Sucidava. Dimensions: 82 × 105 × 10 cm. Bibliography: Bordenache 1969, 87, no. 171, pl. LXXV; Petolescu 1973, 159–161; Berciu, Petolescu 1976, 32, no. 15, Pl. X; Popa 1979, 230, no. 4

4. *Moigrad – Porolissum* (Sălaj County). Light brick-red terracotta, fragmentarily preserved (the head is missing). Discovered in Porolissum. It is preserved in the Prof. Al. Culcer collection. The item depicts Isis holding Harpokrates in her arms; two braided tails can be noted on both sides of his head. In the lower part of the terracotta one notices vegetal motifs, i.e. the acanthus leaves out of which the goddess seems to appear. The workmanship is schematic. Can be dated, approximately, to the second-third centuries A.D. Dimensions: 10 × 4.8 cm. Bibliography: Gudea 1989, 221–223; Ungurean 2008, 179, fig. 30.

5. *Reșca – Romula* (Olt County). Terracotta discovered somewhere in southern Dacia, probably in Romula, preserved in the collection of the Museum of Oltenia in Craiova, inv. no. I 7508. The item is cast, hollow inside, made of fine red fabric, painted in red. The lower part is broken and on the back side, in the center, there is a circular orifice. Dimensions: 17.6 × 5.6 × 3.5 cm. The statuette was published as depicting a child, a genius with the *cornucopia* as attribute, raising the index finger of the right hand towards the mouth⁵⁷, but in fact it depicts Harpokrates. Can be dated to the second-third centuries A. D. Bibliography: I. Nemeti 2011.

6. *Reșca – Romula* (Olt County). Gem depicting Harpokrates. It is preserved in the Museum in Caracal. The gem was illustrated in C. M. Tătulea's book only through a drawing, without a description and without the presentation of its technical details. The entirely preserved gem depicts Harpokrates as a nude young man, with the right hand making the characteristic gesture of raising it to the lips, while in the left hand he is holding the horn of abundance. On his head, that is covered in curls, one notes something that might be much the downsized representation of a crown or a flower, also typical to the Roman mode of depiction. A scepter, rendered in three segments, seems to start from under his left hand. Bibliography: Tătulea 1994, fig. 37/18.

7. *Veșel – Micia* (Hunedoara County). Gem made of green jasper, oval, decorated with the depiction of Harpokrates sitting of a lotus flower. It was preserved in the National History Museum of

⁵⁷ Bondoc 2005, 62, no. 50.

Transylvania from Cluj-Napoca, inv. no. 4623 (now lost). Can be dated to the second-third centuries A.D. Dimensions: 16 × 12 × 2.5 mm. Bibliography: Țeposu-Marinescu 1964, 257–264, fig. 1/1; Popa 1979, 33–34, no. 46.

8. *Unknown place of discovery*. Gem made of red jasper, oval, with a depiction of Harpokrates. It is preserved in the Numismatic Cabinet of the Romanian Academy, inv. no. 120. Harpokrates is rendered in a boat, floating on the Nile, turned to the right, holding the horn of abundance in the right hand and raising his left towards his lips, in a gesture asking for silence. He wears a *calathos* on his head. The prow of the boat is in the shape of a cock's head while the stern has the shape of a lion's head supporting a krater full of fruit. In front of the god, on the boat's deck, one sees an altar. The entire image is surrounded by a pearled line. It can be dated during the Hellenistic period. If this item originates on the territory of Dacia, then it circulated there after its production, during the Roman period. Dimensions: 22 × 16 × 2.5 mm. Bibliography: Gramatopol 1974, 43, no. 57, pl. III.

9. *Unknown place of discovery*. Gem made of red jasper, oval, set in a modern gold ring. It is preserved in the Numismatic Cabinet of the Romanian Academy, inv. no. B.P.G. 6. It depicts Harpokrates in bust, towards the right, draped, with the right hand making the ritual gesture through which he is asking for silence. A braided hair lock falls on his back, behind his hear. His thick lips are slightly open, the nose is straight. On his head he wears a crescent moon and behind him one can identify an eagle or a hawk resting on a club. It is of good artistic quality, carefully work, detailed. Dimensions: 15 × 12 mm. Bibliography: Gramatopol 1974, 67, no. 370, pl. XVIII.

10. *Unknown place of discovery*. Gem made of green glass, oval, set in an ancient gold frame. It is preserved in the Numismatic Cabinet of the Romanian Academy, inv. no. 61/O. Harpokrates is depicted crouching on a lotus flower, turned to the right. In his right hand he seems to hold the whip (*flagellum*), while the left is raised towards his lips, in the gesture so typical to him. The body, as the entire image, is rendered schematically, with no insistence upon the details. Harpokrates is flanked by vultures with closed wings. There is an inscription on the reverse ΣΑ / ΒΑ / W. Dimensions: 23 × 19 × 2 mm. Bibliography: Gramatopol 1974, 67, no. 371, Pl. XVIII, 371a, 371b.

11. *Unknown place of discovery*. Gem made of onyx, oval, with flat surface. It is preserved in the collection of the Brukenthal Museum in Sibiu, inv. no. 1105. It depicts Isis with the bare bust, sitting on several overlapping stones. She holds Harpokrates in her arms and the child touches her chest with his right hand. Dimensions: 13 × 11 × 3.7 mm. Bibliography: Țeposu-Marinescu 1965, 98, no. 33, pl. IV, fig. 6.

12. *Unknown place of discovery*. Gem made of red carnelian, oval, with the surface slightly convex. It is preserved in the collection of the Brukenthal Museum in Sibiu, inv. no. 1123. The gem depicts Harpokrates nude, kneeling on a lotus flower and looking to the left. In his left hand he holds the horn of abundance and the right is raised towards his lips in the characteristic gesture of asking for silence. It is dated to the second-third centuries A.D. Dimensions: 11 × 7.5 × 2.7 mm. Bibliography: Țeposu-Marinescu 1965, 97, no. 29, Pl. IV, fig. 3; Popa 1979, 34, no. 47a.

13. *Unknown place of discovery*. Gem made of red carnelian, oval, with flat surface. It is preserved in the collection of the Brukenthal Museum in Sibiu, inv. no. 1083. According to his characteristic attributes, one can say that Harpokrates is the god depicted on this gem. He is render frontally, with the head turned to the left, nude, holding the horn of abundance in the left hand and raising the right to his lips, through his typical gesture. It is dated to the second-third centuries A.D. Dimensions: 18.5 × 15 × 4.7 mm. Bibliography: Țeposu-Marinescu 1965, 98, no. 30, pl. IV, fig. 4; Popa 1979, 34–35, no. 47b.

14. *Unknown place of discovery*. Gem made of red carnelian, oval, with the surface slightly convex. It is preserved in the collection of the Brukenthal Museum in Sibiu, inv. no. 1186. L. Țeposu-Marinescu believes it is depiction of Harpokrates, but it rather seems to be that of a genius. It is dated to the second-third centuries A.D. Dimensions: 13.9 × 10.3 × 2.8 mm. Bibliography: Țeposu-Marinescu 1965, 98, no. 31, Pl. IV, fig. 2; Popa 1979, 35, no. 47c.

Discussions

The spread of the cults of oriental origin in Roman Dacia is part a wider current at the level of the entire Empire, started when the classical Greek-Roman divinities no longer met the intimate needs

of the people. They tended to appreciate the oriental gods increasingly, due to their soteriological character and to the much more personal relation that they cultivated with their believers. People needed more and more to believe in salvation beyond death, salvation that the classical Greek-Roman gods, inaccessible and cold, could not deliver. The oriental gods were more capable of understanding the believers because they themselves have suffered and lost dear ones, some of them have died and then resurrected. If these gods were able to transcend death, then the believers initiated in their cults, who have gone through several stages of purification, could hope to do the same. The spectacular ceremonies and festivities, some public, others secret, contributed to the success of the cults of oriental origin; they promised religious experiences that the traditional Roman cults were foreign to⁵⁸. These gods no longer addressed communities alone, but, to the same degree, they spoke to communities and individuals. Belief in them practically erased social barriers, as the poor, the slaves, representatives of the senatorial and equestrian orders could all be initiated⁵⁹. On the other hand, as the organization form of the state evolved, the new leaders needed religions that could provide and strengthen their divine nature that would transform the earthly representatives into divinities.

The Egyptian gods entered in Roman Dacia through the mediation of the military⁶⁰, of merchants, representatives of the imperial administration and slaves. The spread of the divinities from Egypt through the army was favored by the fact that the soldiers formed an extremely mobile social group inside the borders of the Empire. The penetration and the spread of these gods in the province of Dacia must not be necessarily related to the presence of an ethnic group of Egyptians. Egyptians have not been yet attested archaeologically and epigraphically; at the time Dacia was conquered, the cults of the Alexandrine gods had already penetrated the Roman Empire.

It is obvious that Harpokrates did not received an individual public cult, due to the absence of epigraphic attestations on the territory of Roman Dacia and due to the absence of cult statues or statuettes. Still, his depiction of smaller artifacts, such as statuettes, terracotta, and gems, justifies my belief that Harpokrates had his supporters thanks to his character of protector and savior god. He received a great popularity among domestic images ever since in Egypt, as expression of an everyday belief⁶¹. The phenomenon is not restricted to the province of Dacia. The same situation is found throughout the Roman Empire. He is the god whose life started through a magical act. He is the god who was very close from losing his life because of Seth, but who was saved by Ra himself and invested with magical powers. He is the one who rise and avenge his father and reclaim the throne, overcoming his opponent. What other god could be more appropriately to be called for helping in situations similar to those he has experienced himself?

Either deposited in niches inside temples or in houses or on the altars from houses or tombs, images of the child-god Harpokrates were meant to protect and procure certain qualities and benefits. These aspects can be also observed in the case of artifacts discovered in the province of Dacia.

Besides other objects found in Ulpia Traiana Sarmizegetusa, the collection of the National Museum in Budapest (Magyar Nemzeti Múzeum) includes a statuette⁶² depicting the Alexandrine triad: Isis, Serapis, and Harpokrates (no. 1). Isis wears a long *chiton* that touches the ground and over it a *himation* passed over the left arm. Her dress is suggested through rich and realistically rendered drapes. Her hair is long, flowing on her shoulders, and on her head she wears a crescent moon. Her left arm touches the hip and in her hand she holds a palm branch. Her right arm is bent at the elbow and raised to the shoulders, holding a lock of hair in the hand, a gesture encountered in the case of depictions of goddess Venus. This is therefore a representation of goddess Isis in syncretism with Venus-Aphrodite. Serapis is shown under the usual figure of a mature man, with a rich beard and the hair touching his shoulders, wearing the usual *calathos* on his head. He wears a *chiton* with short sleeves, extending down to the ankles and a *himation* on top of it, passing over the left shoulder and with wide, though schematically rendered folds. In his left hand he holds a *patera* that makes common body with the figure of Harpokrates. The left arm is broken. Harpokrates is represented nude, with rounded, child-like shapes. With the left arm he holds a snake coiling on a tree. His left arm is bent at the elbow and

⁵⁸ Macrea 1969, 313–314; Bărbulescu 2006, 77; Turcan 1998, 124–142.

⁵⁹ Carcopino 1979, 167.

⁶⁰ Popescu 2004, 152–155.

⁶¹ Frankfurter 1998, 133–134.

⁶² Alföldy-Găzdac 2003, 175–176, no. 9, pl. 4/ 4 and 5.

the index finger is raised to the lips, in the gesture so typical to him. His hair is of average length and on his head he wears the double crown of Egypt. A piece of textile falls on his right shoulder.

If the right hand of god Harpokrates is empty while making the gesture of raising it towards the lips, the left hand is usually holding one of his specific attributes. In the case of this statuette, the god's left hand is placed in the close proximity of a snake. This type of representation makes us think of the discussions caused by the image of the child-god on a fresco found in Herculaneum.

The above mentioned fresco⁶³ depicts Harpokrates in the characteristic gesture of raising his finger towards his mouth, this time though of the left hand, not the right, nude, wearing on top of his reddish curls a vegetal crown, probably made of ivy leaves, decorated with a flower reminding of the lotus flower, above the forehead. In his right hand he holds a branch lance-head-shaped leaves. The central part of the fresco depicts a very large snake, coiled on an altar, ready to devour the offerings placed on it. On the right side of the fresco there was once a graffito that can no longer be read: "GENIVS/HVIVS LOCI/MONTIS." The divinities of Egyptian origin (Isis, Serapis, Harpokrates, and Anubis) held a special role in the religion of Herculaneum and Pompeii, therefore their presence in the lararii from there is not surprising. Still, this fresco seems to be a unique case in the Roman Empire. The discussion on the origin of the artist who created the work is still open to debate (if he was Greek or local). The model that stood at the basis of this image is believed not to have been of Alexandrine origin since, besides the fact that the god depicted is of Egyptian origin, there is no other element typical to the Greek-Egyptian art (specialists have invoked the association between Harpokrates and a very large snake, especially on Alexandrine terracotta, but the manner in which the god is depicted and the presence of the altar, not to mention the text that completes the image, are different). F. De Salvia believes, as far the god is concerned, that the case illustrates the syncretism between Harpokrates and Apollo, a conclusion towards which he is drawn on the basis of its teenage look and of the branch he holds, symbol of the healing and prophetic power proper to Apollo. I nevertheless tend to give more credit to K. G. Boyce's interpretation⁶⁴. He analyzes several painted lararii discovered in Pompeii (in both public and private spaces) and the ancient literature on snakes in the close proximity of people. His conclusion is that snakes depicted on the walls of houses and in public spaces do not represent genii of people, but genii of places (*genius loci*). Presuming that the author of the fresco from Herculaneum did not make a mistake when noting the few words, the only mountain he could have made reference to is the Vesuvius. K. G. Boyce even found a parallel, in a fresco from a lararium in Pompeii, which includes no inscription but depicts, in the background, Mount Vesuvius. This image also includes a male character and a large-size snake that rises towards the altar on the right side. The idea of snakes as guardians of places belongs to Greek thinking. After their introduction in the Roman civilization, in the beginning they fulfilled the role of guardians of the house walls, together with everything between those walls and just later the role of guardians of altars. What K. G. Boyce's article does not clarify is the connection between the snakes depicted on these altars and the characters besides which they appear. If the snake is the genius, what is the role played by Harpokrates? And why are other genii anthropomorphous? On some altars, the snake is accompanied by an anthropomorphous genius (that one recognizes due to the attributes that accompany him and due to its outlook). It is obvious that the same genius cannot be depicted both as an animal and as a human, just as there cannot be two different genii fulfilling the same function. Al. Dudău hypothesizes that the genius, as a god, is the anthropomorphous representation, while the snake is his companion, his emanation. Only when it is depicted alone can the snake stand for of the genius, just like the attributes of a god, if depicted alone, can stand for the god in question. According to this logical line of thought, Harpokrates could be a *genius loci* in the fresco from Herculaneum, as well as in the case of the statuette from Dacia, and the snake that accompanies him is his emanation, the symbol of his power, his companion.

The bronze statuette from Potaissa (no. 2) represents Harpokrates alone; it was mentioned by J. F. Neugebauer in his work, and by W. Drexler as well, and was part of the Kemény collection⁶⁵. The character depicted by the statuette raises one of his hands, with the raised finger, probably towards the

⁶³ De Salvia 1994, 145–151.

⁶⁴ Boyce 1942, 13–22.

⁶⁵ Neugebauer 1851, 209, no. 73; Drexler 1890, 53; Popa 1979, 34, no. 47; Bărbulescu 1994, 164; I. Nemeti 2005, 251, no. 8; Sălășan 2008, 164, no. 71.

lips, whence his identification with Harpokrates. Information connected to this item, anyway insufficient, can no longer be verified since it has been lost.

On the relief⁶⁶ presumably found in Sucidava (no. 3) Harpokrates is accompanied by Isis and Serapis. The image of Harpokrates, placed in the center of the relief, is the best one preserved. He is depicted as a nude child, with a lotus flower on his head, holding in his left hand the horn of abundance, while with the right, bent at the elbow, he makes the characteristic gesture of asking for silence. His feet are missing. Serapis, seated on a throne, is placed to the right of Harpokrates, but has been fragmentarily preserved. The arms, head, and partially the legs of Serapis are missing. The rest of his body is preserved, covered with a long tunic, almost touching the ground, with one end brought over his waist and falling on the left leg. None of his attributes are preserved. Isis, seated on a throne, is depicted to Harpokrates' left. She is fragmentarily preserved, being strongly deteriorated; the lower part of her torso and the legs down to the ankles are preserved, but none of the attributes typical to her. She wears a long tunic. This relief can be included among the type of representations usual for the Greek-Roman period that depict the Alexandrine triad. The Egyptian gods are represented according to the Greek iconographic standards, most often losing their initial attributes as well (Fig. 2).

The social dimension of this divinity, that it reaches in the Roman environment, can be observed especially in the case of terracotta, where the image of Harpokrates acquires strong domestic value. He becomes a support in procuring the abundance and the fertility of the fields, of the animals, and of the family.



Fig. 2. Isis, Harpokrates, Serapis, Sucidava (after Berciu, Petolescu 1976).

Together only with Isis, Harpokrates is depicted on a terracotta⁶⁷, headless, of the *Isis lactans* type⁶⁸, discovered in Porolissum (no. 4). The artifact shows Isis holding Harpokrates in her arms; two braided tails flank the goddess' head. In the lower part of the terracotta one notes vegetal motifs and can clearly distinguish acanthus leaves out of which the goddess springs. It is possible that the terracotta was used as a lamp's handle (Fig. 3). For this terracotta I found a very good analogy preserved in the Egyptian Museum in Turin. It is dated to the end of the first century and the second century A.D.⁶⁹, while the item found in Dacia can be dated to, approximately, the second-third centuries A.D. It consists of two elements tied to each other. The first part represents goddess Isis, in a way very similar to the item from Dacia (Isis seated in a kind of basket placed inside of some acanthus leaves, holds Harpokrates in her arms and breastfeeds him), with the difference that the item from Turin preserves the head of the goddess as well, with the hair parted in the middle and a *basileion* on top of it. On the shoulders we can see the twisted locks of hair. The other part of the terracotta is a syncretic depiction of Isis-Demeter, standing. She wears a *chiton* with a *himation* on top, placed transversally,

⁶⁶ Bordenache 1969, 87, no. 171, Pl. LXXV; Petolescu 1973, 159–161; Berciu, Petolescu 1976, 32, no. 15, Pl. X; Popa 1979, 230, no. 4.

⁶⁷ Gudea 1989, 221–223; Ungurean 2008, 179, fig. 30.

⁶⁸ LIMC V/I 1990, 777–779; Cartwright 1929, 183–184; Hermann 1940; Le Corsu 1977, 15; Tran Tam Tinh 1971, 18–21; Tran Tam Tinh 1973, 1–52.

⁶⁹ Arslan 1997, 279, IV/318.

and raised over her head. There is a *calathos* on her head, with a crescent moon above her forehead. In her hands she holds a torch and grain ears (Fig. 4). This type of representation makes reference to the agrarian side of goddess Isis, who has the power to make the ground bear fruit, with her divine power, symbol of birth and rebirth. At the same time, the acanthus leaves she sits upon, as in a basket, can make reference to *cista mystica*, that was introduced to the Hellenized cult of the goddess⁷⁰. Apuleius mentions this "basket" while referring to the mysteries of Isida⁷¹.



Fig. 3. Isis lactans – Terracotta, Porrolissum (after Ungurean 2008).



Fig. 4. Isis lactans – Terracotta, Egyptian Museum Turin (after Arslan 1997).

The lot of representations of Harpokrates in Roman Dacia has been recently enriched with an item that I. Nemeti⁷² has republished. It was discovered somewhere in southern Dacia, probably in Romula (no. 5) and is preserved at the Museum of Oltenia in Craiova. The object is cast, hollow inside, made of fine red fabric and painted in red. The lower part is broken and on the back, in the central area, it has a circular orifice. The statuette has been initially published as depicting a child, a *genius*, with a *cornucopia* as

⁷⁰ Tran Tam Tinh 1973, 24.

⁷¹ Tran Tam Tinh 1973, 25.

⁷² I. Nemeti 2011.

attribute, who raises the index finger of the right hand to the mouth⁷³, but in fact it depicts Harpokrates. The child-god is represented standing, in a relaxed posture, a contraposto on the right leg. With his left hand he is leaning on a base and the same arm holds the horn of abundance. He raises his right hand to the mouth, with the index finger raised, in his characteristic gesture. His head is slightly tilted to the right. His hair is arranged in rich curls, surrounded by flower buds that frame his face, and on his head he is wearing the double crown – *pschent*. He is clad in a long, slightly draped tunic. The thin cloth betrays the full volumes of his body and his navel. It lacks the god's naked feet and the base on which he stood. The orifice behind the statuette indicates the fact that it was used as the handle of a lucerna⁷⁴. The Greek-Roman influence can be felt in the case of this terracotta as well. The only iconographic elements that still remind of the Egyptian Harpokrates are the finger to the lips gesture of the child-god and the double Egyptian crown that has nevertheless lost its initial size and meaning (Fig. 5, 6).

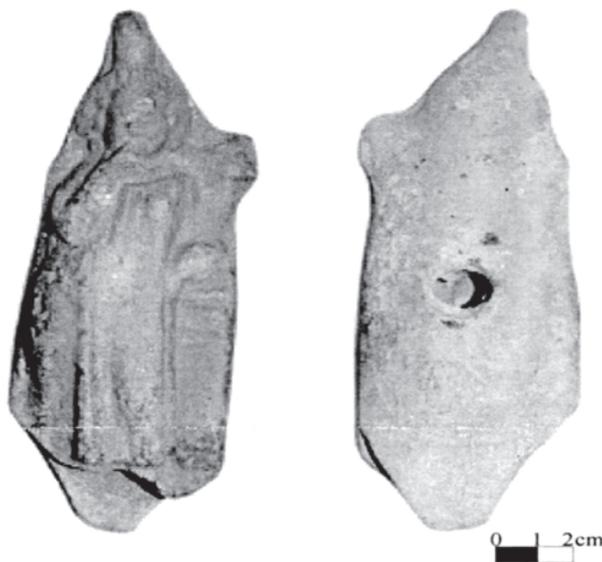


Fig. 5. Harpokrates – Terracotta, Romula (after I. Nemeti 2011).



Fig. 6. Harpokrates – Terracotta, Lyon
(http://commons.wikimedia.org/wiki/File:Harpocrates_altar_MBA_Lyon_H2399.jpg).

⁷³ Bondoc 2005, 62, no. 50

⁷⁴ For images of the Isis-Harpokrates-Anubis triad see Podvin 2003.

Terracottas were made of a material accessible to all social classes and could have been owned even by slaves and people of modest origin. They could represent images of the gods used either in private homes, or in temples. If they are not discovered in clear archaeological contexts, we can only speculate about their belonging and use.

Just like religion, through magic people addressed the gods using images, rituals, and specific formulae in order to obtain a certain effect. But unlike religion, the one who practiced magic aimed at manipulating the divine forces that resided in these images, gestures, and spoken formulae. The practitioners of magic wished to change the micro-cosmos in which they lived by acting with the aid of the divine forces that existed around them (the forces of the invoked gods, the forces of certain materials, of certain images, of certain moments of the day, of the dead etc.).

*Heka*⁷⁵ was the force through which the Egyptian gods had created the world. The force that could be, in ancient Egypt, identified with the maker himself. The force that resides in each magical act, since every act of magic is in its turn an act of creation. All Egyptian divinities possessed *heka*. All the pharaohs, all people who were special in some way, all the dead had it. This force was neither good, nor bad in itself. It depended on who used it and to what purpose.

Both for the Egyptians and for the Greeks and Romans, magical power could be exerted by the same people who dealt with religion in the temples⁷⁶. There were not two rival groups, as in Christianity, but it was usually the priests who acted on several levels, in temples and in the private environment. The Egyptians wanted to make sure that they did everything possible to prevent or to resolve situations of crisis, by tackling them in multiple ways. It seems that this approach resonated in Roman society, whose members took all means of precaution. They were not content with just preparing their travels minutely or to invoking the help of certain gods, but they also turned to magical powers by wearing amulets. In case of disease, they resorted not only to the medical knowledge available at the time or to invoking the gods specialized in such a field, but they completed the array of means employed with amulets and magical formulae specialized in the treatment of the various diseases. Either they prayed in temples or outside them, or turned to magical rituals, people of Antiquity followed the same goal: the fulfillment of their wishes⁷⁷.

The gems I wish to introduce to the present discussion have been included in the category of Roman gems, and were thus worn by people less likely to know the older Egyptian beliefs. But, these gems feature gods of Egyptian origin. It is thus possible that those who wore them knew the fields of action of these gods and were among the believers who worshiped them, just as they could be just following a fashion. As mentioned previously, temples where gods of Egyptian origin were worshiped have been found, including on the territory of Roman Dacia, just as the function of certain religious colleges patronized by Egyptian gods has been documented.

Magic could have acted both through the mediation of words and images and the gems could contain either just one of these paths to the power of magic, or both. Magic worked according to the principle of "sympathy" and the right material to use was the appropriate one, that could happily complete the message, amplifying its effect. In the case of gems, one had to harmonize the stone used as support, the color of the stone, the image featuring on its surface, and the possible inscription. The images depicted on the Greek-Roman gems that are preserved in the collections of museums from Romania are very diverse. Among those featuring the image of the god Harpokrates, the place of discovery of just two is known (*Romula* – no. 6; *Micia* – no. 7), while the others (nos. 8, 9, 10, 11, 12, 13, and 14) were probably acquired from the commerce in antiquities.

Not much data is available on the gem discovered in *Romula*⁷⁸ (no. 6). On the surface of the gem we can observe god Harpokrates as a nude young man who makes the characteristic gestures of raising the right hand to the lips, while in his left hand he holds the horn of abundance. On his head, covered in curls, one sees something that seems to be the representation of a much downsized crown or a flower, also typical to the Greek-Roman type of representation. A scepter, fragmented into three segments,

⁷⁵ Pinch 1994, 9–17; Mastocinque 2005, 143.

⁷⁶ Frankfurter 1997, 119–121.

⁷⁷ Versnel 1981, 8–17.

⁷⁸ Tătulea 1994, fig. 37/18.

seems to start from under the left hand. In the case of this image, the Greek-Roman influence is as clear as possible. The *cornucopia* is the god's attribute, his crown is rendered much smaller or even replaced with the flower bud, the god's head is no longer shaved, with the traditional braided hair lock, but covered with curls.

The gem discovered in Micia⁷⁹ (no. 7) is the one that depicts Harpokrates nude, having the body of a child, crouching on a lotus flower, flanked by a flower bud on each side. With the right hand raised towards the lips he makes the characteristic gesture of asking for silence, while in the left hand he holds the whip (*flagellum*), symbol of royal power in Egypt. On the god's head L. Țeposu-Marinescu sees a solar disk, while on his left temple seems to hang a braided lock of hair. If the mentioned elements have been identified correctly, then the representation is still under the influence of Egyptian iconography.

The god preserves one of the attributes that symbolize his royal power (*flagellum*), the braided hair lock, but the Egyptian crowns he was usually wearing are replaced with a solar disk. This is an image that shows Harpokrates under his guise of child-god, solar god, heir of his father's power. We can only presume that the image was modeled after an object created in Egypt. There is no indication available on the person who wore this gem; one cannot know if he/she was a worshiper of the god or if the reasons behind wearing it were related to fashion or other considerations. This gem is not accompanied by any inscription or symbol that could support its attribution to the category of magical gems.

One of the gems preserved in the collection of the Numismatic Cabinet of the Romanian Academy (no. 10)⁸⁰ was made out of green glass paste. Harpokrates is schematically represented, sitting crouched on a lotus flower placed on the solar boat. Two hawks are depicted resting on each of the boat's ends, rather rudimentarily⁸¹. The god holds in his left hand the whip (*nekhakha*), one of the symbols of his power, while raising his right to the lips. He wears no crown, but the two hawks seem to wear such Egyptian crowns, one each, but one cannot clearly identify which type of crowns they are. On the reverse we can see an inscription, with Greek letters: ΣΑΒΑΩ. The type of representation of Harpokrates sitting on a lotus flower makes reference to the Hermopolitan myth of the sun's birth from a lotus flower, the first thing that appeared from the primordial waters⁸². The elements of this amulet suggest the fact that it is a magical amulet. In the case of this image, the Hellenistic influence is very shallow, both in representation and meaning, reminding of images created since the pharaonic Egypt. I believe that the image depicts the sun in full power in his daily trip (case in which the boat is identified with the solar boat in which the sun-god travels every night through the underworld where it faces a series of obstacles, where it has to fight against the powers of evil and chaos that it defeats, reappearing every morning), his cosmic cycle. The magical power of the gem is amplified by the inscription on its reverse. It betrays the Judaic influence on amulets⁸³ through the presence of a *nomina sacra* of Judaic origin⁸⁴, but transcribed with Greek letters: ΣΑΒΑΩ, that underlines the idea of supreme authority and power. But this is not the only god associated with diverse variants of *nomina sacra* of Judaic origin⁸⁵. There is a possibility that Harpokrates, undergoing a syncretistic process, became the god Iao Sabaoth itself of the Judeans, even if he preserved the traditional aspect of a child-god who raises the index finger of his right hand and sits on a lotus flower. Invocations to the child-god who sits on a lotus flower, the sun-god who rises from the primordial waters, can also be found on magic papyri⁸⁶ where he is identified with the supreme ruler, the one who commands the entire nature and holds all wisdom. He is invoked under different names: Zas, Sabaoth, Adonai, Kommes, Iarmioth, Apollo etc. On some magical gems, the reverse is decorated with the depiction of the god with a cock's head and feet turned into snakes, together with the inscription 'Ιάω 'Αδωνάι Ταβαν⁸⁷ or other *nomina sacra* of Judaic origin.

⁷⁹ Țeposu-Marinescu 1964, 257–264, fig. 1/1; Popa 1979, 33–34, no. 46.

⁸⁰ Gramatopol 1974, 67, no. 371, pl. XXVIII, 371a, 371b, inv. no. 61/O; dimensions: 23 × 19 × 2 mm; oval. On the reverse one can read the inscription ΣΑ / ΒΑ / Ω; S. Nemeti 2013, 154–155.

⁸¹ Analogy with Bonner 1950, no. 2, 210.

⁸² Mastrocinque 2003, 150.

⁸³ Mastrocinque 2003, 145.

⁸⁴ Sanzi, Sfameni 2009, 65–68.

⁸⁵ Mastrocinque 2003, 158.

⁸⁶ Betz 1986, 16–17.

⁸⁷ Delatte, Derchaine 1964, 110, no. 134.



Fig. 7. Harpokrates, Numismatic Cabinet of the Romanian Academy (photo E. Petac).

Another gem preserved in the collection of the Numismatic Cabinet of the Romanian Academy, that depicts Harpokrates (no. 8)⁸⁸, includes the Greek-type image of the god standing in a solar boat, rendered much more carefully and of better artistic quality than on the previously discussed gem⁸⁹. The god is depicted as a nude boy, rather chubby, stepping to the right (Gramatopol describes it thus, despite the fact that the image is flipped horizontally), holding the horn of abundance in the left hand, while the right hand is raised towards the lips, with the index finger extended. He wears a *modius* on his head. The boat on which he stands has the prow decorated with a cock's head, while the stern is decorated with the head of a lion that supports a vessel in the shape of a krater in which one can note fruit. Before the god, in the boat, there is an altar, much diminished in size. Behind the god, Gramatopol discerns the bust of a bearded, ithyphallic character. An *ouroboros*, represented as a beaded line, surrounds the entire image. The Greek dimension of the image of a god of fertility is obvious (the *modius*, the horn of abundance, the fruit vessel, and the ithyphallic character). Elements of Egyptian iconography (the solar boat) coexist with those of Greek origin. In this case, the boat⁹⁰ has a cock's head at the prow, the bird that announces the morning and that, with its crow, repels the evil spirits, and a lion's head at the stern, that symbolizes the sun at noon, in full power. The *ouroboros* that encloses the image symbolizes the periodical cycles, the periodic regeneration, eternity. The artifact is a magical gem in which Harpokrates plays the role of the god of fertility of nature, of human fecundity, ruling solar god and creator, savior god that protects and heals, he who ensures the perpetual regeneration of the world (Fig. 7). One finds Harpokrates associated to a magical invocation meant to bring the love of a certain person. The invocation names the gods Isis, Helios (as the equivalent of Horus), Osiris, and Toth and requires that the one performing the ritual and reciting the invocation wears an iron finger ring with the engraved image of Harpokrates seated on a lotus, in this case bearing the magic name *Abrasax*⁹¹. In case the agent wanted the spell to end, the ring was to pass to the one who was the target of the spell.

An oval gem made of red jasper is preserved in the Numismatic Collection of the Romanian Academy (no. 9); it has been set in a modern god ring. Harpokrates is represented in bust on its

⁸⁸ Gramatopol 1974, 43, no. 57, pl. III, 57; Cristea 2013, 137–138.

⁸⁹ The Numismatic Cabinet of the Romanian Academy, inv. no. 120/ O.8924; dimensions: 22 × 16 × 2.5 mm; oval in shape. Made of red jasper, with the edges flattened at an acute angle.

⁹⁰ Mastrocinque 2003, 151.

⁹¹ Betz 1986, 291.

surface; the image is artistically, carefully created; the god is turned to the right, his body is draped, and with the right hand he makes the ritual gesture of asking for silence. A braided hair lock falls on his back, passing behind his ear. His thick lips are slightly parted and his nose is straight. On his head he has a crescent moon and behind him one can distinguish a hawk or an eagle resting on a club. This depiction of the god Harpokrates contains both elements specific to Egyptian iconography (the braided hair lock, the hawk as symbol of god Horus), and elements of Greek-Roman iconography (the full traits of the face, the draped body). The crescent moon that he wears on his head can make reference to his status as the son of goddess Isis, beside which one can also find depiction of the crescent moon horn. Elements that make us attribute this gem to the category of magical gems are absent, though one cannot be certain neither of the function it fulfilled, nor of the orientation or ethnic origin of the person who wore this gem. It seems that, in this case as well, Harpokrates was represented as a divinity of the sky, alluding to the crescent moon on his head and the gesture of raising his right hand to the lips asking for silence alludes to the mysteries of his mother, Isis.

A gem made of onyx, oval in shape, preserved in the collection of the Brukenthal Museum in Sibiu (no. 11) has the flat surface decorated with image of goddess Isis, bare breasted, sitting on several superposed rocks. She holds Harpokrates in her arms and he touches her breast with his right hand. The iconographic type is that of *Isis lactans*. The gesture through which Isis breastfeeds Horus-child is symbolic due to the fact that the milk produced by the goddess has, in Egyptian, but also in Greek-Roman religion, the power to give life, to prolong life, to heal, or to turn into a divinity whomever feeds on it. The goddess that nourishes is often depicted as the divine cow Hathor or as a woman with a cow's head (Hesat)⁹². In pharaonic Egyptian religion and art, the pharaoh is identified, in the case of this type of image, with Harpokrates, his divine essence thus originating in the very divine milk of the goddess. The birth houses (*mammisi*) were placed under the patronage of these goddesses that breastfeed and of their divine sons, as one can see in the case of Dendera or Philae⁹³. In the Greek-Roman world one encounters the *Isis lactans* type of representation even on coins dated to the time of Trajan, from the Antonines until Commodus and the first Severans⁹⁴. The Hellenized image of the goddess breastfeeding young Horus spread to the Roman world starting with the first century A.D. It is often found on statuettes, lamps, terracotta offered as *ex-voto* in the temples of the goddess, in order to receive in return her protection over the family, over women giving birth, but especially over children who were the most vulnerable against the action of the evil spirits⁹⁵. To the same end people wore the gems with the surface decorated with the image of the nourishing goddess. These gems spread in the Roman world between the first and the fourth century A.D. and can be, sometimes, associated to the image of the god Bes, god-demon protector especially of children, and can be accompanied by inscriptions meant to increase the magical power that they supposedly held. The type of representation encountered in the case of this gem no longer contains the usual attributes of these gods (the crowns, the symbols of power that Harpokrates held in his hands), being an image of Hellenistic type. The person who wore the gem probably turned to the protective power of the goddess, as she could endow upon her believers, through the mediation of her mysteries, long and plentiful life.

The collection of the Brukenthal Museum in Sibiu also includes two gems that depict Harpokrates in two of his usual postures. On one of the gems (no. 12)⁹⁶, made of red carnelian, oval, with the surface slightly convex, one can see the depiction of Harpokrates naked, kneeling on a lotus flower, and looking to his left. In his left hand he holds the horn of abundance and he raises his right hand to the lips, in his typical gesture, asking for silence. The gem is dated to the second-third centuries A.D. As previously mentioned, this type of representation of god Harpokrates is connected to the Hermopolitan creation myth⁹⁷ and illustrates his aspect of solar, creator god. But, as no other elements or inscriptions decorate the gem's field, one cannot bring other details on the role it had, the goal to which it was made, or the origin of the person who wore it.

⁹² Tran Tam Tinh 1973, 1–3.

⁹³ Tran Tam Tinh 1973, 4–7.

⁹⁴ Tran Tam Tinh 1973, 17.

⁹⁵ Tran Tam Tinh 1973, 20.

⁹⁶ Țeposu-Marinescu 1965, 97, no. 29, pl. IV, fig. 3; Popa 1979, 34, no. 47a.

⁹⁷ Delatte, Derchain 1964, 106–109.

The other gem (no. 13)⁹⁸ preserved in the collection of the Brukenthal Museum in Sibiu, made of red carnelian, oval, with a flat surface, depicts Harpokrates frontally, with the head turned to the left, nude, in the left hand holding the horn of abundance and raising the right hand to the lips, through the gesture characteristic to him. It is dated to the second-third centuries A.D.

L. Țeposu-Marinescu reminds in her article dedicated to the gem collection of the Brukenthal Museum in Sibiu one such item (no. 14)⁹⁹, made of red carnelian, oval, with the surface slightly convex, that she believes to depict Harpokrates. He is nude, holding the horn of abundance in the left hand and two fish and two grain ears in the right. The entire attitude of the divinity seems rather that of a genius than that of Harpokrates, rather a teenager than a child, and the fact that he holds the horn of abundance in the right hand is not a very certain element of identification since it is also one of the attributes of genii. The gem is dated to the second-third centuries A.D.

In the case of gems it is difficult to state the aim to which they were made. They could be protective gems or items involved in some ritual of aggressive magic. The same image, placed in different contexts, probably fulfilled different functions. One cannot even distinguish clearly between Egyptian, Greek, Roman, or Judaic gems, since in most cases symbols and inscriptions taken from all these environments coexisted in a mix that is hard to decipher.

The image of the child-god Harpokrates on the territory of the province of Dacia is not encountered on many artifacts. The ones that do represent him are, in the great majority of cases, small-size objects (statuettes, terracotta, gems) that were cheap and thus accessible to all social categories. In these images, Harpokrates follows the iconographic types spread at the level of the entire Empire; he is represented either alone (standing or sitting on a lotus flower), or together with his divine parents, Isis and Serapis, or just beside his mother, Isis (the *Isis lactans* type). In Dacia there are no *cippi* or gems represented, near the god, groups of dangerous animals placed under his power. In some cases the god preserves the attributes specific to Egyptian art (the braided hair lock, the *pshent* crown, the whip), but, in general, his image is Hellenized. Due to the absence of cult statues and inscriptions one can conclude that on the territory of Roman Dacia Harpokrates did not enjoy a proper cult and his presence must be sought in the private environment. The extension of archaeological excavations in this direction will certainly enrich the repertory of objects that contain the image of god Harpokrates.

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⁹⁹ Țeposu-Marinescu 1965, 98, no. 31, pl. IV, fig. 2; Popa 1979, 35, no. 47c.

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Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch- Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

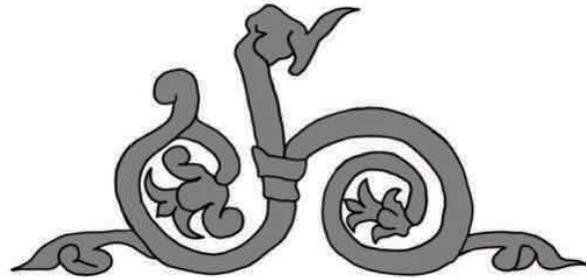
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MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thrac-Dacica	<i>Thrac-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
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Mithras rediscovered. Notes on CIMRM 1938

Csaba Szabó, George Valentin Bounegru, Victor Sava

Abstract: The present study analyzes a recently rediscovered relief of Mithras Tauroctonos from Apulum. The relief was found in 1905 in Apulum (Alba Iulia, Gyulafehérvár) by Béla Cserni, the first director of the local museum. The artifact was shortly mentioned in some notable catalogues (CIMRM 1938, Popa 1978, 331, Sicoe 2014, 147, nr. 18), but without further details about its exact location and fate. Recently, the relief was found in the deposit of the Museum of Arad. In this study the authors present the adventurous discovery and rediscovery of the relief and its iconographic features, reflecting on the Mithraic material of Apulum.

Keywords: Mithras, Apulum, Dacia, Roman religion, Béla Cserni.

The present relief of Mithras Tauroctonos was a well known artifact, cited numerous times in the abundant literature on the Mithraic material of the Roman province of Dacia¹. First time described by Marteen Vermaseren in his monumental corpus (CIMRM 1938), his work was cited continuously without the picture of the artifact, known later as a “disappeared” object². Based on some recently found literary and photographic sources, the authors identified and rediscovered the relief in the deposit of the Museum of Arad. Due to the new data and the iconographic features, the relief can be analyzed in details and interpreted in its own archaeological and iconographic contexts, serving new details for the rich Mithraic material and religious life of Apulum³.

There and back again: the story of the discovery and rediscovery

The adventurous story of the relief begun in 1905, when Béla Cserni⁴ found the artifact in Marospartos (Partoș – Colonia Aurelia Apulensis) where it was used as a bench in front of a house⁵. The original location of the relief and the exact place of the house is unknown, but we can presume that it was in a sanctuary in the NV part of the Colonia Aurelia Apulensis⁶. The great number of the Mithraic monuments from Apulum discovered in the 18–19th centuries⁷ urged Béla Cserni, the pioneer of the archaeological excavations and museology of Apulum to study more carefully the cult of Mithras in Apulum⁸. For this purpose, he contacted Franz Cumont, the “patriarch” of the Mithraic studies, well known at that time also by the Hungarian scholarship⁹. Cserni’s letter from 31 July, 1912 presents eight Mithraic monuments from Apulum¹⁰. Most of them were already published in CIL or the Corpus of Cumont, but the nr. 4. was mentioned first time by him in this letter. Cumont replied in two letters to Cserni in 4th

¹ On the bibliography of the Mithraic studies of Dacia see: Boda, Szabó 2014, 110–115.

² Popa 1978, 331, Sicoe 2014, 147, nr. 18.

³ About the cult of Mithras in Apulum see: Szabó 2013a, 43–73.

⁴ He was born in Slovakian speaking territory of the Austrian Empire in 1842 as Adalbert Čierný. However, during his academic activity, he wrote, signed and manifested every paper and work as Béla Cserni. The Romanian historiography cite him nowadays as Adalbert Cserni, his contemporaries (Alexandru Borza, Virgil Cucui, Constantin Daicoviciu, Ioan Berciu, Cloșca Băluță) used his Hungarian name.

⁵ About the discovery of the piece and the first description of it by Cserni: Popescu 2000, 48–49, nr. 18. The original letters is accessible online at the Digitized Archivum of Franz Valerie Cumont with numbers CP235–236.

⁶ From the topographical maps of Béla Cserni about the Colonia Aurelia Apulensis and his activity in the Partos in the first years of the 20th century we can presume that the relief was found in the NV part of the Colonia. See: Moga et al. 2000, 169, fig. 1, Dreghiciu-Mircea 2006, 12, fig. nr. 5.

⁷ About the discovery of the votive artifacts of Apulum see: Szabó 2014a, 53–82.

⁸ About his activity see: Dreghiciu-Mircea 2006, Moga 2010, 5–11.

⁹ Franz Cumont had a rich correspondence with Géza Kuun too: Popescu 2000, 44–45.

¹⁰ Some of the monuments entered in 1903 in the custody of the new Museum as a donation of the Batthyaneum Library: Moga, Mârza 1993, 422.

September, 1912 and 29th September, 1912 asking for photos of the new monuments and sending his book about the mysteries of Mithras¹¹. In his response from 21^h November, 1912 Cserni mentions again the monument: “*Mithras relief what I found in 1905 as a bench in front of a house in Maros Portus (Col. Apul.). The face of Mithras is so well preserved, that I never saw something like that before. Severely battered*”¹². The picture of the monument sent by Cserni for Cumont is currently missing, but another picture taken by the Hungarian archaeologist between 1905 and 1916 solved the identity of the CIMRM 1938. The picture¹³ (Fig. 1.) shows the interior of the new lapidarium, established by Cserni and reorganized many times¹⁴. The relief stands behind of the famous machete of the “big thermae” of Apulum (in reality the only detailed plan of the *praetorium consularis*). From this, we can presume the size of the relief.



Fig. 1. Photo of Béla Cserni about the lapidarium of the Museum of Alba Iulia taken between 1905 and 1916 (inedit picture from the Archive of the Museum of Unification, Alba Iulia).

The fate of the artifact between 1916 and 1958 is unknown. It is possible, that in the time of the reorganization of the Museum and its inventorial system after 1947 the object was still in the Museum of Alba Iulia. The inventory number of the relief (205/II) could indicate this. In 1958, when Marteen Vermaseren visited Alba Iulia, the object was already in the Museum of Arad, where numerous Roman artifacts were transported in 1951¹⁵. His short report about the relief (CIMRM 1938)¹⁶ however is still detailed enough to identify the object. He probably had a photo or the oral report of Alexandru Popa

¹¹ Cumont 1910. See also: Ciobanu 1994, 247–250. Important to mention, that Radu Ciobanu suggested in his article, that the relief mentioned by Cserni in 1912 could be the CIMRM 1938, but he doesn't know the picture of Cserni from the lapidarium.

¹² Original letter: CP 236 (AB I/5). See also: Popescu 2000, 49.

¹³ The document was part of the exhibition organized by George Bounegru in May-June 2009 about the life and activity of Béla Cserni entitled „*Muzeul se întoarce acasă*” in cooperation with the „Avram Iancu” General School from Alba Iulia, the former seat of the first museum.

¹⁴ Moga, Mârza 1993, 428.

¹⁵ In 1951 a number of artifacts, outside Arad County, were recorded in the collection of Museum of Arad. According to the inventory register of the archaeological department one can see that Roman artifacts were brought in Arad from Gilău (inv. no. 12298–12319), Colonia Ulpia Traiana Sarmizegetusa (inv. no. 12320–12325) and Porolissum (inv. no. 12326). Unfortunately it is not clear how these artifacts were brought in the collection of Museum of Arad, but we suspect that it was about an exchange between the Museum in Cluj-Napoca and the one from Arad. The Mithraic relief in question was not registered in the Museum of Arad and we have no documents on how and why the relief was brought here. However we can assume that in the context of exchanges between museums, occurred in the early 1950s, the relief in question arrived in Arad.

¹⁶ Vermaseren 1960, 279.

and Constantin Daicoviciu who were his guides in Romania during his stay in the country and Alba Iulia¹⁷. The precision of the dimensions indicate, that Vermaseren had exact sources about the piece, but never saw it¹⁸. All of the references which deals with the relief after Vermaseren cites his laconic report about the piece, without taking in account Cserni's and Cumont's letters and the photography.

Putting together all the known sources, the authors of this article found the relief in the deposit of the Museum of Arad. The size and iconography of the artifact corresponds with the description of Vermaseren and Cserni and it is identical with the relief appeared on the photo.

Description and context of the discovery

The relief is one of the biggest known representations of Mithras Tauroctonos in Dacia and the biggest of its type. The upper part of the relief is fragmentarily preserved, the edge and the framework of the relief – possibly represented as a simple, undecorated niche – is missing. Similarly, the Phrygian cap of Mithras and the bust of Luna in the right corner is fragmentarily preserved. The face and cloak of Mithras, the radius of Sol and some parts of the raven is beautifully carved and well preserved. The face of Mithras is represented in an unusual, frontal position, not turning to Sol, but staring towards the viewer – a very rare iconographic feature. His face – as Cserni mentioned in his second letter – is extremely detailed, one of the most beautiful features of the provincial art from Dacia. Even the cheeks and eyelids are carved.

Cautopates is entirely battered, similarly to the bull, who's legs and horns are the only identifiable parts. The inferior part is also severely damaged. There are no traces of the dog and the scorpion. Cautes appears fragmentarily, but with clear lines of his attribute and shape. The relief is unepigraphic. It is possible, that as many of the reliefs of this size, it never was marked with an inscription (CIMRM 1972, 1973) but in his actual condition it is impossible to determine.

The actual size of the relief corresponds almost perfectly with the details given by Vermaseren in his corpus: height 62–77 cm, length 101–104 cm, thickness 9–12 cm (Fig. 2 – 3). The original height could be around 80 – 90 cm. The backside of the relief is not carved, intended only for a frontal view, as the majority of the Mithraic reliefs¹⁹. If the relief was used as a bench in the 20th century it explains the severe damage of the central surface²⁰.



Fig. 2. The Mithraic relief (CIMRM 1938). Frontal view.

¹⁷ Vermaseren 1960, Introduction.

¹⁸ There are no other, existent reliefs of this size unphotographed in his catalogue.

¹⁹ There are few exceptions where the reliefs were rotatable: CIMRM 1083, 1896.

²⁰ The entire surface is severely damaged, which could indicate also the possibility, that the relief was never finished. However, the beautifully carved face of Mithras, his vesture and the elaboration of Cautes could suggest a later, post-Roman destruction of the monument.

The exact provenience of the relief is unknown. Cserni mentions in both letters that it was found in front of a garden in the territory of the Colonia Aurelia Apulensis. However, his excavations and works focused mainly on the North part of the city²¹ it is not sure, if the relief comes from this part of the city. On his first map appear some points also in the South part of the Colonia (nr. 33 – 34²²). The majority of the provenience of the Mithraic material from Apulum is uncertain. 14 Mithraic monuments were discovered surely in the Partoş (Colonia Aurelia Apulensis)²³, only four of them having an exact place of discovery²⁴. Several other monuments which have a less precise provenience could be discovered also in the territory of the Colonia. The presence of multiple altars and central cult reliefs indicate also the existence of several sanctuaries of Mithras in the Colonia, as Cumont and Cserni already suggested in their work²⁵.

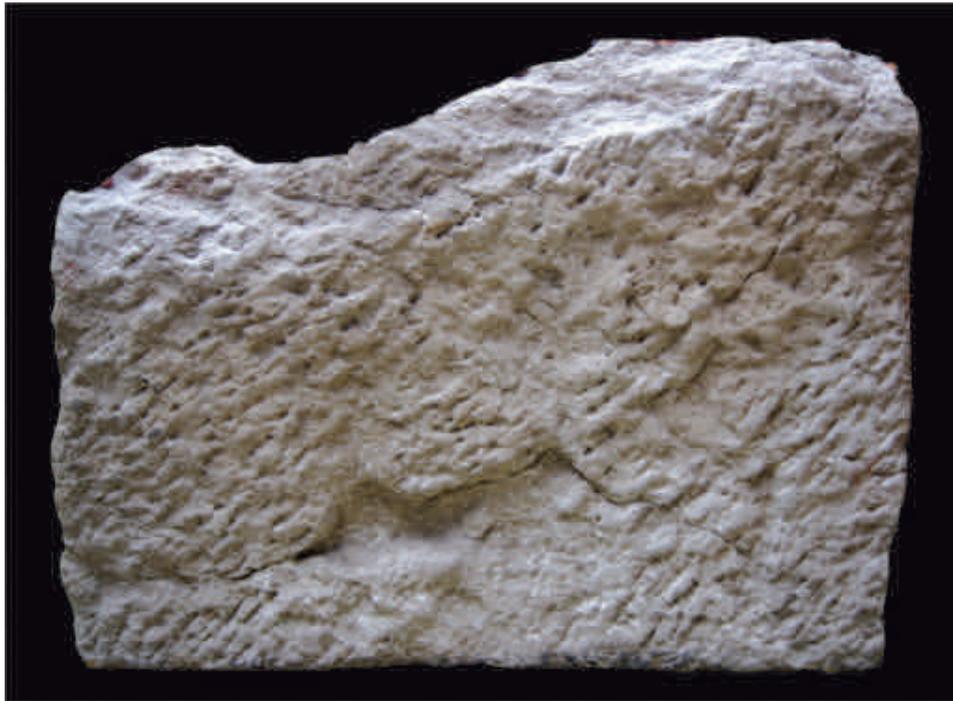


Fig. 3. The Mithraic relief (CIMRM 1938). Backside.

Iconographic features and functionality

The relief represents Mithras Tauroctonos with the scene of killing the bull. Mithras is represented in his Oriental dress, with carefully carved cloak, fibula and folds on his shoulder. His belt is very wide and emphasized. He holds with his left hand the mouth of the bull, the standard iconographic position of the bull killing scene. Although, his right hand is missing, we can presume from the distance of his right shoulder and the back of the bull that his arm was slightly disproportioned and very far from the neck of the animal. The head and legs of the bull seems also very small and disproportional. Mithras Tauroctonos position is very unusual, staring on the viewer and not towards Sol. This iconographic “anomaly” appears very rare in the Mithraic narrative and could be interpreted as a “mistake” of the *lapidarius* or an individual interpretation of the worshiper²⁶. There are however some analogies from Dacia for this unusual position of Mithras²⁷. All of them are small or medium sized reliefs with very

²¹ He excavated the NE corner of the city wall in 1904 and identified numerous Roman buildings of the N part of the Colonia: Szabó 2014b.

²² Moga et al. 2000, 169. Fig. 1.

²³ CIMRM 1935, 1937, 1938, 1939, 1940, 1941, 1942, 1944, 1947, 1949.

²⁴ IDR III/5, 709, 720, Haynes 2005, 44 = Szabó 2013a, 65, nr. 25, Sicoe 2014, 148, nr. 22.

²⁵ Cserni 1901, 335.

²⁶ Mithras stare at the bust of Sol or – very rare in the Italian reliefs – on the bull: CIMRM 415, 534, 556, 587, 593, 662.

²⁷ Sicoe 2014, nr. 3, 42, 103, 104, 111, 116, 118, 129, 197, 232, 240.

rudimentary elaboration. The raven seems to stay on a small platform, separately presented from the cloak of Mithras. The size of the bird is disproportional and beautifully elaborated. The bust of Sol is well preserved, however his face is severely damaged. From the twelve radius, nine are preserved. The longest one is pointing towards the scene of Tauroctony. This motive appears also very rare in Dacia²⁸. Cautopates is totally missing from the relief, however his present is self-understood due to the space between the edge of the relief and the scene of the tauroctony. Cautes appears with upraised torch in his right arm, showing towards Mithras. His Phrygian cap is partially preserved, his face is battered. He wears an Oriental dress²⁹. His left arm is severely damaged, but it could represent Cautes with the *bucranium*, holding the head of the bull. This representation is very rare in the Mithraic iconography and could be a local invention of the communities from Dacia³⁰. In some cases, in the left hand of Cautes appears a *krater*, a *pedum*, a cock, a torch, a stick, a *pelta* or a bow. In Dacia Cautes most commonly appears with two torches or with a torch and a bull³¹. In our case, the left hand lies on his lower body, which indicate the presence of a *bucranium*. His legs are not cross legged, which is also a rare position for Dacia, representing only 15% of the iconographic analogies from the province³².

As a typology, the monument is a single registered cult-relief (Sicoe type I.³³). Most of examples of this type from Dacia and other provinces are small sized *ex votos*³⁴. Single registered reliefs of this size are usually represented in the *spelaeum* form (Sicoe 2014, nr. 39, 188) imitating the Mithraic cave. The fragmentary nature of the monument doesn't allow to analyze the form and the frame of the relief. If it was a simple, rectangular niche than it is the biggest of its kind in Dacia.

The large size of the relief suggest a central presence in the sanctuary, usually identified as "cult relief" or Kultbild in the classical Greco-Roman sanctuaries³⁵. As the latest studies proved, the role of a Mithraic relief – even if it can considered a central element of a sanctuary or just a decorative *ex voto* or altar – have different connotations and strictly integrated in a "star talk" or at least, a narrative with philosophical meaning³⁶. Even if there are analogies for the existence of two central reliefs and tauroctonies in a single sanctuary³⁷, in most of the cases there is a central representation of the tauroctony and the small ones are *ex votos*, decorating the walls or even, private houses – if we accept the existence of a private sphere of this cult³⁸.

In this context, the recently rediscovered relief is one of the six, large sized tauroctonies from Apulum. Two of them were found possibly in the same sanctuary (CIMRM 1958, Sicoe 2014, nr. 43³⁹) in the so called Oriental area of the Municipium Septimium Apulense. The statuary representation of Mithras Tauroctonos (CIMRM 1947) and the middle sized relief (CIMRM 1935) were found in the Colonia Aurelia Apulensis. The two other central reliefs (CIMRM 1972, 1973) were discovered before the 18th century, without a precise location. This could indicate, that in the Colonia Aurelia Apulensis were at least four sanctuaries⁴⁰. From the Municipium Septimium Apulense we know at least two mithraea now⁴¹.

²⁸ Sicoe 2014, nr. 39, 102, 108, 109.

²⁹ Veliciu 2004, 3.

³⁰ Sicoe 2014, 53, Szabó 2014c.

³¹ Hinnells 1976, 44.

³² Idem, 40.

³³ Sicoe 2004, 287.

³⁴ Sicoe 2014 nr. 6, 56, 62, 65, 67, 81, 82, 83, 84, 85, 87, 88, 92, 97, 178, 179, 180, 185, 197, 204, 208, 217, 229. About the role and functionality of the small size reliefs see: Gordon 2004, 259–283.

³⁵ About the problematic definition of cult relief, Kultbild and their role in the sacred geography of a mithraeum see: Nicolae 2011, 67–79, Szabó 2013b, 45–65.

³⁶ About the Mithraic star talk and its critics see: Chalupa 2012, 5–17. About the Mithraic narrative: Nagy 2012, 37–58.

³⁷ The case of Dura Europos (CIMRM 37, 40) and the discovery of Kaftal from Apulum: CIMRM 1935, 1937, 1947: Szabó 2013b, 51–55.

³⁸ Latteur 2011, 741–754.

³⁹ The two reliefs were found in different times. The discoverer of the second, fragmentary piece, Cloșca Băluță presumed, that the piece could come from the same spot, where in 1930 Virgil Cucui identified an important Mithras sanctuary at the field of Oancea: Szabó 2014a, 64–65.

⁴⁰ The function of the building excavated recently near the shrine of Liber Pater, cited in some works as a possible mithraeum is not yet clarified: Szabó 2014a, 69.

⁴¹ The sanctuary on the field of Oancea and the recently found mithraeum: Ibidem.

Conclusion

Lying almost sixty years unobserved in the deposit of the Museum of Arad, the Mithraic relief from Apulum was considered for a long time a disappeared monument, cited and known in the Romanian and international scholarship due to Vermaseren's short remark on the artifact.

In this article the authors presented the adventurous discovery and rediscovery of the relief based on the correspondence of Franz Valerie Cumont and Béla Cserni and on the photograph of the relief from the first lapidarium of the museum. The iconographic analysis of the relief shows a common type of relief but in an unusual size and elaboration. If the relief was ever used as a central element of the internal geography of a sanctuary, it must be a highly elaborated work. The existent features – such as the *bucranium* in the hand of Cautes – could indicate a local workshop and a provincial interpretation of the Mithras narrative, however the elaboration of the relief and some iconographic features are unusual for Dacia.

The size of the relief and its meticulous elaboration suggest that it was a central relief of a sanctuary in the Colonia Aurelia Apulensis, where numerous other Mithraic monuments were found. At the recent state of the research we can presume the existence of at least six sanctuaries in the conurbation of Apulum, making it one of the most important Mithraic centers in Dacia and in the Danubian provinces.

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Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch- Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

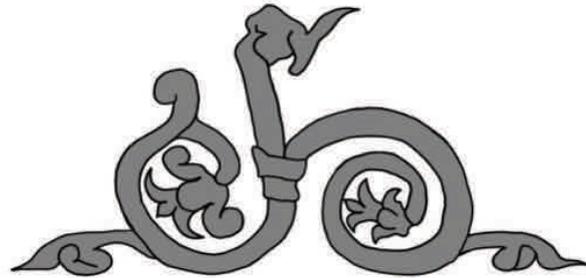
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thrac-Dacica	<i>Thrac-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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The Sarmatian Graves of the 4R Archaeological Site Dated to the Third-Fourth century A.D. Additional Data on the Sarmatian Burial Rite in the Lower Mureş Region*

Norbert Kapcsos¹

Abstract: The article brings new data to the repertory of burial finds from the third-fourth century A.D. in the Lower Mureş Region. Through presenting two undisturbed Sarmatian graves, the preliminary results of the analysis made upon the archaeological finds and burial rite may show some characteristic aspects to the burial traditions of the region.

Keywords: Sarmatian graves, third-fourth century A.D., Lower Mureş, settlement, vessel.

Location of the site²

Construction works for the future Nădlac-Arad Highway started in the summer of 2011. According to current legislation, after the identification of the archaeological sites through systematic field researches and the intrusive archaeological diagnosis performed by the team from the Museum Complex in Arad, works started for the archaeological discharge of the mentioned highway sector. Site 4R, near the city of Pecica, was among the sites that were to be researched archaeologically. The project started on 30.11.2011 with the removal of the vegetal layer by machine. 87 archaeological complexes were identified after the removal of this layer down to a depth of 0.20–0.30 m³.

Site 4R is located in the county of Arad, 6 km north of the city of Pecica, along the Arad-Nădlac sector of highway A1 between km 21+065 and 21+220⁴. The geographical coordinates of the site's center are: Latitude N 46°12'33.06", Longitude E 21° 1'55.15". The site extends over higher ground, at an altitude of 91 m (Pl. 1). An area of 155 × 42 m, 6510 m², was uncovered and researched on the basis of data provided by the intrusive archaeological diagnosis; one must mention the fact that the area was oriented E-W, on the axis of the highway. Data collected through field researches suggest that the site continued to the north of the researched area.

Description of the complexes

Cx_10; grave M1 (Pl. 3). The grave was identified inside the Sarmatian settlement, near household refuse pits, close to the longitudinal axis of the area (Pl. 2). After the vegetal layer was removed, the grave took shape as a color contour against the clayish soil and archaeologists could not observe any sign of subsequent disturbances. To the south, the grave cut through a round-shaped household refuse pit labeled Cx_86. The grave's pit was rectangular in shape, with rounded corners, straight walls, and flat bottom. The filling was light brown. The child's skeleton was deposited in dorsal decubitus, with

* English translation: Ana M. Gruia.

¹ I would like to thank Dr. Florin Mărginean and Dr. Victor Sava (Museum Complex Arad) for the archeological material and documentation provided for this research accompanied by a lot of useful remarks. At the same time, I would like to thank Dr. Valéria Kulcsár (University of Szeged) for correcting the main parts of the study, and for her suggestions on the analysis and interpretation of the archeological material and data which were essential for the completion of this study, as well as Dr. Molnár-Kovács Zsolt ("Babeş-Bolyai" University, Cluj-Napoca) to whom I am grateful for all his help. English translation: Ana M. Gruia.

² Hurezan *et al.* 2011.

³ On the basis of both on-site observations and the documentation of the excavation report, one can state the fact that it included the culture layer disturbed by plowing.

⁴ Hurezan *et al.* 2011.

the arms extended along the body. Due to the soil, many of the bones have not been preserved. Among them, the skull was partially preserved, the spine's vertebrae and the pelvis were missing, the ulna and the right and left radius have been partially preserved, the tibia, the fibula, and the ankle bones were missing. Pit size: length: 2.70 m, width: 0.80 m, depth: - 0.70 m, orientation: 174°, SSW-NNE. Length of the skeleton: 1.20 m; gender: female.

Funerary inventory:

1. Torques. Was deposited under the neck, on the deceased's chest, between the clavicles. Torques bent in an oval shape, made of a bronze wire, with thinned ends, twisted five times. Diameter: 14 cm, wire thickness: 0.3 cm, strongly oxidized; traces of coal were noted on the item's body. (Pl. 4/1)

2. Brooch. One bronze brooch, with under-turned leg and rounded, arched body, was found 7 cm north of the necklace; the closing system points towards the humerus. Length: 4.03 cm, thickness of the pin in section: 0.2 cm, matching the thickness of the spring in section. (Pl. 4/3)

3. Vessel. It was deposited near the ankles; it had tall body and a strap handle starting from the rim. It is brick-red in color, was made on the fast wheel, and evenly fired in an oxidant atmosphere. Wall thickness: 0.7 cm, rim diameter: 11 cm, height: 12 cm (Pl. 4/2)

Grave Cx_10 cut through the pit labeled Cx_86 (Pl. 3). For a better understanding of the context of discovery and for a coherent discussion on the archaeological find, I choose to present succinctly the discoveries from inside pit Cx_86. After the mechanical removal of the vegetation layer, archaeologists have identified the contours of a household refuse pit that was circular in shape, with slightly inwardly slopping walls. The northern wall of the pit was cut by grave Cx_10/M1, so that the filling was disturbed. The archaeological material of Cx_86 spilled in the filling of the grave. Diameter: 1.30 m, depth: -0.80 m

Archaeological material:

1. Vessel rim. Belongs to a bowl with protruding, in-turned rim, fired in a reducing atmosphere, grey in color, made on the fast wheel. Diameter: 17 cm (Pl. 5/3).

2. Vessel rim. Belongs to a bowl with protruding, profiled, slightly in-turned rim, fired in a reducing atmosphere, grey in color, made on the fast wheel, well smoothed. Diameter: 22 cm (Pl. 5/1)

3. Vessel rim. Belongs to a bowl with protruding, slightly in-turned rim, fired in a reducing atmosphere, grey in color, made on the fast wheel, well smoothed. The rim's arch is decorated with small, horizontal smooths. Diameter: 18 cm (Pl. 5/2).

4. Vessel base. Belongs to a vessel made on the potter's wheel, fired in an oxidizing atmosphere, brick-red in color. Diameter: 8 cm (Pl. 5/7).

5. Vessel belly. Belongs to a vessel made on the fast potter's wheel, well smoothed, fired in a reducing atmosphere, grey in color. (Pl. 5/4).

6. Vessel belly. Belongs to a vessel made on the fast potter's wheel, well smoothed, fired in an oxidizing atmosphere, light brick-red in color. (Pl. 5/5).

7. Adobe. Adobe fragment with cracked surface, light brick-red in color. No twig impressions have been noted. Length: 5 cm, width: 4 cm, thickness: 1.8 cm (Pl. 5/6).

Cx_20; grave M2 (Pl. 6) The grave was located inside the Sarmatian settlement, near some household refuse pits, ca. 15 m away from the northern limit of the researched surface (Pl. 2). After the mechanical removal of the vegetation layer, the grave took shape due to its color against the clayish soil and archaeologists did not note traces of subsequent disturbances. The grave's pit was of a prolonged oval shape, with walls excavated in stages, and flat bottom. The filling was light brown in color. The pit's wall and bottom were cut by rodent holes that have also disturbed the bones. The deceased was female, mature, placed in dorsal decubitus with the left arm stretched besides the body and the right arm placed on the pelvis; the skull was slightly turned to the west. The skeleton's bones have been well preserved. Size of the pit: length: 2.80 m, width: 0.76 m, depth: - 0.27 m, orientation: 170°, S-N. Length of the skeleton: 1.48 m. Gender: female according to the funerary inventory and the traits of the skeleton.

Funerary inventory:

1. Brooch. Located 3 cm south-south-west of the skull. Bronze brooch with leg turned sideward, closing system pointed southwards. The spring is divided vertically; the middle part and the lower end are decorated with five horizontal notches, just like the leg, that is ornamented with three notches.

The section of the pin is slightly oval. Length: 4.01 cm, pin diameter: 0.2 cm, spring diameter: 0.3 cm (Pl. 7/1).

2. Loom weight. It was placed on the left side of the skeleton's knee, made of the bottom of a grey vessel, fired in a reducing atmosphere, made on the potter's wheel. Diameter: 4.8 cm, thickness: 1.6 cm. (Pl. 7/5).

3. Beads. Six beads were identified at the meeting point between the right arm and the pelvis; three of the beads were rectangular in shape, made of paste; three other beads were identified, black, made of carnelian, rectangular with polished corners (Pl. 7/6 –14).

For the beads concentrated near the ankles, see table no. 1, where they are grouped according to type and number⁵.

4. Iron object. Iron plate with unknown functionality, probably a knife blade. (Pl. 7/4).

5. Earring. Bent earring, made of bronze wire and closing system consisting of hook and loop. The loop is prolonged oval in shape, made of a bent wire that measures 1.1 cm in length; the end was twisted ten times. Diameter: 1.25 cm (Pl. 7/3).

6. Earring. Bent earring, made of bronze wire; closing system missing. Diameter 1.6 cm (Pl. 7/2).

Analysis of the finds

The special character of the two graves, with similar orientation, resides in their identification inside the Sarmatian settlement. Due to the fact that grave Cx_10/M1 cuts through pit Cx_86 and thus creates a superposition, this is a chronologically favorable situation as it reveals the relation between the graves and the settlement. After the removal of the vegetal layer over the entire area to be researched, at first glance one could note that there were a number of graves located on the periphery of the settlement. One must be nevertheless cautious in interpreting the data provided by the excavation ground plan. The area measuring 6510 m² researched along the route of the highway has only delimited the 4R archaeological site to the west and to the east⁶. Starting from observations made on the basis of certain field researches and of data provided by the excavation ground plan, one can note that the Sarmatian settlement continued to the north. Thus, the location of the graves in the periphery of the settlement might not be accurate. At the same time, in reference to the intersection between the grave and the settlement's pit, one cannot clearly state that this situation represents the upper chronological limit of the settlement.

The prolonged rectangular shape, with rounded corners, of the grave pits⁷ represents a phenomenon typical to the Sarmatian Barbaricum⁸. As for the orientation of grave Cx_20/M2, one notes a regular S-N position. The SSW-NNE orientation of grave Cx_10/M1 is a normal phenomenon that can be explained by the way that the grave's pit was excavated during a certain time of the day and of the year, a phenomenon caused by the actual position of the sun.

In the case of both graves, one can note the absence of coffin remains, a fact also supported by the absence of cramp irons and S-shaped clamps. In the case of grave Cx_10/M1 one notes that the skeleton was deposited in a dorsal decubitus position, which is a general characteristic of the sarmatian burial rite. In case of Cx_20/M2 one can observe that the left arm is positioned on the pelvis, a phenomenon rarely encountered among Sarmatian graves⁹. Similar positions of the arms can be observed in graves no. 458¹⁰ and no. 471¹¹ from the Sarmatian necropolis in Maradras-Halmok, or in grave no. 122 in Balástya Sospál-Halom¹². Their low percentage as compared to the total number of graves in the necropolises supports the previous conclusion. The phenomenon can be easily explained,

⁵ They are partially illustrated in the drawing, but this does not exclude their relation to the skeleton.

⁶ Hurezan *et al.* 2011.

⁷ The index of grave Cx_10/M1 is: 3.375. The index of grave Cx_20/M2 is: 3.684. In the case of grave Cx_10/M1, the index does not reflect the reality, as it cuts through pit Cx_86; at the same time, the indexes of the two graves are relatively identical, meaning that the width of the grave is 1/3 of their length. The length of the pit is not influenced by functional criteria, since they surpass by far the length of the skeletons.

⁸ Vaday 1997, 78.

⁹ Kulcsár 1998, 31.

¹⁰ Kóhegyi, Vörös 2011, 202.

¹¹ Kóhegyi, Vörös 2011, 205.

¹² Balogh-Heipl 2010, 162, 3. kép.

in this case having been produced by the shroud that must have dislocated the left arm from its initial position¹³, so that the two graves can be included in the same category in regard to the position of the arms, i.e. with stretched arms.

Cx_10/M1: The torques¹⁴ identified in the area of the neck represents a general phenomenon, since such items are usually found in their normal position, namely in the area of the neck¹⁵. The closest analogy for this torques is to be found in grave 41 in Endrőd-Kocsorhegy¹⁶. The closing system of the necklace is interesting; since it is a closed necklace, this might indicate its post-mortem deposition on the deceased, but due to the state of preservation of the bones, this cannot be stated in all certainty. From a chronological perspective, the analysis of the data provided by the brooch is useful in generating more relevant results. Under-turned leg brooches first appeared and spread during the third century in the Carpathian Basin and remained in use until the fifth century¹⁷. The brooch found in grave Cx_10, with certain precautions on its chronological value, has the closest analogies in the region in graves I and III from Dorobanți, Arad County. The graves in Dorobanți were excavated by Egon Dörner in 1961 and have been dated during the third-fourth century¹⁸. The archaeological excavations performed in Madaras-Halmok have led to the identification of almost identical brooches in grave 416¹⁹ and 219²⁰. The above mentioned brooch displays a special similarity to one item found in grave no. 3 in Derekegyháza-Disznójárás, Hungary, that Mihály Párducz dated at the earliest to the end of the third century²¹. In the same context, I should also mention the bronze brooch discovered in grave no. 10 on site M3-201 in Pócspetri, dated between the C1-C3 phases²².

A good analogy of the vessel²³ discovered in Cx_10/M1 can be found in Sâmpetru-German, where two such vessels have been identified. One can state that the vessels in Sâmpetru-German that Egon Dörner published in 1970 are very similar to the one found in Cx_10/M1; one of the two vessels was recovered from a Sarmatian grave, while the other was a stray find²⁴. A similar vessel was also discovered in Turnu in 1962, in a spot close to the site under analysis; on that occasion Dörner mentioned that such types of vessels were mainly found in Sarmatian graves dated to the third-fourth century²⁵. In Dorobanți, Arad County, besides the already mention brooch, dated to the third-fourth century, archaeologists have also identified a vessel similar to the one in Cx_10/M1²⁶. Vessels of this type also feature as funerary inventory items in Hungary, in Dóc²⁷ or Szeged-Öthalom²⁸. Analogies are also known from Banat, one from a Sarmatian grave in Zădăreni²⁹, another from Timișoara “Pădurea Verde,” dated to the third-fourth century³⁰. At the same time, a similar vessel has been identified in grave M4³¹ in Foeni “Cimitirul Ortodox,” dated to the second-third century; it is worth mentioning that drinking vessels predominated among the finds from this cemetery³². To the present state of research, one can state that the introduction of this type of vessel with tall body and handle starting

¹³ Gáll 2013, 608.

¹⁴ The coal remains from the analyzed necklace do not clearly indicate the performing of a ritual related to the fire cults attested among the Sarmatians, since the grave cuts through a household refuse pit and the coal pieces might have been part of the pit's filling.

¹⁵ Kulcsár 1998, 53.

¹⁶ Juhász 1978, 98; 109 plate IV. The closest analogy of the necklace features in a complex of necklaces, made of silver and connected to each other.

¹⁷ Kóhegyi, Vörös 2011, 352.

¹⁸ Dörner 1970, 462.

¹⁹ Kóhegyi, Vörös 2011, 128.; 98. tábla.

²⁰ Kóhegyi, Vörös 2011, 80.; 48. tábla.

²¹ Párducz 1944, 41.

²² Hullám 2012, 372.

²³ Even if the shape of the vessel displays the traits of a jug, the thickness of the neck suggested the more appropriate term of tall-body vessel.

²⁴ Dörner 1970, 454.

²⁵ Dörner 1970, 460–461.

²⁶ Dörner 1970, 462.

²⁷ Trogmayer 1960, 60., XIII. tábla.

²⁸ Párducz 1960, 78.; XVI. tábla.

²⁹ Dörner 1968, 19. Fig. 13.

³⁰ Ortansa 1973, 148.; 1. ábra, 7.

³¹ Grumeza 2011, 198.; III. tábla, 5.

³² Grumeza 2011, 189.

from the rim has not been noted in the Sarmatian necropolises in Madaraş-Halmok³³ and Endrőd-Kocsorhegy³⁴ in Hungary, while perfect analogies do not feature among the finds from the necropolis in Endrőd-Szujókereszt³⁵.

Grave **Cx_20/ M2**: Earrings made of bronze wire and having closing systems consisting of a hook and a loop were widely distributed, as Sarmatian dress accessories, from the turn between the second and the third century and until the turn between the fourth and the fifth century³⁶. As one can observe, the earrings are not good chronological indicators. Thus, in case of grave Cx_20/M2 as well, the brooch can provide a narrower dating of the context. Analogies for the brooch are also to be found in the graves from Madaras-Halmok. From a chronological perspective, the third century³⁷ is the lower limit, as it can be included in Sorin Cociş's type 37a1c³⁸. The surprising similarity with the silver brooch with side-turned leg discovered in 1960 in Şeitin and dated by Egon Dörner to the third-fourth century³⁹ has special significance from a chronological perspective. As for its functionality, the presence of the brooch near the skull may indicate its initial use in female hairdressing⁴⁰.

SHAPE	TYPE	MATERIAL	COLOR	NUMBER
	I.1.A	GLASS	WHITE/GOLDEN	6
	I.2.A	GLASS	WHITE	3
	VII.1.A	GLASS	GOLDEN	6
	VI.1.A	CLAY	RED	1
	IV.1.B	CLAY/CARNEOL	RED/BLACK	57
		CARNEOL	BLACK	1
	V.1.A	CARNEOL	BLACK/PURPLE	13
	V.2.A	CARNEOL	BLACK/PURPLE	5
				92

Table no.1. Bead types⁴¹ in grave 2.

The 86 beads⁴² made of carnelian, glass, and limestone discovered in a cluster near the ankles is a typical phenomenon in female Sarmatian graves⁴³. Since the beads are found grouped by the two ankles, one can interpret them as shoe decorations or ornaments of the lower part of the dress⁴⁴. When beads were sewn in decoration of the lower part of the dress, they were most often sewn in parallel rows⁴⁵; such a pattern could not be observed in the case under discussion here. One can presume that the paste-made brick-red beads, rectangular in shape, the black, carnelian beads, rectangular in shape, with polished corners, and the "twin" glass beads found by the wrist might have been, from the perspective of their functionality, part of a bracelet. The supposition is based on the fact that they were discovered around the wrist⁴⁶ and due to the noted tendency towards symmetry and the arrangement

³³ Kóhegyi, Vörös 2011.

³⁴ Juhász 1978.

³⁵ Vaday-Száke 1983.

³⁶ Kóhegyi, Vörös 2011, 295.

³⁷ Kóhegyi, Vörös 2011, 352.

³⁸ Cociş 2004, 142.

³⁹ Dörner 1970, 459.

⁴⁰ Kulcsár 1998, 52.

⁴¹ Vaday 1989, 313.

⁴² See the types in table no. 1.

⁴³ Kulcsár 1998, 48.

⁴⁴ Vörös 2003, 145.

⁴⁵ Vörös 2003, 145.

⁴⁶ Vaday, Szóke 1983, 112.

according to a certain order⁴⁷. The fact that the bracelet in question was worn by the right wrist, can be noted also in this case the phenomenon according to which the right arm was preferred for some reason in the worn of bracelets⁴⁸.

The tradition of decorating the costume with beads appeared among the Sarmatians during the second century and continued until the fourth century⁴⁹, reaching a peak during the third century⁵⁰. This statement is also supported by data that can be recovered from the individual analysis of the beads. Despite the fact that type I.1 is dated to a wide interval, between the second century and until the fifth century, the interval can be shortened by the dating of beads from type VII.1 which were used until, the latest, during the fourth century, and by the beads of type VI.1, that are specific exclusively to the period between the third and the fourth century⁵¹. Thus, the dating of the beads confirms the chronological interval suggested by the brooches.

In connection to the relation between the deceased and her costume, in the light of anthropological research performed until now, one can state that this type of female costume is typical to adult and mature deceased⁵²; so that data provided by observations performed is also supported by anthropological analyses.

The metal plate also discovered in this grave, though strongly corroded, might be a knife blade, if one watches its transversal section; it is worth mentioning that this type of artefacts are usually deposited on the right side of the deceased⁵³.

Discussion

Avoiding speculative conclusions, on the basis of the funerary inventory one can state that two of the graves discovered on the 4R site are unequivocally dated to the third-fourth century. Due to the fact that the two graves are located relatively far away one from the other and that no other funerary finds have been made in the area under research, the existence of a necropolis cannot be stated. Due to the fact that the two graves were found in the north-eastern corner of the uncovered surface one cannot exclude the possibility that more graves will be found towards the northern side of the site.

Studying the ground plan of the excavation one can observe the fact that the discoveries made on the site form two distinct clusters (one towards the eastern edge of the site, the other towards the western edge); the two graves are part of the first cluster, in the vicinity of some household refuse pits and dwellings. On the basis of the superposition between household refuse pit Cx_86 and grave Cx_10/M1 one can state that the pit is earlier than the graves. In connection to the settlement that included pit Cx_86, no reference to chronology or other general traits can be made due to the initial state of processing of the archaeological material. The bowls with thickened rim, slightly inwardly pulled, fired in a reducing atmosphere, grey in color, made on the fast wheel, found in complex Cx_86 were used over a longer period during the Sarmatian Era. The close analogy of these bowls was found in grave no. 2 in Derekegyháza-Disznójárás. Párducz Mihály dated this grave, on the basis of the beads, during the third century⁵⁴. Due to the fact that bowls that might have been used during the third century were found in pit Cx_86, no clear chronological limit between the graves and the settlements can be identified.

As I mentioned above, the vessels with tall body and strap handle starting from the rim, deposited in the graves, seems to represent a phenomenon typical to the region east of the Tisa, namely the Lower Mureş, narrower in Câmpia Aradului. One can state that the mentioned phenomenon is atypical to the southern habitat between the Danube and the Tisa, and to the area of the rivers Criş. The deposition of these types of vessels near some individuals can reflect an aspect specific to the funerary rite in the area of the Lower Mureş⁵⁵.

⁴⁷ Vörös 1981, 121.

⁴⁸ Kulcsár 1988, 54–55.

⁴⁹ Kóhegyi, Vörös 2011, 310.

⁵⁰ Kulcsár 1998, 51.

⁵¹ Vaday 1989, 103.

⁵² Vörös 2003, 148.

⁵³ Kóhegyi, Vörös 2011, 315.–316.

⁵⁴ Párducz 1944, 41.

⁵⁵ This statement certainly requires a more detailed explanation. The observation is based on the comparison of vessels in the funerary inventory of well-researched Sarmatian cemeteries in other regions of the Pannonian Plain from approximately the same period with vessels from the inventory of graves from a less well-researched area such as the Lower Mureş,

In light of the funerary inventory of graves Cx_10 and Cx_20 and excluding some chronological contradictions, one reaches, by comparing the dating of the beads, brooches, and earrings to a wider interval in which the two graves can be included.

For a more precise dating and a conclusive argument on some tendencies noted about the funerary rite, I believe that an analysis of all funerary discoveries in the region is required.

At the same time, in connection to the chronological relation between the analyzed graves and the Sarmatian settlement, the clarification of the problem can only be performed in case of the full processing of the archaeological material on site 4R.

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where stray graves were mostly identified. I wish to mention that the expressed hypothesis does not necessarily hold chronological value, but rather indicates a regional tradition of the Sarmatian funerary rite, reflected by the presence, in some graves, of drinking vessels, among which those with tall body and handle attached to the rim.

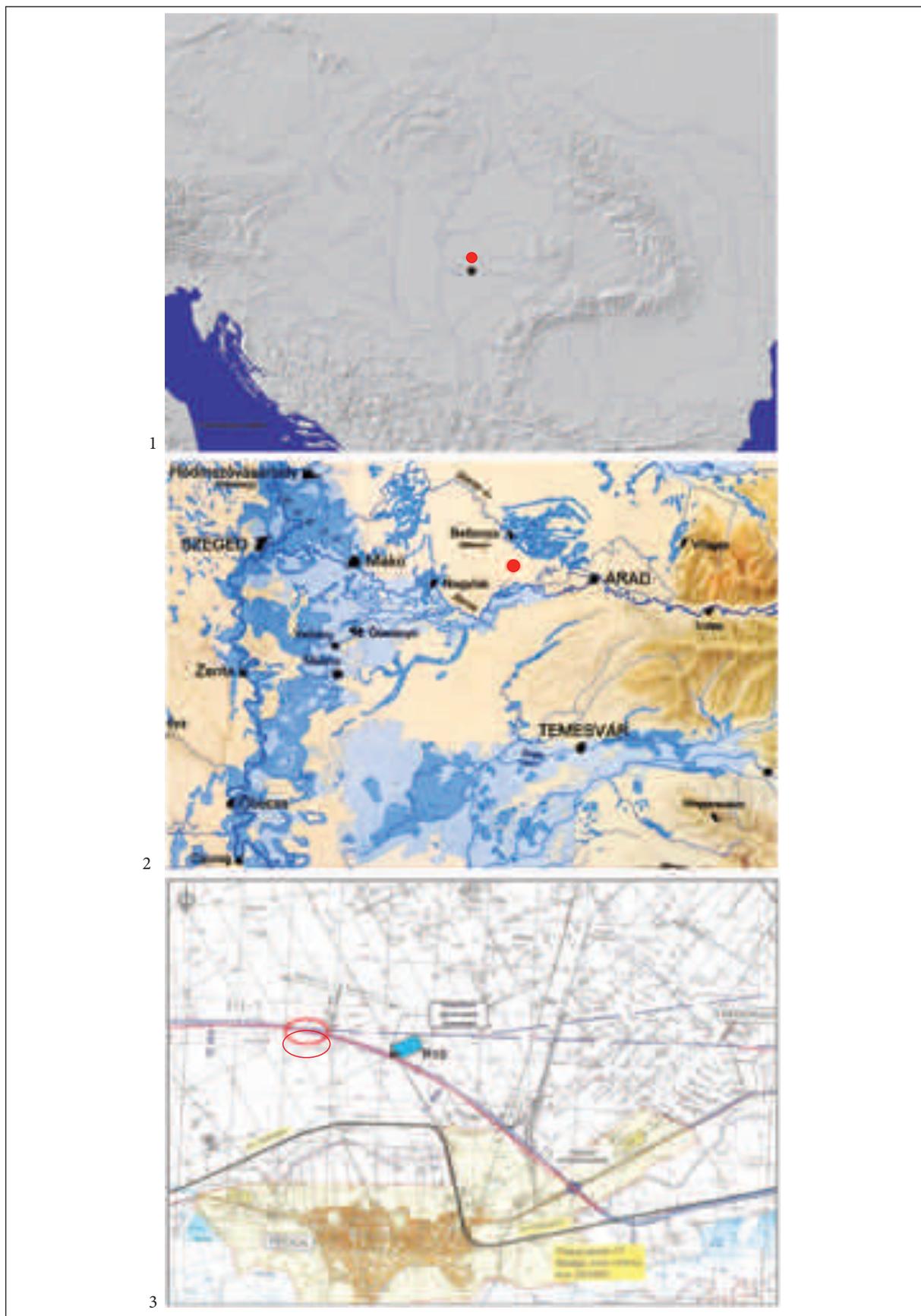


Plate 1. 4R Archaeological site.

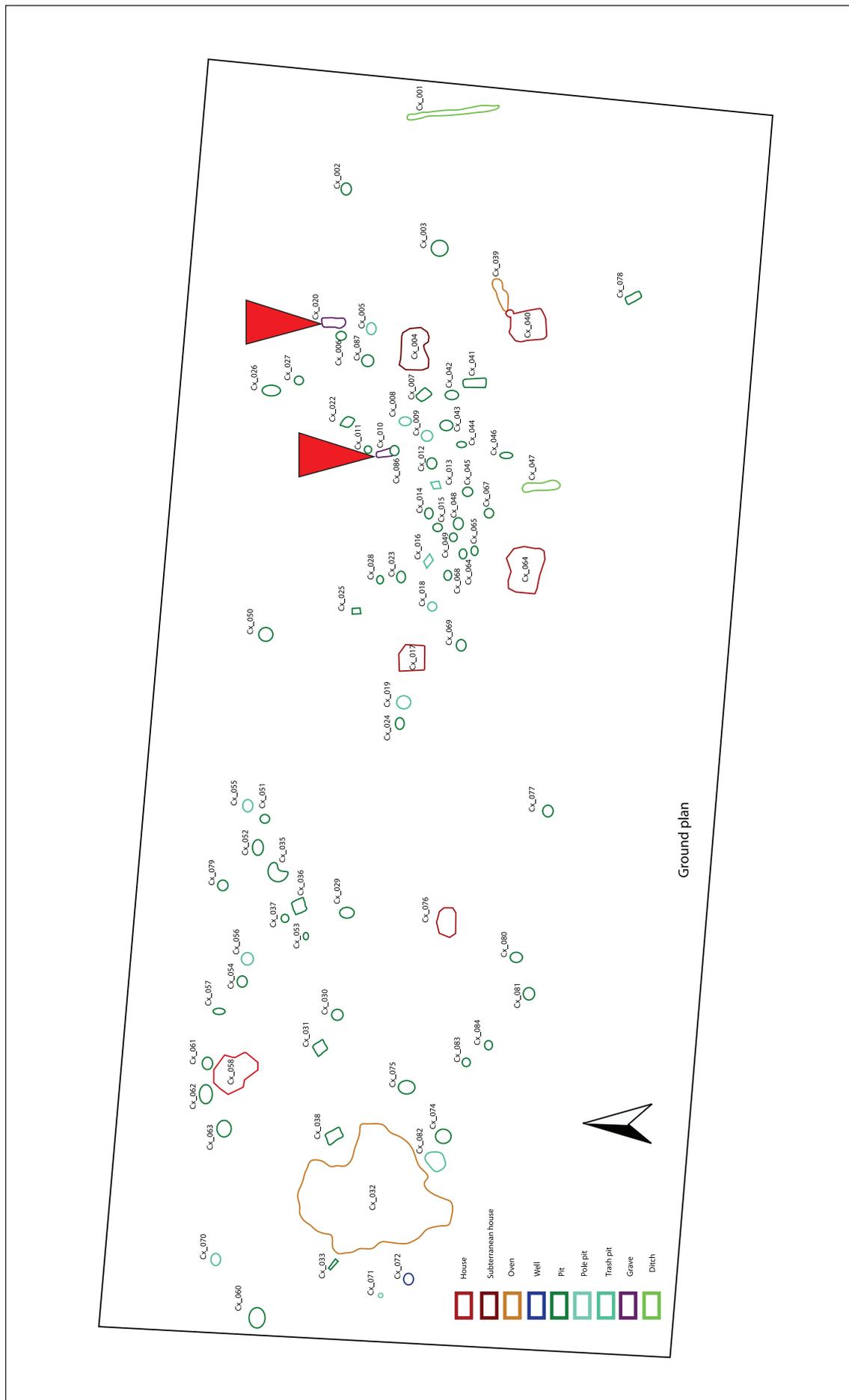


Plate 2. 4R Archaeological site – Ground plan.

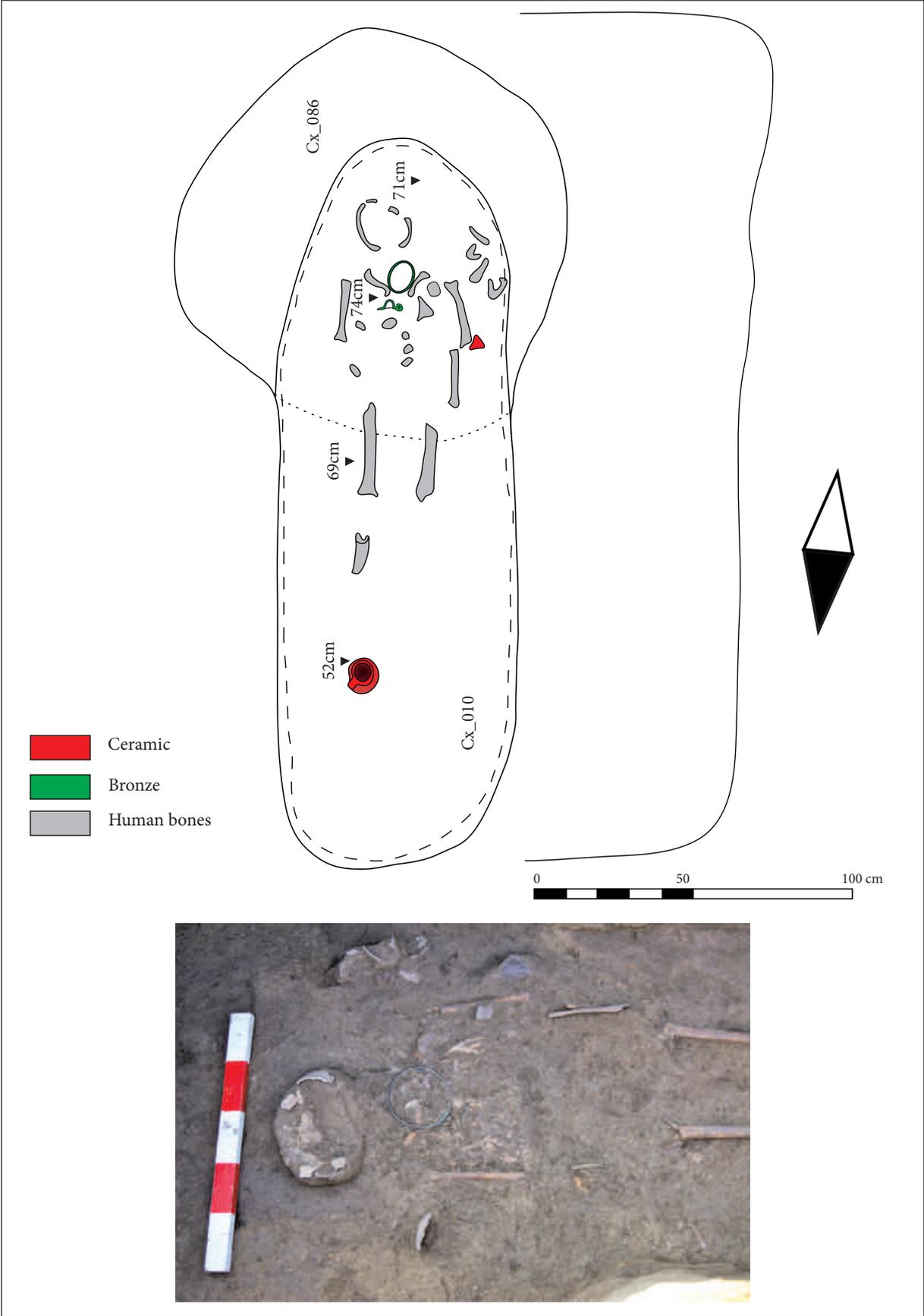


Plate 3. Grave 1. (Cx_010 – Cx_86 trashpit).

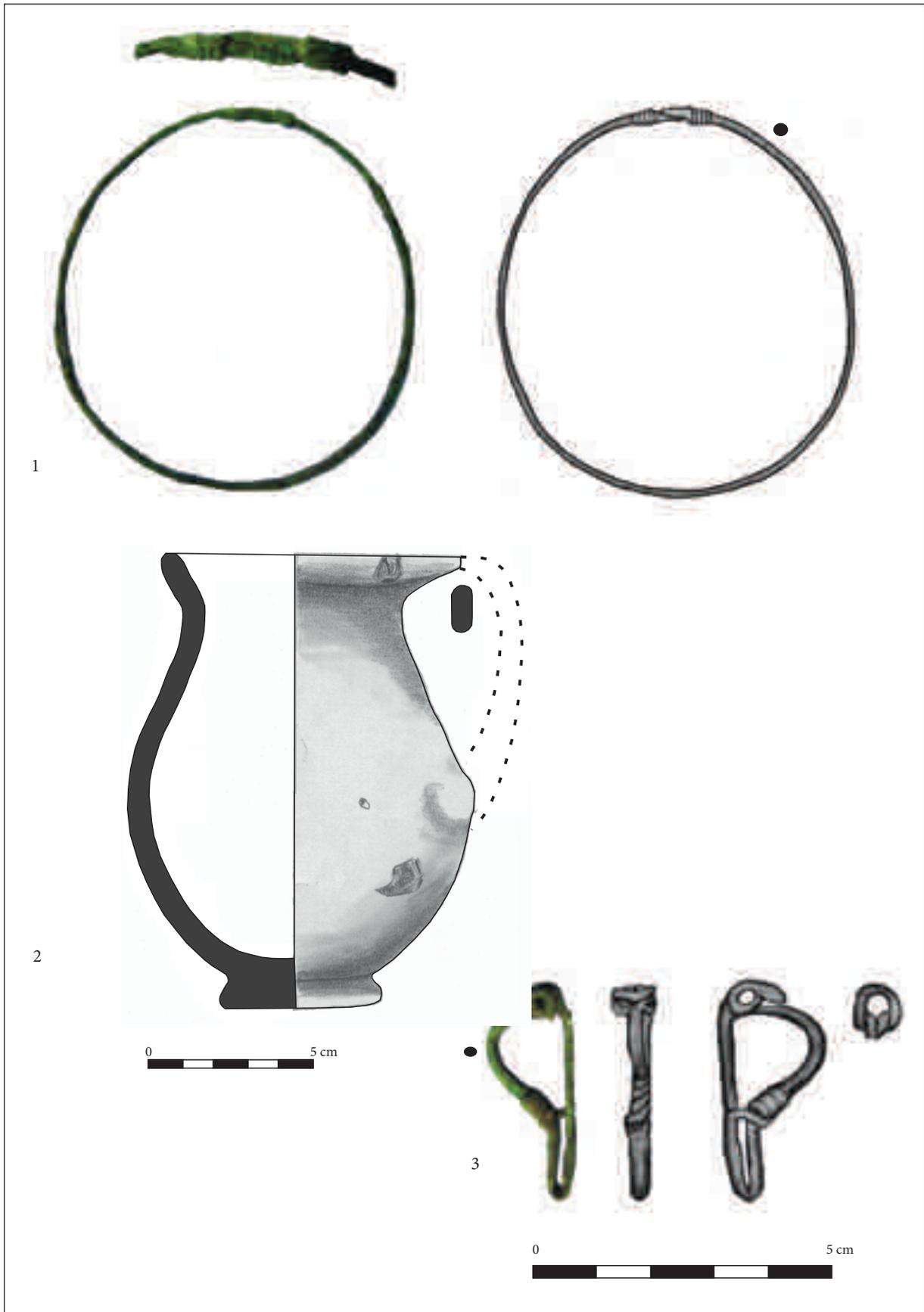


Plate 4. Grave 1. (Cx_010).

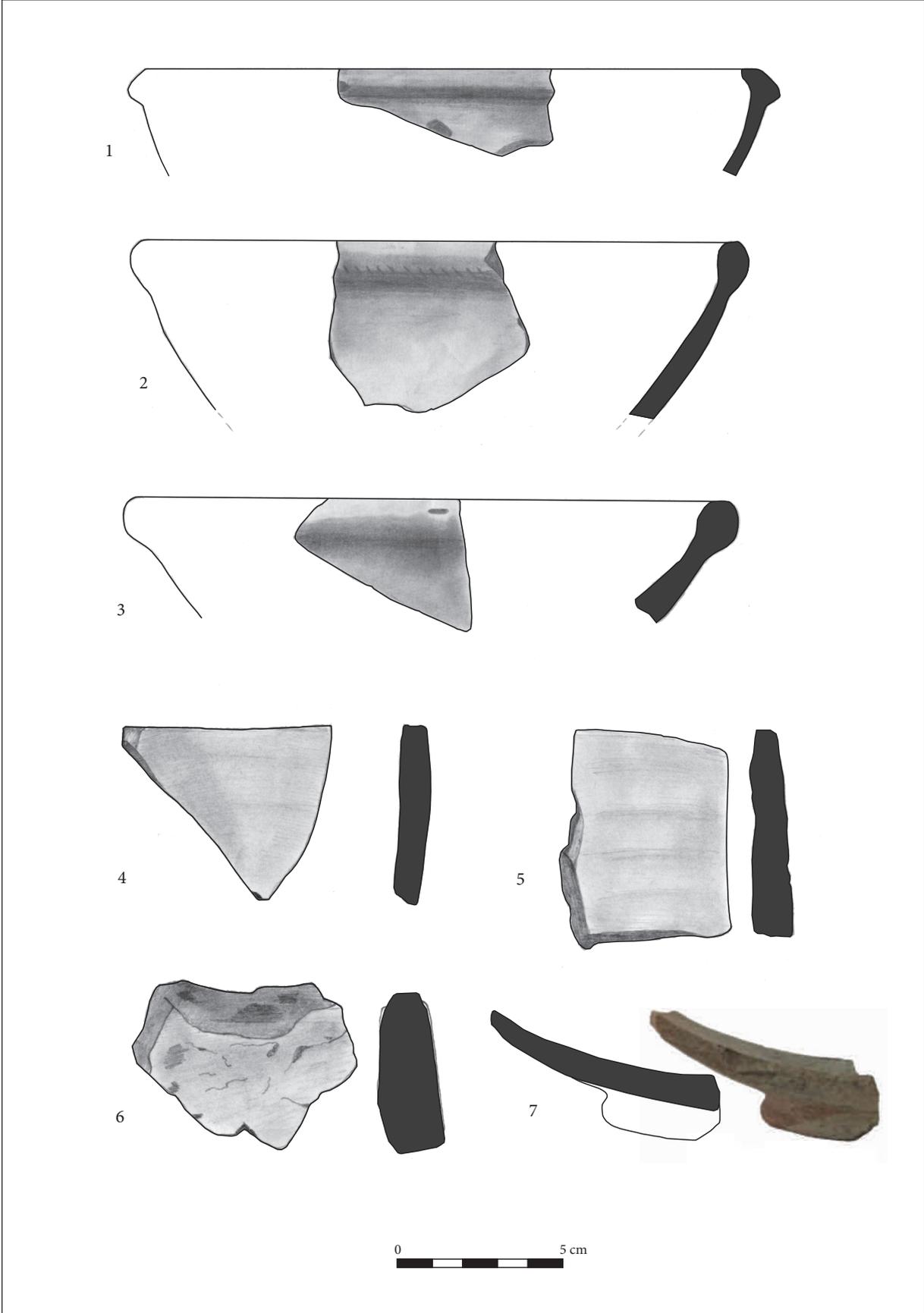


Plate 5. Cx_86 trash pit.

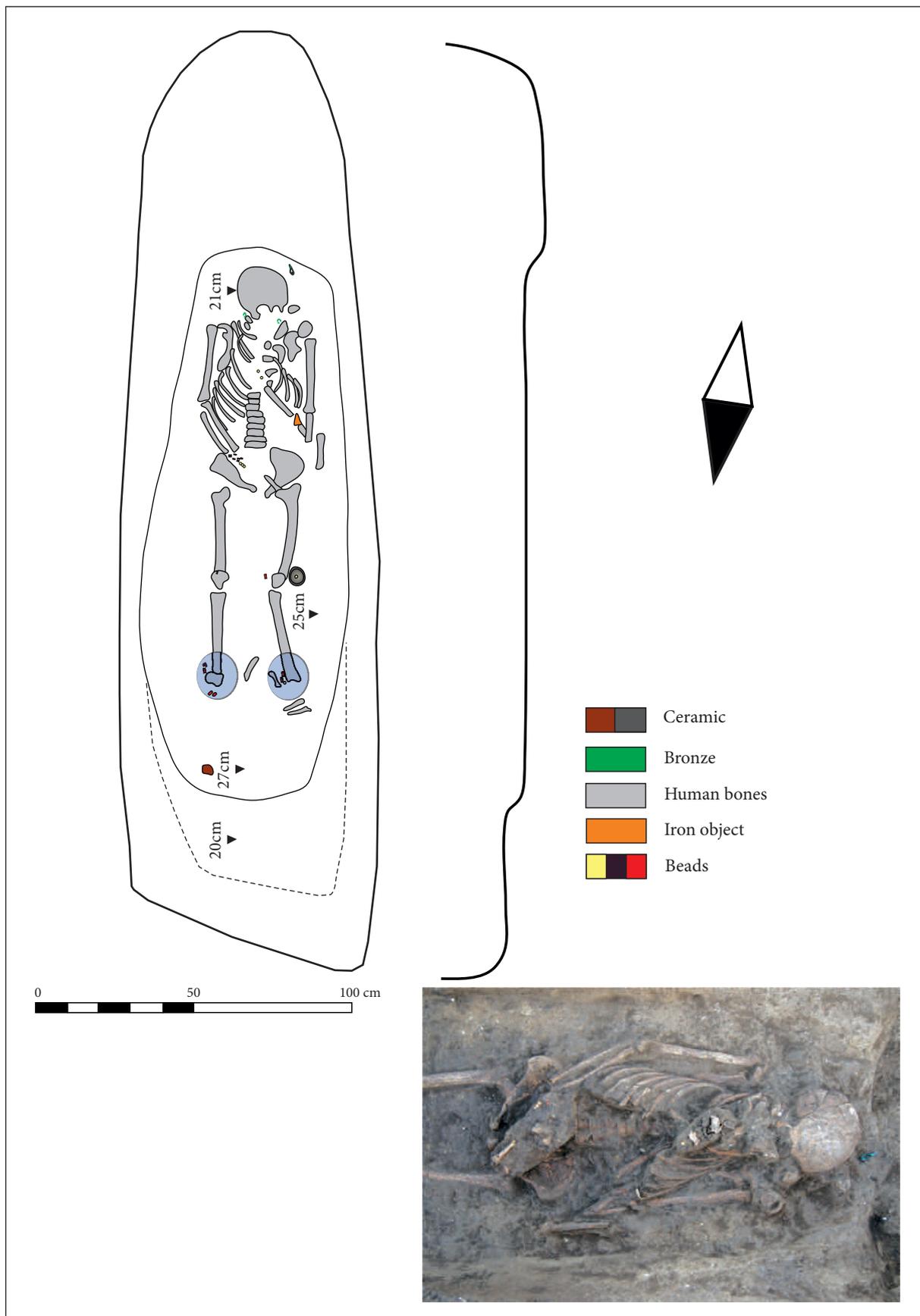
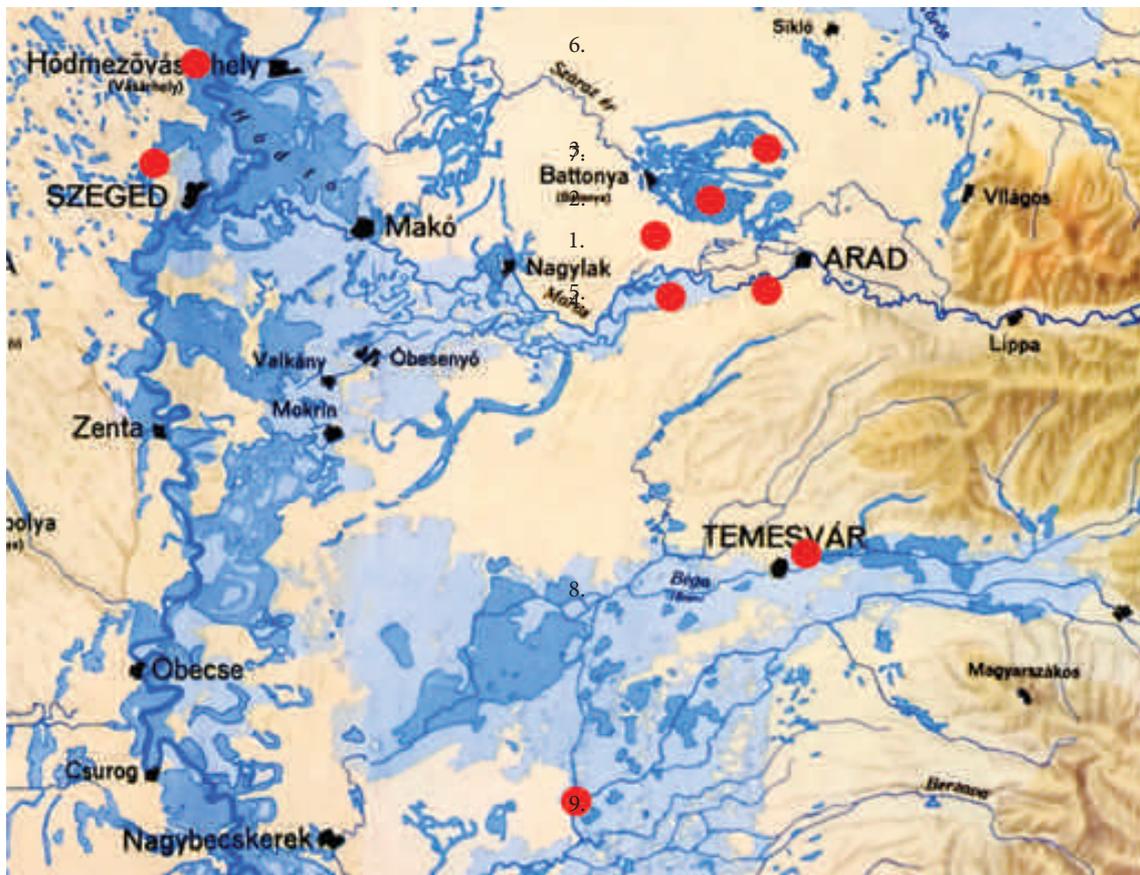


Plate 6. Grave 2. (Cx_020).



Plate 7. Grave 2. (Cx_020).



A M. Kir. Földművelésügyi Minisztérium Vízrajzi Intézete, Budapest 1938

A Kárpát-Medence vízborította és árvízjárta területei az ármentesítő és lecsapoló munkálatok előtt

1. Pecica 4R (g. Petschka, h. Pécska,)
2. Turnu (h. Torna)
3. Dorobanți (h. Kisiratos)
4. Sânpetru-German (g. Deutsch Sanktpeter, h. Németszentpéter)
5. Zădăreni (g. Saderlach, h. Zádorlak,)
6. Dóc
7. Szeged-Öthalom
8. Timișoara Pădurea-Verde (g. Temeswar, h. Temesvár)
9. Foeni Cimitirul Ortodox (h. Fény)

Plate 8. Dispersion map of the Cx_10 graves vessel analogies.

Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

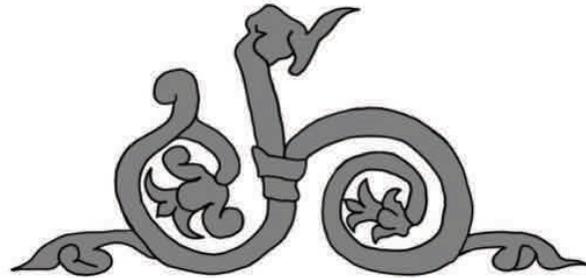
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thraco-Dacica	<i>Thraco-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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On the Two-Room Dwelling from Precinct IV of the Early Medieval Fortification in Dăbâca (Cluj County) and the Chronology of the First Stage of Fortification*

Dan Băcuet-Crișan

Abstract: The early medieval fortification from Dăbâca has been researched through systematic excavations during the Communist Era, since 1964. Although the research started very well, its final publication has been disappointing. The most interesting point has been the chronological classification of the oldest phase of fortification dated, at that time, to the ninth – tenth centuries.

This short presentation takes into consideration the two-room surface dwelling (measuring 8 × 8 m) discovered in precinct IV. Beginning with its first mentioning in 1968, none of those studying the issue of fortifications has escalated the problem of this two-room surface dwelling.

The analogies for this surface dwelling in the Moravian environment – dated between the ninth and mid-tenth century – clearly show that the Moravian model has been used in Dăbâca and can be interpreted as a manifestation of kindred links between the two geographical areas.

Keywords: early medieval, dwelling, fortification, chronology, elites.

Introduction. Reasons

The early medieval fortification in Dăbâca has been researched through systematic excavations since 1964¹. Though research on the site started and was performed vigorously, its completion through the publication of the results has been and still is lacking in quality.

One knows that the study of this important site, characterized by a great stratigraphic and chronological complexity, remains, to this day, incomplete. Unfortunately, the only available data that one can use is that in the archaeological report published in 1968².

Romanian (but also foreign) researchers who have also tackled the issue of the introduction and development of early medieval fortifications in Transylvania have come across the lack of actual data on the site under discussion here. Naturally, almost all the discoveries made in Dăbâca have raised debates, but the most interesting aspect was the chronological identification of the earliest stage of fortification – precincts I, III, and IV (Pl. 1) – dated, at that time, to the ninth-tenth century³.

It is also interesting to note that although the new generation of archaeologists researching the fortifications strongly criticizes the dating and way of publication of the results from Dăbâca, no one has yet initiated a serious project of reinterpreting and re-analyzing all the elements of this site: its stratigraphy, archaeological complexes, and artefacts!

Erwin Gáll has recently started an analysis (debatable as well!) of one of the cemeteries identified in Dăbâca⁴, but the cemeteries are but one aspect of this site and their analysis independent from the entire archaeological complex might render the understanding of the inner development of the site even more difficult!

Discussions on the chronological identification of the fortification in general and of the first stage of fortification in particular, have made reference to the stratigraphic situation, planimetry, construction technique of the defensive elements and have envisaged certain discovered artifacts. The present

* The Romanian variant of this text has been prepared for AMP, XXXV, 2013. English translation: Ana M. Gruia and Cătălina Opreș-Crișan.

¹ Pascu *et al.* 1968, 53.

² Pascu *et al.* 1968, 53–202.

³ Pascu *et al.* 1968, 169.

⁴ Gáll 2010, 9–49.

article mainly focuses on the two-room dwelling, but also on certain elements discovered in precincts I and IV that have been considered part of the first stage of fortification. Referring to the two-room construction, one must note the fact that none of the specialists studying the issue of the fortifications have insisted upon it ever since its first mention, in 1968!

The two-room dwelling. Analogies and chronological considerations

Inside precinct IV archaeologists have found a surface dwelling with the sides measuring 8×8 m, having two rooms. The construction was built on timber sills, leaning from place to place on stone slabs. On the eastern side the dwelling had a porch⁵. For the time being, the two-room dwelling from Dăbâca is the only such building discovered in an early medieval fortification in Transylvania.

Unfortunately, the ground plan of the dwelling remains unpublished and thus one does not know how it looked like and one faces difficulties in attempting its graphic reconstruction and in finding the best associations with buildings of the same type from other areas and cultural contexts. Nevertheless, using the descriptive data published in 1968⁶ for the large-size dwelling in Dăbâca I found excellent analogies in Ducové, Slovakia, where two-room constructions were discovered inside the fortified precinct attributed to the elites⁷. The two constructions had the following characteristics: *Construction 1* (Pl. 4/1) – surface building on timber sills measuring 12.84×5.00 m, with two rooms⁸; *Construction 2* (Pl. 4/2) – surface building measuring 4.4×3.85 m, with a porch⁹. Both constructions have been dated to the period between the ninth century and the middle of the tenth century¹⁰.

Another analogy, from the Moravian area as well, might be the large construction inside the fortification in Břeclav-Pohansko, built during the Carolingian-Ottonian stage¹¹. The series of examples of this type can be continued with the fortification in Gars-Thunau (Austria) where the large buildings have also been attributed to the elites (*herrenhaus*) and dated after the middle of the ninth century¹².

In Ducové, Břeclav-Pohansko, and Gars-Thunau the situation is clear; the large constructions indicate the existence of the elites, of local potentates and power centers. Starting from the archaeological situation in Ducové I believe that the two-room construction discovered in Dăbâca can be attributed to the leading elite¹³, a fact that has been also mentioned in 1968¹⁴.

Conclusions

The team who published the research report in 1968 has also suggested the existence of a power center in Dăbâca¹⁵. Recently, in a book focusing on early medieval fortifications in Transylvania, my colleague M. Țiplic admitted the existence of a lord's court (with a corresponding settlement) in Dăbâca during the first stage of fortification (that he labeled Dăbâca 1); he dated the court during the tenth century¹⁶, maybe also during the first years of the eleventh century¹⁷.

⁵ Pascu *et al.* 1968, 168.

⁶ Pascu *et al.* 1968, 168.

⁷ Ruttikay 2005, 231.

⁸ Ruttikay 2005, 232, Pl. 13.

⁹ Ruttikay 2005, 233.

¹⁰ Ruttikay 2005, 234.

¹¹ Macháček 2001, Abb. 5, Abb. 8, 286.

¹² Herold 2007, 83, Abb. 3.5.5.

¹³ Recently, in an attempt to re-interpret the inventory and archaeological contexts identified in Dăbâca, Erwin Gáll stated that the large, surface dwelling “can hardly be considered the home of an elite person” (Gáll 2013, 187). Taking into consideration this statement, I wonder:

a. according to Erwin Gáll, how should the house of an elite person look like?

b. is Erwin Gáll aware of the analogies I have mentioned above, which are not the only discoveries of the kind?

c. how familiar is Erwin Gáll with the characteristics of the constructions identified in early medieval settlements in Transylvania and elsewhere?

Independent of the possible answers to these questions, archaeological reality remains the same and such constructions are extremely rare, and thus they must have enjoyed special status!

¹⁴ Pascu *et al.* 1968, 168.

¹⁵ Pascu *et al.* 1968, 161.

¹⁶ Țiplic 2007, 129.

¹⁷ Țiplic 2007, 132.

In theory, the analogies from Ducové, Břeclav-Pohansko, and Gars-Thunau mentioned above could indicate a chronological moment identical to the fortification stage in Dăbâca when the two-room building was also in use. On the other hand, the analogies noted in the Moravian context – dated to the period between the ninth century and the middle of the tenth century – clearly indicate that the building model used there was also employed in Dăbâca, and one could understand/interpret this transfer as an expression of certain complex connections between the two geographic areas.

Returning to the beginning of the first stage of fortification in Dăbâca, the way in which the results of the excavations have been published represents, unfortunately, a significant drawback to chronological interpretation. In 1968 this fortification stage was dated to the ninth-tenth century, but the artefacts discovered there indicate a shorter chronological interval for this stage of use. Some of the artefacts discovered in Dăbâca have analogies dated to the ninth century, but a much better argument and a deeper analysis of the entire archaeological inventory discovered there is needed in order to support such a dating.

Pottery found on early medieval sites is an extremely important element for establishing the chronological frame of those sites, and thus pottery discovered inside precincts I and IV in Dăbâca can contribute to their dating. Unfortunately, the report published in 1968 does not include detailed descriptions of the forms and decoration of such pottery finds and the graphic illustration (plates with drawings of pottery fragments) is extremely scarce.

Available data indicate that hand-modeled pottery fragments and ceramic fragments made on the fast wheel were discovered besides fragments made on the slow wheel inside precinct I, on the wall walk¹⁸. The presence of vessels made on the slow potter's wheel in the fortification of Dăbâca is not out of the ordinary, since this pottery category predominated during the period between the eighth and tenth centuries, maybe even between the eleventh and the twelfth/thirteenth century. Nevertheless, one must pay greater attention to vessels made by hand or on the fast potter's wheel.

The pottery categories in Transylvania dated between the seventh and the tenth century underwent certain development and changes during this period, so that pottery made on the slow wheel is mostly dated to the eighth-ninth century, pottery made on the fast wheel was found in smaller quantity throughout this chronological interval, while hand-made pottery decreases in quantity until its almost complete disappearance, except for the small trays that continue to be produced during the subsequent chronological stages¹⁹.

Going from the general to the particular, I have noted the same phenomenon over a smaller geographical area. My studies on the pottery found in Sylvania Depression (between the second half of the seventh century and the first half of the tenth century) clearly indicate that, until circa the first half of the tenth century, hand modeled pottery goes through a drastic process of quantitative regression and disappears; the majority, in terms of quantity, is held by pottery made on the slow wheel, while pottery made on the fast wheel spreads and ends up growing in quantity²⁰.

Therefore, the existence of pottery vessels modeled by hand during the first stage of fortification in Dăbâca can be understood either as the perpetuation of an archaic technique or as an element that suggests an earlier dating. As for the pottery made on the fast wheel, it can be explained through the perpetuation of a modeling technique of clear ancient origin.

Four gilded silver pendants/buttons (Pl. 2) were also discovered inside precinct I, on the wall walk (at ancient ground level), on or around the two hearths²¹. Specialized literature includes previous discussions on their dating. The items were initially dated to the ninth century²², but another chronological interval has been recently suggested, on the basis of analogies that can be dated to the final third of the tenth century and the beginning of the eleventh century²³. The pendants from Dăbâca are part of a wider category of jewelry items produced under Byzantine influence (pendants, earrings, finger rings), decorated with small granules/drops placed according to different models. Globular

¹⁸ Pascu *et al.* 1968, 159.

¹⁹ Stanciu, Matei 1994, 142, 145, 311.

²⁰ Băcuet-Crișan 2005, 94; Băcuet-Crișan 2006, 831.

²¹ Pascu *et al.* 1968, 159.

²² Pascu *et al.* 1968, 177.

²³ Țiplic 2007, 130.

pendants decorated with granules feature in Bohemia during the chronological interval 900–950²⁴, while in the region of Dalmatia (Croatia) such items were dated to the middle of the ninth century²⁵.

Two extremely important artefacts were also discovered inside precinct IV: two gold-plated iron spurs (Pl. 3/A-B)²⁶. My colleague C. Cosma analyzes the two golden spurs discovered in Dăbâca in a recent study that focuses on early medieval spurs (seventh-tenth century) from Transylvania and suggests that they should be dated to the tenth century and the first decades of the eleventh century²⁷. Presenting the two spurs, C. Cosma states that they were discovered inside the two-room dwelling²⁸ and makes reference to the archaeological report on the research in Dăbâca published in 1968²⁹. Going again through the 1968 report I noted that, in fact, C. Cosma mixed up the complexes. The authors of the research in Dăbâca have clearly stated that the two gilded spurs were discovered in one of the surface dwellings inside precinct IV³⁰ and not in the large dwelling with two rooms (also located in precinct IV) as my colleague C. Cosma has erroneously understood³¹!

The dating of the two spurs suggested by C. Cosma is based on Z. Hilczerówna typological classification of the discoveries from Poland³². The long-neck spur (Pl. 3/B) belongs to Type I³³ and since the neck is circular in section it can be included in variant I, Type I, dated to the tenth century-beginning of the eleventh century³⁴. Making also reference to A. Nadolski's classification of Polish weapons during the tenth-twelfth century, the long-neck spur from Dăbâca can be included in Type I, dated to the tenth century³⁵. This type of spur also features in the Moravian area, for example in the fortification of Břeclav-Pohansko where it was dated to the tenth century³⁶.

According to my opinion, there is as yet no clear data on the basis of which one can place the beginning of the fortifications during the ninth century, and in case such data come to light they might suggest/support the chronological framing after the middle of the ninth century, i.e. during the second half of the ninth century/end of the ninth century. Taking into consideration the analogies and situations noted on other sites and the arguments mentioned above, I believe that, at the present stage of research, the first elements of fortification were built in the beginning of the tenth century. Therefore, the first stage of fortification seems to have been in use during the first half of the tenth century and its end might have been caused by the first Magyar incursions in Transylvania.

Until all discoveries made in Dăbâca are published, the issue of this site's chronology remains open for debate. Still, one must note that special artefacts and archaeological situations were found there, indicating the presence of certain social/political elites. Naturally, one does not know if Dăbâca was Gelu's power center, but if the dating I have suggested above is correct, one might accept the existence of a local potentate who had his "headquarters" here, a power center in use before the first Magyar incursions in Transylvania. The chronology of the first stage of fortification in Dăbâca is connected to the possibility of arguing for the existence of one or several elites and of power centers in Transylvania; this also involves a certain social structure (stratification) developed before the first Magyar incursions, a structure that changed after the organization imposed by the Hungarian Kingdom.

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²⁴ Tomková 2011, Abb. 3.

²⁵ Jarak 2002, 255.

²⁶ Pascu *et al.* 1968, 169, 177, Fig. 5/4–5.

²⁷ Cosma 2004–2005, 192–193.

²⁸ Cosma 2004–2005, 191.

²⁹ Cosma 2004–2005, footnote 89.

³⁰ Pascu *et al.* 1968, 177.

³¹ Cosma 2004–2005, 191.

³² Cosma 2004–2005, 192.

³³ Cosma 2004–2005, 192.

³⁴ Hilczerówna 1956, 139.

³⁵ Nadolski 1954, 82, Pl. XXXV.

³⁶ Dostál 1970, Fig. 7/8.

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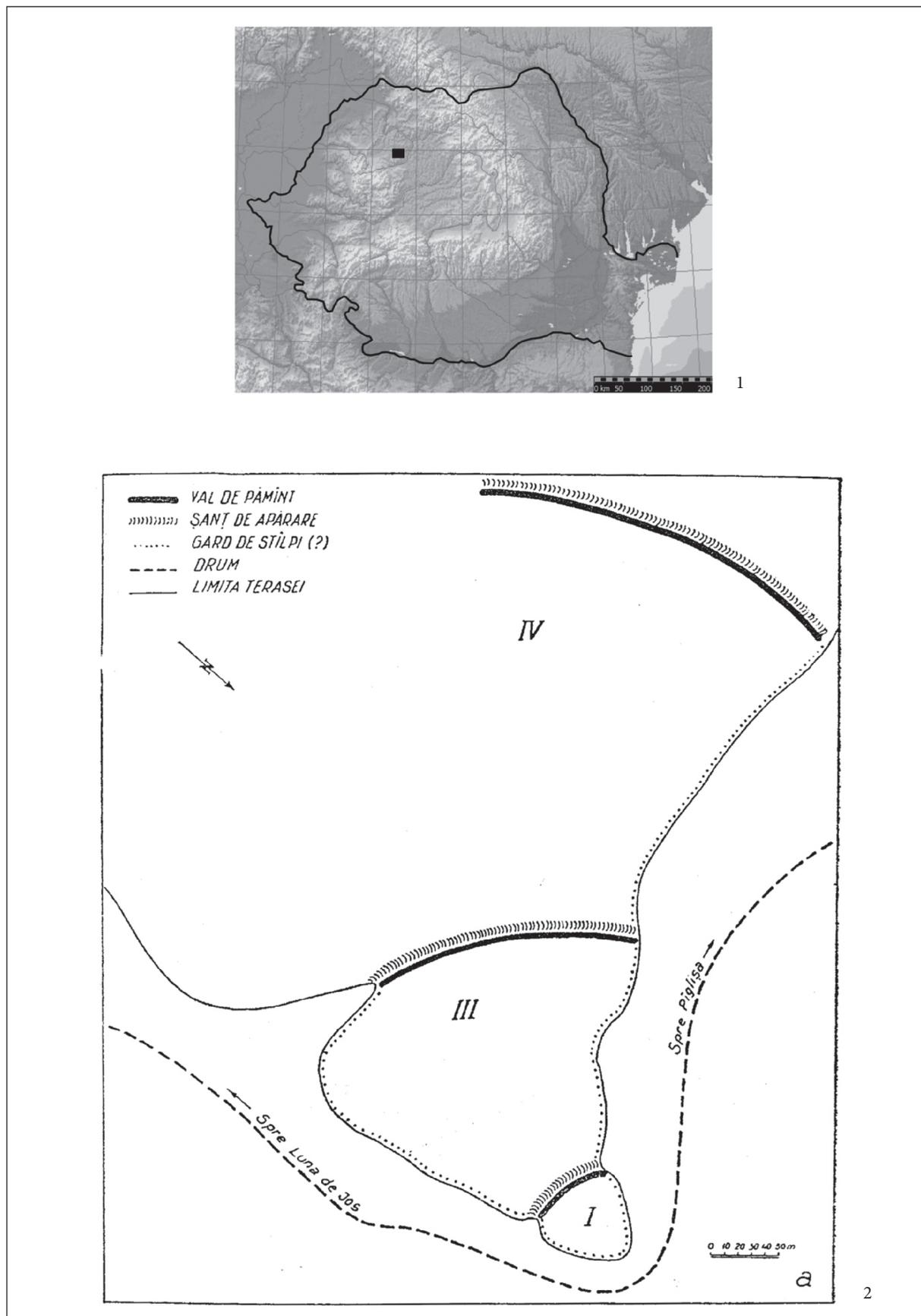


Plate 1. 1. Location map of Dăbâca village on the Romanian territory; 2. First phase of fortification from Dăbâca (after Pascu *et al.* 1968).

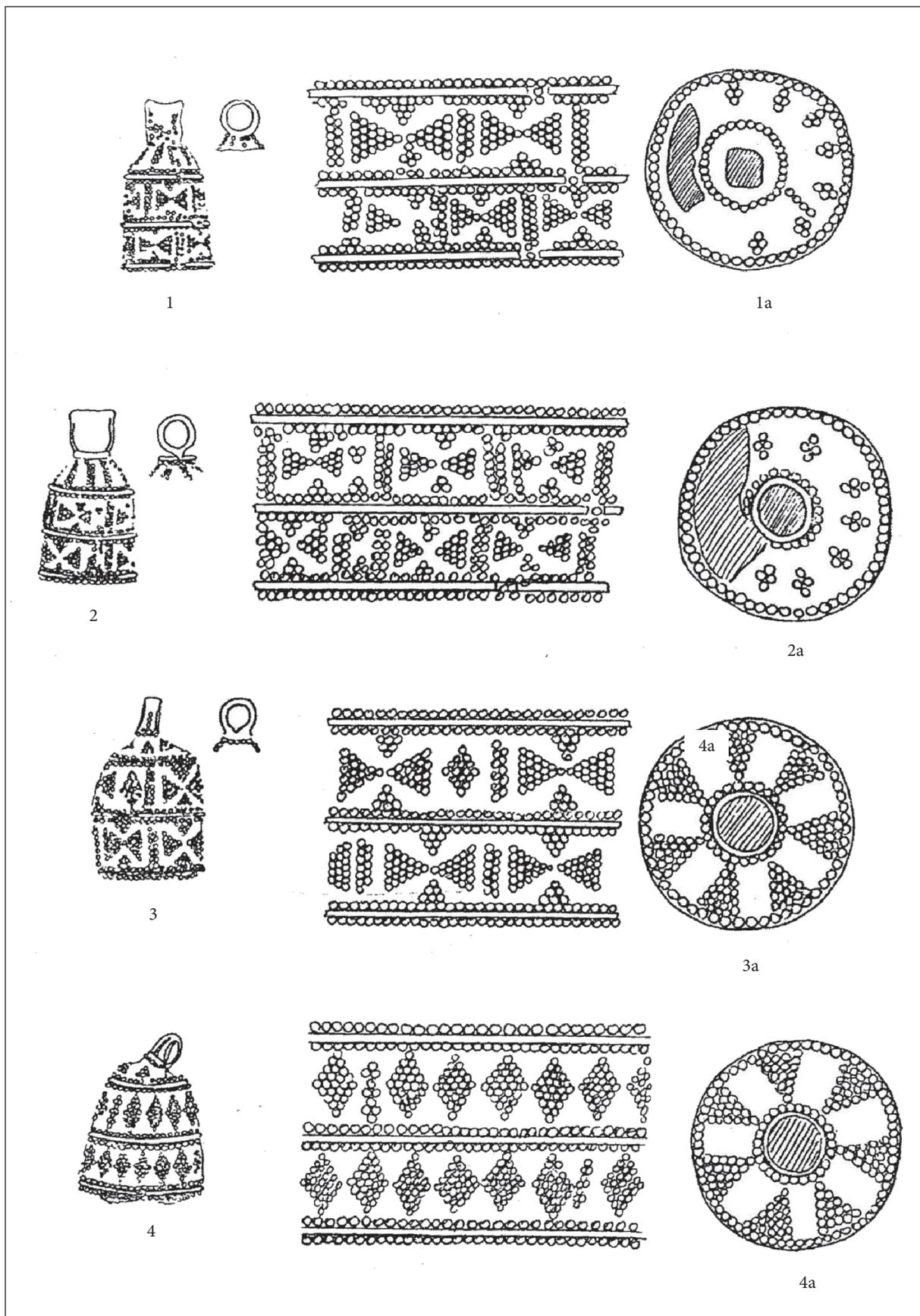


Plate 2. Dăbâca. Gold-plated silver pendants (after Pascu *et al.* 1968).

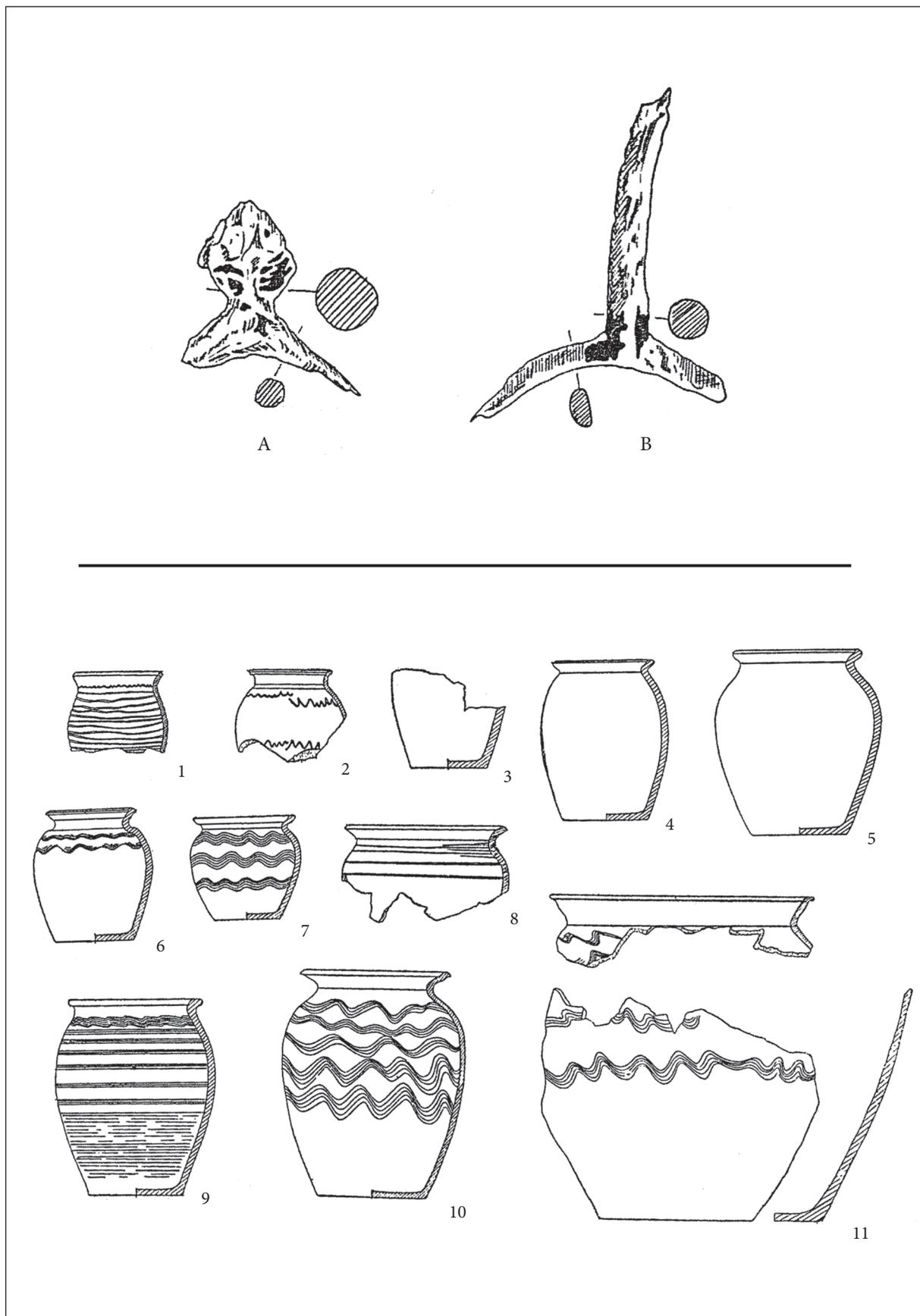


Plate 3. A-B. Dăbâca. Gold-plated iron spurs discovered in Enclosure IV (after Pascu *et al.* 1968);
1-11. Early mediaeval pottery discovered in Enclosure I (after Pascu *et al.* 1968).

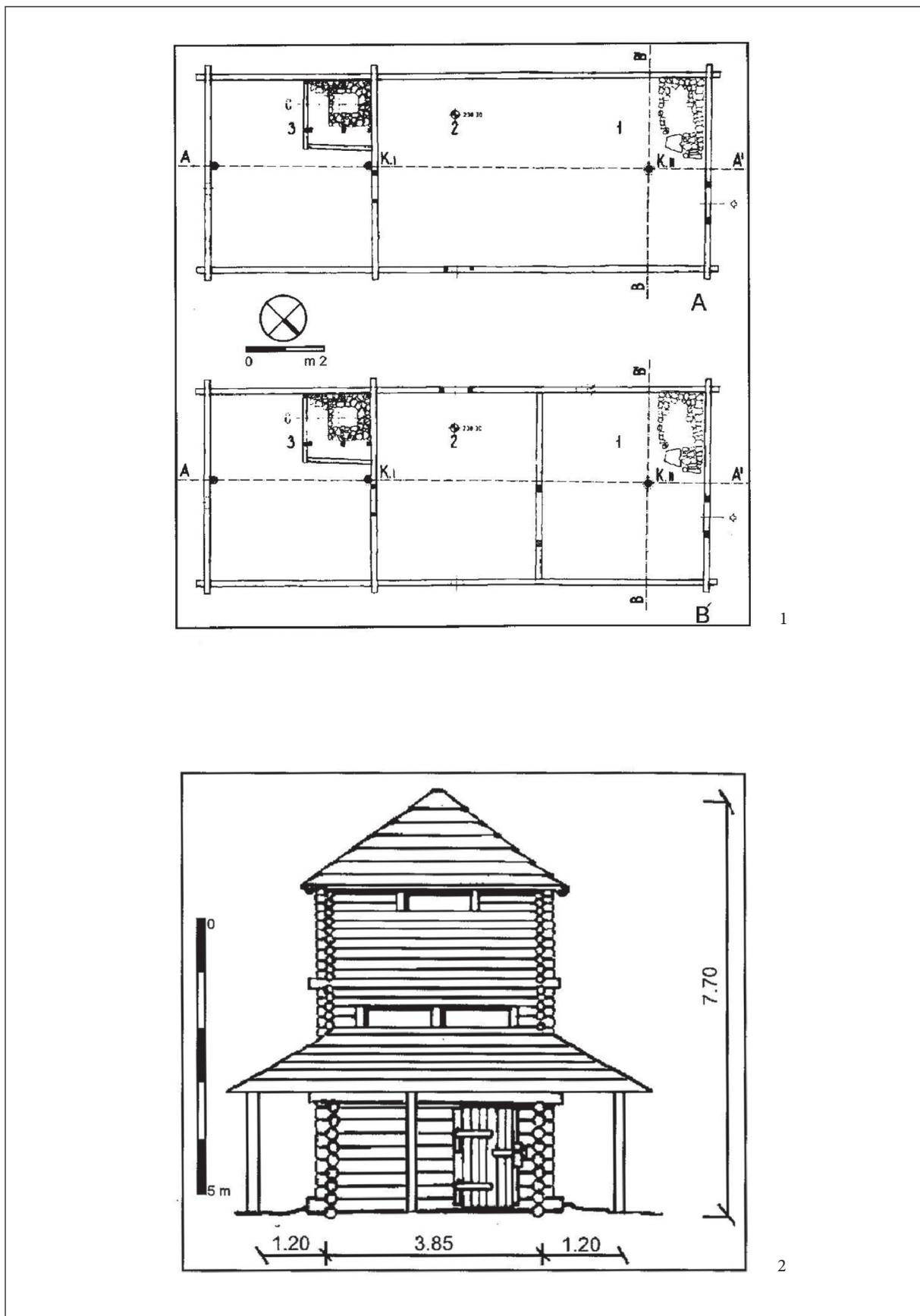


Plate 4. 1. Ducové, Building 1 (after Ruttkay 2005, reconstitution H. Albrecht-A. Ruttkay);
 2. Building 2 (after Ruttkay 2005, reconstitution H. Albrecht-A. Ruttkay).

Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

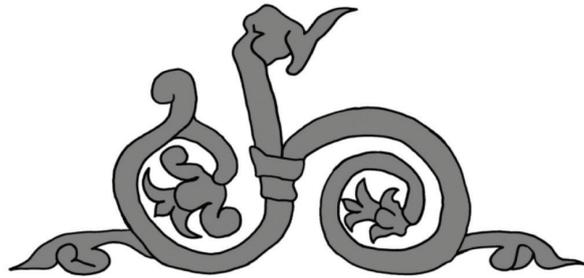
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thrac-Dacica	<i>Thrac-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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Eggs as Offerings in Tenth-Eleventh Century Necropolises*

Aurel Dragotă

Abstract: Beyond their possible symbolic functions, egg offerings (*Gallus gallus dom.*) were noted in the context of the Sîntana de Mureş-Cerneahov Culture and also in the Slavic and Magyar world of the seventh-eleventh century.

In tenth-century necropolises, egg offerings were placed in the following anatomical positions:

- a. by the lower left limb/area of articulation of the shank and foot, outside, or in the area of the metatarsus bones; on the left knee cap and above the pelvis, on the right side;
- b. by the lower left limb/on the outside and near the articulation of the femur and shank bones; near the phalanges of the left lower limb;
- c. in the area of the left shank, near a ceramic vessel;
- d. above the pelvis on the left/right side, inside;
- e. more rarely in the area of the skull;
- f. inside a ceramic vessel;
- g. in the area of the armpit, on the left and right side of the body;
- h. between the shanks;

If in certain cases the offering of eggs plays the role of a food appendix, I do not exclude the possibility that it was a habit connected to the beginning of a new life, related to the gender of the deceased, so that the deposition was made on the left side of women and on the right side of men.

Another observation regards the tombs of children, where the deposition was made on the left or right side of the armpit, above the pelvis on the left or on the right, in the articulation area of the humerus and radius/on the inside, on the knee cap and between the shanks.

Egg offerings are generally found between once and three times in one given necropolis, rarely more often than that (Majs). The habit of placing egg offerings is more often encountered during the second half of the tenth century until the middle of the eleventh century.

Keywords: offering, egg, place of deposition, habit, symbol.

Eggs (*Gallus gallus dom.*) have been perceived as a symbol of life, of resurrection, of the afterlife, or of a new life. Such offerings are most often encountered in children's tombs and more rarely in those of adults. In certain situations, one cannot exclude the role of eggs as food appendices¹. Beyond their possible symbolic value, egg offerings have been noted in the context of the Sîntana de Mureş-Cerneahov Culture,² but also in the Slavic, Avar, or Magyar world of the seventh-eleventh century.

The deposition of egg offerings in the Slavic milieu of the seventh-ninth century has been noted in a number of necropolises. For example, the necropolis in Balchik, used after the year 680, revealed egg offerings in six tombs, out of which five were inhumation tombs and one was an incineration tomb, and most of them were attributed to children (M. 196, M. 197, M. 236, M. 251) and the other to adults (M. 279, M. 205/incineration). The tombs were oriented E-W and N-S and the egg offerings were placed in the area of the skull, near the upper limbs or in a cup deposited by the right leg. The habit was also identified in other necropolises from Bulgarian, in Kyulevcha/M. 28, 65 and Bdintsi, where eggs were deposited in the area of the skull, on one side of the skeleton, or in the area of the armpit.

Egg offerings (symbol of immortality) are a ritual attested in the proto-Bulgarian milieu, where it was correlated to the role of the dog in pagan tradition. The egg is interpreted as a "gift" requested by a dog, considered to be a guide of souls (*psychopomp*) in the after world³.

* English translation: Ana M. Gruia.

¹ Rejholcová 1995, 18.

² Dragotă *et al.* 2009, 12, 23.

³ Chobanov 2009, 301–305.

Egg offerings also feature in a series of discoveries made in the milieu of the Western Slavs⁴. In the seventh-eighth century necropolis in Radvaň nad Dunajom, the offering of *Gallus g. dom.* was deposited in several tombs, in different anatomical positions:

a. by the lower limbs: in the area of the right shank (M. 4 /girl, inf. I?)⁵; on the outside of the right shank (M. 6 /male, 50–60 years of age)⁶; by the lower limbs, between the knee caps (M. 10 /juv.?, 15–16 years of age)⁷; on the right knee cap (M. 11 /juv.?, 14–15 years of age)⁸; on the inside of the left femur, close to the knee cap (M. 19 /male, 30–40 years of age; M. 101/female, juv.-ad., 18–20 years of age)⁹;¹⁰ between the shanks (M. 29 /female, 50–60 years of age¹¹; M. 99 /juv., 18–20 years of age)¹²; outside the right leg, parallel to the metatarsal bones (M. 84 /male, 40–50 years of age)¹³; outside the feet, on the left side (M. 44 /male, 20–30 years of age)¹⁴, on the outside of the left shank (M. 98 /male, 30–40 years of age¹⁵), on the outside of the left femur, near the knee cap (M. 20 /female, 50–60 years of age)¹⁶ and on the left side of the metatarsal bones, near a ceramic vessel (M. 108 /girl, inf. I, 5 years of age)¹⁷.

b. by the upper limbs: by the left arm (M. 13 /male, 30–40 years of age)¹⁸, near the left forearm (M. 49 /juv.)¹⁹, and on the outside of the left arm, by the articular area between humerus and forearm (M. 81 /female, 40–50 years of age)²⁰.

c. by the skull, near the mandible (M. 83 /girl, inf. II, 10–12 years of age)²¹;

Remains of egg offerings were also found, in this necropolis, in other tombs belonging to children and adults: M. 16 (male, 40–50 years of age)²², M. 21 (male)²³, M. 30 (male, 40–50 years of age)²⁴, M. 47 (male, 40–50 years of age)²⁵, M. 57 (male, 30–40 years of age)²⁶, M. 63 (female?), 50–60 years of age²⁷, M. 66 (female, 30–40 years of age)²⁸, M. 73 (female?, 50–60 years of age)²⁹, M. 105 (young female, inf. II, 10–11 years of age)³⁰, M. 110 (young female, inf. I, 1 year of age)³¹, M. 112³², M. 119 (female, 50–60 years of age)³³, M. 120 (female, 30–40 years of age)³⁴, M. 121 and M.128³⁵.

In this context one can also mention the discoveries from Nitra-Zobor (M. 15)³⁶ and Vel'kom Grobe (M. 77, M. 3/48) dated to the ninth-tenth century³⁷. In Nitra-Lupka, in the necropolis dated to

⁴ Dostál 1966, 29.

⁵ Točík 1992, 26.

⁶ Točík 1992, 26sq.

⁷ Točík 1992, 28.

⁸ Točík 1992, 28.

⁹ Točík 1992, 47.

¹⁰ Točík 1992, 30.

¹¹ Točík 1992, 32.

¹² Točík 1992, 47.

¹³ Točík 1992, 44.

¹⁴ Točík 1992, 35sq.

¹⁵ Točík 1992, 47.

¹⁶ Točík 1992, 30sq.

¹⁷ Točík 1992, 48.

¹⁸ Točík 1992, 29.

¹⁹ Točík 1992, 37.

²⁰ Točík 1992, 43.

²¹ Točík 1992, 43sq.

²² Točík 1992, 29.

²³ Točík 1992, 31.

²⁴ Točík 1992, 33.

²⁵ Točík 1992, 36sq.

²⁶ Točík 1992, 39.

²⁷ Točík 1992, 40.

²⁸ Točík 1992, 41.

²⁹ Točík 1992, 41sq.

³⁰ Točík 1992, 48.

³¹ Točík 1992, 49.

³² Točík 1992, 49sq.

³³ Točík 1992, 51.

³⁴ Točík 1992, 51sq.

³⁵ Točík 1992, 52sq.

³⁶ Hanuliak 2004, 272; Chropovský 1978, 101.

³⁷ Chropovský 1957, 197.

the middle of the ninth century, such offerings consist of between one (M. 18, M. 19, M. 27, M. 31, M. 53) and three eggs (M. 51). M. 87 (young female) included hair rings, one knife, and the remains of three eggs deposited on the left side of the body, 10 cm away from the perineum³⁸.

In Čakajovce, egg offerings were mainly placed in children's tombs, in the following anatomical areas: near the right temporal and occipital bone (M. 349, M. 725), under the right leg (M. 94), and on the outside of the lower limbs (M. 411, M. 447, and M. 635)³⁹.

Egg offerings were placed in the tombs of juv. (M. 94)⁴⁰, inf. III/girls 7–14 years of age (M. 349⁴¹, M. 411/horiz. A⁴², M. 635/horiz. C⁴³, M. 725/horiz. C⁴⁴) that had as inventory pottery vessels (1–3 pieces), knives, earrings, bucket, beads, shapes I–II, 12, 4 and finger ring. In M. 447/female, mat. I (horiz. A), the egg offerings features in relation to a pottery vessel, earrings, and a bucket of which the iron fittings have been preserved⁴⁵.

The frequency of egg offerings in children's tombs, and more rarely in adults' tombs, is also noted in horizon III of the necropolis in Malé Kosihy⁴⁶. Egg offerings consisted of a single egg (M. 30, M. 43, M. 200, M. 505, M. 509), two (M. 41), and three (M. 42), placed on the grave.

The number of eggs and the place of deposition varied:

a. on the inside of the right arm, in the armpit area, the remains of two eggs (M. 41 /inf. II, horiz. III; Pl. 1/2)⁴⁷;

b. in the area of the left armpit – one egg, while two other eggs were placed to the left and to the right of the pelvic bone (M. 42 /inf. II, horiz. III; Pl. 1/3)⁴⁸;

c. right of the elbow, by the articulation, on the outside, shells from one egg (M. 43/F? mat., horiz. III; Pl. 1/4)⁴⁹;

d. on the right, outer side of the shank, in the articulation area with the tarsus bones, remains from one egg (M. 30 / F. ad., horiz. III; Pl. 1/1), in association with shapes 4, I–II, 36, beads and one circular fragment from a perforated silver plate⁵⁰;

e. between the shanks (M. 200/inf. II, horiz. III; Pl. 1/5) – in combination with beads and one coin Eudes, Toulouse/887–898/left of the mandible⁵¹;

f. in the articulation area between the right humerus and the forearm, on the inside (M. 505 /inf. II; Pl. 1/6)⁵²;

g. in the articulation area between the left humerus and the forearm, on the inside (M. 509 /inf. II, horiz. III; Pl. 1/7) – in combination with two rings I–II⁵³.

In the tenth-century necropolis in Tekovský Hrádok/M. 3 the egg offering was placed in a pottery vessel deposited by the left lower limb⁵⁴.

In Ptuj/M. 387 egg remains were deposited on the inner part of the left femur⁵⁵ and between the shank bones (M. 385/female), in association with shapes 12, I–II, 10 and 1 b Giesler (Pl. I/8)⁵⁶.

Some voices in the specialized literature have suggested the hypothesis that the habit under analysis is usually encountered in a single tomb of a necropolis and more rarely during the eleventh

³⁸ Chropovský 1962, 194.

³⁹ Rejholcová 1995, 18.

⁴⁰ Rejholcová 1995, 11.

⁴¹ Rejholcová 1995, 37.

⁴² Rejholcová 1995, 44.

⁴³ Rejholcová 1995, 70sq.

⁴⁴ Rejholcová 1995, 79sq.

⁴⁵ Rejholcová 1995, 48.

⁴⁶ Hanuliak 1994, 65sq, 118sq, 127, 137.

⁴⁷ Hanuliak 1994, 118, Pl. VI-D.

⁴⁸ Hanuliak 1994, 118, Pl. VI-E.

⁴⁹ Hanuliak 1994, 119, Pl. VII-B.

⁵⁰ Hanuliak 1994, 118, Pl. V-B.

⁵¹ Hanuliak 1994, 127, Pl. XLII-C.

⁵² Hanuliak 1994, 137, Pl. XCIV-A.

⁵³ Hanuliak 1994, 137, Pl. XCIII-F.

⁵⁴ Nevizánsky-Kujovský 1991, 553, 556.

⁵⁵ Korošec 1999, 27, Pl. 40/1.

⁵⁶ Tušek 1981, 17; Korošec 1999, 27, 131, Pl. 39/13.

century. Eggs feature in “middle class” necropolises, in the area of the articulations and genitals, in children’s tombs with predilection⁵⁷.

In Alba Iulia- *Izvorul Împăratului* archaeologists have noted the presence of egg offerings in some of the tenth-century tombs, but one does not know the exact anatomical position in which they were deposited⁵⁸. During researched performed on this site in 2014 I have identified egg offerings in the following anatomical positions: left of the pelvis (M. 2), by the left humerus (M. 9) and between the shanks (M. 4)⁵⁹.

In another necropolis from Alba Iulia – *Str. Brîndușei*, egg remains were identified in different positions. In M. 15 (adult), the egg offering was deposited inside a pottery vessel⁶⁰, while in M. 17 three eggs were deposited in the area of the left lower limb⁶¹. In other tombs (M. 155/female, M. 175) the egg offering was deposited by the right lower limb. The funerary inventory consisted of a Kecel buckle, an iron knife, rings 13, and one pottery vessel by the right lower limb⁶².

The presence of egg offerings was noted in several tombs dated to the second half of the tenth century, in the necropolis of Picișă- *La Izvoare*. M. 25 (girl) had, as funerary inventory, one collar 1 a, beads and rings 13 Giesler, and egg shells deposited by the right lower limb. In another tomb (M. 30/ girl?) that included as funerary inventory one necklace 1 a and rings 13 Giesler, the egg offering was near a pottery vessel deposited between the lower limbs. Other egg remains have been identified in M. 30 (woman) in the area of the left armpit and by the left shank, in the proximity of a pottery vessel. The inventory of this tomb consisted of a loom weight, a silver pendant, and rings 13 Giesler⁶³.

In the necropolis in Letkés-*Téглаégető* II/M. 40 (girl) egg remains were deposited near the legs. The tomb’s funerary inventory consisted of one finger ring, shape 4, and a spiral twisted plate item⁶⁴.

In Letkés-*Téглаégető* I/M. 21 (girl, 5–8 years of age) egg remains were identified on the inside of the left arm⁶⁵. In M. 66 (girl, 8–12 years of age), the offering was deposited outside of the right ankle. The funerary inventory consisted of two temple rings and two finger rings made of semicircular plate with open dimension⁶⁶.

Egg offerings were noted in several situations in the necropolis from Majs (17% tombs belonging to females, 22 % to males, and 61 % to children), while the anatomical positions in which they were deposited varied: behind the skull, on the chest, by the legs, pelvis, and thorax⁶⁷.

a. egg fragments deposited left of the pelvis, in association to a denarius issued by Andrew I (M. 224/ male mat.)⁶⁸; egg remains in the area of the pelvis, in combination with hair rings with one S-shaped end (M. 286/fem. ad.)⁶⁹;

b. in the area of the chest (M. 654)⁷⁰; right of the chest, hen egg shells (M. 481/inf. II⁷¹);

c. in the area of the right femur, egg shells (M. 67 /inf. I⁷²; M. 474/inf. I) in combination with beads, finger ring, and a denarius issued by Andrew I⁷³.

d. by the left lower limb, shell remains from one or two eggs (M. 6 /fem. ad. mat.; M. 42/inf. II)⁷⁴; egg shell remains near the bones of the right leg (M. 65 /masc. ad. mat)⁷⁵; (goose ?) egg shells in the area of the limbs, in association with a pottery vessel (M. 513/b. mat.)⁷⁶; bird egg offerings and one

⁵⁷ Tettamanti 1975, 109.

⁵⁸ Blăjan 2002, 33; Blăjan 2007, 5 sqq.

⁵⁹ Dragotă *et al.* 2014.

⁶⁰ Drâmbărean *et al.* 1998 a, 4.

⁶¹ Drâmbărean *et al.* 1998 a, 4; Drâmbărean *et alii* 1998 b, 188sq; Dragotă *et al.* 2009, 83.

⁶² Dragotă *et al.* 2009, 62sq, 83.

⁶³ Dragotă *et al.* 2013, 147.

⁶⁴ Bakay 1978, 101, Pl. XLIX/1–2.

⁶⁵ Bakay 1978, 67.

⁶⁶ Bakay 1978, 84, Fig. 92/5.

⁶⁷ Kiss 1983, 159.

⁶⁸ Kiss 1983, 91.

⁶⁹ Kiss 1983, 95.

⁷⁰ Kiss 1983, 120.

⁷¹ Kiss 1983, 107.

⁷² Kiss 1983, 81.

⁷³ Kiss 1983, 107, T. 40.

⁷⁴ Kiss 1983, 79.

⁷⁵ Kiss 1983, 81.

⁷⁶ Kiss 1983, 110.

pottery vessel were deposited near the lower limb (?) (M. 573/inf. I.)⁷⁷; goose (?) egg remains were identified by the lower limb (M. 72 /inf. I)⁷⁸; to the left side of the leg, remains from three eggs (M. 735/inf. I⁷⁹); inside the right femur (M. 112/male, mat.⁸⁰);

e. between the shanks (M. 11 female, sen.)⁸¹; near the shank bones (?), two hen eggs in combination with bronze bracelets (M. 592/inf. I)⁸².

f. deposition consisting of egg remains in the area of the right humerus (M. 28 /inf. I; M. 790/inf. I); egg shells by the left humerus (M. 33/inf. II; M. 53 /fem. ad.)⁸³; near the left arm (M. 781/inf. I⁸⁴); three egg shells on the inside, in the area of the right clavicle (M. 828/fem. ad.)⁸⁵;

g. egg remains by the middle of the tibia (?) (M 29 /masc. sen.)⁸⁶; pottery vessel and egg offering by the left tibia (M. 487/b. mat.)⁸⁷; two hen egg shell fragments near the right peroneus (M. 328 / fem. sen.)⁸⁸;

h. egg shell fragments behind the skull (M. 58 /inf. I)⁸⁹; egg remains left of the skull (M. 55 /fem. Mat⁹⁰; M. 484/fem. ad. mat.)⁹¹; egg remains were identified on the right side of the skull (M. 799/ male mat.⁹²; M. 168/male sen.)⁹³; hen egg remains under the skull (M. 359 /inf. I⁹⁴);

Egg offerings were also noted in Majjs in M. 36 (inf. I), M. 104 (fem. mat.)⁹⁵, M. 13 (inf. I)⁹⁶, and M. 234 (inf. I)⁹⁷.

In Szegvár- *Oromdűlő*/M. 562 (child, 8–9 years of age), hen egg shells were identified by the right arm⁹⁸ while in Szob-*Kiserdő*/M. 10 (male, 55–70 years of age, blood type B) the deposition was made near the lower limbs, in association to a coin issued by Berengar II⁹⁹.

In Szeged-*Kiskundorozsma*/M. 701 (child, 3–4 years of age), the egg fragments were placed on the right side of the body, on the outside, between the pelvic area and the margin of the pit¹⁰⁰. A different situation was noted in M. 720 (inf. II, 8–10 years of age), where the egg remains were identified in the area of the left shoulder¹⁰¹.

In the cemetery in Homokmégy-*Székes*/M. 108 (female?), dated between the middle of the tenth century and the beginning of the eleventh century, the egg offering was deposited on the left side of the skull. The egg was perceived as symbolizing death and the waiting for resurrection, but also the embryonic state of life and rebirth¹⁰².

In Püspökladány-*Eperjesvölgy* egg offerings were identified in five tombs: on the right side of the chest (M. 79/child; M. 168 /male, 32–37 years of age), under and above the left clavicle (M. 196/child, 4 years of age; M. 202/child, 3 years of age), and by the left forearm (M. 450)¹⁰³.

⁷⁷ Kiss 1983, 115.

⁷⁸ Kiss 1983, 82.

⁷⁹ Kiss 1983, 126.

⁸⁰ Kiss 1983, 84.

⁸¹ Kiss 1983, 77.

⁸² Kiss 1983, 116.

⁸³ Kiss 1983, 80.

⁸⁴ Kiss 1983, 129.

⁸⁵ Kiss 1983, 132.

⁸⁶ Kiss 1983, 78.

⁸⁷ Kiss 1983, 108.

⁸⁸ Kiss 1983, 98.

⁸⁹ Kiss 1983, 80sq.

⁹⁰ Kiss 1983, 80.

⁹¹ Kiss 1983, 108.

⁹² Kiss 1983, 130.

⁹³ Kiss 1983, 88.

⁹⁴ Kiss 1983, 100.

⁹⁵ Kiss 1983, 83sq.

⁹⁶ Kiss 1983, 86.

⁹⁷ Kiss 1983, 92.

⁹⁸ Bende, Lőrinczy 1997, 217.

⁹⁹ Bakay 1978, 14.

¹⁰⁰ Lőrinczy, Türk 2011, 425, 429sq, Fig. 28/5.

¹⁰¹ Lőrinczy, Türk 2011, 425sq, Fig. 29/7.

¹⁰² Gallina 1998, 90sq, 93. Fig. 7.

¹⁰³ Nepper 2002, 161, 215, 193.

Egg offerings also feature in other tenth-eleventh century cemeteries: Deszk D¹⁰⁴, Debrecen-*Jósza Klastrompart*/M. 26 (child)¹⁰⁵, Ellend-*Szilfai dűlő*/M. 115¹⁰⁶, Esztergom,¹⁰⁷ Hajdúszoboszló-*Arkoshalom*/M. 31 (child, 4–5 years of age), M. 217 (male, 48–56 years of age)¹⁰⁸, Harta¹⁰⁹, Kál-*Legelő*/M. 46¹¹⁰, Kiszombor B¹¹¹, Nagydorog¹¹², Nagymágocs /M. 8¹¹³, Penc-*Tuszkulán*/M. III (child)¹¹⁴, Rád¹¹⁵, Rusovce/Oroszvár¹¹⁶, Sárrétudvari-*Órhalom*/M. 3 (male)¹¹⁷ and Tiszalök¹¹⁸.

In tenth-century necropolises, egg offerings were deposited in the following anatomical positions:

- a. by the left lower limb/articulation area between shank and foot, on the outside, or in the area of the metatarsus bones; on the left lateral malleolus and above the pelvis, on the right side;
- b. by the left lower leg/on the outside and near the articulation between the femur and the shank bones; near the phalanges of the left lower limb;
- c. in the area of the left shank, near a pottery vessel;
- d. above the pelvis, on the left side/right side on the inside;
- e. more rarely, in the area of the skull;
- f. inside a pottery vessel;
- g. in the area of the armpit, left and right of the body;
- h. between the shanks;

If in certain cases the egg offering was envisaged as a food-related appendix, I do not exclude the possibility that it was in fact a habit related to the beginning of a new life, in connection to the gender of the deceased, so that the deposition was placed on the left side in the case of women and on the right side in the case of men.

Another observation envisages the tombs of children, where the deposition was placed right and left of the armpit, above the pelvis, on the left and on the right, in the articulation area of the humerus with the ulna and the radius/on the inside, on the lateral malleolus, and between the shanks.

In general, egg offerings feature between one and three times in one necropolis, rarely more often (Majs). The habit of depositing egg offerings is more often encountered during the second half of the tenth century and until towards the middle of the eleventh century.

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¹⁰⁴ Fehér, Éry, Kralovánszky 1962, 31.

¹⁰⁵ Nepper 2002, 38.

¹⁰⁶ Fehér, Éry, Kralovánszky 1962, 34; Dombay 1961, p. 154.

¹⁰⁷ Fehér, Éry, Kralovánszky 1962, 35.

¹⁰⁸ Nepper 2002, 104, 64, 91sq.

¹⁰⁹ Fehér, Éry, Kralovánszky 1962, 39.

¹¹⁰ Füredi 2003, 333, Fig. 4.

¹¹¹ Fehér, Éry, Kralovánszky 1962, 48.

¹¹² Fehér, Éry, Kralovánszky 1962, 55.

¹¹³ Fehér, Éry, Kralovánszky 1962, 56.

¹¹⁴ Fehér, Éry, Kralovánszky 1962, 61; Patay 1957, 63.

¹¹⁵ Fehér, Éry, Kralovánszky 1962, 63.

¹¹⁶ Fehér, Éry, Kralovánszky 1962, 64sq.

¹¹⁷ Nepper 2002, 391.

¹¹⁸ Fehér, Éry, Kralovánszky 1962, 79sq.

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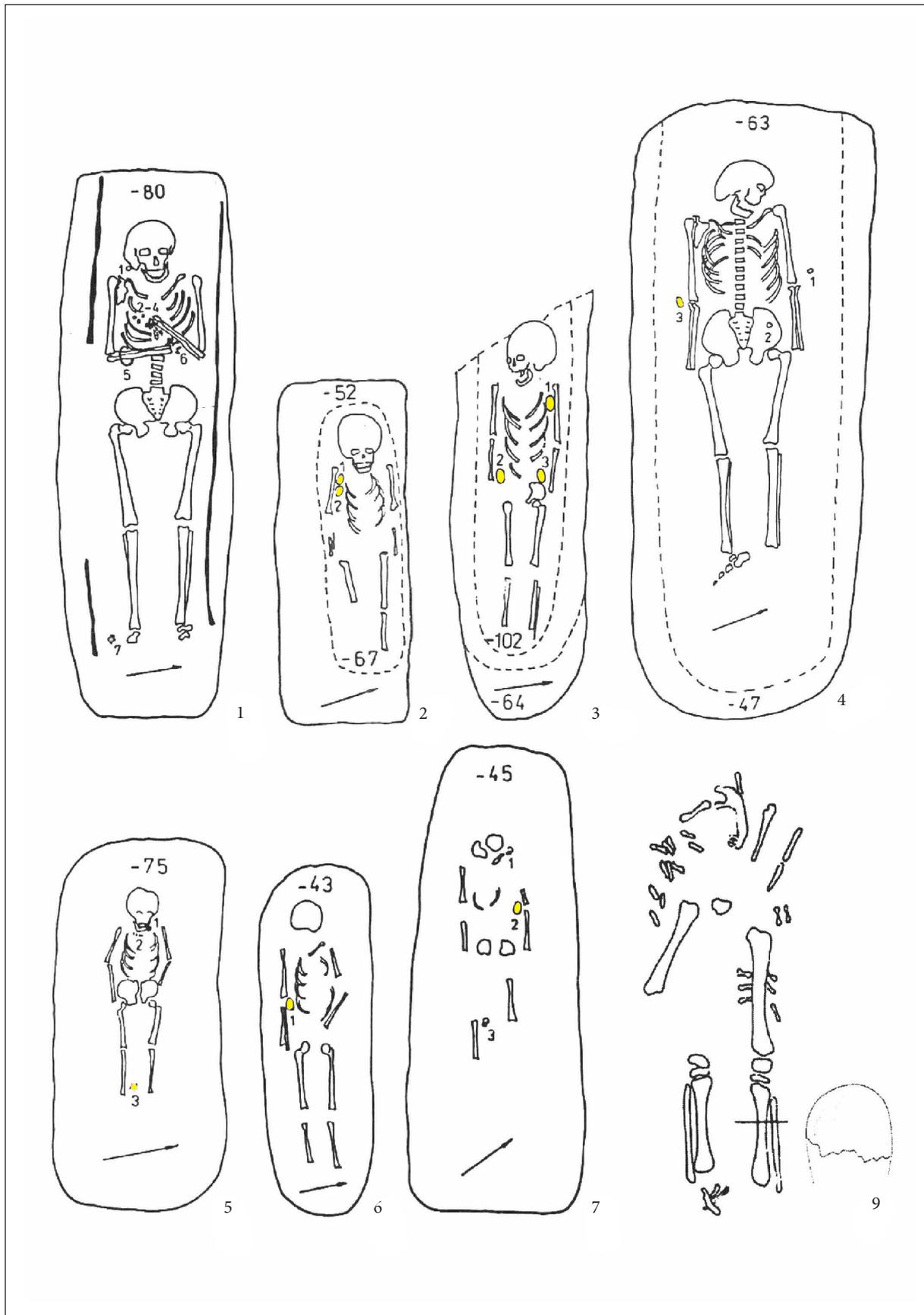


Plate 1. Positions in which egg offerings have been deposited: 1: Malé Kosihy/M. 30 (taken from Hanuliak 1994); 2: Malé Kosihy/M. 41 (taken from Hanuliak 1994); 3: Malé Kosihy/M. 42 (taken from Hanuliak 1994); 4: Malé Kosihy/M. 43 (taken from Hanuliak 1994); 5: Malé Kosihy/M. 200 (taken from Hanuliak 1994); 6: Malé Kosihy/M. 505 (taken from Hanuliak 1994); 7: Malé Kosihy/M. 509 (taken from Hanuliak 1994); 8: Ptuj/M. 385 (taken from Korošec 1999).

Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch- Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

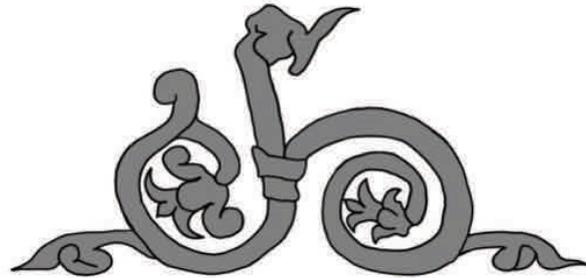
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thrac-Dacica	<i>Thrac-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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The Significance of the Sites “Așezare” and “Necropolă” on “Dealul Viilor” in the Development of Habitat in the Micro-area of Sighișoara during the Middle Ages (Twelfth-Thirteenth Century). Human Landscape of the Sighisoara Region from the 12th–13th Centuries*

Erwin Gáll¹

Abstract: The paper aims at presenting habitat aspects from the archaeological sites “Așezare” and “Necropolă”, attempting to integrate them in the archaeological landscape of the area of Sighișoara during the twelfth-thirteenth century, i.e. in a wider context, that of eastern Transylvania.

Keywords: Sighișoara, Middle Ages, twelfth-thirteenth century, “Dealul Viilor”, “Așezare” and “Necropolă”.

Topographic location of the sites

From a topographical and geographical perspective, the area of Sighișoara (Germ.: Schäßburg; Hung.: Segesvár), Mureș County, is located in a narrow spot in the valley of River Târnava Mare, looking like a gorge cut in a system of terraces, modeled in hard sub-layers of Pontian grit stone. This micro-morphology renders the area a key-position in the corridor of River Târnava Mare. The gorge is a mandatory point in one’s passage towards the eastern and south-eastern part of Transylvania. The two archaeological sites, called “Așezare” and “Necropolă”, are located ca. 4 km away from this gorge. On the basis of their location and extent, one cannot exclude the fact that they are in fact two parts of the same site, of the inhabited habitat on “Dealul Viilor”².

The site of “Dealul Viilor” is located on the north-eastern border of the city of Sighișoara, on the first and second terrace on the right bank of River Târnava Mare. Seen from a distance, “Dealul Viilor” seems a huge amphitheater oriented southwards, at the north-eastern edge of the city of Sighișoara. Its western end is marked by an almost vertical cliff that is the clay extraction place where the Brick Factory (the present-day SICERAM) obtained the needed primary material for almost a century. Above the factory, to the north-east, one finds the small settlement called “Cătunul Viilor”.

The north-western area of this ample hilly formation called “Dealul Viilor” is dominated by another strong promontory affected by a natural erosion process: “Cornul Viilor”. At the base of this promontory, in the area of the four isolated households, the excavated archaeological site is situated in the lower areas probably extending further up the hill, which Radu Harhoiu, the coordinator of the excavation, labeled as “Așezare”³.

The systematic research carried out in the site called “Așezare” led to the discovery of 127 archaeological complexes (pit-houses, pottery workshops/kilns/ovens, household refuse pits etc.) dated to the third-eighth centuries and the twelve century (Pl. 2)⁴.

* English translation: Ana M. Gruia.

¹ I would like to thank Mr. Nicolae Teșculă, director of the History Museum Sighișoara, for his kind help in composing the documentation and making photographs of the archaeological finds at the History Museum of Sighișoara.

² Harhoiu–Baltag 2006–2007, Vol. I., 5–6.

³ Harhoiu–Baltag 2006–2007.

⁴ Harhoiu–Baltag 2006–2007.



Fig. 1. Sighișoara-Dealul Viilor, the sites of “Așezare” and “Necropolă” (after Harhoiu–Gáll 2014, Fig. 1).

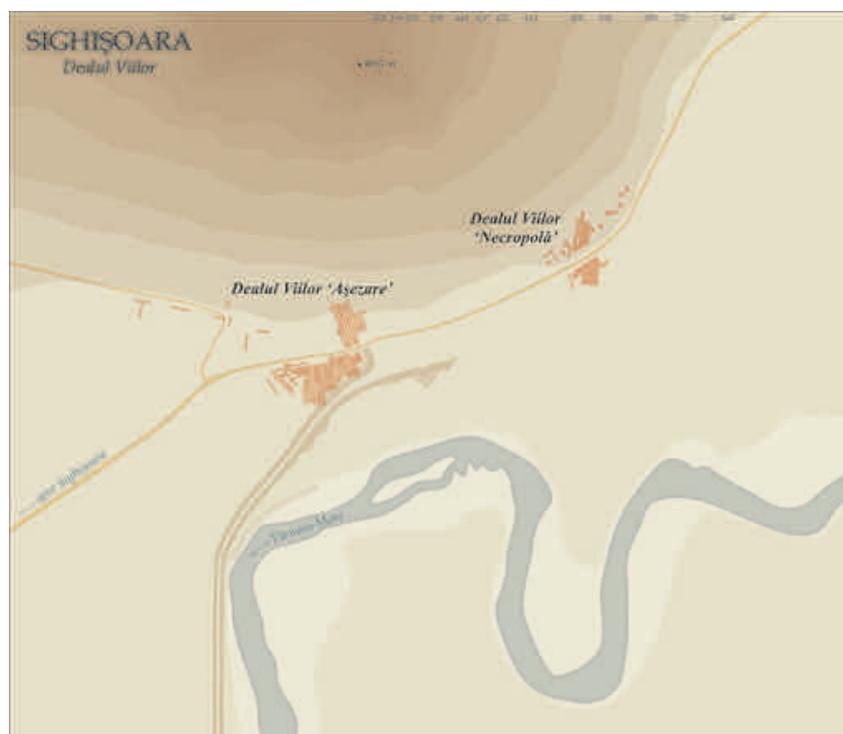


Fig. 2. Sighișoara-Dealul Viilor, the sites of “Așezare” and “Necropolă” (graphic reconstruction by D. Spânu), (after Harhoiu–Gáll 2014, Fig. 2).

On another terrace, also on the right bank of River Târnava Mare, ca. 350 m upstream (eastwards) from the spot called “Așezare”, one finds the spot that we call “Necropolă”, where archaeological research performed starting with 1989 (interrupted between 1997 and 1999 due to lack of funding), has led to the identification and research of some significant archaeological remains (412 complexes) dated to the Bronze Age (Wietenberg and Noua cultures), the post-Roman era, and the beginning of the Middle Ages. Post-Roman complexes consists of several necropolises (end of the third century-beginning of the fourth century; fourth century⁵; sixth century), some complexes were from settlements (pottery kiln dated to the fourth century; eighth-century dwelling), while the beginning of the Middle Ages is illustrated by a large necropolis dated to the twelfth century and habitation structures (dwellings, household refuse pits, oven) – (Pl. 3)⁶.

⁵ Harhoiu 2014, 153–205.

⁶ Harhoiu 2014, 153–154.

193 tombs, containing 205 skeletons, were also researched on the site called “Necropolă”⁷. Among them, on the basis of aspects related to the topographic/planimetric location of the tombs and on the basis of the inventory, I connected 94 graves with 106 skeletons to the medieval necropolis (of the 12th century)⁸.

101 undisturbed skeletons have been recovered, while five other skeletons, from five graves, have been destroyed (graves 36, 72, 77, 95, 112). Four tombs could not be researched, due to objective reasons (graves 140, 159, 172, 173), and one pit did not contain any skeleton (157). One can thus mention an overall number of 99 graves (together with the boneless pit), that probably contained at least 110 skeletons (again, including the boneless pit) – (Pl. 3).

Objective considerations have only allowed for the research of the northern and southern areas of the cemetery, labeled in specialized literature as the ‘cemetery around the church’ (in German *Friedhof* for *Kirchhof*, in English *Churchyard*)⁹. Taking into consideration the characteristics of the necropolises around the church, with several horizons of inhumations, just like the cemetery in Sighișoara “Dealul Viilor”, dated to the twelfth century¹⁰, the existence of a church there is very likely, but it could not be researched due to the road that crosses the site. Magnetometric measurements might clarify the issue.

⁷ Harhoiu 2014, 154.

⁸ Harhoiu–Gáll 2014, 193–256.

⁹ In early literature, the word *coemeterium* or *cimiterium* (gr.: koimeterion) was used exclusively for the burial places of Jews and Christians. ‘*Takaloumena koimeteria*’, has appeared in an imperial edict of 259, but the word occurs in Tertullian’s *De anima* ([...]in *coemeterio corpus corpori iuxtacolloccando spatium accessui communicasse* LI) (Tertulliani Liber de Anima: http://www.tertullian.org/latin/de_anima.htm.) and must be even older. Originally, the part of a Christian *cemetery* above the ground was called *coemeterium*, the underground section was called *crypta* (gr.: *krypte*).

In the early Christian period the graves of Christians were not separated from those of other religions, but from the 2nd century on memorials were built on the graves of the martyrs, which resulted in the creation of places of worship. From the 4th century on the so called *adsanctos* burials spread both in the West and in the East. Graveyards were out of the boundaries of towns until the 7th century – there were several churches in a city, but there only a few individuals, mostly persons revered as saints, or privileged people (as the emperors in the Apostoleion) were buried. According to Roman, Jewish etc customs, graveyards were outside the boundaries of towns or alongside roads or in free lands forming smaller or larger clusters (depending on whether it was a big town or a small village). There was not set rule in the territory of the East empire, therefore we cannot talk about a system, but there are certain cases, e. g. in Kom al-Ahmar, Egypt, where there are thousands of graves in different orientation around and inside the church.

The evolution of the conversion to Christianity on the territory of the Merovingian realm and the involvement of the Germanic aristocracy in this process can be observed well. Whereas around 600 they were buried in the ‘sacred area’, which was in the possession of the community, in rows of graves (*Reihengräberfeld*); around 800 the dead were buried around churches in the settlements. Based on the analysis of the cemeteries in southern Germany the nobility built numerous ‘private churches’ in their own courts by the end of the 7th century in the Alemanni territories. They used them as burial places, as places of remembrance and as a representation of their social position and the symbol of their Christian religion. So the cemeteries of this type may have appeared on the territory of the former Merovingian realm in the 6th–7th centuries. In the Rhine region churches were built in the cemeteries used in earlier times and these cemeteries were used further, whereas on the left bank of the Rhine and S of the Danube churches were never built in the site of former temples but in other places. Cemeteries with rows of graves were abandoned around the middle of the 8th century, although there are some data that they were used later too (e. g. Griesheim). During the Carolingian era common people were forced to bury their dead around churches, and were regulated by the decrees of the synod of Aachen in 836 and the synod of Tibur in 895. The spread of churchyards in Europe in the 8th–9th centuries is the most important and obvious sign of institutionalised Christianity in the territories occupied or influenced by the Carolingian empire. From the end of the 10th to the 12th century, Christianity and its state institutions triumphed in Central- and Northern Europe. As a result, from the 11th century, churchyard cemeteries can be documented in Poland, as well as in Northern- Europe, mainly in Denmark, the southern regions of Norway and Southern-Sweden, here probably due to missionaries coming from the East.

In conclusion it can be stated that churchyards, which ‘came into fashion’ in the 7th– 8th centuries, became the obvious archaeological symbol of institutionalised Christianity in time. Churches and the graveyards around them are the archaeological signs of the western Christian state, bishopries, parishes and Christian communities. In short: medieval (western) Europe.

The Hungarian folk version of the Latin word, *cinterem* means not just the cemetery itself, but the chamber of the church intended for wake and the graveyard around the church. The word *cinterem* found its way as a loanword into the Transylvanian dialect of the Romanian language as *țintirim*. The German name of the cemetery is *Friedhof*, ‘the yard of peace’ or ‘garden of peace’ with the right of an asylum, it is originally *Freithof* (= *umfriedeter Ort*), i. e. a closed yard in connection with asylum right (*Freiung* means ‘setting free’ or *asylum*). Bollók 2015; Böhme 1993, 397–534; Böhme 2000, 75–109; Hassenpflug 1999, 61–62; Kieffer-Olsen 1997, 185–189; MKL 2007; Schulze-Dörrlamm 1993, 557–620; Szöke 2005, 19–30. Their synthetic analysis in the Transylvanian Basin: Gáll 2013a, 135–250.

¹⁰ The analysis of the chronological aspects of the necropolis on “Dealul Viilor” has revealed that the first burials can be dated to the first decades of the twelfth century, which means that the population settled there around that time; on the

Some observations on the polyfunctional character of the settlement(s) and its (their) organization and extent (Pl. 2–3)

Fifteen complexes, dated to the twelfth century, have been researched on the spot “Așezare”, located 300 m north-eastwards of the spot called “Necropolă”, at the base of the promontory¹¹. Among them, six were household refuse pits (complexes 7a, 8a, 18, 34, 43a, 127), seven are pit-houses (complexes 11, 27, 66, 67, 78, 102, 104=119) – (Pl. 5–8), and two are probably open-air ovens¹² (complexes 7b, 7c) – (Pl. 4). Out of the seven dwellings, complexes 11, 66, 67, 78 had hearths (some with stones, as for example in complexes 11 and 78, others were made just of clay, as in the case of complexes 66 and 67), while complexes 27, 102, 104–119 never had a hearth¹³. It is difficult to establish their functionality, as the inventory did not differ from those of the others. We should wonder if they were only inhabited during the summers or if they were used as storage buildings. In this direction, paleoclimatic research could provide interesting results. In general, until the middle of the thirteenth century, the summers were warm and the winters mild, generally droughty, a phenomenon labeled in specialized literature as the *Medieval Warm Period*¹⁴, that might explain the existence of these complexes that lacked fire installations (Pl. 2)¹⁵. One should mention dwelling 27 due to its round ground plan, a shape also identified in other micro-regions¹⁶.

The archaeological inventory of the researched dwellings and ovens mainly consisted of pottery fragments, among which fragments from clay cauldrons (for example complexes 7c, 67, 104=119) (Pl. 4/1, Pl. 5/1), but also other pottery categories, typical to the eleventh-thirteenth century. (Pl. 4/1–3, Pl. 5/1–4, Pl. 5/1, Pl. 6/1–9, 11, Pl. 7/1–7, Pl. 8/1–4).

Besides pottery, there were also other categories of items. Thus, one spur was identified in each of the two complexes (7b and 27), (Pl. 4/4, Pl. 5/5) that can be dated to the twelfth-thirteenth century¹⁷. The function of one item remains unclear; it is the tip of an object discovered in complex 104=119 that Radu Harhoiu defined as the tip of a sword blade (Pl. 8/5)¹⁸. The iron object, consisting of articulated rods, found in complex 43a (a household refuse pit) might have been, according to Radu Harhoiu, part of the structure of a scales (Pl. 6/10)¹⁹. Other categories of inventories are represented by a glass bead (complex 27), a button (complex 27), a key (complex 34), and loom weights (complexes 11 and 66) (Pl. 4/1)²⁰. Animal bones²¹ were also identified in some complexes, but they have not been analyzed archaeo-zoologically.

On the basis of the on-site distribution of the complexes, one cannot talk of a systematic structuring of the settlement, as this is determined by the small size of the surface that has been researched archaeologically. As one can see, these complexes were identified over the surfaces labeled T1 and T2, while on T3, located in the westernmost part of the excavation, only a single household refuse

contrary, the coin hoard in tomb 28B represents the last period of use of the necropolis, dated to the end of the twelfth century or the beginning of the subsequent century, Harhoiu–Gáll 2014, 193–256.

¹¹ Harhoiu–Gáll 2014, 231.

¹² On the open-air ovens in Szer, also divided in two groups: made of burnt clay and with a stone structure, see: Vályi 1989–1990, 135–157.

¹³ As Miklós Takács has convincingly argued, the hearths inside the stone and clay dwellings cannot be chronologically separated, an idea erroneously perpetuated in Hungarian archaeological works. Takács 1993, 21.

¹⁴ The cooling of the climate can be dated to the final part of the thirteenth century, especially in the northern European area, in Greenland and Island. Vadas–Kiss 2009, 242–243.

¹⁵ On the basis of literary sources on the climate during the twelfth and thirteenth centuries, one nevertheless knows of cases of harsh winters, with very low temperatures. Thus, Byzantine sources of 1125–1126 mention the fact that very low temperatures had been recorded that year in the southern regions of the Hungarian Kingdom, just like in the Czech Lands and in Moravia. Kiss 2000, 259.

¹⁶ On these shapes, see Takács 1993, 17–18, Fig. 1.

¹⁷ Harhoiu–Baltag 2006–2007, Vol. I: Fig. 677. The spurs from the complex 7b (type B/2) and 27 (type B/3) have been dated from the first half of the 12th century to the middle part of the 13th century (type B/2), respectively from the second half of the 12th century to the middle part of the 13th century. Ruttkay 1976, 349–350, Abb. 72.

¹⁸ Harhoiu–Baltag 2006–2007, Vol. II: 94.

¹⁹ Harhoiu–Baltag 2006–2007, Vol. II: 53, Pl. 94/4.

²⁰ Harhoiu–Baltag 2006–2007, Vol. I: Fig. 680, 682, Vol. II: 20–21, 42–43, 47, 74, Pl. 31/11, Pl. 74/8, Pl. 153/11.

²¹ Harhoiu–Baltag 2006–2007, Vol. I: 94.

pit has been discovered: complex 127 (containing pottery fragments and animal bones). This means that the settlement did not extend to the western part or, in any case, not too much. On the contrary, the westwards hypothetical extension of the settlement is very probable, but only new archaeological excavations could verify it.

As for the other part of the site on "Dealul Viilor", much better data is available on the settlement's structure. As one can see on the ground plan of the spot "Necropolă", aspects revealing the habitat during the twelfth century are known from 10 complexes: pit-houses (3 or 4), household refuse pits (3), ovens (2)²². As indicated on the ground plan of the excavation, five dwellings have been identified on the second terrace, above the necropolis; they are in fact built in a line, following the edge of the terrace. Besides them, one can also mention a large pit²³ discovered between dwellings 377 and 381 that might have been, in my opinion, a cellar²⁴. The oven recorded under no. 365 was either an open-air oven. Unfortunately, due to lack of funding, the excavation was not extended eastwards, along the line of the terrace. Nevertheless, on the basis of the results reached there, related to the structure of the settlement during the twelfth century, one can say that the dwelling remains indicate the existence of a street network, or at least the idea of such a system, with an east-west axis (maybe according to the position of the church?). One must mention the fact that during the Middle Ages, the roads were always built according to the churches²⁵; the distribution of the houses that followed the axis of the road can thus always be associated to a hypothetical church. New excavations should be performed to the north-east and the south-west, so that our observations could go beyond the stage of hypotheses and be scientifically demonstrated (Pl. 3).

In connection with the two agglomerations of habitat structures, one should wonder if they belonged to a compact, ample settlement or, as István Méri noted some 60 years ago, they were dispersed, un-systematized, and the houses organized in groups²⁶, but the settlement complexes were 'skewed' in only a few locations²⁷. Méri's observations were somehow confirmed by recent excavations, though not fully²⁸. Thus, over the last period, habitat patterns indicate a more diverse picture. Settlements extending over several hectares have been identified in Hajdúdorog²⁹ and Attila Türk made similar observations in case of the area around the city of Szentes³⁰. By contrast, while excavating for the future highway around Budapest, Ákos Tibor Rácz was able to observe that the huts were organized in nests, with ca. 100/200 m among them³¹. He was also able to observe that in Gyál-site 3a, the huts were built close to each other³², a situation very similar to the one encountered in Sighișoara – "Dealul Viilor", on the spot of "Necropolă"³³. According to the archaeologist from Budapest mentioned above, the frequent traces of habitation along the route of the M0 highway can be connected to the periodic move / swarming of these villages from one place to another.

In a recently published article, Rácz expressed his opinion on the development of habitat structures between the tenth and the fourteenth century in the Carpathian Basin, according to three chronological groups: those of the tenth century, those of the eleventh and twelfth centuries, and those of the thirteenth century respectively³⁴. According to him, the existence of regular structures of habitat, property, and maybe traces of streets can only be discussed for the latter period³⁵. Accepting

²² Harhoiu-Gáll 2014, 196.

²³ The complex descends, vertically, to the depth of 2.5 m, where it forms a step, and then it deepens in the living soil down to the depth of 4 m. When identified, the pit measured 5 × 5 m. At the base, the pit measured 2.50 m in diameter. Harhoiu-Gáll 2014, 196.

²⁴ See an analogy in: Rácz 2013, 45.

²⁵ Stibrányi 2008, 189–196; DUBY 1984, 45–47.

²⁶ Méri 1952, 49–67.

²⁷ Méri 1963, 273–281.

²⁸ Their synthetic analysis in the Carpathian Basin: Takács 2010, 1–67.

²⁹ Fodor 2005, 201.

³⁰ Türk 2005, 213.

³¹ Rácz 2010, 71.

³² Rácz 2010, 71.

³³ Harhoiu-Gáll 2014, 231.

³⁴ Though he did not explain how one can interpret some situations in which exhaustively uncovered necropolises indicate communities just as numerous during the tenth and the eleventh century, as in the case of the necropolises in Ibrány-Esbóhalom, Püspökladány-Eperjesvölgy and Sárrétudvari-Hizóföld. Istvánovits 2003, 67–120; M. Nepper 2002, 128–389.

³⁵ Rácz 2013, 42.

Rácz's suggestion, the habitat structures uncovered on the site "Necropolă" should be dated to the thirteenth century, which is in total contradiction to both the archaeological material recovered from the complexes under discussion and to the existence of the cemetery dated to the twelfth century. One can ask: is it mandatory to create rigid stages, generalizing according to macro-regions, in a Darwinian style³⁶, certain aspects that rather belong to micro-regional issues and/or event or local communities (the organization of the micro-community)?



Fig. 3. Archaeological sites along the route of highway no. 0 near Budapest (after Rácz 2010, 1. ábra).

Returning to the situation in Sighișoara, at this stage of research one cannot decide if, indeed, the community/communities on "Dealul Viilor" lived in an extended settlement or in distinct settlements, structured according to clusters located some distance apart.

At the same time, compared to the number of skeletons in the necropolis, it is clear that the entire population interred in the cemetery on the site "Necropolă" did not inhabit just the twelve researched pit-houses. The settlement must have extended over a much wider area or the inhabitants of a much wider area (from several settlements) were interred in the necropolis. In order to clarify the point, field researches should be conducted in the area between the two spots ("Așezare" and "Necropolă"). They should indicate if the terrace was used for habitation or if these habitat structures were grouped in clusters. At the same time, field walks should also be extended in the area of "Dealul Viilor", towards Reisellbach Creek. Taking into consideration the geo-morphological traits of the area, I tend to think that the hill's terraces were used for habitation over its entire eastern extent, towards Reisellbach Creek. Naturally, these hypotheses might only be confirmed by future research.

Despite the fact that one does not know to what extent some pieces of information can be relevant for the micro-region of Sighișoara – "Dealul Viilor"³⁷, a certain picture of the demographic situation in a certain micro-region can be provided by the first source on the monastery in Tihany

³⁶ For a criticism of Darwinism, see: Kuhn 2006.

³⁷ One must mention the fact that the settlement is not fully researched even after one century of field investigations. The extent of these settlements and the number of houses must have been extremely varied. The largest excavation was performed in the settlement of Bratei, but it also just partially uncovered, revealing 31 pit-houses, 18 household annexes, 3 household ovens, one pottery kiln, one tool deposit, and 112 pits with diverse functions. For various reasons, the use of 11 complexes could not be identified. Ioniță 2009, 11–21.

(1055), that mentions that the settlement around the monastery housed 139 people who were servants of the edifice (for example 60 servants [*mansio*, *mansus*], 20 cavalry servants, 10 fishermen, etc.)³⁸.

Ștefan I's law from the beginning of the eleventh century according to which ten villages had to build one church indicates a low demographic situation, with small villages that one can only label as villages from a technical perspective³⁹. There was nevertheless a demographic growth until the twelfth century, both through the growth of the population and through new immigrants from the territory of the Hungarian Kingdom. This demographic situation is perfectly presented by the better excavated sites.

As long as the extent and size (both geographic and demographic) of the settlement remain unknown, one can only discuss hypotheses on the status of this/these community/communities. In case of the analysis of the settlement pertaining to the necropolis, one must nevertheless mention that, as in the case of other abandoned settlements, the main problem is the selection of the object that the inhabitants performed before leaving. The settlement was not abandoned due to an outer aggression, so that the inhabitants took with them the military equipment that was highly valued during that time (especially the swords). Therefore, this outer source is also very problematic. After repertorying the inventory discovered inside the twelfth-century settlement I was only able to detect weapons or horse tack elements in three cases: the tip of a sword (?) and two spurs⁴⁰, besides a large quantity of pottery. Two arrowheads were also discovered as isolated finds, but they probably also belong to the twelfth-century chronological horizon.

To all these archaeological indications one can add certain anthropological observations from the necropolis⁴¹. Thus, skeletons in tombs 94 and 151, located on the edge of the northern area, lack the skull⁴². The skull in tomb 45 displays traces of a wound that healed before the time of death, thus also indicating the violent activities of some of the community's members⁴³. This can also indicate military occupations or aggressive conflicts in which some of the community members were involved.

The discarded items discovered inside the great pit that I have interpreted as a sort of cellar clearly indicate the existence of local pottery production and the loom weights are connected to weaving-related activities. If the iron item might be identified with one of the elements in the iron-made structure of scales it were proof of a polyfunctional, stratified society and proof of commerce in Târnave Valley.

The topographical location of the settlement and of the necropolis might explain some aspects related to the status and role of the community near Târnava Mare. Even if the narrative sources of the era do not provide conclusive data, the settlement might have functioned as a customs point in the transportation of salt towards the west. One argument supporting this hypothesis might be the hoard in Sânpaul-Bélabánvára, with coins issued by Ladislas I (1077–1095), Coloman I the Book-lover (1095–1116) and Béla II (1131–1141)⁴⁴.

The absence of chemical analyses of the bones deprives us of essential data on the lifestyle and diet of the community in Sighișoara – "Dealul Viilor", though experts believe that animal husbandry was the most important activity until the fourteenth century⁴⁵. The careful analysis of the surrounding landscape of the settlement and necropolis on "Dealul Viilor", the wide area and the proximity of water sources, makes one presume that the husbandry of large animals by the community on "Dealul

³⁸ *Írott Források* 1050–1116, 22–23.

³⁹ The laws issued by Ștefan I include significant data on the strictly hierarchical character of the houses. Thus, *curtis* identified the residence of the elite, a sort of manor house. There does not seem to be any clear difference between *domus* and *mansio*, while the lowest place in the hierarchy was held by *mansiuncula*. ÁKÍF 1999.

⁴⁰ Harhoiu–Baltag 2006–2007, Vol. I: 17, 43, 94, Vol. II: Pl. 26/5, pl. 73/10, Pl. 183/9.

⁴¹ As institutionalized Christianity spread, the archaeological indications of the settlements' status in general and the status of their members in particular disappear (or at least their image of life and hierarchy in the afterworld). By comparison to the Christian centuries, for example, on the basis of funerary rituals, of anthropologic analysis, and of the structure of the inventory, I suggested the existence in Cluj of some military communities during the 'pagan' tenth century. Gáll 2013b, 461–481; Gáll 2013c, 826–831, 911–915.

⁴² Harhoiu–Gáll 2014, 224.

⁴³ Harhoiu–Gáll 2014, 224.

⁴⁴ Orbán 1868, 166; Kanozsay–Banner 1964, 21–23; Kovács 1997, Tab. 83. a–b.

⁴⁵ Kordé 1991, 22, footnote 132.

Viilor⁴⁶ was essentially determined also by climate evolution⁴⁷. To this end, the archaeo-zoological analysis of the bone material recovered during the archaeological research of the complexes dated to the twelfth century would have been very important.

Comparing the settlement in Sighișoara to the well-researched one from Bratei⁴⁸, one clearly notes the difference between them in the quantity of archaeological inventories, that can be interpreted (besides a hypothetical difference in status between the two communities) through the manner in which they were abandoned. Thus, unlike in Bratei, the settlement in Sighișoara was very probably abandoned intentionally, as nothing indicates that the inhabitants left in a hurry; instead, they took with them everything precious. The settlement in Bratei must have been abandoned rapidly⁴⁹, in a great hurry, since the inventory contained a variety of categories of valuable items: earrings, arrowheads, horse tack items, spurs, tools and utensils, sickles, knives, chisels, tongs, flint steels, bone perforator, whetstones, spindle weight, chain with two fasteners, plowshare, hub, pickaxe, hatchet, coulter, door iron fittings, coins, animal bones and an impressive quantity of pottery⁵⁰. Another thing worth mentioning is, after performing a statistical analysis of the categories of items, the contradiction between the quantity of weapons and that of horse tack items discovered in the different complexes of the settlement. Thus, there were just two arrowheads preserved⁵¹ and 12 spurs in eight complexes, which is a record of harness items found in the Transylvanian Basin⁵². This richness of the inventory can be explained through the context in which the settlement was abandoned, with the inhabitants taking the weapons in a rush and leaving those categories of objects they could not use in a military conflict.

On the basis of all these data recovered from the necropolis and the settlement(s), namely pottery, weapons, one iron element from scales (?), harness elements, traces on the skeletons inside tombs 45 and 76, and the skeletons without skulls in tombs 94 and 151⁵³, the topography of the place and the area surrounding the site, one can presume the existence of a social polyfunctionality in the settlement, as well as the social-economical variety of the community in “Dealul Viilor”, which was a settlement that the inhabitants abandoned intentionally towards the end of the twelfth century or the beginning of the thirteenth century⁵⁴.

The settlements on “Dealul Viilor” and contemporary discoveries in the micro-region of Sighișoara

On the basis of the available material, the necropolis and the settlement parts can probably be dated to/from the end of the twelfth century until the beginning of the reign of Béla III or the beginning of the thirteenth century. In the micro-region, one earth-and-timber fortification must have been contemporary to the necropolis and settlement on “Dealul Viilor”, i.e. the royal fortification that controlled the gorge and the roads that crossed there⁵⁵. According to Gheorghe Baltag’s supposition, the timber fortification must have been located on top of the present-day School Hill, as it enjoys

⁴⁶ The analysis of the zoo-archaeological material from the contemporary settlement in Bratei is very important to this; it revealed the following species: bovine 54% (*Bos Taurus* 331 bones), ovicaprine 19.1% (*Ovis aries/ Capra hircus* 117 bones), swine 18% (*Sus scrofa domesticus* 110 bones), equidae 6.2% (*Equus caballus* 38 bones), canidae 0.6% (*Canis familiaris* 4 bones), domestic fowl 0.4% (*Gallus domesticus* 3 bones), goose 0.1% (*Anser domesticus* 1 bone), hare 1% (*Lepus europaeus* 6 bones), deer 0.1% (*Cervus elaphus* 1 bone), mollusk 0.1% (1 shell). Ioniță 2009, 43, Pl. 274. Márta Daróczi-Szabó’s archaeo-zoological analyses performed on more than 400 bones from 13 Arpadian settlements revealed similar percentages. Daróczi-Szabó 2008, 99–101. The future results of the analysis of the bones from Kána will be interesting, as the lot includes more than 15000 bones collected from the territory of the village that extended over 16 hectares.

⁴⁷ Unfortunately, data on climate evolution and thus on the surrounding environment make exclusive reference to plain areas, i.e. the northern and north-western regions of the Hungarian Kingdom during the eleventh and twelfth centuries. See Kiss 2000, 249–263.

⁴⁸ Unfortunately Adrian Ioniță was able to publish without its ground plan. Ioniță 2009.

⁴⁹ Budapest-Kána, a settlement from the 12–13th centuries was likewise evaluated. Terei 2010, 81–112.

⁵⁰ Ioniță 2009, 23–46.

⁵¹ Ioniță 2009, 35, Pl. 12, Pl. 251.

⁵² The complete absence of saddle stirrups is to be noted. Ioniță 2009, 35–36, Pl. 16, Pl. 130, Pl. 147, Pl. 186, Pl. 192.

⁵³ Harhoiu–Gáll 2014, 224.

⁵⁴ Harhoiu–Gáll 2014, 219–222.

⁵⁵ Baltag 2004, 24.

special strategic value⁵⁶. Still, the connected settlement could not be identified to the present stage of research, but I cannot agree to the above mentioned archaeologist from Sighișoara who believes that in the absence of a settlement identified in the area of the fortification, the settlement on “Dealul Viilor” was “the Szekler village of the early fortification”⁵⁷. The great distance between the fortification in Sighișoara and the settlement on “Dealul Viilor” (3.7 km) clearly proves that, from a strategic perspective, the fortification was useless. The archaeological examples from other micro-regions, for example the area of Cluj-Napoca or Dăbâca⁵⁸, indicate that settlement networks developed around early medieval power centers, closer or farther from the power center nucleus. It is for future research to identify, if possible, the early fortification (*Segesvár*) after which the future Saxon city took its name, Schässburg (Sighișoara)⁵⁹. Gh. Baltag’s observations on “the human activity on School Hill top” during the twelfth-thirteenth century could be indications of this⁶⁰. Thus, as he noticed, ample leveling works of the plateau were performed prior to the construction of the large-size church on top of School Hill. Remains of an older wall were found on the hill’s northern slope. Even if the earth-and-timber fortification has not been identified yet, the earliest tombs discovered at “Biserica din Deal”, together with the church, indicate the twelfth century⁶¹, and were thus contemporary to the settlement and the necropolis on “Dealul Viilor”. According to Daniela Marcu-Istrate, the first church was round and it was in use when the first burials were performed in tombs with cephalic niche (anthropomorphic graves) – (Pl. 9/1).

Tomb 4, with cephalic niche, discovered at “Biserica Mănăstirii”, was used during the same chronological interval, though the author of the excavation, i.e. Angel Istrate, dated it later, during the thirteenth century, connecting it to the Tatar invasion⁶². Daniela Marcu-Istrate and Angel Istrate’s observations on the research of these sites will be very important in the clarification of the issue. It remains doubtful whether these two sites can be dated to the same time period or the graves excavated by Anghel Istrate belong to a site dating from a later period.

Unfortunately, the archaeological material from the courtyard of Vlad Dracul’s House (Piața Muzeului no. 5) have not been published either, though they have been performed in 1976. Gheorghe Baltag dated the pottery recorded from the site during the thirteenth century, but provided no argument in support of it⁶³. However, in the History Museum of Sighișoara I have been found a spur from the courtyard of Vlad Dracul’s House⁶⁴, which can we include in the type B/3 of Ruttkay’s typology⁶⁵. The analogy of the spur is known from the site in “Dealul Viilor – “Așezare” complex 27 and has been dated from the second half of the 12th century to the middle part of the 13th century⁶⁶.

One coin issued by Béla III (1172–1196) (*Huszár no. 72*)⁶⁷ can be dated to the same period; it was recovered from S. Roth’s courtyard⁶⁸.

From a topographic perspective, the tomb (?) discovered on the place of the former municipal stadium⁶⁹ was close to the site in “Dealul Viilor”, ca. 2 km away westwards; probably on the basis of the sword discovered inside it, the tomb was attributed to a Germanic/Saxon⁷⁰. Unfortunately, the lack of a context prevents us from forming a clearer picture of this possible funerary site, i.e. one does not know if there were one or more tombs. The sword with an *H pommel*⁷¹, according to Karl Zeno Pinter, can be dated to the middle of the thirteenth century⁷², i.e. the funerary horizon that succeeded the

⁵⁶ Baltag 2004, 24.

⁵⁷ Baltag 2004, 24.

⁵⁸ Gáll *et al.* 2010, Pl. 1; Gáll-Laczkó 2013, Pl. 14.

⁵⁹ Baltag abstracted the different theories regarding the name of the city; see Baltag 2004, 24–27.

⁶⁰ Baltag 1979, 92–93, Pl. LIV–LV; Baltag 2004, 27.

⁶¹ Marcu 2000, 96.

⁶² Istrate 2006, 328–329.

⁶³ Baltag 1979, 24.

⁶⁴ History Museum of Sighișoara, Inv. no. 10125.

⁶⁵ Ruttkay 1976, 349–350, Abb. 72.

⁶⁶ Ruttkay 1976, 350.

⁶⁷ Huszár 1979, 40.

⁶⁸ It would be interesting to identify this plot on site. Sabău 1958, 293/39.

⁶⁹ History Museum of Sighișoara, Inv. no. 2485.

⁷⁰ Pinter 2007, 37.

⁷¹ Oakeshott 1997, 95.

⁷² Pinter 2007, 92–93.

chronological horizon of the necropolis in “Dealul Viilor” might be connected either to some representatives of the Germanic population that the king settled there⁷³ or, in my opinion, to some individual part of the pagan population on the existence of which around Sighișoara, nevertheless, the narrative sources are silent⁷⁴.



Fig. 4. Sighișoara-Municipal Stadium (1957) (photo by D. Spânu).

There was discovered an axe on the territory of the town, which we can date back, probably to the 13–14th (or 15th) centuries, unfortunately we do not know exactly the place of discovery⁷⁵.

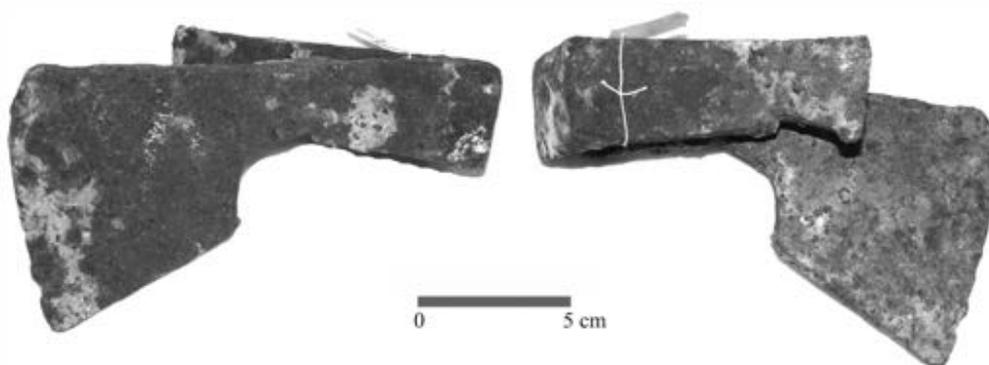


Fig. 5. Sighișoara-stray find on the territory of the town (unpublished) (photo by D. Spânu).

Unfortunately, in the case of the coins identified in the Sighișoara Museum (from the time of Andrew I to the 13th century) we have no clues as to where they were found. It is most unfortunate that there is no evidence whether the coins minted during the reigns of Andrew I and Ladislaus I were found near Sighișoara or elsewhere⁷⁶.

⁷³ Pinter 2007, 37.

⁷⁴ Western European weapons are also known from the graves of Cumans who have moved to Hungarian Kingdom, and this makes me note that one should not, mechanically (maybe neither otherwise) equate *material culture* elements to *ethnic identity*. Pálóczi Horváth 1994, 143; Gulyás–Gallina 2014.

⁷⁵ History Museum of Sighișoara. Inv. no. P53/10297.

⁷⁶ In the Sighișoara Museum the following coins were identified by us: Andrew I (1046–1060): *Huszár* (later *H*): no. 9 (Inv. no. N. I./7921); Béla II (1131–1141): *H50* (N. I. 7922); *Brakteates* (Béla III or Béla IV): *H191* (N. I. 7923 and 7925) and *H200* (N. I. 7924); Andrew II (1205–1235): *H266* (N. I. 7926); Béla IV (1235–1270): *H306* (N. I. 7929); *H320* (N. I.

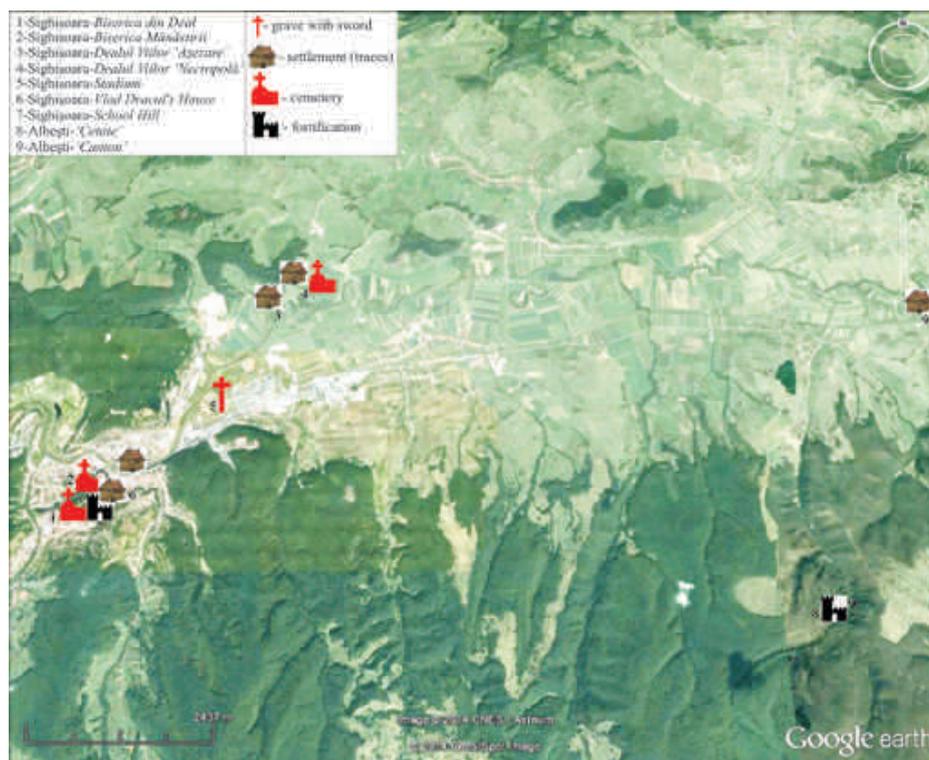


Fig. 6. Archaeological discoveries in the area of Sighișoara dated to the twelfth and thirteenth centuries (original map taken from Google Earth; drawn by E. Gáll).

In my opinion, the un-researched fortification in Albeștimight belong to this period. Gh. Baltagdated it to the Early Middle Ages just on the basis of the pottery recovered from the territory of the fortification and on the basis of the pottery recovered from the settlement located at the foot of the hill, though he was unable to perform any excavation. It is very important to note that there is no archaeological indication of the existence of earth-and-timber fortifications during the Migration Era, i.e. during the Early Middle Ages, until the eleventh century. All of these errors are connected to Kurt Horedt’s error of interpretation in relation to Morești⁷⁷. The fortification in Albești – “Valea Șapartocului” (one cannot exclude the fact that it might also be a prehistoric earthen fortification) is, according to its shape, rather a medieval fortification, from the twelfth-fourteenth century. New archaeological excavations are needed in order to clarify this issue (Pl. 9/2).

According to Gh. Baltag’s observations, the existence of a settlement in Albești-“Canton” is not excluded and it might include a twelfth-century stage.

All these data are significant from several perspectives:

1. They prove the fact that several funerary areas existed in the area, used during the twelfth and thirteenth centuries (“Dealul Viilor”, “Biserica Mănăstirii”, “Biserica din Deal”),and of several communities, respectively, the clarification and more detailed comparative analysis of which will only be possible after the publication of the sites researched by Daniela Marcu Istrateand Angel Istrate;

2. The tomb that contained as inventory a sword and a vessel represents, in my opinion, an obviously pagan funerary expression, in agreement with data from the medieval narrative sources collected by Gyula Kristó⁷⁸ that mention, several times, “pagan” tombs at the borders between settlements⁷⁹.

3. If it will be proven that the fortification in Albești belongs to the twelfth century, it were evidence of the fact that there was a privatecastlebesides the royal one, confirming the supposed existence of lay properties mentioned in existing records.

7927); H336 (N. I. 7928); Stephen V (1270–1272): H343 (N. I. 7930); H351 (N. I. 7932); H357 (N. I. 7931); Andrew III (1290–1301): H410 (N. I. 7934); H420 (N. I. 7933). Huszár 1979, 32, 38, 53, 60, 64, 65, 66, 67, 68, 73, 74. The coins were published by Chirilă–Gudea–Moldovan1972, 79, Pl. VIII–XII.

⁷⁷ Horedt 1979, 81–88.

⁷⁸ Kristó 1981, 21–23.

⁷⁹ “Pagan tombs” are mentioned twice, for example, in Béla II’s fake document of 1138. Kristó 1981, 23.

At the current state of research, there is no evidence of a very possible contact between the Magyar-speaking population and the Germanic population settled there by the king. And if such contacts existed, what did they actually consist of? Could there have been a mix or maybe just cultural influences between these populations⁸⁰? Local conflicts? Commercial contacts? Which are the scientific means of identifying such contexts (if they existed)? In any way, the settling here of the Germanic population did not necessarily and unequivocally mean that the previous population moved elsewhere. The example of the Szeklers from *Keisd*⁸¹ is also illustrative of this, as they moved there from a settlement located 13 km away from Sighișoara, in the valley of River Keisd. This example also shows us that it is not excluded that at least during a first stage, these communities coexisted in the same geographical area, and one must not presume, automatically, that the Magyar-speaking populations were colonized eastwards, especially since the example of the community in Saschiz, settled later in the Turda–Arieș region, proves precisely the opposite direction (from the east towards the west) of colonization⁸².

On the other hand, a simple, dual separation Saxons-Szeklers of an archaeological material that is rather opaque to ‘ethnic’ interpretations (in general secondary big group⁸³), as traditional archaeological literature used to contain, represents in fact:

- a. an abuse towards data provided by archaeology⁸⁴;
- b. the transfer of fourteenth–sixteenth century realities of Szekler and Saxon states, already formed since another period, socially and ethnically more fluid, i.e. that of the twelfth–first half of the thirteenth century.

The image of the written sources stresses the existence of a royal fortification (*castrum Sex*⁸⁵) during the twelfth century in Sighișoara and this presumes the existence in the area of a habitat, dense from a medieval perspective: royal properties, fortification districts, but also communities of servants who took care of the royal properties or of the lay private properties, in other words the existence of much more complex social and economic realities, of a stratified society, according to the medieval sense of the term.

At the same time, there is no narrative source available for the social realities and the development of properties in the area of Sighișoara. The micro-region in question belonged to the wide territory of the county of *Fehér/Alba*. Due to the imprecision of the narrative sources, the existence of the different types of properties known from the Hungarian Kingdom (royal properties, fortification districts, communities of servants who took care of the royal properties, lay private properties), but also of population conglomerates⁸⁶ on its territory, one cannot form a clear opinion on the status and group identity, born of its statute, of the community on “Dealul Viilor”. I have to mention that besides the Szekler military garrisons⁸⁷ one also knows of large lay and ecclesiastic properties

⁸⁰ The burnt log houses, built in the so-called *Fachwerk* style and a *Grappe* bronze vessel, discovered in Cristuru Secuiesc are interesting and relevant for this. In this case (as well), one can wonder if these archaeological discoveries indicate adoptions of elements from the German cultural milieu or the presence of a Germanic population in Cristuru Secuiesc. Radiocarbon analyses have dated these complexes between 1150 and 1250. Benkő 1992, 28, 166–171; Benkő 2010, 233. Undoubtedly, the contacts between the communities in *Terra Siculorum* and *Terra Saxorum* were much more complex and varied, thus, in my opinion it is a mistake to interpret the archaeological record too rigidly, i.e. *Germans* or *Szeklers*, because in the second half of the 12th century the communities of *hospes* were not endogamous groups!

⁸¹ Niedermaier 1979, 68.

⁸² Niedermaier 1979, 68; Benkő 2012, 156.

⁸³ For example: Cooley 1909; Bodnár 2006, 179–200.

⁸⁴ On this issue, see also: Brather 2004, 517–567.

⁸⁵ Baltag 2004, 25.

⁸⁶ One must mention the toponym *Drăușeni*, that is, in Hungarian, *Darócz*, indicating the occupation connected to certain stages of the hunt, for example the skinning of hunted animals. In connection to the name *Darócz*, G. Heckenast noted that it represented the populations that served the king and was typical especially to the twelfth century: Heckenast 1970, 26–27. North-east from Sighișoara one reaches Șoimușu Mic and Șoimușu Mare, with toponyms also connected to hunting. On the connection between the names of settlements and Arpadian-Era occupations, see: Heckenast 1970. On settlement names during the Arpadian Era, see: Kristó *et al.* 1973–1974, 26–27; Kristó 2005, 117–133.

⁸⁷ In the case of the Szeklers, the duties and military privileges determined the formation of a group that had, at the base of its identity, the military function, obtaining privileges of self-organization during the Middle Ages and that, during the twelfth century, featured in narrative sources under different forms (Kordé 1994, 623). Two main trends have been created on the issue of the origin of this population, currently called *Szeklers*: 1. Population of Magyar origin (E. Mályusz, L. Benkő, I. Bóna, J. Balázs); 2. Auxiliary, military population of Turkic origin (Gy. Györffy, Gy. Kristó, I. Fodor, L. Makkai) (Kordé 1994, 624). Without going into details on the origin of these two theses, I nevertheless need to remark that the

Turkic thesis is strongly based on the *retrospective* tendency (this type of analysis relies on the eighteenth-century evolutionist philosophy, namely on Charles Darwin's theory, about this question, see: Kuhn 2006) in research, predominant in the Eastern-European historiographies and archaeologies, while the other mostly relies on linguistic, archaeological, ethnographic, and toponymic analyses. It is nevertheless certain that the Szeklers, as a distinct (military) group, as self-standing entity, first feature in the narrative sources during the first half of the twelfth century (1116), but their character is insufficiently clearly stated. During a time when the old forms of social organization were compromised, i.e. destroyed, new, secondary social groups emerged, that gained in importance and prestige on the scale of social and military organization. The political and military history of the Hungarian Kingdom during the eleventh century (on the history of the eleventh century, see Kristó 1999; Kristó 2003) brought about the disappearance of the old forms of social organization and of the old, 'pagan' values, and the creation of new social forms, but also the imposition, by the central power, of a new set of values, foreign, and eventually antagonistic to the previous ones. This historical context, determined by inner and external wars (during the eleventh century, for example, there were numerous military conflicts between the Hungarian Kingdom and the Roman-German Empire: 1030, 1041–1044, 1051–1052, 1060), led to and determined the onset of new social and military forms that, on the one hand managed to preserve some of the old organizational structures, and on the other hand, through the obtaining of new privileges, created a group with a special social identity, based on the function and prestige of the military identity, originating in Western European, namely Frankish forms of organization. In my opinion, the onset and coagulation of the new entity with precise military and political role took place during the eleventh century. The result of this social and institutional-political process can be glimpsed at in the 1116 written source that includes the first mention of the group as a new political and military entity. The fact that the Szeklers do not feature in the sources of the previous century can be explained through the fact that they did not exist yet back then as a social and military-political entity. I must also mention the fact that the *nobility* was also formed during the eleventh century as a new social entity of the Western European type (numerous Western European knights were included in the noble elite formed during the eleventh century) that was, during the Hungarian Middle Ages, also a *nation*. This observation of mine is also supported by a negative argument: different ethnic groups are mentioned in the sources over the territory of the kingdom during the eleventh century (ethnicities, though the term is hard to use for the Hungarian Middle Ages) that settled in the kingdom, among which the Pechenegs or the German and Italian guests. The Pechenegs are first mentioned as part of the kingdom's military structure in the army of King Andrew I (1046–1060), namely during the war against Henry III at the western borders of the kingdom (1044). In this equation it has no relevance and one cannot even establish the kind of origins (biological, cultural) of the members of the micro-communities belonging to this social-military-political layer and the constant idea of where they came from. In order to understand the Szekler phenomenon one must not seek to find where they came from, but when they were organized and by whom. At the same time, the specific peculiarities of the different groups of Szeklers are attested both by linguistic data and toponyms that in their turn support a social-military-political construction of the kingdom during the eleventh century. Linguistic analyses have stresses, on the one hand the fact that the inhabitants of the present-day Szekler Land speak different forms of Hungarian, and on the other hand the total absence of elements from a "Turkic" language (Kristó 1996, 66–68; Benkő 1990, 114–116). At the same time, both the analysis of toponyms and that of the written sources have identified traces of some communities of Szeklers in various parts of the Carpathian Basin, a fact that stresses again the diversity of origin of the individuals who formed this social-military layer.

On the basis of these data I believe that the 'birth' of Szekler identity relied on an institutional process (political and military), organically connected to social causes of the eleventh century. The formation and evolution of the Szekler entity, from a social group to one of the medieval nations can no doubt be explained on the basis of gradually obtained rights; along this idea, after their settlement in the Szekler Land, *territoriality* and *autonomy*, in medieval terms, of course, were important factors.

If during the eleventh century one can speak of the birth of this entity, another issue is the Szekler genesis on the territory of the present-day Szekler Land. At the same time, one must state that Szekler ethnogenesis (like other ethnogeneses) must not be and should not be, in fact, researched mainly from a biological perspective, but foremost from an institutional and sociological perspective; biological analysis must only play an additional role.

In my opinion, the "birth" of the *Szekler entity on the territory of the Terra Siculorum*, i.e. in the upper basins of rivers Mureș, Târnavaș, and Olt is the result of an institutional development, while in the organization of the Szekler communities in the seats, besides the socially and militarily privileged group settled by the royalty, the groups of Slavic-speaking population played a role, as revealed by the large number of Slavic toponyms in the area of the Three Seats and Giurgeului Basin, but also groups of 'Hungarians' (Rác 2003, 10) arrived previously and subsequently the settlement of these groups on the territory of eastern Transylvania. I must mention that one cannot exclude smaller Germanic, Slavic and Vlachs (Romanians) groups. In conclusion, the Szekler medieval political entity, with a significant role in the military structure of the kingdom (its eastern and south-eastern policy), was 'born' in the area we call today the Szekler Land. Political organization was born in these areas starting from the privileges granted by the kings and expressed through the institutional organization into *seats*.

The determinant factors of this institutional development were: the *royalty*, as the central power, with a special interest in the existence and survival of a professional light cavalry (besides the implementation of the heavy cavalry, of the Western European type) and the *elites of that military layer* that managed to support and develop the military privileges, the result being the onset of the medieval institutional structure called *seat*, and the *Szekler medieval nation* respectively, led by their comes who was directly subordinated not to the voivode but to the king. It is the Western European-type of Transylvanian medieval reality, but with oriental roots of the military and social structures. András Sófalvi's words are suggestive for this: "Terra Siculorum made the Szekler a Szekler". Sófalvi 2003, 41.

in the area, to which the king had donated significant domains along River Târnava Mare⁸⁸. During the above mentioned period, in eastern and south-eastern Transylvania one can already speak of a dense network of settlements that is a clear indication of the fact that the territories were not only conquered, but also institutionally organized by the Hungarian kings.

After mapping all old and new discoveries, that I have attempted here, future research will have to go further and identify the different types of early power centers (royal, ecclesiastic, lay) that were responsible for organizing the networks of settlements, commercial networks, colonization actions, etc. Through the efforts, mainly those of the last years, a significant number of archaeological sites, of various categories (fortification, church, cemetery around the church, settlement, hoard) I was able to document a dense network of habitation during the 12th, mainly from the second half of this century, mainly the churchyards⁸⁹ in Avrămești, Brădești, Chilieni, Cristuru Secuiesc, Drăușeni, Feldioara, Mugeni, Odorheiu Secuiesc – “Szentimre”, Peteni, Petriceni, Reci, Ulieș, Viscri, Zăbala. Based on the finds and mainly the coins dating these sites, I recommend the following chronological system:



Fig. 7. Chronological table of churchyards from East and South-East Transylvania Transylvania (12–13th centuries).

Starting with the 12th century we can date the manorial, motte-type constructions in Băile Tușnad – “Vártető” (12–15th centuries), Ocland (12–13th centuries), Racoșu de Jos-Rika (12–13th centuries), Racu (Ciuc) – “Pogányvár” (12–13/14th centuries); royal fortifications like the one in Hărman (12–13th centuries), Odorheiu Secuiesc – “Budvár” (12–15th centuries), Ungra (12–13th centuries) or Praid – “Rapsonné” (12/13th–14th centuries). Based on the data provided by András Sófalvi⁹⁰ we can draw the following chronological system:

⁸⁸ Two lay and one ecclesiastic domain are known: Baltag 2004, 21–22.

⁸⁹ The churchyards from Forțeni, Jacodu, Merești, Satu Mare and Sâncrăieni have been dated from the 13th century.

⁹⁰ Sófalvi 2011, Tab. 1.

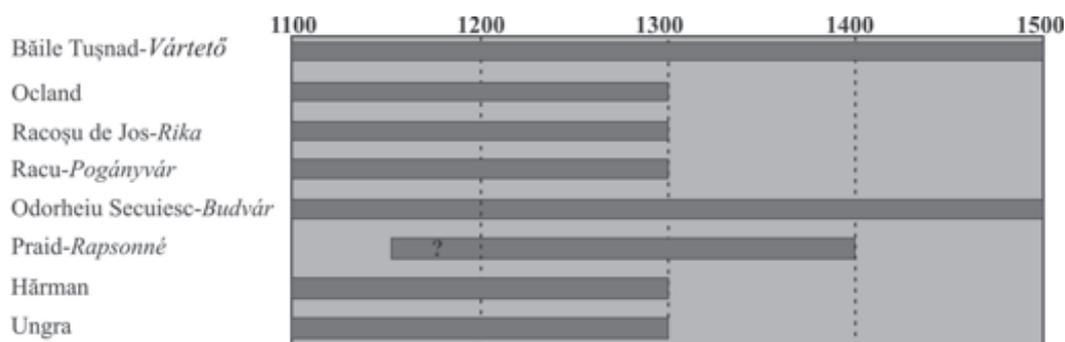


Fig. 8. Chronological table of castles from East and South-East Transylvania (12–13th centuries).

In the case of rural settlements (or archaeological materials probably from un-researched settlements) (Aldea, Angheluș, Bădeni, Brădești, Cernat, Chilieni, Chinușu, Ciceu, Cireșeni, Ciucsângeorgiu, Comănești, Corund, Cotormani, Dârjiu, Firtușu, Forțeni, Gârciu, Hoghia, Iașu, Jacodu, Jigodin, Lelicieni, Lueta, Mărtiniș, Merești, Mugeni, Ocland, Oderheiu Secuiesc – “Kadicsfalva”, Obrănești, Polonița, Rareș, Satu Mare, Satu Nou, Văleni, Misentea, Racu, Sfântu Gheorghe – “Bedeháza”, *Șumuleu*, Sâncrăieni, Sântimbru, Sânsimion, Tăietura, Tămașu, Tăureni, Teleac, Tomești, Tușnad Sat, Turia, Ulieș, Vasileni) we can not to date more precisely and we are quite far from being able to give a more exact date within these two centuries and therefore we used a more general dating referring to the 12th–13th centuries. Based on the archaeological finds we can date from the 12th century the settlements of Angheluș, Cernat, Chilieni, Cotormani, Cristuru Secuiesc, Mugeni, Polonița, Reci, Sâncrăieni, Sfântu Gheorghe – “Bedeháza”, Sighișoara – “Dealul Viilor”, Turia, Ungra, Văcărești and the treasures from Sânpaul and Zagon.

We can only hope that such things as a more exact dating of the earthenware can be achieved by carrying out much more exact excavations and interdisciplinary researches⁹¹ in the area of the former seats of Odorhei and Cristurul Secuiesc, in the area of the seat of Ciuc, or Three Seats (for the mapping of these points, see also Annex 1):

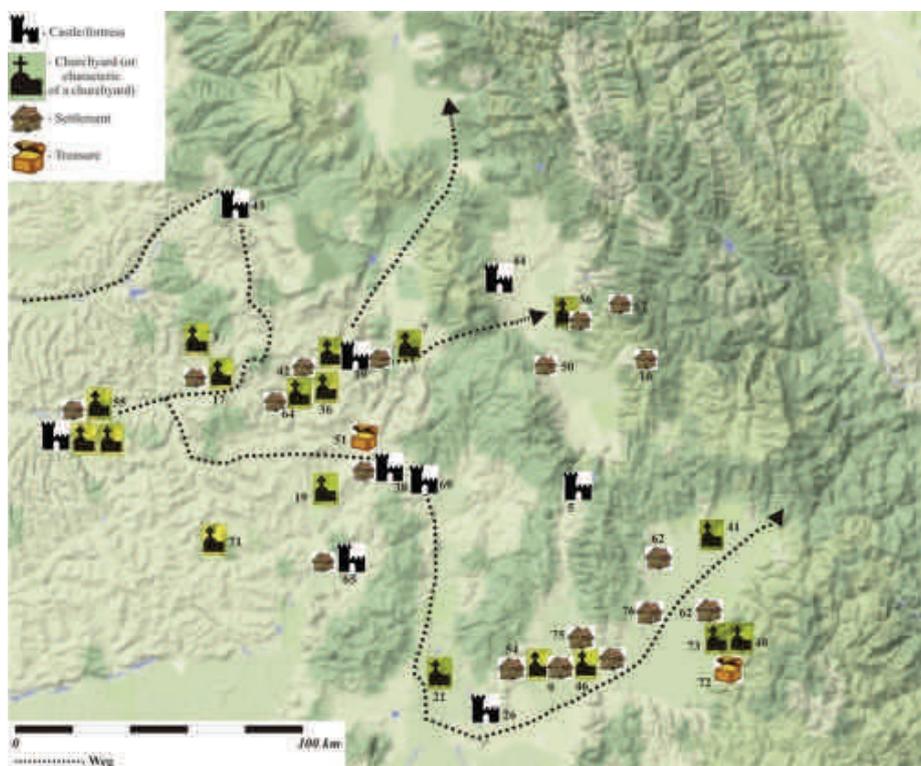


Fig. 9.b. Twelfth-century archaeological discoveries from South-East Transylvania (the actual stage of the research) (drawn by A. Drăgan and E. Gáll) (see Annex 1).

⁹¹ Wilson *et al.* 2009, 2407–2415.

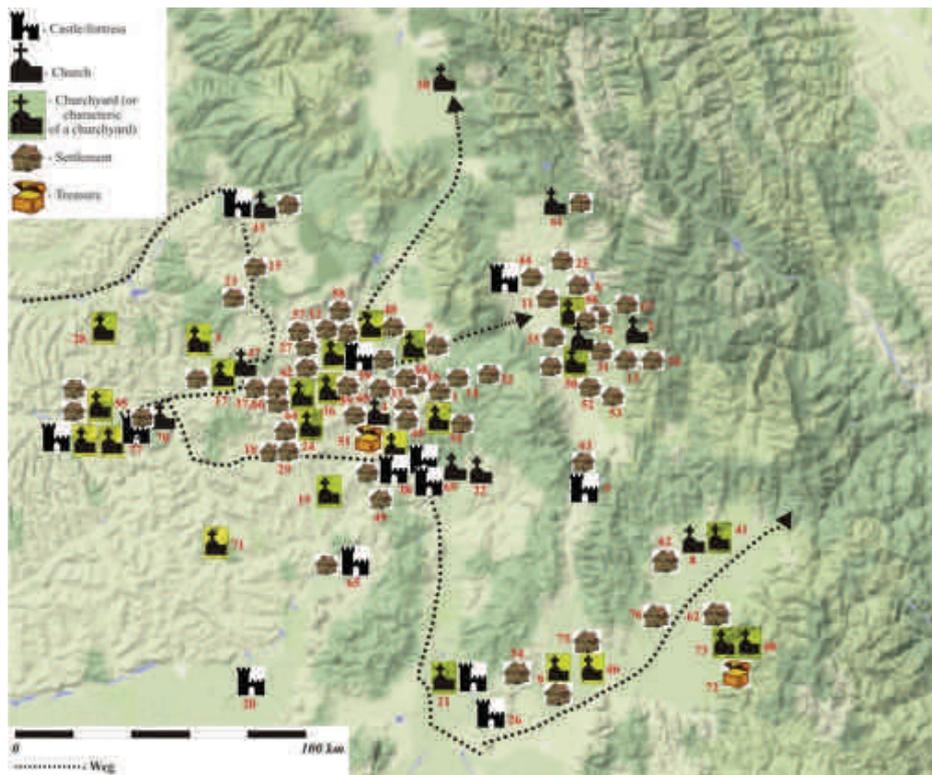


Fig. 9.b. Twelfth and thirteenth-century archaeological discoveries from South-East Transylvania (the actual stage of the research) (drawn by A. Drăgan and E. Gáll) (see Annex 1).

These sites clearly show the result of the colonising policy of the kingdom, which was started already in the 12th century (or towards the end of the 11th century) in the Transylvanian Basin. Another issue that should be clarified is that of the (inter)dependence relations between the early micro-regional centers and the center of the county of Alba⁹².

In the 12th century in Transylvania, a considerable amount of archaeological signs seem to show a “westernisation” in many different aspect of life ranging from the material culture and the dwelling places to funerary customs and fashion, which had no antecedent in the 11th century. Among the fashion products of the 11th century, the hair pins with with sphere-shaped ends are completely unknown, it appeared as a fashion product of the western world in the Transylvanian Basin⁹³. Besides the hair pins with sphere-shaped ends, a long, shirt-like, straightly tailored piece of clothes called Cotte also became in fashion, whose vertical cut was held together by a metal buckle (Drăușeni-Grave 15,94 Sighișoara – “Dealul Viilor” Grave 119/C95, Zăbala-Grave 130)⁹⁶. In Cristuru Secuiesc, Elek Benkő excavated the remains of a Fachwerk-like dwelling house with beams, where a bronze pot, Grappé that was imported from the west was also found⁹⁷. It goes to show one concrete fact, namely that apart from the migrations that also appear in the written records, the Hungarian Kingdom (including its eastern part) deeply integrated into the western culture. Moreover, a funerary fashion unknown in the cemeteries of earlier ages can be registered in the 12th century Transylvanian Basin⁹⁸.

It shows a deep transformation of the Hungarian Kingdom, which can be best described with Erik Fügedi’s words: ... *e folyamatban két partner vett részt: Magyarország és Nyugat-Európa. Európa kitágult, magához vonzotta a Kárpát-medencét* (... “there were two participants in this process: Hungary and Western Europe. Europe has expanded attracting the Carpathian Basin to itself...”) ⁹⁹.

⁹² On the comitats of the Hungarian Kingdom, see: Kristó 1988.

⁹³ Nyárádi-Gáll 2014, u. pr.

⁹⁴ Dumitrache 1979, Fig. 9.

⁹⁵ Harhoiu-Gáll 2014, 201, Pl. 6/M. 119C.

⁹⁶ Benkő 2012, 121–122, Fig. 28.

⁹⁷ Benkő 2012, 93.

⁹⁸ On the analysis of the funerary customs, fads of the 10th–11th centuries, see Gáll 2013c, 593–640.

⁹⁹ Fügedi 1981, 401. Also on the 12th century, see: Berend–Urbañczik–Wiszewski 2014.

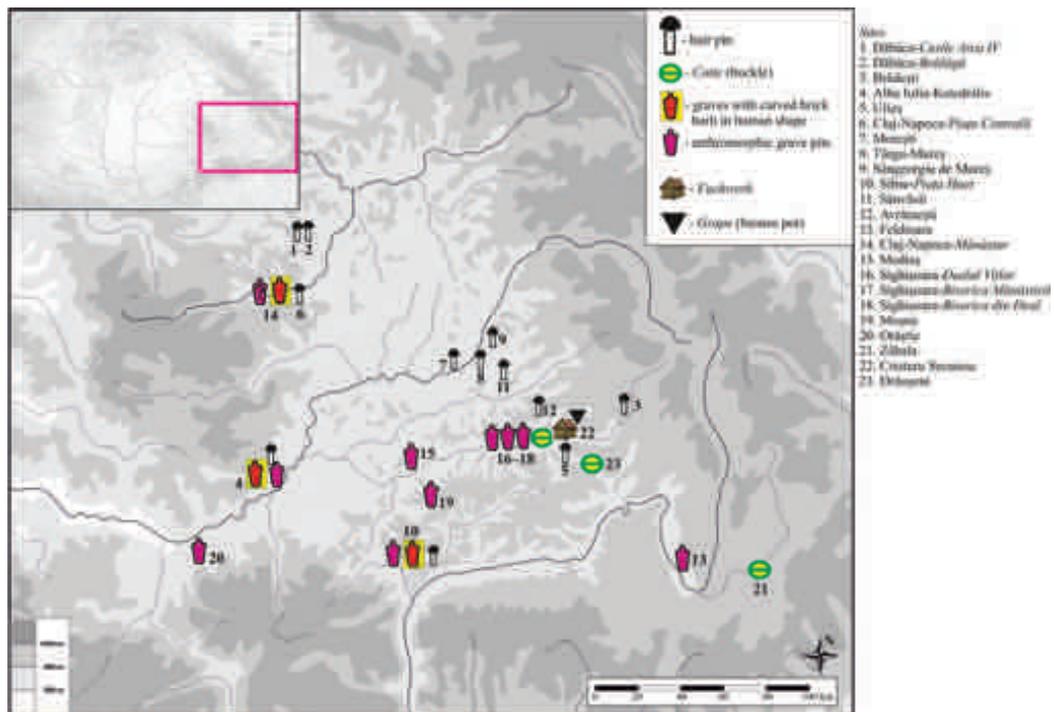


Fig. 10. Elements of western fashion in the material culture and the funerary customs in Transylvania in the 12th century (after Nyárádi-Gáll 2014, Map 3).

The research of these aspects is mainly a task for archaeology and its auxiliary sciences.

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Annex 1: List of archaeological sites from the twelfth–thirteenth century in eastern Transylvania (Fig. 7)

1. Aldea (Germ.: Abstdorf; Hung.: Abásfalva): Nyárádi–Sófalvi 2012, 170.
2. Armășeni (Germ.: -; Hung.: Csíkménaság): Botár 2009, 67–75.
3. Avrămești (Germ.: -; Hung.: Szentábrahám): Benkő 1992, 213, 223, Abb. 34.
4. Bădeni (Germ.: -; Hung.: Bágy): Sófalvi–Demjén–Nyárádi 2008, 91–92.
5. Băile Tușnad (Germ.: Bad Tuschnad; Hung.: Tusnádfürdő): Sófalvi 2011, 247: Tab. 1, Footbote 25.
6. Bărzava (Germ.: -; Hung.: Csíkborzsova): Botár 2008, 76.
7. Brădești (Germ.: -; Hung.: Fenyéd): Zsolt Nyárádi's information. Nyárádi–Sófalvi 2012, 170.
8. Cașinu Mic (Germ.: -; Hung.: Kiskászon): Benkő 2010, 223.
9. Chilieni (Germ.: -; Hung.: Kilyén): Székely 1986, 216–224; Benkő 2012, 86.
10. Chinușu (Germ.: -; Hung.: Kénos): Nyárádi–Sófalvi 2012, 170.
11. Ciceu (Germ.: -; Hung.: Csíkcicsó): Botár 2008, 76.
12. Cireșeni (Germ.: -; Hung.: Sükő): Nyárádi–Sófalvi 2012, 170.
13. Ciucsângeorgiu (Germ.: -; Hung.: Csíkszentgyörgy): Botár 2008, 76.
14. Comănești (Germ.: -; Hung.: Homoródkeményfalva): Nyárádi–Sófalvi 2012, 170.
15. Corund (Germ.: -; Hung.: Korond): Nyárádi–Sófalvi 2012, 170.
16. Cotormani (Germ.: -; Hung.: *Kotormány*): Botár 2008, 76.
17. Cristuru Secuiesc (Germ.: Szeklerkreuz; Hung.: Székelykeresztúr)–*Keresztúrfalva*: Benkő 1992, 176–179; *-Roman Catholic Church*: Benkő 1992, 152–158; Sófalvi–Demjén–Nyárádi 2008, 80–81.
18. Dârjiu (Germ.: -; Hung.: Székelyderzs): Nyárádi–Sófalvi 2012, 170.
19. Drăușeni (Germ.: Draas; Hung.: Homoróddaróc): Dumitrache 1979, 155–198; Marcu 2002, 41–78.
20. Făgăraș (Germ.: Fogarasch; Hung.: Fogarasch): Bóna 1990, 163.
21. Feldioara (Germ.: Marienburg; Hung.: Földvár): Ioniță–Căpățână–Boroffka–Boroffka–Popescu 2004.
22. Filia-Dobeni (Germ.: -; Hung.: Erdőfüle): Bordi 2003, 4–6; Bordi 2004, 5–10; Sófalvi–Demjén–Nyárádi 2008, 87–88.
23. Firtușu (Germ.: -; Hung.: Firtosvárja, Besenyőfalva): Nyárádi–Sófalvi 2012, 170.
24. Forțeni (Germ.: -; Hung.: Farcád): Sófalvi–Demjén–Nyárádi 2008, 86; Benkő 2010, 225, Footnote 23; Nyárádi–Sófalvi 2012, 170, 173, Fig. 3.
25. Gârciu (Germ.: -; Hung.: Göröcsfalva): Botár 2008, 76.
26. Hârman (Germ.: Honigberg; Hung.: Szászhermány): Alexandrescu, Pop, Marcu 1973, Pl. V–VI.
27. Hoghia (Germ.: -; Hung.: Hodgya): Nyárádi–Sófalvi 2012, 170.
28. Jacodu (Germ.: Ungarisch-Sacken; Hung.: Magyarzsákod): Soós 2007, 111–128.
29. Iașu (Germ.: -; Hung.: Jásfalva): Nyárádi–Sófalvi 2012, 170.
30. Lăzarea (Germ.: Grünberg; Hung.: Gyergyószárhegy; Old Romanian: Sarhighi, Giurgeu-Sarheghi): Benkő 2010, 225, Note 31.
31. Leliceni (Germ.: -; Hung.: Csíkszentlélek): Botár 2008, 76.
32. Lueta (Germ.: -; Hung.: Lövéte): Botár 2008, 76.
33. Mărtiniș (Germ.: -; Hung.: Homoródszentmárton): Nyárádi–Sófalvi 2012, 170.
34. Merești (Germ.: -; Hung.: Homoródalmás): Benkő 2010, 223, Fig. 1/2; Nyárádi–Sófalvi 2012, 170.
35. Misentea (Germ.: -; Hung.: Csíkmindszent): Botár 2008, 76; Botár 2009, 77–85.
36. Mugeni (Germ.: -; Hung.: Bögöz): Sófalvi 2010, 31–36; Nyárádi 2013, 9–17.
37. Obrănești (Germ.: -; Hung.: Ábránfalva): Nyárádi–Sófalvi 2012, 170.
38. Ocland (Germ.: -; Hung.: *Oklánd*): Benkő 2010, 235, Fig. 6/1; Sófalvi 2009, 16, Fig. 8; Nyárádi–Sófalvi 2012, 170.
39. Odorheiu Secuiesc (Germ.: Odorhellen; Hung.: Székelyudvarhely) “Budvár”, – “Szentimre”, – “Kadicsfalva”: Sófalvi 2011, 247: Tab. 1; Sófalvi–Demjén–Nyárádi 2008, 90–91; Nyárádi 2012, 155–192; Nyárádi–Sófalvi 2012, 170.
40. Peteni (Germ.: -; Hung.: Székelypetőfalva): Székely 1990a, 87–110.
41. Petriceni (Germ.: -; Hung.: Kézdkővár): Székely 1990b, 11–12, Fig. 12–13.
42. Polonița (Germ.: -; Hung.: Székelylengyelfalva): Nyárádi–Sófalvi 2012, 173, 175, 179, Fig. 26–28.
43. Praid (Germ.: -; Hung.: Parajd): Sófalvi–Szász 2000, 5–10, 99–104; Nyárádi–Sófalvi 2012, 170; Sófalvi 2011, 246: Tab. 1.
44. Racu (Germ.: -; Hung.: Csíkrákos): Botár 2008, 76; Sófalvi 2011, 246: Tab. 1.
45. Rareș (Germ.: -; Hung.: Recsenyéd): Nyárádi–Sófalvi 2012, 170.
46. Reci (Germ.: -; Hung.: Réty) – “Dobolyka”: Székely 1990b, 7–10, Fig. 14–15; -west of the village: Székely 1990b, 6.
47. Rugănești (Germ.: -; Hung.: Rugonfalva): Benkő 1991, 15–16.
48. Satu Mare (Germ.: -; Hung.: *Máréfalva*): Sófalvi–Demjén–Nyárádi 2008, 94–95.

49. Satu Nou (Germ.: -; Hung.: Homoródújfalú): Nyárádi-Sófalvi 2012, 170.
50. Sâncrăieni (Germ.: Heilkönig; Hung.: Csíkszentkirály) – "Brickyard": Preda 1959, 831–832, 847–853; Székely 1990b 4, Fig. 2; -Bors house: Botár 2008, 76; Botár 2009, 23–37; Benkő 2012, 81; – "Kencseszeg": Botár 2009, 36–37; – "Karimósarka": Botár 2009, 23.
51. Sânpaul (Germ.: -; Hung.: Homoródszentpál): Orbán 1868, 166; Kanozsay–Banner 1964, 21–23; Kovács 1997, Tab. 83. a–b.
52. Sânsimion (Germ.: -; Hung.: Csíkszentsimon): Botár 2008, 76.
53. Sântimbru (Germ.: -; Hung.: Csíkszentimre): Botár 2008, 76.
54. Sfântu Gheorghe, (Germ.: Sankt Georg; Hung.: Sepsiszentgyörgy) – *Bedeháza*: Horedt 1956, 7–39; Székely 1971, 141–165.
55. *Sighișoara* (Germ.: *Schäßburg*; Hung.: *Segesvár*) – "Biserica din Deal"; "Biserica Mănăstirii"; "Dealul Viilor", – „Vlad Dracul's House”, – „School Hill”: Baltag 1979, 75–106; Marcu 2000, 96–97; Istrate 2006, 328–329; Harhoiu–Baltag 2006–2007; Harhoiu–Ioniță 2008, 199–223; Harhoiu–Gáll 2014, 193–256.
56. Șumuleu-Ciuc (Germ.: Schomlenberg; Hung.: Csíksomlyó) – „Fodor garden”: Benkő 2012, 73, Note 261; – „Saints Peter and Paul Church”: Botár 2008, 76; Botár 2009, 39–53.
57. Tăietura (Germ.: -; Hung.: Vágás): Nyárádi-Sófalvi 2012, 170.
58. Tămașu (Germ.: -; Hung.: Székelyszenttamás): Nyárádi-Sófalvi 2012, 170.
59. Tăureni (Germ.: -; Hung.: Bikafalva): Nyárádi-Sófalvi 2012, 170.
60. Teleac (Germ.: -; Hung.: Telekfalva): Nyárádi-Sófalvi 2012, 170.
61. Tomești (Germ.: -; Hung.: Csíkszenttamás): Botár 2008, 76; Botár 2009, 11–21.
62. Turia (Germ.: -; Hung.: Torja): Székely 1985–1986, 197–210.
63. Tușnad Sat (Germ.: -; Hung.: Nagytusnád): Botár 2008, 76.
64. Ulieș (Germ.: -; Hung.: Kányád): Derzsi-Sófalvi 2008, 267–285.
65. Ungra (Germ.: Galt; Hung.: Ugra, Szászugra; Old Romanian: Ugrona): Popa, Ștefănescu 1980, 496–503.
66. Vasileni (Germ.: -; Hung.: Homoródszentlászló): Nyárádi-Sófalvi 2012, 170.
67. Văcărești (Germ.: -; Hung.: Vacsárcsi): <http://www.szekelyhon.ro/aktualis/csikszek/szora-birjak-a-vacsarcsi-romokat>
68. Văleni (Germ.: -; Hung.: Patakfalva): Nyárádi-Sófalvi 2012, 170.
69. Vărghiș (Germ.: -; Hung.: Vargyas): Bartók 1996, 175–180; Sófalvi–Demjén–Nyárádi 2008, 85; Bordi 2007, 287–300; Sófalvi 2009, 16, Fig. 8; Sófalvi 2011, 247: Tab. 1.
70. Vânători (Germ.: Diewaldsdorf, Teufelsdorf, Truffelsdorf; Hung.: Héjjasfalva, Héjásfalva; Old Romanian: Hașfalău): <http://erdelyi-templomok.weebly.com/erdeacutelyi-koumlzeacutepkori-templomok--biserici-medi-evale-din-transilvania.html>.
71. Viscri; (Germ.: Deutsch-Weißkirch; Hung.: Szászfehéregyháza): Dumitrache 1981, 253–285; Velter 2002, 186, 352.
72. Zagon (Germ.: -; Hung.: *Zágon*): Velter 2002, 181–196.
73. Zăbala (Germ.: -; Hung.: Zabola): Székely 1993–1994, 277–305.
74. Jigodin (Germ.: -; Hung.: *Csíksögöd*): Benkő 2012, 80.
75. Angheluș (Germ.: -; Hung.: *Angyalos*) – „Templom nyír”: Székely 1990b, 5–6, III. tábla; Benkő 2012, 86–87.
76. Cernat (Germ.: -; Hung.: *Csernáton*): Székely 1974–1975, 65; Székely 1990b, 4–5, 11, 3. ábra, 2. tábla; Benkő 2012, 86–87.
77. Albești (Germ.: Weissenkirch; Hung.: Fehéregyháza) – "Cetate" (?): Baltag 1979, 103, Pl. 63/2, Pl. 64/1; – "Canton" (?): Baltag 1979, 101, Pl. 64/5–6.

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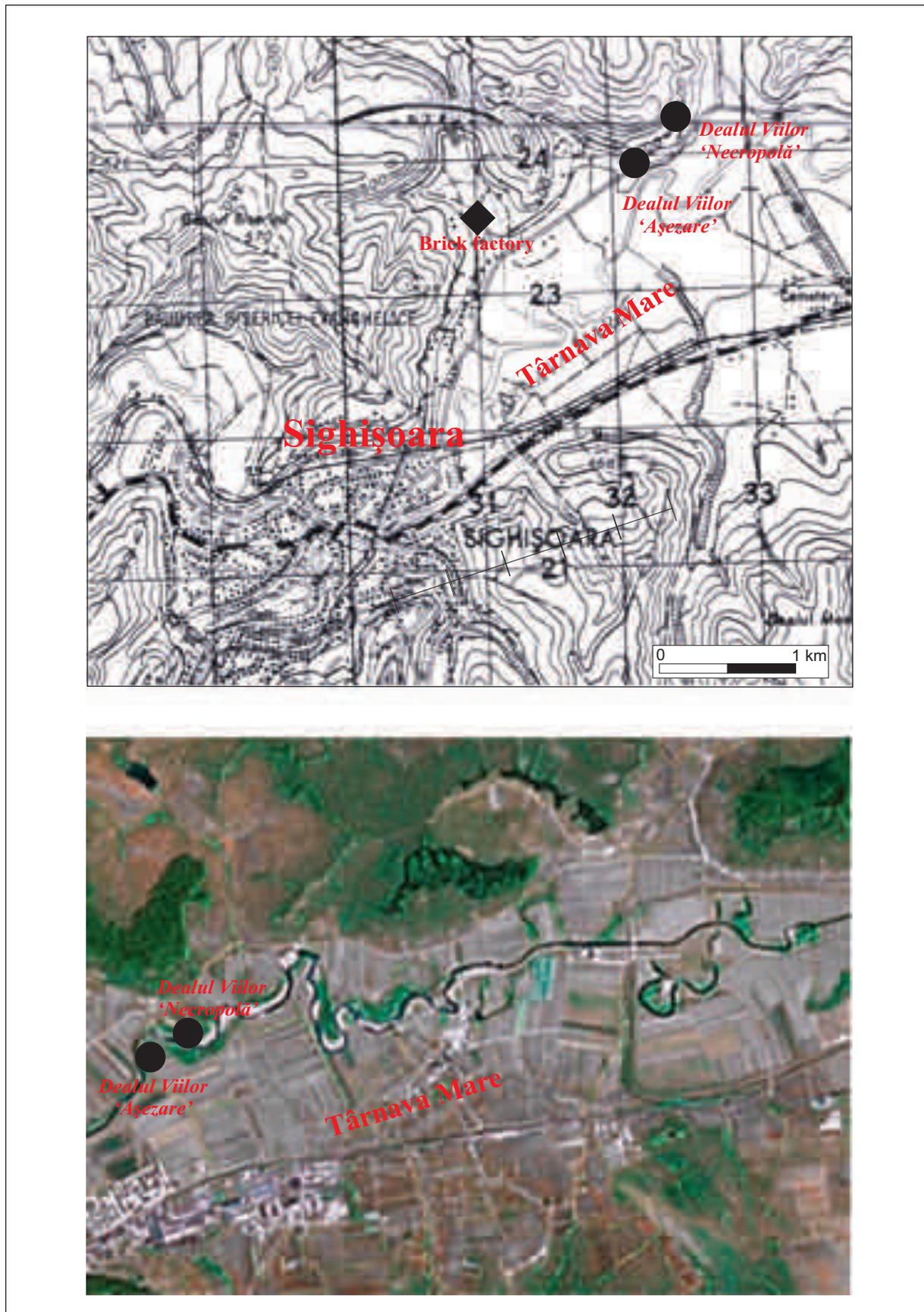


Plate 1. Sighișoara-“Dealul Viilor” (topographical positions of archaeological sites) (after Harhoiu-Gáll 2014, Pl. 1).

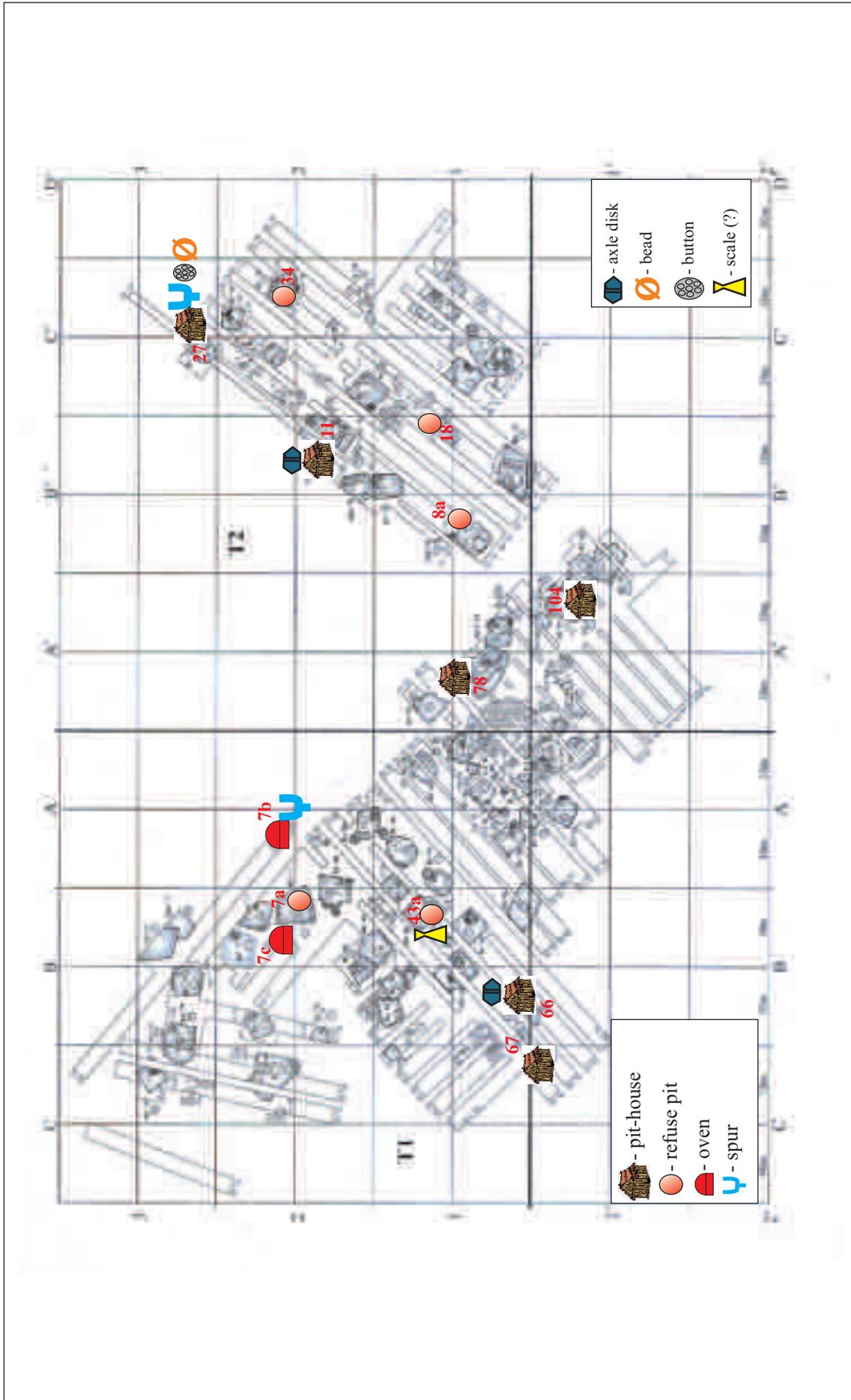


Plate 2. Sighișoara-“Dealul Viilor” “Așezare” (re-drawn by E. Gáll after Harhoiu-Baltag 2006–2007, Vol. I., Fig. 8).

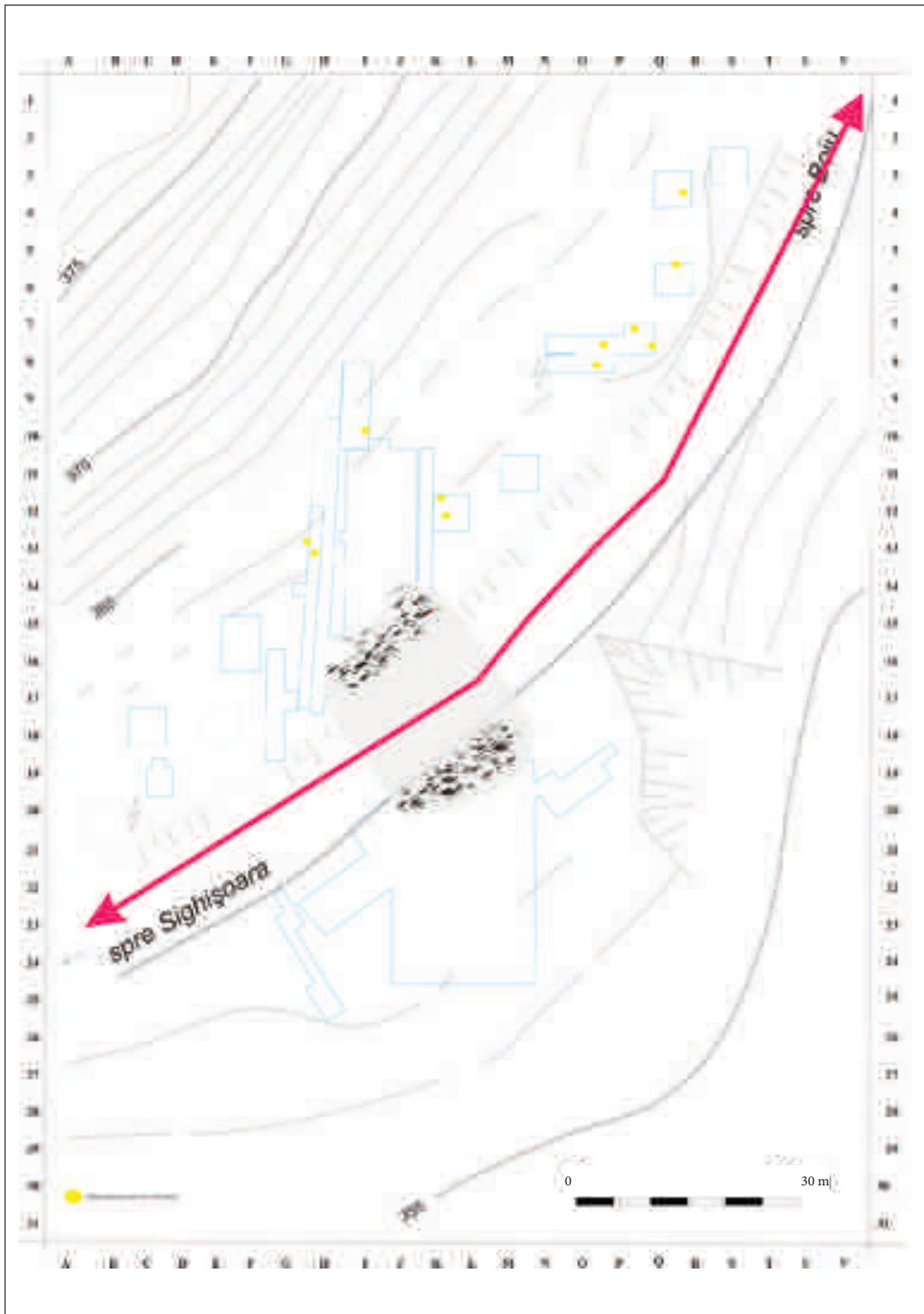


Plate 3. Sighișoara-“Dealul Viilor” ‘Cemetery’” (after Harhoiu-Gáll 2014, Pl. 2).

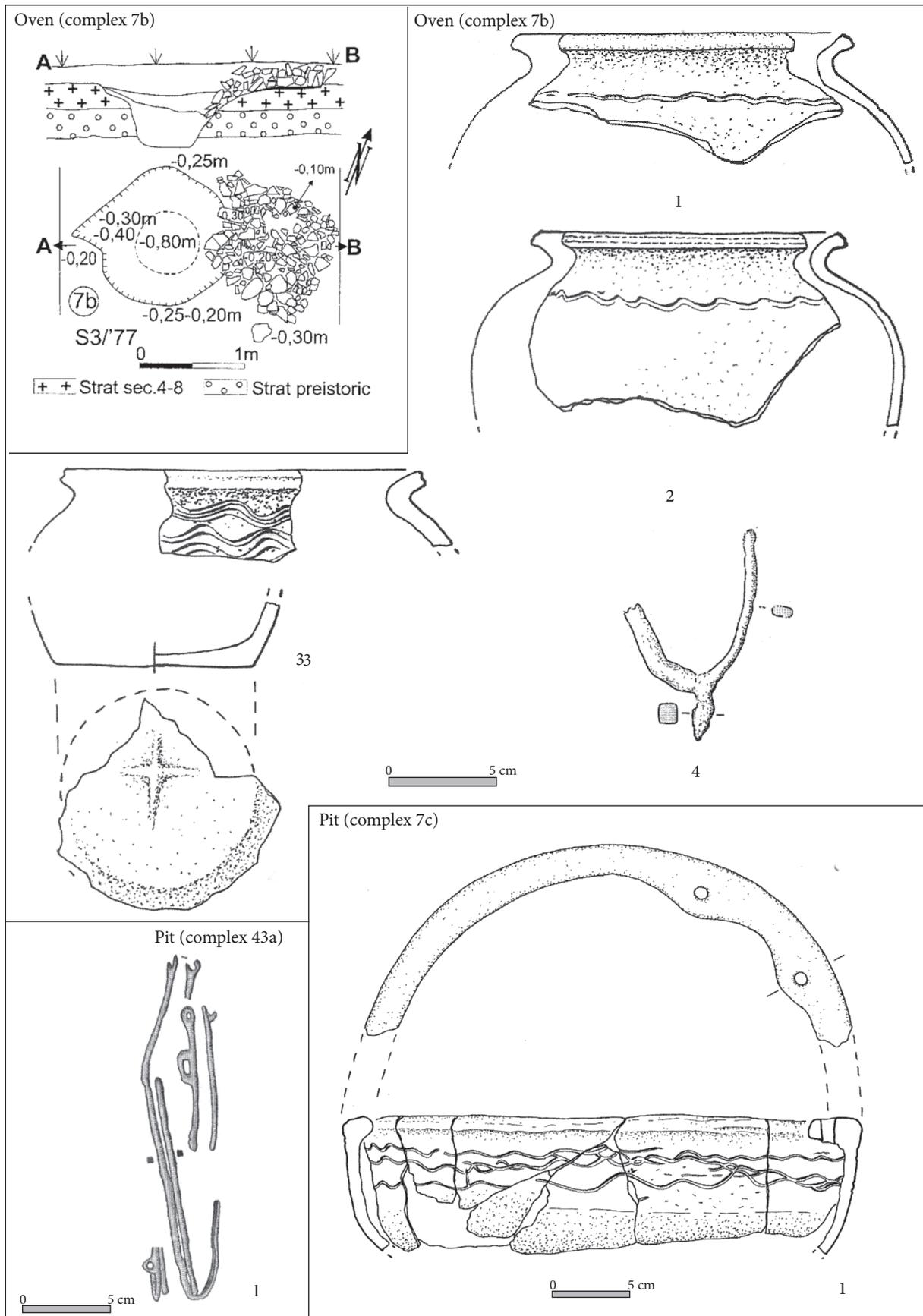


Plate 4. Sighișoara-“Dealul Viilor” “Așezare” complex 7b: 1-2; complex 7c: 1; complex 43a: 1 (after Harhoiu-Baltag 2006-2007, Vol. II, Fig. 1090, Pl. 26/1-4, pl. 27, pl. 94/4).

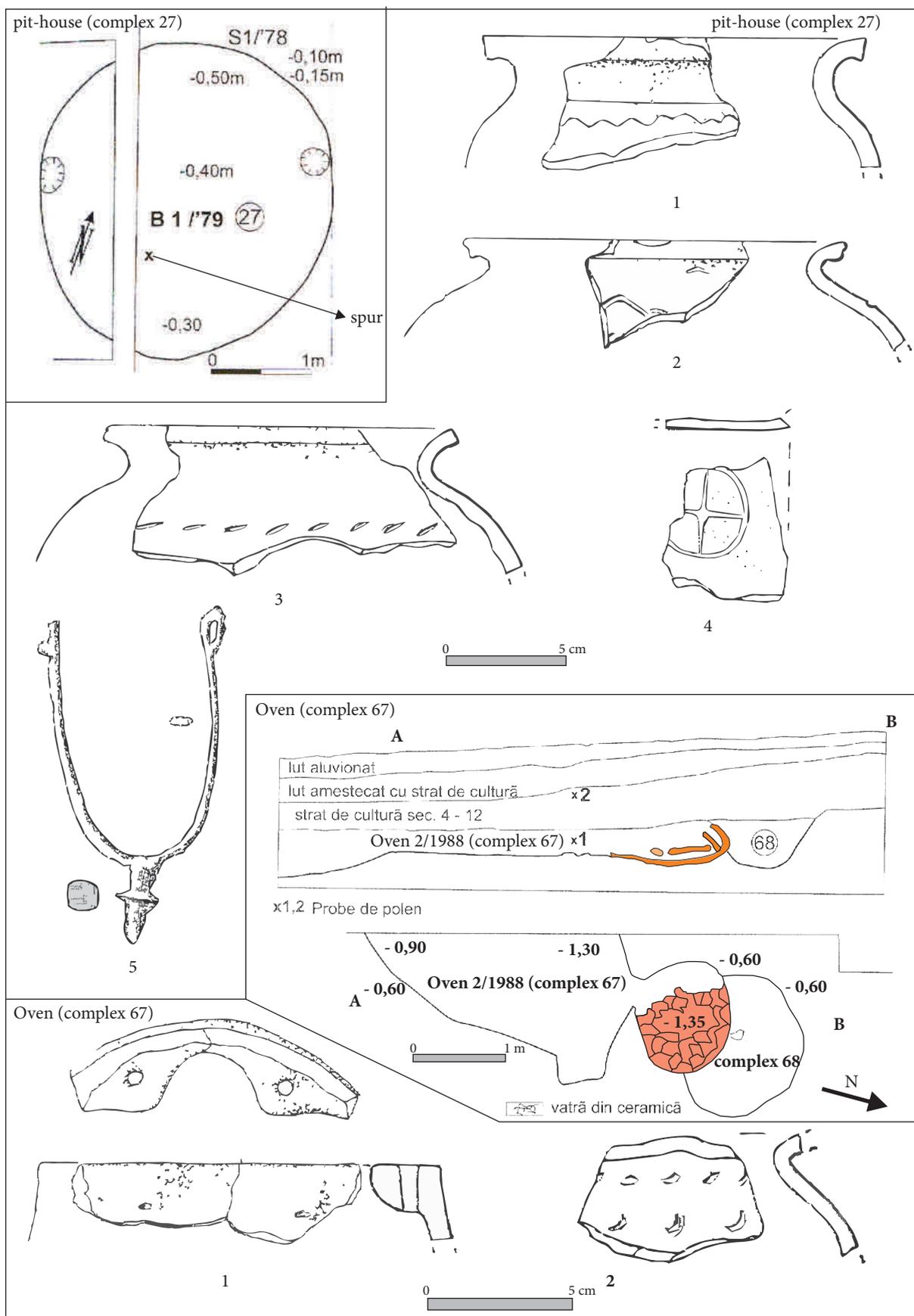


Plate 5. Sighișoara-“Dealul Viilor” “Așezare” complex 27: 1–5; complex 67: 1–2 (after Harhoiu-Baltag 2006–2007, Vol. II, Fig. 1099, fig. 1104, Pl. 73/1–3, 8, 10, pl. 67/1, 10).

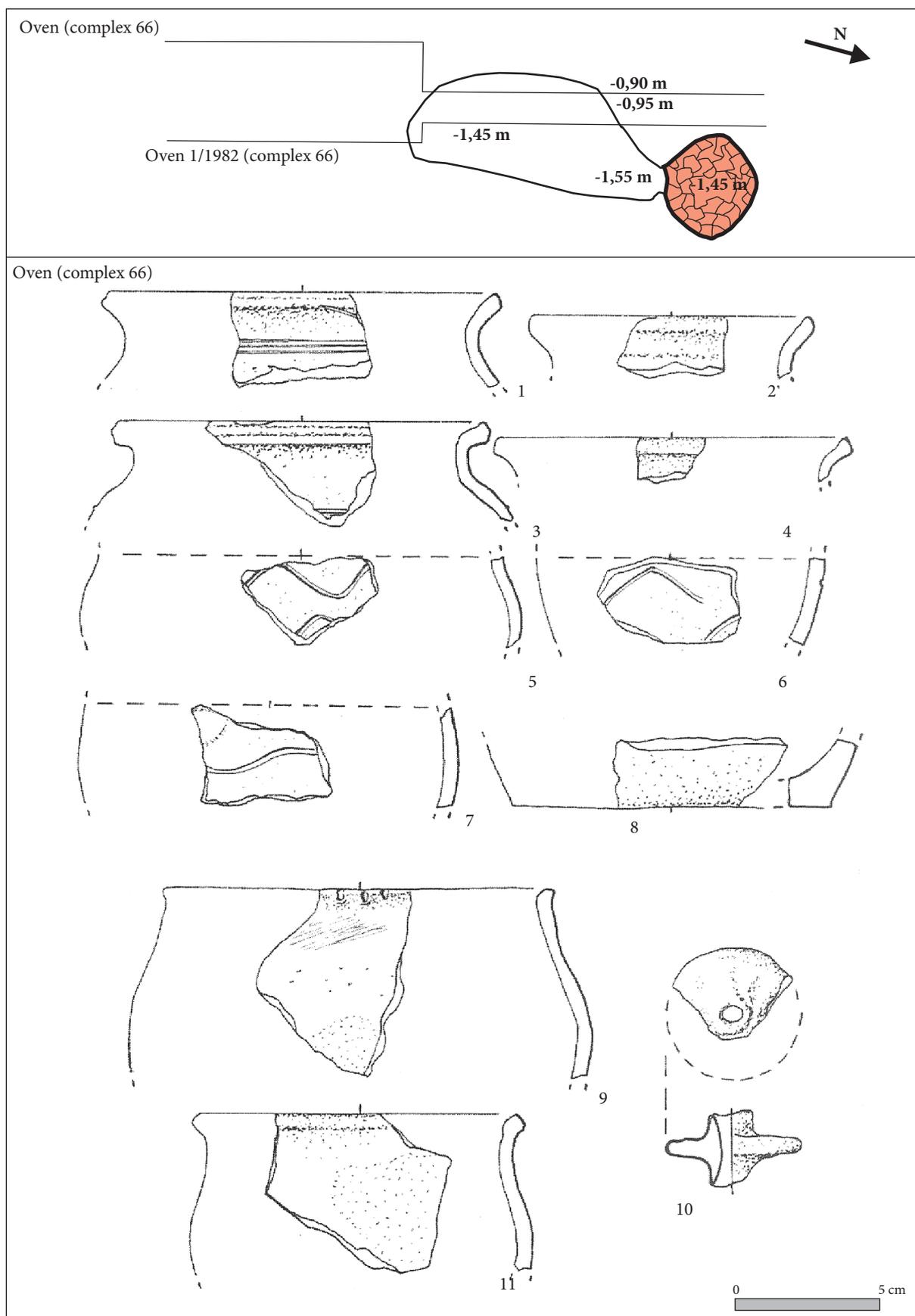


Plate 6. Sighișoara-“Dealul Viilor” “Așezare” complex 66: 1-11 (after Harhoiu-Baltag 2006-2007, Vol. II, Fig. 1104, Pl. 153/1-11).

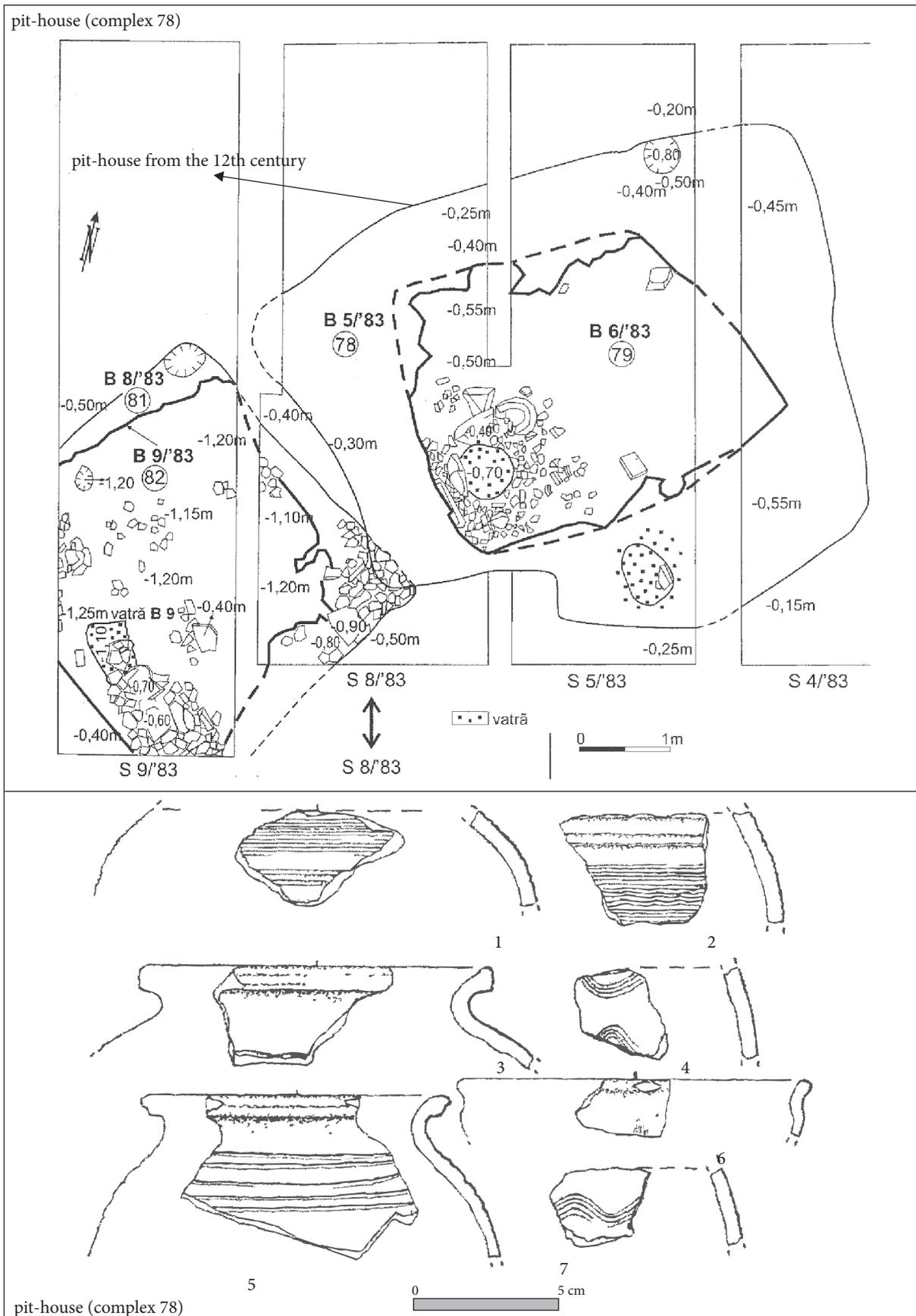


Plate 7. Sighișoara-“Dealul Viilor” “Așezare” complex 78: 1-7 (after Harhoiu-Baltag 2006-2007, Vol. II, Fig. 1109, Pl. 162/1-7).

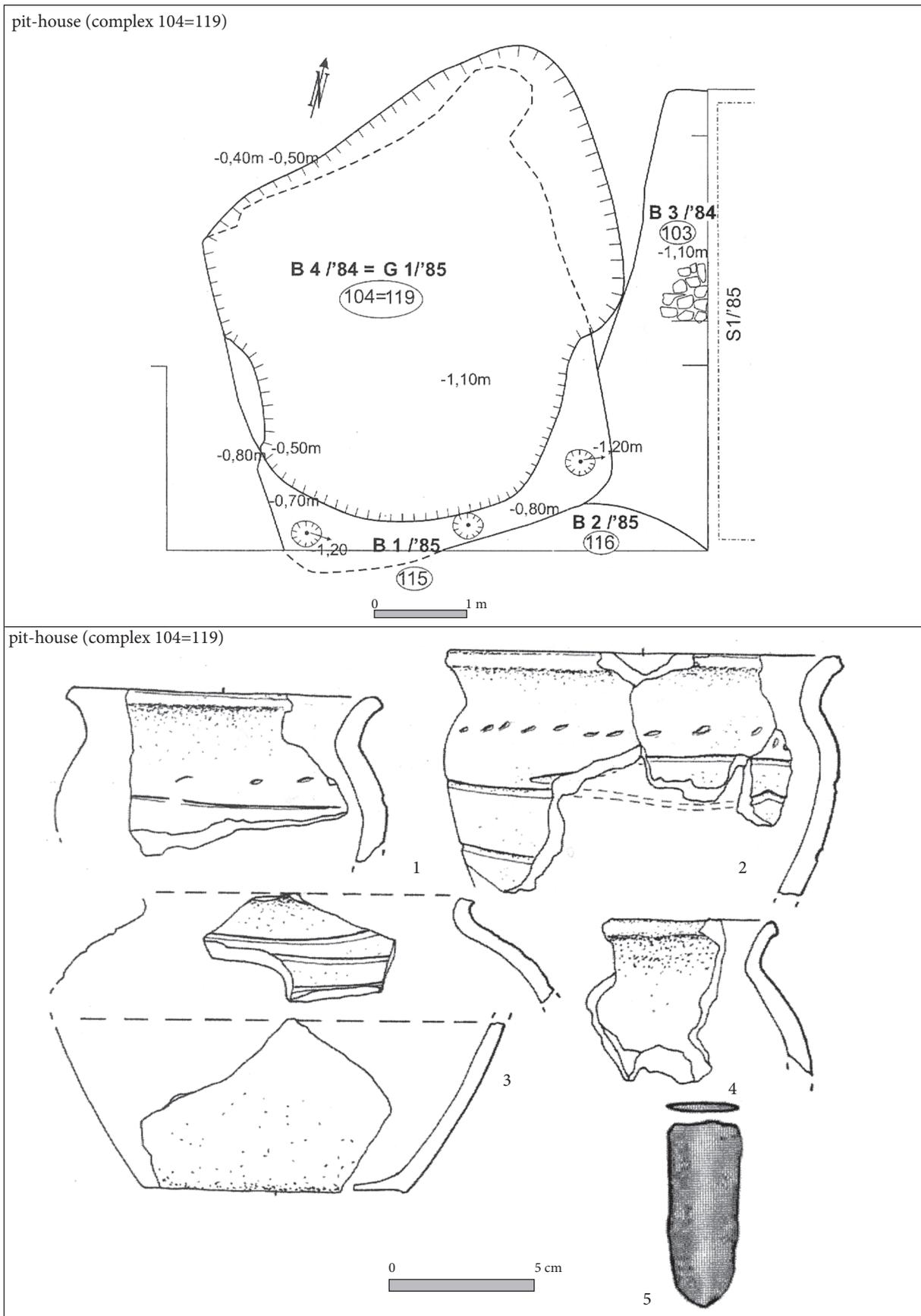


Plate 8. Sighișoara-“Dealul Viilor” “Așezare” complex 104=119: 1-5 (after Harhoiu-Baltag 2006–2007, Vol. II, Fig. 1110, Pl. 183/1-4, 9).

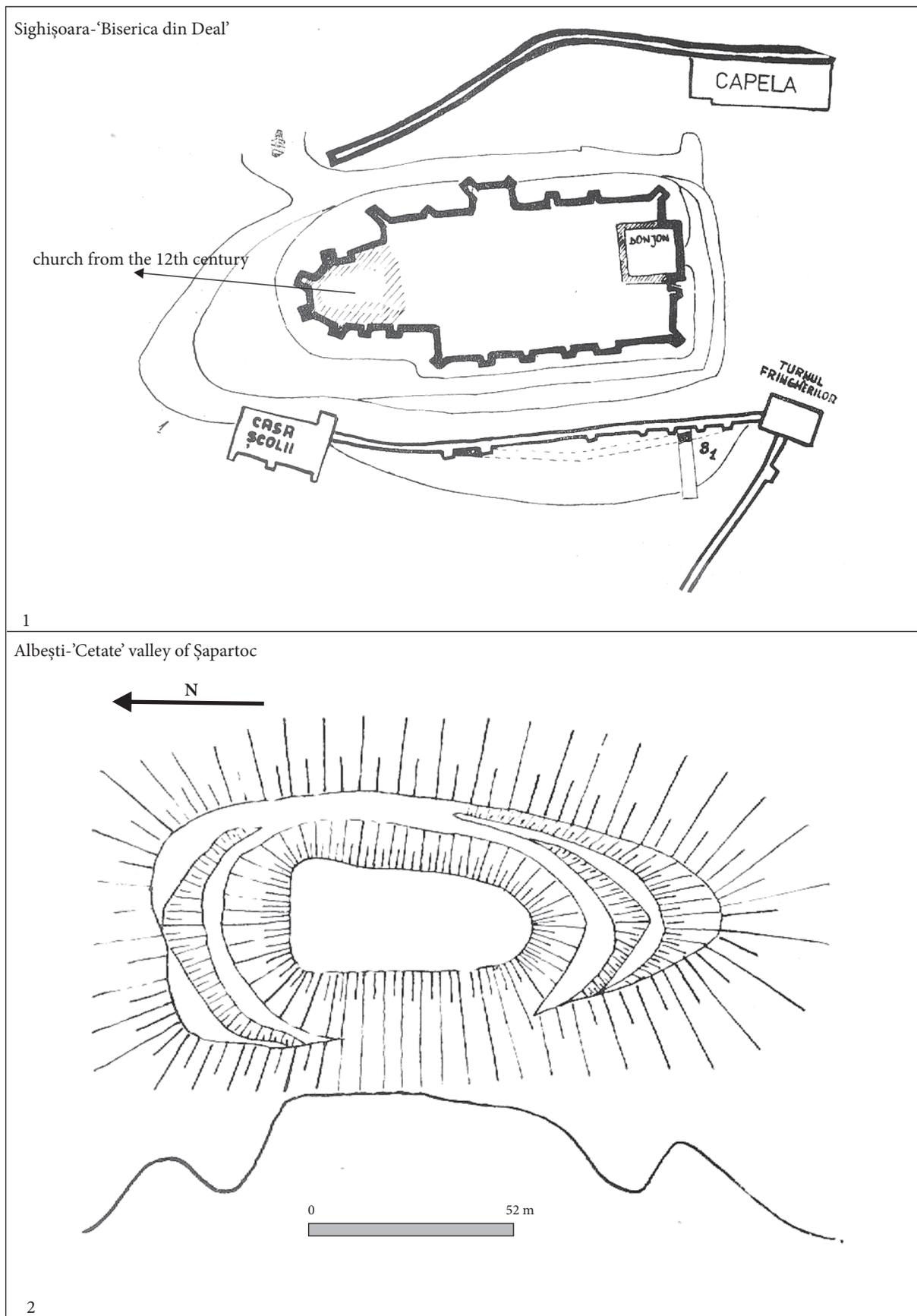


Plate 9. Sighișoara- "Biserica din Deal"; Albești- "Cetate" (valley of Șapartoc) (after Baltag 1979, Pl. 55/1, Pl. 63/2).

Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch- Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

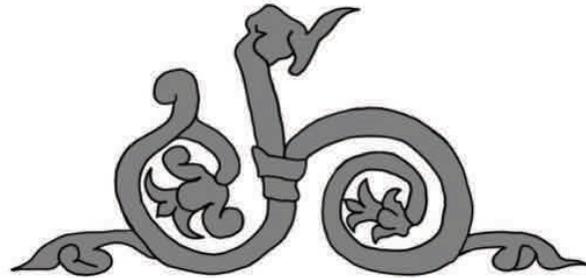
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thraco-Dacica	<i>Thraco-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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Elements of Fortification of the Medieval and Early Modern City of Sibiu. The Tower Gate and the Gate's Bastion. Historical and Archaeological Considerations*

Anca Nițoi, Claudia Urduzia

Abstract: The article presents the latest rescue archaeological excavations performed in the perimeter of the fortification system of Sibiu of the late Middle Ages. Through these researches we were able to identify the exact location of the Tower Gate and Gate's Bastion, components of the last two fortification belts of the city.

Keywords: fortification system, urban archaeology, Middle Ages, Sibiu.

Introduction

The construction of the fortification system of medieval Sibiu was performed in stages, over several centuries, including, in the period of maximum expansion, both the Upper Sibiu and the Meadow of Cibin, part of the Lower City. The bibliography related to these construction stages, mainly to the fortification elements of the Upper City¹ is vast, so as we believe that a general presentation of the topic is more than sufficient.

As for the development of the fortification system of the Lower City, the situation of inter-disciplinary researches changes radically. Thus, the archaeological researches performed mainly starting with 2000² have revealed a series of details on the location of some parts of the defence wall and on the correct location of the towers and bastions that doubled the walls starting with the 16th Century.

The preventive excavations performed during 2012 and 2013 can be subscribed to this context; they targeted the area of the Cibin Square and of the Tower Gate and Gate's Bastion and were triggered by rehabilitation works on the infrastructure of the city of Sibiu, namely of the Tower Street³.

Historical development of the fortification system of the Lower City

In the beginning of the 15th Century, the community of Sibiu was one of the wealthiest communities in southern Transylvania. This significant advantage was also a great disadvantage, as the city was placed in the first line of conflict between the two great powers that controlled this buffer area: the Hungarian Kingdom and the Ottoman Empire. The latter was at the peak of its development and desired to expand its borders towards the heart of Europe. These considerations made the Magistrate of Sibiu think of fortifying the spots he considered weakest in the city's defensive system, the most important among them being the area known as the Lower City (Pl. 1/1).

The latter represented the area located between what was generally labelled as the Upper City, strongly fortified during the previous period, and River Cibin and its meadow. Located therefore between the recently dried out marshy area (Pl.1/2) and the hilly area, the fourth defensive belt started from the Soldish Bastion and followed the river bed of Cibin, along the streets of Pânzarilor, Croitorilor, Rotarilor, Blănarilor and then joining the third belt near the Ursuline Church⁴ (Fig. 1). Due to the existing natural elements and to the fact that the area was facing the inner part of Transylvania

* English translation: Ana M. Gruia.

¹ Avram, Bucur 1999; Luca *et al.* 2003; Marcu Istrate 2007; Istrate 2007; Pinter 2013.

² Luca *et al.* 2007a; Luca *et al.* 2007b; Beșliu, Munteanu 2008.

³ The presentation of the preventive archaeological researches performed along the entire route of Tower Street was the subject of a study published in *Bruckenthal. Acta Musei*. See Nițoi *et al.* 2014, 109–124.

⁴ Abrudan, Sontag 1974–1975, 125.

from where no military danger would normally appear, the local Magistrate did not consider the fortification of this area to be a priority.

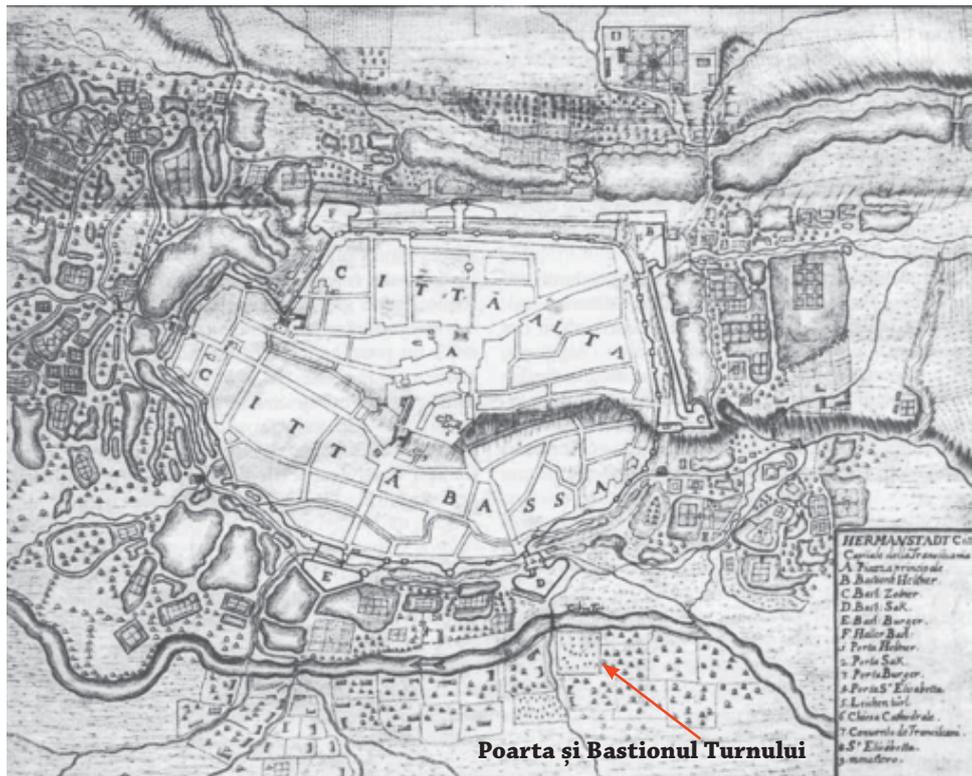


Fig. 1. Ground plan of the city as seen from the north-west in Giovanni Morando Visconti's *Mapa della Transilvania* (1699) (taken from Avram, Bucur 1999).



Fig. 2. Location of the Tower Gate and Gate's Bastion on the ground plan of the fortifications performed during the 19th Century.

Still, with the beginning of the 15th Century, aided by the coffers of the Transylvanian voivode and especially those of the king of Hungary, the building of the fortification was rushed and soon, a significant number of the city's populace could be sheltered against danger in case an enemy army was to halt under the city walls.

This fortification added three new gates that channelled the flux towards three roads: *Elisabeth Gate* connected Sibiu to the road leading towards Braşov and Sighişoara, *Ocnei Gate* led towards Tg. Mureş and Cluj, while the *Tower Gate* led towards Alba Iulia (Fig. 2).

The Tower Gate and Gate's Bastion

The Tower Gate (Fig. 3) connected the fortification from the Stairs Tower, over a wooden footbridge and then, along Turnişorului Road, with Miercurea Sibiului, Sebeş and Alba Iulia. It was completed in 1457, when written documents record the fact that the Tailors' Guild was appointed to maintain and defend the gate⁵. The choice proved very inspired, as attested by another document, dated 1556⁶, that mentions the fact that the gate would continue under the administration of the tailors, naming two of the guild's representatives: Michael Hermann and Simon Myles, as captains of this sector.

Initially built as a tower, with a ground floor and three levels, plus the roof framing, the gate had no extra fortification elements precisely since no major threat came from that area. Nevertheless, a bastion was added in 1569. The construction of the bastion has been attributed to master Blasius Rhaw, to whom the Magistrate paid, between March 11th and August 15th 1569, the sum of 1300 florins in several instalments⁷ (Fig. 4).



Fig. 3. The Tower Gate besides the Bastion on the depiction dated around 1780.

The first major attack upon the gate took place during Gyorgy Rákóczy II's siege of 1660. The documents mention that most of the fighting took place before Ocnei and Tower gates⁸ (Fig. 5). After that the existence of the gate was peaceful until 1852⁹ when the Magistrate decided to demolish the Bastion. The gate was most likely demolished during the 1870s, alongside the other fortifications of the Lower City, in order to open the medieval fortification and to allow better communication with the other neighbourhoods.

⁵ Sigerus 2011, 13.

⁶ Abrudan, Sontag 1974–1975, 127.

⁷ Abrudan, Sontag 1974–1975, 126 cf ***Arhive, 184.

⁸ Sigerus 2011, 24.

⁹ Sigerus 2011, 50.



Fig. 5. The Tower Gate – seen from the inside and from the outside (aquarelle by J. Böbel – 19th Century).

Buildings for the use of the imperial armies were later erected in the area of these demolished fortifications, as in the case of the Hanved barracks that was completed in 1897¹⁰.

Despite the fact that both the gate and the bastion were dismantled, they remained in collective memory and the medieval names of the area were preserved, as one can note in 1878 when the vicinity of the Sagtor Gate was mentioned, including eight streets¹¹.

The preventive archaeological researches

In this context, the excavations performed between December 2012 and September 2013 in the Lower City – *Tower Street* (Pl. 2), city of Sibiu, aimed at documenting all evidence of these two large architectural edifices of special historical importance that have been disturbed and partially destroyed by contemporary works.

The Tower Gate

The Tower Gate is located in the end of Tower Street, at the entrance into the parking lot in front of the current Pim factory. The gate was included in the fourth fortified precinct, built during the 15th Century. Just like the other gates of that precinct, it was used as access gate into Sibiu for more than 200 years, connecting it to the roads coming from Alba Iulia and Cluj.

Grid cell 2 (Fig. 6) allowed the research of the NE corner of the tower and of part of the wall of the fourth precinct of the city. The tower has a foundation measuring 1.50 m, made of quarry stone mixed with mortar that supported the base of the tower that measures 1.05 m in length and is made of cut quarry blocks followed by bricks placed in five or six rows. The wall of the Tower Gate, made of bricks connected with mortar, raised on top of this base. Attached to the tower we have also identified one fragment of the access gate wall, allowing a way into the precinct. It measured 1.20 m in width, was identified down to a depth of – 1.45m, and was built in an identical manner to the gate wall (Fig. 7).

¹⁰ Sigerus 2011, 63.

¹¹ Hochmesiter 2006, 114.



Fig. 6. Structure of the Tower Gate foundation.

The same construction method can be encountered in the case of the Elisabeth Gate, where one can observe the massive structure consisting of stone blocks connected with mortar¹².



Fig. 7. Corner of the Gate's foundation near the entrance wall.

The uncovering of the carriageway for modernizing works has allowed for archaeologists to clear a wider area of the wall of the Tower Gate, **Z 05** (Fig. 8), located along the current route of the street (Fig. 9); this makes us hypothesize that the tower of the Saag Gate was located on the current route of the street and that access to the city was possible through the present-day parking lot of the PIM company.

As for the configuration of the tower's wall, the latter was oriented E-W, was made of stone and brick connected with mortar (Fig. 10), and the eastern end displays a continuation performed in a very different manner, out of just stones connected with mortar. The analysis and comparison of the two

¹² Luca *et al.* 2007 b, 315.

construction methods led to the conclusion that there were two building stages (Fig. 11), one medieval and the other modern. The same manner of positioning of the gate, out of the normal axis of the fortification wall, can also be noted in the case of the other preventive researches performed on Cîsnădiei Gate¹³ and Elisabeth Gate¹⁴.



Fig. 8. Alignment of the Tower Gate.

In order to verify the hypothesis related to the existence of two construction stages of the Tower Gate, a grid cell was opened in the southern part of the discovered walls, i.e. **C 5** (Fig. 12), measuring 1.5 m × 1.8 m. The emptying of the cell has revealed a succession of filling layers (lenses of sand and pebbles mixed with bricks, succeeded by layers of black soil, rarely including animal bone fragments). The south-eastern part the stratigraphy has been destroyed by the sewerage system, by water pipes, and by those of the E-on Gaz. In fact, as one will note in the case of the other archaeological researches performed in the close proximity or inside the planimetry of the Bastion, the archaeological material is missing in its great majority; the only elements of material culture that can be retrieved are late modern pottery fragments and contemporary construction materials. All these observations make us state that the existence of medieval materials is almost impossible, taking into consideration the frequent utility works performed in the area under discussion. At the same time, the location of these objectives on a commercial road, as entry gate into the fortification, is one further argument, and the performed works have decisively contributed to the situation described above. When the removal of the old asphalt layer in the pedestrian area was decided, for the remaking of the curbs and the rehabilitation of the area, it was deemed necessary to verify the situation noted so far through the opening of a grid cell (Fig. 13) that could confirm the trajectory of the Tower Gate and that would identify its medieval phase.

The trench was located in the proximity of the wall identified during the previous winter (**Grid cell 2**). As in the previously encountered situations, the entire surface was strongly disturbed by utility works performed over the past century. Even so, we were able to note the existence of several ground levels (Fig. 14); one that seems to be medieval is superposed by a division wall placed somewhat obliquely.

As for the rest, the research of the grid cell has revealed the existence of several walls, the trajectory of which indicates the fact that they were not constructed during a single stage; the way in which they are built and their thickness supports the idea that they functioned as division walls.

¹³ Luca *et al.* 2007a, 331.

¹⁴ Luca *et al.* 2007b, 315.



Fig. 13. Grid cell C06 – The Tower's Gate.

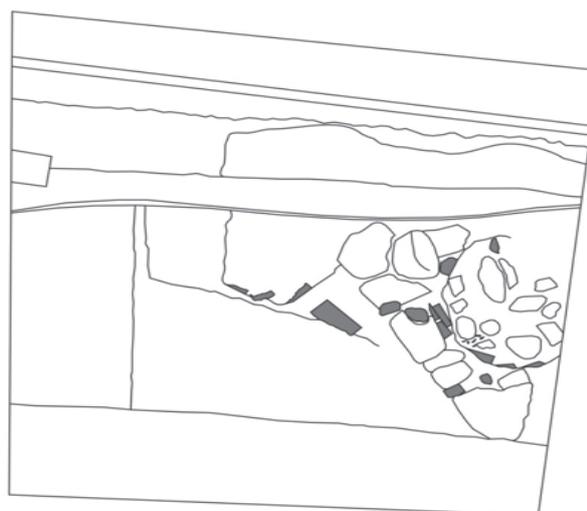


Fig. 14. Ground plan of grid cell C06 – the Tower Gate.

The Tower Bastion has been the object of several partial preventive archaeological researches triggered by several infrastructure works in the area. Thus, between 2003 –2005, during works for the construction of a hall for meat and dairy products the foundations on the south-western part of the heart-shaped bastion that defended one of the entry gates into the Lower City was discovered. A series of test trenches were performed in 2006, during works for the modernization of Cibir Square.

During the current research, the trajectory of the wall and those of other compartmenting walls were discovered and researched through several grill cells.

Grid cell 1 (Fig. 15) has identified part of the Tower Bastion wall on the occasion of the introduction of the sewerage network. The wall was identified transversally inside the grid cell, down to the depth of –3.60 m; it measured 2.90 m. in width. Its one-meter foundation is entirely made of quarry stone mixed with river stone connected with mortar, placed on a layer of black soil on top of which one can note a layer of pebble and sand. The wall is made of stone and brick, connected with mortar. The stratigraphy inside this cell indicates, at 0.40 m, a layer of asphalt and sand, followed by a layer of debris mixed with soil that ends at 0.94 m, where the bastion wall starts (Fig. 16).



Fig. 15 Detail of the foundation.



Fig. 16.

Grid cell 3.

Grid cell 3 (Fig. 17, 18, 19, 20) was performed on the carriageway, at the intersection of Tower Street and Cibin Square, running across it. The wall and the foundation have been destroyed by the utility works performed in the second half of the 20th Century, most probably before 1989. The research has revealed that the wall is oriented NW – SE, measures 80 cm in width, as wide as the trench. The length is of 3.90 m.; the upper part is made of brick, 0.50 m is part of the Bastion wall and the remaining 0.80 cm down to the depth of – 1.30 m is made of river stone mixed with quarry stone, connected with mortar. The stratigraphy of the grid cell can be thus described: one layer of asphalt, of 0.20 cm, followed by a layer of sand mixed with pebble (0.20 – 0.48 cm), and a yellowish-brown layer of sandy clay (0.48 – 0.73 cm). The subsequent layer consists of debris and it descends to –2.50, ending in the ground water.



Fig. 17.



Fig. 18.



Fig. 19.



Fig. 20.

Grid cell 4.

Grid cell 4 (Fig. 21, 22, 23, 24) was performed on the occasion of the works on the upper part of a wall that seems to be, most probably, a compartmenting wall; its position is somewhat perpendicular to that of the Bastion wall analyzed in the third grid cell described above. With a width of 1 m, the cell measures 6 m in length; the sole of the foundation wall was uncovered at -2.80 m. The wall is made of bricks connected with mortar and the foundation consists of river and quarry stones mixed with fragments of bricks and connected with mortar.



Fig. 21



Fig. 22



Fig. 23



Fig. 24

Grid cell 6

Grid cell 6 (Fig. 25, 27, 28) was opened in parallel to grid cell no. 3 and was determined by the creation of the sewerage network. The wall of the Tower Bastion was uncovered over a surface measuring 9.20 m in length and 1 m in width. The wall was uncovered down to the depth of 2.55 m (Fig. 26), with one of the outer sides plastered with mortar. The wall descends to -2.30 m and is made of bricks connected with mortar, followed by a foundation of river stones mixed with bricks and connected with mortar¹⁵.



Fig. 25.



Fig. 26.

¹⁵ It is important to mention the fact that all the preventive archaeological researchers that were performed on that occasion could only be made in those parts of the street that could be excavated to greater depth, to allow the introduction or change of utility network routes.



Fig. 27.



Fig. 28.

During the final stage of the works performed on the carriageway corresponding to Cibin Square, we have eliminated the layer of asphalt in order to allow for the final infrastructure works and for the setting the final layer of asphalt. On that occasion we could uncover a significant part of what was the compartmenting part of the Tower Bastion (Fig. 29).



Fig. 29. General image of a part of the walls of the Tower Gate Bastion.

For a better chronological identification, two grid cells were opened on two of the wall's sides (grid cells 8 and 9), measuring 2×2 m, located in the SE and the NW corners.

Grid cell 8 (Fig. 30) has led to the identification of some of the compartmenting walls of the Tower Gate Bastion. The grid cell was researched down to the depth – 2.60 m (Fig. 31) and it captured the structure of the wall down to the foundation sole. One can note that the wall is entirely made of bricks placed on top of a cut limestone block and that the foundation is completely made of river boulders, connected with mortar (Fig. 32).



Fig. 30. Grid cell 8.



Fig. 31. Structure of the wall.



Fig. 32. The NW profile.

Grid cell 9 – was located in the NW part of the wall (Fig. 33), having the same dimensions. As in the previous case, one can note the same structure of the layers (Fig. 34); we should observe the fact that the numerous works performed in the area have disturbed the original situation and that, in fact, like in the case of the Tower Gate, the stratigraphy fails to provide data on the historical context of the period when the two structures were built.



Fig. 33. Stratigraphy of the northern profile.



Fig. 34. The structure of the compartmenting wall – C09.

Conclusions

The preventive researches triggered by the infrastructure works performed on Tower Street in Sibiu have allowed us to identify some of the elements of fortification of the Lower City, i.e. the Tower Gate and Gate's Bastion. On that occasion we were able to locate them correctly, as one knows of the previous general discussions on the issue. Unfortunately, the short time and the conditions imposed by the constructor, i.e. to locate and research the discovered elements only during the infrastructure works, have not allowed for the identification of the entire archaeological context of these objectives. Also, the successive interventions caused by the introduction of the various utility networks, especially during the first part of the 20th Century, have led to the destruction of some important parts of the objectives; the medieval context was destroyed to a proportion of 90% and it was impossible to recover archaeological materials.

Nevertheless, the researchers performed on this occasion have allowed for the completion of data on the defensive system of late medieval and early modern Sibiu.

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1.



2.

Plate 1. 1. Location of the Tower Gate and Gate's Bastion of the Josephine topographical survey; 2. City ground plan – 1875, aquarelle by Johann Böbel.

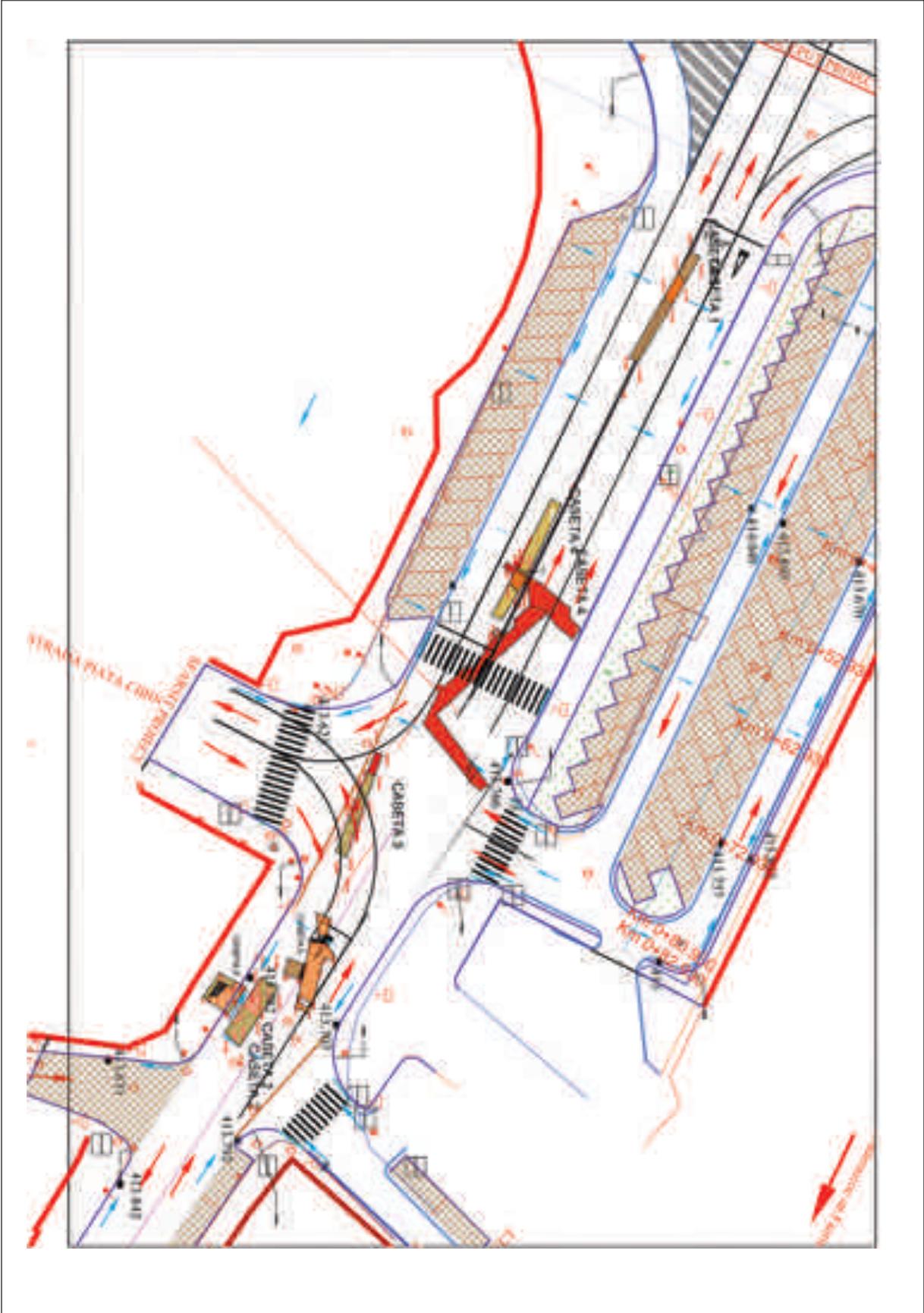


Plate 2. Location of the grid cells opened during the archaeological researches performed in 2012 and 2013, according to the topographic surveys.

Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
ActaHist	Acta Historica. Szeged.
Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
AISC	Anuarul Institutului de studii clasice Cluj Napoca. Cluj-Napoca.
AnB S.N.	Analele Banatului – serie nouă. Timișoara.
Apulum	Apulum. Alba-Iulia.
AÉ	Archaeologiai Értesítő. Budapest.
Areopolisz	Areopolisz. Történelmi- és társadalomtudományi tanulmányok Odorheiu Secuiesc / Székelyudvarhely.
ArhMed	Arheologia Medievală. Iași.
ArchRozhl	Archeologické Rozhledy. Praga.
ArhVest	Arheološki Vestnik. Ljubljana.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
BAR International Series	British Archaeological Reports, International Series. Oxford.
BAM	Brukenthal Acta Musei. Sibiu.
BMMK	A Békés Megyei múzeumok közleményei, Békéscsába.
CAH	Communicationes Archaeologicae Hungariae. Budapest.
Cerc. Arh.	Cercetări Arheologice. București.
CIL	Corpus Inscriptionum Latinarum.
CIMRM	Corpus Inscriptionum et Monumentorum Religionis Mithriacae.
CCA	Cronica Cercetărilor arheologice din România. București.
Crisia	Crisia, Muzeul Țării Crișurilor. Oradea.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DissArch	Dissertationis Archaeologicae (Budapest).
Dolg	Dolgozatok. Szeged.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
EL	Erdővidéki Lapok. Barót/Baraolt.
EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch- Germanischen Zentralmuseums Mainz. Mainz.
Marisia	Marisia. Studii și materiale. Arheologie – Istorie – Etnografie. Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.

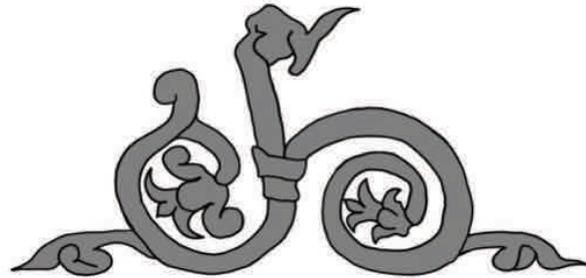
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thrac-Dacica	<i>Thrac-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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Elements of Fortification of the Medieval and Early Modern City of Sibiu. The Tower Gate and the Gate's Bastion. Historical and Archaeological Considerations.....243

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Medieval Stove Tiles in the Collection of the Museum of Banat Discovered in the Fortification of Şoimoş (Arad County)*

Zsuzsanna Kopeczny, Florin Mărginean

Abstract: The article aims at introducing into the academic circuit a small lot of stove tiles discovered in the fortification of Şoimoş (Arad County). Besides the effort of recovering data from a forgotten excavation, we will attempt to perform an analysis of this type of materials used in the heating, but also refurbishing of medieval fortifications. We shall also present other preserved traces, still visible inside the fortification, that indicate the presence of heating or cooking systems.

Keywords: stove tiles, fortification, Şoimoş, Middle Ages, Arad County.

Located north of the Mureş Valley (see the map on the right), on a hill that the locals call “Cioaca Tătarului” or “Tăutului” (as it is mentioned on the second and third Habsburg military surveys, see Pl. 1), the fortification of Şoimoş entered the attention of historians at a rather early stage; it was the topic of several studies published over time in books and specialized periodicals¹. Nevertheless, there is still need for rigor in its knowledge and analysis, according to the criteria of serious research. The analysis of the few documentary sources available, referring especially to the early period, has not solved this deficit in knowledge. Its location in the vicinity of the city of Lipova has probably determined the fortification’s less often mention in written documents. The lack of systematic archaeological excavations² has prevented a better knowledge of the early building stages of the fortification and of its planimetric development. It has also prevented a better knowledge of its architectural components and of its elements of material culture, typical to each period of ownership in the history of the fortification.



Before analyzing the stove tile lot, that is in fact the goal of the present article, we shall make a brief presentation of the monument’s history. The fortification had numerous owners throughout the medieval period, and this left stronger or weaker marks upon the building complex. One does not know the exact date when the first fortification was built, just that a noble family started to build it towards the end of the thirteenth century. The role of the fortification grew constantly and after 1315 it became a royal fortification, always associated to the counts and vice-counts of Arad. In 1426 the history of the fortification parts ways with that of the royal institution, as it was offered as a gift to Şişman, son of the Bulgarian tsar deposed by the Turks³. Then, towards the middle of the

* English translation: Ana M. Gruia.

¹ Márki 1892, 533; Geró 1955, 212; Vătăşianu 1959, 615; Anghel 1972, 64; Lanevschi 1977; 563–565; Lanevschi 1979; Greffner 1984; Entz 1996, 100; Rusu, Hurezan 1999, 75–96; Rusu 2000, 568–573; Rusu 2005; Karczag, Szabó 2010, 221–222.

² The only archaeological test trenches inside the fortification were performed in the end of the 1970s under the coordination of Radu Heitel, Nicolae Puşcaşu, and Florin Medelet; the results remained unpublished.

³ *Aradul – permanență ...*, Arad 1978, 125.

fifteenth century it was donated successively, thus changing several owners. Finally, king Wladislas I (1440–1444) donated it to the Ország family.

The importance of this fortification started to manifest itself fully by the time it entered the possession of John of Hunedoara, in 1446. The possible modifications brought by John of Hunedoara remain, as yet, simple hypotheses. During Mathias of Hunedoara (1458–1490) the fortification was pledged and thus ruled by several noble families. For a short while it was also ruled by John Corvinus, and from its widow, Beatrix of Frangepan, through her marriage and subsequent death, it ended up in the hands of George of Brandenburg⁴.

In the summer of 1514, after the city of Lipova was occupied, the fortification was besieged by the rebels led by George Doja and opened its gates without offering resistance. John Zápolya, the voivode of Transylvania, took it under his rule together with other fortifications in the Mureș Valley after defeating the rebels under the walls of Timișoara. Between 1541 and 1542 it became the princely residence of queen Izabella, John Zápolya's widow, and their son, John II Sigismund Zápolya. It is probably the period of the last major interventions upon the fortification.

During the fifteenth and sixteenth centuries the fortification was rebuilt several times due to the repeated sieges and this prevents the knowledge of its early stages⁵.

In 1551 it passed onto Andrew Báthory, who was the representative of the authority of king Ferdinand of Habsburg. After 1551, with the start of an ample expedition organized by the Turks, the area of the fortifications in Șoimoș and Lipova became the main spot of military operations between the Imperial and the Ottoman troops, that often involved the armies of Transylvania. In 1552 the Turks occupied the fortification and in the same year it was shortly recaptured by the troops of Castaldo and Martinuzzi; it was freed from the Turks only in 1595⁶. For a short while, in 1599, the fortification was occupied by Mihai Viteazul's armies⁷.

Subsequently, Gabriel Bethlen gave it up to the Turks who owned it until March 26th, 1688. The Turkish traveler Evliya Celebi (1611–1682), who traveled through the area under discussion here, provides precious data on the second period of Turkish occupation in the area of the Lower Mureș⁸.

Even if the fortification was under Turkish rule for a significant period, nothing in its preserved planimetry betrays major interventions to its structures from the time of the Turkish occupation. Nevertheless, elements of material culture discovered inside the fortification have been preserved and are the topic of the present article; they can be mostly dated to the period of the Turkish occupation. The publication of these materials, corroborated with other, similar discoveries in the valley of the Lower Mureș (see Vărădia de Mureș, Chelmac⁹, Bulci, Lipova, Felnac etc)¹⁰ that can be dated to the same transition period towards the Modern Era, reveal a period less known from this perspective. Concerns on the research of this period, during which these territories were under Ottoman administration, are, from a strictly archaeological perspective, not even if the stage of pioneering endeavors. But, as long as persons other than specialists research the older or newer discoveries for a period which should be called the archaeology of the Ottoman period, this stage will never be surpassed.

Nicolae Pușcașu and Florin Medeleț have performed archaeological researches in the fortification of Șoimoș in 1966 and 1967, respectively (see Pl. 6). The researches have focused on the southern side of the outer precinct and on the so-called "knights' hall", also located on the southern side of the first precinct¹¹.

Among the archaeological materials discovered during the above mentioned excavations one can include a rather small lot of stove tiles that belong to different types and chronological horizons.

⁴ Rusu, Hurezan 1999, 77.

⁵ Rusu 2005, 536.

⁶ *Aradul permanentă* ..., 1978, 126–127.

⁷ Greffner 1984, 57.

⁸ Çelebi 1967, 511.

⁹ Țicu, Mărginean 2008.

¹⁰ Besides those in Chelmac, the other locations with mentioned discoveries that can be dated during the same period are in various stages of processing, to be published.

¹¹ One can currently turn to just one part of the documentation compiled by archaeologist Fl. Medeleț, preserved at the Museum of Banat Timișoara. The material discovered during the two campaigns has also been deposited at the M.B.T., but the quantity of the finds is restricted when compared to the large surface researched. We are not aware of artifacts discovered during the excavations under discussion in the storage rooms of the Museum Complex in Arad.

Items catalog. The catalogue of the items includes the stove tiles discovered in the fortification of Şoimoş currently preserved in the collection of the Museum of Banat in Timișoara. The catalogue was structured according to the formal typology of the items. The description was made thus: current number; item name; description of the item (includes its dimensions, expressed in centimeters); place of discovery; place of preservation (M. B. T. = Museum of Banat Timișoara); illustration.

Panel stove tiles

1. Panel stove tile with geometrical decoration. The item consists of five fragments from the corner of a panel tile. The decoration is structured into fields: a zigzag decoration runs along the preserved border of the stove tile, in a field measuring 2 cm in width. The next field is wider, divided into squares with double frames that contain one depiction of St. Andrew's cross each. The decoration is molded. Oxidizing firing, dark-brown – brick-red in color, with traces of secondary firing on the back. Size: 12 × 10 cm. Fifteenth-sixteenth century. (1966, room 9, level 1 from the top), M. B. T., Pl. 2/1.

2. Panel stove tile with frame. The corner of a panel tile with a frame doubled inside and with a border in relief. Two, slightly arched straps start from the corner of the border. Oxidizing firing, dark-brown – brick-red in color, with traces of secondary firing on the back. A layer of reddish paint was applied after firing. Size: 7 × 8.5 cm. Sixteenth century. (1966, room 9, level 1 from the top). M. B. T., Pl. 2/2.

3. Haban style? panel tile. Corner of a glazed panel stove tile. Floral decoration in a semicircular border. Colors: blue, yellow, white background. Oxidizing firing, dark-brown – brick-red in color, with traces of secondary firing on the back. On the basis of the decorative motifs and of the colors employed, the item can be attributed to the Haban workshops. Size. 8.5 × 8.5 cm. Seventeenth century. (1966, C 9, outer wall, – 2.40 – 2.70 m). M. B. T., Pl. 2/3.

4. Disk-shaped stove tile. Entirely preserved disk-shaped tile, with projecting button inside a circle decorated like a fake cord. Oxidizing firing, dark-brown – brick-red in color. Size. 8 cm. Fifteenth-sixteenth century. (1966, room 9, level 1 from the top). M. B. T., Pl. 2/4.

Crown tiles

1. Crown tile. Openwork. At the base there is a row of triangle-shaped impressions, superposed by an openwork decorative strap, divided into rectangular cases with openwork elements in the shape of St. Andrew's cross. The upper part has been destroyed. One crown fragment in the shape of merlons, has at the base a strap with a decoration consisting of zigzags and a preserved segment of the open work decoration could be considered part of the first item described. Fifteenth-sixteenth century. The decoration is identical to that of the panel stove tile described above (I. 1), thus the two items were probably part of the same stove. (1967, 1966, C 9, outer wall, 2.40 – 2.70 m). M. B. T., Pl. 3/3.

Pot tiles

1. Pot tile with rectangular opening, bitronconic in shape. Incomplete item; just half of it has been preserved. Reducing firing, grey in color, with traces of secondary firing. Size: side length = 25 cm, h. 10 cm. Sixteenth-seventeenth century. (1967). M. B. T., Pl. 3/1.

2. Pot tile with circular opening.

A. Pot tile with circular opening. Bitronconic in shape. Oxidizing firing, dark-brown – brick-red in color, with traces of secondary firing. Size. 15 cm, h. 9 cm. Sixteenth-seventeenth century. M. B. T., Pl. 3/2.

B. Pot tiles with circular opening and wide frame (Pl. 4/1).

a. glazed

Two items are included in this category, slightly different in size alone.

1. Tronconic in shape, frame measuring 2.5 in width, and grooves in the shape of concentric rings. On the outside, about the middle of their height, the tiles have a girdle in relief, probably for a better fastening in the wall of the stove. Oxidizing firing, dark-brown – brick-red in color, with traces of secondary firing on the outside. Both the inner surface and the visible part of the frame have been covered in olive green lead glaze. Diameter: 13.5 cm, h. 8.5 cm. Stove tile attributed to the Turkish period, sixteenth-seventeenth century. (1966, loc. 5, near B, square trench 1, – 0.50 m).

2. Tronconic in shape, frame measuring 2.7 in width, and grooves in the shape of concentric rings, outer girdle in relief. Oxidizing firing, brick-red in color, with traces of secondary firing on the outside, covered in olive green glaze. Diameter: 14.7 cm, h. 9 cm. Sixteenth-seventeenth century. (1966, loc. 5, near B, square trench 1).

b. unglazed.

The same type of tile as the ones described above, but unglazed. Oxidizing firing, dark-brown – brick-red in color, with traces of secondary firing on the outside. Diameter: 13.5 cm, h. 8.5 cm. Sixteenth-seventeenth century. M. B. T., Pl. 4/1.

C. Pot tiles with circular opening and narrow frame.

This type of stove tile includes six items, bitronconic in shape, with simple frame measuring 1.2 – 2 cm in width, outer girdle in lower relief than in the case of the previous type. Oxidizing firing, dark-brown – brick-red in color, unglazed, traces of secondary firing preserved in the outside. Turkish Era, sixteenth-seventeenth century. M. B. T., Pl. 4/1.

1. Diameter: 11.5 cm, h. 9 cm. (1966, square 1, 5 near the Bastion, – 0.50 m).
2. Diameter: 11.6 cm, h. 9 cm. (1966, section room 9, outer wall, – 2.40–2.70 m).
3. Diameter: 11.7 cm, h. 8.3 cm. (1966, loc. 5, near B with *trou de loup?*, square 1, – 0.50 m).
4. Diameter: 13.2 cm, h. 9 cm.
5. Fragmentary item, h. 9 cm. (1966, room 9, – 2.40–2.70 m).
6. Fragment of wall and rim.

The quantity of stove tiles discovered in the fortification of Şoimoş is much too small in order to allow for estimations on the structure of the stoves that once heated its interiors. Still, on the basis of the item types, different from the perspective of their chronological identification, we can estimate that they were part of at least 4–5 stoves that heated the residential and protocol rooms during the period between the fifteenth and the seventeenth century.

This type of heating system reached a peak of expansion during the fifteenth-sixteenth century, as it was the most efficient, but one can note that it remained “fashionable” also during the Turkish occupation, when new types of stove tiles appeared.

The earliest tile shapes in the lot under discussion can be dated to the fifteenth century. It includes the disk-shaped stove tile and the two tiles with geometric decoration, most probably part of the same stove.

Pot or beaker tiles from the Turkish Era are the most numerous. Such items, generally dated to the sixteenth-seventeenth century, have also been discovered in Lipova¹², Pecica¹³, Gyula¹⁴, Oradea¹⁵, and Timișoara¹⁶. Despite the fact that this type of stove tiles was widely distributed during the period of the Ottoman occupation, mainly in the rural area of the Large Hungarian Plain, specialists in the field were able to determine that it started to be produced previous to this period¹⁷.

A single fragmentarily preserved item attests the introduction of the Haban products in the region of Banat. The white glaze of the background and the rest of the specific colors employed (cobalt blue, antimony yellow), render the attribution of this item to Haban masters¹⁸. On the basis of the Renaissance-style floral decoration, placed in a wallpaper-type composition, the item can be dated to the seventeenth century, a period when this type of tiles reached a peak in popularity¹⁹. One does not know if the stove that once included this item, singular to the present state of research, has been commissioned during the period when the fortification was in the hand of the Turks (until 1688) or

¹² Similar stove tiles that can be dated to the same period have been recovered by chance during town planning works in the center of the city of Lipova, at the Economic High School and on Miron Costin Street. The entire material is currently under research, to be published. We thank Mr. Dan Demșea for the information he has kindly provided.

¹³ Hurezan, Szatmári 1998, 276–280; Mărginean 2007, 145.

¹⁴ Fodor *et al.* 2002, 109–110, kat. 202, 204, 205, 207, 208, 210, 212.

¹⁵ Rusu *et al.* 2002, 58, 129–130, Marcu 2004, Pl. 104, 59–62.

¹⁶ Unpublished items, discoveries from the center of Timișoara and the Huniade Castle, in layers than can be dated during the period of the Turkish occupation.

¹⁷ Sabján 2002, 70–71.

¹⁸ *Magyar Néprajzi Lexikon...*1979, vol. II, s.v. *habán kerámia*. Pottery workshops of the Haban masters functioned in Sárospatak, Vințu de Jos, Vurpăr, and Micești, see Guricza 1992, 39–40; Marcu 2004, 45–48.

¹⁹ Bunta 1971, 225–226.

previously, between the two Ottoman conquests, or even after the latter abandoned the fortification. Written records mentioning Haban products indicate the fact they were much more expensive than the local products and mainly covered the demands of the prince of Transylvania and of the more important nobles²⁰.

The discovered stove tile fragments are not the only evidence of the heating systems used in the rooms of Şoimoş fortification. In the elevation of the still preserved walls one can note traces of the heating systems²¹. Thus, in the body of the northern palace, in the northern stone walls of the second room located, most probably, on the first floor of the palace, one still notes the chimneys, made of brick, one circular and the other rectangular (Pl. 7).

The knights' hall, in the southern wing of the fortification, must have been heated as well. Researches performed in this room have revealed stove tile fragments dated to the fifteenth-sixteenth century (Pl. 6).

A stone niche has been preserved in the third room eastwards, that can be interpreted as the box of a possible fire place²².

The fortification's kitchen functioned in the north-western corner. Fortunately, the sketches made by Czigler Győző and his students in 1892, when the ruins of an oven were still visible, have been preserved (Pl. 6, spot 1 on the map)²³. The oven had a vault that extended into a chimney, octagonal in section, with the outer diameter of ca. 2.40 m, and the inner diameter of 1.30 m. In the end, it had small orifices on each side (Pl. 5/1–2).

All the data collected in the present study are insufficient by far for a reconstruction of the heating systems used inside the fortification during the centuries. The disparate discoveries, recovered from the archaeological layers in a restricted area only allow us to record this category of medieval or Turkish-era material culture, while wider future researches will aim at bringing due completions under this regard as well. One can only imagine those heating systems, some probably true sculptural compositions, that once furnished the rooms of the fortification especially during the fourteenth and the fifteenth century and were subsequently changed according to the fashion of more recent eras. The items presented above were used during the late period of use of the fortification (during the sixteenth-seventeenth century) and reflect the modest state of those who owned them and the troubled character of those times. The situation is similar to that of other discoveries, either in cities (Lipova), simple settlements (Felnac, Arad), or old noble residences (Chelmac, Felnac, Arad – Ceala, Nădlac etc.), inside which the local material culture was adopted by the conquerors and the population they brought along. In the case of tile stoves, one can easily note the fact that the Turks adopted the local fashion in all Balkan areas they occupied, as far as the western parts of the Carpathian Basin. They have naturally added an infusion of new elements of material culture, including in the field of the heating systems. In the present case, only the item of presumed Haban origin betrays the more refined taste of one of the temporary owners of the fortification during the interval mentioned above.

Acknowledgments

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²⁰ Bunta 1971.

²¹ Rusu 1999, 93.

²² Rusu 1999, 93.

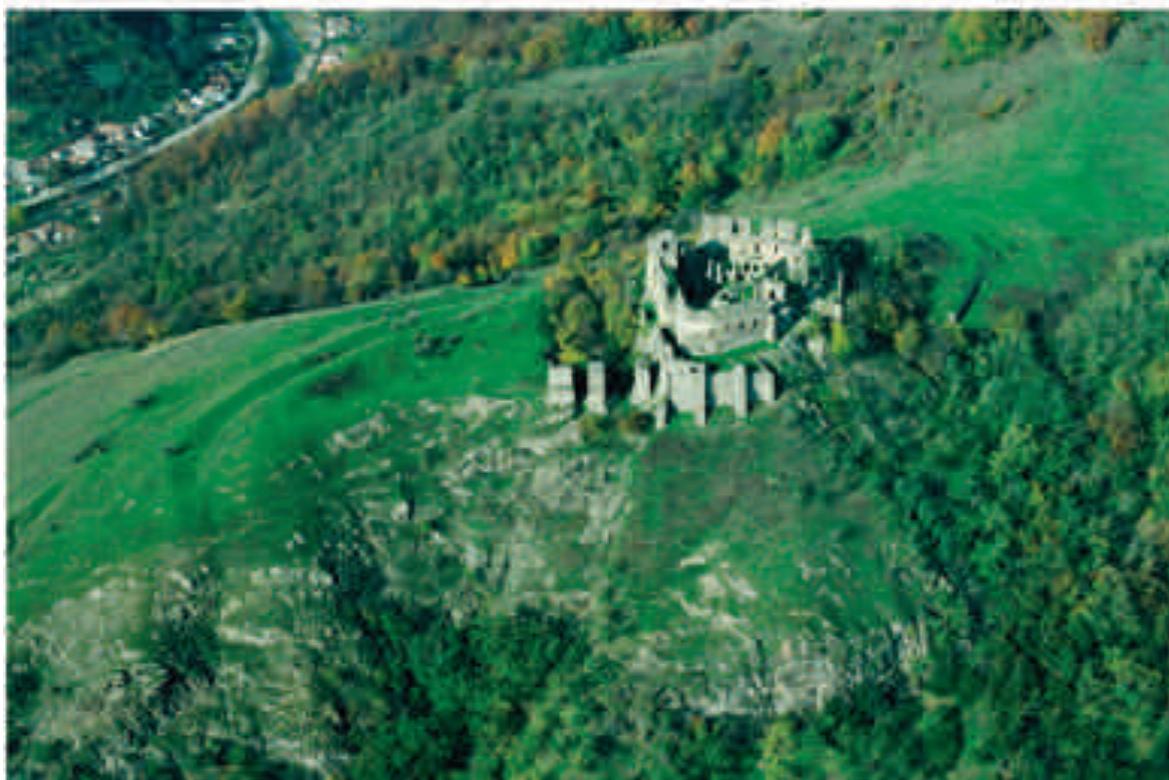
²³ I. Feld's annex to A. A. Rusu's study of 2000, 587, fig. 8.

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1



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Plate 1. 1. Location of the ruins of the Şoimoş fortification according to the first Habsburg military survey (1763–1787, taken from <http://mapire.staatsarchiv.at>); 2. Aerial photograph (2004).

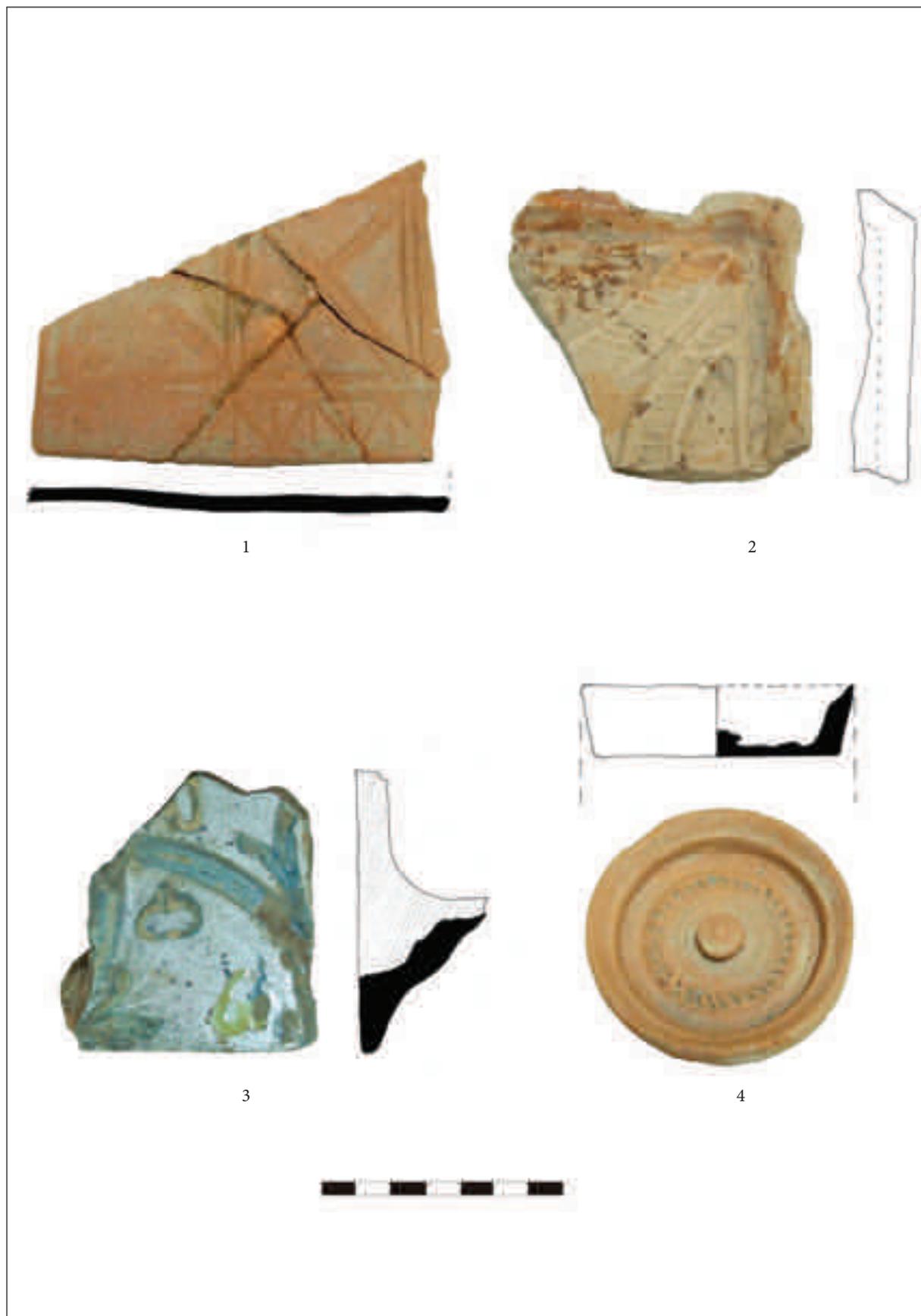


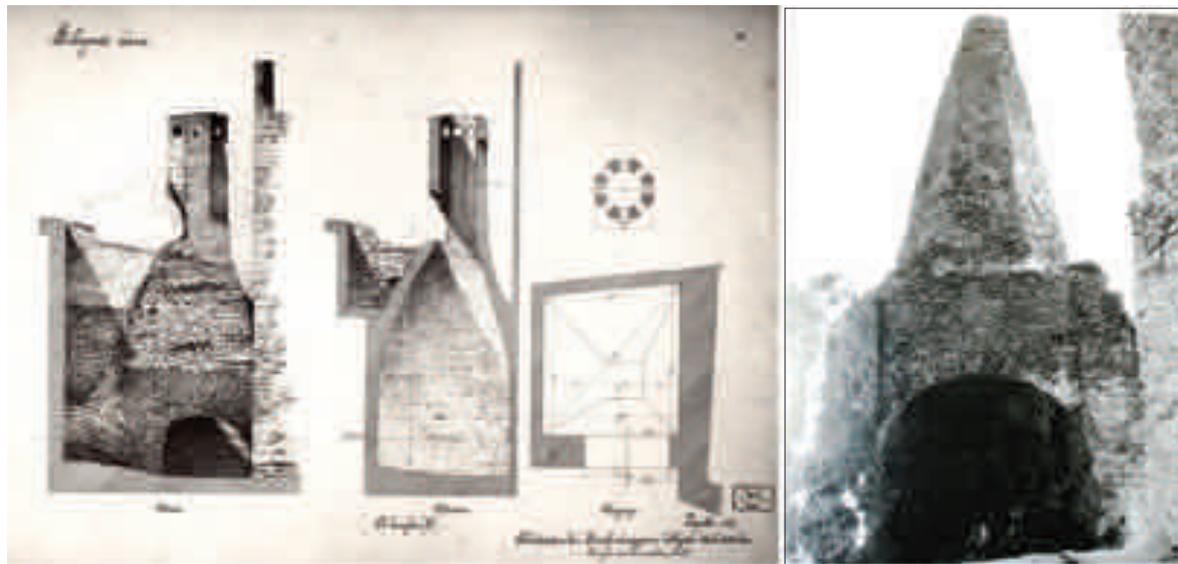
Plate 2. 1. Panel stove tile with geometric decoration; 2. Panel stove tile with frame; 3. Haban panel stove tile; 4. Disk-shaped stove tile.



Plate 3. 1. Pot tile with rectangular opening; 2. Pot tile with circular opening; 3. Crown stove tile.



Plate 4. Pot/beaker-shaped stove tile from the Turkish period.



1



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Plate 5. 1. The kitchen of the Şoimoş fortification, sketches by Czigler Győző (taken from Feld 2000) and photograph; 2. Photograph image with the present-day ruins.

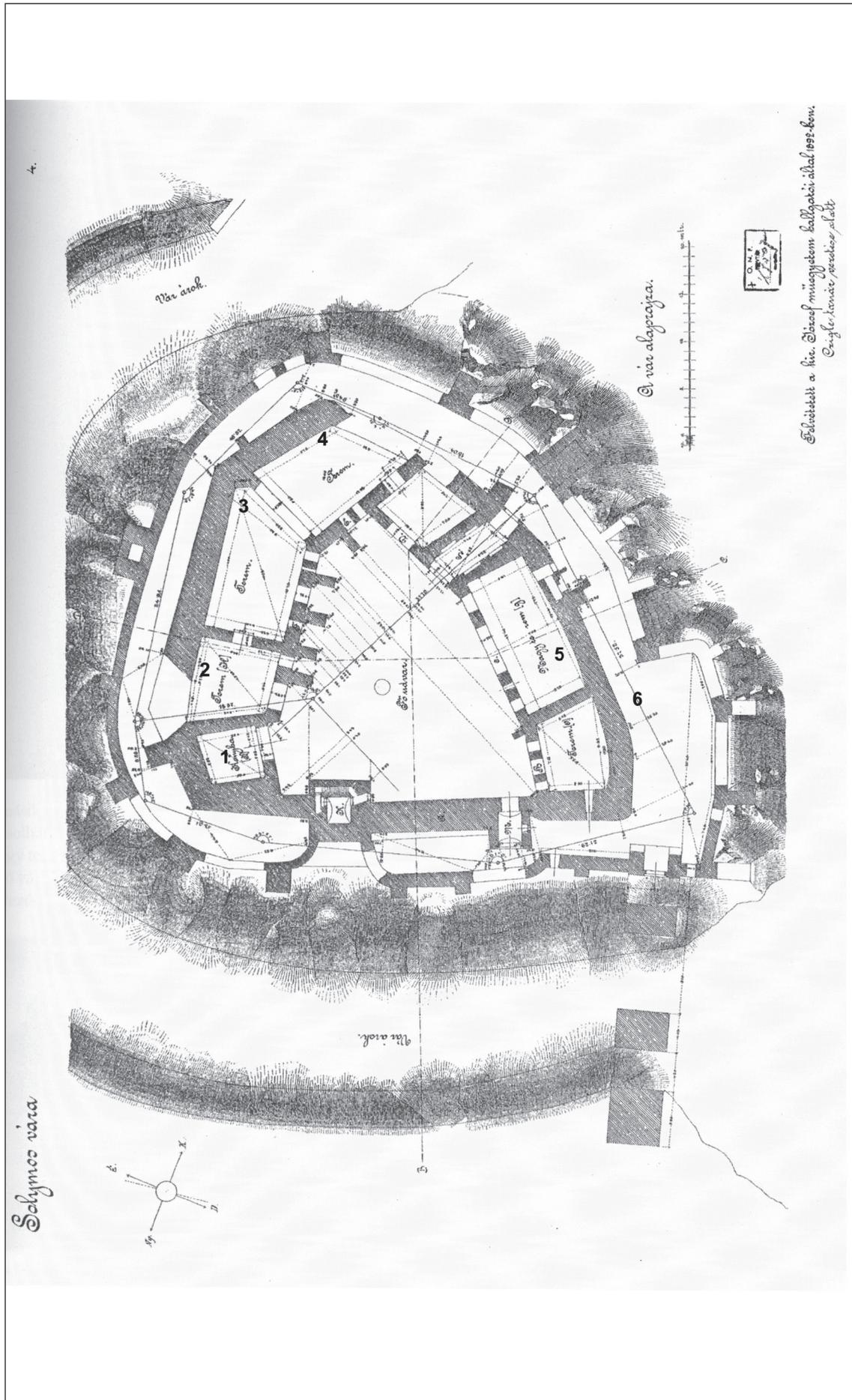


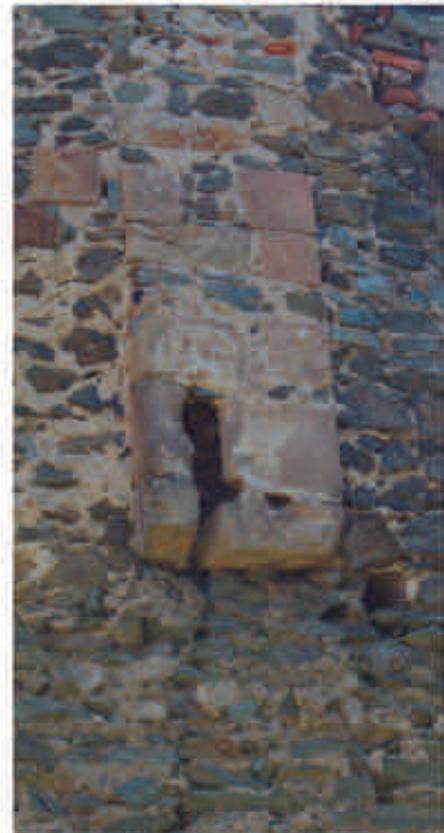
Plate 6. Ground plan of Şoimoş fortification, made by Czigler Győző (taken from Feld 2000): 1. The kitchen; 2–3. The chimneys in the rooms of the northern palace; 4. The fire place on the north-eastern side of the palace; 5. “The knights’ hall” researched in 1966; 6. Part of the northern precinct researched in 1967.



1



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Plate 7. 1–2. The chimneys on the northern side of the palace; 3. Firebox of the fire place on the north-eastern side of the palace.

Abbreviations

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
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Acta Siculica	Acta Siculica. Sfântu Gheorghe.
Aluta	Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă Zalău. Zalău.
ATS	Acta Terrae Septemcastrensis. Sibiu.
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ArhMed	Arheologia Medievală. Iași.
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Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BHAUT	Bibliotheca Historica et Archaeologica Universitatis Timisiensis.
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BAM	Brukenthal Acta Musei. Sibiu.
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EM	Erdélyi Múzeum. Kolozsvár/Cluj-Napoca.
Isis	Isis. Erdélyi Magyar Restaurátor Füzetek. Cluj-Napoca / Kolozsvár.
JbRGZM	Jahrbuch des Römisch- Germanischen Zentralmuseums Mainz. Mainz.
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OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS. Deva</i> .
SlovArch	<i>Slovenská Archeológia. Nitra</i> .
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
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SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări. Satu Mare</i> .
Thraco-Dacica	<i>Thraco-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei. Veszprém</i> .
VTT	<i>Veszprémi Történelmi Tár. Veszprém</i> .
Ziridava	<i>Ziridava, Complexul Muzeal Arad. Arad</i> .

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MCA	Materiale și Cercetări Arheologice. București.

MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. <i>Studia Archaeologica</i> . Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. <i>Monumenta Archeologica</i> . Szeged.
OpArch	<i>Opuscula Archaeologica</i> . Zagreb.
OpHung	<i>Opuscula Hungarica</i> . Budapest.
Pontica	<i>Pontica</i> , Constanța.
PZ	<i>Prähistorische Zeitschrift</i> . Berlin.
RMM-MIA	<i>Revista Muzeelor și Monumentelor – seria Monumente Istorice și de Artă</i> . București.
Sargeția NS	<i>Sargeția NS</i> . Deva.
SlovArch	<i>Slovenská Archeológia</i> . Nitra.
Soproni Szemle	<i>Soproni Szemle kulturtörténeti folyóirat</i> . Sopron.
StudCom	<i>Studia Comitatus</i> . Tanulmányok Pest megye múzeumaiból. Szentendre.
ŠtudZvesti	<i>Študijne Zvesti Arheologického Ústavu Slovenskej Akademie Vied</i> . Nitra.
Stud. și Cerc. Num.	<i>Studii și Cercetări de Istorie Veche și Arheologie</i> . București.
SCIVA	<i>Studii și Cercetări de Istorie Veche (și Arheologie)</i> . București.
StComSatuMare	<i>Studii și Comunicări</i> . Satu Mare.
Th aco-Dacica	<i>Th aco-Dacica</i> . București.
VMMK	<i>A Veszprém megyei Múzeumok Közleményei</i> . Veszprém.
VTT	<i>Veszprémi Történelmi Tár</i> . Veszprém.
Ziridava	<i>Ziridava</i> , Complexul Muzeal Arad. Arad.