

ACTA TERRAE SEPTEMCASTRENSIS XIV, 2015

LUCIAN BLAGA UNIVERSITY OF SIBIU
FACULTY OF SOCIAL AND HUMAN SCIENCES
DEPARTMENT OF
HISTORY, HERITAGE AND PROTESTANT TEOLOGY
INSTITUTE FOR THE STUDY AND VALORIFICATION OF THE
TRANSYLVANIAN PATRIMONY IN THE EUROPEAN CONTEXT

ACTA TERRAE SEPTEMCASTRENSIS

XIV

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Sibiu, 2015

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Since 2012 in *EBSCO* database.

Since 2014 in *European Reference Index for the Humanities and Social Sciences* - *ERIH PLUS*.

ISSN 1583-1817 (Print), ISSN 2392-6163 (Online), ISSN-L 1583-1817

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TECHNO-TYPOLOGICAL AND FUNCTIONAL CONSIDERATIONS CONCERNING THE CHIPPED STONES MATERIALS FROM CRISTIAN I SETTLEMENT (EARLY NEOLITHIC – STARČEVO-CRIȘ I)

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Abstract: *The Starčevo-Criș lithic assemblage discovered in Cristian I site was analyzed in order to determine the technical behavior of Early Neolithic communities. It was observed a difference between chipped local rocks in comparison with those brought from long distances. Also, the analysis highlighted some aspects of the tool functionality.*

Keywords: *Early Neolithic, lithic materials, tools, technical behavior, raw materials.*

The site from Cristian I (Sibiu County) was discovered due to the preventive archaeological excavations from the project “Orăștie-Sibiu Highway“, being localized on Cibin's River valley. The archaeological excavations were concretized by the identification of a prehistoric habitation, framed in the Early Neolithic period - Starčevo-Criș I culture. The context of the discoveries and also a part of the archaeological materials was published in several studies about the site from Cristian I (Luca *et al.* 2012; Luca *et al.* 2013a; Luca *et al.* 2013b; Luca *et al.* 2014; Luca *et al.* 2014a). The discoveries made on Terrace I determined its interpretation as being the sacred zone of the habitation, framed in phase IA of Starčevo-Cris culture, with monochrome pottery, representing the first wave of the Neolithic migrations towards Transylvania and dwelling L₁ (C₄₀ – one of its rooms) from Terrace II, in Starčevo-Criș I B-C phase (Luca *et al.* 2012; Luca *et al.* 2014).

The lithic chipped ensemble from Cristian I settlement comprises a number of 524 lithic pieces. Considering the very large spread of the excavated area, the number of lithic materials seem to be a reduced one, but their repartition on the excavated surface is not uniform (tab. 1, fig. 1). The majority of the chipped products, 84% from the entire material were discovered in C₄₀, which is a large sized

dwelling compressing several huts. The next ponder have the pieces from C₁₀ (9%), the rest being percentages under 4%. It can be said that the zone for chopping the lithic material, but also for using the tools, as it will be pointed out in the analysis, was located in C₄₀ while in C₁₀ it is being surprised o small sequence of processing some categories of rocks.

Considering the high percentage for pieces in C₄₀, the general characteristics for the lithic industry from the settlement are being determined by the component of this dwelling but, as it will be pointed out following, there are some differences between the features.

The majority of the remains are splinters (40%), followed by wastes and crackers (34%), the characteristic elements of chopping areas. The blades represent only 9% for the entire. This is the reason why the general component of the lithic industry from Cristian should be discussed considering the category of products from other sites with Starčevo-Criș level, where the percentage of blades is always majority (possible selection on spot of the materials from the excavation).

The lithic raw materials used are very diverse: *flint* (39%), *chert* (22%), *silicolite* (9%), *chaille* (8%), jasper, obsidian, radiolarit, quartz, grit stone etc. (tab. 2, fig. 1). In the case of the flint, there can be differenced some types, but the predominant is the Balkan flint (or flint from pre-Balkan platform as it is mentioned in the literature) light brownish or yellowish (*silex miel*; *yellow-honey flint*), seldom having in its consistency whitish spots (Gurova 2005; Gurova 2008). In the last period, this type of flint benefited of a special attention, considered to be an important element in understanding the neolithisation of south-eastern Europe (Kozłowski 2004; Kaczanowska, Kozłowski 2008; Biagi, E. Starnini 2010; Biagi, Starnini 2013; Gurova, Bonsall 2014). The dynamics of Neolithic is, among others marked by the circulation of the raw materials and the component of the lithic inventory. This is the reason why, the high percentage of *Balkan flint* in the settlement from Cristian I can provide interesting information considering the technical behaviour of Starčevo-Criș from Transylvania. In what concerns the provenience of this type of flint, even though it represents distinct characteristics, it has to be taken into consideration that some flint varieties are similar, even though they came from different regions (Nițu, Tulugea, 2011).

Analyzing the general compose of the ensemble, one can notice that the majority of the debit products are made of splinters (40%), followed by wastes and crackers (34%), characteristic elements for the chopping areas. The blades represent only 9% from the collection and the little blades 4%, but they were chopped only from some rocks categories.

Considering the distribution of the lithic material, the collection was studied considering the sections and features from where they came. The high difference from a technological point of view reported to the raw materials that were used determined us to analyze the pieces considering this aspect. The chopping methods were adapted to each type of rock, considering the granulation and homogeneity. The

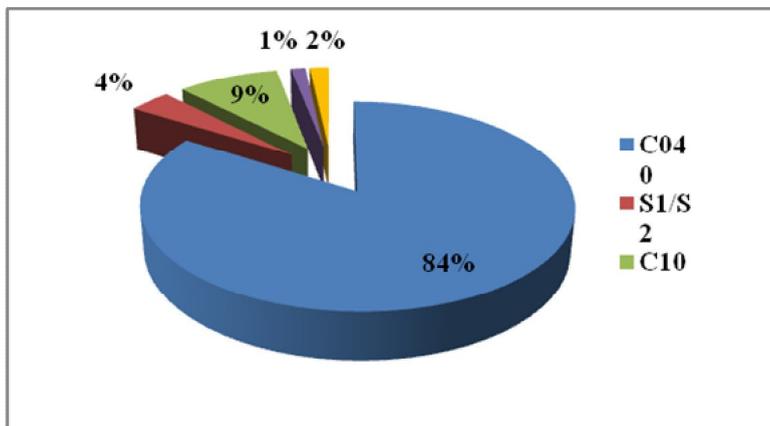
chert presents, in some cases, mediocre properties, this thing being more visible on the cortical and sub-cortical zones, while the *chaille*, jasp and flint are more adequate to the chooping process.

Sections and features (C)	S ₁ / S ₂	S ₃ / S ₄	C ₁₀	C ₁₅	C ₂₄	C ₃₇	C ₄₀	C ₅	C ₆	C ₇	C ₂₀	S ₈	Total
Splinters	5		13		1	1	187	1			1	2	211
Blades	4				1		39						44
Small blades	1		2				20						23
Nucleus	1		1		2		5						9
Wastes, crackers	8		22	1	2		146						179
Others	1	1	10		1		43		1	1			58
Total	20	1	48	1	7	1	440	1	1	1	1	2	524

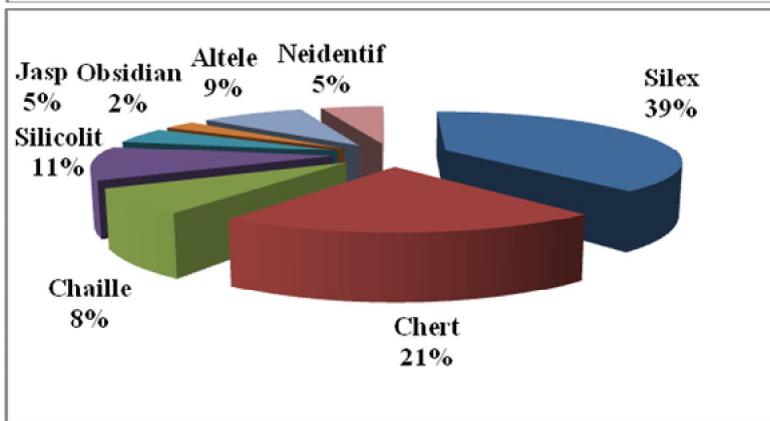
Table 1. General component of the lithic material from Cristian I settlement.

Sections and features (C)	S ₁ / S ₂	S ₃ / S ₄	C ₁₀	C ₁₅	C ₂₄	C ₃₇	C ₄₀	C ₅	C ₆	C ₇	C ₂₀	S ₈	Total
Flint	9		16		3		174			1			203
Chert	4		6		1	1	96	1					109
Chaille	3			1			35		1			1	41
Silicolite	1		16		1		38					1	57
Jasp	1		1				24						26
Obsidian	-						14						14
Others	1	1	4		2		38						46
Unidentified	1		5				21				1		28
Total	20	1	48	1	7	1	440	1	1	1	1	2	524

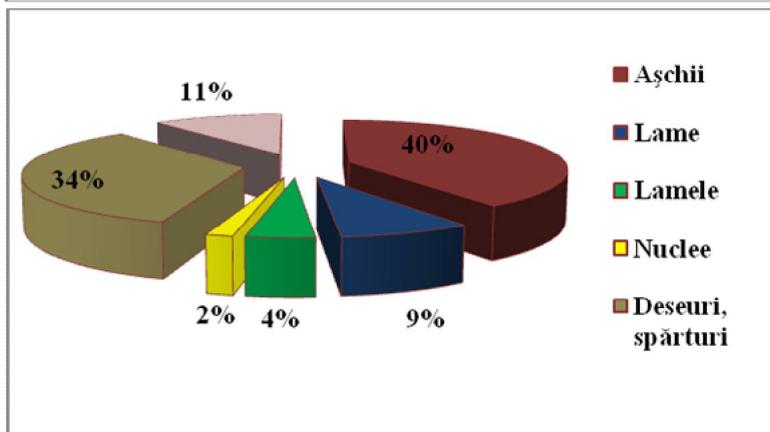
Table 2. The types of raw materials used, reported with the sections and features in which the pieces were discovered.



1



2



3

Fig. 1. 1. The repartition of the lithic materials considering the excavated sections and features. 2. The categories of the used raw materials. 3 The general types of products discovered in the settlement.

C₄₀

Feature C₄₀ (a room belonging to L₁) comprises the most numerous ensemble of lithic materials from the settlement: 440 pieces. The technical categories reveal a preponderance of splinters, and the high number of wastes, crackers and fragmented boulders prove that the chopping took place on spot, for some rocks categories (tab. 3). It can be said that inside this dwelling there was a space used for chopping the stone tools or for rectify them.

The raw materials

The lithic industry was chopped out of flint (39%), *chert* (22%), silicolite (9%), *chaille* (8%) and jasp (5%), the other rocks having a reduced poulder quartz, grit stone, diverse magmatic and metamorphic rocks) (tab. 3, fig. 2). Of course, in each category of rocks, there can be noticed variations, for example, in the case of the flint, there can be differenced some types, but from 174 of pieces, 153 (88%) are Balkan flint (or flint from pre-Balkan platform as it is mentioned in the literature).

The *chert*, *chaille*, *jasper* and *silicolite* are local rocks, this being suggested also by the large number of boulders and raw material blocks present in the collection. Most probably, excluding the *Balkan flint*, the other flint pieces are from local sources, or they were brought from near distances. In this conditions, it is interesting the report between the local sources or near distances and the other that were brought from large distances, respectively the *Balkan flint* and *obsidian*. Balkan flint represents 34% from all the raw material sources, being the most numerous rock from the collection. Eliminating the unidentified rocks, Balkan flint and obsidian sum 40% from the total, which implies a quite large poulder of the chopped pieces that came from large distances.

Techno-typological characteristics

From the Balkan flint is the raw material used for chopping several categories of products, but the splinters are the most numerous ones (43%), followed by wastes (30%) and blades (21%). From a technical point of view, the purpose of the production it is being axed in obtaining laminar supports. It was discovered only one nucleus with reduced dimensions that is being defined by exploiting of two surfaces of opposite debit and the intention to continue the debit on the nucleus flanks, because the alternation of the two main surfaces produced a thicknesses of the nucleus (fig. 3). The production was laminar, but some of the chopped pieces on one of the flank are blades. Indifferent of the debit surfaces the modality was unipolar. The pursuit to create new surfaces of debit proves the clear tendency to maximize the use of good quality raw material.

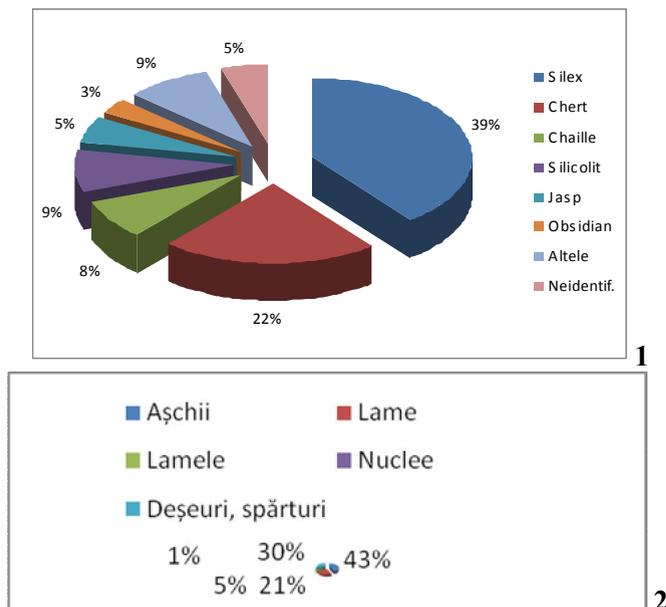


Fig. 2. 1. The raw materials used in Feature C₄₀. **2.** The poulder of the types of lithic chipped pieces made of Balkan flint in C₄₀.

C ₄₀	Splinters	Blades	Small blades	Nucleus	Wastes, crackers	Boulders and fragments	Strikers and grinders/crashers	Total
Chert	50	1			34	7	4	96
Chaille	21	1	1	1	11			35
Jasp	14			1	7	1	1	24
Radiolarit	2							2
Local flint	9	3		2	6	2	1	23
Silicolit, argilit	7		2		12	15	2	38
Quartz, quartzite	5		1		2			8
Grindstone	3				1	3		7
Diverse metamorphic rocks	-				5	2		7
Magmatic rocks							1	1
Burned pieces	2	2	3		3	2		12
Balkan flint	65	32	8	1	45			151
Obsidian	6		5		3			14
Unidentified	3				17		1	21
Total	187	39	20	5	146	32	10	439

Table 3. The general categories of lithic pieces discovered in C₄₀ and the raw materials from which they were made.

In the category of blades (fig. 3) it was noticed a high percentage of fragmentation, so that from 32 pieces, only 10 are entire, the other ones being, mainly, proximal and distal fragments. From this cause, the determination of the chopping techniques it is difficult, but according to the characteristics of the percussion and the experiments made in time (Pelegrin 2006), most of the blades were debited by indirect percussion, but there are also pieces detached by pressure or a softer percussion. The blades have a good regularity, rectilinear profile, trapezoidal section and softly triangular, which implies their provenience from the *plein debitage* stage. The width of pieces is being framed, in proportion of 72%, between 10 and 22 mm.

A great part of the blades have marks of utilisation. The fragments of blades with vegetable polish are the most numerous (fig. 4, 5). For analysing the polished areas, it was used a digital microscope with optical fibre and an expansion order until 200. The microscopic analysis revealed the provenience of the polish, by cutting the cereals, some of the pieces being classical insertions of sickle. The position of the polish is, generally, oblique-lateral, but there are also some cases of areas with polish on both sides, which implies the use of the piece for the same action.

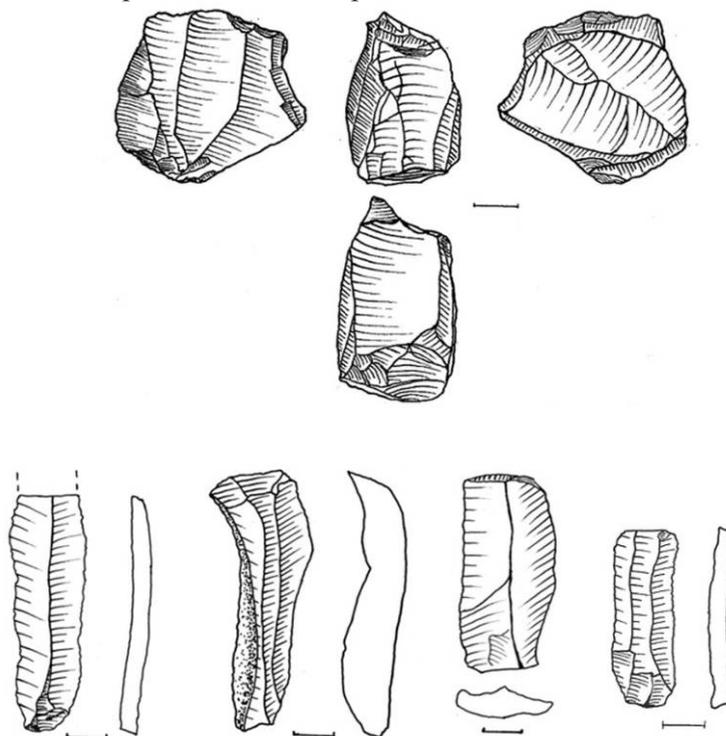


Fig. 3. C₄₀, nucleus and blades made of *Balkan flint*.

In some cases, the blades were reused or intentionally fragmented by flexion or percussion. For example, a blade fragment presents a percussion bulb on the middle of the fracture and the front of the piece was used as collision point. A scraper with carina was made of a retouched on both sided blade (direct retouches, abrupt and semi-abrupt). Both sides, but also the front of the scraper were used quite intense on hard materials and they have determined the detachment of micro-splinters. A distal fragment of a scraper on retouch blade was reused as an insertion for a sickle, the marks of the polish being characteristic for this action.

The small blades, although there are not so numerous (20 pieces, two of them), came from the last debit Phase of the blade nucleus discovered and also a *sous-crete* blade and one of re-arrangement.

An obvious characteristic of the chopped splinters from Balkan flint is the micro lithic character: 41% have lengths ≤ 20 mm and 35% can be framed under 20 and 30 mm. These are simple splinters, retouches splinters and in a smaller proportion splinters chopped for re-arranging the debit surfaces or the collision plans. Most of the pieces were debit by direct hard percussion, but it was also used soft percussion. Even though the pieces are quite small, part of them present marks of usage. Some of the retouch splinters have a vegetal polish, a micro lithic tool presents pronounced usage marks and some of the pieces were transformed in simple cures. An *à dos* splinter, retouched bipolar abrupt, has marks of polish made on the opposite side of the retouched part. The abrupt retouched zone was made with the propose o fixing it, and the piece was used for cutting off cereals. The intense usage of Balkan flint products it is being proved also by the transformation of a chopping waist into *perçoir* (fig. 4).

The pieces made of brought into the site and, in a very small percentage they were chopped and remade on the settlement as it can be noticed by the presence of some products with cortical zones on the surface and of the micro-splinters that came from retouching the tools. The tools had several phases of remaking and they were used intensively. The reduced dimension of the stands is due to the large distance reported to the provenience of the raw materials and their finishing. On the other hand, the same tendency it is being noticed also in the case of the pieces made of obsidian: the only debit products are the semi-microlithic splinters and small blades (fig. 6/1).

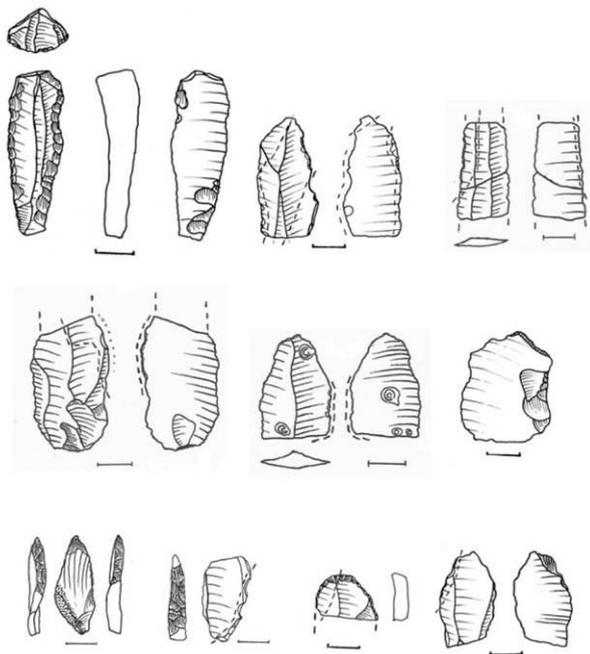


Fig. 4. C₄₀, tools made of *Balkan flint*.

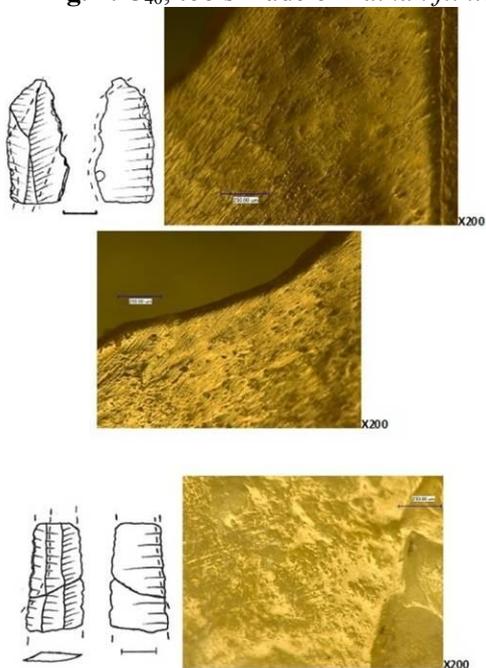


Fig. 5. C₄₀, fragments of Balkanic flint with marks of vegetable polish (cu urme de lustru vegetal (reap insertions)).

Other types of flint were used in a much reduced number, only 23 pieces. The debit products are being represented of some splinters (fig. 6/4), blades (fig. 6/2), wastes, a smashing tool/rubber and two nucleus, very summary exploited. From a functional point of view a distal fragment of blade was used as a sickle insertion, having some marks of polish on one side. Microscopically, it can be noticed that the polish covered some reddish zones from the surface. It is possible for the piece to be initially used for ochre processing, after which it has been reused as a reap insertion (fig. 7). On the other hand, the processing of ochre in C₄₀ it is being proved by the marks made on a smashing tool, the ochre imbuing powerfully into the rock (fig. 8).

A number of 96 pieces were chopped from *chert* and from them, half are being splinters (fig. 6/5), the following category being the waists and crackers. It is being noticed a sub-representation of some technical categories: we haven't discovered any nucleus although the large quantity of waists suggest the chopping on spot of the materials, and the blades are being represented only by one distal blade fragment of semi-cortical blade, this one being accidentally produced during the process of chopping the splinters. On the other hand, the lack or the reduced number of some technical categories it is being visible in all the cases of the local rocks.

The production mode can be determined based only on the types of splinters. From 50 splinters, 32 are cortical and from these, half have quite ample surface cortical zones ($\geq 50\%$). Most of them are decortication splinters, semi-corticated splinters or *à dos* cortical, the last ones coming from a slice debit (*tranche*). Some overflowing splinters, a *pseudo-Levallois* point, a *à crete longitudinale* splinter prove the exploitation of the boulders by two surfaces, the process being similar to the discoid debit. But the attempt to form two secant surfaces can be associated with steps from the debut of a laminar debit, *à crete ordemi-crete* initiation. A single tablet suggest the use of laminar debit, these one being chopped in order to remove the distal part of a laminar revolving nucleus, with the purpose to create another plan of collision.

The percussion is hard, direct, only in 3 cases being the possibility of a softer one and the majority of the talons are soft, which implies a weak preparation of the collision plans. It has been noticed only one single type of accident, *rebroussement*, both in the case of splinters (3 cases) and most in the case of the negatives on their surface, most of them being unipolar. Of course, the accident was produced, mainly because of the raw materials. In what concerns the fragmentation, only 12 pieces present fractures, besides two proximal fragments and one mesial and distal, the rest of the splinters having small fractures and dimension, lateral or oblique.

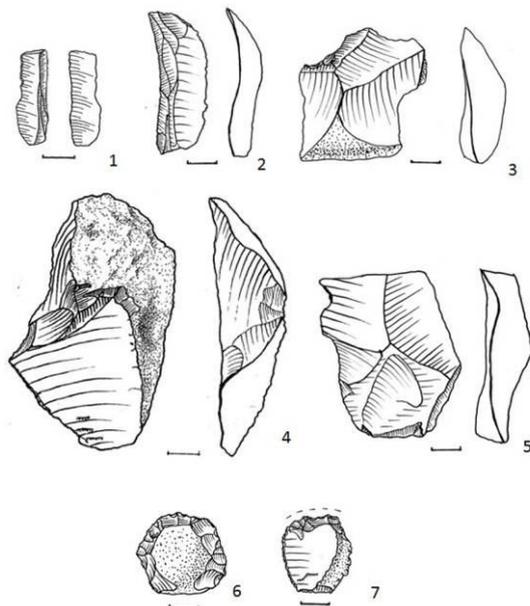


Fig. 6. C₄₀, lithic pieces from divers sources of raw materials: 1. Obsidian little blade; 2. Flint blade; radiolarit splinters (3), brownish flint (4) and chert (5); silicolite scrapers (6) and jasper (7).

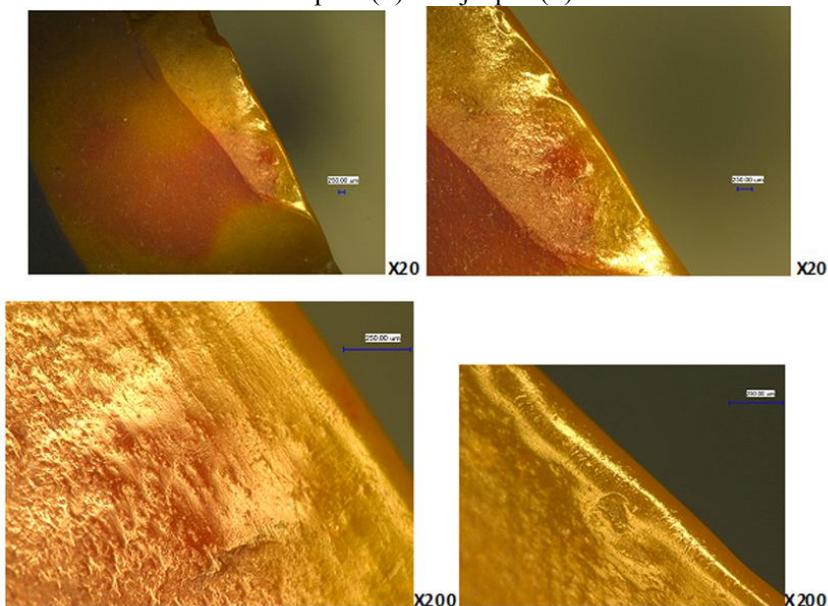


Fig. 7. C₄₀, flint blade with a cereals polish displayed over the reddish zone (possible with marks from the ochre processing).

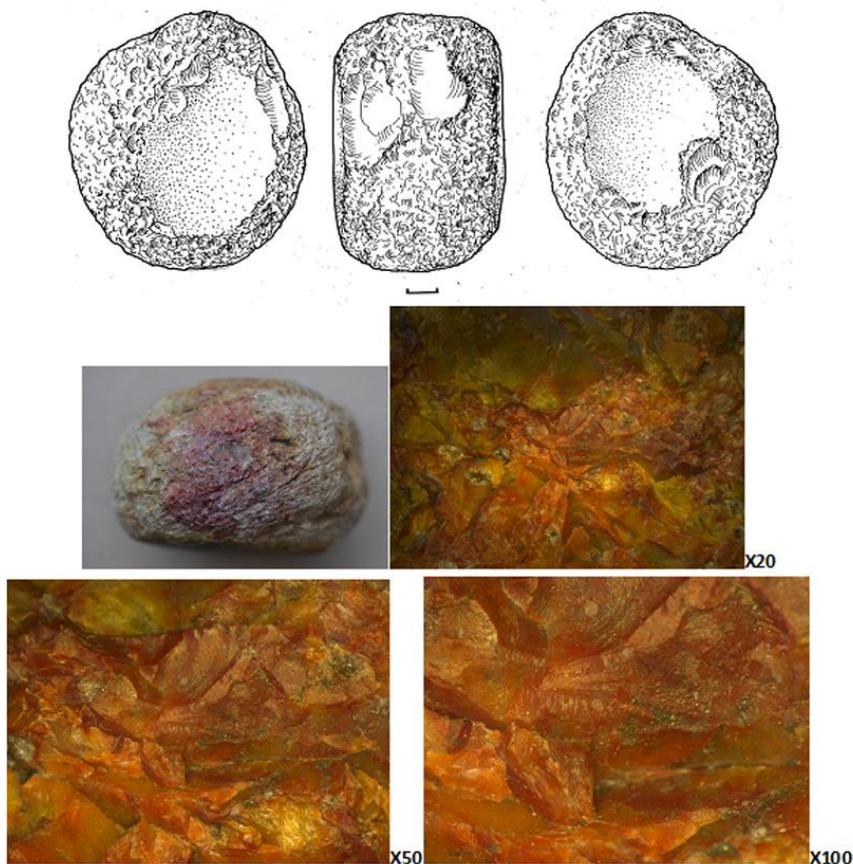


Fig. 8. C₄₀, smashing tool with ochre marks.

The number of the retouched splinters is a small one, only 5 pieces, but some of the not retouched products have utilisation marks. Two splinters partially retouched, a splinter with reversed truncation obtained by abrupt retouches, a simple scarper on retouched splinter are the only types of tools that were identified. The scarper was made on a directly retouched splinter with abrupt retouched, relatively ample, while the front was created by abrupt retouches, *ecailleuse*. Both the front of scarper and the retouched sided, presents some marks of crashing that were produced either after a high usage, or by using it on a hard material (bone/horn).

Most of the splinters have reduced dimensions, half of them being between 20 and 40 mm, the following pounder being occupied by the splinters having lengths between 40 and 50 mm (36%), and the micro-splinters (≤ 20 mm) represent 11% from the total.

Only 35 pieces are being chopped of chaille, and from those, most of them are splinters and waste. The only nucleus from this rock has reduced dimensions (37/37/27 mm), flat out by multidirectional debit, the resulted products are small sized splinters. The lamination pieces are being represented by a blade mesial fragment and the tabular ones by a micro-blade. The splinters are similar to the ones of chert, half of them being cortical (decortication splinters, semi-cortical, a dos cortical). The percussion is mainly directly hard, and the talons are mainly softer type ones, which indicated a reduced preparation for the collision plans. The length of the splinters does not exceed 60 mm, more of the half having dimensions between 20 and 40 mm, followed by splinters of 40-60 mm. Due to the homogeneity of the raw materials the fragmentation is quite weak, having only two fragments distal and proximal and 3 pieces have very small fractures. An *encoche* splinter, two simple scarper (fine and direct retouches) and scarper with an abrupt front are the only retouched pieces.

From jasper were discovered only 24 pieces, from which more than a half are splinters. Besides those, the component of the ensemble is being completed by some breaches, a boulder broke in half and a small sized rubber (48/48/43 mm). Not a single product was chopped from this material.

A re-mounting made of a nucleus and a splinter offer details regarding the technical modalities of chopping (fig. 9/1). The nucleus have two surfaces for debit alternatively exploited. One of the surfaces it has only two negatives: a decortication splinter and a cortical splinter (90% cortex) re-mounted on the nucleus. The second surface of debit has very small dimensions and the collision plan is the negative of the decortication splinter on the other surface. It were detached micro-lithic splinters, invaders, cortical, so probably less used. The change of the surface it has no clear utility, due to the fact that the products are micro-lithic (all of them have lengths under 20 mm) and they are in reduced number. The modality of chopping was unipolar for both surfaces. This summary type of chopping of a boulder is a consequence of the reduced dimensions of the nucleus.

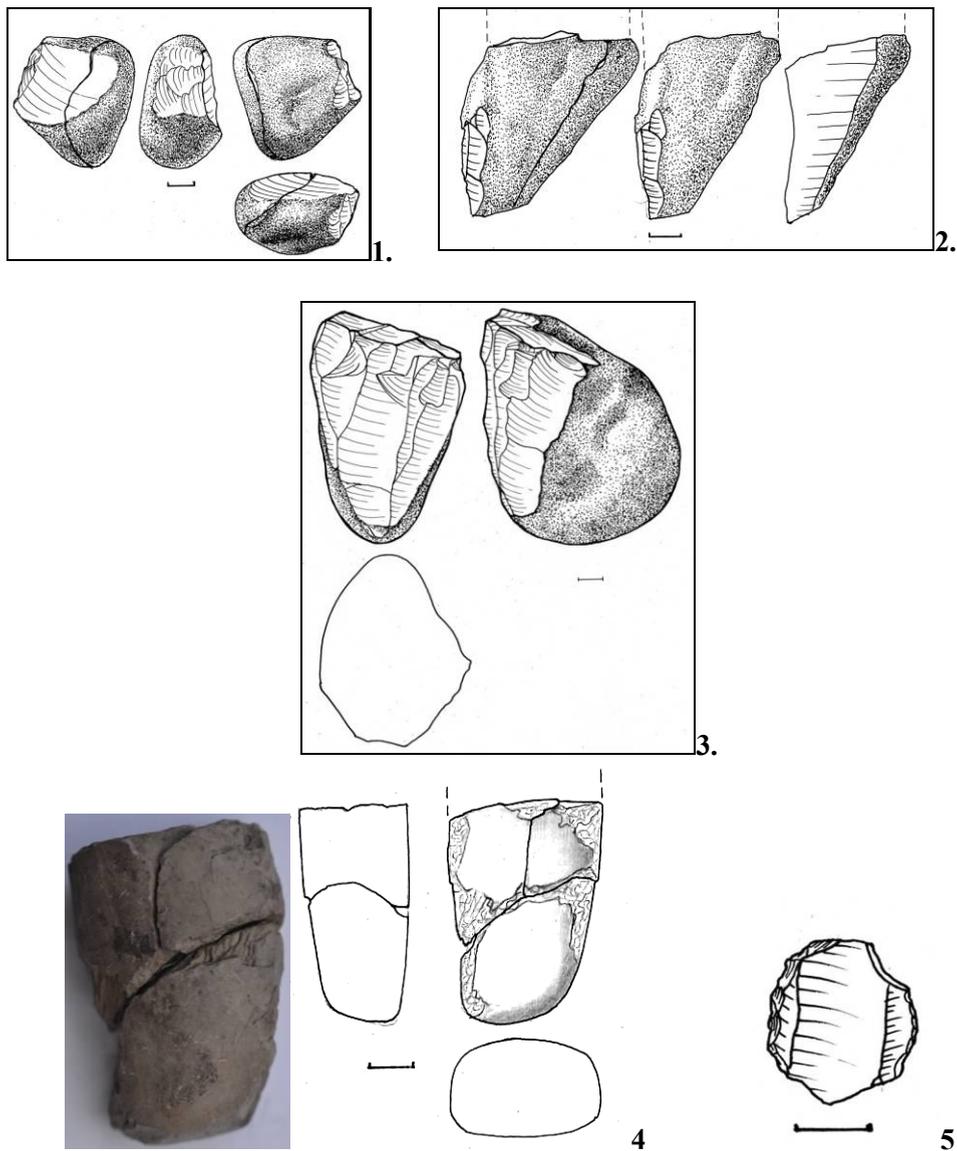


Fig. 9. Re-mounting made of jasper (1) and cuarzite (2) discovered in C₄₀; flint nucleus discovered in C₂₄ (3); fragment of a small ax from C₁₀ (4); microlithic tool discovered in S₈ (5).

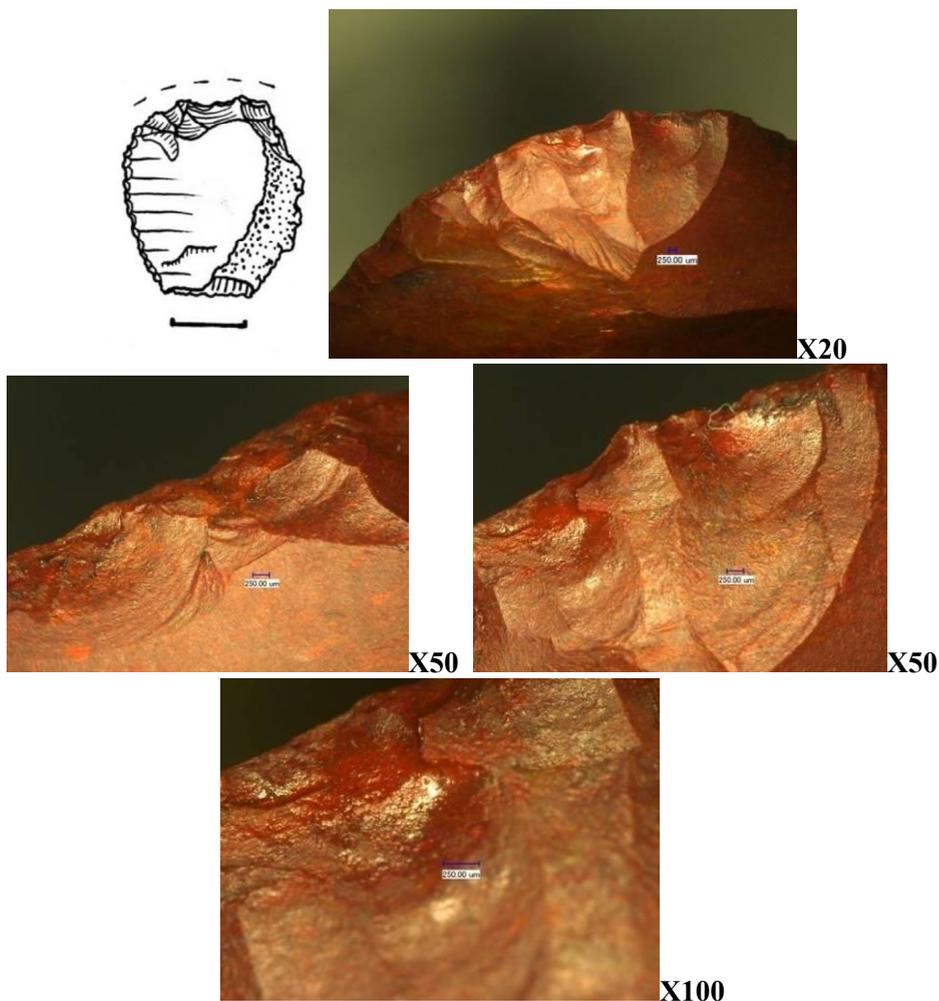


Fig. 10. C₄₀, gratoar made of a retouched splinter from jasp, with polish marks.

Excepting four pieces, from which two micro-splinters, the other products are semi-cortical splinters or decortication splinters. The placement preponderantly lateral of the cortex, the exclusive hard-direct percussion, the unipolar or bipolar direction of the negatives, the talons mainly soft, proves a debit made without a preparation of the debited surfaces. Besides a proximal fragment, the rest of the splinters are entire. In what concerns the dimensions, excepting two splinters (40 and respectively 46 mm), the rest of the pieces have values under 40 mm, part of them being micro-splinters.

Two scrapers from this ensemble do not frame in the general characteristics. Both of them are being arranged on fine retouched on a side splinters. One of them has the front arranged by *ecailleuse* retouch and the other one has clear marks of remaking the front, which implies the reuse of the tool. The last one presents the different functional characteristics, the entire front being covered by polish (fig. 10), but macroscopically, the polish marks are not similar to the ones that were made after cutting the cereals. Most likely, the tool was used for scraping some vegetable materies rich in silicium, different off the cereals.

38 pieces are made of silicolite, but only 7 splinters and 2 blades are being chopped of this material. Almost half of the pieces are entire or fragmented boulders, one of them being a junction made of 3 pieces. Some boulders present summary detachments, which implies an attempt of debit or testing of the raw materials. There are also presented two hammerstones, from which one is double. The splinters have micro-lithic dimensions and with only one exception, all of them have lengths under 30 mm. The percussion is direct-hard and soft. The only tool is a circular scarper (28/28/10 mm), made by *ecailleuse* retouches (fig. 6/6). Other types of rocks were used in a much reduced proportion, being chopped in the settlement as it proves a re-mounting made of two cortical chopped quartz splinters.

Other types of rocks were used in reduced number, being chooped inside the settlement, as it proves a re-mountage made of two cortical spintes chopped of quartite (fig. 9/2).

S₁/S₂

From sections S1 and S2 from terrace 2 there were collected 20 pieces: 5 splinters, 4 blades, a blade and a nucleus, 9 waists and crackers. The raw material is represented especially by local flint, different types of silicolites and Balkan flint, but it is being spread differently considering the categories of chopping products. In the case of the blades the percentage is being equilibrated between the Balkan flint and silicolite, in case of the splinter prevails the local flint and silicolites. Also, a single blade from this ensemble is being chopped of Balkan flint.

The only nucleus discovered (93/80/47 mm), chopped of a greyish chaille presents a unipolar exploitation on a single surface, in the thickness of the boulder. The resulted products are cortical splinters or semi-cortical ones, with reduced dimensions, 25-35 mm, similar to the splinters discovered in S₁ and S₂.

All 5 splinters were carved by direct hard percussion. A splinters came from sectioning of a boulder, being the only pieces with medium dimensions (44/40/30 mm), the other having lengths ≤ 30 mm. Two pieces present debit accidents (*rebroussement*) and the predominant talons are the simple smooth type ones, but in some cases cortical punctiform ones. Indifferent of the raw materials that were used, the general tendency is being dictated by the need to obtain micro-lithic splinters. A single splinter made of reddish cher is being retouched (direct *encoche*).

From the four recovered blades, only two are entire: a blade made of greyish chaille (53/22/10 mm) and one made of Balkan flint (40/16/5 mm). The other two pieces are being represented by a distal blade fragment made of Balkan flint and a proximal fragment, junctional from two pieces, made of local flint. In the case of all pieces, the percussion is soft direct and the observed talons are simple smooth ones, sided and removed. A single piece is being partially retouched on one side (direct retouched, under-parallel), while a blade present unregulated usage marks. In what concerns the regularity, in this category of products the raw materials are being determining, so the entire blade of chaille is being deformed and one of the unipolar negatives from the surface presents a chopping accident (*rebroussement*), which implies a difficult control in case of a laminar debit. The only blade discovered (25/8/3 mm), made of Balkan flint, and was chopped by indirect percussion, having a punctiform talon.

A number of 8 pieces are wastes and crackers, from which a fragment was broken by a hammerstone made of chert. It was collected also an entire bolder made of chaille (51/39/42), which doesn't present anthropic marks.

In what concerns the tools, besides the *encoche* and the rotocuhe blade fragment, was discovered a geometrical microlithic tool made of *Balkan flint*. The rotocuhces are marginal, fine direct, abrupt on a side and semi-abrupt on the other side. Along with other similar pieces discovered in other features its presence emphasis the early character of the discoveries.

C₂₄

From dwelling C₂₄ (House of the Deaf – CM (Luca *et al.* 2013b)) we have only 7 pieces: a splinter made of metamorphic rock, a distal blade fragment made of Balkan flint, 2 nucleus of flint and silicolite, a boulder and two wastes. This dwelling is important, especialy through the discovery of twi graves inside it. Unfortnety, the lithic materials does not presents special characteristics in order to be associated with the two graves. The nucleus presents different methods of exploitation. A laminar nucleus of flint (100/96/60 mm) has only one surface of debit un-arranged, frontal chopped, unipolar modality, being a classic example of usage of the rocks morphology. The first chopped products were cortical or semi-cortical *outrepasse*, and the other ones were lamellar (the lengths of the negatives vary between 54 and 82 cm). The other nucleus is made of silicolite and the purpose of the production was to obtain small sized splinters (20-25 mm). The chopping of the boulder was made in its thickness, on one surface only, unipolar modality. It can be noticed that both of the nucleus were similar treated, even though the purpose of the production is different: summary exploitation of the boulders morphology, without a preparation of the debit surfaces.

Only two pieces present fine utilisation retouches, the blade fragment and a waste, both made of Balkan flint.

C₁₀

This feature is being differenced of the others by two aspects. Inside the feature, from 48 pieces collected, no blade was discovered. Only two fragments of two fine marginal retouched lamella, chopped of Balkan flint, the rest of the products being associated with the debit of splinters: 13 splitters, a nucleus, 22 wastes and crackers, two hammerstones, one of them used and a rubber, 6 fragmented boulders. The second distinct element is that the only polished piece in the settlement, a fragment of a small axe, very burned, was discovered in this feature (fig. 9/4).

The nucleus of silicolite presents an alternant exploitation of four debit surfaces, the splinters resulted being short and irregular. Different from the nucleus of local rocks discovered in the settlement, its abandonment was made because of the total exhaustion and the try-outs to obtain stands, even though, as it can be noticed from the last negatives, these ones are mediocre. The weak regularisation of the splinters can be a result of the large angles between the debit surfaces: 90° or >90 in the Phase of abandonment. A cortical splinter, of reduced dimensions (28/18/16) was remounted on this nucleus.

Most of the splinters, no matter the raw materials from which they were chopped, have very reduced dimensions (under 30 mm, having even under 20 mm). The larger piece is a junction of two pieces (L 61 mm) of a proximal fragment. The soft percussion was preponderantly used in the case of the splinters made of Balkan flint and a more careful preparation of the collision plan (*egrisage* stigma in the case of one piece), while the direct hard percussion is being specific for the ones made of local silicos rocks. In the case of 4 pieces made of Balkan flint, two of them seem to have come from a laminar debit, considering the surface negatives and the clear distinction between the splinters and laminar stand is difficult in their case. One of the lamellar splinters made of Balkan flint is being retouched and it presents a polish on both sides in the area of the retouches.

A scarper of silicolite was arranged on a very used stand. These one was differently retouched on three sides: 1 denticulate side; 1 retouched directly, with ample semi-abrupt retouches; 1 with *encoche*. It is possible to be a recollection of a piece from older context and its reuse.

The same as for the other features, it were discovered many fragmented boulders and crackers from silicolite and chert, which reinforced the local provenience of the raw material (for example, 8 fragments are being broken from the same block of raw materials. Beside these, there were also discovered 2 hammerstones made of flint and silicolite, from which one it was used as a rubber, crasher and the other one presents a negative on one end (possible testing of the raw material).

Conclusions

In the context of understanding Early Neolithic and its diffusion in South-Eastern Europe, the study of the lithic chopped assemblages can provide important information. In the last period, in the specialized literature was given a special

attention to this aspect, as it is in the case of the Balkan flint, seen by several authors as an important element of determination of the route of neolithisation (Biagi, Starnini 2010; Biagi, Starnini 2013). Considering that the chopped stone tools discovered in the Early Neolithic settlements from our country many times didn't benefit of detailed analysis, the study on the lithic materials discovered in the settlement from Cristian I provided new information on the technical behaviour of Starčevo-Criș communities reported to the sources of raw materials from which the tools were made.

A first aspect that is being emphasised after the analysis of the lithic material is the existence inside the settlement of some chopping zones and the usage of the stone tools. The larger part of the ensemble is being concentrated in dwelling L₁, the room called by us Feature C₄₀, while in Feature C₁₀ it is being surprised a limited stage of chopping local rocks, the porpoise of the production being exclusively to obtain splinters.

In the entire collection, it is being noticed a technological difference according to the used raw materials. The Balkan flint sums 40% of the ensemble, which implies a quite high pounder of the chopped pieces from rocks that were brought from a large distance. The pieces made of Balkan flint were brought inside the site already debited and, in a very small proportion, were chopped or re-arranged in the settlement. From a dimensional point of view, it is being obvious the majority microlithic component of the supports. These were transformed in tools and intensively used, some pieces going through diverse phases of re-making and re-usage. The reduced dimension of the supports made of Balkan flint can be connected with the large distance in accordance with the provenience of the raw materials and its exhaustion. But, even though in a more reduced percentage, the microlithic character is being visible also in the case of the local rocks.

From a technical point of view, there is a very large difference from chopping the pieces made of Balkan flint and the ones made of local rocks. The majority of the laminar products are being made out of Balkan flint, while in the case of the local rocks the porpoise of the production was centred on the production of splinters, most of them in small dimensions. The debit of the local rocks seems to be expedient in some cases, the boulders are being chopped mostly in a summary way and a part of the products are mediocre. This fact can also be a result of the weak properties of some rocks categories (*chert*, quartzite) or of the wish to obtain on spot some sharp stands for diverse activities or even for testing the local raw materials. On the other hand, the striking difference of chopping can be also a result of some social aspects, possibly connected with the learning of some technical chopping process. From another perspective, the lithic ensemble from Cristian I settlement surprises an episode of the apartment of the communities to the local resources during Early Neolithic.

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ABOUT THE SYMBOLISM OF FIRE IN NEOLITHIC¹

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Abstract: *The article presents some considerations regarding the symbolism of fire during the Neolithic period, discussing aspects like the myths connected with fire, the cult altars, the burning of offerings, the thunder and others.*

Keywords: *Neolithic, fire, symbolism, myths, data basis*

The fire is being generally presented considering 5 aspects: the usual fire, the thunder, the Sun, the penetration or absorption fire, the destruction fire (Chevalier – Gheerbrant 1965/1995, s.v. fire). It is not the case to analyze this aspect because they are synthetically mentioned.

Around fire there were build the first shelters, on the territory of Romania even since the Middle Paleolithic period, around 40.000 years ago (at Ripiceni: Păunescu 1993, 73, 89, fig. 56-57). Sources of heat, light, a way to process food – the fire started to be divinized.

Following we shall present some ideas from Chevalier and Gheerbrant, ideas that we shall discuss later on (Chevalier – Gheerbrant 1965/1995, s.v. foc).

For the Aryan communities it represents the name of some gods Agni, Indra, Surza, Vaishvanara. In Sanskrit pure = fire. At Babara tribe the chthonian fire is the human wisdom. This means that the divine wisdom has a priority over the profane.

The forms of representations and association of fire are diverse. Considering the forms of representation is the Sun (light, heat), thunder, flame. For this reasons it is being associated with those attributes. The Sun appears with its opposite – the Moon (water, cold light, night light, temptation light, but also goodness. The thunder with the rain. The fire is being associated with the hearth. The purification through fire, Fire – Sun is being complementary to the purification through Water – Moon. From the myths that were born around these ideas many of them were lost, but some ideas and customs remained until the historical periods, but others until today under different forms, their philosophy is not so far away. These myths are being represented on the cult objects (sanctuary machetes, small altars, pots and cultic pots,

¹Communication form Caransebeș Etnoreligie 2004 with the title *Focul în sanctuare și altare (Fire in sanctuaries and altars)*.

cultic objects and others) and cultic installations (sanctuaries, temples, altars etc.) (Aldea 1974; Jovanović 1991; Paul 1991, 1995, 2004 ș.a.).

MYTHS CONNECTED WITH FIRE, LIGHT AND GENESIS.

There are numerous objects on which are being presented some symbols, signs or scenes. Some of them carry a term that is not being used so frequently – **mythogram**, but explained very well several times by Professor Iuliu Paul (*O mitogramă de acum 5 milenii...* Paul, I. 1995, p. 132-133, fig. II a/b, XXXI: *Atheneum*, 1, 1990, p. 28; 2004 Novi sad; Gimbutas 1991, p. 313, fig. 8-9: Chevalier – Gheerbrant 1965/1995, s.v. fire), others serve to some rituals and others have both a functional and ritual role.

Let us give some examples of such mythograms and what they can contain: the altar from Ocna Sibiului, dwelling 8 (fig. 1, 3); the pot from Lozna (fig. 12) (S. Teodor, Gh. Lazarovici 2004; M. Lazarovici 2004 Novi Sad; 2004, Iași), the breads made of clay (table 10), the pot from Turdaș (fig. 11a-11b).

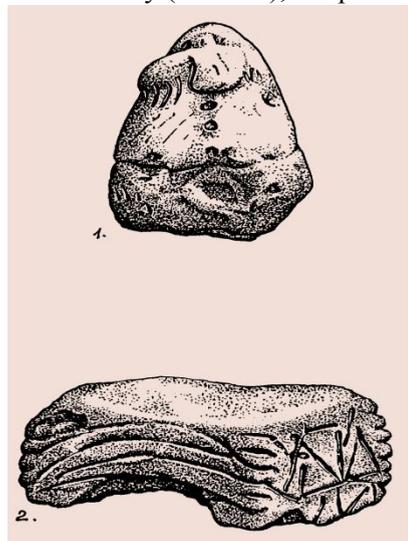


Fig. 1. 1 idol, 2 the little table.

I. Paul belabored over the interpretation of the idol and the stand of a quadrangle altar with signs, ideograms. The idol appears as being formed of two parts: the superior side a man with beard, conical shaped, with the divinity – Sun, connected with feminine signs and symbols that could suggest the Moon. In the inferior part it could be repeated a figure with beard displayed in the left side of the idol and in the right side a stylization of the Moon. The author considers that the feminine part could represent the Earth, Mother Earth. From their union in only one piece is being interpreted as a symbolic complex with an anthrop-cosmic structure (Paul 1995, p. 132-134) connected with *Mythos der Schöpfung, genesis myth*, the creation myth, the wedding myth between cosmic Zeus and Mother Earth, the myth of death and revival of vegetation, plastically a graphically represented.

On what concerns our opinion we would like to emphasize here some ideas. The idol and the altar are being a unity in what concerns Ocna Sibiului case. The idol is a part from the series of con, column, phallus, characteristic for Starčevo-Criș culture (Lazarovici 1968, 10/1-4; 1979, p. 32; X/A 1-2). Even the nose of the piece renders a phallus shape. We do not know exactly the position of the idol on the cultic table, a table with four sides, marking maybe the four directions of the universe. But, we notice on the superior side of the figure with beard, considered sun by I. Paul the presence of 3 points.

If on the idol are being figurate the ideas along with signs on the 4 sides of the altar table are different signs, grouped on the 4 registers. In the first of the register (fig. 1, front) four lines start from the base of the side towards the superior part, while they rise and curve. They could represent the 4 fundamental elements: the primordial Water, unorganized or the chaos from the Bible; the Earth, then the Mountain and the Sky these two united towards the right corner of the altar table. This remind of the oldest cosmogony, the Sumerian one, form the primordial sea (Nammu) the Sky was born (An with the role of male) and the Earth (Ki with the role of female), than Enlil = the air, he divided the sky from the earth and made the seed from the earth to sprout. Initially they were together, unique, a mountain for which the base would be the foundation of the earth, and the point would be the top of the sky.

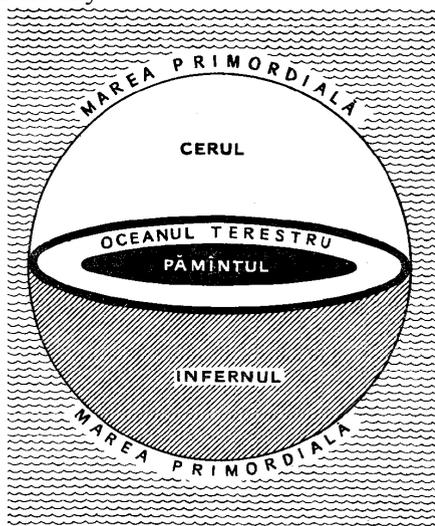


Fig. 2. The mythogram of the Genesis, after S. Krammer.

the making of civilization.

So, the 4 cosmic elements were the Sky, Earth, Air, Water being presented in the oldest written legends.

Suggestive are the stories made of myth graphs starting with the poem of Ghilgameş, Enkidu and the Hell Krammer 1956/1962, p. 139 and following):

*„When the Sky was divided form the Earth,
When the Earth was divided by the Sky,
When the Name of Man was decided,
When An „took along with him” the Sky
When Enlil „took along with him” the Earth...”*

The union of Enlil with his mother An stayed on the **origins of the organized universe** meaning the creation of man, animals, plants and to

On another side of the altar-table (face 2, fig. 1 and 3) it appears a group of signs displayed on two registers, also on the idol. In the inferior part a "V" with the point facing down separated with a line on the left side and two on the right side (one being shorter), the right one is connecting with the following side. The "V" with the point facing down it is the most common form of representation of the feminine sex (Lazarovici 2004 , 28, tab. 4; 2004a Novi Sad) (annex tab. 2). It appears in 7.2%, about 28 situations (from over 3100 registrations that we have in our data base).

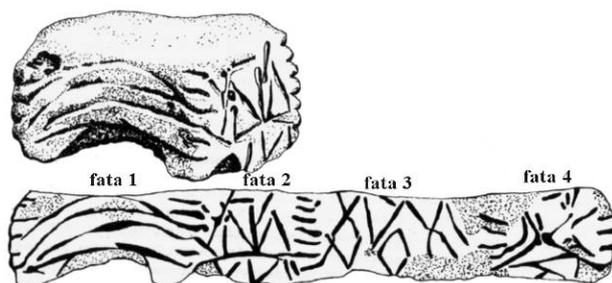


Fig. 3. Ocna Sibiului, the altar, unfolded décor.

In the superior part it appears the triangle with the point facing up and a line, an arrow point separates them.

The triangle with the point facing up or the ascendant triangle appears as a thunder divinity, of rain, that it can't be anything else than forms of fire (Sejurne Tlaloc, apud Chevalier – Gheerbrant 1965/1995, s.v. fire).

In many representations we believe that it imitates the arrow, the phallus, masculine sign, by its opposite, the descendent triangle – the feminine sign. On the other hand, the triangle with the point facing up also represents the form of the fire and flame (Code Lazarovici 2004; 2004a; 2004b: A6 triangle). The combination of the two triangles or angles has the meaning of togetherness, fecundation, pollination, fertilization etc.

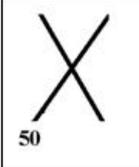
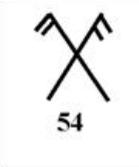
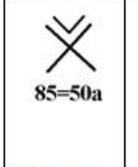
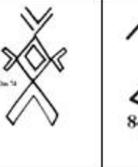
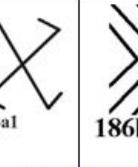
A6 TRIANGLE, A7 ANGLE (table 4)

In the same time, on some representations the triangle with the point facing up represents the fecund feminine gender (code: 152d, 152g, 152f, 152a, 152h) which presents composed significations, because one of the multiple significations of the fire, by its red color it has as a symbol South, summer, love, heart (love, rage), spirit, breath, intuitive knowledge (trigram) (Chevalier – Gheerbrant 1965/1995, s.v. fire). This kind of triangles and the angle, the ones with the point facing up are a masculine representation. This one is also being associated, some ties, with the point representing symbols connected with sexuality, light and fire (code 1, 1a2, 1k, 16a, 16c, 246, 41, 10c, 1f, 1e1, 1g).

The masculine signs are most of the times masked, appear as the opposite of the feminine ones or are being combined with the feminine ones (cod 43, 43a, 1b5), sometimes in confront (43d). Each one suggesting other particularities, significations or states. Sometimes, they reflect ideas, as for example code 180b in Sanctuary 2 from Parța, at a bucranium that watches over the columns in front of the monumental statues (Lazarovici et alii 2001), the angle suggests the eyes, meaning the light. Other times, as it is on a idol from Parța (Lazarovici 2004a) (table 6/2) the angle represents the impregnated vulva, there being associated with a reversed "T" (T=the child), both being comprised in a square (the house with passage = the belly) so all this suggest pregnancy.

On the third side of the altar from Ocna Sibiului are combinations of 6 signs, mainly formed by "X" and "V". All this signs are elements that appear on the cultic objects (small altars, stamps, seals, idols, cultic pots etc.). "X" sign and its variants (tab. 5) is the main element which with its variants and combinations (code 50, 54, Om 12a) stylizes or represents the human figure or its hypostasis. They reflect some particularities of the human face, as for example: **the Ornant, the Great Mother, the Great Mother and child** and other (for details see Lazarovici 2003; 2004; 2004a; 2004b).

Table 5

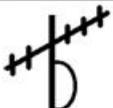
 50	 54	 Om 12a	 85=50a	 84a1	 186b
<i>Human exemplifications</i>				<i>Cosmic cycles</i>	

Still there the "V" sign appears and its combinations. Some combinations give the rhomb. The rhomb on some figurines is being combined with the belly, with the creator belly (birth, food, life, energy)(Lazarovici 2004b), other times it represents the eyes (on figurines) and has a sense of light.

On the last side of the altar there are more signs: V, angles, double lines, triangles with a tail, sign for a phallus, arrow, messenger towards gods, some of them are being known ever since Paleolithic (*Bild Atlas*; Lazarovici 2004a, p. 24, tab. 2).

Also there it appears the "T" sign used for suggesting the infant, in the belly, child at suck or in the arms (tab. 6) (Lazarovici 2004; 2004b). All these appear on the cult objects or idols. The apparent chaotic character would maybe suggest the uncontrolled, the following, the future Chevalier – Gheerbrant (1965/1995, s.v. fire) would also show that as the sun with its rays, the fire with the flames symbolizes the fecundation action purification, illumination. The fire is being considered a symbol of purification and regeneration (the incineration, for example). The terrestrial fire, chthonian allows the union between the opposites ascension, the sublimation of water in us, so the transformation from us from an impure state into heavenly water or pure water and divine.

Table 6

<i>Pregnancy (baby in the belly)</i>		<i>At the beginning</i>	<i>Before birth</i>	<i>With children or 5-6 month</i>	<i>Child at suck in arms</i>
					
129f	2	129b	129b	323	Om 21

Of course, the opposite of fire is the water, also a way for purification (baptism, washing). The water is purifying and generator. It symbolizes purification until its most sublime form, kindness, after the same authors (Chevalier – Gheerbrant 1965/1995, s.v. fire). The small cultic altars, containing the liquid that burns so that it can give the heavenly light are a source and it preserves fire and by burning the fats, the smoke rises towards the sky, to the gods giving them gratitude and offerings. The signs from the altars could represent some of these ideas. A part of these ideas were discussed intensively (Lazarovici C-M 2002; 2003), others by us at Sanctuary 2 from Parța (Lazarovici et alii 2001).

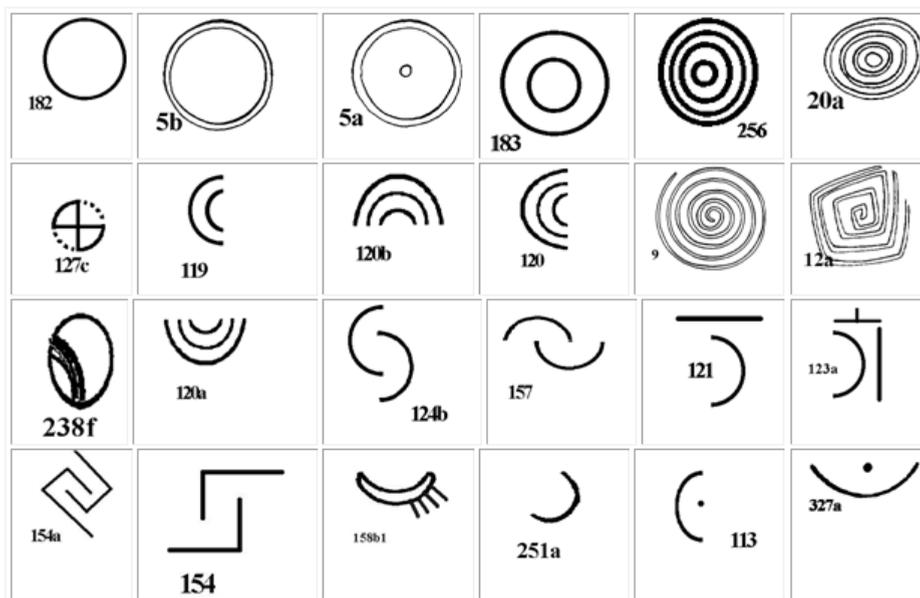
The Sun and the Moon (table 7;9). Many times they are both associated, by they also appear with the Light and fire (code 124b, 157). Together, they represent the fecundity and fertility of the plants, cereals, elements of the World's cosmic rhythm (Eliade 1981, 42-43). To them are brought offerings through cereals by grinding as they appear in Sanctuary 2 from Parța (Lazarovici et alii 2001, Lazarovici 2003), as a message that they are going from vegetal life to the human one, becoming food.

They are reproduced in cosmic cycles (tab. 7)(cod. 127c, 119, 120b, 120, 120a) or their combinations, connected with the mystery of birth, death and resurrection,

identified in the rhythm of vegetation, characteristic for the agricultures (Eliade1981, 42-43). On the altar from Ocna Sibiului I. Paul sees the Sun as a man head and the Moon as a woman head, an interpretation that seems to be credible. The moon appears sometimes suggested as the eye with eyelashes (tab. 7 cod 158b1) or in many other hypostasis (code: 2151, 113, 327a and others). On the back of the statuette from Ocna Sibiului it appears the Sun.

On small altars the Sun and the Moon appear in numerous hypostases (tab. 7, 8a, 9). The connection between them is the best represented by a double spiral (ca *yin* and *yang*: fig.9/9). In the catalog and data base we have numerous forms of representation for the Sun and Moon, alone, associated with their states. Sometimes, they are combined. Sun-Moon, Day-Night, or Heat-Dark, fundamental elements of life, fertility and fecundity. Their combination appears o cult altars on some diagonals of some figurines representation of the Great Mother Goddess nursing in Boian culture (Comşa apud Neagu 1998, 26/3,5).

Table 7

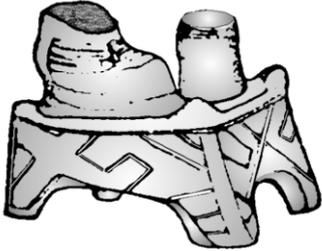
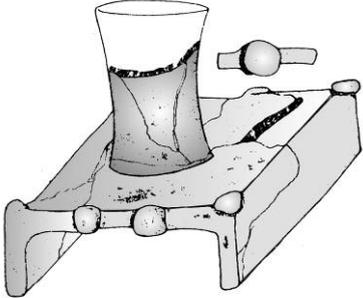
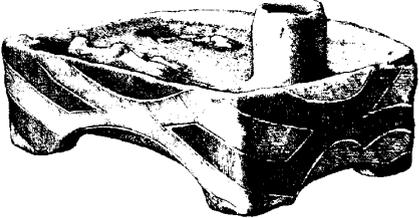


CULT ALTARS. LIGHT, SACRIFICE (TABLES 8-10)

The pieces from Ocna Sibiului, discovered together, allow the "reading" of messages, even though the real possibilities are not controllable, others are possible. The cult small altars are objects with multiple characters. Some of them are used as a table for idols, other for putting and burning the fats. Their form imitates the large altars from sanctuaries. At Magiare, near Skoplie most likely, in a sanctuary were

discovered the remains of such a monumental altar that has the form of small cult altars (amiable information by M. Garašanin in 1984).

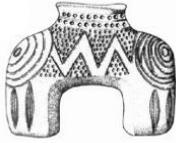
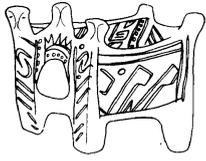
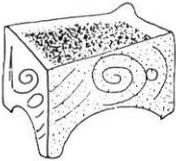
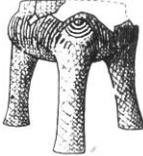
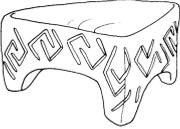
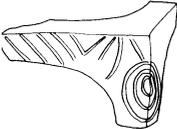
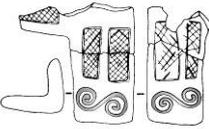
But there are some machetes of small altars that have on the corner table fixed an oven and figures representing most likely the priestess that was surveying the burn of offerings. Also on this one, as it is on the most parts of the altars, it appears the specific meander décor. But many times, in some parts of that décor appear also some signs that are being repeated on stamps, seals, idols or cultic pots. From this reasons we believe that the signs are not incidental, as a simple continuation of the décor, especially that many times they are connected with the sacred numerology, 3, 5, 7, 9.

	
<p>8.1 Fafos</p>	<p>8.2 Vinča</p>
	
<p>8.3 Baciú Strada Nouă, c. Petrești (information Z. Maxim)</p>	<p>8.4 Vinča</p>

The position of the figure, sometimes the hands on the oven, is in the sense to protect (Fafos, fig. 8.1), other times it seems that it assists the burning of the fats and surveys the fire (Vinča, fig. 8.2,4).

There are cases when on the altar it appears only the oven, as in the case of the altar from Baciú (fig. 8/3). We have to emphasis that this is a more special type of oven, that it makes the connection between the lamp and the oven from siderurgy. Maybe that the analogy seems to be an evolved one, but we should not forget that all this models are connected with Late Neolithic, period when copper metallurgy is

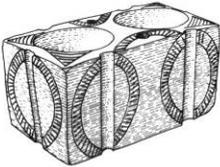
being present at its highest level, its origins being connected with the technological evolutions from Anatolia. There is also to be mentioned that there are optical differences in what concerns the general terminology from south of the Central Europe and Near East. For example, by its aspect and origins A phases of Vinča are a part of Balcan Anatolian Chalcolitic (CBA at us Lazarovici 1991; Lazarovici Nica 1991).

 <p>9/1</p>	 <p>2 9/</p>	 <p>9/3</p>
 <p>9/4</p>	 <p>9/5</p>	 <p>9/6</p>
 <p>9/7</p>	 <p>9/8</p>	 <p>9/9 2</p>
<p>Table 9. Altars with signs and symbols of the Fire, Sun and Moon.</p>		

From these representations and until the Hellenistic mythology of Hephaistos there is only one step. Not to forget that some of the great copper axes were shaped into hot patterns, which could be done especially in ovens.

On the altars above presented it appears the Sun (fig. 9/1, 3-4,6,7; 10/1), the Moon (fig. 9/8, maybe also 6) or the association, their togetherness as two half-moon (9/2, 8;10/5) or stylization as meanders (fig. 9/5, 10/2) better suggested as a spiral and a sign of their **togetherness** (yin and yang as we have already shown above) (fig. 9/9; 10/3, 6).

At Gornea (Vinča A), on a triangle altar appear triangles, lines in angles, "V", "W", "M" signs and symbols connected with sexuality, light, fire (fig. 9/4) (Lazarovici 2004; 2004a; 2004b).

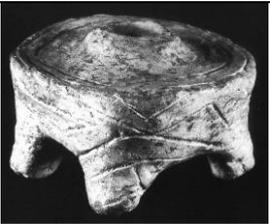
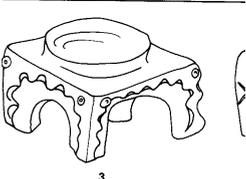
 <p style="text-align: center;">10/1</p>	 <p style="text-align: center;">10/2 Animal at the right foot , at the left rain.</p>	 <p style="text-align: center;">10/3</p>
 <p style="text-align: center;">10/4</p>	 <p style="text-align: center;">10/5</p>	 <p style="text-align: center;">10/6</p>
<p>Tabel 10. Altars with signs and symbols of the Fire, Sun and Moon.</p>		

FUMIGATIO. THE BURNING OF OFFERINGS

The smoke is considered to be a part from the relation between Earth and Sky, by the smoke of the sacrificed animals or by the frankincense smoke. It rise towards the sky the pray and the duties of men. The smoke columns that rise towards the sky symbolize the union between sky and earth and the man's spirituality (Chevalier – Gheerbrant 1965/1995, s.v. smoke).

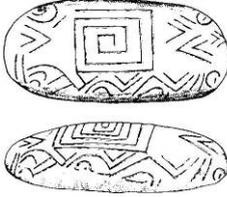
We have mentioned several times, referring ourselves to the ritual from Sanctuaries and altars, about the burning or offering of some products to the divinities Sun-Moon, Great Mother-Bull (Lazarovici 2001; there is also the bibliography). From the products only some of them could have been identified as it were the straws or the peaks, other cereals, meat, fats.

Some of the altars are being connected to the sun, as being producers of light. At Obre 1 (Early Neolithic), on an altar, under the cup for liquids in which the wick burned started several rays. On the edge of the table there are numerous triangles with the point facing down, between them there are some with the point facing up. Such signs appear on many of the Early, Developed and Late Neolithic altars (Gradešnica). Sometimes on the altar the eye symbol of light, fire, knowledge, faith appears (Lazarovici 2001b). The triangles with the point facing down or up appear in a number of 7 (fig. 9/1) or 9 (fig. 9/3), even though it may be a happening, a symmetry arrangement, but we consider necessary to draw the attentions towards it.

		
<p>9.1 Obre I</p>	<p>9.2 Old Vinča</p>	<p>9.3 Gradešnica, Early Neolithic.</p>

THE SUN, THE FIRE AND THE BREAD (TABLE 10)

Regarding the rituals connected with bread and fire we notice the existence of some mythograms or objects of cultic ritual. In the archaeological literature there appeared a series of objects, even since Early Neolithic, but most of them are from Late Neolithic and Bronze Age, connected with bread, as it would be clay bread (synthesis about wheat and bread: Lazarovici 2003, p. 65 and following and the bibliography) and idols in bread shape (Brotlaibidole: Trnka 1992, 616, list.).

	
<p>Fig. 10.1. Bread model, Vršac Potporani</p>	<p>Fig. 10/2. Bread model, Banjica, in corners in the left the Sun, in the right the Moon.</p>

Besides the bread from Vršac the most frequent motif is the spiral (tab. 10.1) or the angle spiral or meander (fig. 10/2). At Banjica there are represented several astral symbols (Sun, Moon, Sky, Water) (tab. 10.2. from the center of the bread it starts an angle spiral, derivate form the 4 primordial elements of the world (earth, water, air, fire) from which it is also made the bred: clay/flour kneaded with water, raised up by

leaven (air, soul) and by baking (firing) they become immortal (ceramics, from clay models or as food integrating in such way the cycle of life). On it also appear signs and symbols of fecundity (M, V, the angles).

THE THUNDER (fig. 11a-11b)

The thunder is the creation that comes from the naught ever since the state of chaos.

(Chevalier - Gheerbrant 1995, 366)

One of the most terrifying natural phenomena was put by man in diverse mythologies. The following synthesis is from Chevalier and Gheerbrant. In the Antic world the thunder appears as the representation of one of the attributes of the supreme gods Zeus, Jupiter, Indra, Shiva, Vishnu, Dumnezeu, Thor, Parashu – Rāma, Rudra, Skanda and others.

It precedes and it is the representation of Storm. We are talking about the physic and moral storm. In essence it represents the sky fire, it expresses desires and the almightiness of the supreme god. With a bipolar character, as many other things it symbolize the creation and divine power of divinity. The place where the thunder strikes it is being sealed. The thunder stones as they are the Neolithic or prehistoric axes. This myths appear at different people (for example the Romanian form Apuseni Mountains as an interpretation given by the director of the Museum from Lupşa).

The representation of the thunder is being different: it appears like a great spindle with two ends or arrow in zigzag shape coming from the hand or from his inside at Jupiter or Zeus (Chevalier Gheerbrant 1995, s.v. thunder); under the sign *Thor's axe*; as a double axe; the extremities *vajrel* (thunder at Hindi populations). The two ends of the axe or of the spindle represent good and evil, life and death.

The thunder represents the break of the equilibrium as freeing of the rage, the sign of spring, but also the identification of creation energy (as *the phalus*: Chevalier - Gheerbrant 1995, 365). Good is associated with rain, digging the soil with the ax, fecundation as a source of fire. It's symbolic is different. The thunder is the symbol of the directing male principles (the ax, the spindle, the double trident, the verb).

Among the oldest representations, associated to the definitions above mentioned we have a representation of a store pot from Turdaş, from Late Neolithic (4th millennium) (Roska 1941). This piece we believe that it defines an ancient myth of fecundity and fertility, of gods and their attributes, but is also a narration. The pieces has only one arm preserved, the other one (left) is broken. The piece was reconstructed – it has both arms raised up, in orant position, but the left one could have been orientated towards down, as it appears on other representations (code Om 19; Roska 1941, 131/25; Jovanović 1981, 134; Makkay 1990, 35/I.30, 20/13).

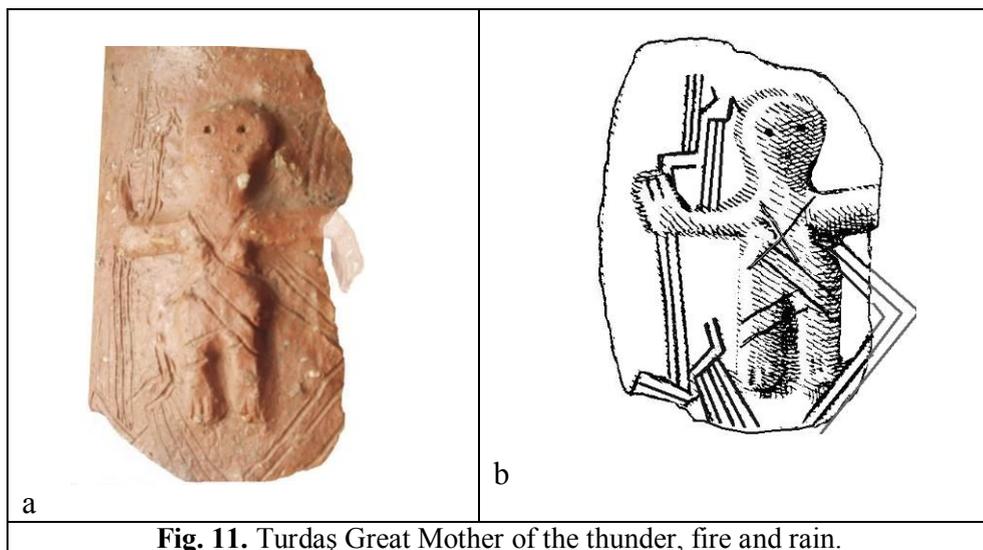


Fig. 11. Turdaş Great Mother of the thunder, fire and rain.

The figure represents a feminine divinity (marked by breasts) with the divine well known attributes (the cross ribbon). On the right hand it seems to appear more stylized water birds with long legs or maybe another idea on which we should reflect. The water birds announce the coming of spring, the resurrection of the vegetation. Flying birds also appear on the mythogram from Lozna, the birds are the announcers of the Sky, they announce the coming of Autumn or Spring.

On the right had, the justice hand, the commandment hand, the power hand, the supremacy hand (concerning its significance Chevalier - Gheerbrant 1995 s.v. *hand*) The Mother of Lighting (we call her this name) carries the flash of lightning formed of three lines, which descent from the sky to the ground, but they are in zigzag shape, actually the most frequently represented form of the lightning (see for example the signs of electric notification). The three lines could symbolize the three shape of thunder: **fire, light, thunder-verb**. From the inferior part of the hand, the lines that descend could symbolize the rain, the same as the slop birds, in our mythology the ones that announce and bring spring, birth, renew (concerning the rain see numerous neo-eneolithic representations at Golan 2004).

On the belly and legs there are also obliquely incised two parallel lines of which signification could suggest something. Our myth could be an apologue in which the Great Mother has also the power of the celestial Fire.



Fig. 11c. Turdaș, storage pot.

THE POT FROM LOZNA

We believe that the most interesting mythogram and ideogram is the one from Lozna. There is also the opinion that the pot fragment, having Cucuteni origins, B phase and considering the other Eneolithic materials discovered it would have been written later, with a runic writing (details in S. Teodor, Lazarovici Gh. and Magda, 2004). Because some of the signs continue further the break of the fragment (at signs 2, 13, 17) for us it is clear that it was an Eneolithic pot, very probable an amphora, on which it was "written" something and not a fragment on which was written.

From the signs we also recognize the M symbol and sign from Cassiopeia (Casiopea beautiful queen that her beauty brought troubles, see Lazarovici about "M": Lazarovici et alii 2001, p. 271-274, fig. 244-247; Lazarovici 2001; 2003 Karlovo), the night queen, the north queen or the long nights queen). In the image, the bird (fig. 12 b nr. 1) departs towards M (nr. 2), maybe somewhere in the south. The sign appears in astronomical position, inclined at 45° , a sign that appears on spring or autumn. In the next register two signs (nr. 3-4) with a pause that it could be a beginning, an invocation. Other three or five signs or more if we admit that there are also ligatures (nr. 5-9 are being separated by an arrow (nr. 10) after which it

followed another group of signs, some of them weren't preserved, after which it appears a group of signs (nr.11-13).

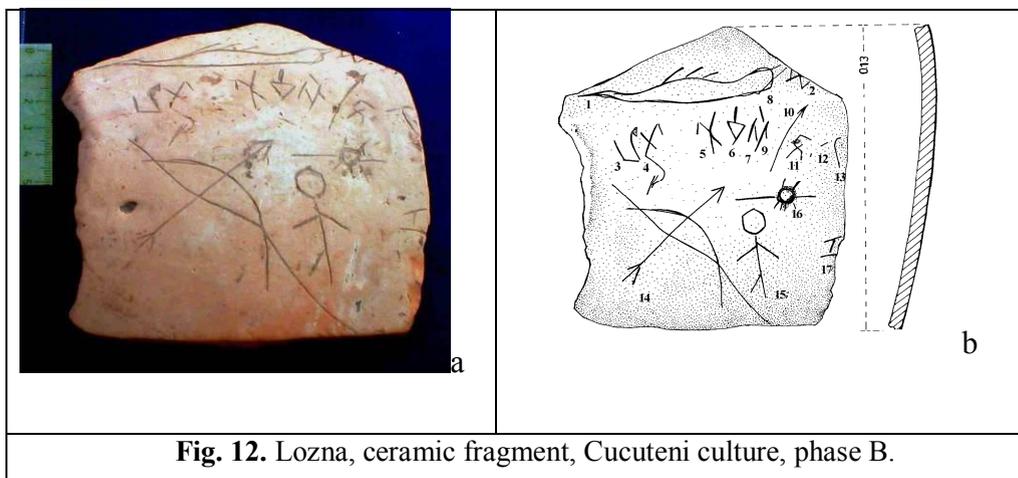


Fig. 12. Lozna, ceramic fragment, Cucuteni culture, phase B.

In the following register there is the sun (nr. 16) and on the inferior register it appears a human stylized figure (nr. 15), the arch with the arrow (nr. 14) and in the inferior row it continued the signs after 15. The sun through the lines that continues from it separated the world of the Sky in the superior part, marked by the star symbol, Cassiopeia, after us also the flying bird and on the inferior row man and arrow that starts from the arch. The arrow from the superior part (nr. 10) could mark the addressing direction to M – Cassiopeia and something would follow the broken space. The signs 5-8 could mark the message. The braking on the fragment does not allow us to analyze the syntax.

From all this we distinguished the addressing of a message to the Divinity from the Sky after the invocation of the human from the lower side. The arrow is the envoy that carries the message. So, we have here a combined message from the ideogram, but also a "writing" (Winn Merlinii 2004a, 2004b). The closest myth with this way of transmitting the adhesion of the ones from the earth with the events from the astral world it is the most evoked by Herodotus about the customs of the Dacians to pull the spring....

Although many of our hypothesis cannot be verified now, not to interpret them is worst than to leave them only in descriptions and to marvel at them.

Table 2														
	Bronze 1	Eneolithic 1	Eneolithic 2	Eneolithic 3	Eneolithic 3b	Neolithic 1	Neolithic 2	Neolithic 2-3	Neolithic 3	Neolithic 3 eneolithic 1	Neolithic- eneolithic4	Roman	Sum	Percent

Sum	10	27	7	7	1	73	14	1	50	1	8	9	792	
													of	
													3162	
Porcent	1.263	3.4	0.8	0.8	0.1	9.2	18.1	0.1	63.5	0.1	1	1.1	25%	100%
 1a = a	2	3		1		3	14		33		1		57	7.2
 50		2	1	1		1	4		45				54	6.8
 127	2	1	1			1	4		33		1	2	45	5.6
 163	1						20		20				41	5.1
 162						4	4		29				37	4.6
 1 = d		1	1			5	4		21				32	4
 163a		1	1				10		19				31	3.9
 49a		2				2			13			6	23	2.9
 162a			1				2		19				22	2.7
 0	3			1		1			16				21	2.6
76a						1	3		15		1	1	21	2.6
20						5	5		9				19	2.4
A		2				4			13				19	2.3
229		3				1	5		9				18	2.2
1b		1	1			1	2		11				16	2
1c						3	4		7				14	1.7
246b							1		13				14	1.7
320/2						14							14	1.7
49b		2							12				14	1.7
500									14				14	1.7

229i			1				4		8				13	1.6
21						3	1		8				12	1.5
164						1			10				11	1.3
171	1	3			1		1		4		1		11	1.3
19				1		2	2		6				11	1.3
246									11				11	1.3
50i						2	1		5		2		10	1.2
94a						3	4		3				10	1.2
151							6		3				9	1.1
153a						6	1		2				9	1.1
182						1	5	1		1	1		9	1.1
229k		1					8						9	1.1
8									9				9	1.1
126a						1			6				7	0.8
127d							3		4				7	0.8
149b							1		6				7	0.8
153						1	2		3		1		7	0.8
158b							3		4				7	0.8
16d							1		6				7	0.8
1a3									7				7	0.8
22							3		4				7	0.8
3									7				7	0.8
49f						1			6				7	0.8
76c		1					1		5				7	0.8
90		1				2	2		2				7	0.8
127a		1				1			6				8	1
127b1	1						3		4				8	1
16							3		5				8	1
237		2				1	3		2				8	1
50b				2		2	3		1				8	1
76	1			1			1		5				8	1
Sum	10	27	7	7	1	73	14	1	50	1	8	9	792	3162
Percent	1.263	3.4	0.8	0.8	0.1	9.2	18.1	0.1	63.5	0.1	1	1.1	25	100

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Lazarovici C. M. 2004	Cornelia Magda Lazarovici. Communication in Novi Sad, International Symposium (2004).
Lazarovici <i>et al.</i> 2001	Gheorghe Lazarovici, Florin Drașovean, Zoia Maxim, <i>Parța. Monografie arheologică</i> , Vol. 1.1 341 pages; vol. 1.2, 115 plates, 137 figures, “Waldpress”. In <i>BHAB 12</i> (2001).
Makkay 1990	János Makkay, <i>A tartariai leletek</i> , Akad Kiadó, (1990) Budapest.
Merlini 2003	Marco Merlini, <i>The Prehistory Knowledge Project</i> , under the patronage of the City of Rome (2003).
Merlini 2004	Marco Merlini, <i>La scrittura è nata in Europa</i> . In <i>The Prehistory Knowledge Project, averbi</i> , (2004) Roma.
Paul 1995	Iulia Paul, <i>Vorgeschichtliche Untersuchungen in Siebenburgen</i> (1995) Alba Iulia.
Păunescu 1993	Alexandru Păunescu, <i>Ripiceni – Izvor. Paleolitic și mezolitic, Studiu monographic</i> , (1993) București.
Roska 1941	Marton Roska, <i>Die Sammlung Zsofia von Torma</i> (1941) Cluj.
Teodor <i>et al.</i> 2004	S. Teodor, Gheorghe Lazarovici, Cornelia Magda Lazarovici, <i>Comunicare</i> , (2004) Iași.
Trnka 1992	Trnka 1992 – Brotlaibel.
Winn 1973	Winn Shan M.M., <i>The Sings of the Vinča Culture</i> , (1973) Michigan 1973.
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NEW CONSIDERATIONS ABOUT NEOLITHIC DEVELOPMENT HABITATION IN THE ARCHAEOLOGICAL SITE LIMBA - OARDA DE JOS (ALBA COUNTY)²

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Keywords: *Neolithic, Starčevo-Criș culture, Vinča culture, complexes, artifacts*

Abstract: *The authors tries to bring a contribution regarding the knowledge of the evolution of succeeding Early and Developed Neolithic communities belonging to different cultures, starting with analysis of the stratigraphy from the different sectors of the site. In this manner were been presented Early Neolithic habitations (Precriș, Starcevo-Criș IIIB) and those of the Developed Neolithic (Vinca A2, A3-B1 and Vinca B1 (B1-B2?)). The complex stratigraphy and the archaeological materialse revealed are very important in clarifying significant aspects of the Early and Developed Neolithic phenomenon in the intra-Carpathian area. The imminent construction of the Sebes-Turda highway - which will across the archaeological site in the richest area in prehistoric deposits - determined the authors to re-analyse the succession of Neolithic habitations from Limba-Oarda de Jos and illustrating the most representative complexes discovered.*

The archaeological systematic investigations carried out in prehistoric sites from Limba Oarda de Jos³ through time made it to become notorious within oldest archaeological literature (Berciu, Berciu 1947; Ciugudean 1976; 1978; RepAlba 1995; Aldea, Ciută *et al.* 1996; Paul, Ciută 1997; 1999; Paul, Ciută *et al.* 1998; 2000; 2001; 2002) and recently (Ciută 2000; 2002; 2004; 2005; 2005a; 2009; 2009a; 2010; 2010a; 2013; Ciută, Daisa 2000; 2002; Ciută, Florescu 2010), being pointed out with other occasions, too (Ciută 2009; 2009a; 2010; 2010a; 2013).

² We dedicate the present study to the twenty years from the beginnings of the systematical researches at Limba, under the coordination of the professor I. Paul (1995-2009).

³ Complete bibliography see at Ciută 2002; 2009; 2009a; 2010; 2013; Ciută, Florescu 2010. Also here an exhaustive presentation of the geo-morphological particularities of the area the sectors, the toponimics, a topographics, and stratigraphical particularities.

There are many elements which make us to consider it as a *key-site* very important in understanding the complexity of Neolithic processes from Transylvanian Intra Carpathian area. We are speaking about its large spatial development, considerable depth of layers and consistency of archaeological deposits belonging to the Neolithic Age (early and middle Neolithic), by its geographical location extremely advantageous in the middle Basin of the Mures River (which gives easy access to various resources and direct links with distinct geographical units) and its special type of archaeological artifacts.

This study aims to present in a synthetic manner the successions of Neolithic deposits, revealing the most important features or representative contexts, completed by specific materials, which are corresponding to architecture and inventory stuffs, followed by some cultural and chronological details⁴.

The presentation of the topographic sector (and topographic) of the set sites from Limba-Oarda de Jos with brief references regarding its distinct particularity of stratigraphic succession belonging to Neolithic settlements of the assembly sites, being previously carried out (Ciută 2009; 2009a, 2013; Ciută, Florescu 2010), make us to perform next steps in this study. In this direction we will emphasis to an accurate description of evolution of cultural chronological deposits by revealing the features of dwelling complexes, indicating the exact position of stratigraphic context and description of representative material elements, which were the basis of their definition⁵.

For a correct localization of archaeological contexts which we mentioned will make a brief overview of the history of systematic investigations. In campaign from 1995 we have made three units in order to get information and stratigraphical corroboration. Two of them were been performed in *Bordane* sector (SI and SII), having its dimensions of 10x2m, and a three one (SIII) in *Şesu Orzii* sector (fig.1)

In parallel was made a first cutting embankment of extremity *Vărărie* sector (L1). In archaeological campaign from 1997 was approached the limit area of *Bordane* sector (SVII = 6x2m, SVIII 6x2m, SIX = 8x2m). At the same time was carried out a new cutting embankment of the *Vărărie* edge (LII=12m). In campaign from 1998 were been carried out archaeological excavations in *Bordane* sector by making a new unit SX having dimension of 10x2m. Also was made another unit SX (10x2m and an adjacent cassette of 6x2m at the south limit) in *Vărărie* sector.

⁴ Until now where published 12 archaeological reports and 45 studies and articles regarding the researches results. All this, together with the present study, represent the basic structure of the monography of the *Limba-Oarda de Jos* archaeological researches.

⁵ All this studies are necessary especially because in e very near time the site where traversed by Sebeş-Turda autoway, from South to North exactly in the central area, right on the sectors researched by us (cf. Ciută *et al.* 2015).

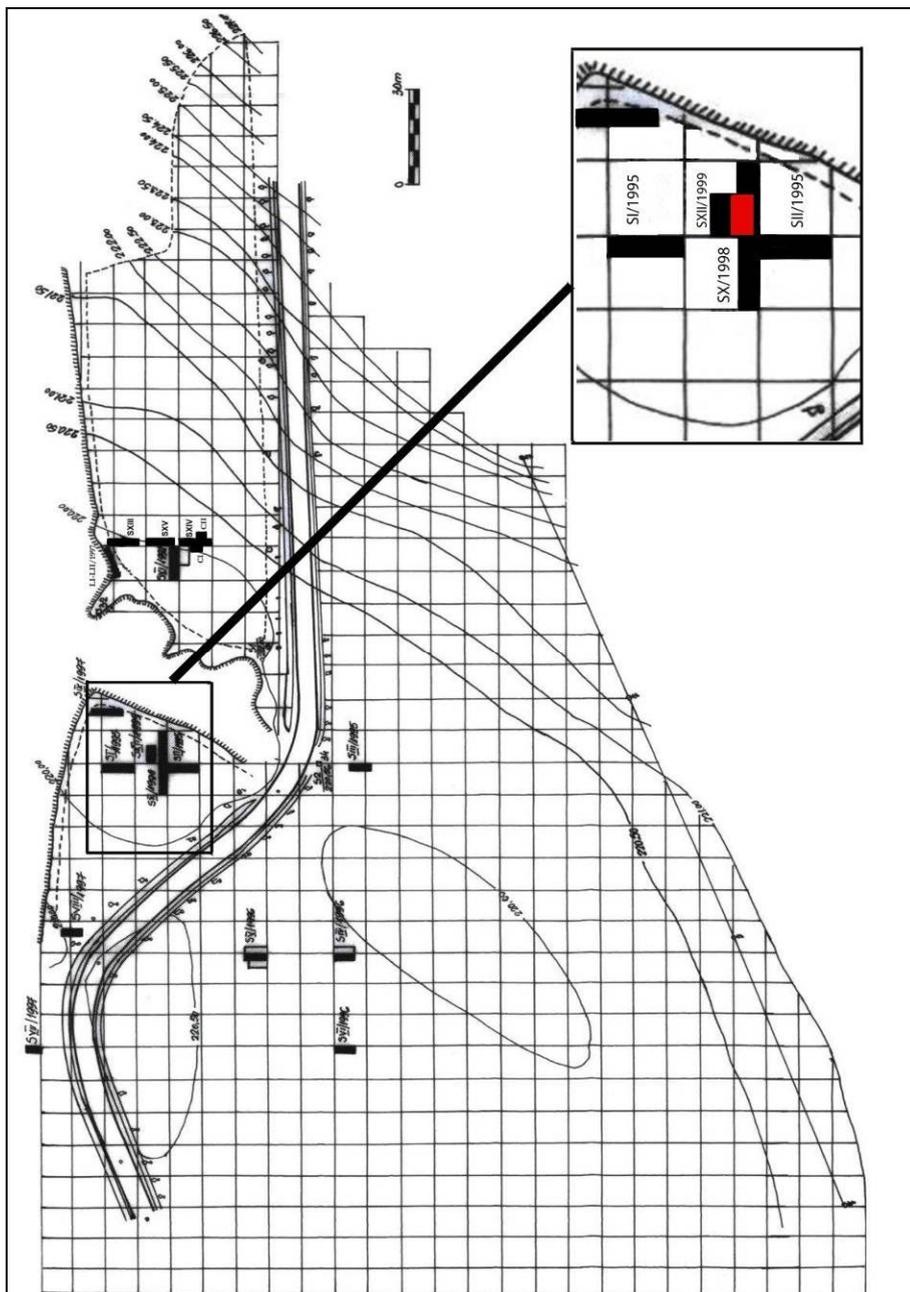


Fig. 1. Topographical map of the *sectors* of Limba-Oarda de Jos archaeological site (Bordane, Vărăria and Șesu Orzii), with the detail of the research units.

In order to investigate some dwellings incomplete revealed in last campaign (SX/1998) was made a new unit in Bordane sector during 1999, namely SXII with dimensions of 6x4m. During campaign from 2000 were been approached another sectors like *Șesu Orzii-La Balastieră* and *Vărar*, where were been performed archaeological researches in the 40s of last century.

Year 2001 marked the continuation of research in the Vărărie sector, where were been executed three units SXIII, SXIV and SV, each of them having 10x2m, oriented north-south, with 1m cassettes between them in order to obtain a thoroughfare in this direction. Discovery of a surface house and a hole that penetrated it has determined the opening of an adjacent cassettes (SXIII /2001); and finding of a dwelling and two funeral complexes (M1 and M2) has determined the opening of two adjacent cassettes (SXIV/2001) (fig. 1). Some research units are still unfinished, like SIV/1996, SXV/2001, and the eastern cassette of SXIV⁶.

In presentation of cultural chronological evolutions will begin with the oldest, to the most recent, thus relating their chronological layout mode in the vertical stratigraphy sectors of the site and not respecting the order how were been excavated during archaeological campaigns.

Precriș Habitation

The earliest habitation from Limba-Oarda de Jos is belonging to first Neolithic horizons from north-Danube and intra Carpathian area (Ciută 2005, p. 22 with aferent references; Paul, Ciută 1999).

Whetever we call them *phase I* of *Starčevo-Criș* or *Precriș*⁷ specific deposits to this habitation consisted only of typical archaeological materials were been discovered only in *Bordane* sector yet, specifically in SII/1995 and exclusively in SX/1998⁸. The cheery-red pottery highly polished specific to *Precriș* (Ciută 2005, sqq, Pl. LXXXI) together with lithic materials (obsidian flints) and gods plastic representations were been revealed in the archaeological excavations units mentioned above at a depth of 3 m or 3,30 m. (fig. 2).

The archaeological materials fit into this *Precriș* horizon defined by previous discoveries from Transylvania in Gura Baciului and Ocna Sibiului, and recently from *Șeușa-La Cărarea Morii*, Miercurea Sibiului and Cristian I sites. In this level was discovered an obsidian flint and a special silex blade, with analogies in the contemporary sites, which may suggest a possible mesolithic tradition (fig. 2/1) (Ciută 1995).

⁶ Paul, Ciută *et al.* 2002. Also SXVI/2010, SXVII/2012-2015 și SXVIII/2015, from the recent excavations, are still unfinished!

⁷ See on the terminological issues: Ciută 2000, pp. 51-101; 2005, sqq.

⁸ A pedological particularity of the *Bordane* sector, consist in the situațion that the yellow-loessoid level, considered innitialy to be the bed-rock, contain the *Precriș* materials (cf. Ciută 1995, p. 123).

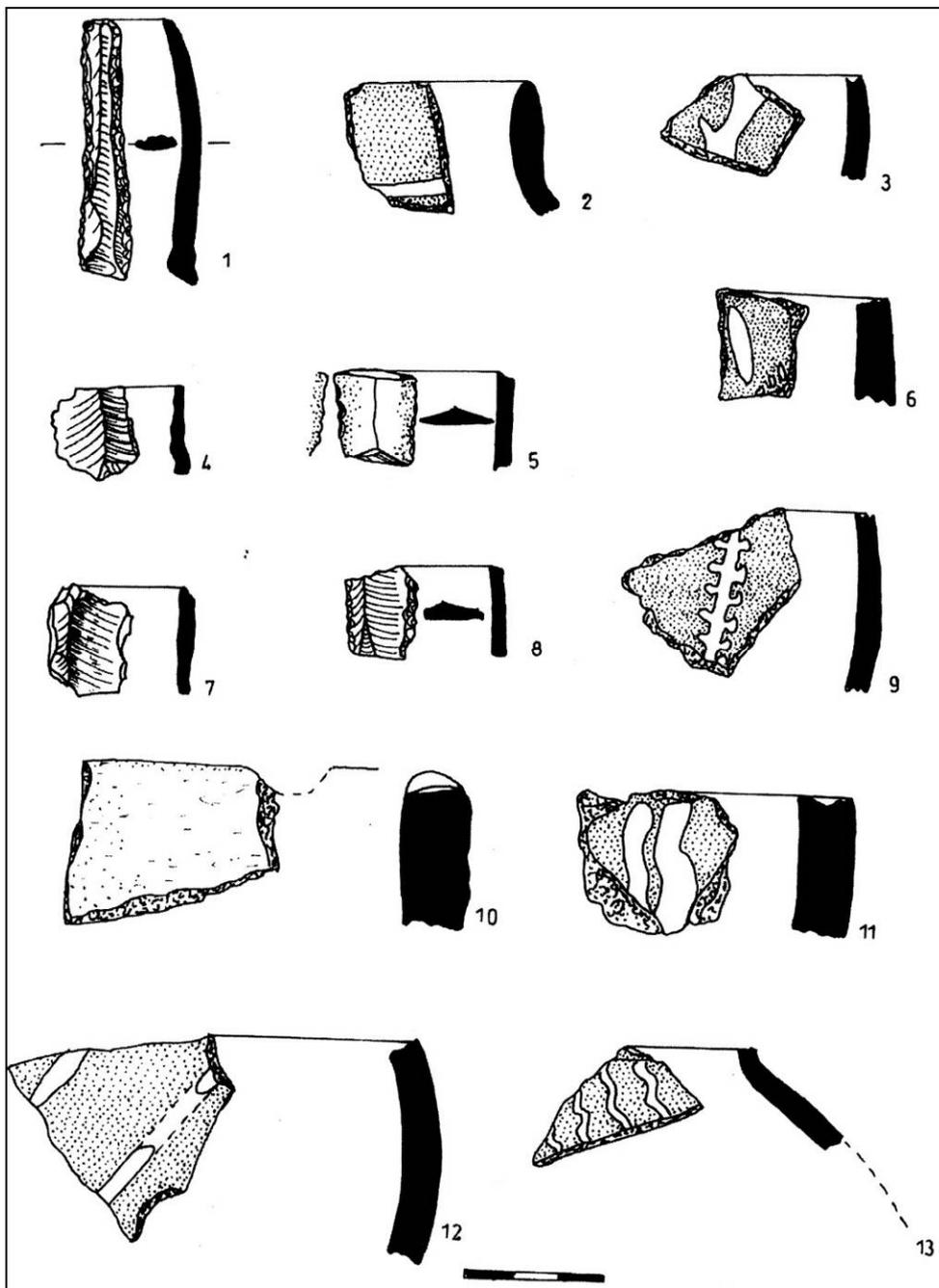


Fig. 2. Artifacts discovered in the first early Neolithic level (Preciș) from SX/1998 (after Ciută 1995).

In the unit SX/1998It were been revealed some possible alveolar anthropogenic features belonging to this horizon, with an average thickness of 25-30 cm (Ciută 1995).

Starčevo-Criș IIIB Habitation

Above the level which comprises remnants belonging to *Precriș* I habitation from Limba Bordane it was revealed the next level of dwellings, also belonging to the early Neolithic respectively to the developed phase of Starčevo-Criș cultural complex - much better outlined, including habitation structures, namely by discovered in the same housing area SX/1998 *Bordane* sector. This cultural complex was much better outlined including dwelling structures such a surface house revealed in unit SX/1998 from *Bordane* sector. Because this complex with its specific elements of construction (fig. 3) and also the characteristics of the pottery (fig. 4, 6-7), including painted pottery (fig. 4b) plastic representations elements (fig. 5 ac) and IMDA (Prehistoric Bone and Antler Industry) was the subject of several previously published studies (Ciută 2002 Ciută, Ciută 2013), we shall not insist particularly on it.



Fig. 3. Details of the Starčevo-Criș IIIB surface dwelling from SX/1998. View from East.

We will only specify that the classification of habitation, respectively the level to which belongs was attributed to developed stage (classes) of evolution of

Starčevo-Cris, more precisely, according to evolutionary system proposed by Gh. Lazarovici (Lazarovici, 1977, 37-42; 1979 64-69; 1984, 66-68; 1993, 245), it fit into the second step (b) of the third phase (III) of evolution.

The invoked arguments support the affiliation of this habitation to the cultural synthesis part which arise from contacts that have had with Starcevo-Cris culture itself, with the first elements of migration phenomenon nominated with the generic term "Balkano-Anatolian Chalcolithic", seen as an southern origination (Lazarovici 1984 66; 1988, 17-28; 1993, 244-245). Basically, at this level we are witnessing with the first impulse of "Vinca type" in the north of the Danube areas, when it occurs the neolithisation of southern Transylvania and Moldova (Lazarovici 1984, 66-70; Ursulescu et al. 2001; Cotiugă 2000, 131 -156), when some communities were even exceeding the boundary of the Prut River. Based on the study of polychrome pottery were made analogies with areas from south Balkan, Greek and even Middle East (Lazarovici, 1977, 37-40; 1979; 1984 68; cf. Nica 1977, 36-39.) The Vinca elements are strong, clear (especially for fine ceramics), with strong ties with the early stages of Vinca (A1, A2), that evolves in the same period in the Banat area (Lazarovici 1984, 65-73; 1988 17- 28; 1993 245; Drasovean 1989, 9-47; Luca 1991, 1-14).

Starčevo-Criș Habitation was certainly revealed at the *Bordane* and *Vărărie* sectors though it is possible to be present in *Șesu Orzii* sector too, where specific pottery have emerged, but without clear stratigraphic markers.



Fig. 4. Ceramic pot from Starčevo-Criș IIIB dwelling.



Fig. 5. Altars fragments (legs) from Starčevo-Criș IIIB dwelling.



a



b

Fig. 6. Ceramic pot (a) and painted fragment from Starčevo-Criș IIIB dwelling.

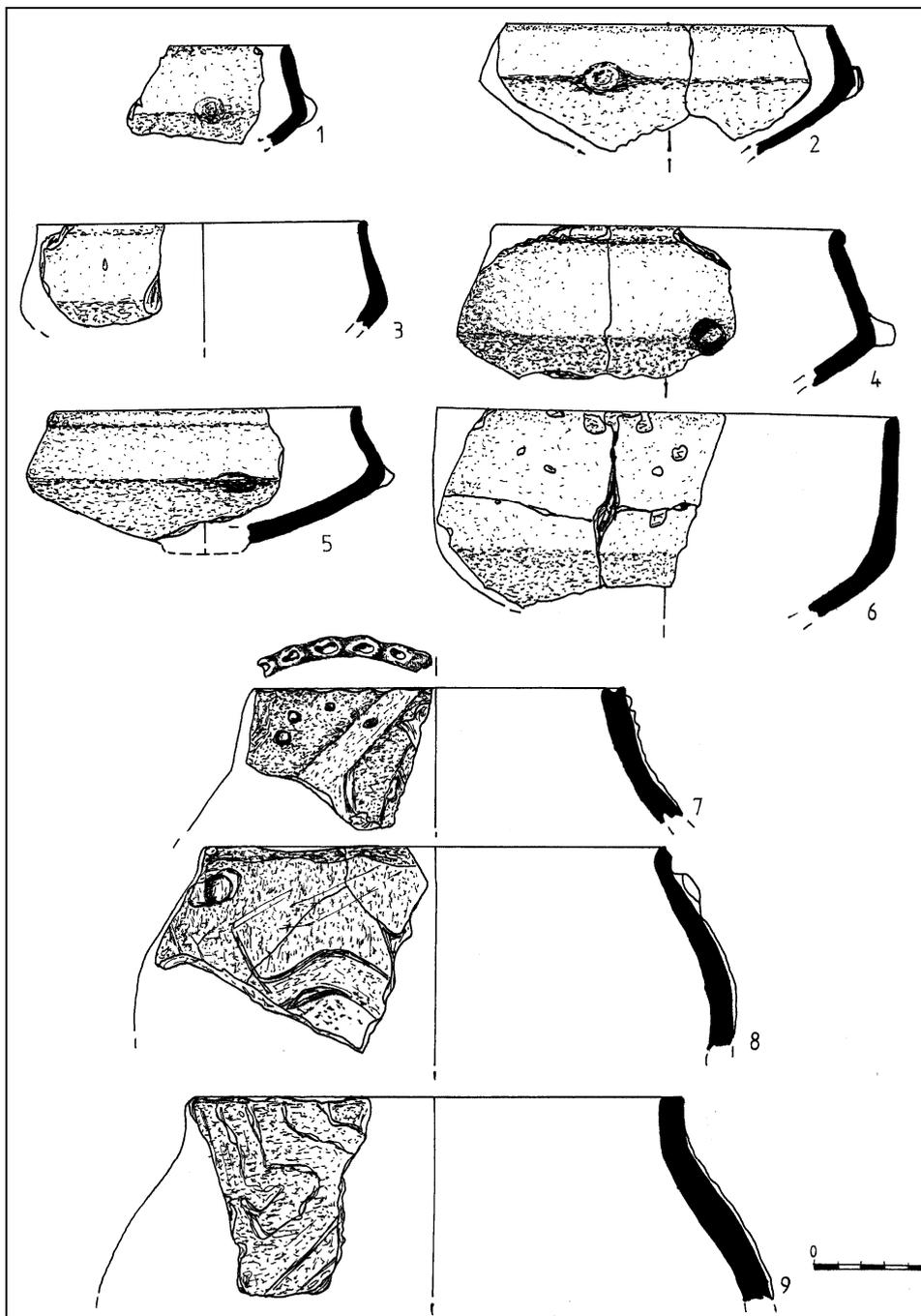


Fig. 7. Ceramic materials from Starčevo-Criș III B dwelling (after Ciută 2002).

Vinča A2 Habitation

Since the campaign of 1995 were been discovered archaeological contexts and materials belonging to the first Vinča settlements, namely to the second stage of phase I of culture.

At the beginning of systematic research in Limba in 1995, were relatively little known about the early stages of the Vinča culture in Transylvania⁹, but thereafter, during excavations were been publishes a series of studies which have clarified the issues regarding the genesis and evolution of the first phases of the culture in this area¹⁰ (Luca 1999; 2001; Luca *et al.* 2000; 2000a; Suciú 2009). These hypotheses were based on extensive studies on materials recovered from different archaeological sites, located mainly in Mureş Basin and Oarda de Jos site being one of them.

In the light of these researches the Vinča culture from Transylvania has revealed as an distinct cultural entity who raised from a strong inflow of early Vinča populations from Banat (Phase A), which goes up, following the course of the Mures River, to the southwest and central Transylvania (Luca 1997; 1998; 1999; 2001; Luca *et al.* 2000; 2000a, 2001; 2002 etc.; Paul, Ciută 1998; 1999; 2000; Suciú 2009). Thus it was revealed a distinct evolution regard the starting with the second stage of the first phase of the culture (Vinča A2) to the end of intermediate stages of the second phase (Vinča B1-B2), while the Turdaş culture isn't arise earlier then Vinča B2 phase as it is demonstrated by stratigraphic correlations and current cultural realities from the Middle Mureş Valley (Luca 1997, 73; Luca *et al.* 2000; 2000a; Suciú 2009).

On the general view we find common similarities, especially particularly elements for older Vinča phase (phases A2 and A3), but also individualization of some features that appear only in Transylvania (during phase B1) such as vessels covers.

The closest analogies regarding the authenticity of early Vinča in the site from Limba-Oarda de Jos, are found in the middle basin of Mures and in Secaşelor Plateau like: Miercurea Sibiului-*Petriş* (Luca *et al.* 2000; 2000; 2001; 2002; Suciú 2009), Sebeş-*Podu Pripocului* (Popa, Totoianu 2001), Tărtăria-*Gura Luncii* (Vlassa 1963; 1967; 1976; Lazarovici *et al.* 2011), but also in Banat (Lazarovici 1977, 1979, p. 85-107; Luca 1985; 1991) at Zorlenţu Mare, Liubcova, Parţa, Gornea, Balta Sărată, Fratelia, Chişoda Veche) and in the Serbian Banat, within the early deposits from Vinča eponymous site (Vasic 1936 vol. III, *Plastica – ПЛАСТИКА*).

The most representative complex belonging to Vinča A2 phase from Limba - Oarda de Jos was the surface dwelling partially unearthed in SX/1998 unit and SXI/1999 unit. Its characteristics as the architectural and inventory features are

⁹ Comparising with Banat region, much beter researched on that moment: Lazarovici 1970; 1977; 1977a; 1979; 1981; Lazarovici *et al.* 2001; Luca 1985; 1991.

¹⁰ With special attention for the sites: Romos, Balomir, Miercurea Sibiului, Tărtăria and Limba-Oarda de Jos.

specific for this phase. The house has a rectangular shape with its dimensions of approx. 3.5 x 4 m. It occurs as a cluster of pottery, heavy ash and carbonized lens and wood (from the timber of the walls), river stones, while it still retaining the surface elements of the arrangement that composed the floor (Fig. 8).



Fig. 8. Vinča A2 dwelling from SXI/1999. View from East (a). View from South (b).

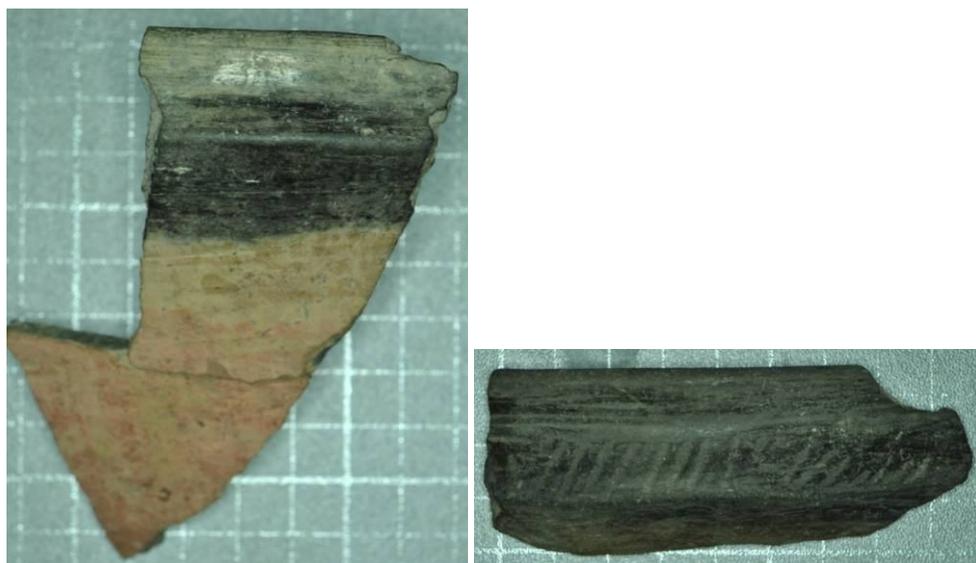


Fig. 9. Blacktopped fragment with polished decoration from Vinča A2 dwelling



Fig. 10. Empty cup leg, with red paint, polished, from Vinča A2 dwelling.

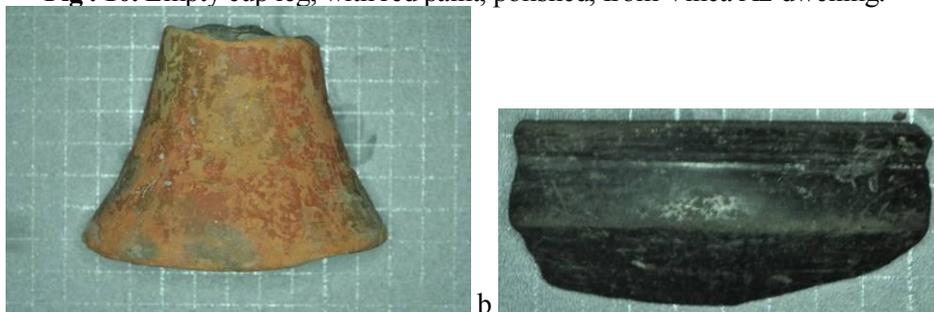


Fig. 11. Empty cup leg, with red paint, polished (a), Black polished ceramic (b) from Vinča A2 dwelling.



Fig. 12. Anthropomorphic idols from Vinča A2 level.



Fig. 13. Bitronconic blacktopped ceramic pot, from Vinča A2 level.

Typically ceramic materials, especially those belonging to fine category, like high and empty foot cups (fig. 10, 11a), the *blacktopped* pottery, bitronconic vessels with short neck and sharp shoulder, polished decoration with striations, anthropomorphic plastic representations with strong Starčevo traditions are just a few of the most obvious features for our cultural proposed classification.

Specific artifacts belonging to this phase were been revealed in other complexes discovered in *Bordane* sector such as two disposed hearths from SI and SII / 1995 (Aldea, Ciută *et al.* 1996), but also within a distinct level in the Vărărie sector from where it was unearthed the *Venus* statue (Ciută 2010a, 2010b Ciută) (fig. 12a), as well as *Şesu-Orzii* sector, too.

The dwelling architecture which its floor made from a *river stone bed* has its closest analogy in Miercurea Sibiului (Luca *et al.* 2000; 2001; 2002; Suciuc 2009) and in Tărtăria sites (Vlassa 1963; 1967; 1976; Lazarovici *et al.*, 2011).

At the moment we do not exclude the possibility that the general stratigraphy of the site, particularly in the *Bordane* sector, to present sublevels dwelling belonging the Vinca A2 level.

Vinča A3-B1 Habitation

Surface dwellings

This cultural level is best revealed by surface dwellings, of various sizes, with rectangular shape, made in technique of so called floor with *river stones bed*, which were discovered in all mentioned sectors. These types of complexes were been unearthed in a series of excavated units SIV/1996, SV/1996, SX/1998, SXI/1998, SXIII/2001, SXIII/2001 and SXIV/2001. Generally this cultural layer appear under the level disturbed by agricultural works, approx. 40-50 cm deeply so that, at present, does not mean that this habitation haven't several sub-phases.

Most well represented in specialty literature are those of SIV/1996 (Paul, Ciută 1997; Ciută 2013) and that of SXI/1998 (Paul, Ciută 1999; Ciută Daisa 2000; 2002)¹¹. The dwelling SIV/1996, revealed at average depth of approx. 60-70 cm, appeared as a massive cluster of river stones, burned adobe, mills and grinders fragments, pottery fragments, faunal remains, partially delimited, in the direction of south, east and north, and continuing beyond the boundaries of the excavated surface (Paul, Ciută 1997, p. 2-3; Ciută 2013). The dwelling had a rectangular shape, probably rectangle, and oriented east-west, with an extension annex (improperly called *apse*) which was located at its westernmost (Fig. 14). In the *apse* area, the archaeological material has registered the most concentrated part. In this place was unearthed a large vessel amphora with lid decorated with incisions (fig. 15 / a). The amphora specific for early Vinča phase was smashed in situ, together with its prosopomorphic lid (fig. 15/b) decorated with perforations on the top, both pieces being part of a set (fig. 16) (Daisa 2000, p. 21-30). The amphora was identified as making part from the vessels category with religious connotations with apotropaic role, probably to store special plots of cereal grains (Daisa 2000, p. 24-25). Other special artifacts which were unearthed from this unusual dwelling were a pot with drainage tube so called *blacktopped* fine vessel (fig. 19) (Daisa 2000, p. 24-25), a bowl decorated with spiky so called *vessel hedgehog* (fig. 19), a cvadrilobat pot decorated with painting of so called *Lumea Nouă* category (fig. 18)¹², a *Spondylus* bracelet fragment (Fig. 20 a, b) as well as three anthropomorphic idols (fig. 21/a-c).

The typological and stylistically classification of the ceramic material discovered in dwelling L1/1996 pleads for her classification in Vinča B1 phase (Lazarovici 1977; 1977a; 1979, 1980; 1981; 1993; Lazarovici *et al.* 2001), but there are many elements (traditions) which connect her with the previous organic phase, Vinča A3.

A major aspect, which draw our attention is regarding the domesticity of plastic anthropomorphic representations from this level from Limba-Oarda de Jos (Ciută, Florescu 2010; Florescu 2000; Ciută 2010), most of the artifacts belonging to this category being found in contexts interpreted, as surface dwellings, most of them, but also as pit houses, too.

As we pointed out in certain previous studies (Ciută 2010; Ciută, Florescu 2010; Florescu 2000), the closest analogies on morphological features of early Vinča plastic representations from Limba-Oarda de Jos are found in Banat area (Lazarovici 1977; 1979, p. 85-107; Bălănescu 1979; 1982, Bălănescu, Lazarovici 1979), and in the Serbian Banat, in the early deposits from the eponymous site of Vinča (Vasic 1936, vol. III, *Plastica – ПЛАСТИКА*). The morphology analysis of lid vessels pleads for its classification in the early stages of Vinča culture (Lazarovici 1979, p. 103 sqq; Luca 1998, p. 54-58.)

¹¹ Another similar surface dwelling SXVII/2012-2014: Ciută *et al.* 2013; 2014.

¹² Similar with another one, discovered in *Vărar* sector: Berciu, Berciu 1947, p. 20-30, fig. 18.



Fig. 14. Detail of the surface dwelling L1/1996. View from South-West.



a



b

Fig. 15. Amphora with incised-banded decoration, restored (a), the lid of the amphora with prosopomorphic décor (b)

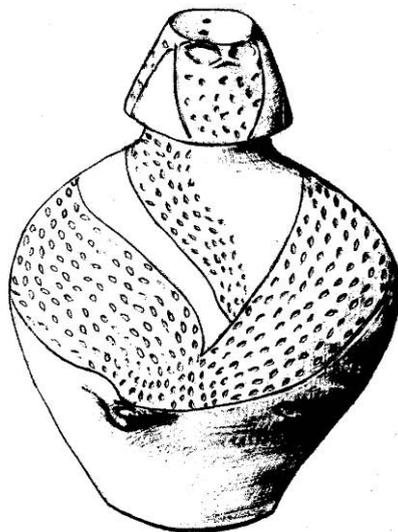


Fig. 16. Graphical reconstitution of the amphora - lead ensemble (after Daisa 2000)



Fig. 17. The bitronconic pot, discovered in the annex-absida area.



Fig. 18. *Lumea Nouă* type painted pot, discovered in the annex-absida area of L1/1996.



Fig. 19. Fragmentary pot, decorated in the *blacktopped* and polished techniques.



Fig. 20. Fragmentary *Spondyllus* brachet discovered in L1/1996.



Fig. 21. Anthropomorphic *idols* discovered in L1/1996.

Finally, there are hypotheses that bring a new perspective in interpreting of the dwelling complexes, or at least of some of them, as a special function related to spiritual manifestations, combined with maternal cult rituals associated with agricultural practices. The presences of mills in large numbers (over 25 from L1/1996!) are supporting this hypothesis (Daisa 2000, p. 28).

A special case is that of surface dwelling discovered in SV/1996 (Paul, Ciută 1997) (fig. 22). After its unearthing after trowel operation was revealed its unusual shape for a dwelling complex which appeared like a remnant of a dwelling.

The ulterior excavations, under the houses has revealed three pits that match the surface footprint of the surface dwelling, but at that time, although archaeological material should have drawn our attention regarding the connection between those two levels we misinterpreted the situation, considering that as pit houses (Paul, Ciută 1997).



Fig. 22. Surface dwelling (L2) from SV/1996. View from west.

Later, after the analyses of archaeological materials and of planmetric situations, methodical study of the photo and also after the discussions with other researchers¹³ we concluded that those three pit houses were actually distinct cellars under each of the three rooms (fig. 23, 24/a-b).

¹³ It was Professor S.A. Luca, the archaeologist that draw our attention for the first time that in the case of some large surface dwellings discovered by him in Tărtăria site, there were some distinct elements of construction situated under the house floors and what he defined it as cellars.



Fig. 23. The cellars of the rooms of the surface dwelling from SV/1996. View from North



Fig. 24. Details with the floor elements, demarcating the cellars.

Vinča B1 (?) Habitation

The last habitation level belonging to Vinča culture from Limba-Oarda de Jos is the most difficult to establish it because in most of the cases it has been affected by agricultural work done in the past three centuries.

But there are some complexes, most often going deeply and overlapping the surface layer of Vinča A3-B1 which may be thereafter both culturally and chronologically.

Pit no 1 from SXIII/2001

A first complex which is subsequently to Vinča phase A3-B1, respectively of those surface dwelling with large dimensions is a pit which penetrate such a dwelling and is getting deeper until to archeological sterile from *Vărărie* sector (Paul, Ciută *et al.* 2002) (fig. fig 25/a-c). When we proceed to empty the pit we noticed the presence of specific materials belonging to later phases (B1, or even B1-B2) (fig. 29-30), so

that as we get closer to the bottom of pit we find artifacts belonging to earlier phases. On the bottom of the pit (fig. 26-27) we discover a pottery vessel, kind of cup-shaped foot (fig. 28), an antler and a group of human bones that appear to come from a human hand (phalanges), which helped us to classify the complex into the Vinča B1. The artifacts from the upper levels are proving the existence of a habitation belonging to later phase B1 or *post* Vinča B1.



Fig. 25. SXIII/2001. Detail with the pit nr. 1 who penetrate the Vinca B surface dwelling.



Fig. 26. Details during emptying the pit nr. 1 from SXIII/2001.



Fig. 27. Detail with the materials from the bottom of the pit nr. 1/2001.



Fig. 28. Cup with leg, recovered from the bottom of the pit nr. 1/2001.



Fig 29. Detail with the superior level of the pit nr. 1/2001. It can be observed the full pot.



Fig. 30. The full pot from the superior levels of the pit nr. 1/2001.

The Pit House

Discovered in the northern end of SIX / 1997 the pit house has appeared right under the level disturbed by agricultural work (fig. 31). The archaeological materials recovered from the Pit House are typical for phase B of Vinča culture. Among materials were remarking a complete globular ceramic pot with painting of *Lumea Nouă* type (fig. 32) being different in terms of ornamentation by those from complexes belonging to previous phases.



Fig. 31. Detail with the complex (pit house?) from SIX/1997.



Fig. 32. Lumea Nouă type painted pot from the complex (pit house?) from SIX/1997.

The ditches

In Section VI/1996 in the southern end, oriented northwest - southeast, has emerged a ditch, of V-shaped (fig. 33). Its dimensions not appear to be of large dimensions, its surface opening being of approx. 1.5 - 2 m and about 1.20 m height. Both slopes seem to have been dug in steps.



Fig. 33. Detail with the ditch discovered in SVI/1996

Parallel to this ditch, but larger, appears another one (fig. 34), surprised partly in the southwestern corner of the section. The ditches position seems to indicate a limit of a phase of Vinča habitation, either of the A3-B1 or a subsequent phase: B1.



Fig. 34. The ditch of demarcating one of the phases of Vinča B habitation

The graves

At the depth of 0.45-0.50 m, on throughout northern half of the section XIV / 2001, were been discovered remains of the dwelling L1 / 1998 belonging to phase Vinča A3 -B1.

The recovered materials consist of pottery (all categories, complete pots), bone and horn tools, chipped lithic, like silex and obsidian. Worth mentioning again the presence of stake hole and twigs imprinted on the relics of mud and adobe walls.

Under dwelling in close proximity of the southeast corner has profiled a cluster of mills and stone slabs; in its vicinity was discovered a human skeleton (-0,80m) (fig. 35). The grave, oriented southwest - northeast, has an oval-shaped pit where the skeleton was deposited in a crouched position, lying on its right side¹⁴.

The inventory is composed by shells and snails and of a coarser pot category, placed upside down under defunct tibia. In CI/2001, in the vicinity of the tomb, at the depth of 0.70 m was discovered a hearth, with at least two phases of restoration directly related with the dead grave and with the group of mills (fig. 35).

In the northeast corner of CII / 2001 at the depth of -0.50 m was profiled a cluster of adobe compact fragments (fig. 36/a).

¹⁴ In the original report (Paul *et al.* 2002) the position of the skeleton *on the left side* is wrong précised.

After the adobe discloser has appeared the skull of a human skeleton (M2 / 2001). Once with the removal of adobe we noticed that it was about an adult placed crouched on the right. The inventory consist from a pot was put at his head and the bone tools scattered around him. The dead was deposited on a platform made of remnants of walls, pieces of adobe put on both sides which gave the impression of a "cist". Due to lack of time this "cist" has gone into preserving until future excavations (Fig. 36 b c).

The leave imprints that have been the subject of a special study (Ciută, Ciută 2002) were found in XIV unit - cassette II in the context of the grave inhumation (M2 / 2001). The grave was discovered under the floor of the large surface house (L1 / 1998-2001).



a



b

Fig 35. Tomb nr. 1/2001, with the deceased on the fire place.



Fig. 36. Tomb nr. 2/2001, with the deceased put in a burned clay cist. Different phases of the excavation (a-b).

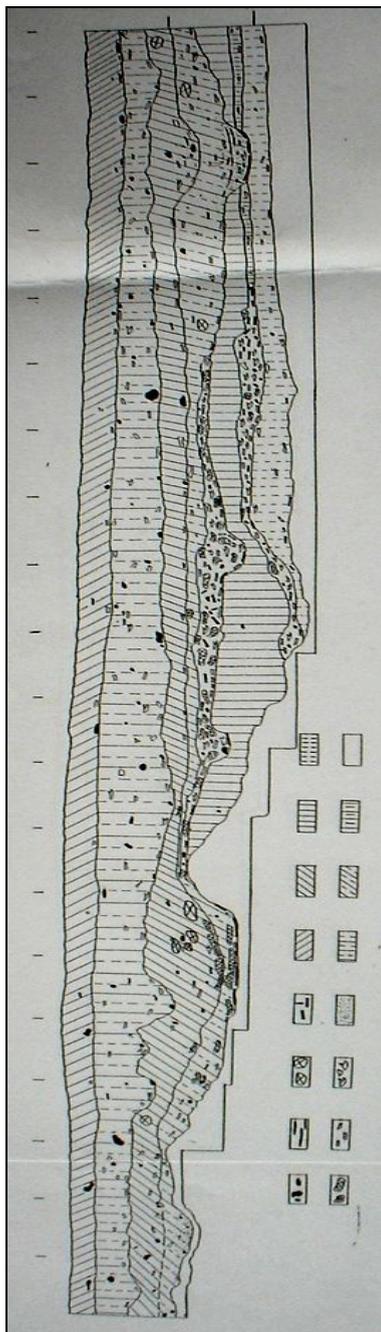


Fig. 37. Stratigraphical sequence of the north profile of SX/2010 from Bordane sector.

From whole data presented above it results that in the site from Limba-Oarda de Jos was developed a settlement what played a major role in the general evolution of the entire area probably as a *metropolis* in which the manifestations of spiritual life have taken many and varied forms. This *metropolis* which has evolved over many generations, has focused the traditions and experiences of an entire cultural phenomenon characterized by an astonishing dynamism- an expression of this being the representations related to the spiritual life presented above - comes to shed new light regard our knowledge of the complex phenomena which is the Middle Neolithic from Transylvania.

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A LATE NEOLITHIC PIT FROM CAREI-BOBALD-TUMUL (BOBALD VII), SATU-MARE COUNTY, ROMANIA

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Abstract: *This paper presents the archaeological material from the Late Neolithic Age that was discovered in 2014 with the occasion of a tumulus digging at Carei-Bobald VII, nearby the road Satu Mare - Oradea (DN 19). Inside, an archaeological complex (household pit), relatively small, several pieces of ceramics have been discovered, grinder pieces wattle and doubt and animal bones. Having in sight the base of the ceramics and other similar discoveries from the Bobald area, the Neolithic pit Cx3, can be dated in the Late Neolithic Age, the Herpály Culture.*

Keywords: *pottery, Late Neolithic, Carei-Bobald, Herpály Culture, Carei-Kozárd*

Carei is a populated place situated in the western part of the Satu-Mare county, in the Câmpia Carei (Carei Plain), a region with heights of 120 m to 163 m, a monotonous landscape, in some places with level oscillations (Ciută, Molnár 2014, 88), (Pl. I/1-2). Northeast from the this place's border, until not a long time ago, the Ecedea Swamp existed, with a surface of 400 square kilometers (Ardelean, Karácsonyi 2003, 11, Map no. 1). The Bobald hill is situated in the town's area on the Merges (Mérgeș) creek's bank, on a higher mound from the floodable area (Németi, Molnár 2012, 14), (Pl. II/1-2), the distance from the town of Carei city limits being roughly 3 km. in the southwestern direction (Pl. III/1-2). The Bobald archaeological site contains both the tell and the surrounding areas situated between the National 19 Route (DN 19) Satu Mare - Oradea next to the border of Ghenci locality (Németi 1999, 64). This area received the denominations of Bobald I-XII (Pl. II/2).

The Carei Plain contains a low shaped type of landscape tempered by river erosion, while the main pedogenesis deposits are loess like types with a phreatic surface between 2 and 5 m. This plain is situated between the Ecedea Plain and the Nir Plain (Németi 1999, 11). The area is crossed by several smaller creeks (Sárosvölgy, Kis-Károly pataka, Papirgyár-pataka, Mérgeș, etc.), which were the water sources of the Ecedea Swamp, or which flowed towards the floodable plain of

the Crasna river (Németi 1999, 64; Karácsonyi 1995, 8). This area, especially the higher terraces of the creeks is extremely rich in what concerns the presence of the archaeological discoveries starting with the Neolithic Age and until the late Middle Age (Borovszky 1910, 409-10; Roman, Németi 1978,10,18; Németi 1981-82, 167-182; Iercoşan 1986-87, 63-70; Németi, Gindele 1997, 648; Németi 1999, 64-67; Németi, Dani 2001, 95-126; Hágó 2015, Németi, Molnár 2002, Németi Molnár 2007, Németi, Molnár 2012). Due to the archaeological research that was carried out here, over 100 points of interest with discoveries were located, discoveries dated from the late Neolithic Age until the late Middle Age.

Bobald locality (Bobad, Budad, Bubard, Borbáld) is the name of an extinct populated place that was mentioned in the Medieval documents for the 1st time in 1329 as a possession of the Károlyi family. It was one of the richest and thriving villages that was composed of serfs and cottars (Suciu 1968 II, 299, Maksai 1940, 117; Németi 1999, 64; Mérai 2007, 23-48; Mizsér, 2001, 250). This territory was abandoned, most probably, in the 1st half of the 18th century just after the Satmar Peace was signed (1711).

Around the *tell* like dwelling, we have Neolithic discoveries in the following points (Pl. IV/2):

Bobald If. – central part of the hill, in the antique soil fragments of ceramic were discovered, fragments dated in the Late Neolithic (Németi 1986-87, 21-22, Fig. 25/5-7; Hágó 2015).

BobaldIVc. – southwest from Bobald I, on the left bank of the Merges creek fragments of ceramic were discovered, fragments dated in the late Neolithic (Iercoşan 1986-87, 141, Fig. 9/1-6; Németi 1999, 65).

Bobald Vb. – Neolithic settlement from point BIVc is continued on this side as well. The settlement was localized through field research by J. Németi in 1982, 1997 (Németi 1999, 65).

Bobald VIa – contains the area from the left and right side of the Carei - Moftinu Mic road, in the first instance the high terrace of the Merges (Mérgeş) creek. This area was disturbed through different agricultural works, road constructions, or by the emplacement of water and gas pipes. By this chance, archaeological materials were discovered, materials from several periods, including the late Neolithic (Németi 1999, 65).

Bobald VIIa. – The archaeological point is found on the both sides of the country road that descends towards the Merges (Mérgeş) valley. The area is a peninsula that goes very deep into the swamp's river bed. Fragments of brick-red colored Neolithic ceramics were discovered. These fragments were decorated with painted motives (Németi 1999, 66).

Bobald XIa. – The settlement is situated on the right side of the 1F road (Carei-Tăşnad), on a low terrace of the Merges (Mérgeş) creek. Through field research and through digging the trench for the telephone cable, several archaeological complexes

were disturbed. From this area we have several fragments of ceramic that were assigned to the late Neolithic (Németi 1999, 66).

Bobald XIII. – is situated on the left side of the Carei-Zalău railroad, nearby the bridge over the Merges (Mérgeş) creek. From this point we have several Neolithic fragments and a polished stone axe without perforation (Németi 1999, 67).

The Neolithic pit that is the subject of this paper was discovered while digging a Bronze Age tumulus nearby the road Satu Mare - Oradea (DN 19), (Pl. IV/1) by the researchers from the Satu-Mare County Museum¹, and from the Babeş-Bolyai University of Cluj-Napoca² and students and Phd. students from the same university.

The uncovering of the late Bronze Age tumulus was realized mechanically with the help of an excavator, by digging the tumulus in 4 equal parts. After the disposal of the vegetal strata at a depth of 0.40-0.70 m, the researchers found a black colored with red pigments land deposit, some brick red colored ceramic fragments, animal bones, silex and obsidian splinters, and some wattle and daub fragments. Judging after the composition of the superior strata of the tumulus, the land which is rich in limonite was most probably brought from the floodable area of the Merges (Mérgeş) creek.

The Neolithic complex (Cx3) became shaped like a black colored stain having an oval shape with a diameter of 1.20 x 0.90 m, in the tumulus mantle, at a depth of 1,07 m from the actual soil, at a distance of 2,93 m from the nordic profile of the section and at a distance of 2,5 m southeast of the grave (Pl. V/1-3; VI/1; VII/1-2). The upper part of the pit was disturbed by the bulldozer, in this strata we found ceramic fragments and some different sized grinders stone (Pl. V/1-2). The stuffing of the pit contained some grayish black soil with pigments (reddish and yellow spots). The archaeological material that was discovered here contained ceramic fragments, animal bones, whattle and daub, lithic tools: grinders, silex and obsidian splinters (Pl. VI/1).

The ceramic material discovered in this complex can be divided in the following categories:

- a. Common use ceramic (course).
- b. Semi fine ceramic.
- c. Fine ceramic

The nature of the common use ceramic is very often encountered in the settlements of the late Neolithic of the Carei nearby areas, worked rather carelessly, having the exterior surface of a medium to harsh smoothing and very rough at touching presenting a soapy surface. The fiering of the ceramic material is of poor quality, is oxidant and reductant fiering, and because of this, the ceramic is porous.

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²Molnár-Kovács Zsolt

The most common colors found at this type of ceramic are: brick red, reddish brown, light brown, dark brown, the material used as a degreaser is sand, chaff and sand, sand and mud, pebbles and mud, crushed crocks. At this category of ceramics, there were no fragments with ornaments, but there are, however, some simple knobs with different shapes. On some fragments there was some sprinkled and organized barbotine.

The semi fine archaeological material is present in a smaller proportion in comparison with the courser one. The ceramic paste is of good quality, well kneaded, smoothed, the material used as degreaser is fine sand, crushed crocks, and sand with minced chaff. The colors of this type of ceramic vary from reddish brown to other shades of brown, we also have the slip, but in the majority of the cases this is fallen down. In what concerns the ornaments of the ceramic material, it is present on several fragments (the incised ornament), or some marks of black or red painting.

Besides these types of ornaments there are also present the plastics ornaments, simple and circular knobs, elongated of small and medium dimensions, and on some fragments we have thrusts and piercings on the rim of the vessels or incision under the rim of the vessel.

The fine ceramic is also present in this complex, but only a few fragments were discovered. They were made of good quality clay, polished, mixed with fine sand, or fine sand with well minced chaff. The ceramic has a good oxidant burning, red color or yellow-gray, without any ornaments. On a single fragment we have a small knob under the rim of the vessel.

The status of the ceramic material discovered in this complex is fragmentized, thus it did not allow the existence a more complex repertoire, but still, on the basis of the discovered fragments, we can make some typological specifications.

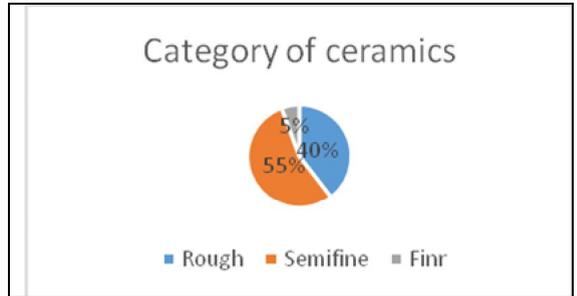
The analysis of the ceramic material

The most often encountered vessels discovered in this complex are of common use, of middle and large dimensions with right lip or rounded, with short neck, straight or gibbous, with flat bottom. Thus we have deep bowl of different sizes (Pl. VIII/4-5, 8-9), bowl (Pl. VIII/6-7; IX/2-3), pot (Pl. VIII/1, 3; IX/1, 6; X/1), storage vessel (Pl. IX/4-5, 7-8; X/2,3), tray (Pl. VIII/2), miniatural vessels (VIII/10, IX/2,3).

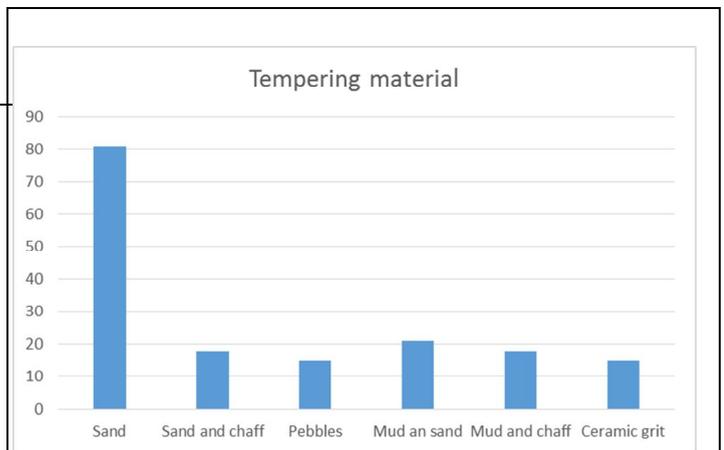
The ceramic material discovered was introduced in the data base, afterwards, the information was extracted, information about the nature, burning, smoothing, degreasing material, vessel shapes, ornamentation technique, the interior and exterior color.

The nature of the ceramic material can be seen in following chart:

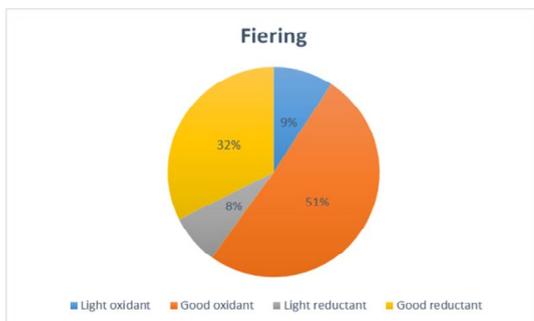
According to the statistics, the most present type was the semi fine ceramic, it is afterwards followed by the rough one, the least present is the fine ceramic. So 55% is semi fine ceramic, course type ceramic we have 40% while the fine ceramic is only 5%.



The ceramic burning in this archaeological complex



is represented by 4 types of burning: light oxidant, good oxidant, light reductant and good reductant. Their variety can be seen in the picture above. The majority of the fragments 51% had a good oxidant burning, closely followed by there reductant burning 32%, while the other categories, namely the light oxidant burning 9% is very close to the light reductant category which is only 8%.



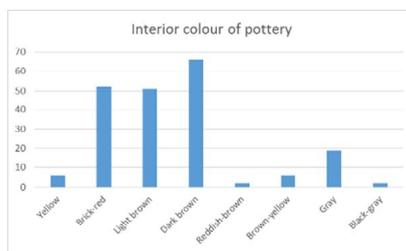
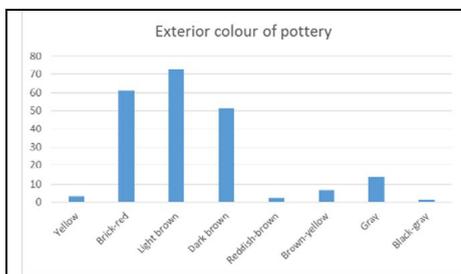
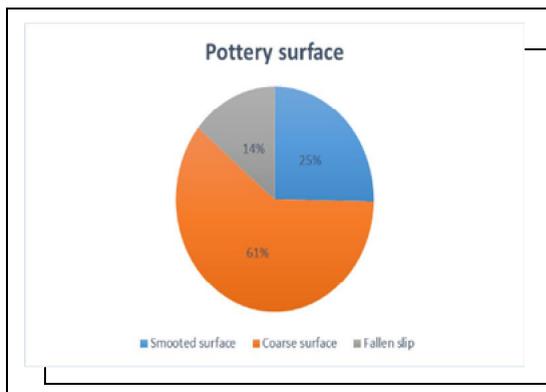
The material used as a degreaser, a special element in what concerns the manufacturing process of the ceramics is present through several types of organic and non organic materials

The most used material as a degreaser of the clay was sand (40 %), followed by mud and sand (12%), sand and chaff (11%), and sand (11%) at almost equal percentages, while the rest of the materials were the crushed crocks (9%), pebbles (9%), being present in a smaller proportion

The smoothing of the ceramic material is present in the diagram below.

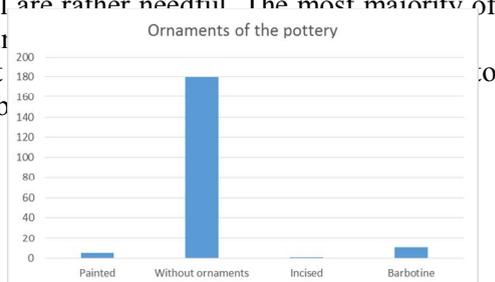
The chart is dominated by 61% coarse surfaced fragments, followed by the smoothed surface pieces which are 25% and only 14% some fragments which most probably were ornamentated with painted motives.

The color of the ceramics is as we mentioned earlier, present in a large variety of the brown color shades: brown, reddish brown, brick red, while in a smaller amount, the following colors are present: gray and yellow. The diagrams have been made for both: the exterior colors and interior colors, as follows:



The ornaments of the ceramic material are rather needful. The most majority of the fragments have not been decorated by any ornaments.

The shape of the ceramic, even if it is fragmented, is presented by the following diagram:



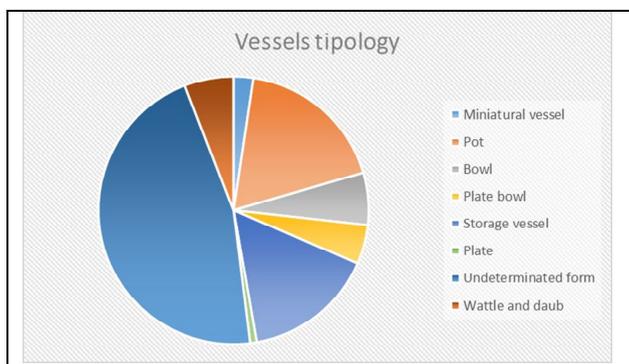
Thus, the shape of the majority of the vessels could not be determined (46%). The pots were identified in a percentage of 18%, while the storage vessels were 16%. The rest of the shapes were bowls, tureens with 5% and 6%, and the miniatural vessels and the plate were only 1%.

The analysis of the lithic material

In a rather large amount, lithic Materials have been discovered: grinders, flints of obsidian and silex.³

The description of the pieces:

1. Silex from Prut fragment, gray color, the lateral sides have been reworked. Dimensions: 10,6 x 2,4 cm (Pl. X/4).
2. Flint splinter fragment, black-gray color. Dimensions: 3 x 0,8 cm (Pl. X/5).
3. Flint fragment, white color, the lateral sides have been reworked. Dimensions: 4,5 x 1,2 cm (Pl. X/6).
4. Obsidian fragment, black color. Dimensions: 3 x 2 cm (Pl. X/7).
5. Obsidian splinter fragment, lateral sides have been reworked, grayish black, semitransparent color. Dimensions: 5 x 2,6 cm (Pl. X/8).
6. Grinder fragment (porphyry) of oval shape with marks of usage, with rounded corners Dimensions: 6,7 x 5,8 cm (Pl. X/9).



7. Grinder fragment (andesite) of oval shape, flat. It was kept in a fragmentary condition Dimensions: 12 x 7x 2,4 cm (Pl. X/10).

8. Grinder fragment of oval shape, fragmented. Dimensions: 10 x 5,2x

4,3 cm (Pl. XI/1).

9. Grinder fragment (anfibilolit) of oval shape, fragmented. Dimensions: 9,5x6.5x3 cm (Pl. XI/2).

10. Grinder fragment (schist) of oval shape, flat, with rounded corners. Dimensions: 20x14,5x2,5 cm (Pl. XI/3).

³The lithic tools were analyzed by Ciprian Astaloş and István Nagy-Kóródi.

11. Grinder fragment, trapeze like shape, kept in a fragmented condition. Dimensions: 9,5 x 7 x 3,2 cm (Pl. XI/4).
12. Grinder fragment (schist), trapeze like shape, flat, kept in a fragmented condition. Dimensions: 20 x 6-12,5 x 1,3 cm (Pl. XI/5).
13. Grinder fragment of oval shape, flat, kept in a fragmented condition. Dimensions: 6,5 x 5 x 2 (Pl. XI/6).

Besides the ceramic and lithic material, bone animals and pieces of adobe of different sizes have been discovered. The paleozoological analysis carried out on the bone material proved that they come from *Bos taurus*⁴. Identical species have also been discovered in the G2 pit from Carei-Kozárd (El Susi 1997, 59-62).

The analogy of the ceramic shapes reconstituted from the Neolithic complex at Carei-Bobald-Tumul (Bobald VII) can be found in the settlements of the late Neolithic from the Carei Plain (Németi 1999, 96), nearby the city of Carei (Hágó 2009, 15-49) from Carei-Kozárd (Iercoşan 1997, 23-58; Virag 2012, 179-190, Hágó 2011a, 5-10), at Carei-Bobald (Hágó 2015), Dumbrava-La Cosma (Iercoşan 1992-1993, 77-90; Hágó 2011b, 1-32), as well as in other places from the northwestern part of Romania at Oradea-Salca (Luca 2001, 43), Săcueni-Horo (Luca, Iercoşan 1997, 11-22), or at the Medieşul Aurit-Togul lui Sweitzer (Virag, Kádas 2008, 5-26). In the area of the Sălaj County, this chronological level is present through the discoveries from Zăuan-Dâmbul Spânzuraţilor, Suplac-Corău, Oradea-Salca, Giurtelecu-Şimleului (Băcuet 2001, 52).

Similar shapes can be found in Hungary, more exactly in the *Alföld Depression*, at Berettyóújfalu-Herpály (Kalicz, Raczky, 1986, 63-128; 1987, 11-30), Polgár-Csőszhalom (Raczky *et al.* 1994, 34-41; Raczky, Anders 2009, 73-92; Sebők *et al.* 2013, 29-79).

Taking into account the systematically researched settlements or the settlements researched by salvage digging from nearby Bobald, at the Carei-Kozard settlement (Iercoşan 1997, 23-58; Virag 2008, 179-190; Hágó 2011a, 5-10), and the gathered material through field research from the Bobald area (Iercoşan 1986-1987, 139-158; Németi 1981-1982, 167-182; Hágó 2015), the discoveries from the Carei-Bobald-Tumul (Bobald VII) can be placed in the late Neolithic, in the Herpály culture, which is spread between Crişul Repede and Someş, in the northern part of the Bihor county, in the surrounding areas and in Hungary, towards west, northeast and east. This civilization was defined in the Romanian territory as Tisa II-Herpály (Lazarovici, Lakó 1981, 34).

⁴ The paleozoological analyzes was made by Xenia Pop.

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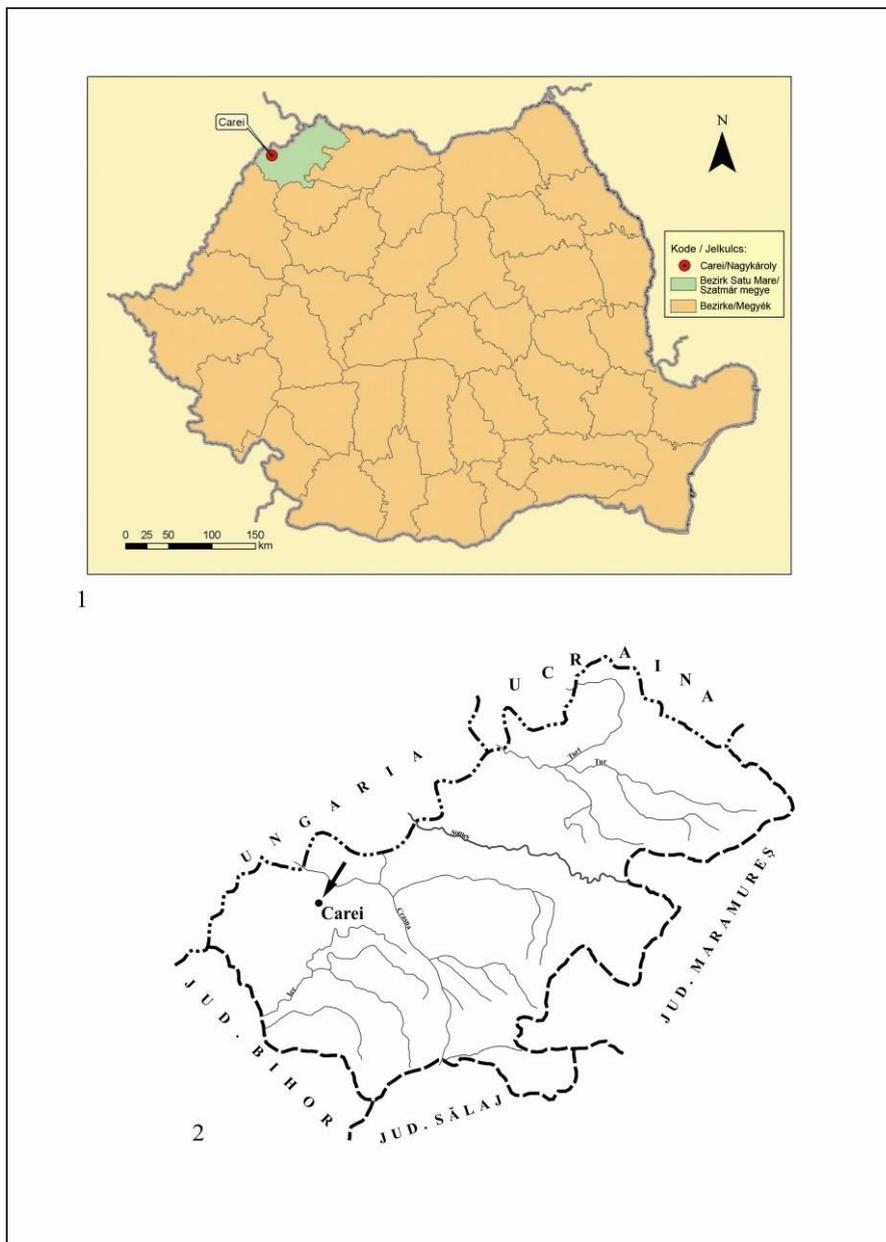
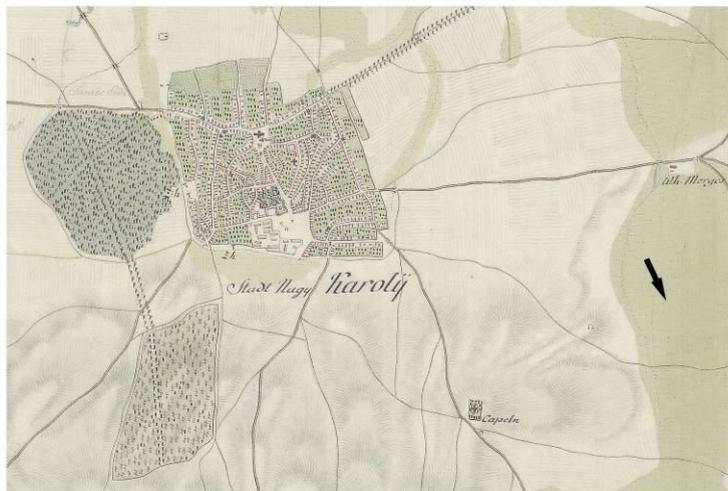
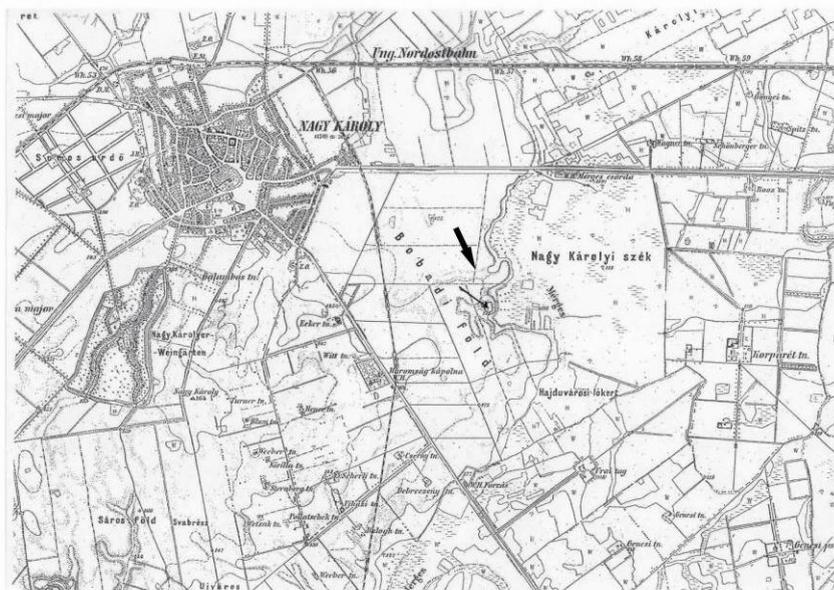


Plate. I. 1-2. Geographical localization of the Satu-Mare county and the city of Carei (after Némethi, Molnár 2012, Abb. 1).



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Plate. II. 1. Geographical localization of the site on the 1st Military Map.

2. Localization of the site on the 1910s topographical map.

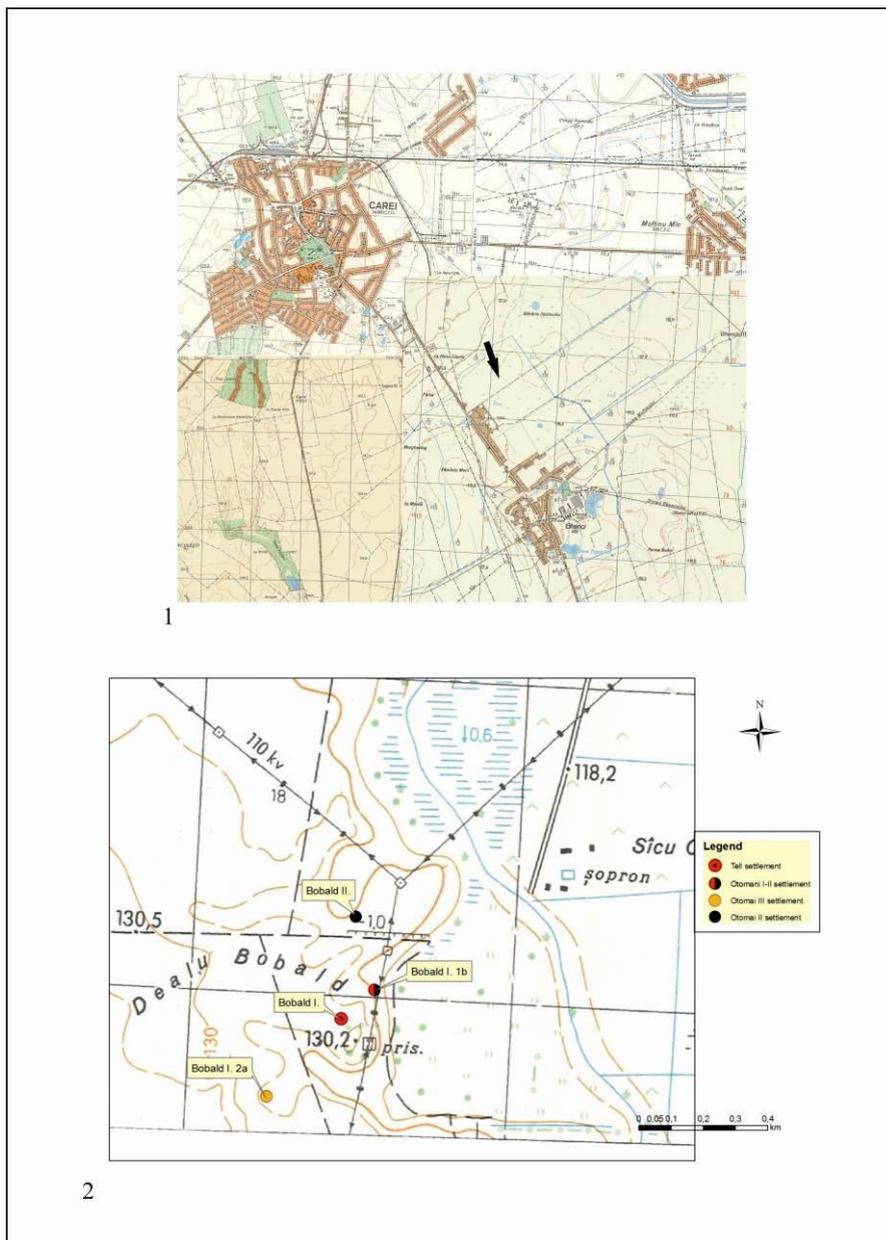
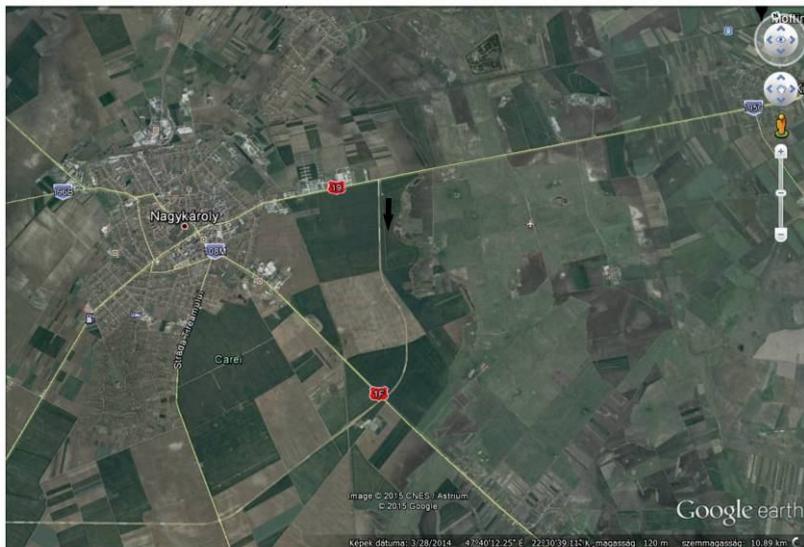
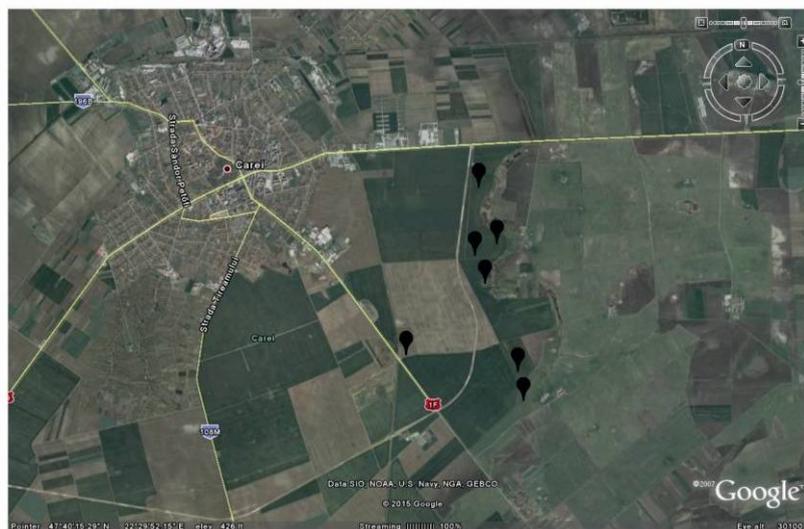


Plate III. 1-2. Localization of the site on the modern topographical map (after Némethi, Molnár 2012 Abb. 84).



1



2

Plate IV. 1. Localization of the site on the. 2. Late neolithic settlements on the Bobald area.



1



2



3

Plate V. 1-2. The Late Neolithic feature Cx. 3 (photo by Attila Nándor Hágó, Norbert Kapsos).

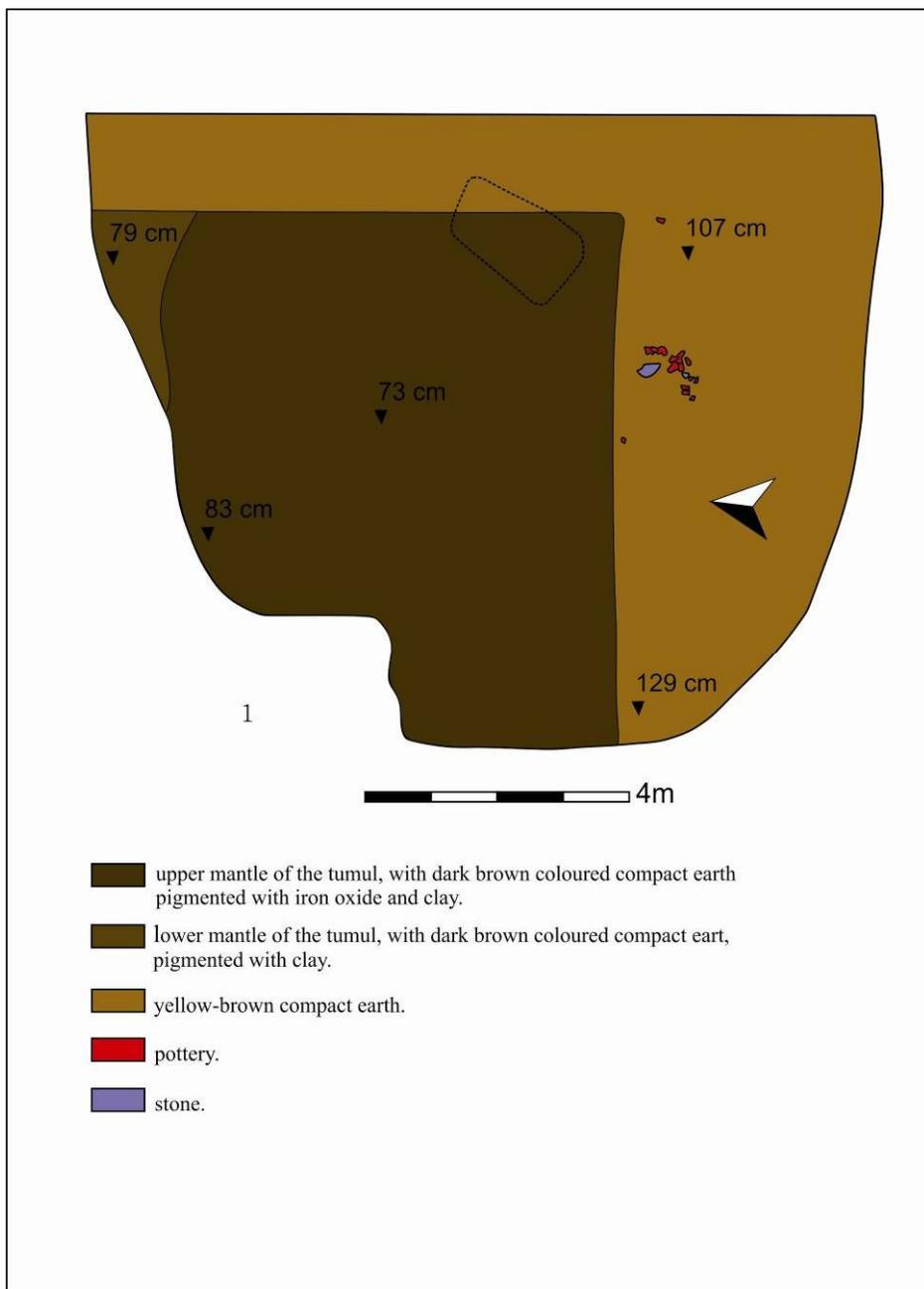


Plate VI. Drawing of contour mantle tumular tomb (drawed by Norbert Kapsos).

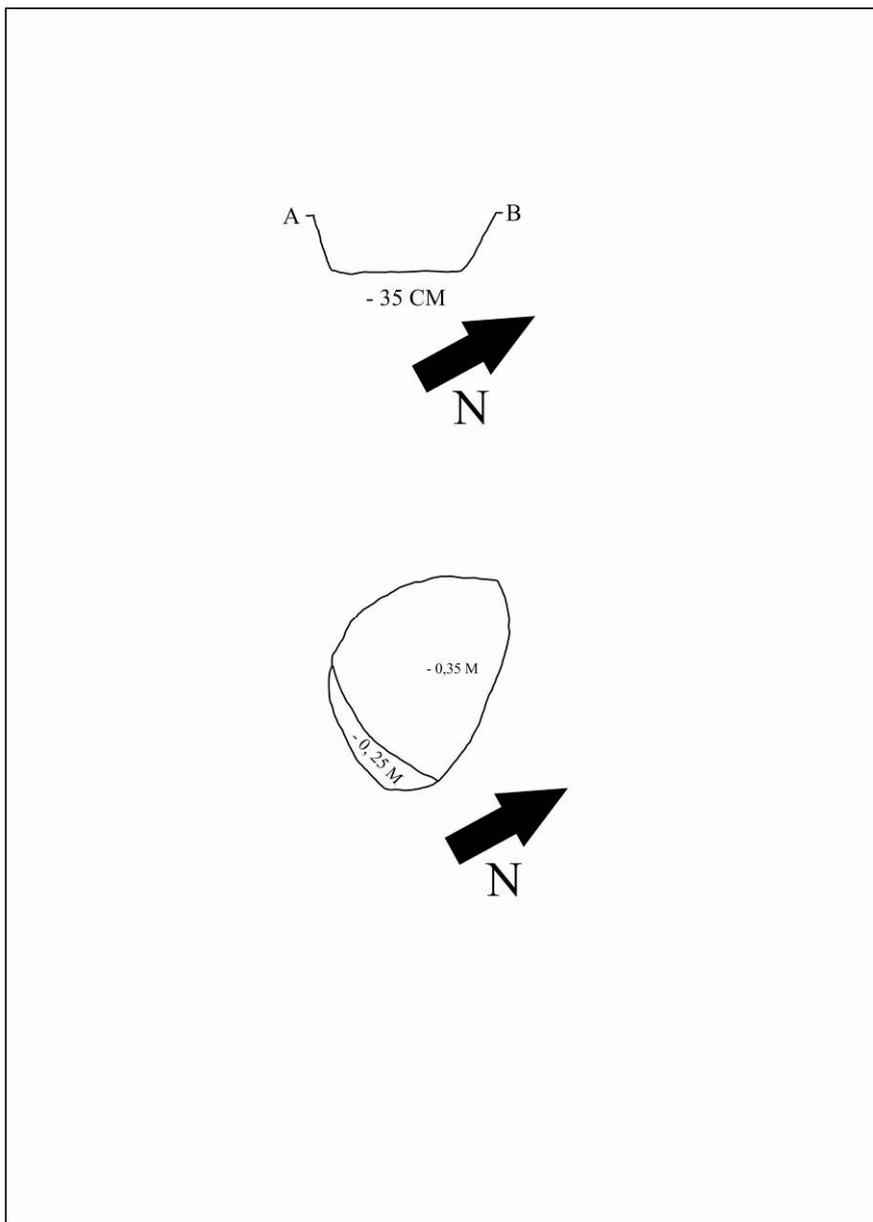


Plate VII. Drawing of the Late Neolithic feature (drawed by Zsolt Molnár, Attila Nándor Hágó).

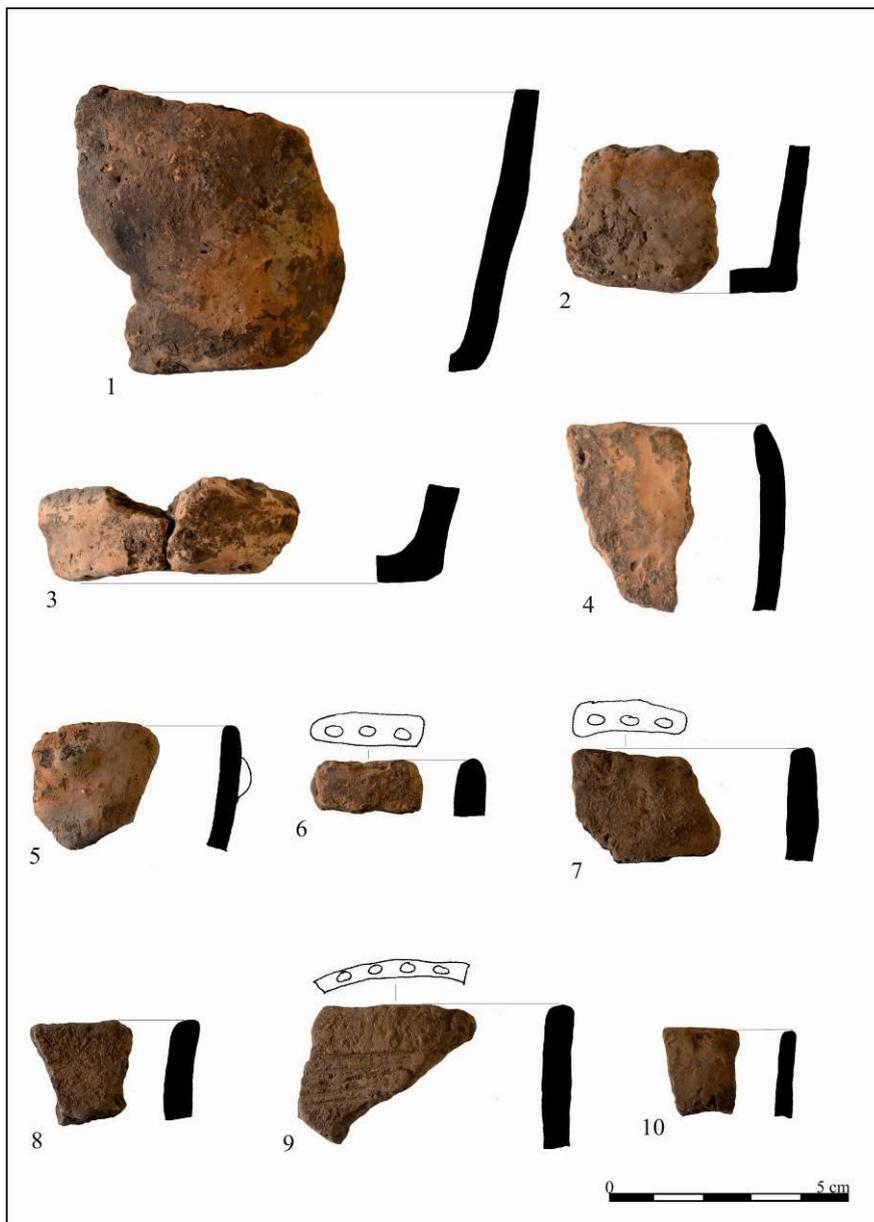


Plate VIII. 1-9. Late Neolithic pottery from Cx 3 feature.

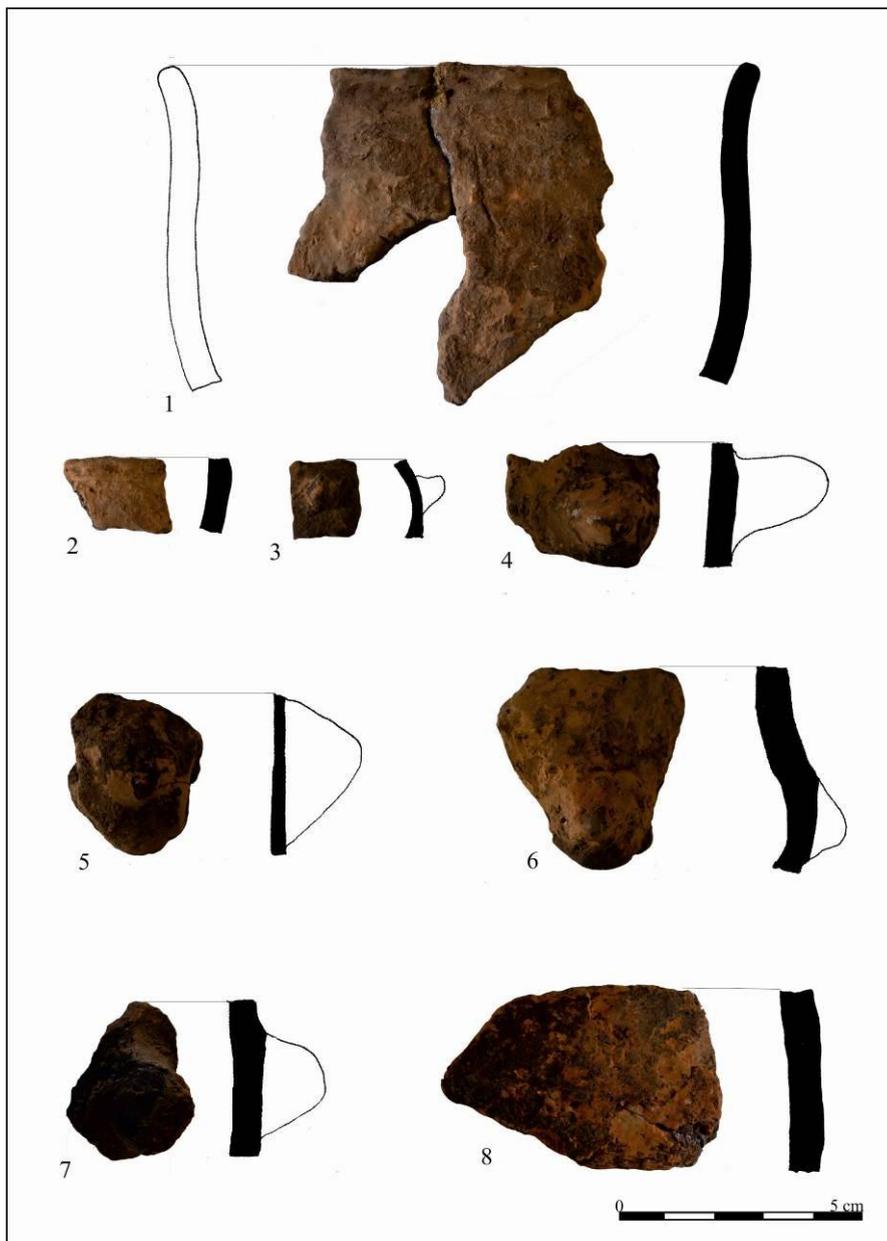


Plate IX. 1-8. Late Neolithic pottery from Cx 3 feature.



Plate X. 1-3. Late Neolithic pottery. 4-9. Lithic tools. 10-11. Grind stones.

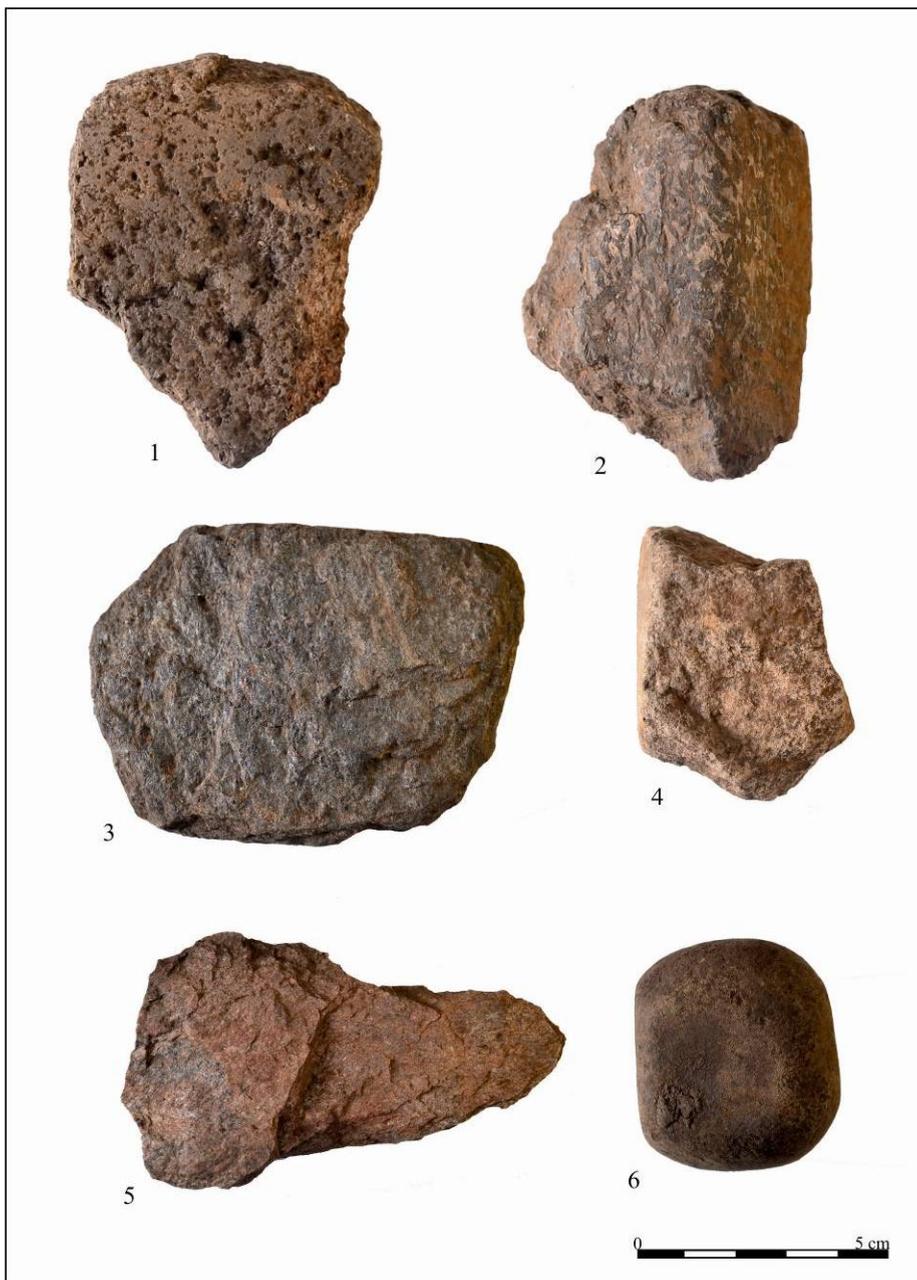


Plate XI. 1-6. Grind stones.

**PREHISTORIC SIGNS AND SYMBOLS IN TRANSYLVANIA (3).
"PROMETHEUS" BEFORE PROMETHEUS
THE NEOLITHIC AND AENEOLITHIC SETTLEMENT FROM
TĂRTĂRIA-GURA LUNCII (ALBA COUNTY)**

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***Abstract:** On this occasion, we are publishing the anthropomorphic plastic-art piece discovered in dwelling L.XVI/2014 during the archaeological preventive excavations. In our opinion this piece announces – as others also do (Turdaș-Luncă) – the myth of Prometheus.*

***Key words:** Neolithic, plastic art, Tărtăria-Gura Luncii, divinities, Romania.*

***Rezumat:** Publicăm cu acest prilej o piesă de plastică antropomorfă extrem de importantă descoperită în locuința L.XVI/2014 în timpul unor cercetări arheologice preventive. După opinia noastră aceasta anunță – la fel ca altele (Turdaș-Luncă) – mitul lui Prometeu.*

***Cuvinte cheie:** neolitic, plastică, Tărtăria-Gura Luncii, divinități, România.*

Along with the archaeological materials discovered during the preventive archaeological campaign on the site of Tărtăria-Gura Luncii (Alba County), in 2014 was discovered, as part of the archaeological materials around dwelling L.XVI, on its eastern side, at a depth of 1.83 m, a ceramic fragment that resulted after the braking

¹**RO.** Cercetare finanțată prin FONDUL SOCIAL EUROPEAN, Programul Operațional Sectorial Dezvoltarea Resurselor Umane 2007-2013, Axa prioritară nr. 1 „Educația și formarea profesională în sprijinul creșterii economice și dezvoltării societății bazate pe cunoaștere”, Domeniul major de intervenție 1.5 „Programe doctorale și post-doctorale în sprijinul cercetării”, Titlu: „MINERVA – Cooperare pentru cariera de elită în cercetarea doctorală și post-doctorală”, Contract: POSDRU 159/1.5/S/137832.

EN. This work was possible with the financial support of European Social Fund, Operational Programme Human Resources Development 2007-2013, Priority no. 1 "Education and training in support for growth and development of the knowledge society", Key Area of Intervention 1.5 "Doctoral and post-doctoral research support" Title: "MINERVA – Cooperation for elite career in PhD and post doctoral research", ID POSDRU 159/1.5/S/137832.

of a Neolithic large size pot, more precisely from its neck. This one (photo 1-2; fig. 1-2) has a brick-like color, obviously secondary burned, tempered with gravel, being framed in the category of common usage. The character, made by the *alto relief* technique, it is most certainly a feminine character (a probe being the well pronounced breasts), having a vaguely pentagonal mask, more likely triangular (photo 3), obviously *connected* with the pot by the incisions that cross the hands (at the end of the left hand there can be also noticed the fingers – photo 3), but also the neck and the chest, by the body of the pot. On the top it preserves an angular incision, that seems to be the beginning of an ornament, filled with impressions, specific for the Vinča culture (photo 4). The preserved height of the body has 9.2 cm, and the maximal length, at the end of the hands is of 7 cm. The level from which this piece came is being framed in phase A of Vinča culture, at this point of the research (we intend to unearth the entire dwelling, that being the point when can say more about the chronological and cultural framing). Other details regarding this dwelling shall be publishes as soon as possible in the monograph dedicated to the preventive researches made at Tărtăria-*Gura Luncii* (work in progress, 2016).

What was striking to us was first the fact that the incisions start from the body of the pot and they don't necessary represent parts of clothing – as many times before in Neolithic. More, these link the hands and neck of the character and the general attitude is the one of "crucifixion".



Photo 1. Tărtăria-*Gura Luncii* (Alba County)."Prometheus". Front view.



Photo 1. Tărtăria-*Gura Luncii* (Alba County)."Prometheus". Lateral-left view.

The closest analogy for this piece is at Turdaş (photo 5)(Roska 1941, Tab. CXXLI/6; Marler (ed.) 2008, 94; Maxim *et al.* 2009, Cat. 92). The character from here is being presented, more likely, in Petreşti culture pattern (the fabrication technology, but especially the way the face/mask was reproduced being specific for this Aeneolithic culture). On the left shoulder, it seems to be represented a bird, by the incision method. More on the left side – also by incision – it is being represented a human character. Under the right arm there are a series of incisions which are difficult to interpret. We are quoting this analogy especially because the character seems to be "connected" with the stand/pot by a series of incisions, as our character from Tărtăria.

We notice, in the case of Sânpetru German (another piece that produced many "waves") – and this observation was made for the first time by A. Niţu (Niţu 1974, 24) –, that the suggested character is being reproduced on the wall of the pot and it is being made in *altor relief*, by modeling the of the pot's wall, not by addition. The pot on which it was modeled the character is a large size one, an amphora after all the probabilities. Its special character, given by the uniqueness of the representation – at Tărtăria is the first representation of this kind, plastic alto relief of this type. Also, the apparition of the special pot near L.XVI dwelling shows, once again, the special importance of this construction. Until this moment, the general attitude of the researchers was that this characters "glued (sic!)" on the body of the pot represent "dancers", "orants", anyhow, characters that are in movement, not modeld from the body of the pot.



Photo 3. Tărtăria-Gura Luncii (Alba County). "Prometheus". Front view, with shadows that emphasis the details.



Photo 4. Tărtăria-Gura Luncii (Alba County). "Prometheus". View from the top.

The bibliography in this domain is, anyhow, abundand, and comprises characters from Neolithic and Early Aneolithic from the central – south- eastern

European area. In Hungary we can find many representations of this kind in Körös culture (Kutzián 1947, fig. XVII/3; XXII/2; XLI/1, 3-5) or at Villanykövesd (Karmanski 2000, 284, Slika 163), in the ex-Yugoslavian space this characters are present at Donja Branjevina (Karmanski 2000, 238, 239, T.V/1, Sl. 145), Čavadar (Karmanski 2000, 238, T.V, Sl. 146), Vinča (Kutzián 1947, fig. LIX/1c; LX/5-7; Nițu 1974, fig. 3/2), Hrikovci-Gomolava (Nițu 1974, fig. 3/1), Gradac (Nițu 1974, fig. 3/3) or Malca-Radacie (Nițu 1974, fig. 3/4), in Bulgaria at Karanovo (Nikolov 2009, Fig. 2.1), in Greece at Skoteini Cave from Tharrounia (Sampson 2009, Fig. 3), in Ukraine at Jukovcy (Lazarovici C.-M. 2009, Fig. 16.5), Gneiding (Becker 2014, Fig. 6.5)(Cucuteni culture). Of course, we haven't comprised all the existent discoveries.

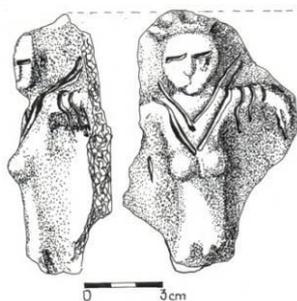


Fig. 1. Tărtăria-Gura Luncii (Alba County). "Prometheus". Drawing.
Left – view from the lateral-left side.
Right – view from front.



Fig. 2. Tărtăria-Gura Luncii (Alba County). "Prometheus". View from front. Colored drawing into the piece's tonality.

In Romania, there are also this type of characters, represented on medium or large size dimension pots, at Zorlențu Mare-Icreliște (Caraș-Severin County)(Lazarovici *et al* 2011, 115, Fig. VI.8b), Parța (Timiș County) (Drașovean, Ciobotaru 2001, cat.nr. 68), Tărtăria (Alba County) (represented in a totally different way)(Lazarovici *et al* 2011, 115, Fig. VI.6a-b; VI.8a), Sânpetru German (Nițu 1974) (the closest analogies from this representation are at Drassburg, in Austria (Nuțu 1974, fig. 4/2; Becker 2011, Taf. 72/7) or Brunn an der Wild (Becker 2011, Taf. 72/3) (Vinča culture), Scânteia (Lazarovici *et al* 2009, 149, Fig. 4; 189, Cat. 193, 269, Fig. 194) and Trușești (Lazarovici *et al* 2009, 159, Fig. 2b)(Cucuteni culture). There have

been made also synthetic studies on this them but not being able to problematize (Makkay 1971; Makkay 2006; Schuster 2011; Becker 2011, Taf. 133; 150-153; 161/6-9 (Starčevo-Criș); 90/3; 91/1-8; 181 (Liniarbandkeramic); Ilieva, Shtarbanova 2005; Ursu, Aparaschivei 2014 –for Precucuteni representations).

This subject requires some general comments.

First, we have to notice the fact that the number of the pot with human characters represented in alto relief is it very small, in each settlement, considering all the other categories of artifacts. In many settlements none was discovered. In others, as is the case for Turdaș, many representations of this kind were discovered (Roska 1941, Tab. CXXLI). In our opinion the *ritual sites* contain many pots like this which – currently – are *single in some* dwellings.

Secondly, we have to emphasis the idea of *alto relief* for the way human silhouette were made on pots. One of the most powerfull arguments for the idea above mentioned is the one for which we didn't found bibliography, or on the field, or in the museums deposits, an *imprint made on a pot wall* showing that an anthropomorphic representation was detached, fallen from its place. More, on the figure from Zorlențu Mare-*Icreliște* (Caraș-Severin County) (photo 6) it can be seen the fact that in the general conditions of fragmentation of the pot, the so-called application didn't detached not even in the breaking points, were it could at least chip.

We have seen how the detaches look like in the case of application of the clay on clay in the case of handles (especially the perforated ones). These ones detached many times and it can be noticed the fact that they have been applied afterwards and reinforced – many times – by a preeminence that enters in the pot's wall.

Third, and last, coming back to the idea of connection in substance, the leaven of the pot, we can notice the fact that this idea that connects us with the *birth* and *regeneration*. We believe that the materials that were deposited in the pot had a magical character, connected with the rituals of this period. Maybe that in this one there was a liquid. Maybe inside it fermented. Maybe the *euphoric concatenation* is being connected with this pots and their contains.

The concatenation – much rarer – has as a porpoise the fixing of the character, the cancelation of the *elevation* effect. We do not suspect why this thing is being necessary (Prometheus ?). We only observe, by some examples we have reached.

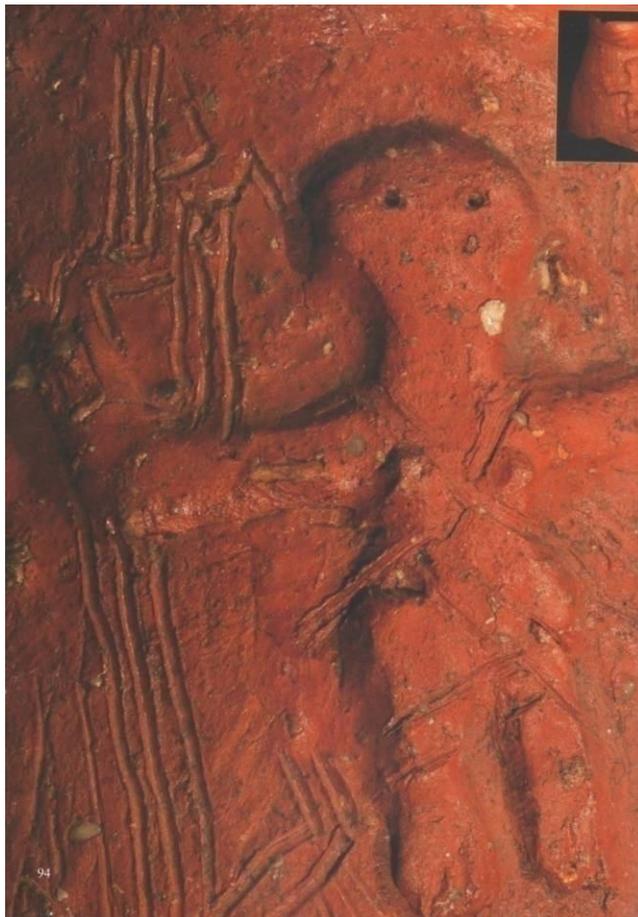


Photo 5. Turdaș-Luncă (Hunedoara County). "Prometheus".



Photo 6. Zorlențu Mare-*Icreliște* (Caraș-Severin County). "Dancers".

The essential myth of man comprises, without doubt, the form imposed by the distinct and successive periods of history.

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LARGE-SIZE ANTHROPOMORPHIC STATUETTES DISCOVERED AT PĂULENI-CIUC „DÂMBUL CETĂȚII” (HARGHITA COUNTY), CUCUTENI-ARIUȘD CULTURE

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Abstract: *The study presents two large anthropomorphic statuettes (more than 25 cm height). They were discovered in the site of Păuleni-Ciuc „Dâmbul Cetății” Harghita County. The statuettes were made of clay and were discovered in fragmentary state. This paper is especially important since there are only a few objects of this type discovered within the Cucuteni-Ariușd culture. Most of the “statuettes/figurines/idols” assigned to Cucuteni-Ariușd culture are medium-sized objects (8-25 cm).*

Keywords: *Eneolithic, Cucuteni-Ariușd Culture, Transylvania, anthropomorphic statuettes, clay*

Archaeological researches developed during 1999-2014, at the prehistoric site Păuleni-Ciuc „Dâmbul Cetății”, Harghita County, by a team coordinated by Dr. Valeriu Kavruk (National Museum of the Eastern Carpathians, St. George, Covasna County) contributed with important information for understanding several prehistoric cultures, like *Cucuteni-Ariușd-Trypillia* (5th-4th mil. BC), *Bodrogkeresztúr* (4th-3rd

¹**RO.** Cercetare finanțată prin FONDUL SOCIAL EUROPEAN, Programul Operațional Sectorial Dezvoltarea Resurselor Umane 2007-2013, Axa prioritară nr. 1 „Educația și formarea profesională în sprijinul creșterii economice și dezvoltării societății bazate pe cunoaștere”, Domeniul major de intervenție 1.5 „Programe doctorale și post-doctorale în sprijinul cercetării”, Titlu: „MINERVA – Cooperare pentru cariera de elită în cercetarea doctorală și post-doctorală”, Contract: POSDRU 159/1.5/S/137832.

EN. This work was possible with the financial support of European Social Fund, Operational Programme Human Resources Development 2007-2013, Priority no. 1 "Education and training in support for growth and development of the knowledge society", KeyArea of Intervention 1.5 "Doctoral and post-doctoral research support" Title: "MINERVA – Cooperation for elite career in PhD and post doctoral research", ID POSDRU 159/1.5/S/137832.

mil. BC), *Coșofeni* (3rd mil. BC), *Jigodin* (3rd mil. BC), *Costișa* (3rd-2nd mil. BC) and *Wietenberg* (2nd mil. BC), cultures which covered the Eastern Carpathians' area, among others, (Ferenczi 1938, 290-296; Székely 1970, 71; Cavruc 2000, 99; Cavruc, Dumitroaia 2000, 131-154; Cavruc, Rotea 2000, 155-172; Cavruc, Buzea 2002, 41-88; Lazarovici *et al.* 2000, 103-30; Lazarovici *et al.* 2002, 19-40; Buzea, Lazarovici, 2005, 25-88; Lazarovici, Buzea 2009, 130-131; Buzea, Briewig 2010, 205-246; Ștefan *et al.* 2010, 427-436; Whitlow, 2010, 413-426; 2014, 89-94).

Cucuteni-Ariuşd-Trypillia civilization, considered the first major civilization of Europe, appeared in the 5th mil. BC and covered an area of 350,000 sq. km. Its name was conventionally established after three villages: Cucuteni (Romania, Iași County), Ariuşd (Romania, Covasna County) and Trypillia (in Ukraine, near Kiev), where, at the end of the 19th century, were first found painted pottery and burned clay statuettes – categories of objects which became symbols of this ancient population (Dumitrescu 1968; 1979; Monah, Cucuș 1985; Lazarovici C. M., Lazarovici Gh., 2006; 2007).

Cucuteni culture, as part of this larger cultural complex, namely *Cucuteni-Ariuşd-Trypillia*, is one of the last outstanding civilizations of Eneolithic/ Southeast European Copper Age. Lasting more than a millennium (approx. 4600-3500 cal BC), it generated a civilization with the unmistakable characteristic features, covering a vast territory, including south-eastern Transylvania, nearly all Moldova and a part of Ukraine (Mantu 1998, 13).

In archaeological literature in the first stage of research was used the term of “*Cultural Complex Cucuteni-Ariuşd-Trypillia*”, or in the short version *Cucuteni-Trypillia Culture*. For western discoveries (south-east and east Transylvania) we use the term „*Cucuteni-Ariuşd Culture*” or, in abbreviated form, discoveries of „*Ariuşd type*”.

The earliest habitation layer discovered so far at Păuleni-Ciuc is coming from *Cucuteni-Ariuşd culture*. The remains of this culture (buildings traces, rich ceramic pottery, artistic representations, tools, weapons, etc.) occurred all over the investigated settlement area (Fig. 1/1). The most important discoveries were made under the northern and eastern Bronze Age rampart of the settlement (Fig. 1/2). Here, at the edge of the hill, were discovered and investigated several features (houses, hearths, annexes and pits).

The dwellings discovered so far at Păuleni-Ciuc seem to be aligned and oriented NW-SE. In terms of organizing of the interior space, the houses were probably placed on a semicircle, right on the hill's edge. Light constructions, such as shelters, with simpler building structures, were found near large dwellings, without respecting a certain rule (Buzea 2009).

Even if the excavated area in the settlement's enclosure is relatively small compared with the extent of the site, after archaeological researches, we can state that much of it was probably left free, for current activities inside the settlement.

The habitation from Păuleni-Ciuc „*Dâmbul Cetății*” belongs to *Cucuteni-Ariuşd*

culture, based on three radiocarbon analyses, with samples from a copper age feature (Cpl. 41), and made at Center for Applied Isotope Studies at the University of Georgia, USA. Based on the results of this analysis, we believe the late Ariușd occupation at Păuleni-Ciuc dates to 4,210-4,050 B.C. (Whitlow *et al.* 2013; 2014, 95-106)

Recent archaeological researches produced a considerable amount of artifacts belonging to a special category – *Plastic representations* (statuettes, anthropomorphic idols, zoomorphic idols, conical idols, figurines, zoomorphic vessels, small altars, miniature axes, stamp seals, disks, „*en violon*” pendants, clay balls, etc.) assigned to Cucuteni-Ariușd layer. The recovered objects were found in all levels of Eneolithic (I-III) habitation, both in enclosed contexts (pits, surface dwellings), as well as around contexts (Buzea 2007, 277-291; Beldiman *et al.* 2009, 359-375; Beldiman *et al.* 2012; Buzea, Kovács 2010, 129-140; Rusu *et al.* 2015, 74-81).

Anthropomorphic representations are an essential chapter in the prehistoric communities. In prehistoric times, religious events include a series of specific aspects of worship architecture, ritual miniature items (altars, figurines) and monumental cult elements which often define community buildings. Religious life of a community is developed on two very important coordinates, connected to time and space, in which a particular human group evolves, so that religious beliefs and practices are directly related to worship needs. The human group, in various forms of organization, through ritual and myth, solidified a certain perception of the surrounding reality. Religion will replace magic as invocation of natural forces. These forces were personified as deities, as beings more or less intelligible (Diamond 1997).

From the rich figurative cucutenian art were preserved tens of thousands of anthropomorphic and zoomorphic statuettes, pottery and plastic representations, along with a small number of painted images. During the Cucuteni millennium figurative canons for representations have changed, possibly due to religious ideas and perhaps reformulations of established characters in some sacred myths. Subordinated to concept of fecundity and fertility, the Great Goddess character remains dominant in religion of the Cucuteni tribes and its omnipresence is natural (Monah 2005, 171).

Inside Cucuteni-Ariușd sites from Transylvania were discovered so far 437 pieces from anthropomorphic statuettes and figurines, among which: 194 at Păuleni-Ciuc (Buzea 2009, 163-168/Anexa 18, p. 429-448), 142 at Ariușd eponym site, and 101 in other sites (Sztáncsuj 2005, 85–105; 2009, 185–206; 2009a, 409-434).

The assignment of these anthropomorphic statuettes and figurines to *Cucuteni-Ariușd* culture was made comparing with objects of the same type found in Cucuteni Culture, east of the Carpathians, mainly in Moldova area, Republic of Moldova and Ukraine.

Most anthropomorphic statuettes discovered at Păuleni-Ciuc, were modelled

according to strict canons, as in all Cucuteni-Ariuşd settlements, and they usually are portraying women standing and seated. Anthropomorphic statuettes and figurines are modelled in two or three rolls of clay pasted together by pressing them together, using in the composition finely crushed shards. After modelling, the objects were smoothed, decorated, sometimes even painted, and finally burned, oxidant or reductant. The statues are decorated with incised lines, generally in places that mark body parts (legs, buttocks, legs from body, the sexual characteristics) or rarely on the entire surface, forming geometric patterns (triangles, diamonds, etc.). Sometimes the breasts, navel, knees and ankles are made like small dimples, pinched in the soft clay, or applied to the objects. The statuettes were well smoothed and polished; on 2-3 fragments are observed traces of painting. In most cases the upper limbs are represented by small extensions of the body. Very often the arms are raised, in form of „adoration” (Fig. 4/1; 5/1-3). The legs are pasted together. Although most of the discovered statuettes do not have well defined legs, there are cases where they are clearly marked.

Most of the feminine anthropomorphic figurines and statuettes were discovered without the head; there are though several exceptions in which the head was very stylised by a conical pinch from the material of the body. In two cases the heads are individualized and they are modelled in shape of a disc with two lobes, with 2 perforations in each, separated by a median rib, which probably represents the nose (Fig. 4/2; 5/1; 6/3).

Considering dimension criteria (Fig. 2), anthropomorphic statuettes and figurines are divided into 4 categories (Monah 1997, 67; 2012, 89):

- A) small (2 – 8 cm),
- B) medium (8 – 25 cm),
- C) large (25 – 50 cm),
- D) very large (over 50 cm).

Until 2012, for Cucuteni - Phase A, were known only two objects assigned to category C - anthropomorphic statuettes of large dimensions (25-50 cm) discovered at Truşeşti (Monah 2012, 93, Fig. 30/5,6; after R. Vulpe).

At Păuleni-Ciuc two large sized feminine statuettes were discovered, over 25 cm high (Category C – after Dan Monah typology), of exceptional artistic value. These were found inside a dwelling, one on the floor, right near the wall, and the second between the cracks from the floor (Fig. 3).

Anthropomorphic statuette (fragment), was modelled out of clay mixed with crushed shards, well smoothed and polished (Fig.4/1; 5/4). The statuette was modelled out of two clay rolls, pasted together. Its body and left leg were broken in ancient times. It was quite a large statuette, it had about 25 – 30 cm. It represents a woman in vertical position. Its buttocks are separated and they follow the anatomical proportions. The excised line that separated its legs formed a triangle in the pubic area. The knees and the ankles were represented by conical prominences. The statuette has a rectangular section in the area of the femur and an oval one in the area

of the buttocks. Oxidized, brick-red pottery. Part of it was burnt also in a reducing atmosphere – black coloured. (Preserved H: 180 mm; width: 110 mm; thickness at the leg area: 23 mm; thickness at buttocks: 55 mm; length at sole: 47 mm; width at sole: 22 mm; discovery depth: - 3,1 m; Museum Inventory no.: 11597).

Fragments of the statuette were found in two archaeological campaigns: in 1999 was discovered the foot (oxidant burning, red colour) and in 2004 were found the legs and part of the buttocks (secondary burning, black coloured).

Antropomorphic statuette (restored object), made of clay mixed with sand, gravel and crushed sherds (Fig. 4/2; 5/1). It is modelled out of two clay rolls, pasted together and smoothed. Its left arm, left leg and the inferior part of its right leg were broken in ancient times. Its body and arms are flatter than a woman's body, while its thighs and legs are quite close to the real anatomic proportions. Its head is spherical. The features of the face are stylized, while two circular perforations on each side represent the ears. The stylized arms suggest a praying position. The breasts and navel are also stylized, and are represented by hemispherical prominences. Its legs are delimited by its body with an incised line that forms a triangle in the pubic area. Oxidized, brick-red pottery. The size of the statuette is noticeable, being larger than usual. One can also observe traces of red paint on its chest.

The figurine has a neatly smoothed surface. The colour is scarlet. The body has traces of red paint. The piece was burnt side after the break, whereas the right foot's hue differs substantially from that of the body. The figurine is larger than normal. (Preserved H: 248 mm; restored H: 345 mm; arms width: 110 mm; body width: 60 mm; thickness at the leg area: 23 mm; thickness at buttocks: 60 mm; discovery depth: - 2,5 m; Museum Inventory no.: 11288).

Fragments of the statues were found in three archaeological campaigns: in 2001 was discovered the right foot (oxidant burn, red with black spots), in 2004 was discovered the body (oxidant, red), and in 2007 was found the head (oxidant, red).

The fact that most anthropomorphic and zoomorphic statuettes were preserved in a fragmentary state is not due to chance, but to specific magical-religious practices, characteristic to Cucuteni populations. Thus, it is possible and likely that, after ritualic celebrations, anthropomorphic figurines, modelled specifically to be used in rituals, were not considered as having a magical role, so they can be „disposed” of (Florescu, Căpitanu 1996, 346).

During *Cucuteni-Trypillia* thousands of female statuettes are known. In time there have been well highlighted the differences between the state of obesity and pregnancy, although the vast majority of women are represented in their complete physical beauty (Chirica, 1999, 110).

Concerning the manner and duration of use of the statuettes, it seems that they were used in shrines or within religious features, with a longer period of use. There is some indication of intentional fragmentation of these objects, probably made also during some religious ceremonies (Monah 1997, 63).

It is generally accepted that most anthropomorphic statuettes are representing the main female deity („The Great Goddess”). The dominant character of the feminine divinity, symbol of fecundity and fertility, the female representation in various poses (nubile maiden, matron, pregnant woman, etc.) is modelled in most cases from two pieces of clay.

Excessive stylization of anthropomorphic statuettes faces from Ariușd-Cucuteni Culture might be connected with the prohibition to show it before the deity, but also related to the use of mask. Several Balkanic prehistoric cultures associated masks with deities' attributes (Gimbutas, 1991, p. 23, 62, 69), which is the case for cucutenian statuettes (Lazarovici C.-M. 2005). Even some female representations in the trypillian area are interpreted as masked, unlike the figurines that show realistic physiognomy (Burdo, 2010).

Large statues are not only rare, but are unique in terms of the shape of the embodiment and representation. The similarities, if any, can be discussed only on the base of ideas that incorporates these statues (Kovacs, 2015, p. 31-72).

Large anthropomorphic statues found at Păuleni-Ciuc express the female sensitivity and refinement through the body suppleness, praying position, back arching arms, shape of legs, highlighting sexual traits and quality of polished surfaces.

According to X-ray tomography analysis, which combines advanced computer technology to create accurate and detailed images of internal structures of the body (We express gratitude to dr. Szekély Zoltán from Brașov for the CT analysis on the statuette), carried out on the large dimensions statue (inventory number 11288) from Păuleni-Ciuc (Fig.6/1-6), confirmed that such objects were made of two large rolls of clay, then pasted together by pressing and smoothing; then the surface was very well processed and polished.

Following discussions with researcher dr. Dan Monah, about the statues discovered at Păuleni-Ciuc, he told us the followings: *„Beside the size, which is an important issue, the head of the statuette [restored anthropomorphic statuette, museum inventory number 11288] seems to show sample from phase Cucuteni AB or B. It's good to look at illustrations for these phases, especially in Cucuteni B. As far as I know there are no such figurines in Cucuteni A. Do you have in deposit layers other elements later than Cucuteni A? The manner of body treatment is not typical for Cucuteni A, it would approach somewhat of an incised representation from Jukovcy (Monah, 1997, fig. 241/3) and maybe with the painted one from Rzcev (Monah, 1997, fig. 245/7) without being identical. I refer to more realistic representation, naturalistic one of the human body and not the highly stylized statues in all Cucuteni phases”*.

So far, there has been little CT analysis on statuettes and figurines belonging to Cucuteni-Ariușd, from category B (small and medium sized: 8-25 cm). The most representative results were achieved in a project coordinated by dr. Cosmin Suciș who managed a scientific approach, by this method, on several anthropomorphic

statuettes and figurines from Cucuteni culture, in several museums in Romania (Suciu *et al.* 2013, 323-332).

In the current stage of research for Cucuteni-Ariuşd culture, large anthropomorphic statuettes represent a particular category of objects, quite rare in the area inhabited by these communities.

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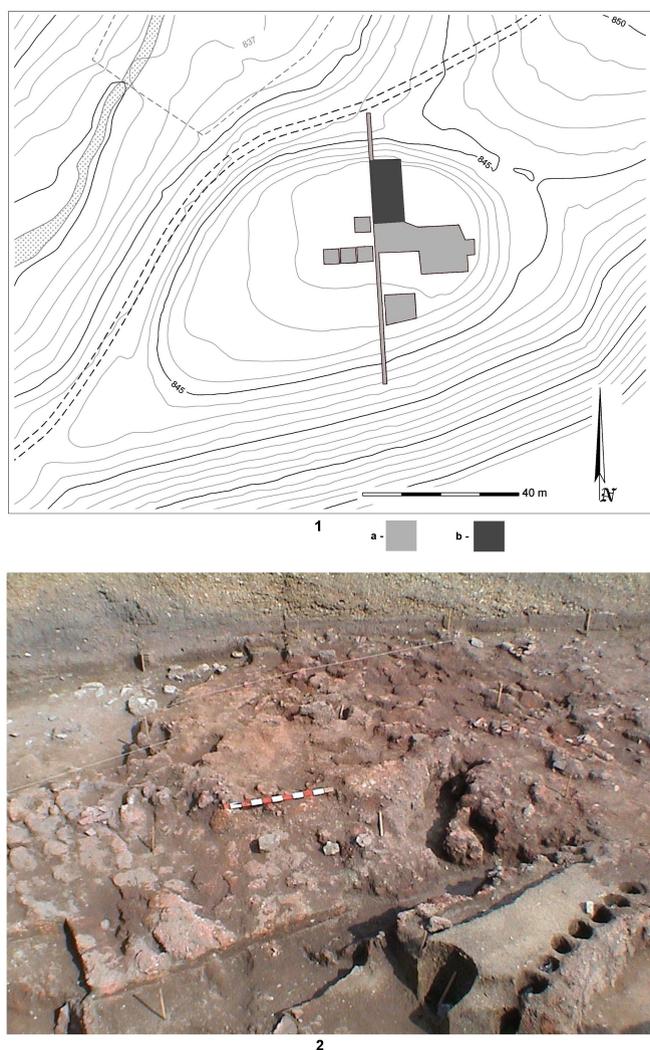


Fig. 1. Păuleni-Ciuc „Dâmbul Cetății” (Harghita County)

1: General plan of excavations at Păuleni-Ciuc „Dâmbul Cetății” site, Harghita County (Legend: a – surface excavated by National Museum of Eastern Carpathians; b – location of Cucuteni-Ariuşd dwellings); 2: Dwelling No. 5 (Cucuteni-Ariuşd Culture) view from north-west.

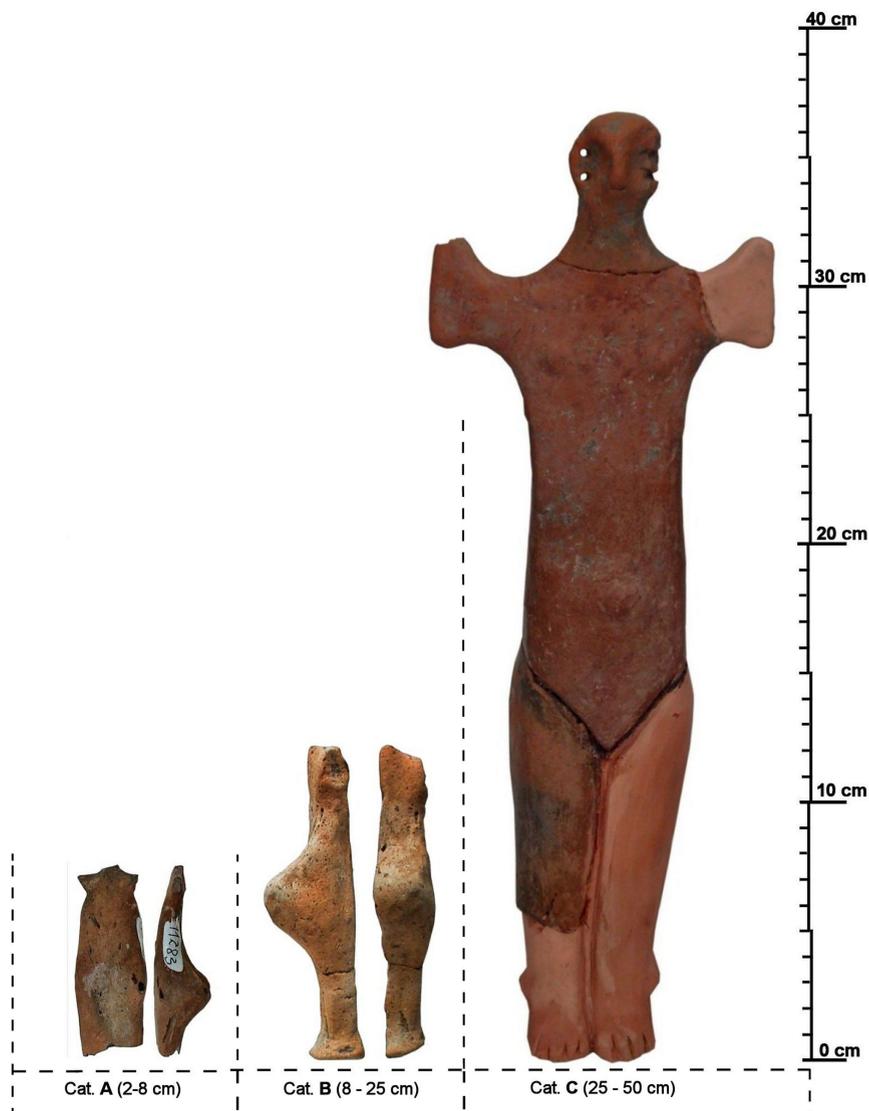


Fig. 2. Păuleni-Ciuc „Dâmbul Cetății” (Harghita County). Cucuteni-Ariuşd Culture
Dimensional categories of anthropomorphic statuettes.

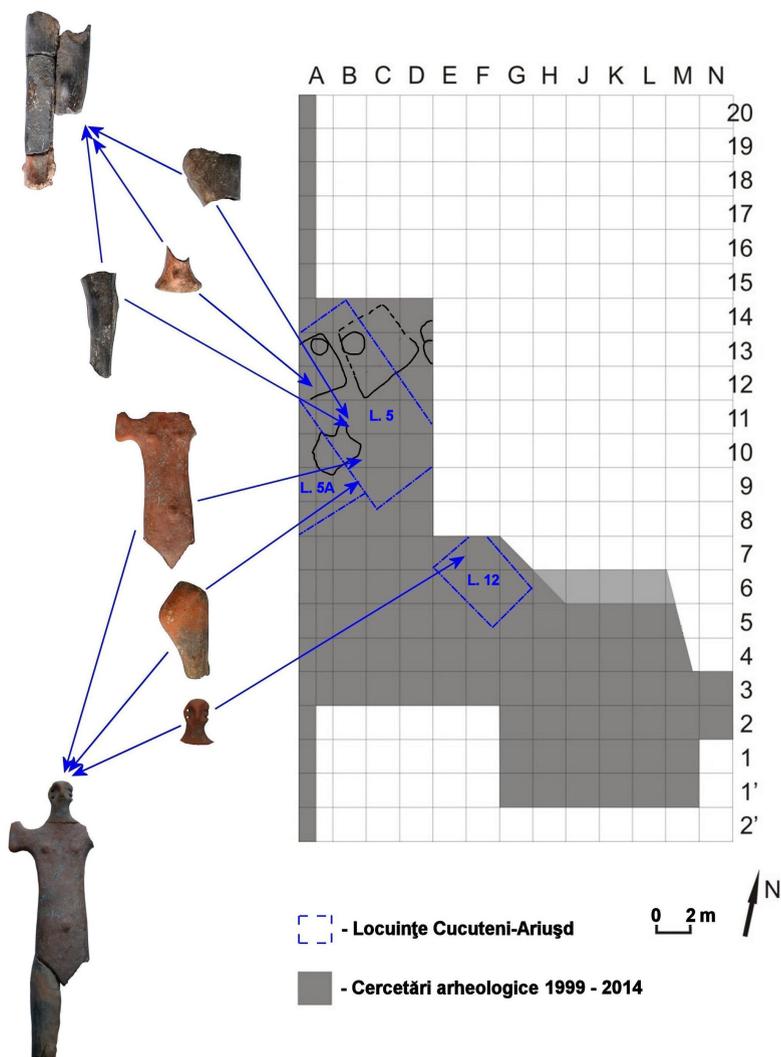


Fig. 3. Păuleni-Ciuc „Dâmbul Cetăţii” (Harghita County). Cucuteni-Ariuşd Culture
Location of the fragments of two large-size anthropomorphic statuettes.



Fig. 4. Păuleni-Ciuc „Dâmbul Cetății” (Harghita County). Cucuteni-Ariuşd Culture
1 – 3: Large
e-size anthropomorphic statuettes.

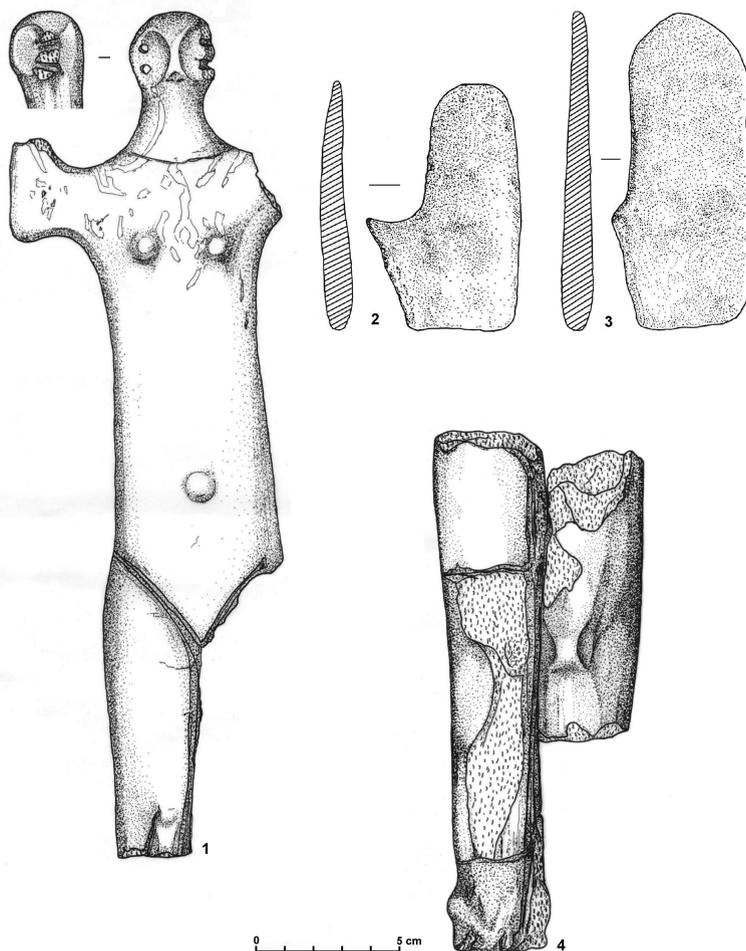


Fig. 5. Cucuteni-Ariuşd Culture: 1–4. Large-size anthropomorphic statuettes 1, 4: Large-size anthropomorphic statuettes discovered at Păuleni-Ciuc; 2, 3: Large-size anthropomorphic statuettes discovered at Truşeşti (after Mohah, 2012).

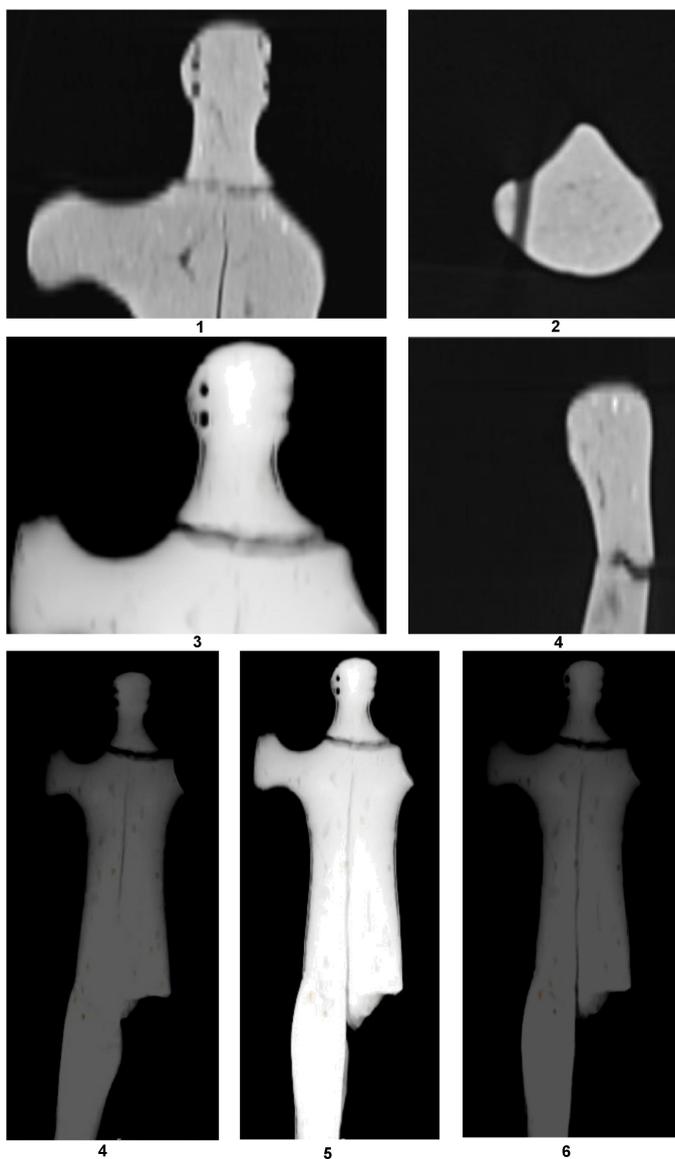


Fig. 6. Păuleni-Ciuc „*Dâmbul Cetății*” (Harghita County). Cucuteni-Ariuşd Culture

1 – 6: X-Ray computed tomography scan of the large anthropomorphic statuettes.

AENEOLITHIC BEADS MADE OF FISH VERTEBRA DISCOVERED AT PĂULENI-CIUC – “DÂMBUL CETĂȚII”, HARGHITA COUNTY, ROMANIA

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Abstract: *The archaeological excavations carried out during 1999-2013 campaigns in the Prehistoric site from Păuleni-Ciuc/ Csíkpálfalva – Șoimeni/ Csíkcsomortán-“Dâmbul Cetății”/ “Várdomb”, Harghita County offered the opportunity of recovering an assemblage of artefacts made of osseous materials belonging to Cucuteni-Ariuşd culture. It was recovered from the three Aeneolithic layers, both from complexes (pits, huts) and from archaeological layers. The assemblage contains the largest repertory of artefacts dated from Cucuteni-Ariuşd culture from Transylvania and has been analysed according to the current exhaustive methodology of the domain. A special attention was paid to the assemblage of artefacts related to symbolic manifestations of Cucuteni-Ariuşd communities. Besides various adornments made of osseous raw materials from mammals (bone beads made of fragments of long bones, pendants, plates, perforated teeth, perforated and decorated phalanges), there are several rare artefacts made of fish skeletal elements. Among these we have three beads made of vertebra coming from large species of fish (probably catfish, *Silurus glanis* or carp - *Cyprinus carpio*). The pieces were studied in a detailed manner, by applying a standardised methodology. The approach supposed a systematic examination of all artefacts using an optical microscope (x10 – x40) and a digital microscope (x10 – x400). The artefacts have been dated at 4200-4000 B.C.*

Keywords: *bone bead, Cucuteni-Ariuşd culture, Eastern Carpathians National Museum, osseous materials artefacts, paleotechnology, Păuleni-Ciuc/ Csíkpálfalva – Șoimeni/*

Csíkcsomortán-“Dâmbul Cetății”/ “Vârdomb”, Sfântu Gheorghe, perforated fish vertebra, spiritual life, symbolic artefacts, Transylvania.

The archaeological context

The paper presents the data issued from the analysis regarding special symbolic artefacts made of bone discovered in the well-known archaeological site of Șoimeni – “Dâmbul Cetății”, Păuleni-Ciuc Commune, Harghita County, Romania. These belong to the Cucuteni-Ariuşd Culture and they are dated at 4200-4000 B.C.

The prehistoric settlement is placed at 8 km northeast of Miercurea-Ciuc and at 1-1.5 km northeast of Șoimeni village (*Csíkcsomortán*), Păuleni-Ciuc comm., Harghita County, in the area called “Dâmbul Cetății” („Vârdomb”).

The “Dâmbul Cetății” archaeological site is located in the western area of Ciuc Depression at eastern slopes of the Ciuc Mountains, on a natural promontory which is sheltered by the higher hills that surround it. The altitude of the place is 846 m.

The area on which the settlement is placed belonged from an administrative point of view to Păuleni-Ciuc comm. and Șoimeni village. Due to the fact that Șoimeni village (*Csíkcsomortán*) is closer to the archaeological site, since from the first excavations, Zoltán Székely used the Hungarian denomination of the village, but with a Romanian spelling *Ciomortan* instead of *Csomortán* (*Csíkcsomortán*) (Székely 1971; Székely 1988).

Initially, on the place where the settlement was established there was a natural promontory. It had an oval shape and it was three meters tall. This place offered good defence conditions, due to the fact that the access in the settlement was easily controlled.

The settlement is both natural and anthropic fortified. In the western, northern and eastern areas, the settlement have a wall and a “horseshoe”-shaped ditch (Székely 1971; Székely 1988; Cavruc 1999, 14-41; Cavruc 2005, 81-123; Buzea 2012a; Buzea 2012b; Whitlow *et al.* 2013; Whitlow 2014; Whitlow *et al.* 2014).

The earthen wall which fortified the settlement during the Bronze Age practically restricted the habitable area of the site. Thus, the living space of approximately 5,400 square meters (60 x 90 m) used during *Cucuteni-Ariuşd* culture (V-IV millennia BC), it got to about 2,200 square meters living area (32 x 70 m) during *Costișa-Ciomortan* culture and, later, during *Wietenberg* culture.

History of the research

The Prehistoric fortified settlement of Șoimeni was first mentioned in the archaeological literature during the second half of the 19th century. With that occasion, the first topographical and technical descriptions were provided. The name of the place frequently appeared as *Cetate/Dealul Cetății/Movila (Vâr/Vârdomb/Vârhegy)* (Székely 1971; Székely 1988).

The first extensive excavations were carried out by the Székely Museum of Ciuc from Miercurea-Ciuc, together with the National Székely Museum of Sfântu Gheorghe, being coordinated by Zoltán Székely. During the three archaeological campaigns carried out in 1956, 1960 and 1967, five sections/trenches (S. I-V) and

three square surfaces (C. A-C) were excavated. The dug surface was about 160 square meters.

The excavations led to the following conclusions: the Aeneolithic Ariuşd (*Cucuteni-Ariuşd*) communities inhabited the place for the first time; they organised the territory for the first huts to be built there. During the Final Aeneolithic, the *Coţofeni* communities established there and during the Bronze Age, the *Ciomortan* and *Wietenberg* ones lived at Şoimeni – “*Dâmbul Cetăţii*”.

The earthen wall which surrounds the settlements and which was strengthened with palisade was made by a community which followed to the *Ariuşd* one and lived during the Bronze Age. The most important result of these researches was the discovery of a cultural aspect which was unknown until then in Transylvania.

This new cultural aspect was introduced in the specialised literature like *Ciomortan culture* (starting from the Hungarian name of Şoimeni village: *Csiksomortán* but in Romanian official administrative variant at that time) and this was chronologically dated from the Middle Bronze Age (Székely 1971; Székely 1988).

Many aspects related to the settlement of “*Dâmbul Cetăţii*” remained unsolved due to the low extent of the research carried out by Zoltán Székely – only 3% of the surface of the settlement was excavated – and due to the summary and selective publication of the results of these archaeological excavations (Cavruc 1999; Cavruc 2005).

After 1990 when the settlement from “*Dâmbul Cetăţii*” started to be poached by the treasure hunters, the researchers became again interested in the situation of this very important site. Fortunately, a part of the archaeological materials which were discovered during the unauthorised excavations got into the patrimony of the Eastern Carpathians National Museum of Sfântu Gheorghe, Covasna County.

The analysed materials were dated from the Middle Bronze Age, more precisely to *Costişa-Ciomortan* and *Wietenberg* cultures (the 3rd – the 2nd millennia BC); so these were clearly documented in the area of Ciuc Depression for this Prehistoric stage (Cavruc 1999, 14-41; Cavruc 2005, 81-123; Buzea 2012a; Buzea 2012b; Whitlow *et al.* 2013).

Osseous materials artefacts

The archaeological excavations carried out during 1999-2013 campaigns in the Prehistoric site from Păuleni-Ciuc/Csikpálfalva – Şoimeni/ Csíkcsomortán-“*Dâmbul Cetăţii*”/“*Várdomb*”, Harghita County offered the opportunity of recovering an assemblage of artefacts made of osseous materials belonging to *Cucuteni-Ariuşd* Culture.

It was recovered from the three Aeneolithic layers, both from complexes (pits, huts) and from archaeological layers. The assemblage contains the largest repertory of artefacts dated from *Cucuteni-Ariuşd* culture from Transylvania and has been analysed according to the current exhaustive methodology of the domain.

Data regarding the artefacts dated from *Cucuteni-Ariuşd* Culture and *Wietenberg* culture (discoveries from 1999-2013) were presented in various publications from 2009 to present (Beldiman *et al.* 2010 Beldiman *et al.* 2012a; Beldiman *et al.* 2012b; Beldiman *et al.* 2014a; Beldiman *et al.* 2014b; Beldiman *et al.* 2015; Beldiman, Sztancs, 2012a; Beldiman, Sztancs, 2012b; Beldiman, Sztancs, 2012c; Beldiman, Sztancs, 2012d; Beldiman, Sztancs, 2013; Beldiman, Sztancs, 2014; Sztancs, 2011; Sztancs, Beldiman, 2010a; Sztancs, Beldiman, 2010b; Sztancs, Beldiman, 2011a; Sztancs *et al.*, 2009; Sztancs *et al.*, 2010).

The pieces that we have studied until now are preserved in the collections of the Eastern Carpathians National Museum of Sfântu Gheorghe, Covasna County. Their status of conservation is good and very good.

This fact allowed us to quantify in optimal conditions all the aspects required by the complex study of the pieces. Our approach supposed a systematic examination of all artefacts using an optical microscope (x10 – x40) and a digital microscope (x10 – x400).

The assemblage of osseous materials artefacts recovered from the Aeneolithic layers comprises 89 pieces. As tools, we should underline the preference for long awls made of fragments of large herbivore bones and the use of red deer antler. There are also numerous adornments and other symbolic artefacts.

Bone beads. Beads made of fish vertebra

A special attention was paid to the assemblage of artefacts related to symbolic manifestations of *Cucuteni-Ariuşd* communities. Besides various adornments made of osseous materials (pendants, plates, perforated teeth, perforated and decorated phalanxes), ten beads were also studied.

Among these, seven are made of bone, are circular or oval and three were made of vertebra coming from large species of fish (probably catfish, *Silurus glanis*). These last represent the object of the present paper.

They were approached in a detailed manner, by applying a standardised methodology, using microscopic analyses and palaeo-technological reconstructions whose results have not been included in the editorial project “Animals, technology and Prehistoric osseous materials artefacts discovered at Păuleni-Ciuc, Harghita County” (Beldiman *et al.* 2012a), subsequently being valorised with various occasions.

The catalogue, the data regarding the archaeological context, extensive descriptions, and details regarding the manufacturing chain (raw materials, procedures and techniques of manufacture, hypotheses regarding the usage of the pieces) are presented.

The illustration includes various photos – general and detailed views, macro- and micro-photographs – figs. 1-3.

The studied artefacts have also been dated (4200-4000 B.C.); consequently, the documentary value of the research is a higher one (Whitlow, 2014; Whitlow *et al.*, 2013; Whitlow *et al.*, 2014).

The beads made of fish vertebra (catfish - *Silurus glanis* or carp - *Cyprinus carpio*) are preserved entire or almost entire. They present some traces of superficial burning.

Their manufacture required the application of very simple technical procedures such as: fracture of the apophyses and their central perforation done by rotation.

There are no traces of finishing by polishing.

Use-wear traces: the smooth edges of perforation could indicate the rigid fixation of the piece in a string using a wire.

The beads were probably hung in a string, well fixed on a thread. This prevents the use-wear traces to appear at the level of perforation.

The use-wear traces such as: bluntness, polish and fine striations are located on the beads surfaces and they were produced probably by the long contact with a soft material (leather or textile clothes). The beads were probably used also in a string, tight hold on a thread.

Repertory

Structure of repertory file: CODE (PCD) ● TYPE ● TYPOLOGICAL CODE ● Figures ● Category (tools, weapons, adornments, raw materials, accessories etc.) ● Institution / Collection ● Inventory number ● Context ● Raw material ● Conservation status (entire, fragmentary, fragment) ● Description (morphology, technical data regarding the manufacture, use-wear traces, function role etc.) ● Dimensions (mm) ● Bibliography ● Authors.

PCD/I 75 ● BEAD ● III D2 (Fig. 1)

● Adornments ● MNCR Sf. Gheorghe ● 17569 ● 2011 Square L 5 Plane 7 – 8 Aeneolithic Layer III

● Fish vertebra (catfish - *Silurus glanis* or carp - *Cyprinus carpio*).

● Piece entirely preserved.

● Bone bead made from a fish vertebra. Debitage: removing of the apophyses by fracture. Central perforation probably done by rotation. Without traces of finishing. Use-wear traces: smooth polish of perforation edge.

● Diameter 14/13.6; thickness 8.3; diameter of perforation 3.5.

● Beldiman *et al.* 2012a.

● Corneliu Beldiman, Diana-Maria Sztancs, Dan Lucian Buzea.

PCD/I 76 ● BEAD ● III D2 (Fig. 2)

● Adornments ● MNCR Sf. Gheorghe ● 17556 ● 2011 S I Squares L – M 4 Plane 7 – 8 Aeneolithic Layer III

- Fish vertebra (catfish - *Silurus glanis* or carp - *Cyprinus carpio*).
- Piece entirely preserved.
- Bone bead made from a fish vertebra. Debitage: removing the apophyses by fracture. Central perforation by rotation. Without traces of finishing. Use-wear traces: smooth polish of perforation edge.
 - Diameter 14.6/13.6; thickness 8.7; diameter of perforation 4.
 - Beldiman *et al.* 2012a.
 - Corneliu Beldiman, Diana-Maria Sztancs.

PCD/I 77 ● BEAD ● III D2 (Fig. 3)

● Adornments ● MNCR Sf. Gheorghe ● 17554 ● 2011 S I Squares L – M 4
Plane 7 – 8 Aeneolithic Layer III

- Fish vertebra (catfish - *Silurus glanis* or carp - *Cyprinus carpio*).
- Piece entirely preserved.
- Bone bead made from a fish vertebra. Debitage: removing the apophyses by fracture. Central perforation by rotation. Without traces of finishing. Use-wear traces: smooth polish of perforation edge.
 - Diameter 13.5; thickness 9.7; diameter of perforation 3.8.
 - Beldiman *et al.* 2012a.
 - Corneliu Beldiman, Diana-Maria Sztancs.

Analogies

During the past two decades we have studied Neo-Aeneolithic adornments and other pieces made of various osseous materials discovered in Romania whose functionality was connected with the spirituality domain (Beldiman, 2000; Beldiman, 2004a; Beldiman, 2004b; Beldiman, 2007; Beldiman, 2012; Beldiman *et al.*, 2010; Beldiman *et al.*, 2012c; Beldiman *et al.*, 2012d; Beldiman *et al.*, 2012e; Beldiman *et al.*, 2013; Beldiman, Sztancs, 2004; Beldiman, Sztancs, 2005; Beldiman, Sztancs, 2006; Beldiman, Sztancs, 2008; Beldiman, Sztancs, 2009; Beldiman, Sztancs, 2012a; Sztancs, 2011; Sztancs, Beldiman, 2005; Sztancs, Beldiman, 2011b; Sztancs *et al.*, 2009; Sztancs *et al.*, 2010).

Until recently, bone beads were not especially approached in studies and articles in Romanian literature. These were only mentioned in the catalogue of the artefacts coming from various sites. Lately, osseous materials artefacts as well as hoards with prestige goods dated from Cucuteni-Ariușd culture were published – articles and studies, chapters of PhD. thesis etc. (Beldiman *et al.*, 2010; Beldiman *et al.*, 2012a; Beldiman *et al.*, 2012b; Beldiman *et al.*, 2012c; Beldiman *et al.*, 2012d; Beldiman *et al.*, 2012e; Beldiman *et al.*, 2013; Beldiman *et al.*, 2014a; Beldiman *et al.*, 2015; Beldiman, 2004a; Beldiman, 2004b; Beldiman, 2012; Beldiman, Sztancs, 2004; Beldiman, Sztancs, 2005; Beldiman, Sztancs, 2006; Beldiman, Sztancs, 2008; Beldiman, Sztancs, 2009; Beldiman, Sztancs, 2012a; Beldiman, Sztancs, 2012a;

Beldiman, Sztancs, 2012b; Beldiman, Sztancs, 2012c; Beldiman, Sztancs, 2012d; Beldiman, Sztancs, 2013; Beldiman, Sztancs, 2014; Sztancs *et al.*, 2009; Sztancs *et al.*, 2010; Sztancs, 2011; Sztancs, Beldiman, 2005; Sztancs, Beldiman, 2010a; Sztancs, Beldiman, 2010b; Sztancs, Beldiman, 2011a; Sztancs, Beldiman, 2011b).

There was a project (ended) that approached the issue of Cucuteni culture adornments but no extensive catalogue or synthesis was published within this project (Țurcanu, 2011a; Țurcanu, 2011b).

As analogies for the bone beads (fragments of herbivores long bones, maybe cattle) which have been analysed with this occasion we may mention the pieces made of various materials (lithic, metal, clay) found within the hoards from: Cărbuna, Republic of Moldova; Brad, Neamț County; Hăbășești, Iași County (Dumitrescu, 1967, 35, fig. 51; Dumitrescu, 1974; Beldiman, Sztancs, 2006 – with bibliography; Beldiman, Sztancs, 2008 – with bibliography), as well as the isolated ones discovered at: Hăbășești-„Holm”, Iași County (Dumitrescu, 1967, 35, fig. 52), Poduri-„Dealul Ghindaru”, Bacău County (Monah *et al.*, 2003, 164, 171-172) and others.

The beads made of fish vertebra have no analogies identified within the literature that we have consulted regarding the Cucuteni-Ariuşd Culture. This type of pieces is mentioned during the Second Iron Age within the Dacian civilisation at the Ardeu-„Hillfort”, Hunedoara County (Beldiman *et al.*, 2012d, 93-94, 341-342, pl. 55-56).

On the other hand, skeletal elements such as carp pharyngeal teeth were exceptionally attested within Cucuteni-Ariuşd Culture as raw materials for beads – the case of hoard discovered at Ariuşd, Covasna County (Beldiman, Sztancs, 2012a; Sztancs, Beldiman, 2011b).

Conclusion

The category of small finds in which the adornments are included, is the expression of highly developed Cucutenian spirituality.

The adornments (beads, pendants, plates, perforated teeth, perforated and decorated phalanxes etc.), which were part of everyday life of the Aeneolithic communities lived on the territory of Romania have not been the subject of an extensive approach (cataloguing, defining the typology, the manufacturing chain and usage, significance within the context etc.).

The detailed analysis of the three pieces discovered within the site of Păuleni-Ciuc/Csíkpálfalva – Ősoimeni/Csíksomortán-“Dâmbul Cetății”/“Várdomb” contributes to filling this gap of research, offering a pattern of studying the subject, centred on bone artefacts: beads made of fish vertebra.

Acknowledgements

The contribution of Dan Lucian Buzea to this work was possible with the financial support of European Social Fund, Operational Programme Human Resources Development 2007 – 2013, Priority no. 1 “Education and training in support for growth and development of the knowledge society”, Key Area of Intervention 1.5 “Doctoral and post-doctoral research support” Title: “*MINERVA - Cooperation for elite career in PhD and post-doctoral research*”, ID POSDRU 159/1.5/S/137832.

Photographs have been taken by Corneliu Beldiman.

English version by Diana-Maria Sztancs.

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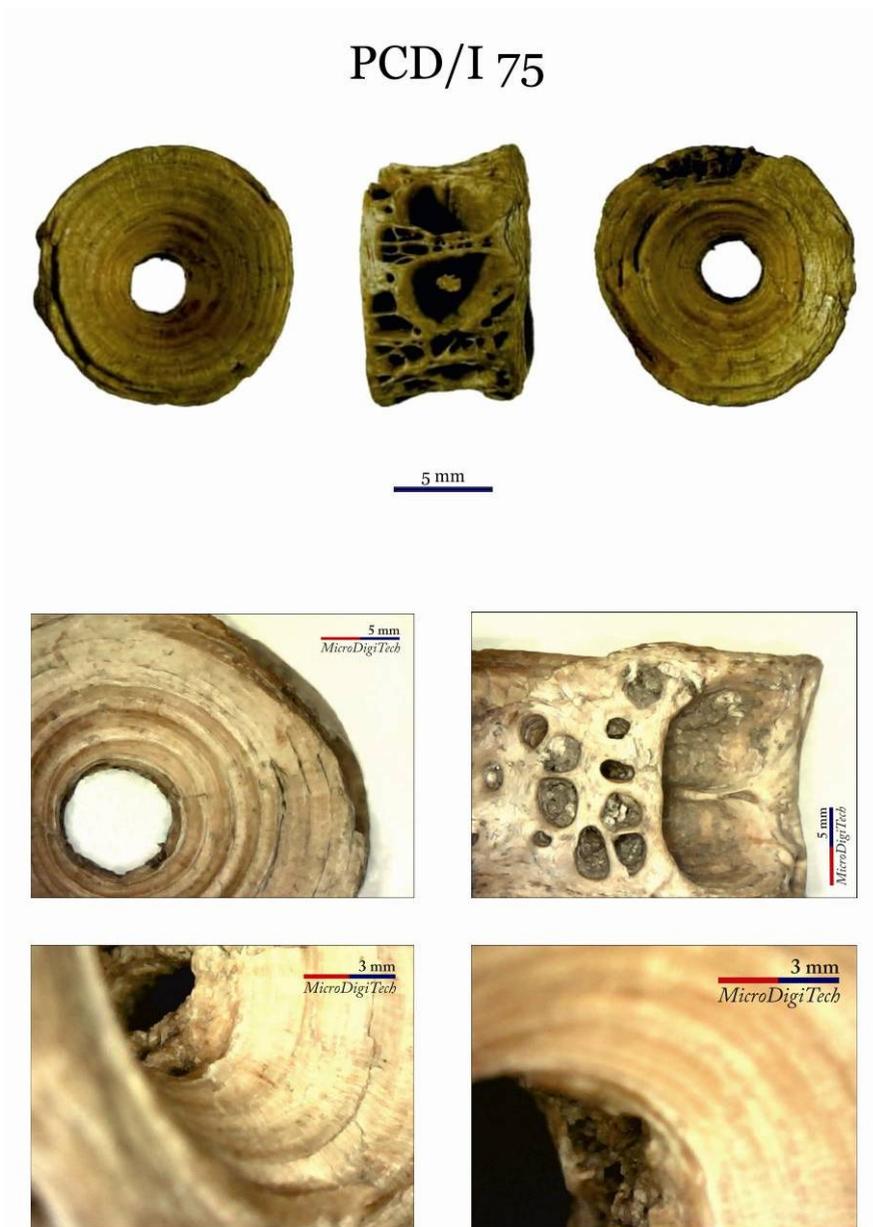


Fig. 1. Păuleni-Ciuc/Csíkpálfalva – Șoimeni/ Csíkcsomortán-“Dâmbul Cetății”/“Várdomb”, Harghita County. Cucuteni/Ariușd Culture. Bone bead – perforated fish vertebra. PCD/I 75.

PCD/I 76



Fig. 2. Păuleni-Ciuc/Csíkpálfalva – Șoimeni/ Csíkcsomortán-“Dâmbul Cetății”/“Várdomb”, Harghita County. Cucuteni/Ariușd Culture. Bone bead – perforated fish vertebra. PCD/I 76.

PCD/I 77



5 mm

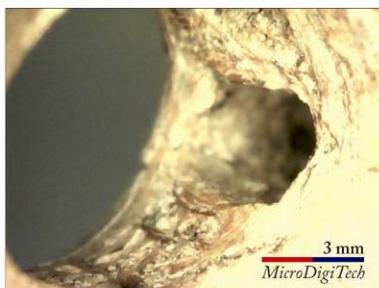


Fig. 3. Păuleni-Ciuc/Csíkpálfalva – Șoimeni/ Csíkcsomortán-“Dâmbul Cetății”/“Várdomb”, Harghita County. Cucuteni/Ariușd Culture. Bone bead – perforated fish vertebra. PCD/I 77.

SYMBOLIC BEHAVIOR AND ARTEFACTS IN THE AENEOLITHIC. RED DEER ANTLER SCEPTRE DISCOVERED IN SOUTH MOLDOVA, ROMANIA

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Abstract: *A unique piece made of red deer antler was discovered at Suceveni-“Stoborăni” site during excavations carried out in 1971 by Ion T. Dragomir, ex-Director of History Museum of Galați. The artefact is preserved in very good conditions. It could be included in the category of symbolic artefacts with ceremonial role, generally called sceptres or sleeves, drum sticks. On this occasion a detailed approach where a standardised methodology was applied: microscopic analyses and palaeo-technological reconstructions were done. The data regarding the archaeological contexts, the extensive description related to manufacture issues (raw material, procedures and techniques used in order to transform the raw material, use-wear traces and hypotheses regarding the usage etc.), imagistic materials (schemes, drawings, macro- and microphotographs etc.) are presented in this context.*

Keywords: *DanubiOs, Moldova, osseous materials artefacts, paleo-technology, “Paul Păltănea” History Museum of Galați, red deer antler, spiritual life, sceptre, sleeve, Stoicani-Aldeni Cultural Aspect, Suceveni-“Stoborăni”, symbolic artefacts.*

The Aeneolithic cultures attested in the region of South Moldova offers various data regarding the complex use of osseous materials resources that the natural or the man-made environment abundantly offered to the human communities.

On this occasion, we present a special object from an assemblage of pieces stored in the collection of the “Paul Păltănea” History Museum of Galați, resulted from the systematic research carried out during the 5th and 8th decades of the past century by Prof. PhD Ion T. Dragomir, former Director of the museum at Suceveni-“Stoborăni” site.

This site dated from Stoicani-Aldeni cultural horizon (cca 3800-3600 BC) was almost entirely excavated, being the most important site dated from the above mentioned cultural horizon up to the present.

We have to underline the fact that the study of osseous materials industry dated from the Stoicani-Aldeni cultural horizon has never been studied in detail until recently, using the present methodology.

In this way, the data that were made accessible by the project financed by the Administration of the National Cultural Fund, “Digitisation of the cultural portable heritage of History Museum of Galați. Collection of Aeneolithic osseous materials artefacts”, 2012 (“DanubiOs”) whose editorial product is a catalogue (Beldiman *et al.* 2012; <http://www.migl.ro/DanubiOs/eneolithic/index.html>), brings notable contributions regarding the knowledge of these Aeneolithic manifestations of the communities that lived in the actual space of Romania and in the surrounding areas.

The detailed study of the assemblage comprising osseous materials artefacts stored at the History Museum of Galați, coming from important Aeneolithic sites from the South of Moldova, a study that was realised for the first time during the above-mentioned project, brings new contributions to the knowledge of the technical manifestations characteristic for the Stoicani-Aldeni communities.

The data allows the development of the repertory and of the various analytic approaches through the sets of information that are systematised and made available for the following research that will be done with an identical or at least compatible methodology.

The spiritual manifestations represent an important issue related to Aeneolithic cultures which has not been approached in detail from the perspective of cataloguing and studying extensively the large amount of artefacts made of various raw materials.

At Suceveni-“Stoborăni” site, the symbolic behaviour is illustrated by a series of artefacts which are very complex from a typological point of view (pendants, perforated plates and beads). These are made of skeletal materials (bone, red deer antler, teeth, shells etc.), are manufactured *intra-site* or achieved by exchanges.

Among these, a unique piece made of red deer antler is preserved in very good conditions. It could be included in the category of symbolic artefacts with ceremonial role, generally called sceptres or sleeves, drum sticks (catalogue code SCS_11).

The artefact was summary published by Ion T. Dragomir (Dragomir 1983). With this occasion, it is the object of a detailed approach where a standardised methodology was applied: microscopic analyses and palaeo-technological reconstructions were done.

Their results have not been included in “DanubiOs” Project and subsequently being valorised in various contexts.

The data regarding the archaeological contexts, the extensive description related to manufacture issues (raw material, procedures and techniques used in order to transform the raw material, use-wear traces and hypotheses regarding the usage etc.), imagistic materials (schemes, drawings, macro- and microphotographs etc.) are presented in this context.

SCS_11

Perforated piece (“sceptre” or sleeve) Varia – symbolic artefact “Paul Păltănea” History Museum of Galați Inventory number 21351 Context Year of discovery 1971 Section 5 Meter 73 Depth -1.30 m Stoicani-Aldeni Cultural Horizon.

Raw material

Shed red deer antler, segment of a right beam.

Conservation

Piece entirely preserved. Good status of conservation.

Description. Manufacturing. Use-wear traces

Perforated piece (sleeve or “sceptre”?) made of a basal segment of beam.

The antler probably coming from a hunted animal (trophy). Right beam.

Debitage by direct percussion/precise chopping and fracture applied at the distal end in order to detach the pedicle and the brow tine.

The entire shaping of the piece was made by direct percussion/chopping and intense abrasion. All surfaces are smooth. Few traces are preserved. The surface of the piece is superficially corroded.

Proximal end is convex, oblique and made of the burr shaped by chopping and abrasion. The burr was partially shaped by abrasion on outline in order to remove the anatomic aspect; square-shaped with rounded corners at the proximal end, with a convex cross-section.

The surface of the beam and distal end were shaped by chopping and abrasion which eliminated the specific anatomic aspect.

The perforation is placed central; it was bilaterally shaped by carving and cutting; the shape is squared; at the proximal end the edges are parallels with the edges of the ones’ of the respective end; at the distal end, it is oblique shaped, in rhombus. About a half of in its depth is shaped like it is mentioned above, then the walls are oriented parallels with the edges as it is at the proximal end.

There are no observable use-wear traces.

Probable prestige piece, sceptre-like, sleeve; another hypothesis is related to the use as end piece of a drum stick?

Dimensions (in mm)

Length 54.84; proximal end 58.92/57.84; mesial end 51.53/47.20; Distal end 49.23/47.28; perforation at proximal end 17.49/16.27; perforation at distal end 18.40/18.37.

Analogies

There were no analogies identified within the literature. The prestige goods named sceptres have been known since the Upper Palaeolithic in the Western parts of Europe. They were also identified in our country from the Early Neolithic up to the First Iron Age. These were made of various materials, red deer antler among them and some of them were engraved with geometrical motifs (Alba Iulia-„Dealul Furcilor-Monolit”, Alba County – Lascu, Gheorghiu 2009; Boarta, Sibiu County – Popa, Ștefu 2009; Lancrăm, Alba County – Aldea, 1973; Popa, Simina, 2005; Limba, Alba County – Ciută, Ciută 2013).

Conclusion

The present paper represents a contribution to the enrichment of the catalogue containing special Aeneolithic artefacts made of red deer antler with a symbolic value.

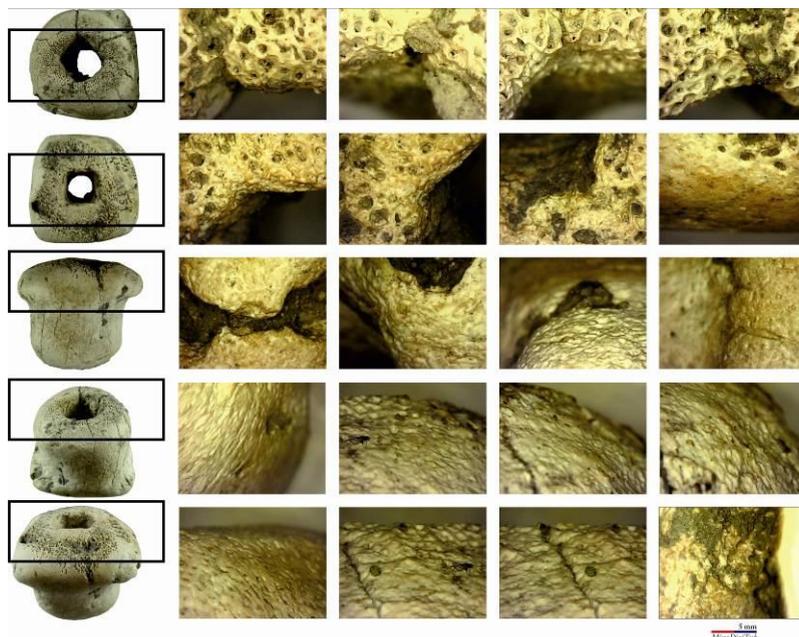
Its importance resides in being a *unicum* among the Aeneolithic discoveries from Romania.

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Fig. 1. Suceveni-*Stoborăni*, Galați County. Stoicani-Aldeni Cultural Aspect. Red deer antler object: 1 General views; 2 Origin of raw material.



1



2

Fig. 2. Suceveni-*Stoborăni*, Galați County. Stoicani-Aldeni Cultural Aspect. Red deer antler object: 1 Microscopic views; 2 Hafting – hypothetical reconstitution.

THE COȚOFENI SETTLEMENT FROM SĂVÂRȘIN “CETĂȚUIA”, ARAD COUNTY

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***Abstract:** The site of Săvârșin “Cetățuia” is known in the archaeological literature for the discoveries dated to the Iron Age. Excavations started on the site exclusively due to the significant Dacian discoveries found. Recent researches have also revealed part of a Coțofeni settlement on the plateau of “Cetățuia”. A large part of this settlement had been disturbed by Dacian and the illegal construction of mobile telephone antennas that have led to the destruction of a large part of the site. Nevertheless, a series of Coțofeni features have been discovered “in situ”, among which hearths and pits.*

***Keywords:** Mureș Basin, Eneolithic, Coțofeni, settlement, pottery.*

Introduction

The site of Săvârșin “Cetățuia” is known in the archaeological literature for the discoveries dated to the Iron Age. Excavations started on the site exclusively due to the significant Dacian discoveries found. Recent researches have also revealed part of a Coțofeni settlement on the plateau of “Cetățuia”. A large part of this settlement had been disturbed by Dacian and the illegal construction of mobile telephone antennas that have led to the destruction of a large part of the site. Nevertheless, a series of Coțofeni features have been discovered “in situ”, among which hearths and pits.

¹**RO.** Cercetare finanțată prin FONDUL SOCIAL EUROPEAN, Programul Operațional Sectorial Dezvoltarea Resurselor Umane 2007-2013, Axa prioritară nr. 1 „Educația și formarea profesională în sprijinul creșterii economice și dezvoltării societății bazate pe cunoaștere”, Domeniul major de intervenție 1.5 „Programe doctorale și post-doctorale în sprijinul cercetării”, Titlu: „MINERVA – Cooperare pentru cariera de elită în cercetarea doctorală și post-doctorală”, Contract: POSDRU 159/1.5/S/137832.

EN. This work was possible with the financial support of European Social Fund, Operational Programme Human Resources Development 2007-2013, Priority no. 1 "Education and training in support for growth and development of the knowledge society", Key Area of Intervention 1.5 "Doctoral and post-doctoral research support" Title: "MINERVA – Cooperation for elite career in PhD and post doctoral research", ID POSDRU 159/1.5/S/137832.

Geographic setting

The site actually “covers” the hill of “Cetățuia” (“Cetățeaua”, “Czukurhegy”, or “Dealul Cetății”), located on the southern limit of the Highiş – Drocea Mountains, bordered by the creeks of Troaş (to the East) and Vinești (to the West) and by River Mureș, the current bed of which is nowadays 500 m to the South (Pl. I). The maximum height of the hill reaches 246 m; it measures almost one kilometer in length and a maximum of 200 m in width, and is oriented ENE – WSW. To the North, the hill is bordered by a former valley of Creek Troaş, ca. 1 km long, with a maximum altitude of 164 m, 6 – 7 m higher than the meadow of River Mureș (Pl. II). Though the process of erosion that continued to deepen the current valley of the Troaş, the old bed became a suspended dry valley and the settlement of Săvârșin developed there.

From a petrographic perspective, the hill’s core consists of granodiorite, the result of Mesozoic developments and strongly affected by subsequent erosion. Above the native rock one finds a layer of forest humus reaching a maximum height of 0.5 cm, archaeologically recorded by the hill’s foot (by the SE and N slopes).

History of research and the excavation

The start of systematic archaeological excavations, under M. Barbu’s leadership, was triggered by stray finds of Dacian pottery between 1969 and 1978 (I. Dohangie, E. Pădureanu, M. Zdroba, M. Barbu) and by excavations for the building of a grain storage at the feet of the hill (1979) that have revealed consistent traces of Dacian habitation. After M. Barbu’s premature death, P. Hügel, G. P. Hurezan, V. Sava, V. Sîrbu, and C. Bodo have took up the research of the site in Săvârșin “Cetățuia” in 2005 and continued until 2010.

The excavations performed during the 1980s and the 1990s focused on three major areas of the site: the SE sector (located at the feet of the hill), “the acropolis” (the hill top plateau), and the N sector (the artificial terraces at the foot of the hill). The main objective of the new excavations was to uncover the important Dacian settlement that developed starting with the fourth/third century B.C. and continued until the first century A.D. One must mention the fact that traces of a Late Eneolithic, Coțofeni, settlement were also found on the plateau. The old excavations mentioned a single pit-house containing a hearth and rich pottery material, typical to stage Coțofeni III (Barbu, Hurezan 1982, 51). Nevertheless, the most numerous habitation traces can be dated to the Iron Age and attributed to the Dacian civilization (Barbu 1980; Barbu, Hurezan 1982; Barbu, Hügel 1999).

In order to better plan the new excavations, the team has divided the investigated area into four segments (Pl. 3-4). The most numerous trenches were opened on the plateau, covering a total area of 2684 m². The Northern Terrace has an area of just 345 m² and is located 11 m lower than the main plateau. The Southern

Terrace is located 19 m lower than the main plateau and extends over an area of 435 m². The feature labeled Terrace One is in fact a continuation of the plateau, covering an area of 1833 m².

The discoveries made during these excavations make us state that the Northern and Southern Terraces were used since the Dacian period. Eneolithic pottery fragments discovered in the various trenches opened on these terraces were found in secondary positions and probably originated from the plateau.

As previously mentioned, few traces of the Coțofeni settlement have been identified until 2007. The excavations performed between 2007 and 2010 have uncovered a small part of this settlement. One must note that the Dacian-period use of the plateau has led to the destruction of an important part of the Coțofeni site. One of the proofs is the fact that the only complexes preserved *in situ* had been dug into the rock, except for a narrow anthropic terrace located on the southern side of the plateau. On the latter terrace the team has identified a rich culture layer, with a series of hearths and pits at the base.

One pit containing Coțofeni-type pottery fragments (Cx 7) was discovered during the 2007 campaign in trench S11 (11 × 3 m) (Hügel *et al.* 2008, 272-274) (Pl. 7/1-2). The 2008 campaign was surprising through its Eneolithic vestiges, considering the few discoveries of the type known so far. Thus, trenches S12 (12 × 4 m) and S14 (4 × 4 m) have revealed numerous Coțofeni-type pottery fragments (Pl. 5/1-6) at depths varying between – 1.60 and 2.60 m. One must state that this culture layer had not been disturbed by the Dacian habitation. Two hearths were documented in S14 (Cx 22 and Cx 23) placed directly on the rock and two pits (Cx 24; Cx 25) (Pl. 5/1, 3-4; 7/3-4). A small ditch (Cx 21), dug into the granodiorite, still preserving Coțofeni pottery fragments, was identified in section S15 (4 × 3.5 m) (Hügel *et al.* 2009, 192-193) (Pl. 5/5-6; 8). Excavations have proven that no other Coțofeni artifacts have been identified in S15. Section S19 was marked in continuation of section S15 towards the northern slope of the plateau during the 2009 campaign (Pl. 6; 9-11). The southern profile of this section represents the most complex stratigraphic column so far. Coțofeni pottery fragments were revealed in S12 and S14, at the depth of –1.60 / – 1.80 m, suggesting a possible intermediary layer between the Dacian and the Coțofeni ones. In 2009, this layer was identified stratigraphically between the depths of –1.37 and – 1.40 m, revealing a leveling with granodiorite between the Dacian and Coțofeni habitations. The first Coțofeni depositions were identified at the depth of –1.40 m, right under the leveling with granodiorite (Hügel *et al.* 2010, 169-170). The 2010 campaign was dedicated to finishing section S19. A hearth (Cx_48) was discovered under the pottery layer, but only one part of it had been preserved (Hügel *et al.* 2011, 125-126) (Pl. 6/3-4; 11; 12/5).

Coțofeni-type pottery fragments were also identified both on the hill's plateau and on the terraces, in the following sections: S1, S2, S2, S5, S6, S13, S17, S20, S21, and S22.

Sections S12, S14, and S19 are relevant from the perspective of Coțofeni discoveries. The following stratigraphy has been recorded: Dacian levels between 0 and – 1.37/1.40 m, a compact level of granodiorite between – 1.37 m and 1.40 m, and the Eneolithic level between – 1.40 m and – 2.50/2.60 m. Coțofeni depositions were only noted on the anthropic terrace located on the northern side of the plateau. A single level could be documented in the researched area, consisting of hearths placed on the rock of the terrace and pits dug into the granodiorite.

Description of the features

The first Coțofeni-type discovery made in Săvârșin “Cetățuie” mentioned in literature is a pit-house, partially researched, rectangular in shape with rounded corners, reaching the depth of – 1.15 m from the current ground level. A hearth was identified inside the dwelling (Barbu, Hurezan 1982, 51).

Cx 7 (Pl. 7/1-2), trench S11. Pit dug into the granodiorite, oval in shape, with oblique walls, and boat-shaped bottom. The filling consisted of black soil and included pigments of burnt materials and charcoal. Several Coțofeni pottery fragments were identified inside the filling. Diameter: 72 cm, inner depth: 32 cm.

Cx 21 (Pl. 8), trench 15, represents a shallow ditch dug into the granodiorite; its filling consisted of numerous burnt materials and Coțofeni pottery fragments. Length: 298 cm; width: 64 cm; inner depth: 26 cm.

Cx 22 (Pl. 7/3; 12/1), trench S14. Hearth, partially uncovered, with Coțofeni pottery fragments preserved around and on top of it. Diameter: 55 × 18 cm; layering thickness: 7 cm.

Cx 23 (Pl. 7/3; 12/2), trench S14. Hearth, partially uncovered, with Coțofeni pottery fragments preserved around and on top of it. Diameter: 32 × 61 cm; base clay thickness: 5-6 cm.

Cx 24 (Pl. 7/3; 12/4), trench 14. Pit, dug into the granodiorite, partially uncovered, with the filling consisting of black soil, pigmented with a bit of burnt material. The inventory consisted of a few Coțofeni pottery fragments and fragments from the clay layering of a hearth. Diameter: 91 × 25 cm, inner depth: 27 cm.

Cx 25 (Pl. 7/3; 12/5), trench 14. Pit, dug into the granodiorite; its filling consisted of black soil, pigmented with a bit of ash. Part of the pit was cut by pit Cx 23. Diameter: 28 × 27 cm; inner depth: 13 cm.

Cx 48 (Pl. 6/3-4; 11; 12/5), trench S19. The hearth was identified ca. 0.10 m above the rock. Only part of the hearth has been preserved. Under its clay covering archaeologists have revealed a layer of horizontally placed pottery fragments. Length: 70 cm; width: 60 cm; thickness of clay covering: 2-3 cm.

Besides the discoveries mentioned above, one must also state that an anthropic terrace was identified in S12, S14 and S19. We were able to observe that the terrace has been dug into the rock down to the depth of 1.3 m and in width it currently does not surpass 1/1.5 m.

Pottery

The present study of the pottery from Săvârșin “Cetățuia” is based on a lot of 1844 pottery fragments, all of them found in trench S19. The fact that few features belonging to this chronological horizon have been identified was decisive for introducing in this study the pottery discovered in the culture layer. To this end I have selected the pottery fragments discovered in trench S19, as they form the most representative lot.

In designing the database I used 11 fields: vessel part, preservation, shape, type of decoration, decorative pattern, fabric, temper material, surface treatment, type of firing, firing quality, and color. I shall present below the codes used in the database and graphs in Figs. 1-23.

Vessel part: 1. Rim; 2. Belly; 3. Base; 4. Handle.

Preservation: 1. Entirely preserved; 2. Can be reconstructed (has one full profile or a profile that can be determined); 3. Fragmentarily preserved (consisting of three or more fragments); 4. Fragment.

Shape: 1. Cannot be determined; 2. Amphorae; 3. Dishes; 4. Pots; 5. Bowls; 6. Beakers; 7. Cups; 8. “Cooking pots”; 9. Miniature vessels.

Type of decoration: 1. Undecorated; 2. Incisions; 3. Inlay; 4. “Furchenstich”; 5. Circular impressions; 6. Relief; 7. Deepening; 8. Applied; 9. En barbotine.

Decorative pattern: 1. Undecorated; 2. Incised straps; 3. Fir tree branches; 4. Lozenge-shaped impressions (Kostolac type); 5. Fish skeleton; 6. Cannot be determined; 7. Triangle; 8. Crest; 9. Incision nets (common pots); 10. Short incisions on the rim; 11. Rows of short incisions; 12. Impressions; 13. Incised sleeve; 14. Relief horse shoes; 15. Relief crests; 16. Lentils; 17. Alveoli on the rim; 18. Rows of circular impressions; 19. Alveoli girdle; 20. Crested girdle; 21. Row of short incisions; 22. Simple prominences; 23. Simple girdle; 24. T-shaped girdle; 25. Horizontal rows of successive, long pricks; 26. Vertical rows of successive, short pricks; 27. Waves of successive pricks; 28. Shaded straps; 29. Button; 30. Vertical girdles; 31. Glasses; 32. Row of alveoli; 33. V-shaped pattern; 34. Long rows (for the handle); 35. White-paste inlay; 36. X-shaped patterns; 37. In rafters; 38. Row of circular impressions; 39. Torsade girdle; 40. Girdles made of successive pricks; 41. Chessboard; 42. Vertical alveoli girdles; 43. En barbotine.

Fabric: 1. Fine – 4 mm; 2. Semi-fine 4-7/8 mm; 3. Coarse +7-8 mm.

Temper material: 1. Sand grains; 2. Sand; 3. Sand and grit; 4. Small sand grains; 5. Grit and sand grains.

Surface treatment: 1. No special treatment; 2. Smoothed; 3. Polished; 4. Polished slip; 5. Slip; 6. Fallen slip; 7. Inner finish; 8. Outer finish.

Type of firing: 1. In a reductive atmosphere (R); 2. In an oxidant atmosphere (O); 3. Reductive / oxidant incomplete firing (R/Oi); 4. Oxidant/reductive incomplete firing (O/Ri); 5. Reductive on the outside/oxidant on the inside (Re/Oi); 6. Oxidant on the outside/reductive on the inside (Oe/Ri); 7. Reductive on the outside/oxidant on the inside, reductive core (Re/Oi/mR). 8. Reductive, with black core (R/mN); 9.

Oxidant on the inside/oxidant on the outside, reductive core (Oi/Oe/mR); 10. Oxidant on the outside/reductive on the inside/black core (Oe/Ri/mN). 11. Reductive with oxidant core (R/mO).

Firing quality: 1. Good; 2. Mediocre; 3. Poor.

Color: 1. Brick-red; 2. Dark brick-red; 3. Black; 4. Yellowish; 5. Grey.

From the perspective of the state of preservation, one can state that the most often found parts of pots are bellies (1432 fragments), followed by rims (274 fragments), bases (98 fragments), and handles (34 fragments) (Fig. 1). As for the proportion between typical and atypical pottery, it is clearly in favor of the latter (Fig. 2).

According to the quality of the fabric and firing and to the thickness of the fragments I have divided the analyzed material into three categories: fine ware, semi-fine ware, and coarse ware². As for the thickness of the pottery represented in each of the three categories, I have adopted the data provided by the study of the pottery from Florești “Polus Center”; thus, fine ware has a thickness of up to 4 mm, semi-fine ware has a thickness between 4 and 7/8 mm, while coarse ware measures more than 7/8 mm in thickness (Gogâltan, Molnár 2009, Graph 1). In the settlement of Săvârșin, semi-fine ware was the most wide spread type, consisting of 1496 fragments, followed by coarse ware, with 244 fragments, while fine ware only consisted of 104 fragments (Fig. 3).

Pottery was tempered with five categories of materials: grit and large sand grains (619 fragments), sand grains (476 fragments), large sand grains (452 fragments), sand (241 fragments), and sand and grit (56 fragments) (Fig. 4). The finest temper material was sand, followed by sand grains and large sand grains. I include in the category of sand grains and particles measuring between 0.0625 and 2 millimeters. The temper material consisting of sand grains is different from that labeled as sand through the fact that the grains are visible to the eye, measuring about 2 millimeters. Large sand grains are those particles that measure more than 2 millimeters.

I have noted that fine pottery was tempered in the majority of cases with sand grains (37 fragments), but also with sand (33 fragments), grit and large sand grains (18 fragments), and large sand grains (16 fragments). The fabric of semi-fine ware was mainly tempered with grit and large sand grains (478 fragments), but also with just large sand grains (400 fragments), sand grains (392 fragments), sand (189 fragments), and sand and grit (37 fragments). The corroboration of data on pottery categories and the temper materials employed indicates that coarse ware was tempered with grit and large sand grains (123 fragments), sand grains (47 fragments), large sand grains (36 fragments), sand and grit (19 fragments), and sand (19 fragments) (Fig. 5).

²I used the threefold division suggested by Ionescu, Ghergari 2007, 437; for the Coțofeni pottery see, more recently, Gogâltan, Molnár 2009, 68.

As for the treatment of pot surface, I could note two techniques (Fig. 6). The first, including the most numerous fragments, consisted of burnishing, encountered on 1503 fragments. The second way of treatment was through polishing, visible on 279 fragments. One must also mention the fact that the surface of 67 fragments was left untreated.

The surface of fine ware was, in the most numerous cases, burnished (72 fragments), while 29 such pottery fragments were polished. As for the semi-fine ware, it was burnished (1235 fragments) in most cases; 223 fragments were polished. Coarse ware was mainly burnished (196 fragments), and just 27 fragments were polished (Fig. 7).

Visual inspection indicates that the majority of pottery fragments have been fired in a mediocre manner (1536 fragments) and only a small part of them were well fired (218 fragments) (Fig. 8). The analysis of firing quality according to pottery categories indicates that fine pottery had the highest percentage of good-quality firing (31 fragments of good quality and 73 fragments of mediocre quality); similar percentages can be noted in the case of both semi-fine and coarse pottery, clearly in favor of mediocre firing (Fig. 9). As for the type of firing, two major categories have been identified, oxidant and reductive, with the first used in the majority of cases (Fig. 10, 11). Nine other types of firing have also been identified: reductive/incomplete oxidant firing (R/Oi), oxidant/incomplete reductive firing (O/Ri), reductive on the outside /oxidant on the inside (Re/Oi), oxidant on the outside/reductive on the inside (Oe/Ri), reductive on the outside/oxidant on the inside, reductive core (Re/ Oi/mR), reductive, with black core (R/mN), oxidant on the inside/oxidant on the outside, reductive core (Oi/Oe/mR), oxidant on the outside/reductive on the inside/black core (Oe/Ri/mN), and reductive with oxidant core (R/mO).

The study of pottery color has led to the identification of five main colors; in most cases the pottery fragments were brick-red (696 fragments), followed by dark brick-red (540 fragments), black (288 fragments), grey (233 fragments), and yellowish (95 fragments) (Fig. 12, 13). In most cases the pottery displayed a single color, but one also encounters fragments with more colors; among the most often encountered combinations one can mention brick-red and black, on 86 fragments dark brick-red and brick-red, in 70 cases, and grey with brick-red, on 31 fragments (Fig. 14).

Out of all pottery fragments, just 181 could be attributed, beyond doubt, to certain pottery shapes. The study of this pottery lot has led to the identification of seven major shapes: dishes, bowls, beakers, cups, "cooking pots", amphorae, and miniature vessels. The most numerous fragments were part of dishes, followed by those part of cooking pots and cups (Fig. 15). I was also able to note that in the majority of cases the pottery belongs to the semi-fine category (Fig. 16). As a rule, the temper material of choice consisted of sand grains, except for the dishes and "cooking pots" the fabric of which contained, in the majority of cases, inclusions of

grit combined with large sand grains (Fig. 17). As for the treatment of the surface, this follows the general trend of burnishing (Fig. 18). This general trend can also be noticed in the case of firing type (Fig. 19) and color range (Fig. 20).

The decoration techniques of pottery are highly diverse; the most numerous pottery fragments were decorated through incisions (435 fragments), followed by those with “Furchenstich” (86 fragments), combinations of incisions and relief decoration (28 fragments), but one can also mention circular impressions, identified in 12 cases (Fig. 21). The most wide-spread ornaments were incised straps, on 119 fragments, “fir-tree branches”, on 48 fragments, net incisions, on 46 fragments, rows of short incisions, on 21 fragments, and rows of circular impressions, on 14 fragments (Fig. 22, 23). By combining decorative types with shape types I was able to note that amphorae, cooking pots, and dishes were mostly incised; the cups and beakers were usually decorated through the technique of successive pricks, while circular impressions are mainly encountered on dishes (Fig. 23).

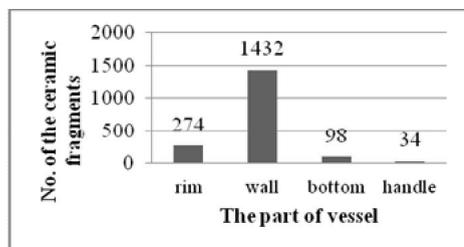


Fig. 1. Distribution of pottery according to the state of preservation.

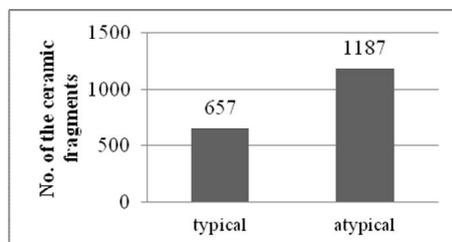


Fig. 2. Proportion between typical and atypical pottery.

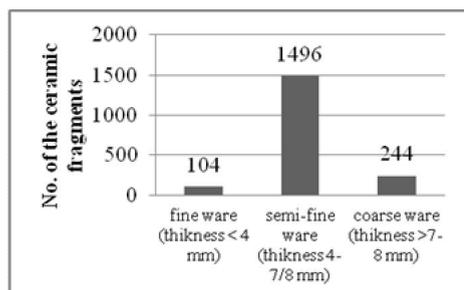


Fig. 3. Distribution of pottery according to categories.

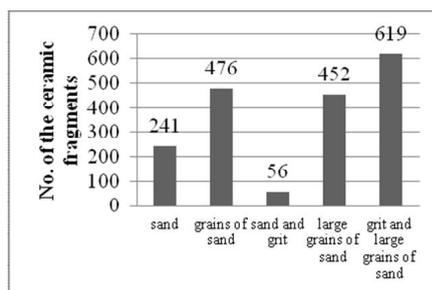


Fig. 4. Distribution of pottery categories.

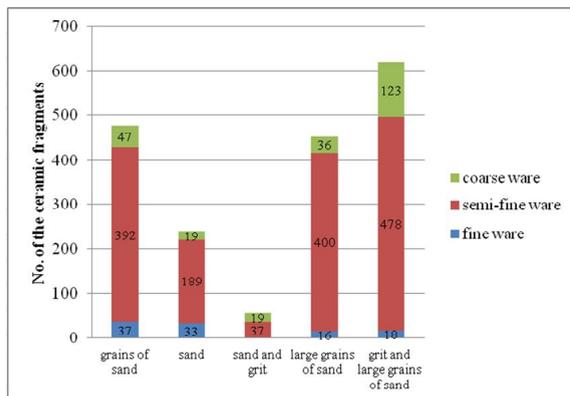


Fig. 5. Distribution of pottery according to temper material and categories.

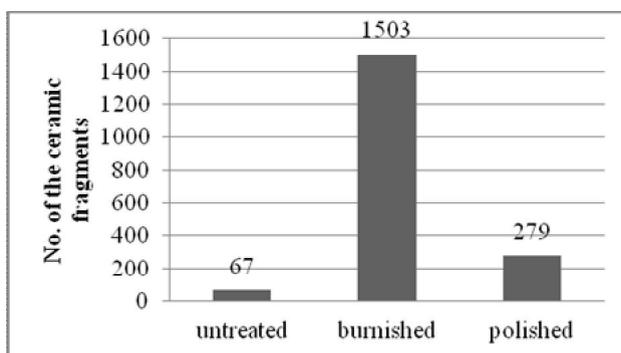


Fig. 6. Distribution of pottery according to surface treatment.

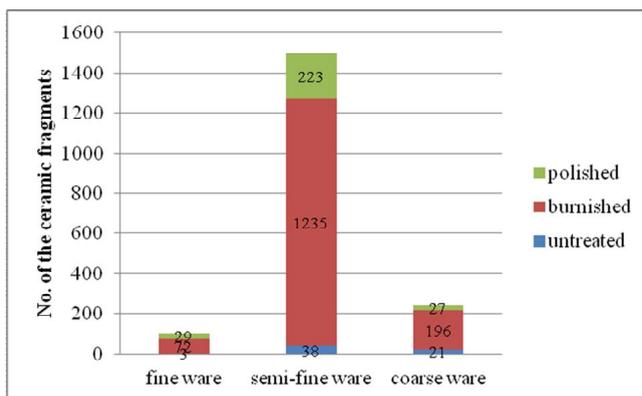


Fig. 7. Distribution of pottery according to surface treatment and categories.

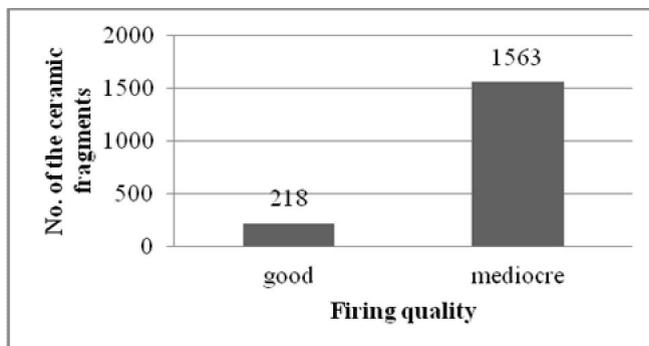


Fig. 8. Distribution of pottery according to firing quality.

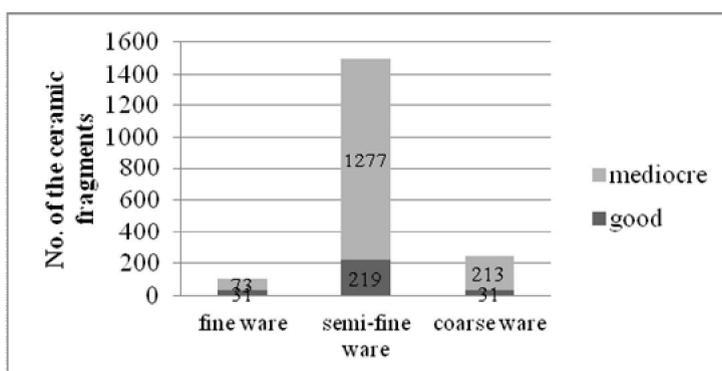


Fig. 9. Distribution of pottery according to firing quality and category.

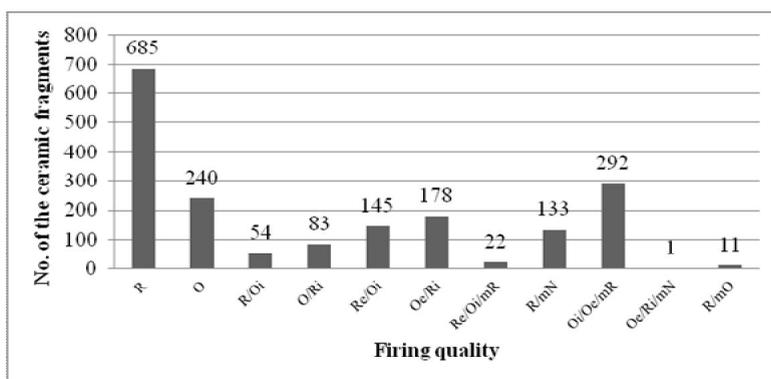


Fig. 10. Distribution of pottery according to firing type.

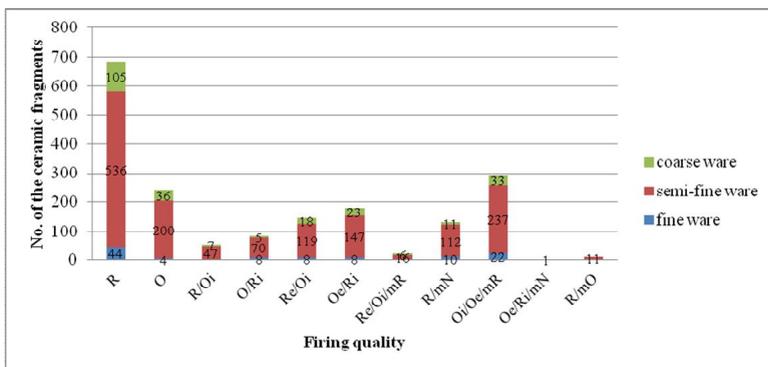


Fig. 11. Distribution of pottery according to category and firing type.

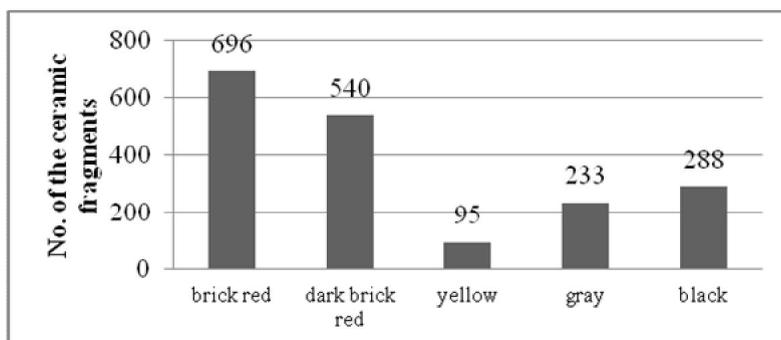


Fig. 12. Distribution of pottery according to

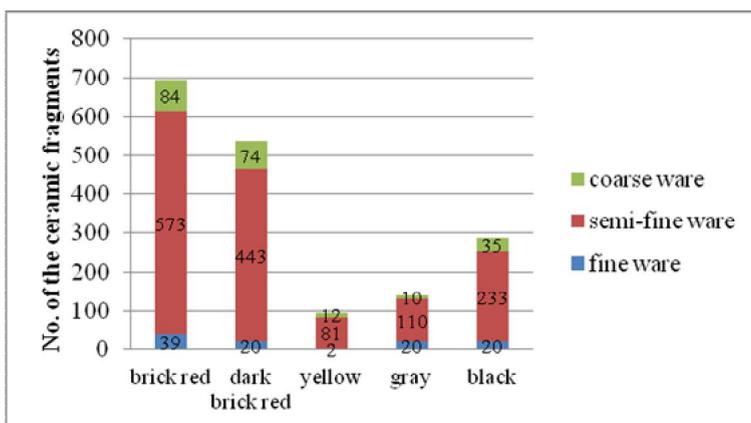


Fig. 13. Distribution of pottery according to pottery category and color.

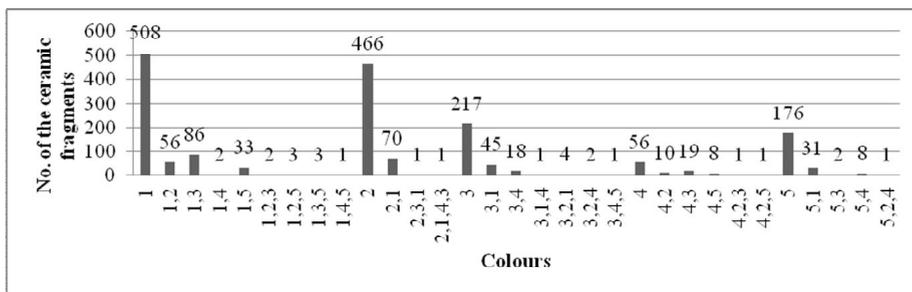


Fig. 14. Distribution of pottery according to color combinations.

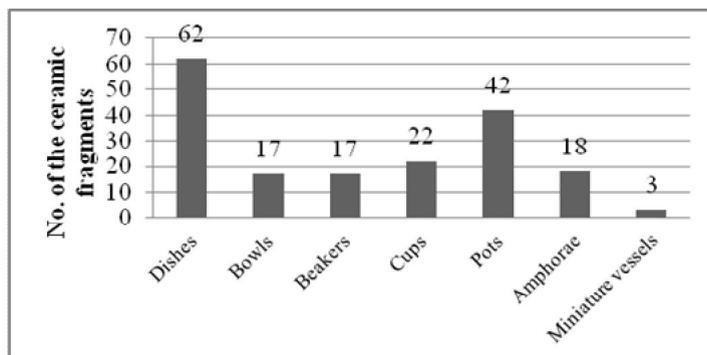


Fig. 15. Distribution of pottery according to shape.

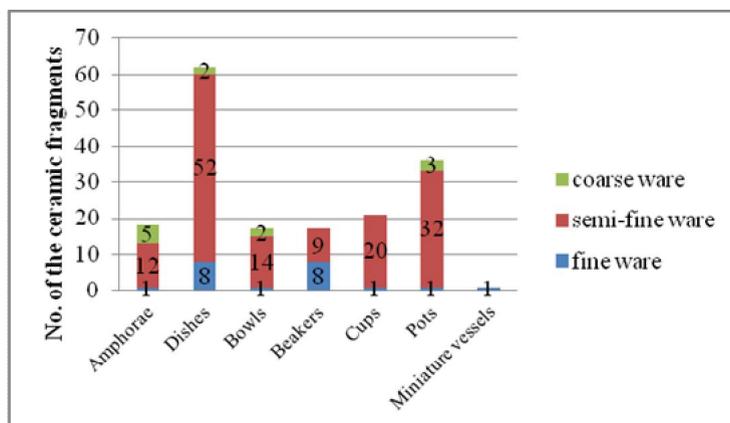


Fig. 16. Distribution of pottery according to shape and category.

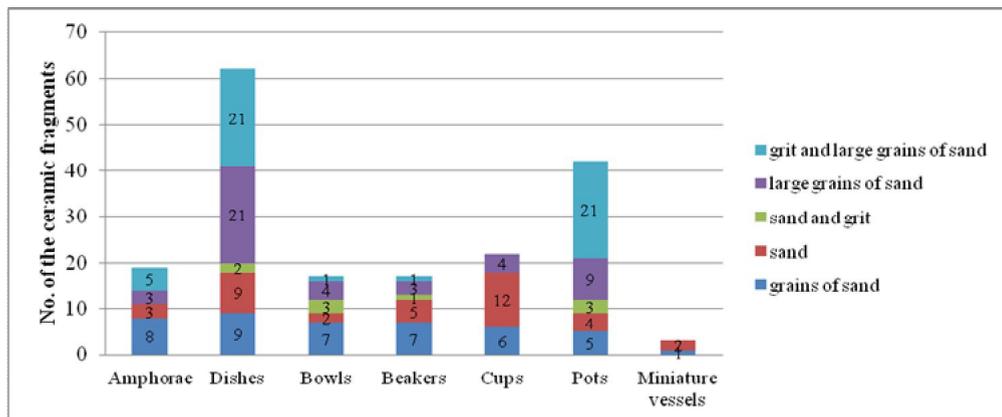


Fig. 17. Distribution of pottery according to shape and temper material.

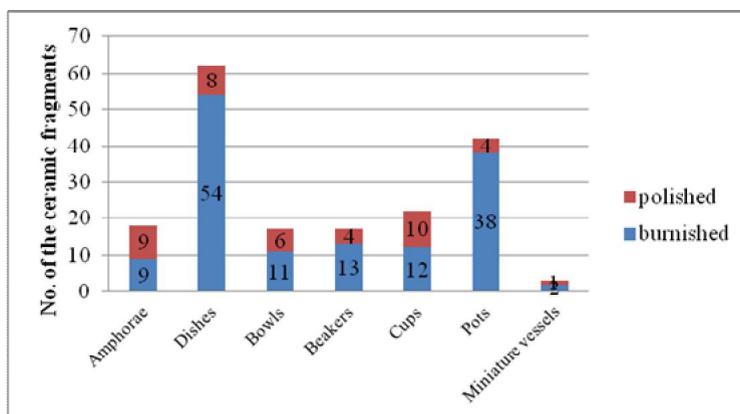


Fig. 18. Distribution of pottery according to shape and surface treatment.

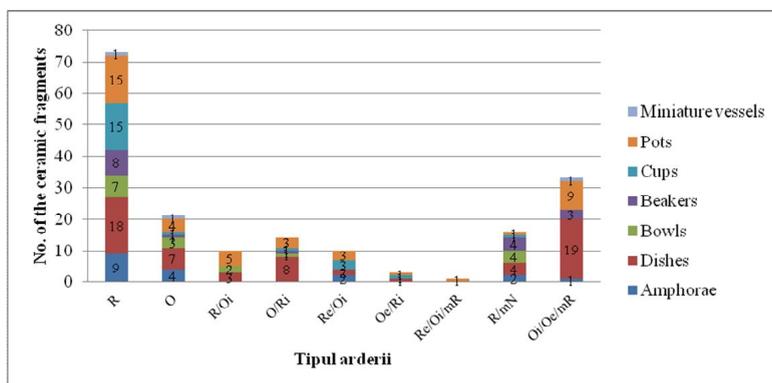


Fig. 19. Distribution of pottery according to shape and firing type.

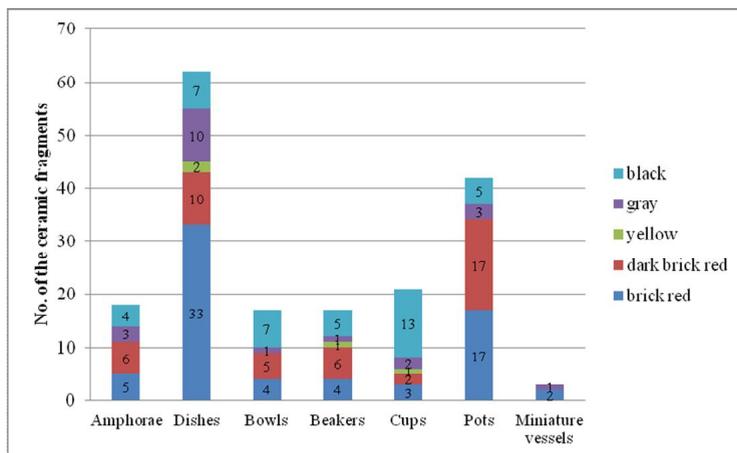


Fig. 20. Distribution of pottery according to shape and color.

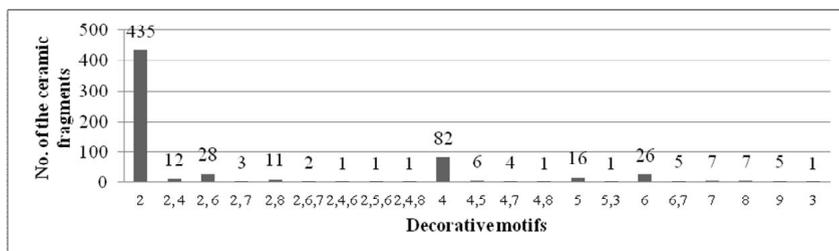


Fig. 21. Distribution of pottery according to decorative motifs.

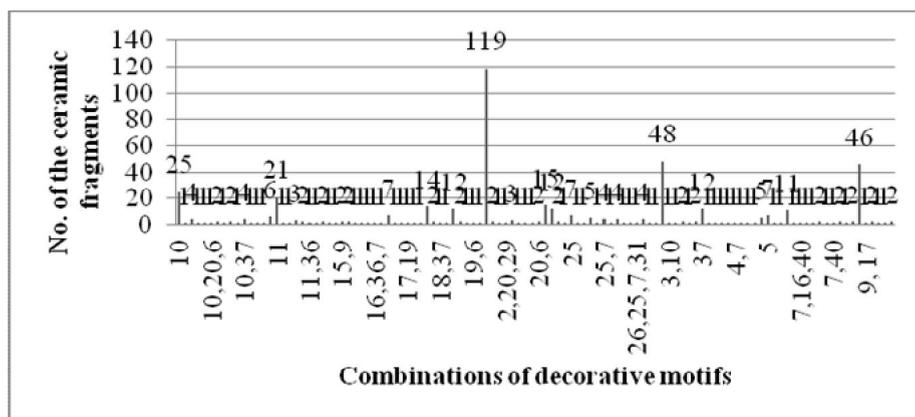


Fig. 22. Distribution of pottery according to the combination of decorative motifs.

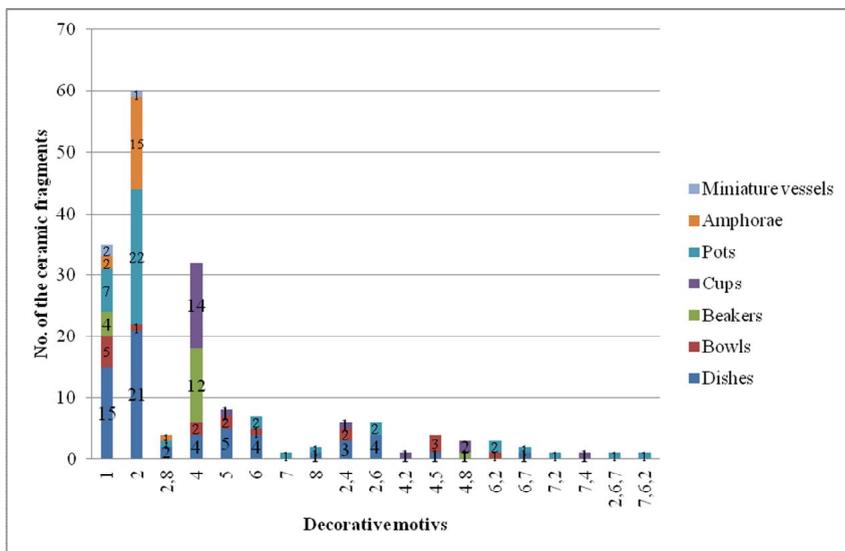


Fig. 23. Distribution of pottery according to decorative motifs and shape.

Lithics

Besides the numerous pottery fragments discovered, one can also mention stone artifacts, most of which refuse items, and a small blade (Pl. 13/6). There were also three axe fragments (Pl. 13/14-16), one striker (Pl. 13/13) and four cone-shaped remains, resulted through the perforation of axes (Pl. 13/1-4).

Fauna

In the short report of the 2009 campaign G. El Susi performed a preliminary analysis of the animal bone material (Hügel *et al.* 2010, 170). The fauna remains discovered in the Coțofeni layers consisted of 89 bones³. One could note that domestic mammals formed the largest percentage, 84.1%, as compared to the lesser percentage of wild mammals (15.9%). The following species of mammals have been identified: cattle (73.6%), swine (8.7%)⁴, ovicaprids (5.3%), canine (5.3%), deer (5.3%), horse (5.3%), and aurochs (5.3%). The author notes the fact that cattle were killed when in the adult-mature state. At the same time, a mandible remain of a young goat was discovered; the animal was killed at the age of 2-3 months (during the spring).

³Unfortunately, there is no mention of whether the calculation of the percentages refers only to the fauna lot discovered during the 2009 campaign (24 bone remains) or to the entire lot of 89 bone remains.

⁴The percentage of 8.7% allocated to the sine was not included in the calculation of the total presented in the report.

Chronology of the discoveries

Through time, Coțofeni pottery has known numerous periodizations, but the most complete remains that of P. Roman (Roman 1976, 35-47; Roman 1977, 193-195), with some completions by H. Ciugudean (Ciugudean 2000, 45-51) and C. I. Popa (Popa 2009, 934-946). Still, one must mention H. Schroller's initial attempt of periodization (Schroller 1933, 30-35), but also those completed subsequently by D. Berciu (Berciu 1961, 16), S. Dumitrașcu (Dumitrașcu 1967, 94-95; Dumitrașcu 1968, 260), K. Horedt (Horedt 1968, 106-114), and G. Petre-Govora (Petre-Govora 1986, 154; Petre-Govora 1988, 137; Petre-Govora 1995, 18-24).

The system unanimously accepted today is the one created by P. Roman din 1976, who has divided the Coțofeni pottery into three stages of development. This system was based on the stratigraphy from Băile Herculane "Peștera Hoților", Ostrovu Corbului "Km 911", Basarabi or Sebeș "Râpa Roșie". Roman established several sub-stages: three (a-c) for phase I, two (a-b) for phase II, and three (a-c) for phase III (Roman 1976, 35, 40, Fig. 6, 54). The three phases represent distinct stages in the development of the pottery style: phase I – the formation stage, phase II – the crystallization stage, and phase III – the classical period (Roman 1976, 36-47).

I shall briefly present the last division, suggested by C. I. Popa (Popa 2009, 934-946). From the very beginning I must mention the fact that this periodization is based on the system elaborated by P. Roman. C. I. Popa has divided the first development phase in two sub-stages, Ia and Ib. From the perspective of pottery, Popa mentions the close connections between the discoveries in Vințu de Jos-Deasupra Satului, Dăbâca-Cetate, Petrești-Groapa Galbenă, Iaz-Dâmb and those in Cernavodă III (Popa 2009, 937-938). Popa also suggests the contemporaneity of Cernavodă III/Coțofeni Ia/Baden A. The pottery of sub-stage Ia shows clear ties with Cernavodă III; the dish with flared rim, with grooves on the inside, is a constant presence in the sites dated to this sub-stage. The specific decoration of pottery during sub-stage Ia consists of grooves, wide incisions, or girdles, while the most wide spread motifs are sunken triangles, in rafters, or fish skeleton. During sub-stage Ib one notes the introduction of bowls with vertical notches on the rim and common pots decorated through incisions. During phase II the distribution area of the Coțofeni pottery extended to north-western Serbia and Bulgaria. The wide incisions and grooved dishes typical to phase I are rarely encountered now, but new shapes appear, such as the *askos*. As for levels f and g in Băile Herculane "Peștera Hoților", H. Ciugudean, H. Parzinger, and C. I. Popa date them to the beginning of phase III (Parzinger 1993, 269-270; Ciugudean 2000, 53-54; Ciugudean *et al.* 2005, 11-12; Popa 2009, 942-943), while P. Roman includes them into phase II (Roman 1976, 40). Besides, H. Ciugudean attributes levels I-VII in Băile Herculane to phase II and not to phase I, as P. Roman does (Ciugudean *et al.* 2005, 11-12). As a novelty, C. I. Popa demonstrates convincingly that *furchenstich*-type decoration appeared only during phase III (Popa 2009, 943), contrary to those claimed by P. Roman (Roman 1976, 40-41) and H. Ciugudean (Ciugudean 2000, 49). Despite the fact that the number of Coțofeni II

features is limited, C. I. Popa observes two sub-stages, IIa and IIb; during sub-stage IIa grooved decoration can still be encountered, especially in Transylvania. During phase III one notes the introduction of the *furchenstich*-type decoration (Popa 2012, 148), though it was not used in Oltenia and Bulgaria. Sub-stage IIIa includes the typical f and g depositions in Băile Herculane; during IIIb one notes the introduction of zigzag motifs, concentric circles, spirals, and spiral-glasses (Popa 2012, 149). Sub-stage IIIc, also seen as the final stage of the Coțofeni-type pottery, is also characterized by a regression of material culture. N. C. Rîșcuța has also brought a significant contribution to the relative chronology of the Coțofeni III pottery, through his study of the discoveries made in Prohodiște “Peștera Prihodiște” (Rîșcuța *et al.* 2012).

From a chronological perspective, until the publication of the monograph dedicated to the Coțofeni discoveries (Roman 1976), the majority of researchers placed the Baden/Coțofeni horizon between the Petrești/Sălcuța and Wietenberg discoveries (Berciu 1961, 134). The excavation in Băile Herculane “Peștera Hoților” has brought major changes to the relative chronology of the Aeneolithic. Based on the identification of the Horizon of “toarte pastilate”/Hunyadihalom sequence horizon that preceded level Coțofeni I (Roman 1971, 97-101), P. Roman has reached the following chronological sequence: “toarte pastilate”/Hunyadihalom sequence – Coțofeni Ia (Roman 1971, 100-114). Several years later, the same author stressed the chronological succession that still stands today: “toarte pastilate”/Hunyadihalom sequence – Cernavodă III-Boleráz – Baden/Coțofeni; at the same time he suggested the contemporaneity Cernavodă III-late Boleráz/Baden/Coțofeni (Roman 1981, 34-35).

As for the Cernavodă III-Boleráz – Coțofeni I succession, P. Roman was the first to state it, but only for the territory of Oltenia (Roman 1976, 59). Roman’s argument is based on the pottery from Locusteni, where archaeologists have found Cernavodă III-Boleráz and Coțofeni type pottery in the same settlement (Roman 1976, 38). He introduced another argument into this discussion, related to the settlement in Milostea (Roman 1976, 59), known through surface finds. Roman did not accept the contemporaneity of the two pottery types; the Cernavodă III-Boleráz and Coțofeni artifacts had been discovered in different features. The stratigraphy in Băile Herculane “Peștera Hoților” show, according to Roman, a chronological hiatus between Sălcuța IVc and Coțofeni Ic, breached in Oltenia by the Locusteni-type discoveries, namely Coțofeni Ia-b (Roman 1976, 59). This argument, of the non-contemporaneity of the two pottery types is unsupported, due to the fact that the Coțofeni materials do not belong to phase I, but to phase II (Ciugudean 2000, 52; Ciugudean *et al.* 2005, 13).

P. Roman mentioned the absence of the grooved pottery type Cernavodă III-Boleráz from the group of Coțofeni pottery (Roman 1976, 30). H. Ciugudean disagrees, stating the existence of this pottery type in the Coțofeni areal, in the settlements of Vințu de Jos-Sibișeni, Micești “Valea Luncii”, and Vinerea

“Tăbărăște” (Ciugudean 2000, 52). The discovery of cups with bulging body in Vinerea (Ciugudean 2000, Pl. 23/4) and Micești “Valea Luncii” (Ciugudean 2000, Pl. 26/1-3, 6), covered in vertical and slightly oblique grooves have analogies in the Cernavodă III-Boleráz areal (Morintz, Roman 1968, Abb. 33/10, 35/5, 37/1-4, 12-13, 39/8, 14-16) and Baden Ib-IIa (Němejcová-Pavúková 1991, Fig. 7/2-6). In addition to these examples, grooved pottery was also discovered in Coțofeni I contexts in Cugir “Făgețel” and Vinerea “Țelina de Sus” (Popa 2011, 150). Coțofeni I pottery, and not only, decorated with alveoli girdles on the rim and body (Ciugudean 2000, Pl. 20/1-2; 21/1; 22/1-4; 33/46) also finds analogies in the Cernavodă III-Boleráz environment (Morintz, Roman 1968, Fig. 28/3, 6; 29/1-2; 30/25; 34/1-2; 36/4). The existence of grooved pottery decorated with alveoli girdles allows H. Ciugudean to state the synchronicity between Cernavodă III-Boleráz-Baden I-Coțofeni I (Ciugudean 2000, 53). As for the chronological relation between the Baden and Coțofeni pottery types, P. Roman believes that Baden II-IV was synchronic to Coțofeni I-II (Roman 1976, 51-54, Fig. 8). Subsequently, upon reanalyzing the discoveries made in Oradea “Salca” and Unimăt, Ciugudean advanced the synchronization of Baden III and Coțofeni II, thus suggesting that phase Coțofeni III was contemporary to phase Baden IV (Ciugudean *et al.* 2005, 15).

The next step in analyzing the relations between Cernavodă III-Boleráz and Coțofeni is to demonstrate that phase Coțofeni I is partial contemporaneous with Cernavodă III-Boleráz. In the southern area of the Carpathians, in order to express discoveries of the Coțofeni Ia-b type one uses the terms of Celei and Orlea-Sadovec. Nevertheless, one must mention the fact that the two types are different through the predominance of the pottery decorated with incisions in the complex from Orlea-Sadovec and of graphic ornaments in the group of Celei pottery (Oanță 2003). Considering the fact that Celei-type pottery is only characteristic of three settlements and six isolated discoveries and that Orlea-Sadovec type pottery has been found in four settlements, one funerary discovery, and five isolated discoveries, one must mention that Cernavodă III-Boleráz type pottery predominates in the adjoining areas. Due to this, S. Oanță-Marghitu believes that the two pottery types under discussion belong to the Cernavodă III pottery (Oanță 2003). The same can be applied to the territory of Transylvania, where Coțofeni I pottery is similar to Cernavodă III-Boleráz pottery (Popa 2009, 937-938).

H. Ciugudean argued for the contemporaneity of the two types of pottery through the existence of Cernavodă III-Boleráz contributions to the pottery repertoire of Coțofeni I and through the fact that the distribution area of the Cernavodă III-Boleráz complex “clearly avoids” the distribution area of Coțofeni I (Ciugudean 2000, 53).

Common elements during the Baden A and Coțofeni I chronological levels are those incised ornaments in the shape of sunken triangles performed through grooving or wide incisions, the fir-tree-shaped motif, and the relief girdles (Crișan 1998, 3). A case of Coțofeni I pottery adopting elements from the Cernavodă III background

consists of pots with double handles (Roman 1976, 37, Pl. 58/2). The same influence is also reflected in the pottery shapes with tubular handles attached horizontally, with small opening, and elevated ends (Roman 1976, Pl. 57/1; 59/1). One can note that these types of handles also feature in the case of the Coțofeni discoveries from Bodo. It is certain that the discovery from Bodo is the earliest of this type from the western part of Romania; besides the presence of pots with applied tubular handles there were also pots of type III b, in their turn present among early Baden discoveries (Roman 1976, 53, Pl. 63/17).

Regarding the relations between the Coțofeni pottery and the Baden-type pottery, T. Horváth speaks of a strong influence of the first upon the second in the south-eastern area of Slovakia and in the north-western part of Romania (in the Satu Mare area); this phenomenon took place during the classical Baden IIB-III-IV/Coțofeni II horizon, but also during the Retarded Baden/Coțofeni III horizon (Horváth T. 2009, 109-110). In the Classical Baden/Coțofeni II horizon in south-eastern Slovakia one encounters several Baden sites where Coțofeni pottery has been discovered; these are: Zalužice (Horváthova 2008, 115), Zemplínske Kopčany (Horváthova 2008, Fig. 2/1, 4), Zemplínske Hradište (Horváthova, Chovanec 2006; Horváthova 2008, Fig. 3/1), Prešov (Horváthova 2008, Fig. 3/3), and Šarišské Michaľany (Horváthova 2008, Fig. 2/5, 8-9). In north-western Romania archaeologists have discovered the most numerous sites dated to the Classical Baden phase that included Coțofeni II pottery; there are 17 such sites (Sava 2008, Tb. 1). Sites that belong to the Classical Baden horizon where the phenomenon of “Coțofenization” has been noted have been discovered in Hungary as well, such as Bucsa, Biharugra, and Ipolydamásd “Sziget” (Bondar 1984). For the Retarded Baden/Coțofeni III horizon in Hungary there are numerous Baden sites that contained Coțofeni pottery elements; one must note that such finds have not been made beyond the line of the Danube (Bondar 1984; Horváth T. 2009, 111). Among the Baden settlements containing Coțofeni-type pottery one can also mention the site in Hódmezővásárhely “Gorzsa”; fragments of cups decorated with successive pricks were discovered there (Banner 1956, Pl. LV/38-39, 40, 42-43).

A series of discoveries located in Banat show a situation of mix between Baden and Coțofeni pottery; under this respect one must mention the sites in Băile Herculane “Peștera Hoților” and “Peștera nr. 1”, Cuptoare “Piatra Ilișovei” (Kalmar, Oprinescu 1986, 201, 203), Parța “Așezarea 5” (Kalmar, Oprinescu 1986, 199, 201, Fig. 4-7) and Moldova Veche “Complexul Școlar Industrial” (Kalmar, Oprinescu 1986, 199, 201, Fig. 1, 3). Besides the discoveries mentioned above, one can also make note of the numerous Coțofeni settlements from Transylvania where Baden-type pottery has been discovered; such are the settlements in Cristești (Vlassa 1965, 19, Fig. 1/3), Ruda “Cireșata” (Andrițoiu 1979, 26, Pl. IV/18; Andrițoiu 1985, 13; Andrițoiu 1992, 18; Rișcuța 1996, 288, Pl. VII/9), Gligorești “Holoame” (Popa 2009, Pl. 428/1, 3, 5), Micești “Cigașe” (Rustoiu 1999, 95, Pl. I/5), and Pianu de Jos-Podeii (Popa 2009, Pl. 583/1-2, 7).

For the Lower Mureş Basin I shall mention the pottery discovered in Dud “Cioaca Chiciora” where pottery fragments decorated in the Baden manner were presents besides Coţofeni III pottery (Băcuet 1996, Pl. I/1-5; III/3). One pottery fragment once part of a dish, decorated with circular impressions (Pl. 40/19) in the Baden manner, was discovered in the Coţofeni III settlement from Săvârşin “Cetăţuie”.

The relations between the Coţofeni and Kostolac pottery groups are easily observed through the discoveries in Băile Herculane, where the first Kostolac pottery fragments featured in levels f and g (attributed by P. Roman to phase Coţofeni II, but recently attributed to phase III)⁵. Over the entire territory of Banat, during phase Coţofeni III one notes a wide distribution of the Kostolac pottery style; relevant sites for this are those in Bocşa Montană “Dealul Colţan-Grota nr. 1” (Rogozea 1987, 351, 360; Boroneanţ 2000, 24), Bocşa Montană “Dealul Colţan-Grota nr.2” (Rogozea 1987, 351, 360; Boroneanţ 2000, 24), Bocşa Montană “Dealul Colţan-Grota nr. 3” (Rogozea 1987, 351; Boroneanţ 2000, 24), Bocşa Montană “Peştera din Dealul Colţan” (Milleker 1897, 21-26; Roska 1942, 204; Müller 1965, 541; Petrovsky 1973, 389; Rogozea 1987, 351, 360), Bocşa Montană “Cetăţuica” (Petrovsky, Cadariu 1979, 48, Annex I; Ciugudean 2000, 65), and Moldova Veche “Humca” (Roman 1976, 16, 44).

As for the relations between the Coţofeni and Vučedol pottery, one can turn to a few Coţofeni sites where Vučedol-type pottery has been discovered; among these sites one can also mention Băile Herculane “Peştera Hoţilor” (Popescu 1970a, 522, no. 5; Roman 1976, 55), Deva “Dealul Cetăţii” (Rişcuţa 2000a, 207, 211, Pl. IV/3), Dubova “Cuina Turcului” (Roman Ş. 1967, 474; Boroneanţ 1968, 352, 355, Fig. 1/8-12, 14; Petrescu 2000, 19, pt. 3, Pl. C/1-19), Dubova “Peştera Moavăţ/Veterani” (Boroneanţ 1968, 352, 355, Fig. 1/1-7), Ineleş “Peştera La Găuri” (Petrovsky *et al.* 1981, 434-435, Pl. VII/1-2, 4), Jupalnic (Boroneanţ 1968, 354), Ostrovul Corbului (Boroneanţ 1968, 352, 354-355, Fig. 1/13, 15-16; Roman 1985, 118), Ostrovul Şimian (Berciu 1939, Fig. 91/9), and Moldova Veche “Humca” (Roman 1976, 16, 83, pt. 1). On the basis of these discoveries one can state that the final stage of the Coţofeni III pottery, probably phases IIIb-IIIc, was contemporary to the first stage of development of the Vučedol-type pottery, thus phase A (Popa 2009, 980-987).

All the elements mentioned above support the identification of the synchronicity between Coţofeni II and Baden II-III and make the contemporaneity of Coţofeni III and Baden IV possible. Under this respect (Ciugudean 2000, 54) one can identify certain Baden III-IV decorative motifs that are present in the Coţofeni III settlements from Româneşti (Roman 1976, Pl. 35/15), Călnic (Roman 1976, Pl. 35/17), and Poiana Ampoiului “Piatra Corbului” (Ciugudean 2000, Pl. 72/8).

⁵Roman 1976, 40, 43, Fig. 6. The beginning of the two-way pottery influences between the Coţofeni style and the Kostolac style was also identified by Spasić 2010, 165 in the beginning of phase III and IIIa, respectively.

Some researchers believe that the Kostolač pottery represent the end of the Baden pottery (Neustupný 1973, 326-328), while others believe that the first is distinct from the latter (Němejcová-Pavúková 1974, 349); phase Coțofeni III can be considered as synchronic to the beginning of Kostolac and thus, indirectly, supporting the parallel development of Coțofeni III and Baden IV/Retarded (Ciugudean 2000, 54).

Taking into consideration those presented above, one reaches the synchronicity between Boleráz Late Classical and/or Post-Boleráz IC/IIA – Baden Early Classical – IIA/B – Coțofeni I; Baden Classical IIB-III-IV – Coțofeni II; Baden IV/Retarded – Coțofeni III (Horváth T. 2009, 108-110).

D. Nikolić argued, on the basis of the discoveries made on the territory of present-day Serbia, that the Kostolac-type discoveries originated in the Cernavodă III complex and appeared the same time as Baden (phase II/B) and Coțofeni I; nevertheless, he mentions the fact that there is as yet no clear proof to confirm the onset of Kostolac-type pottery right after the “introduction” of the Cernavodă III elements (Nikolić 2000, 90). The formation of Kostolac pottery (phase I) is synchronic to Baden B/II, and its end to Vučedol A; this argument triggers the hypothesis that Baden C/III is contemporary to Coțofeni II-IIIa, b, while Kostolac III is contemporary to Vučedol A (Nikolić 2000, 91, 93-95).

The first radiocarbon data related to the Coțofeni pottery are those sampled from Băile Herculane “Peștera Hoților”. According to the four dates, the end of phase II can be dated sometime around 2400 BC, samples 6 and 7 have the same value 2470 ± 50 BC (c. 3500 BC), sample 8 is calculated to 2300 ± 60 BC (c. 3200-3100 BC), while sample 10 to 4360 ± 60 BC (c. 3400-3000 BC) (Roman 1976, 67, footnote 11).

Three other samples were subsequently taken from Ostrovu Corbului (Linick 1979, 186-202) (phase II-III), between 2600-2300 cal BC (See the new recalibration in Ciugudean 2000, 58). Five samples were collected from the site in Poiana Ampoiului “Piatra Corbului”, three of which were sent for processing in Zürich and the other two in Berlin (Ciugudean 1998, 71; Ciugudean 2000, 57-59). According to these dates, phase Coțofeni III developed between 2900 cal BC and 2800 cal BC (Ciugudean 1998, 71). The data obtained from Poiana Ampoiului are completed by those from Livezile “Baia”, sampled from an environment chronologically subsequent to the Coțofeni pottery. According to these data, the site in Livezile “Baia” was dated between 2780-2580 cal BC (2σ) (Ciugudean 1997, 22; Ciugudean 1998, 72). Thus, H. Ciugudean believes that phase Coțofeni II developed during the interval 3300/3200-3100/3000 cal BC (Ciugudean *et al.* 2005, 18), and phase III between 3100/3000 and the beginning of the so-called Livezile group, thus 2800/2700 cal BC (Ciugudean 2000, 59).

Unfortunately, the absence of radiocarbon sample series, collected from clear contexts, prevents from confirming the relative chronology of the Coțofeni pottery presented above. Returning to the pottery from Săvârșin “Cetățuie”, on the basis of

the decoration manner and the identified shapes one can state that it belongs to phase Coțofeni III.

Discussions

For the basins of the Lower Mureș and of Crișul Alb, one can note that Coțofeni-type discoveries were generally not identified in the plain area. A large concentration of discoveries is located in the area of the current-day city of Deva and another in the valley of River Crișul Alb, in the mountainous area. The majority of the settlements are located in mountainous or hilly areas, both on hill brows and in caves.

For a better understanding of the archaeological realities of the end of the Eneolithic, I shall subsequently enumerate a series of discoveries made in the vicinity of the settlement from Săvârșin “Cetățuia”. At the same time, this helps one place into a broader context the settlement under research here.

The archaeological test trench performed in Bretea Mureșană “Măgura Sârbilor” has led to the identification of two Coțofeni dwellings; a dwelling was attributed to each deposition level (Rotea 1981, 19-20, 22). In level I, lower, ca. 1 m in depth from the modern ground level, archaeologists identified a dwelling that had been partially disturbed by works in a stone quarry; this dwelling, labeled L1, was initially rectangular in shape, oriented E-W, and its preserved dimensions were: 7 × 2.5 m. From the perspective of the construction technique, the dwelling was constructed on an artificial terrace performed on the hill slope; the entire surface was then covered with a thin layer of clay, covered in its turn with a layer of river stones, while the faceted floor was created on top of this layer of stones; the floor was brick-red and in some areas black, made of clay mixed with a lot of chaff. The structure of the walls was made of posts and wattle, covered in adobe on the inside. According to the significant quantity of ash, M. Rotea believes that the roof was made of straw or reeds. Dwelling no. 2 partially overlapped the first and belongs to level II, upper. The uncovered area of the dwelling measured 3.5 × 1.5 m and was not fully excavated; the floor measured 0.07 m in thickness and was brick-red, in some areas black; the construction technique is identical to that of dwelling no. 1.

The researches in Prohodiște “Peștera Prihodiște” have led to the discovery of several archaeological features (Pescaru *et al.* 2001; Rîșcuța *et al.* 2003; Rîșcuța, Cosac 2004); among them one can mention a dwelling, measuring 3 × 3 m, with an inner hearth. The dwelling had been built on a floor consisting of limestone rocks covered with a layer of rammed clay; the hearth inside the dwelling was also built on a platform made of limestone rocks. C. Rîșcuța mentioned the fact that he has also identified traces of post holes that can be connected to the above-ground structure of the dwellings. Besides these features there were also four hearths (Pescaru *et al.* 2001; Rîșcuța *et al.* 2003; Rîșcuța, Cosac 2004; Rîșcuța *et al.* 2012, 63-64). Hearths V1 (with a diameter of 1.55 × 1.30 m) and V4 (diameter of 1.60 × 1.60 m) had been deepened and were concave in shape. Their thickness was of 10-20 cm and, from the

perspective of the construction technique; the core was made of ash. Hearth V2 had a diameter of 0.90×1 m and was oval in shape, while hearth V3, with a diameter of 1×0.90 m was circular in shape.

Through the test trench performed in 1970 in Susani “Râpi-Săcățuri” archaeologists have observed the traces of two dwellings, made of posts and wattle and daub, in the landslides created by the torrents (Dudaș 1976, 27). Two other pit-houses were discovered, in a natural profile, in Tauț “Dealul Rujelor” (Pădureanu 1982, 38). Remains of another dwelling were discovered in Țebea “Dealul Ruști”; the test trench performed by N. Harțuche revealed traces of daub with wattle impressions; one must state that the dwelling’s floor was also identified, built of clay mixed with sand, 4-6 cm in thickness. Another dwelling, with an inner hearth, is mentioned in Deva “Dealul Cetății” (Popa 2009, 146, pt. 18).

In Boholt “Ciuta”, I. Andrițoiu mentioned the existence of a “dwelling hearth, partially preserved, with pottery fragments, flints, and bone items on top of it” (Andrițoiu 1979, 19). The 2005 campaign in Dealu Mare “Ruști” (Pescaru *et al.* 2006, 147-149) has led to the discovery of an oval-shaped hearth built on a platform made of pottery fragments; around these elements archaeologists found agglomerations of pottery fragments, a hand mill, and numerous fragments of adobe.

Besides the mentioned discoveries made in Săvârșin “Cetățuie” one must mention the fact that a anthropic terrace was identified in sections S12, S14, and S19 and that this terrace was only visible on the hill’s northern side. The phenomenon is not unique to the area under investigation here; such terraces have also been encountered in Bretea Mureșană “Măgura Sârbilor” and Deva “Dealul Cetății” (Popa 2009, 144, pt. 9; Popa 2009, 146, pt. 18). C. I. Popa’s analysis has indicated a total of 30 settlements in the entire Coțofeni area where similar terraces were identified (Popa 2009, 143-150). They were meant for habitation (Bretea Mureșană “Măgura Sârbilor”) or various activities (Săvârșin “Cetățuie”) (Popa 2009, 142; Hügel *et al.* 2010, 169).

Conclusions

Though not many data are available on the Coțofeni settlement in Săvârșin “Cetățuie” one can note that it follows the pattern of the other contemporary settlements from the nearby area. Just like many of the Coțofeni settlements, the one from Săvârșin is located on the plateau of a prominent hill that dominates the Mureș Valley and at the same time provides very good visibility and accessibility.

Unfortunately, both the formation of the Dacian settlement and the illegal construction of mobile telephone antennas have led to the destruction of a large part of the Eneolithic settlement. The old excavations, coordinated by M. Barbu, have led to the identification of a dwelling; no details are available on its shape, construction type, or building technique. Thus, the only undisturbed complexes are the few hearths and pits dug into the rock identified during the more recent excavations. Just like other Coțofeni settlements, here was located an anthropic terrace on the northern

side of the plateau. The few elements of the settlement (hearths and pits) were identified on this narrow terrace. In the lack of other data I am unable to discuss the structure of the settlement.

The discovery of the few conical remains obtained through the perforation of axes indicates the fact that stone axes were manufactured inside the settlement. The cones were identified in sections S1, S14, and S19, on the anthropic terrace, near hearth Cx 48. An impressive number of pottery fragments and animal bones were discovered over the entire uncovered part of the terrace. All these elements indicate that an intense activity was performed in this area. On the basis of the fauna analysis one can also mention that cattle predominated in the economy of this community.

Acknowledgments

I wish to thank the entire research team of the site in Săvârșin “Cetățuia”: foremost to Dr. P. Hügel who has supported me throughout this endeavor, to my colleagues G. P. Hurezan, Dr. V. Sîrbu and Dr. Cristina Bodo. I am also grateful to Dr. Florin Gogâltan for proofreading the text and offered useful suggestions. MA N. Kopancs and R. Tănăsache have drawn the illustrated artifacts and Dr. A.-M. Gruia has translated the text into English.

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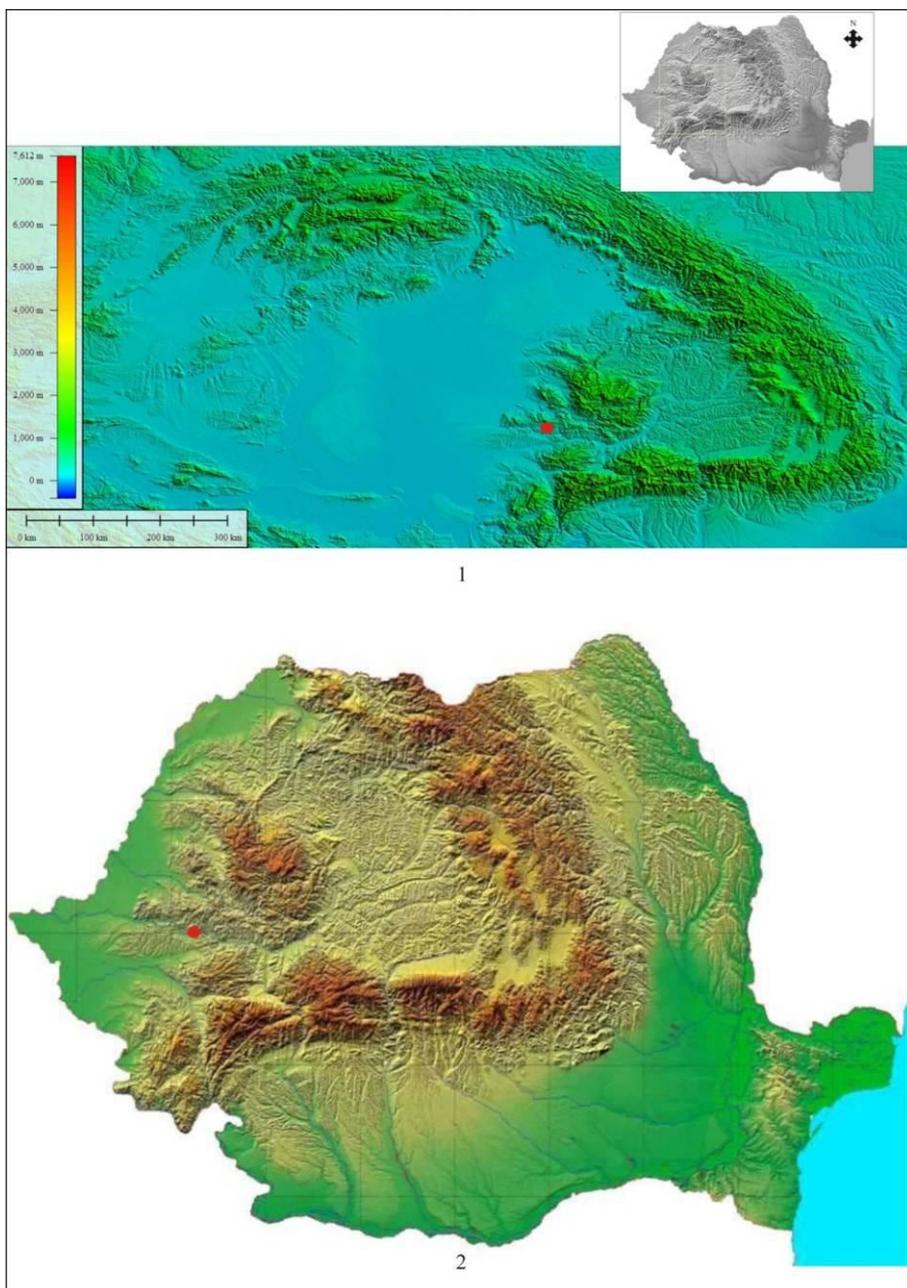


Plate 1. 1. Map of the Carpathian Basin with the localization of the site; 2. Map of Romania with the localization of the site.

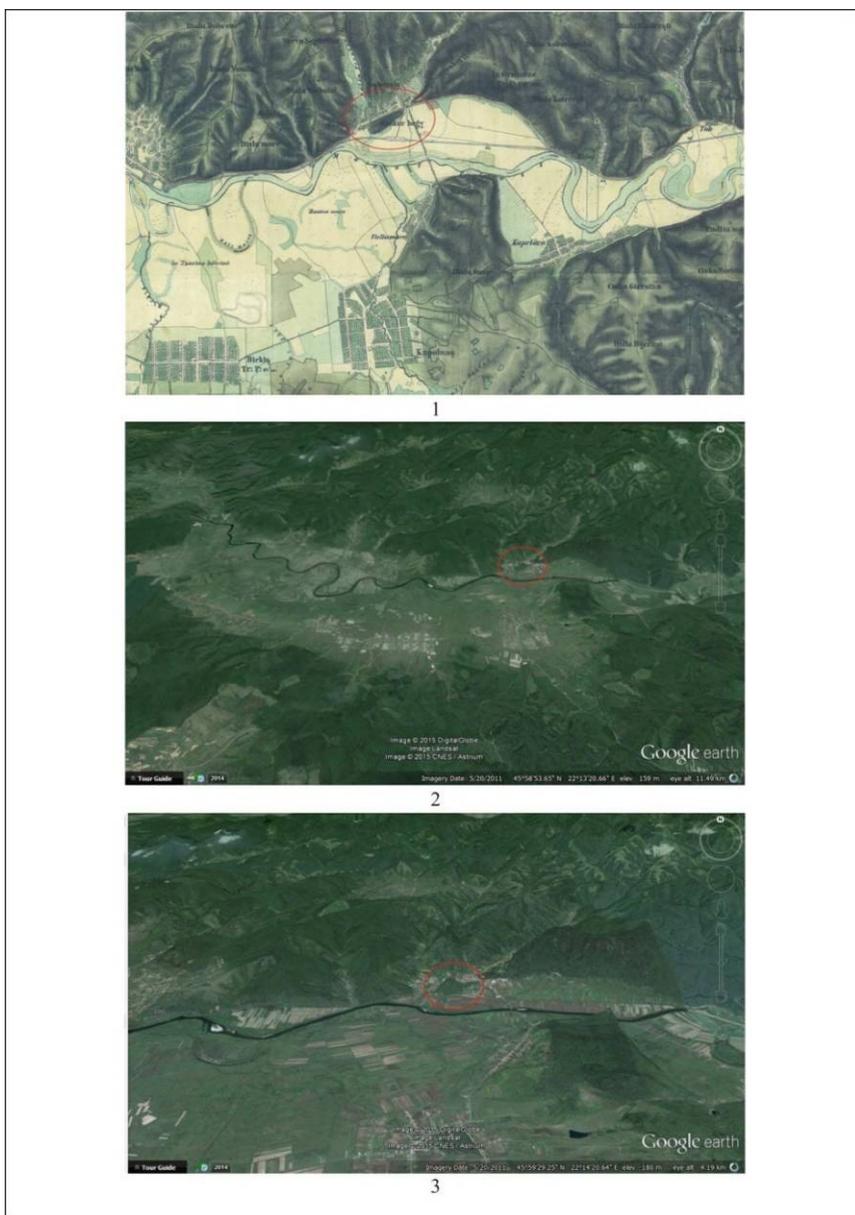


Plate 2. 1. The second Austrian military topographic survey (1819-1869) with the localization of the site; 2-3. The relief of the studied region with the localization of the site (source Google Earth).

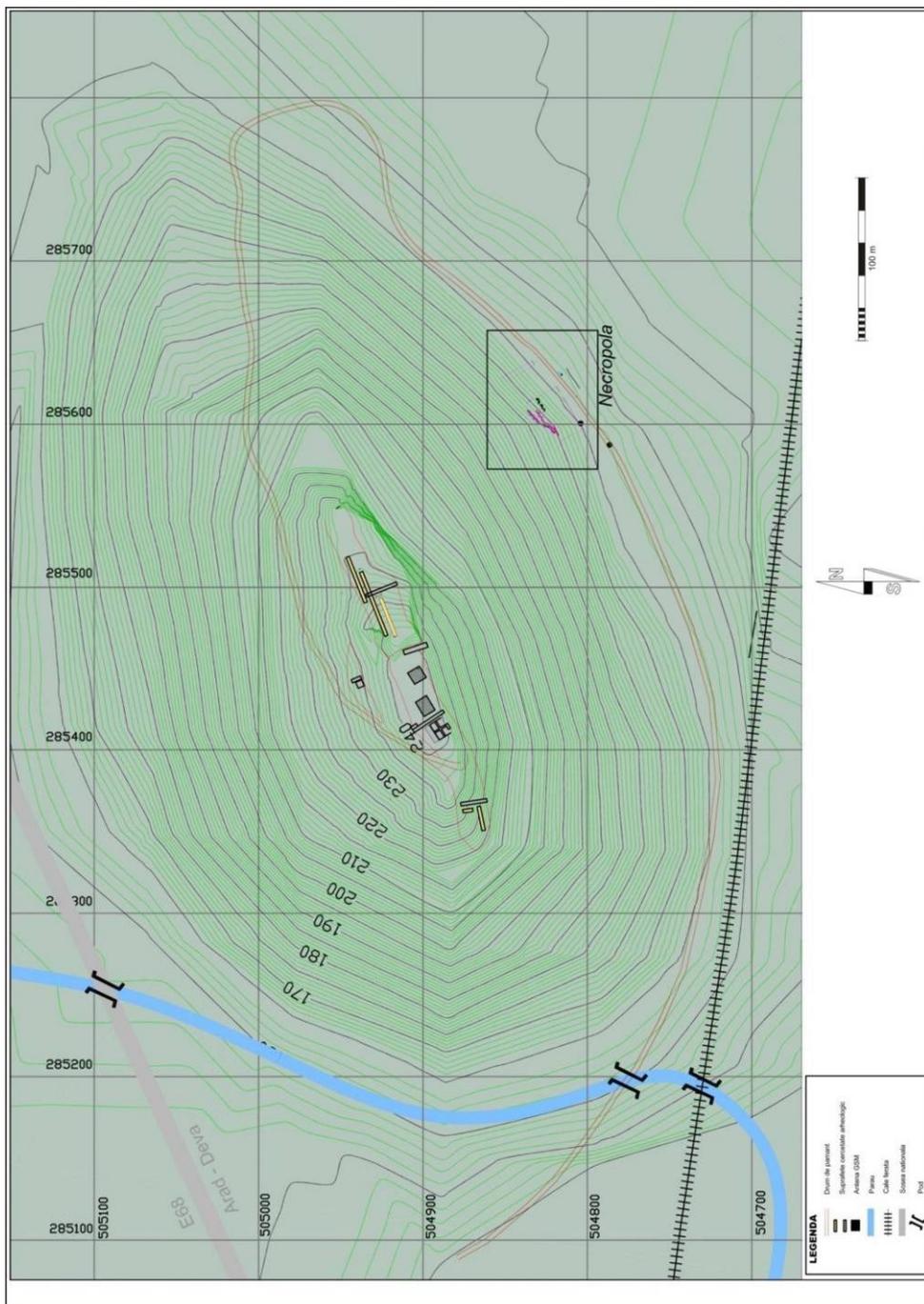


Plate 3. Topographical plan of the archaeological excavations.

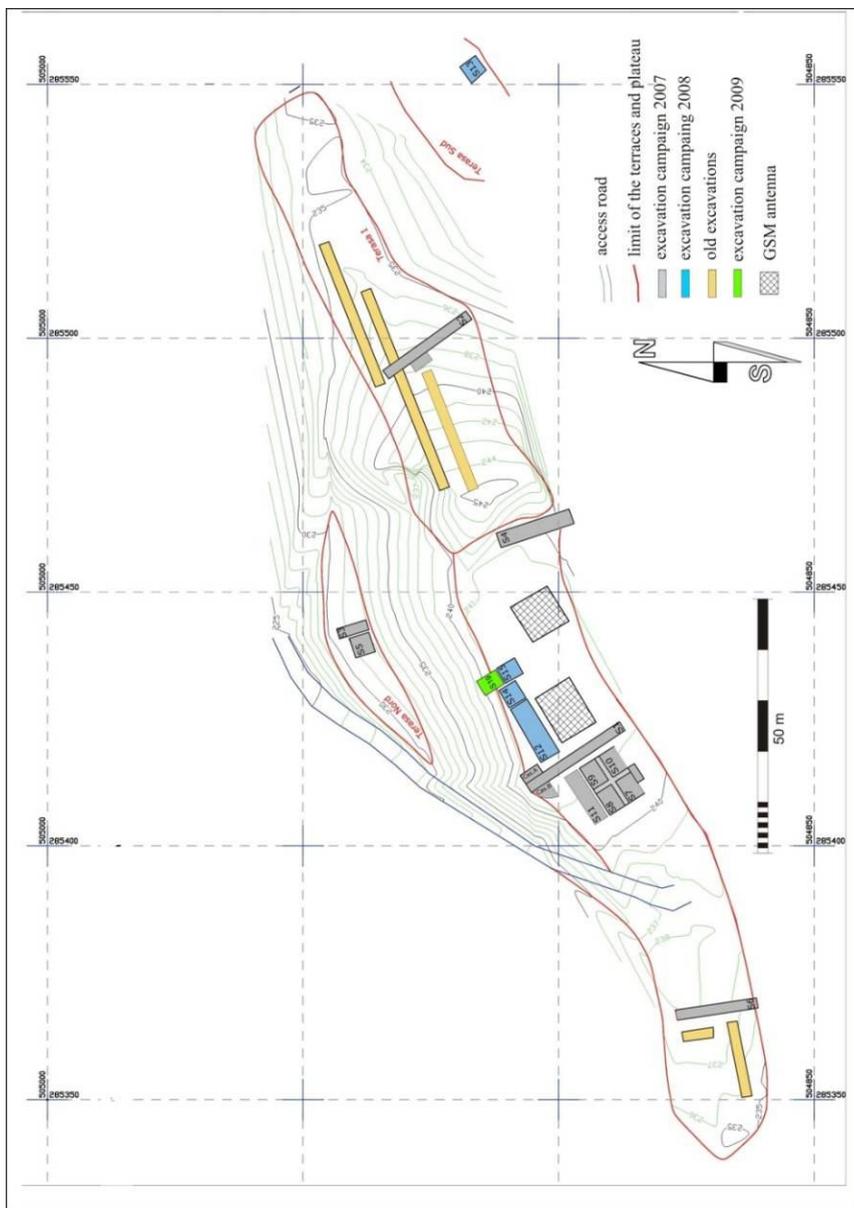


Plate 4. Topographical plan of the archaeological excavations.

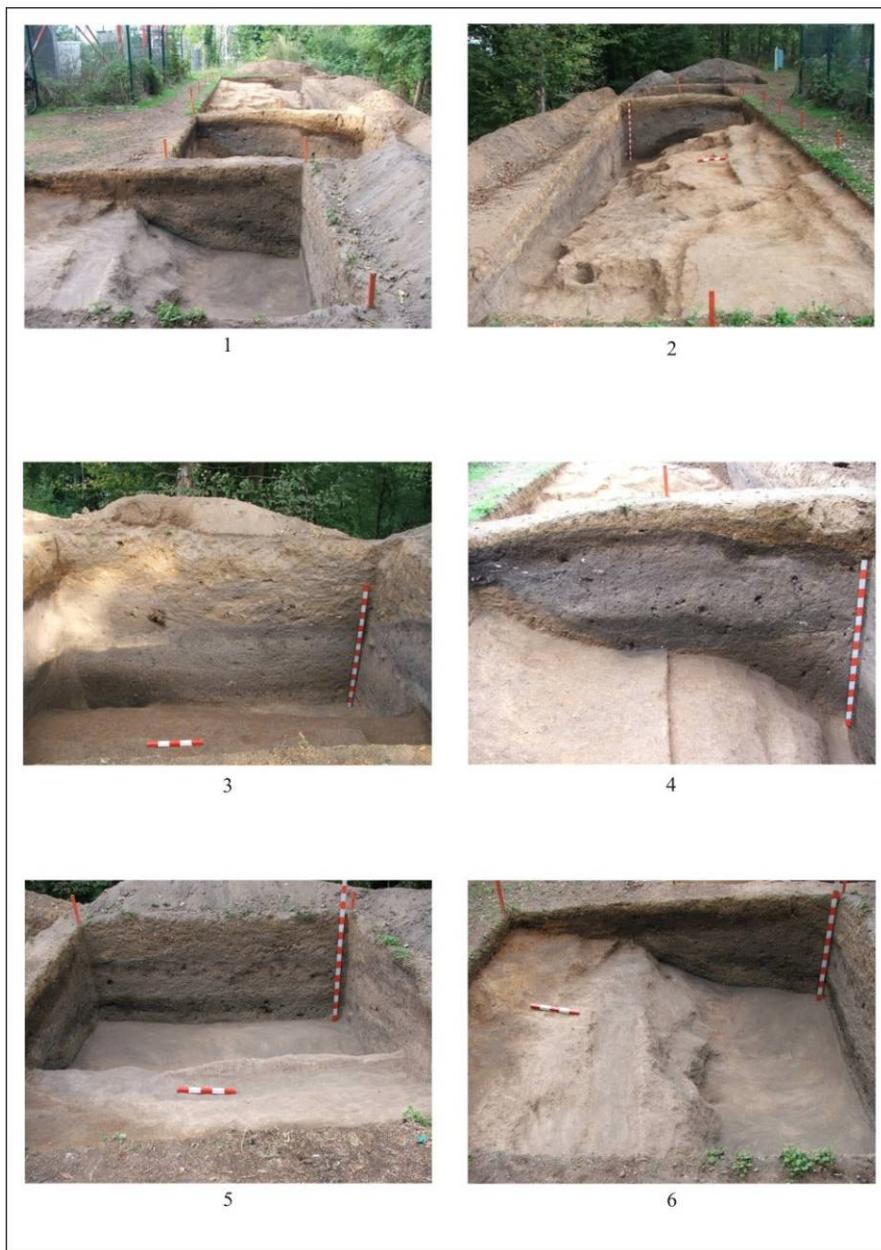


Plate 5. 1. General view of the trenches S12, S14, S 14; 2. Trench S12; 3. Trench S14; 4. S-V profile of trench S14; 5. S-V profile of thrench S15; 6. Trench S15.



Plate 6. 1-2. Trench S19; 3-4. Hearth Cx_48, S19.

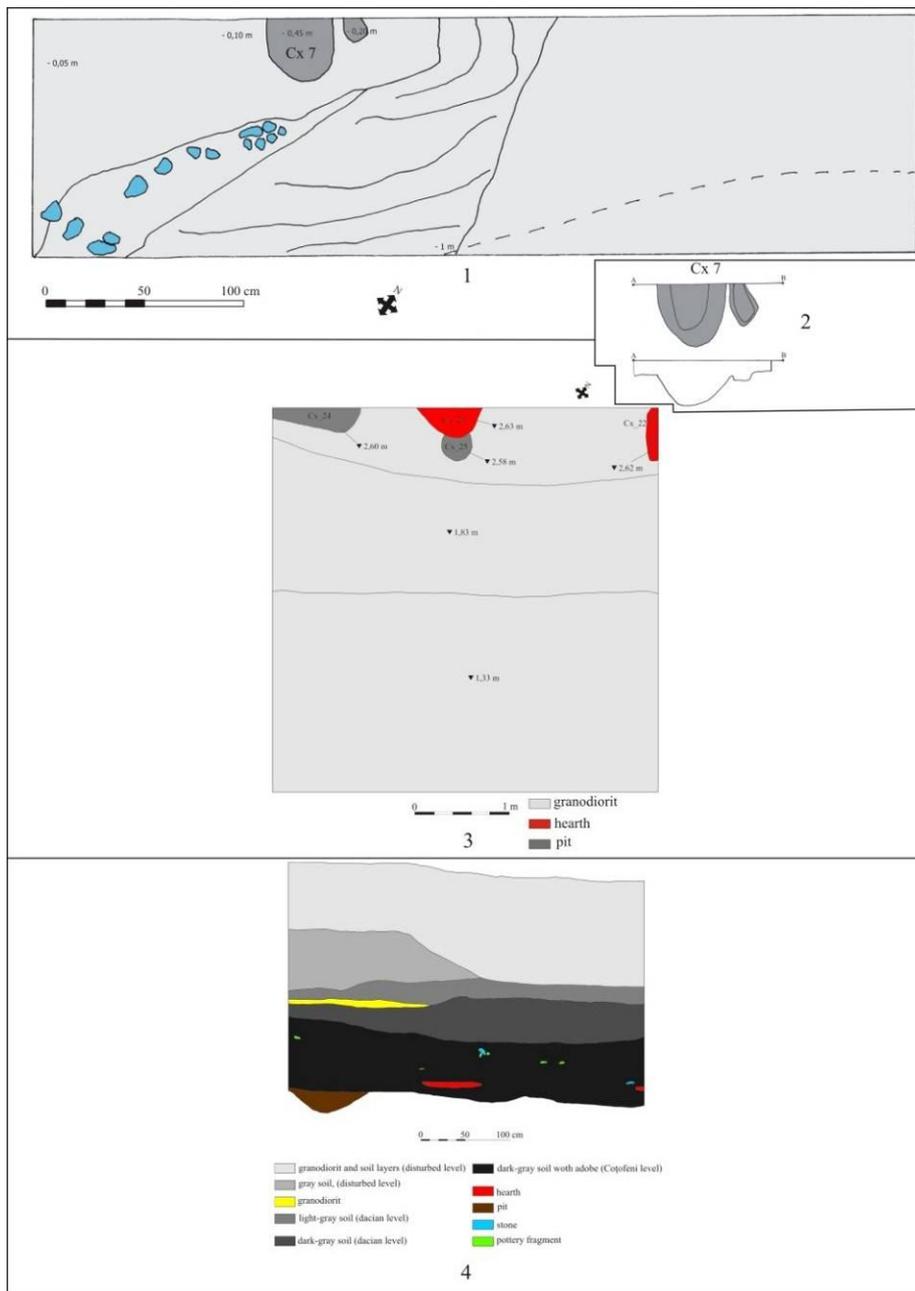


Plate 7. 1. Trench S11; 2. Feature Cx 7; 3. Trench S14; 2. N-V profile of trench S14.

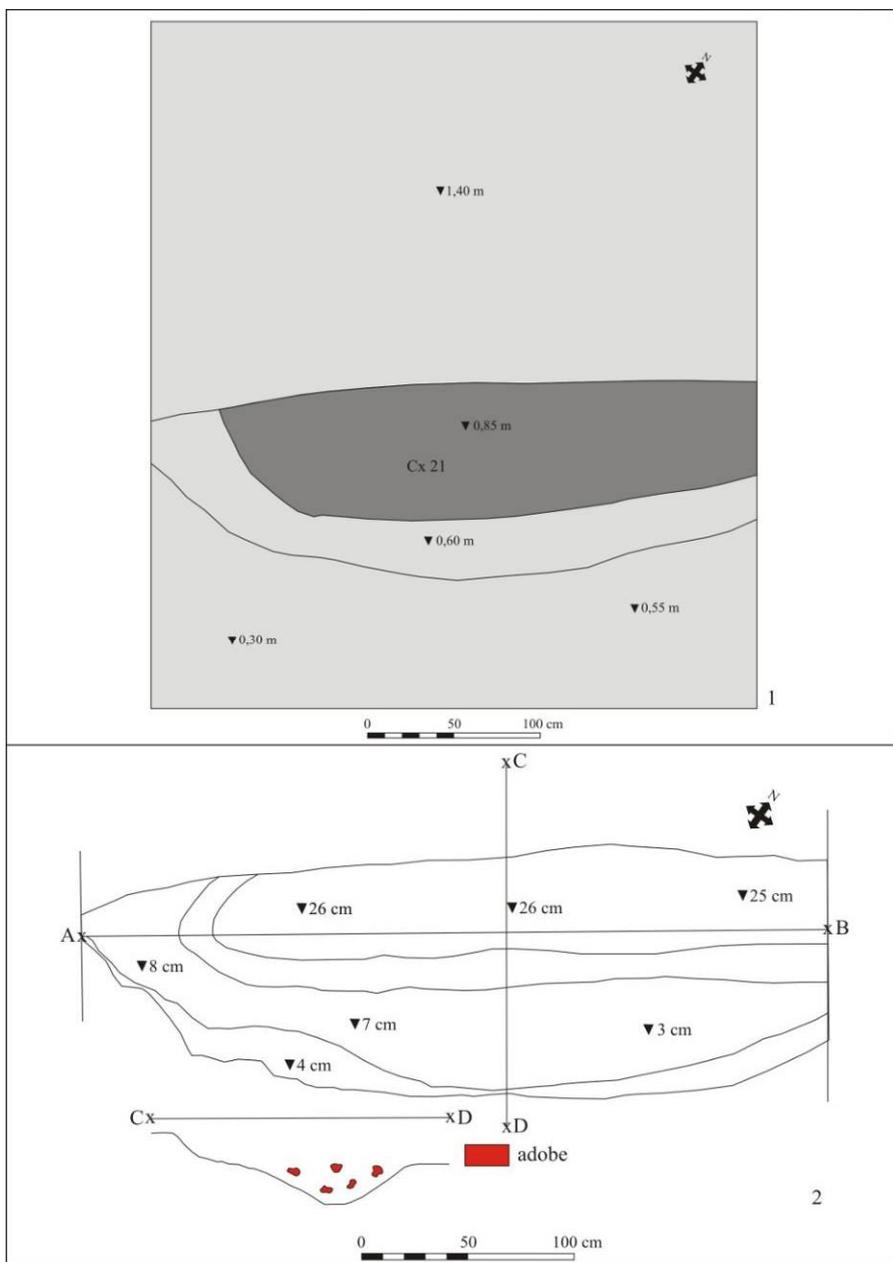


Plate 8. 1. Trench S15; 2. Feature Cx 21.

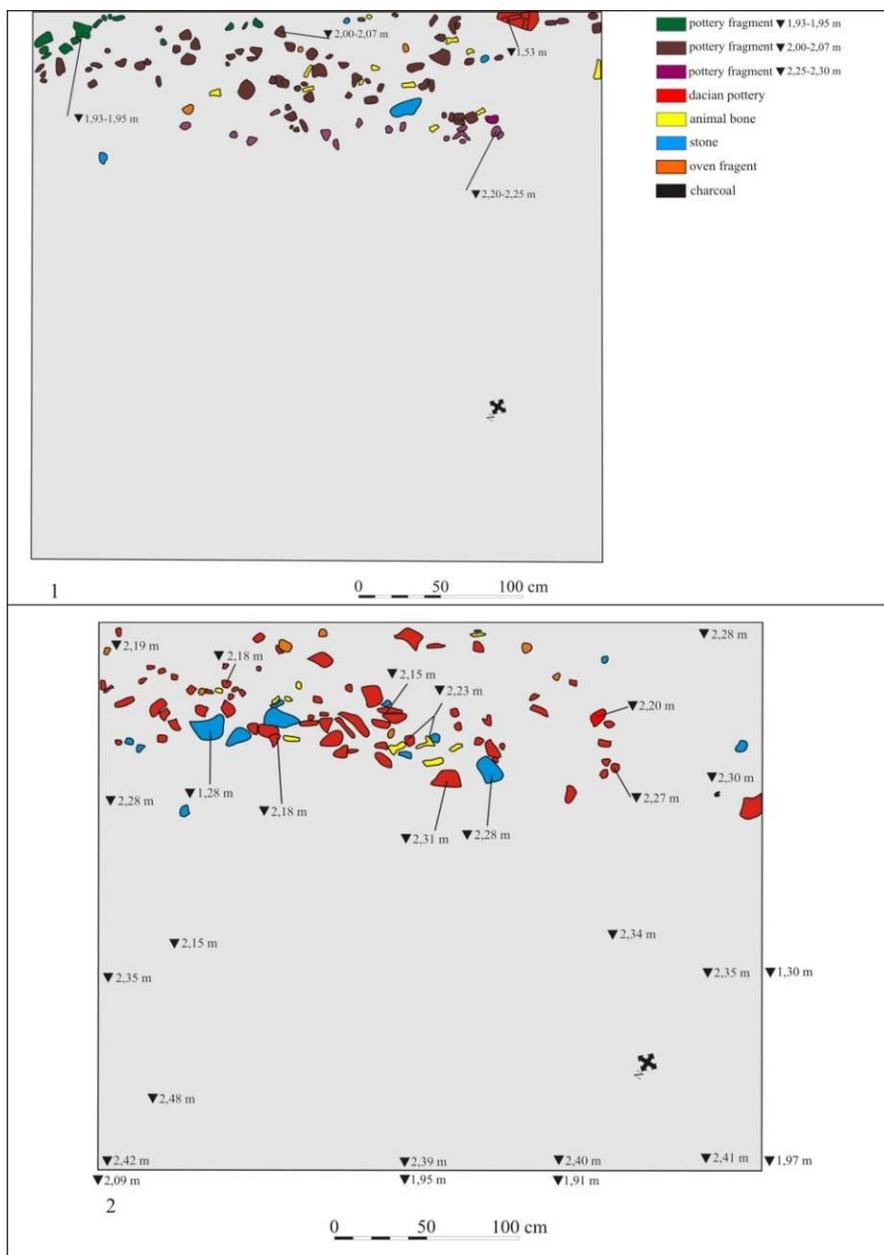


Plate 9. 1. Trench 19 a the depth between 1.93 and 2.30; 2. Trench 19 a the depth between 2,15 and 2,30 m.

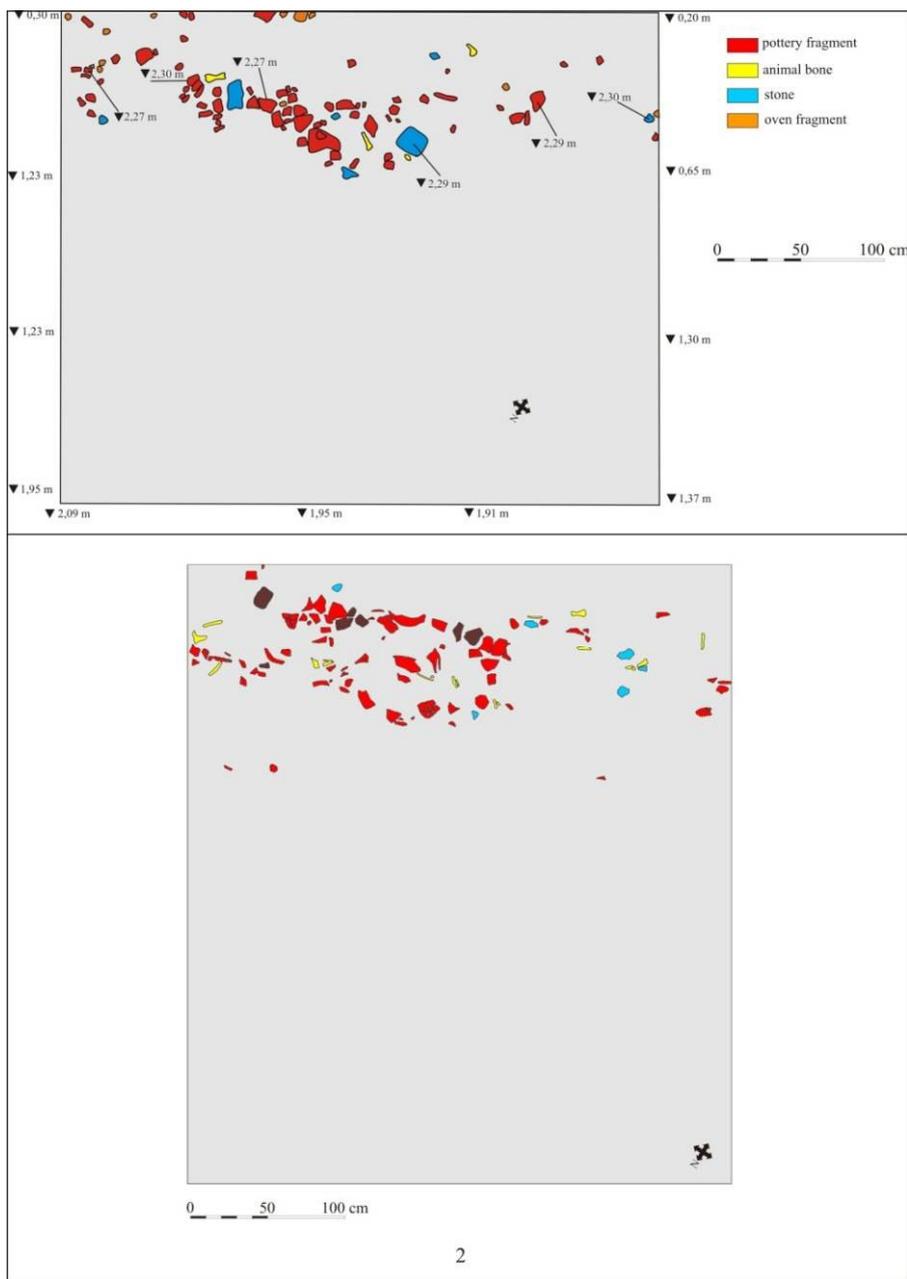


Plate 10. 1. Trench 19 a the depth between 2,27 and 2,30 m; 2. Trench 19 a the depth between 2,30 and 2,45 m.

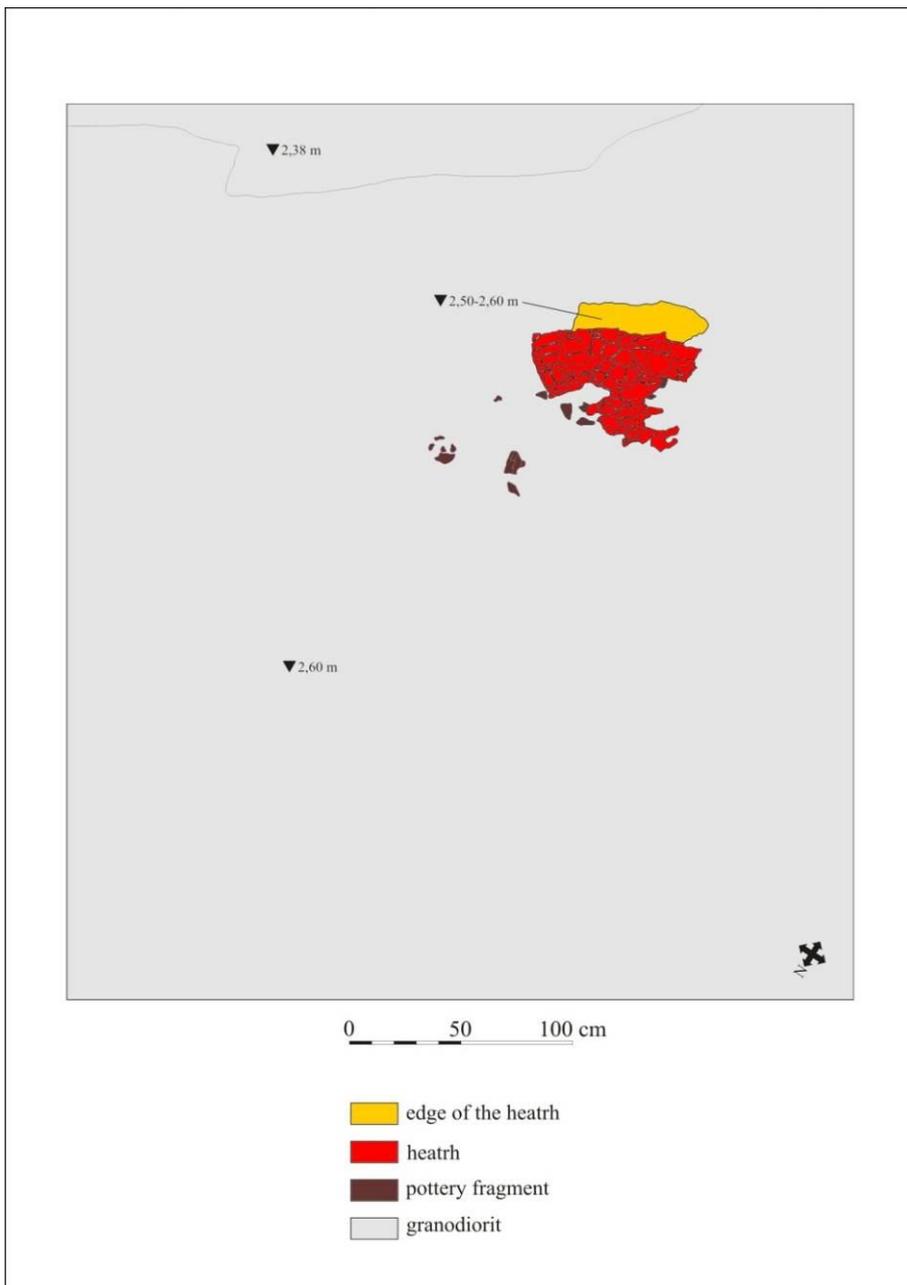


Plate 11. 1. Trench S19.

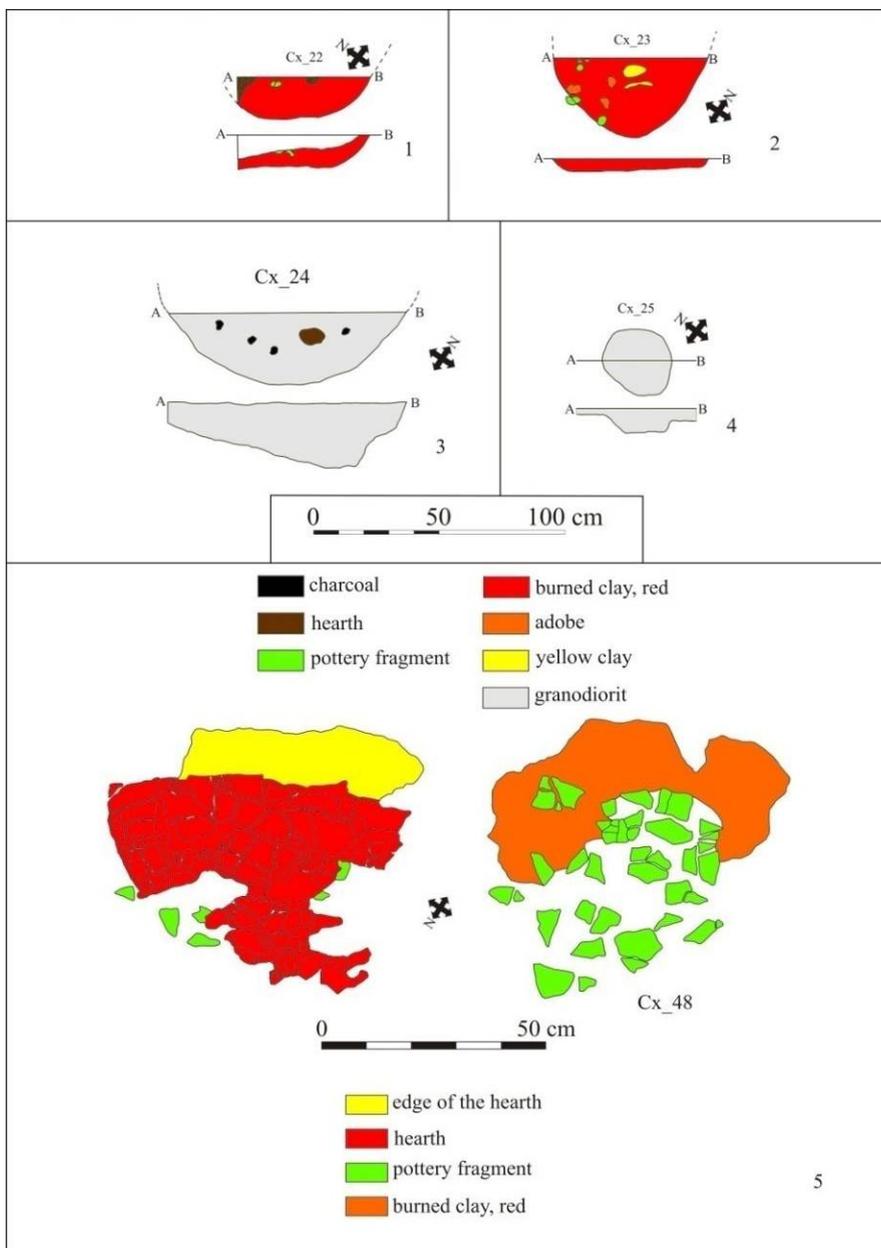


Plate 12. Features from trenches S14 și S19.

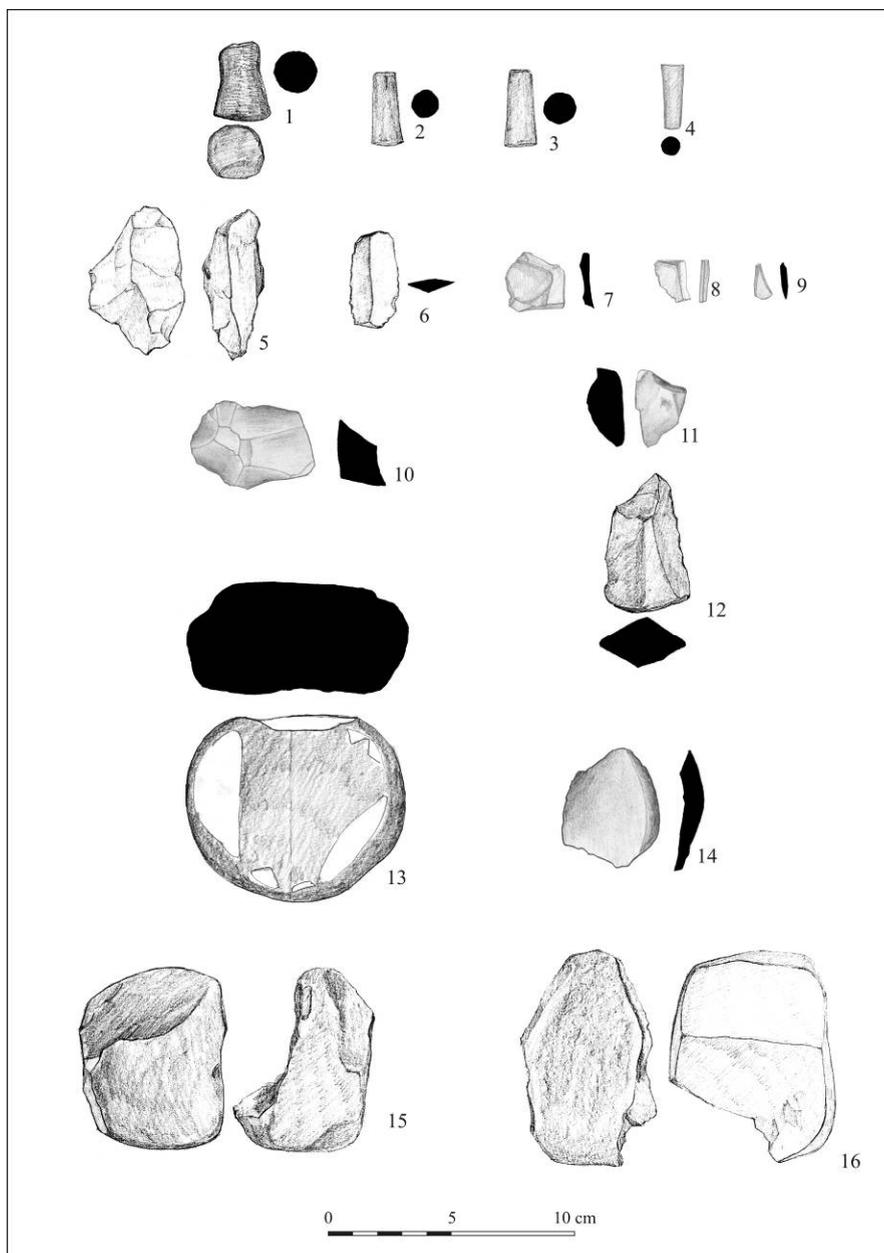


Plate 13. Lithic artifacts. 1. Trench S1; 2. 2-3, 6; 13; 15-16. Trench S14; 4; 7-9; 12
14. Trench S19; 5; 10-11. Trench S12.

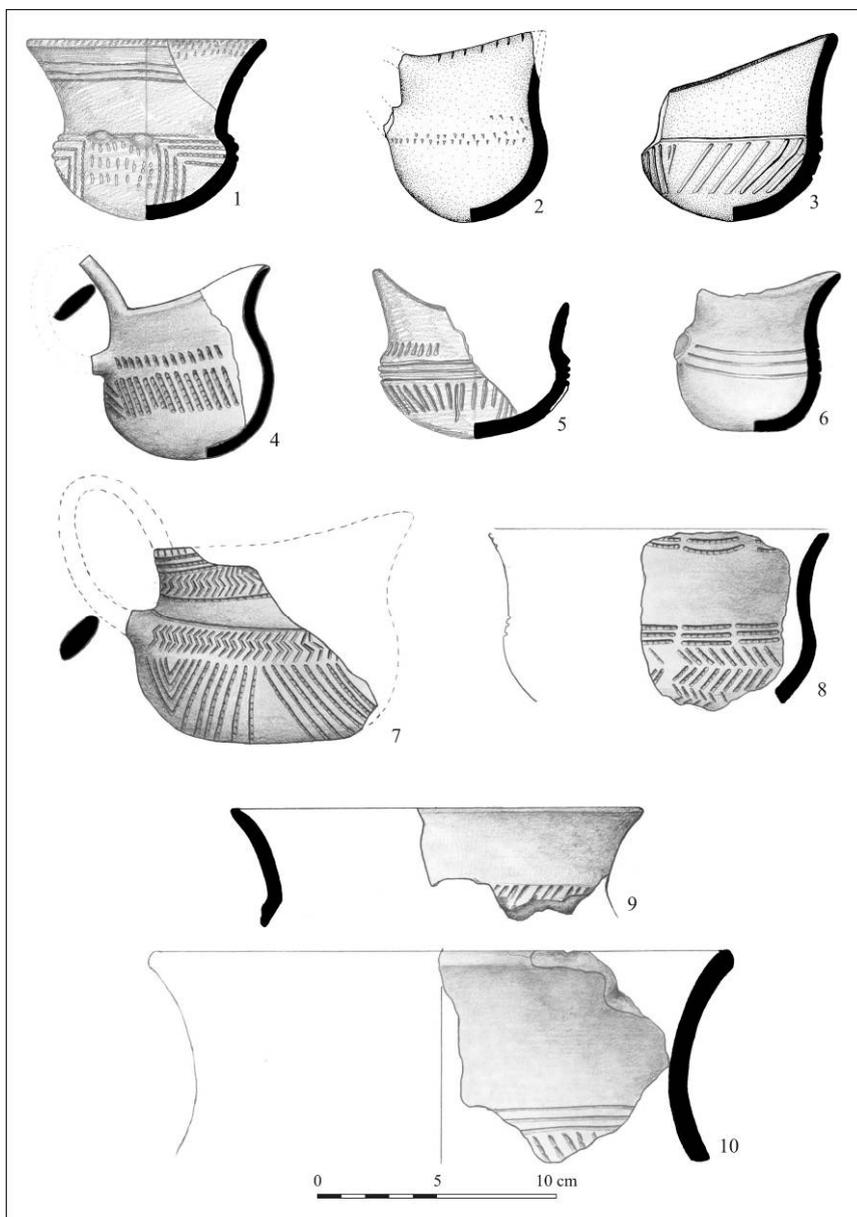


Plate 14. Pottery. Trench S19.

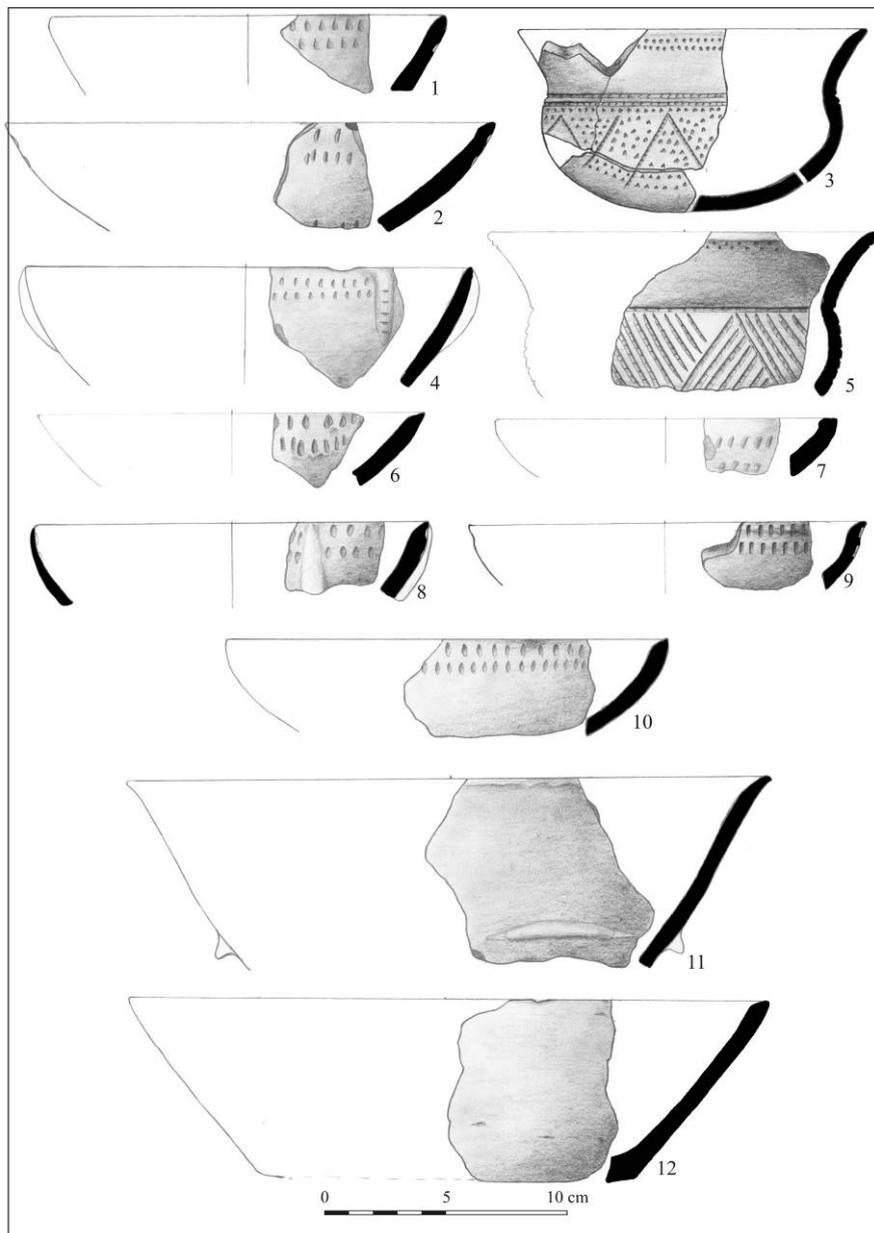


Plate 15. Pottery. Trench S19.

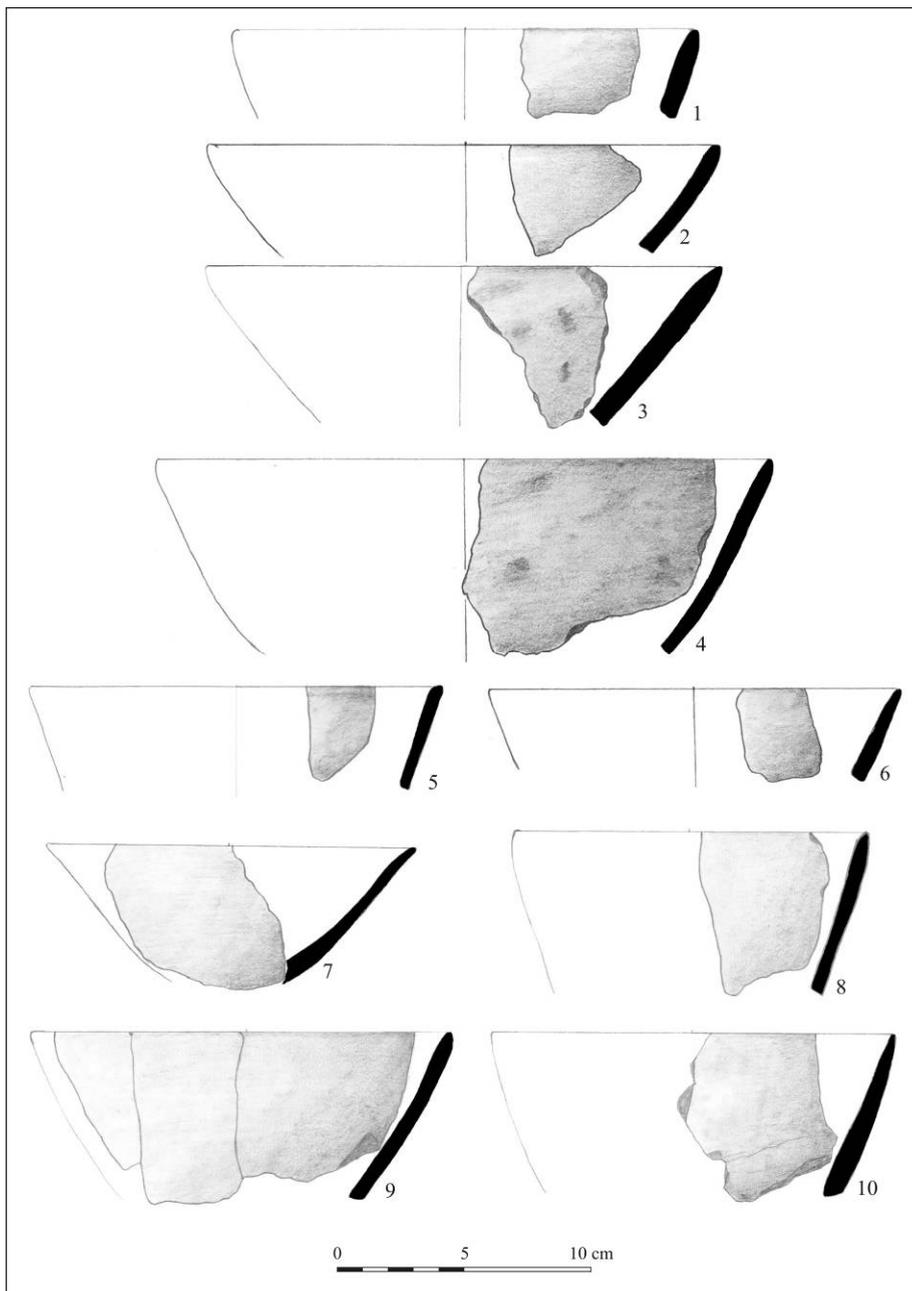


Plate 16. Pottery. Trench S19.

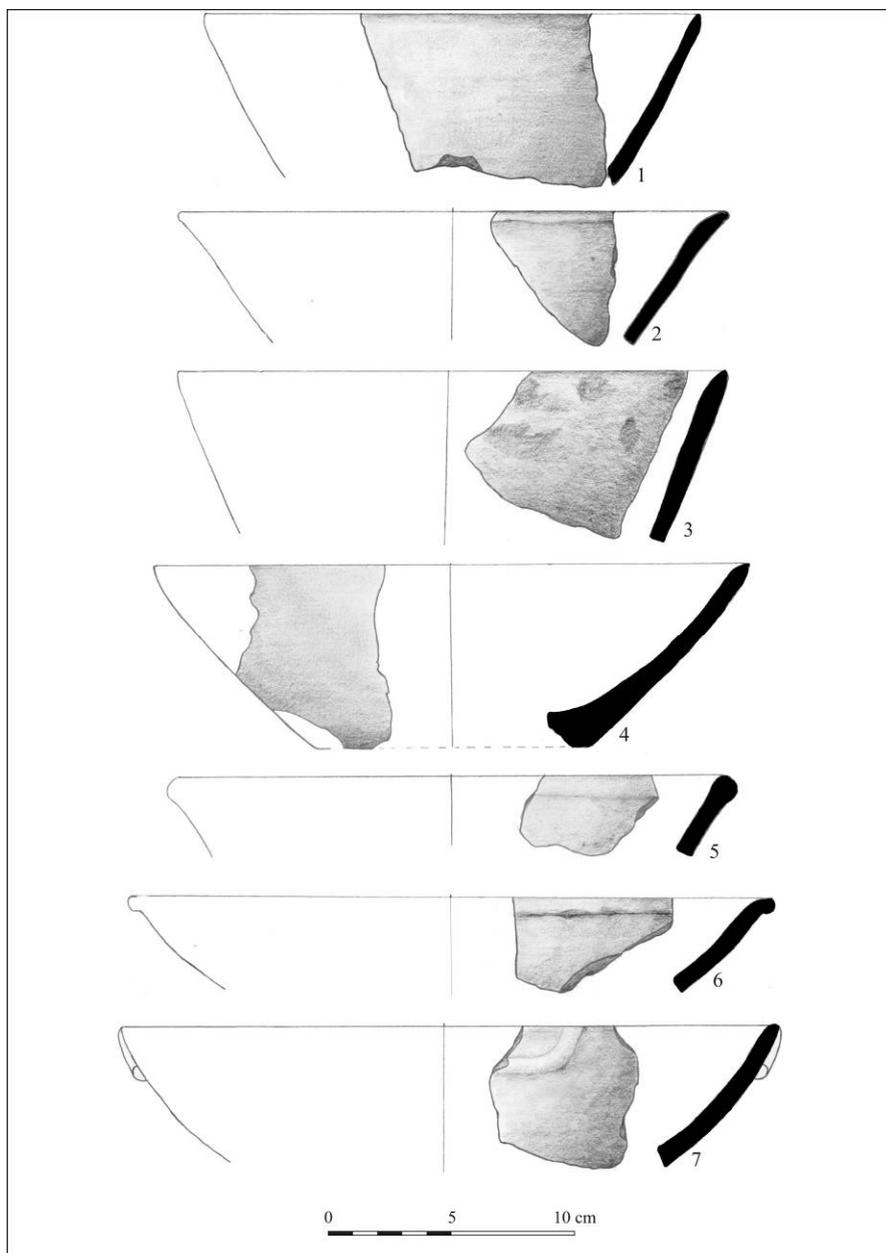


Plate 17. Pottery. Trench S19.

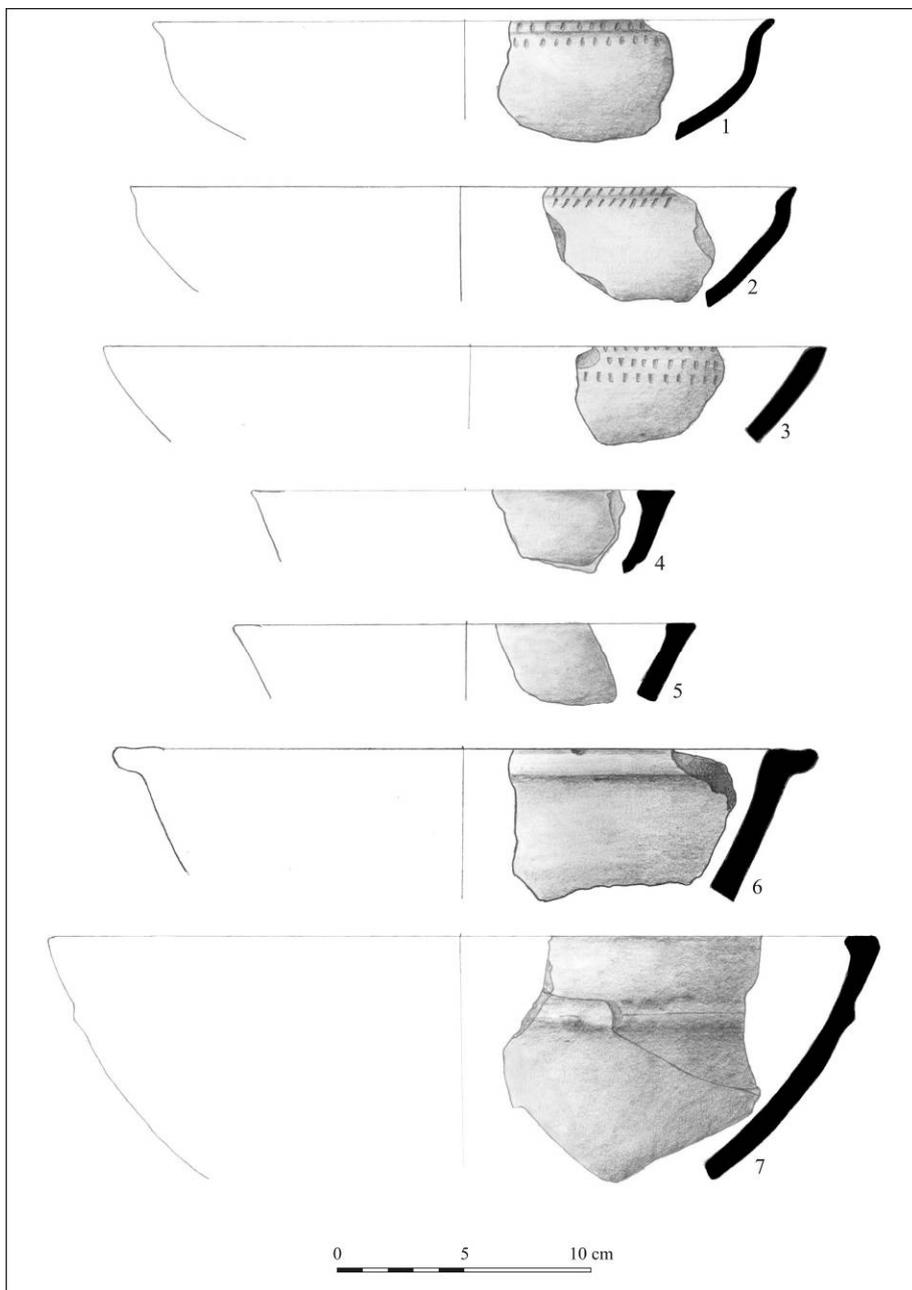


Plate 18. Pottery. Trench S19.

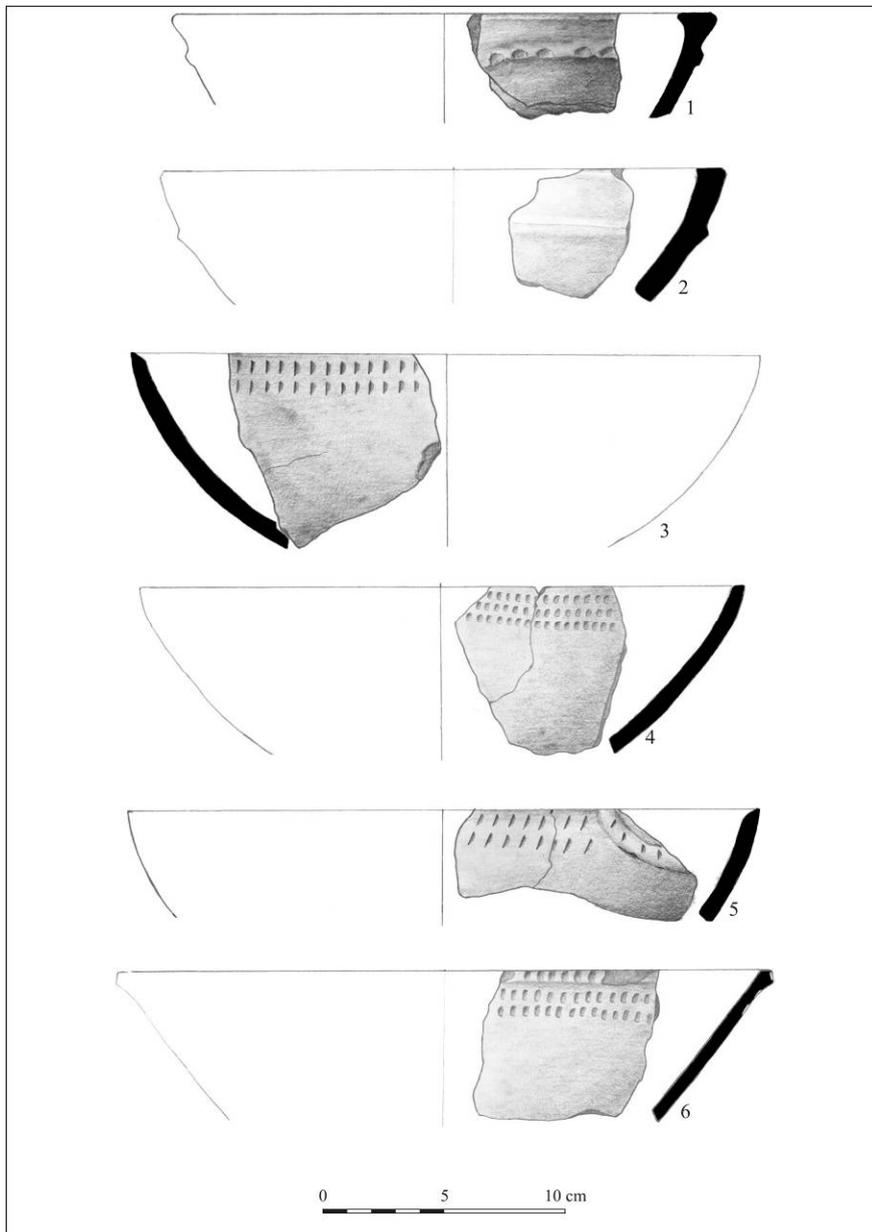


Plate 19. Pottery. Trench S19.

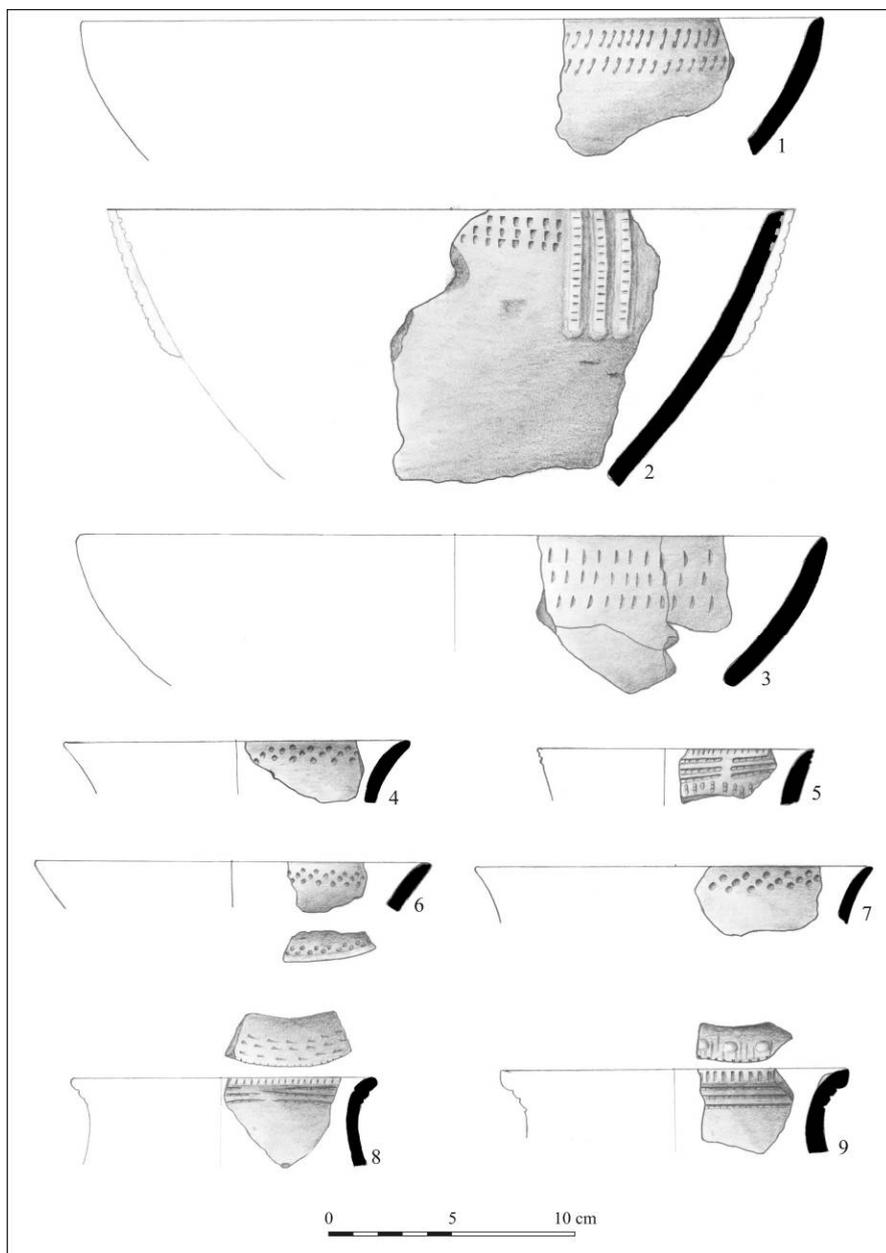


Plate 20. Pottery. Trench S19.

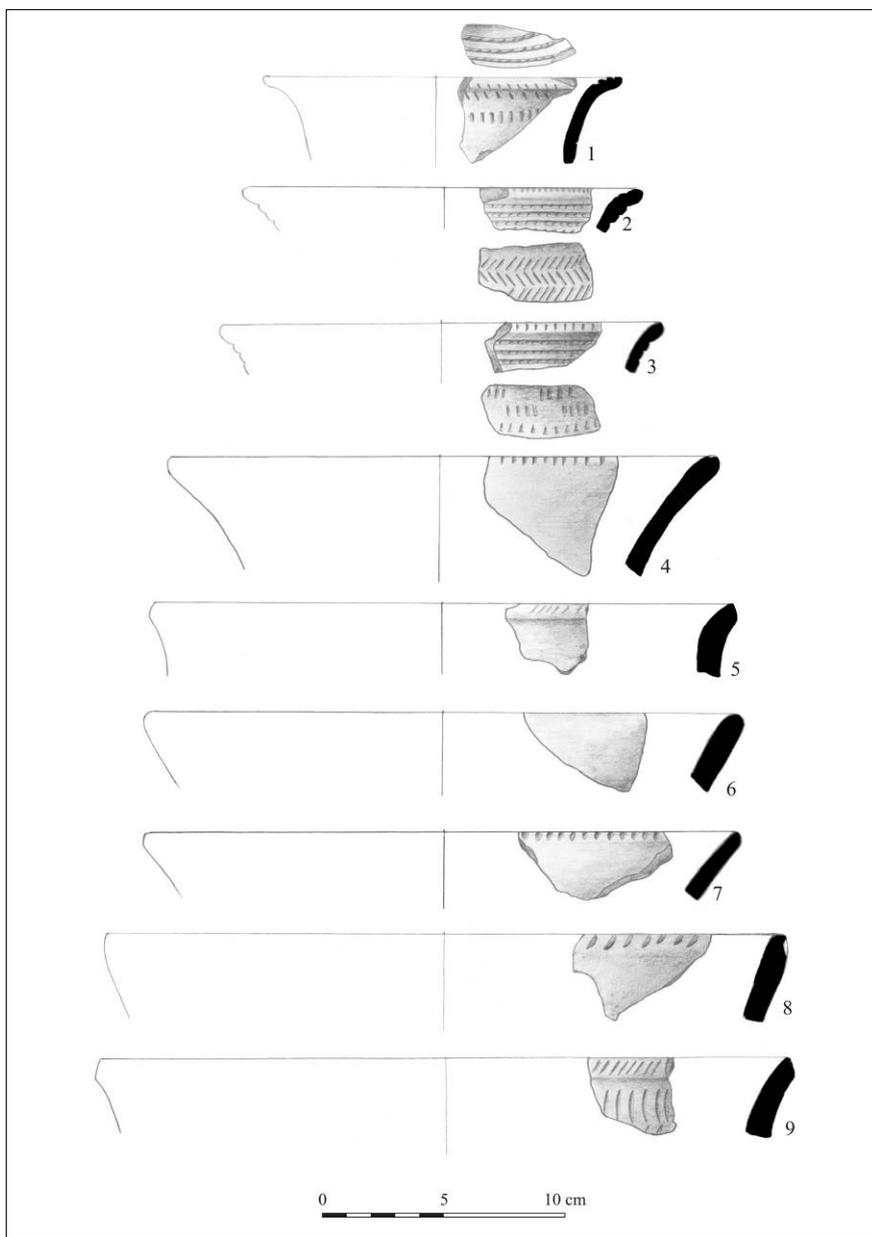


Plate 21. Pottery. Trench S19.

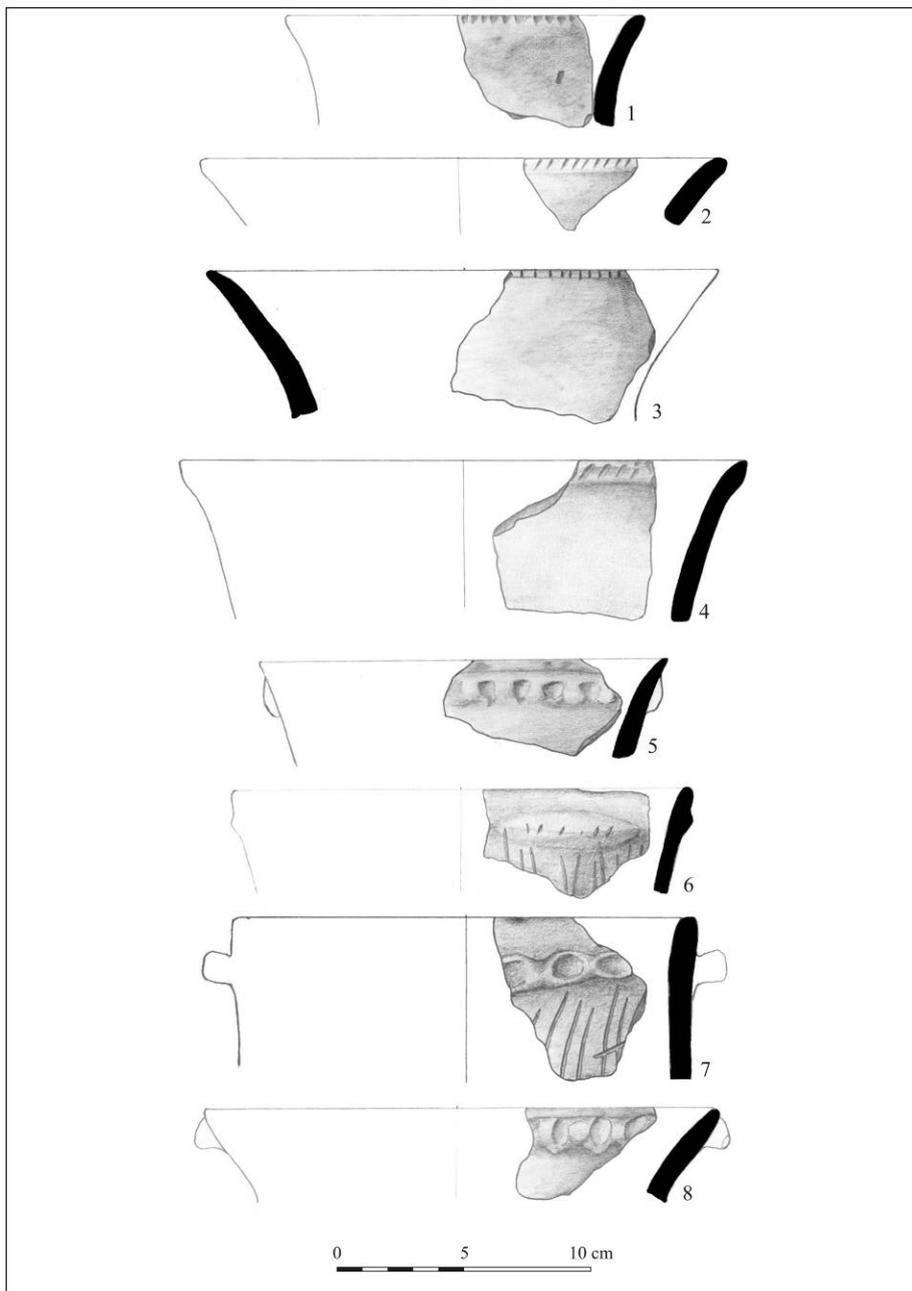


Plate 22. Pottery. Trench S19.

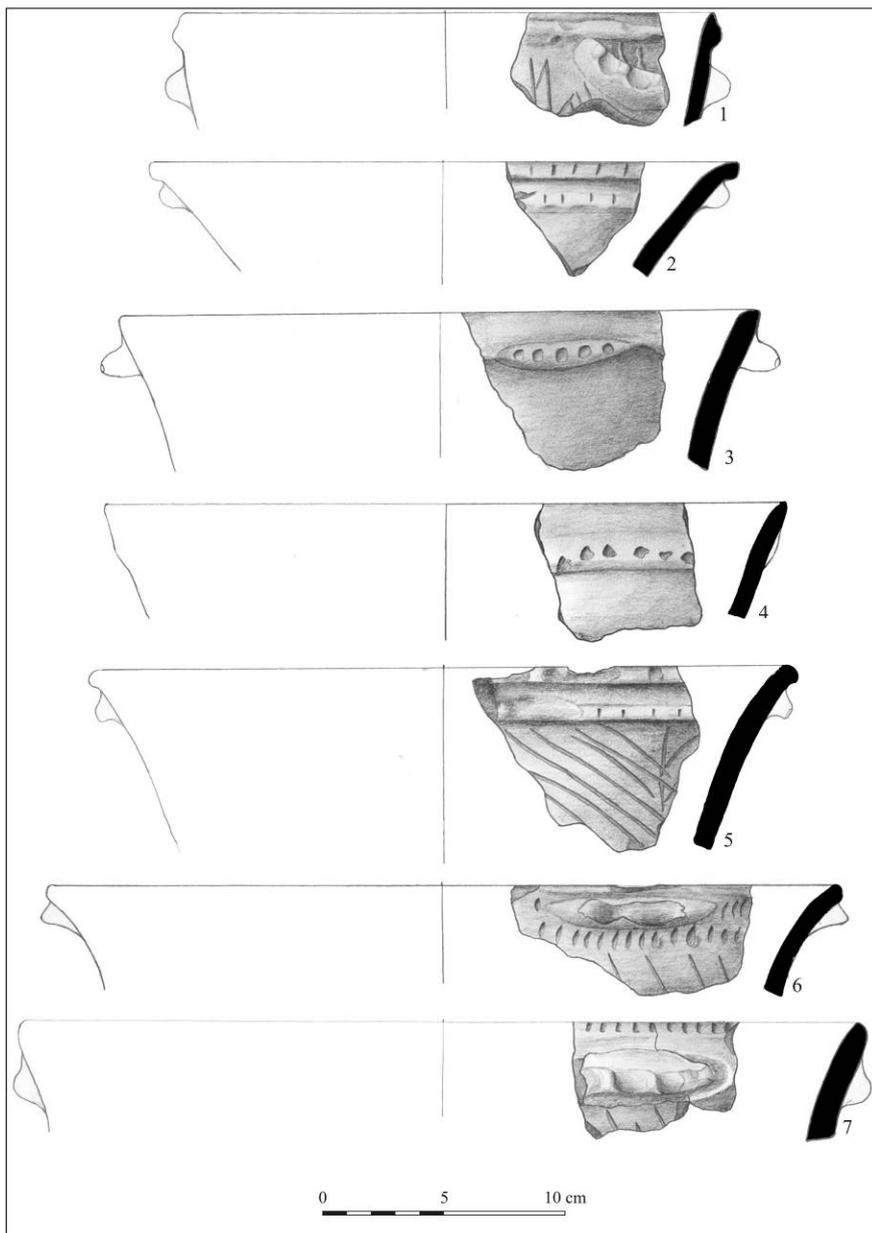


Plate 23. Pottery. Trench S19.

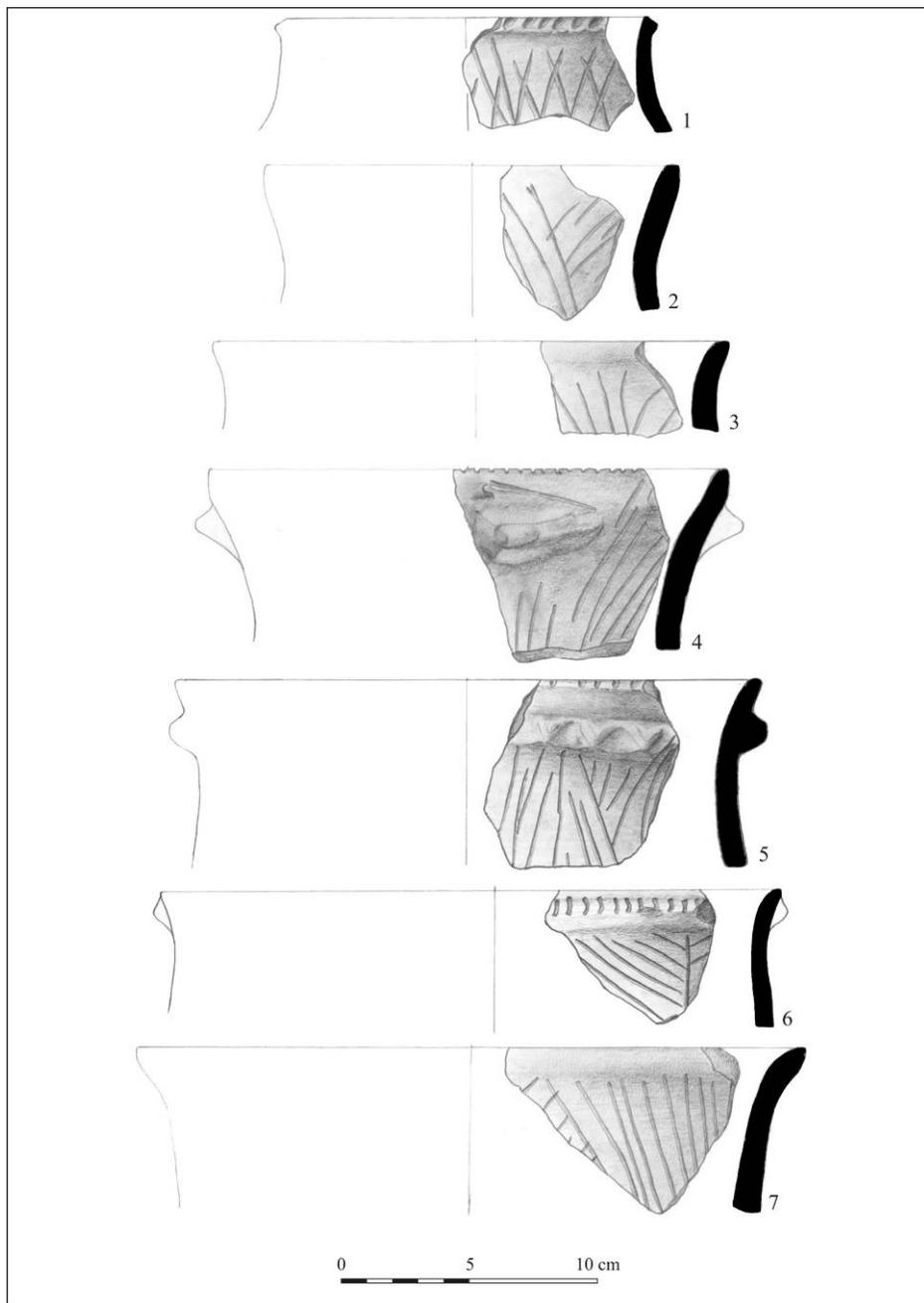


Plate 24. Pottery. Trench S19.

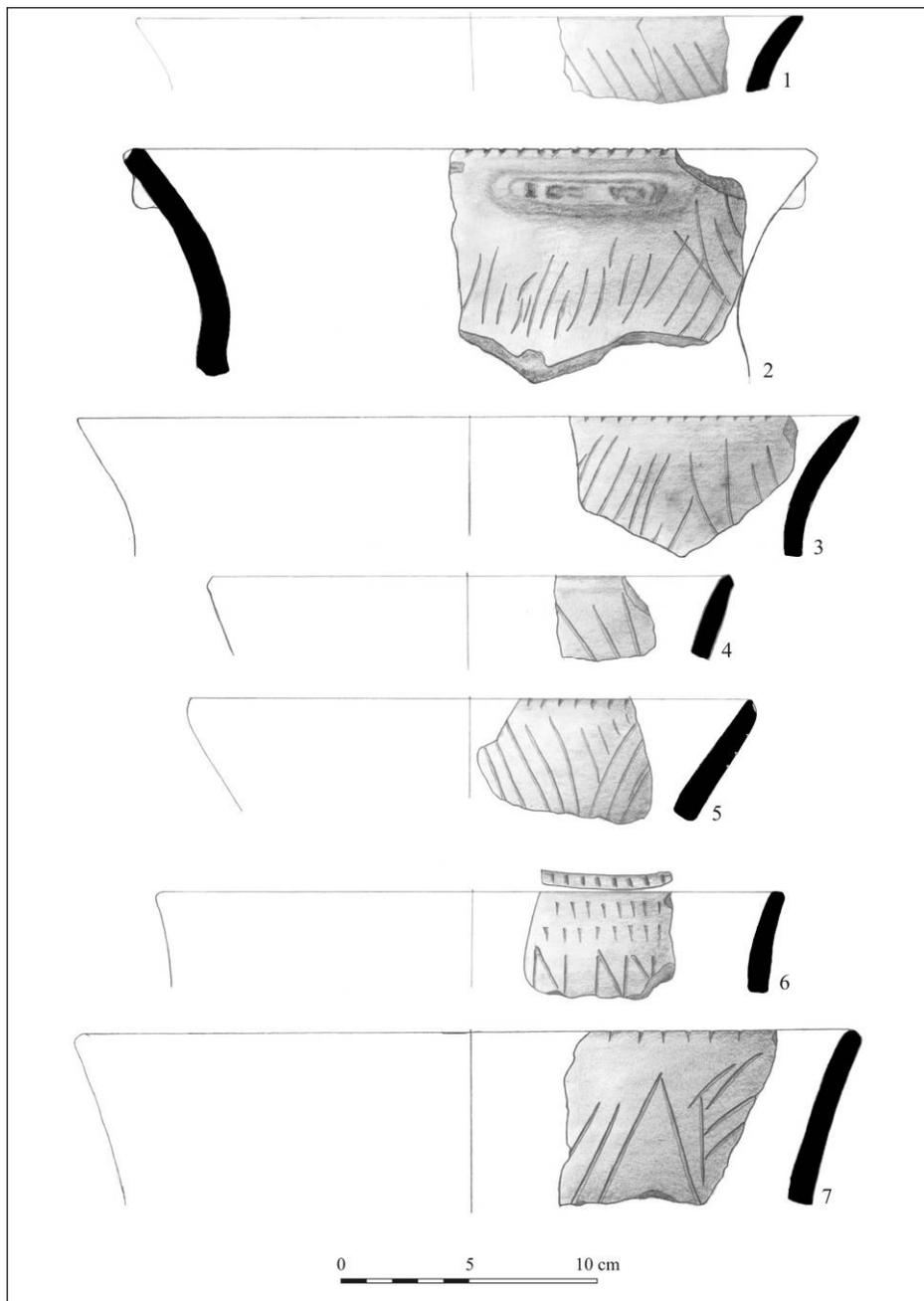


Plate 25. Pottery. Trench S19.

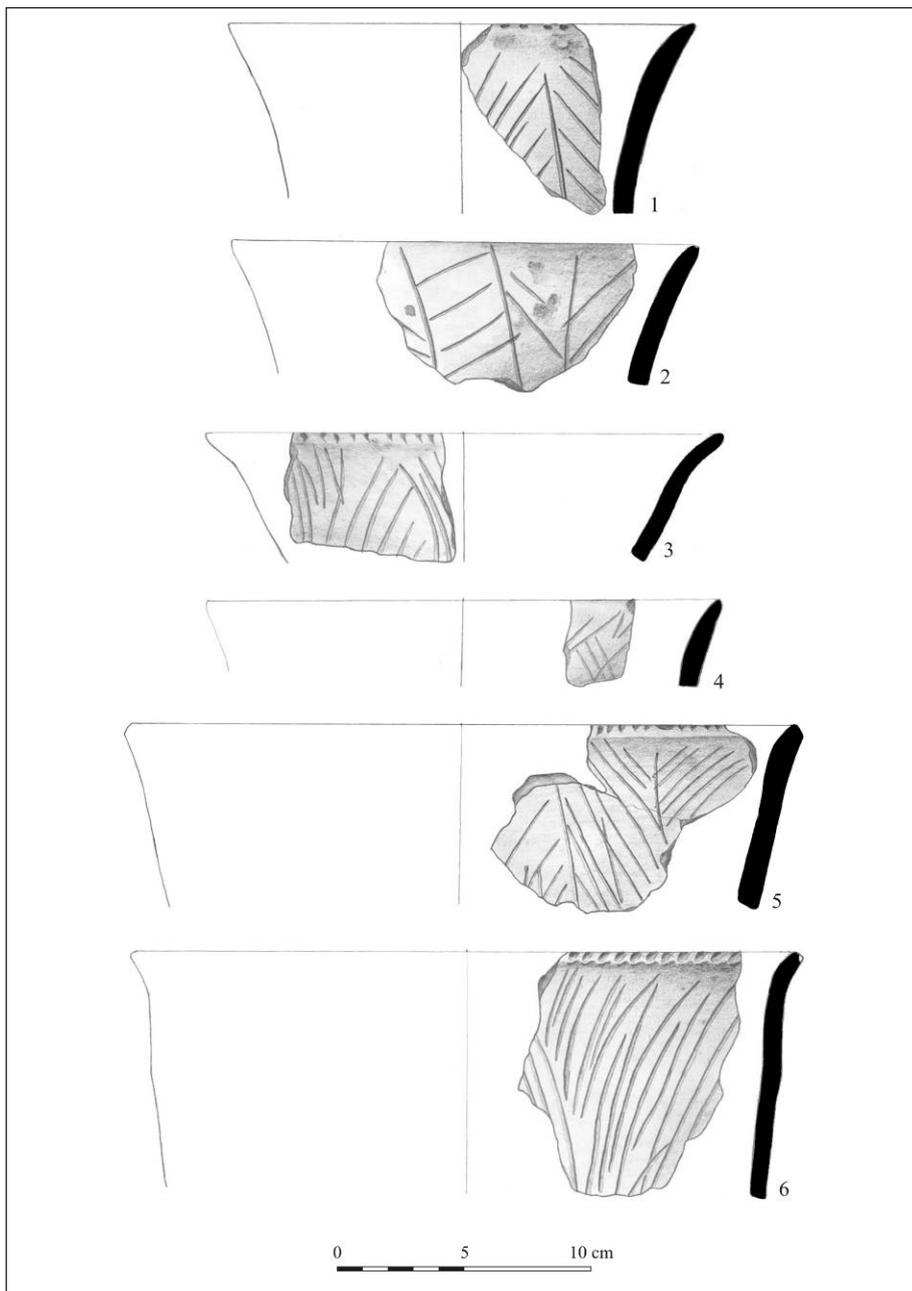


Plate 26. Pottery. Trench S19.

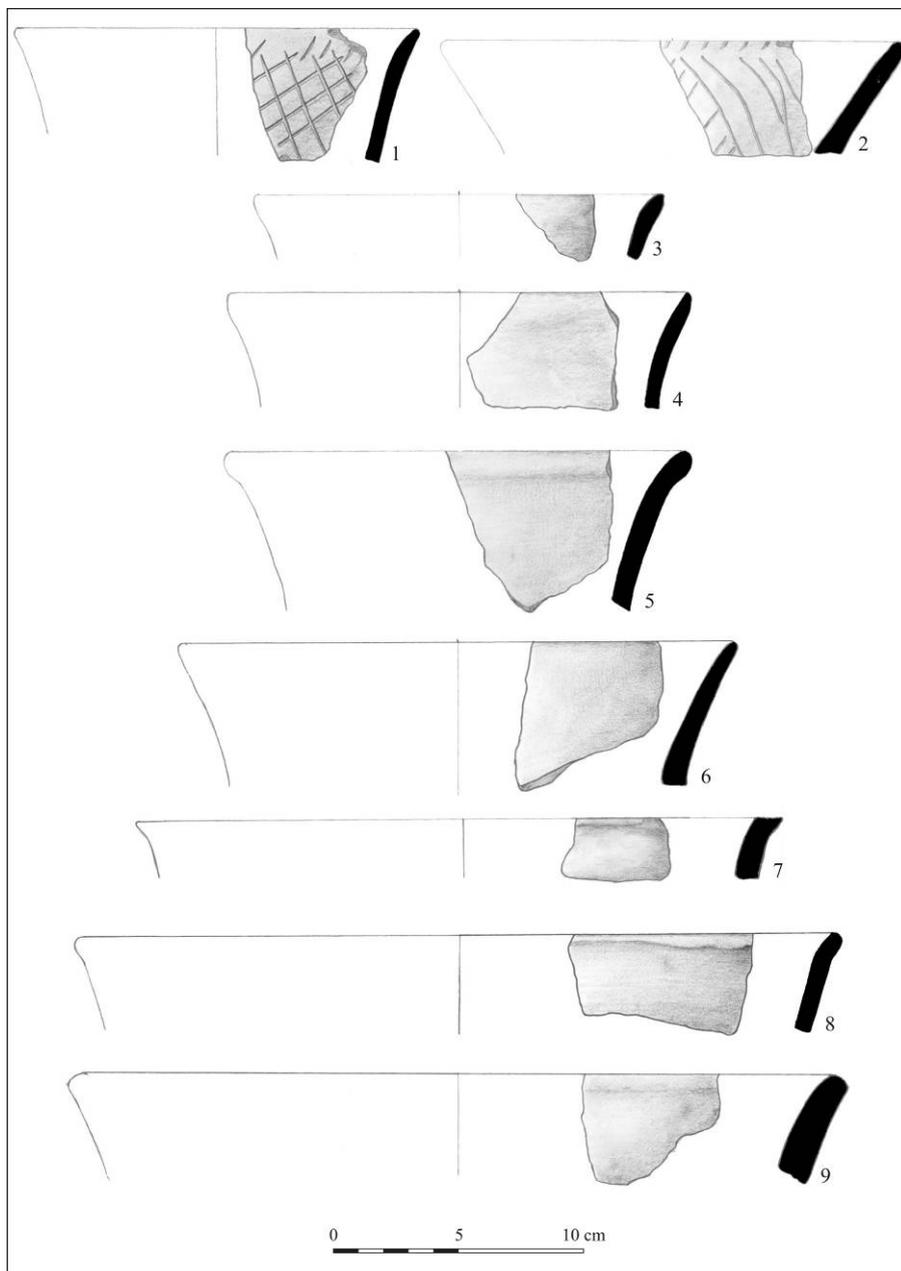


Plate 27. Pottery. Trench S19.

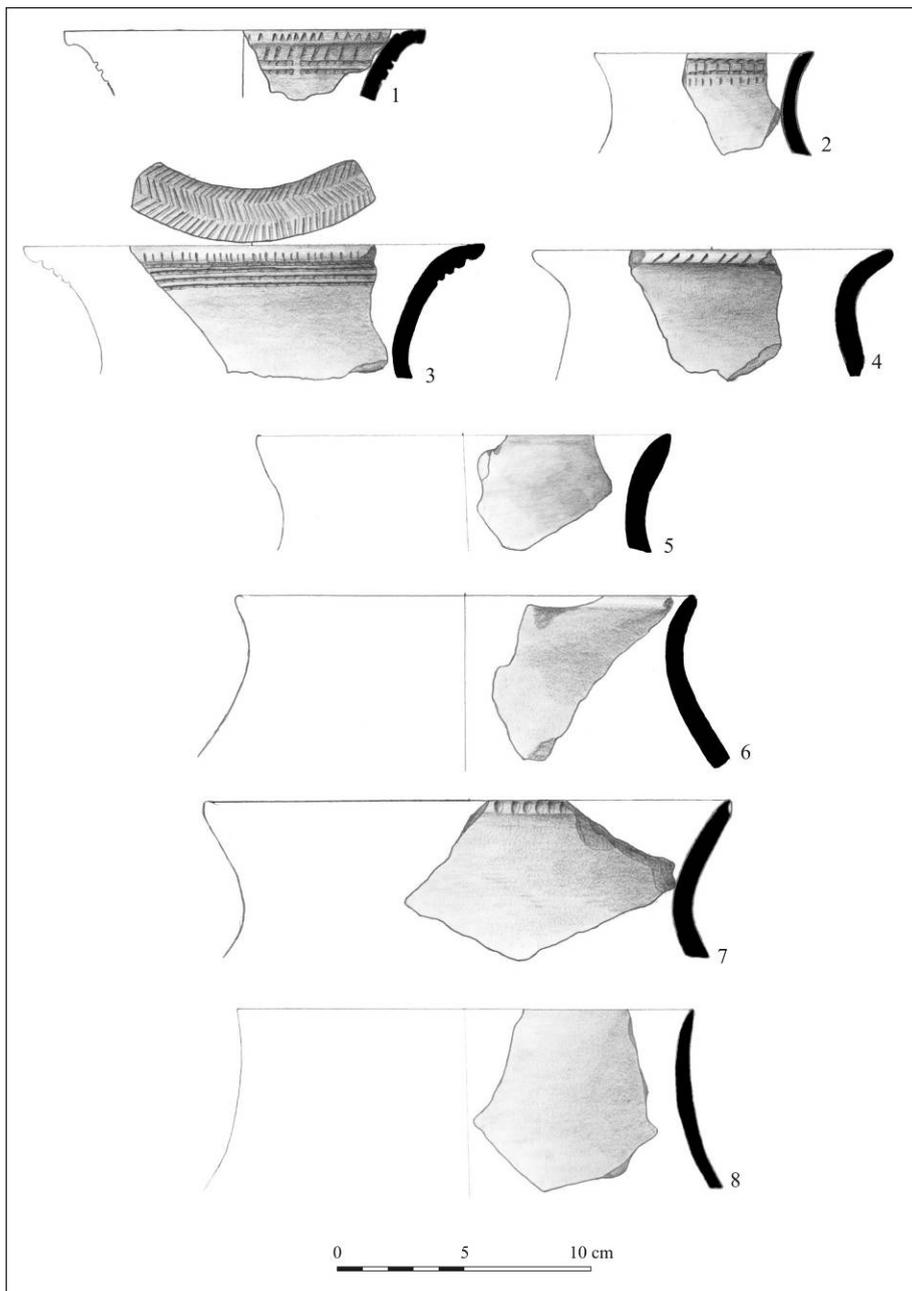


Plate 28. Pottery. Trench S19.

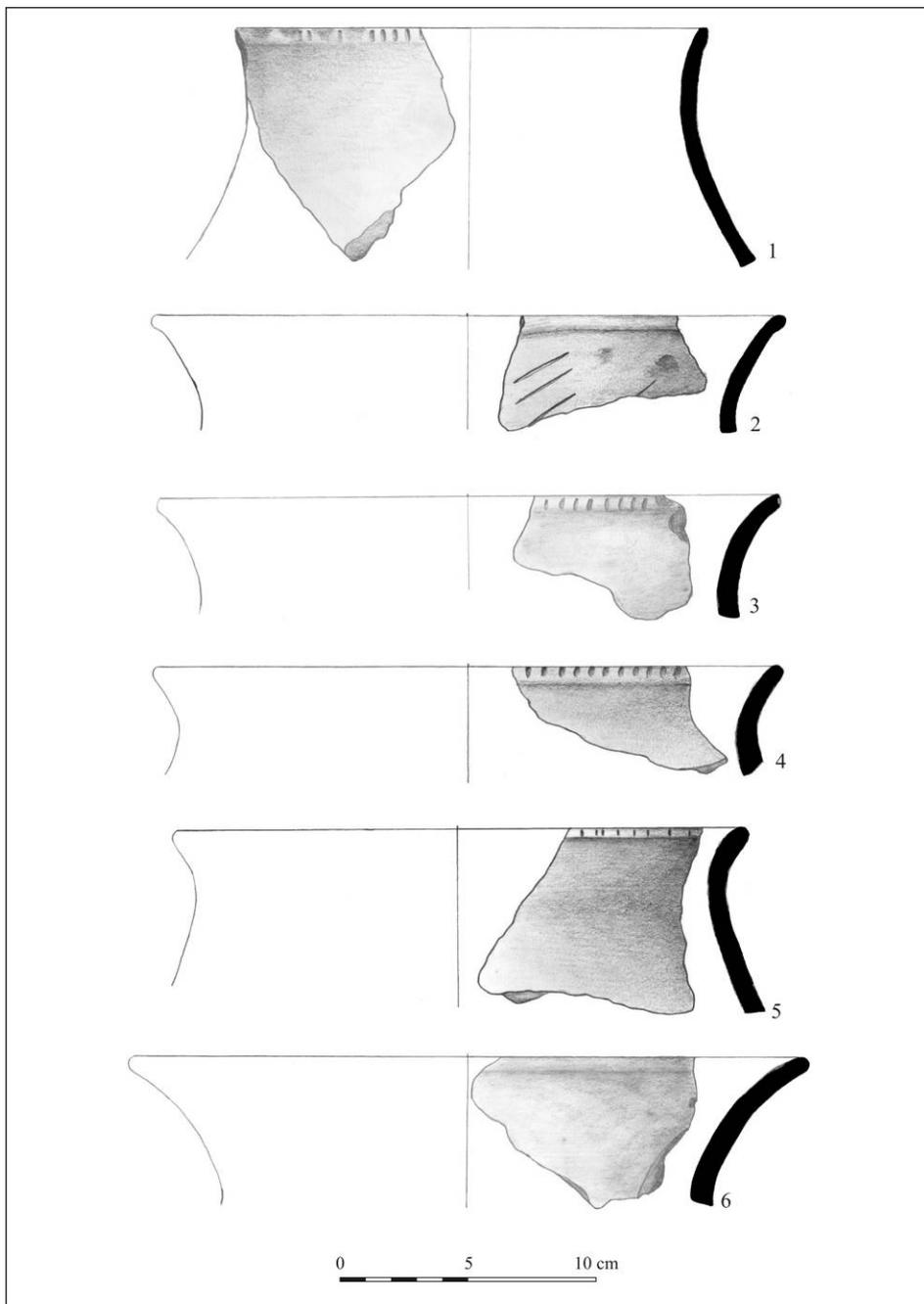
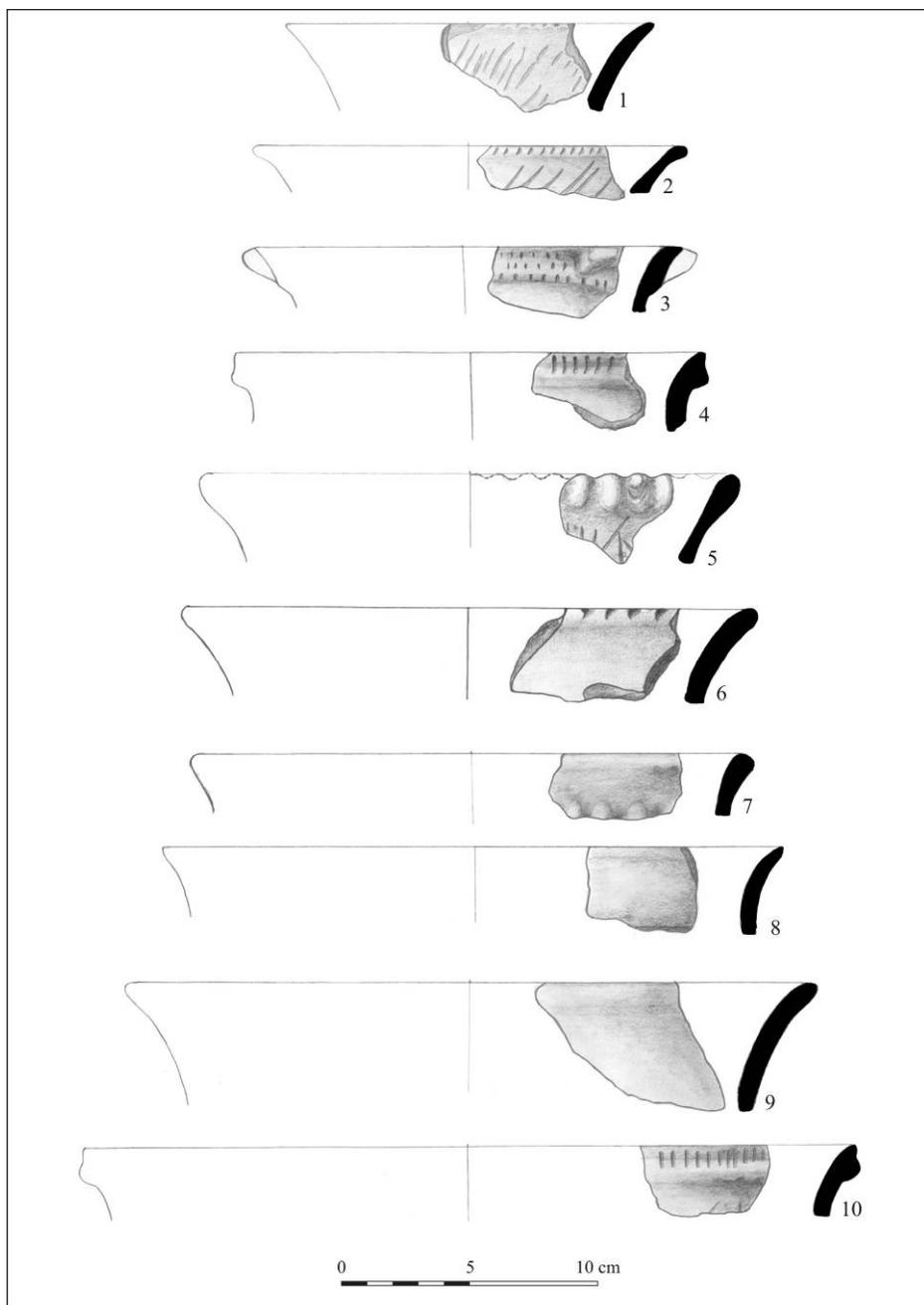


Plate 29. Pottery. Trench S19.



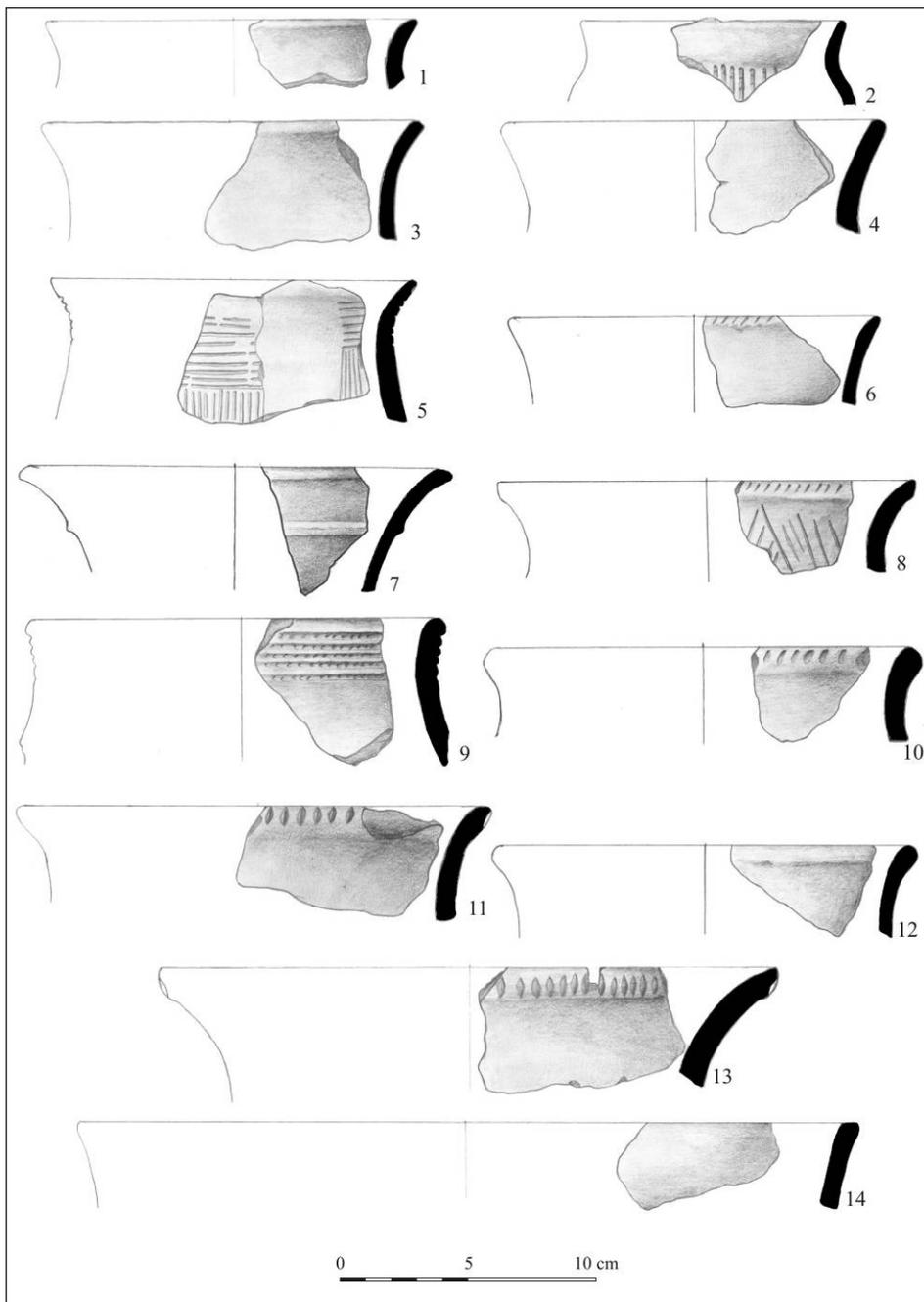


Plate 31. Pottery. Trench S19.

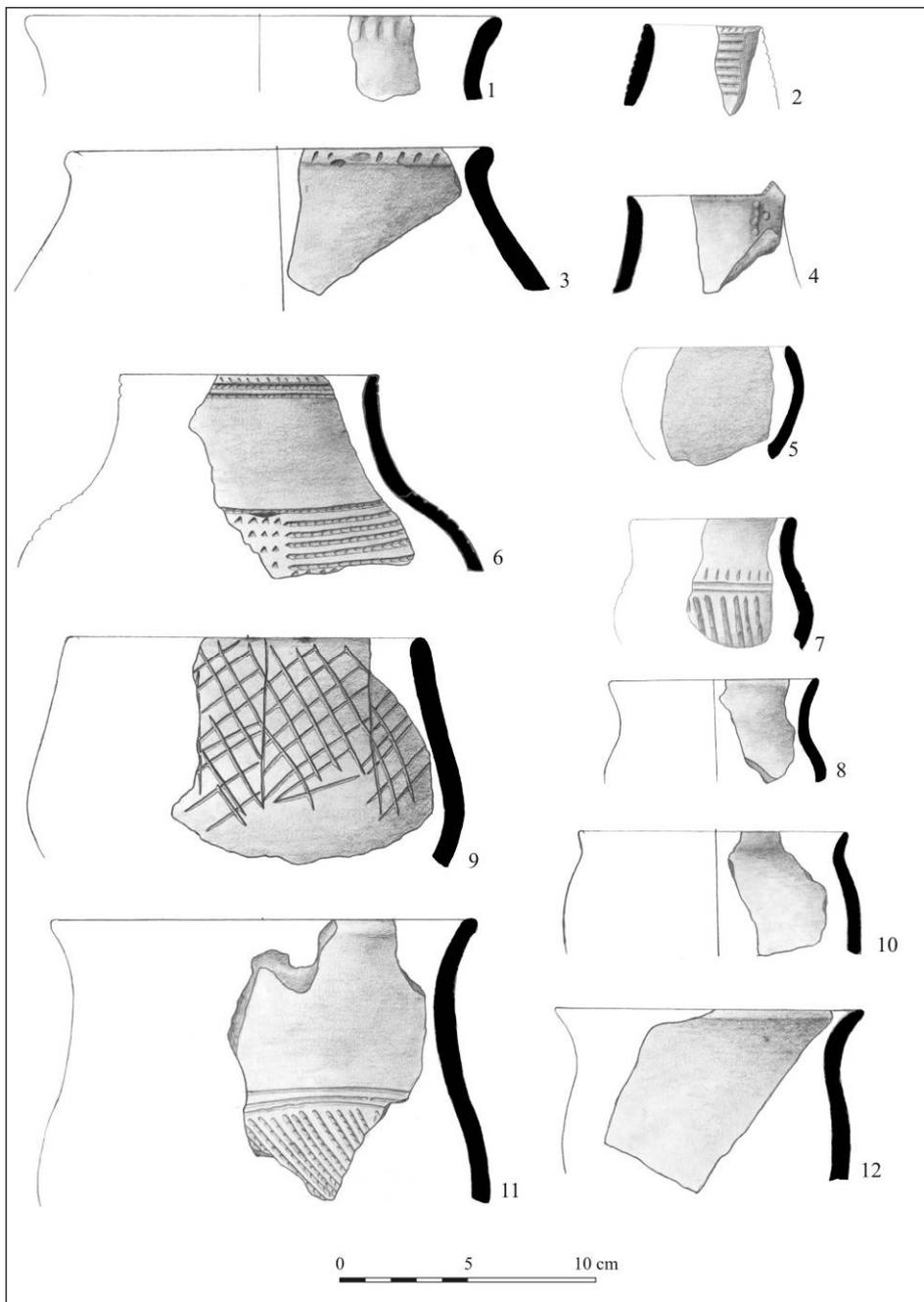


Plate 32. Pottery. Trench S19.

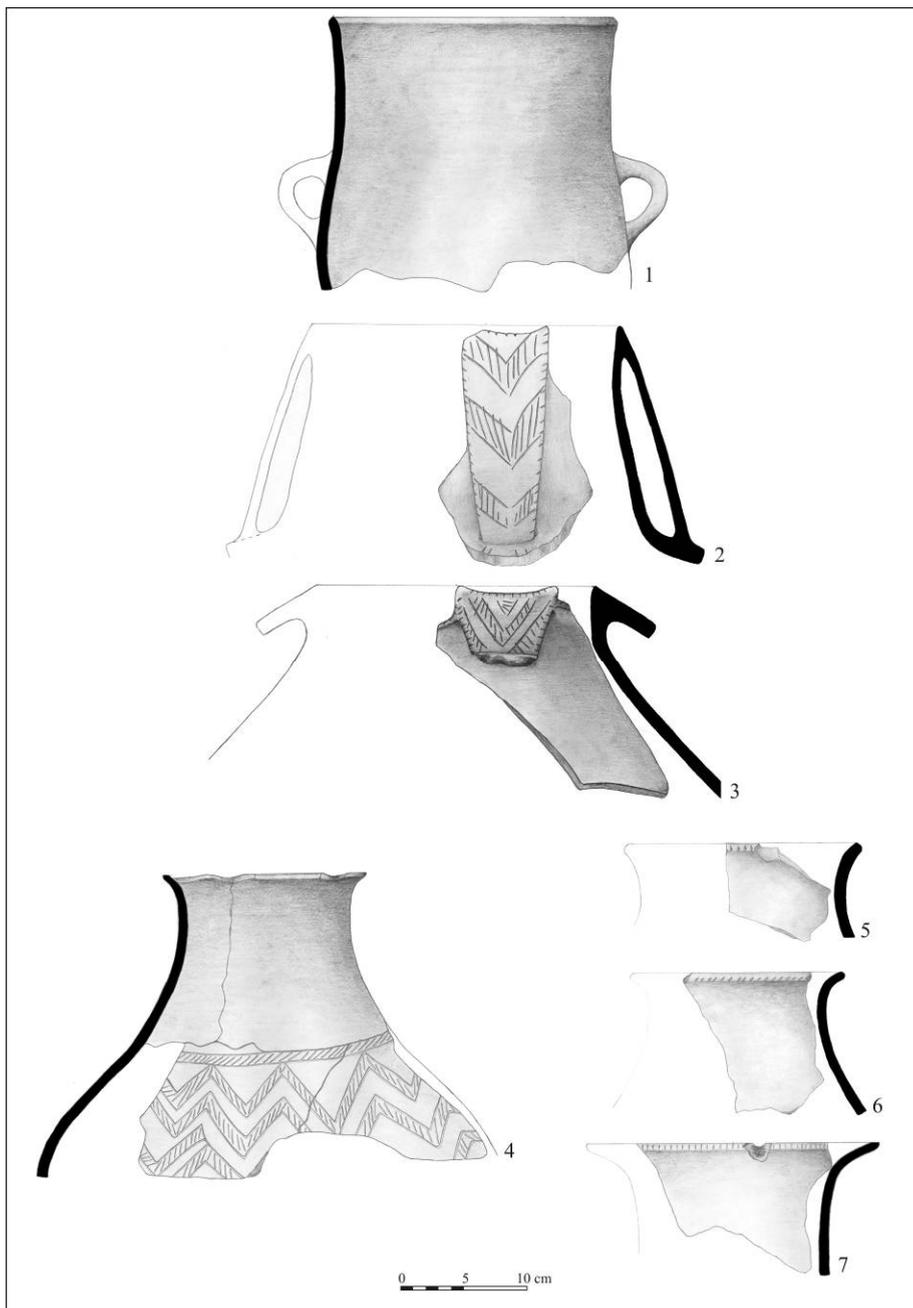


Plate 33. Pottery. Trench S19.

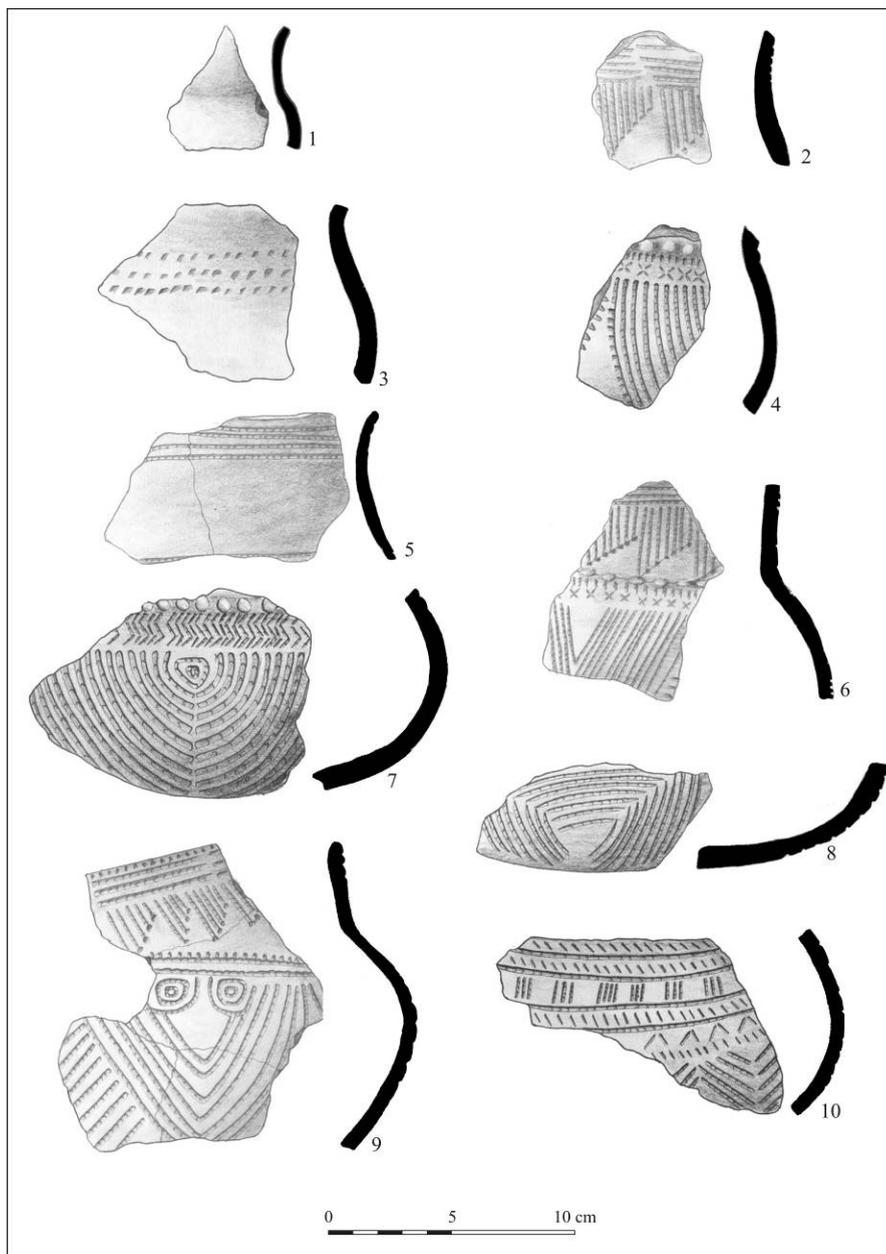


Plate 34. Pottery. Trench S19.

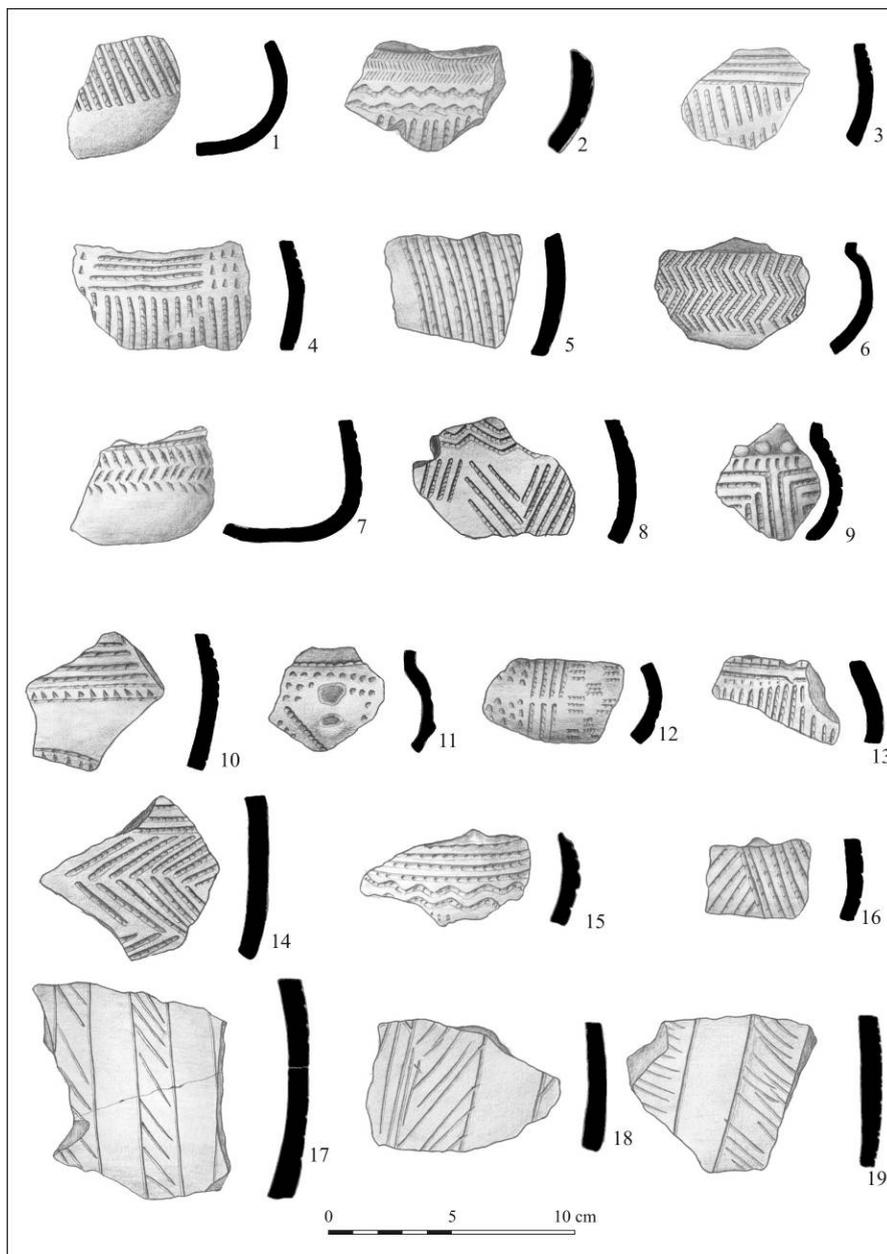


Plate 35. Pottery. Trench S19.

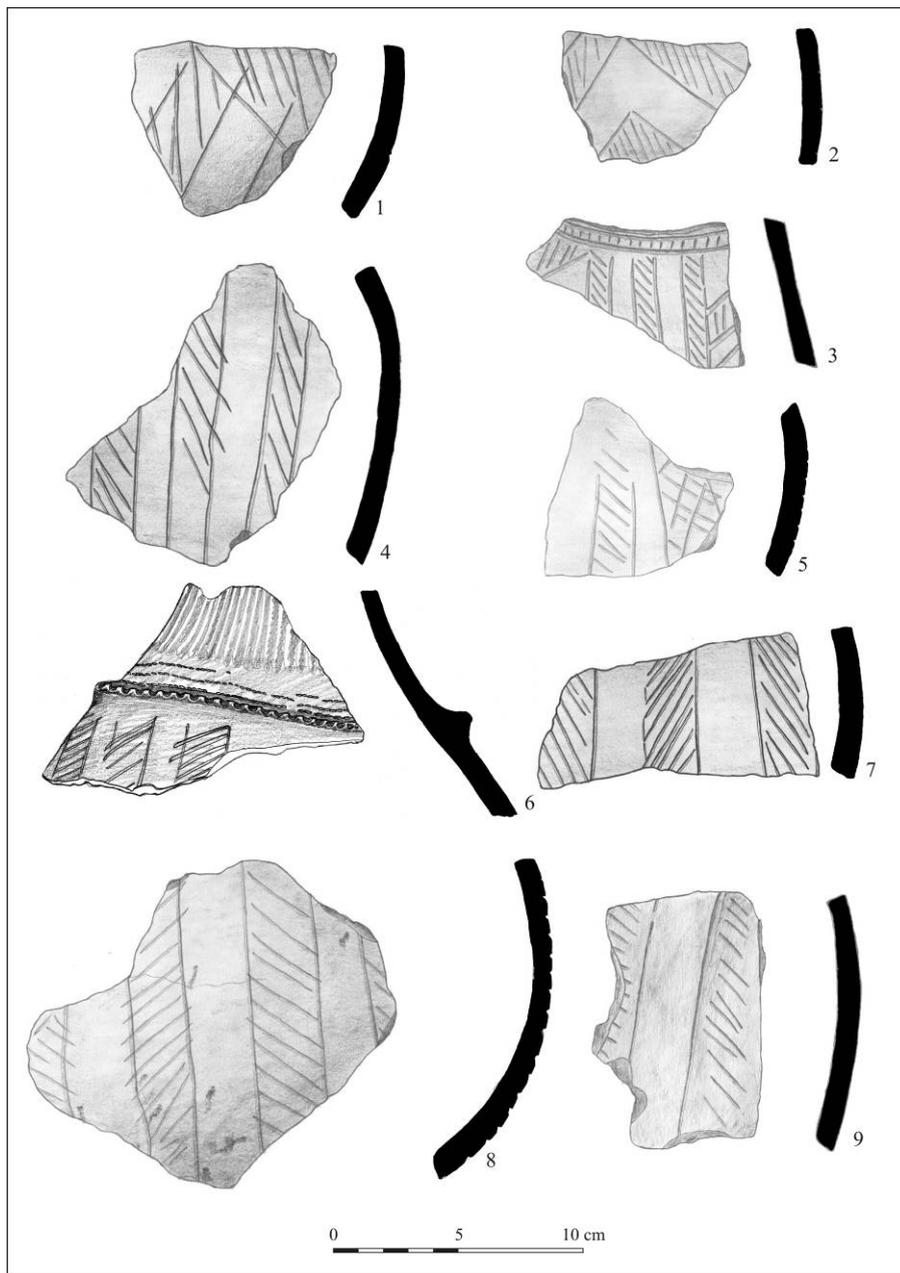
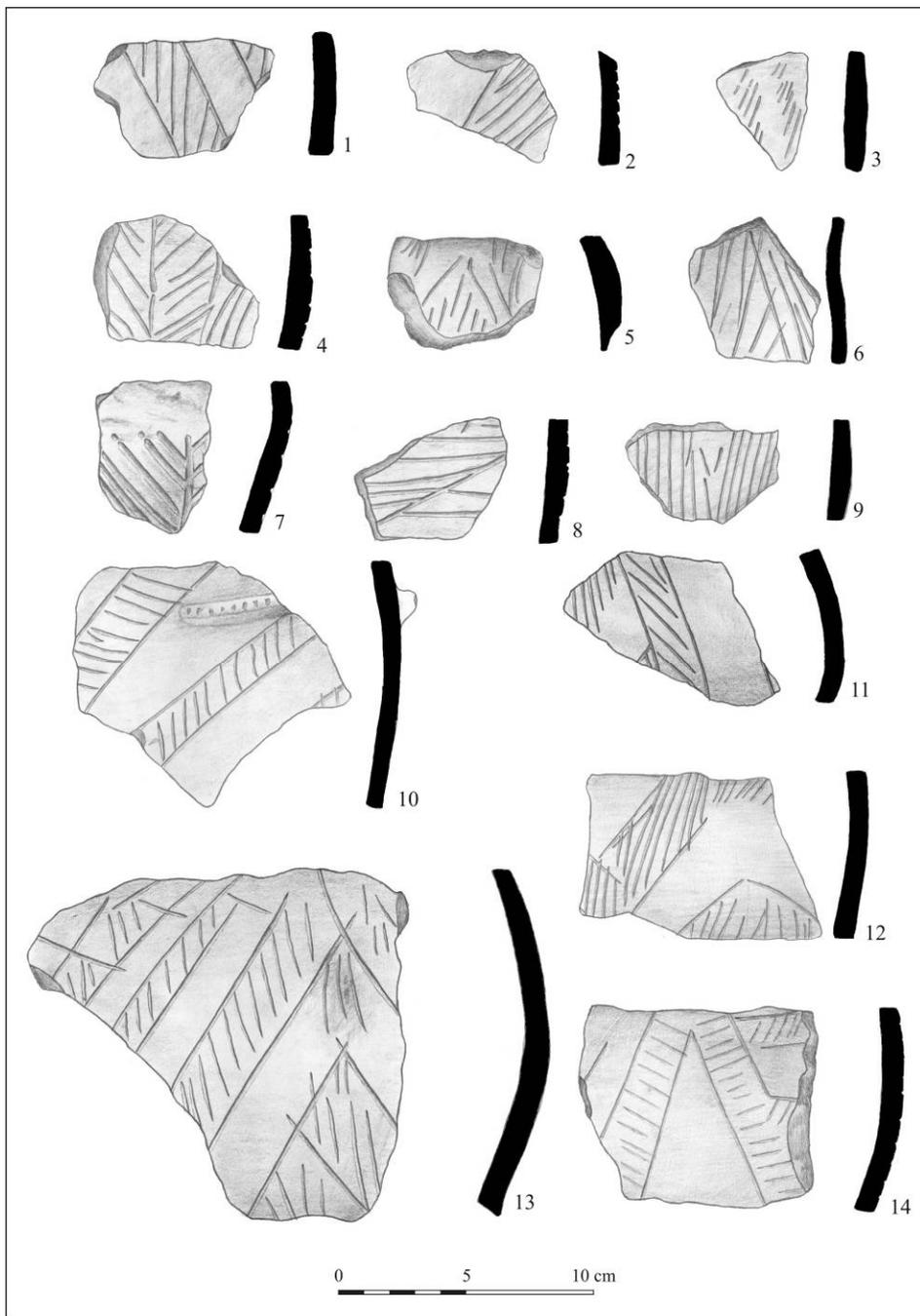


Plate 36. Pottery. Trench S19.



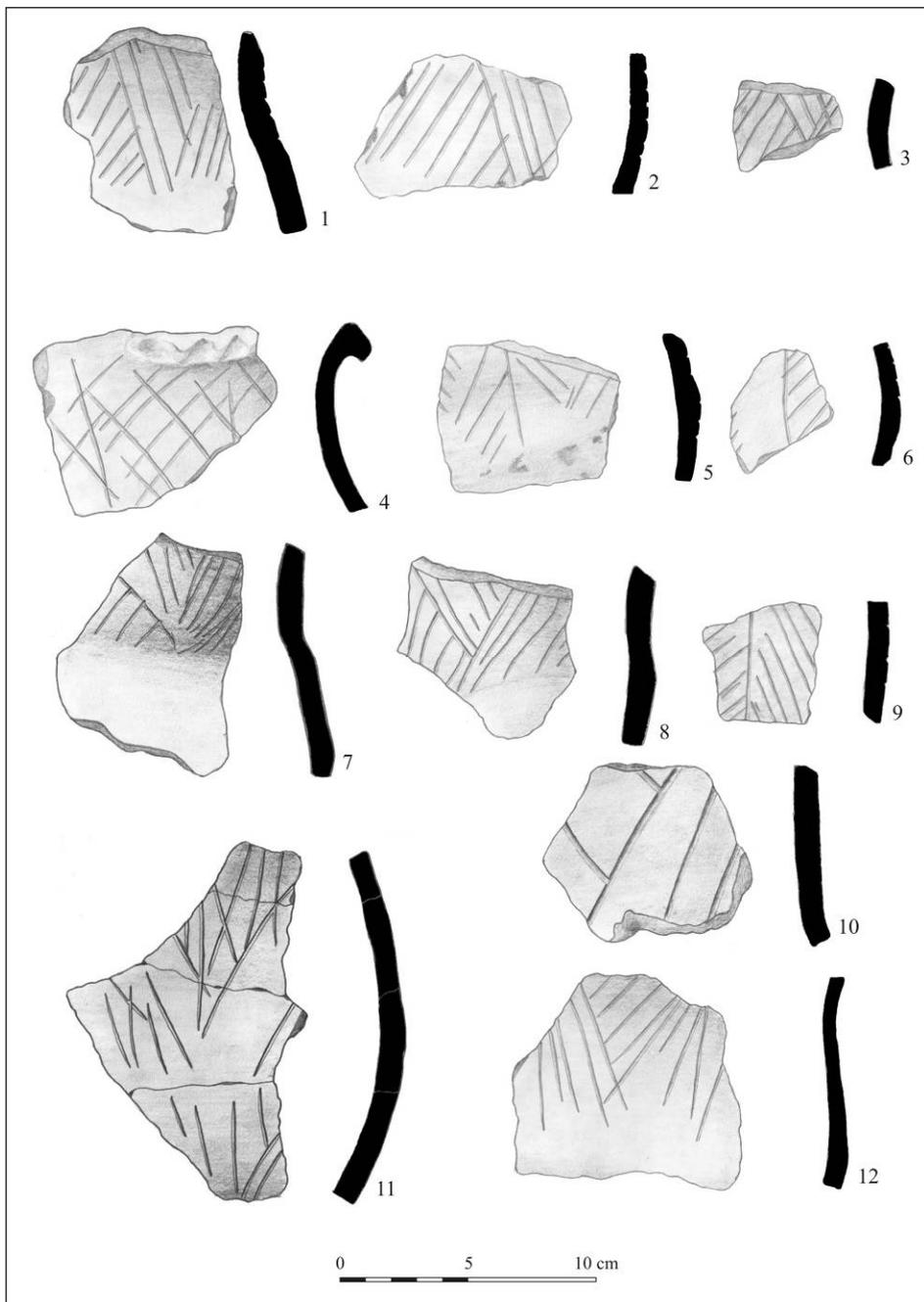


Plate 38. Pottery. Trench S19.

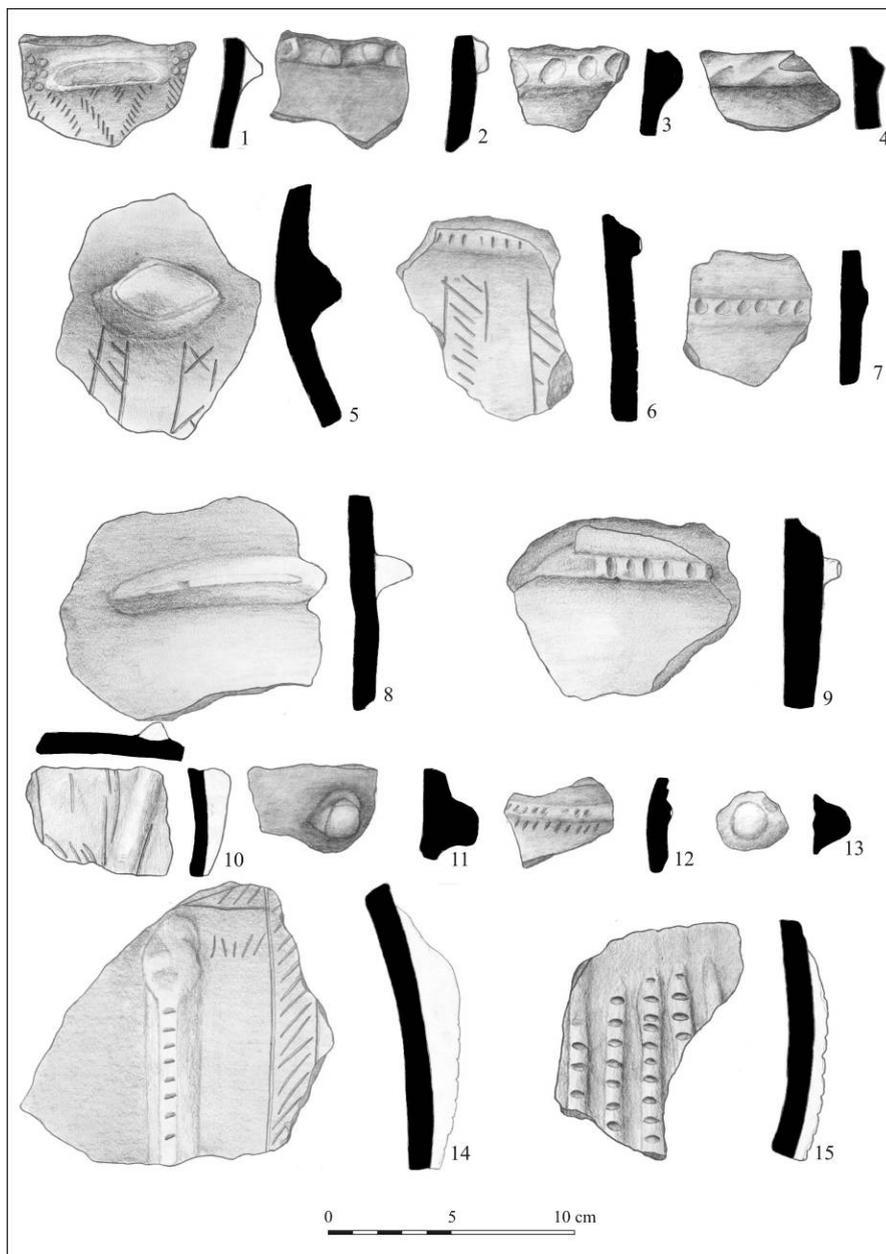


Plate 39. Pottery. Trench S19.

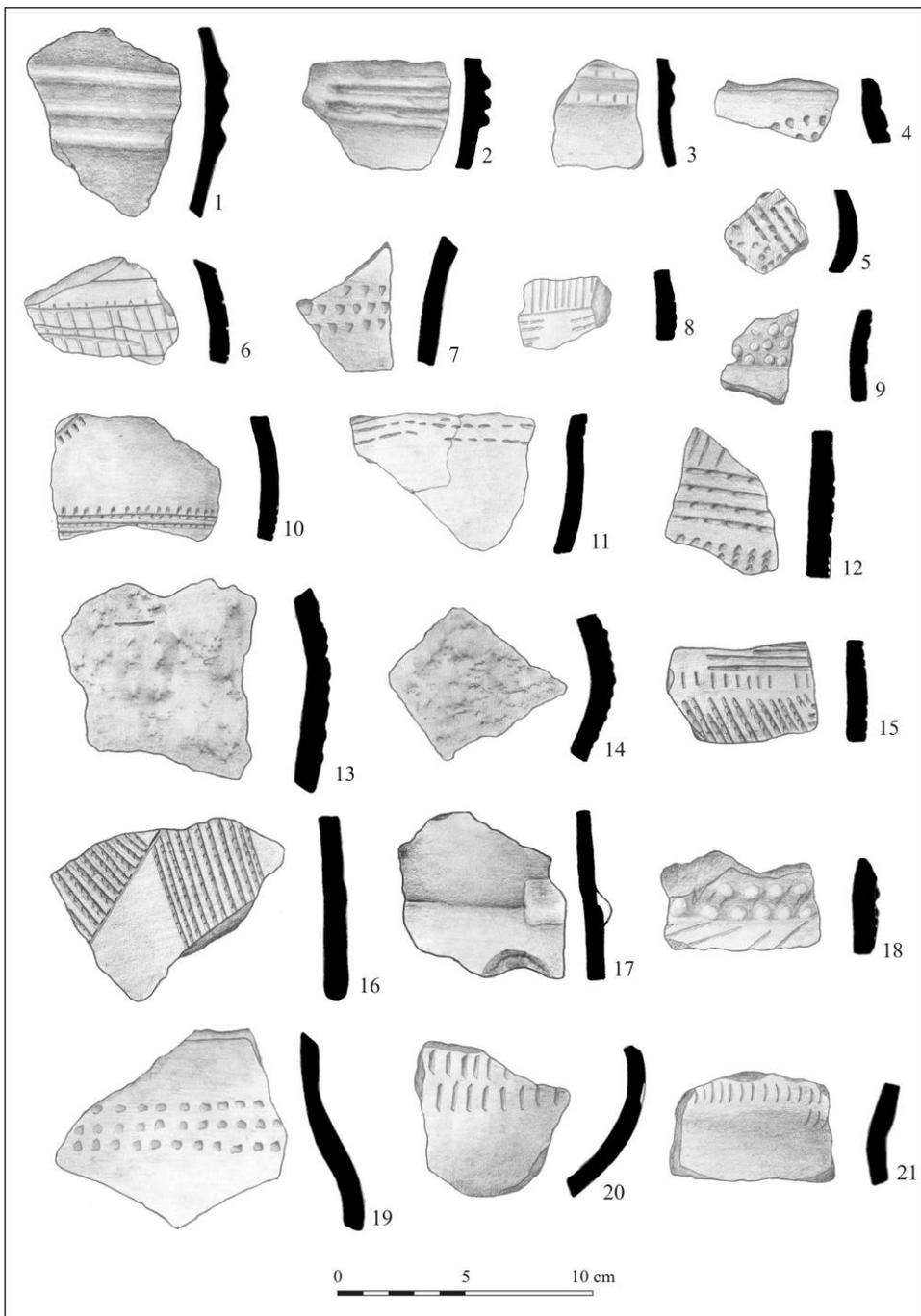


Plate 40. Pottery. Trench S19.

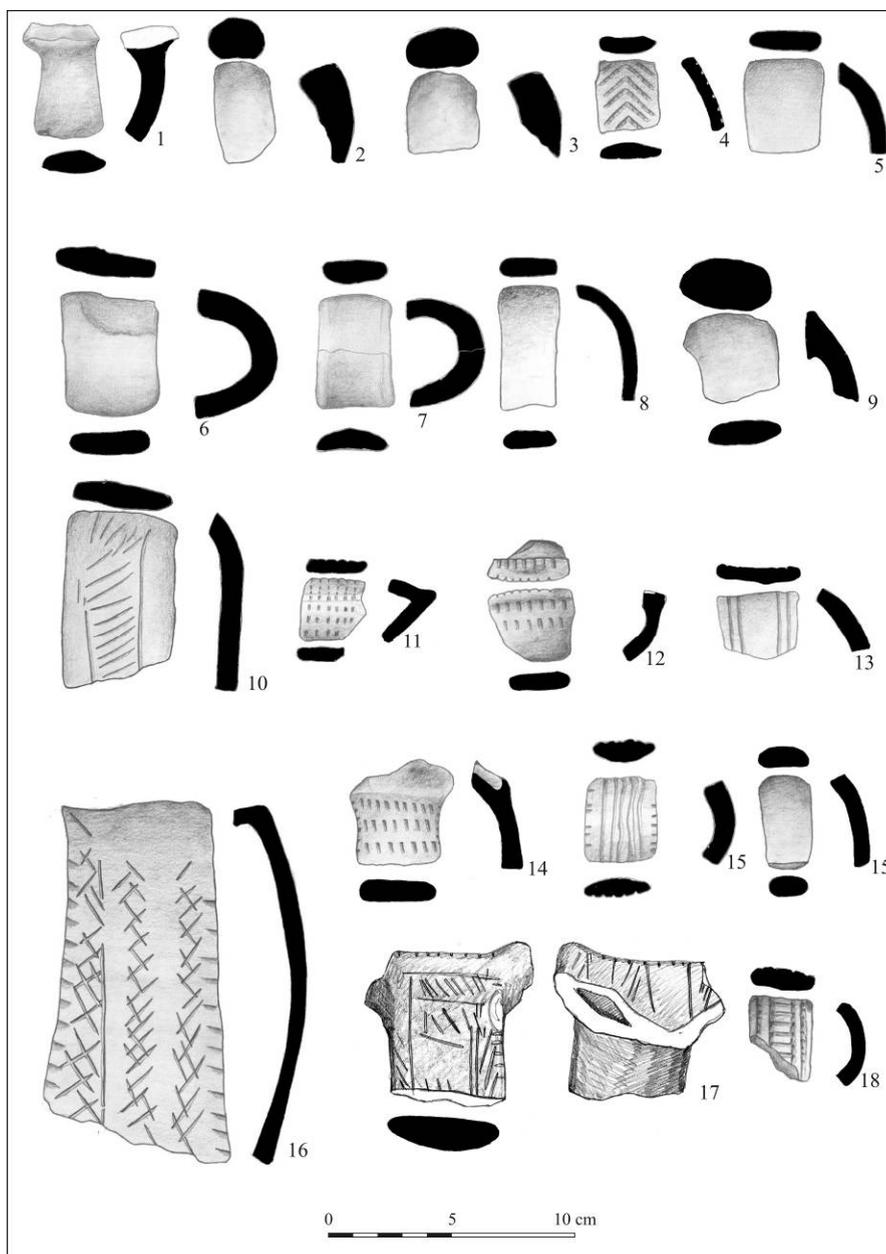


Plate 41. Pottery. Trench S19.

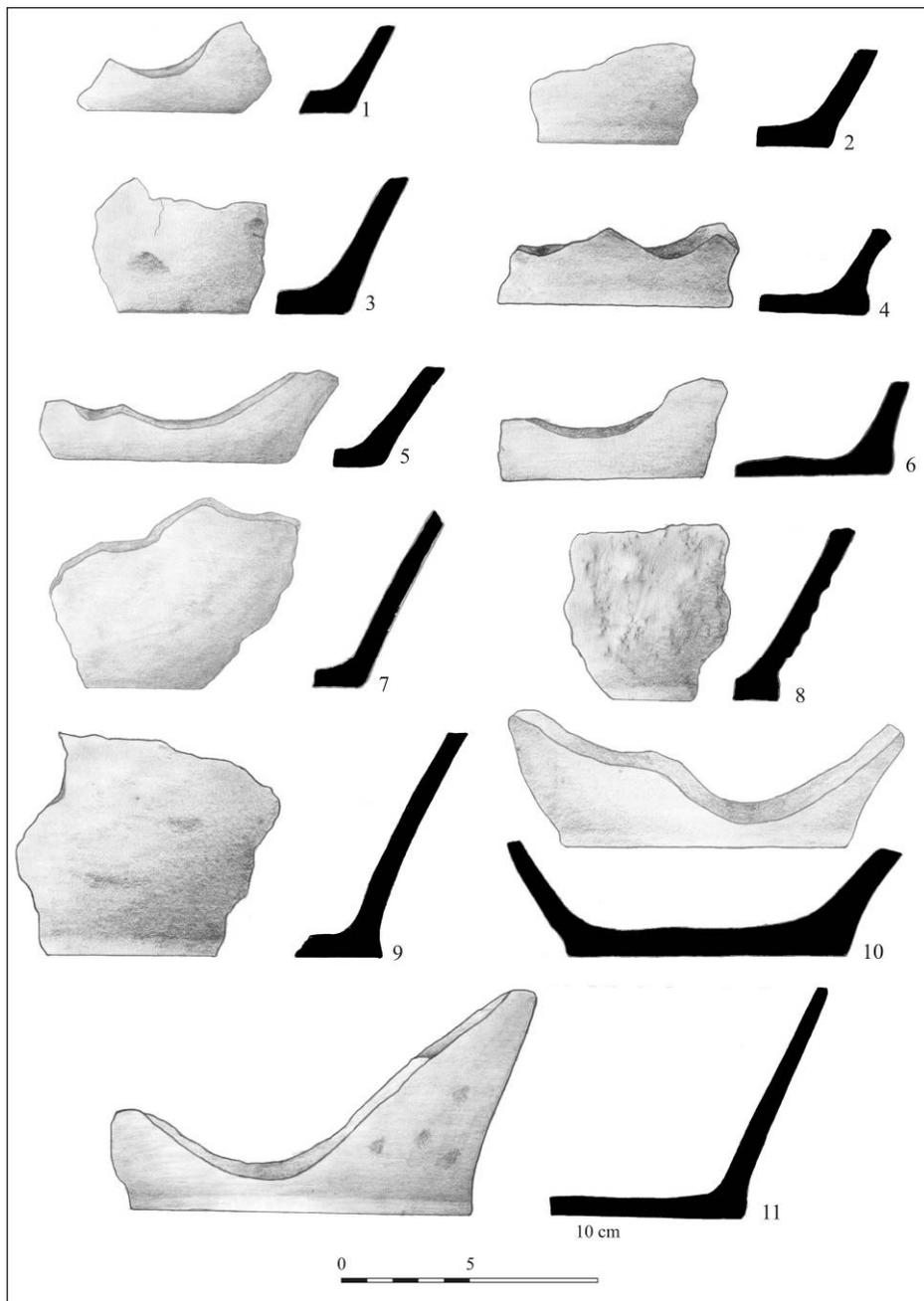


Plate 42. Pottery. Trench S19.

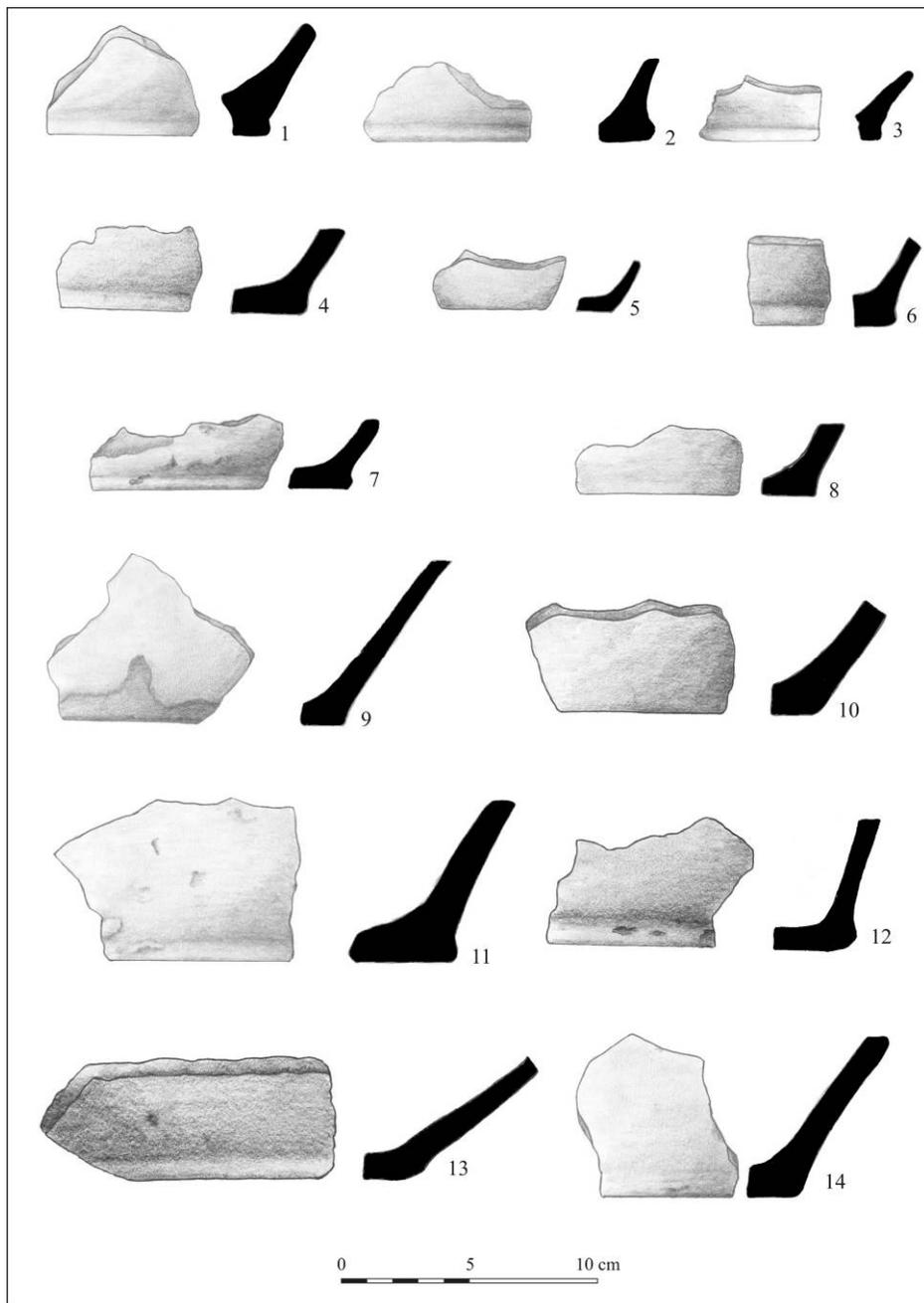


Plate 43. Pottery. Trench S19.

THE OCCURENCE OF THE RAW MATERIALS IN THE TRANYSLVANIAN PREHISTORIC LITHIC INDUSTRY

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Abstract: *The article presents the results of several surveys made in the area of Mureș Valley, Metaliferi, Poiana Ruscă, Anina and Almăjului Mountains, with the purpose to identify the sources of the raw materials for the prehistoric chooped tools discovered in the Transylvanian archaeological sites. The article also includes a catalogue of the types of materials that were identified.*

Keywords: *Transylvanian Neolithic lithic industry, in terms of raw material sources identified to the Mureș Valley, Metaliferi Mountains, Poiana Ruscă Mountains, Anina et Almăjului. Silex of "Banat" and other siliceous rocks.*

The Neolithic "wave" that appeared in Transylvania at the end of the 7th millennium – beginning of the 6th millennium B.C., as a result of different forms of manifestation and obviously with also many names that were claimed, considering the eponym zones, brings all together the entire experience cumuli with the long disputed movement east-west or south-north.

Clear is that the "threshold", the Danube, would mean for the Romanian archaeology the cropping up of a new evolution step to which were added local features influenced by the new habitation conditions and what is more important by resources.

Some elements are connected with tradition, so that beyond the local resource, no matter the distance, out of inertia, will be brought by different channels traditional objects, pieces that represent change value, elements with funeral character, or with symbolic value, objects that are being spread throw over all Europe.

Lechevalier observed in PPN-Preceramic IB that the blades from the graves are intact, along with three large nucleus and a herminette, displayed as offerings (Lechevalier 1990, 269), in a grave *Tomb 114*, in Mergarh, Pakistan along the flint artifacts (12 pieces of truncated blades, three nuclei, eight trapezium) it was also

displayed a polished axe, so that it was made the hierarchical distinction inside the society (Inizan, Lechevallier 1985, 114-117; Binder, Perlés 1990, 268).

With another connotation, in Bretania were documented five axes from 4th millennium B.C, offered to the divinity, discovered in Gonsenheim at Kästrich (Hansen 2012, 28), or a display as offering to gods, repeated seasonal, so that appeared deposits of flint axes (in north-western Zealand, preserved today in Copenhagen National Museum) (Whittle 1996, 280-281).

Having another symbolist or as it still has today, in New Gunee, instead of the coin, such axes were a part of the price paid by men for the future wife (Hansen 2012, 28). Whittle suggests the possession of some artifacts especially finished, as prestige objects, as the flint axes from Krzemionki (Polonia) mine (Lech 1983, 118; Whittle 1996, 276).

In Transylvania there are documented Starcevo-Criș stations, in inhumation graves, lithic artifacts without a usage stigma, which indicates a special destination, or conditions of processing for this purpose only. In Cluj, in an archaeological site, along with the skeleton in the tomb, at the deceased foots were displayed 10 microlithic pieces of yellow flint, a bone awl and a cob axe from amphibolites (Vlassa 1976, 83-84). In Bergheim (Eichstätt) Germany in a early Linear Bandkeramic culture archaeological site, along with the deceased, near the Balkan flint blades, there is also a herminette (Fig. 1), typical for Early Neolithic period (Tillman 1995, 44).



Fig. 1. The lithic inventory displayed right beside the deceased Bergheim, (Eichstätt) Early Neolithic (after Tillman 1995, Fig. 12, 44).

Hansen mentioned in Bad Durrenberg Ldkr. Merseburg-Querfurt (Sachsen-Anhal), at a woman tomb, besides the 31 baldes of flint also a stone axe (Hansen 2012, 28). Remembering of the contact from the south side of Carpathian Mountains, in Poland, the same funerary inventory it is being documented in Dziekanovice (Woj. Kielce), along with ceramic vessels, intact flint blades, or other two graves in Kraków-Pleszów, in both cases the skeleton is being posed in crouched position,

typically for the Early Neolithic from Poland, with chooped lithic inventory and polished, intact (Kamieńska, Kozłowski 1990, 40), different of the Middle Neolithic Vinča levels, from Gomolava-Hrtkovci where the blades displayed in the graves present marks of usage or they are fragmented (Kaczanowska, Kozłowski 1986, 103-104).

These examples were ment to suggest the existence, no matter the typology of some artifacts that have a special destination, as offerings, prestige object, exchange value, either the case of chopped and polished artifacts, tradition which imposes the continuity of exploiting this raw materials.

By the sedentariness process, the necessary of raw materials is being enlarged, imposed to the systematic exploitation with galleries (Fig. 2), or surface exploitation (Fig. 3), for the raw materials of the traditional large usage artifacts, but also for the category of artifacts with special destination, mentioned above, justifying the exploitation in the flint mines from Spienne (Belgia) (Mansuelli 1978, 290-291; Binder, Perles 1990, 257-283); the flint from Grimes Graves (Norfolk, Anglia) (Sieveking *et al.* 1973, 183; Darvill 1993, 101); the flint from Gargano (Italia) (Binder, Perles 1990, 257-283); the flint from Jadar (Serbia), the stratified Balkan flint (bandet flint) from Krzemionki (Polonia)(Lech 1983, 118; Whittle 1996, 276); the flint with white spots from Świeciechow (Polonia) (Lech 1983, 124); the flint from Jablines (Franța) (Binder, Perles 1990, 257-283); or the flint exploitation from Grand Pressigny (Franța)(Champion *et al.* 1984, 163; Mansuelli 1978, 251), or the exploitation in pits and shafts from Kriva Reka, Bulgaria (Gurova 2012, 26) and many others

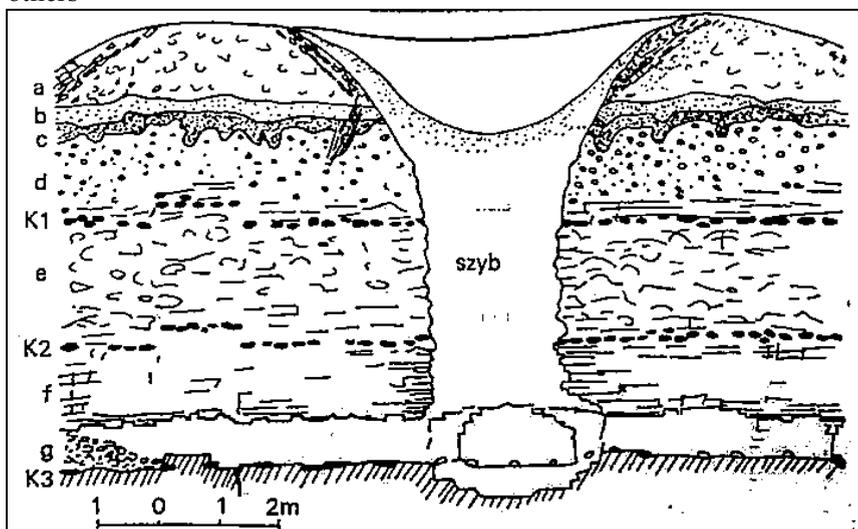


Fig. 2. The mine exploitation with galleries for "bandet flint" from Krzemionki-Opatowskije, (Polonia) (after Lech, 1983, 118).

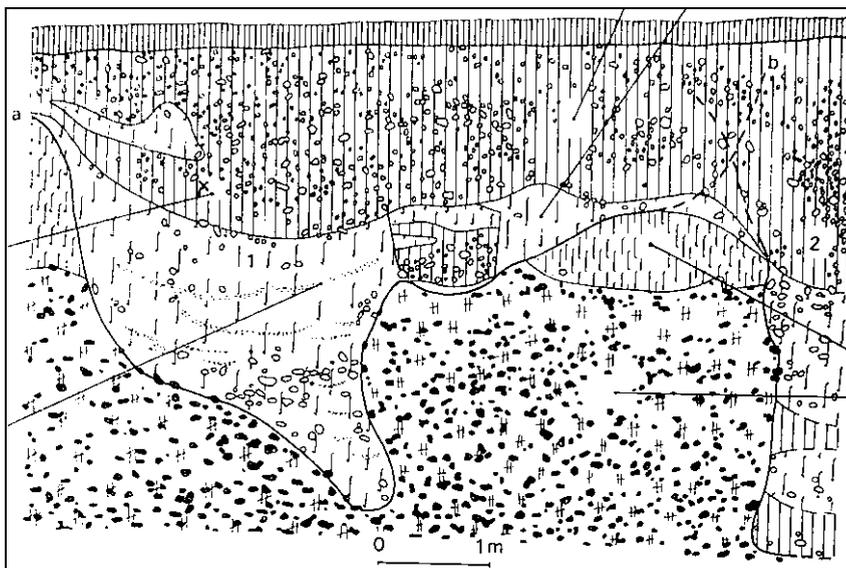


Fig. 3. Surface exploitations, in pits and shafts from Saspów (Polonia)(după Lech, 1983, 118).

At South of Danube there have been documented Balkan flint exploitation centers Nikopole și Plevna (Gurova 2012, 19), that ensures a large part of the lithic raw materials for the prehistoric societies from the territory from North of Danube, including Transylvania, where it has been gradually replaced with the local chalcedonies, silicified grindstones, less qualitative, or stratified tuffs.

In the Middle Neolithic, "the Banat" flint (Comșa 1971, 15-19) became prevalent in the Transylvanian sites, Dealul Cremeniș being known as a exploitations center (Comșa 1971, 16) (Luca 2005, 64; Luca 2006, 212; Luca 2010, 212-213) in the area, after our latest researched it has been proved the existence of some important exploitations probably since prehistory.

The main raw materials in the case of polished lithic artefacts is the cornea, present in the Early Neolithic settlements as herminetts, than along with the sedentarisation they modify their shape and dimensions, proving as necessary the existence of some sources in this area. Their growing frequency the changes in the economy of prehistoric society, adding to this hard raw materials, diorites, gabroues, banatites etc.

The statistic analysis of the lithic chopped artifacts revealed the prevalence of some petrographical categories in accordance with the geographical area, this fact proving the existence of sources near the habitation.

The archaeological Neolithic sites from Brănișca (Hunedoara County), Turdaș (Hunedoara County) or Tărtăria (Alba County), register a different pounder of raw materials from one station to another, in accordance with the proximity of the source.

From the survey, the settlement from Brănișca revealed a pounder of 61% flint from "Banat", compared with the research from 2010 from Tărtăria (Alba County), level I (Petrești), where the major pounder is being registered by the silicified grindstone in percent of 63%, followed by the flint from "Banat" in proportion of 11%. A special case is being registered in the Starčevo-Criș stations, Cristian I (Sibiu County), where the numerical pounder is being represented by artifacts made of Balkan flint 36%, followed by local materials silicified grindstones and chalcedony with 10% each, and at Miercurea Sibiului II in the Starčevo-Criș III habitation the Balkan flint is being represented in 55%, 12% obsidian, and the local prime materials (jasp, opal), less than 10%.

Considering the presence and frequency of some type of rocks in the archaeological sites from Banat and Transylvania, there is the idea of identifying the sources, the problem of the occurrence of raw materials being one in actuality. The survey project was started by Prof. Dr. Wolfram Schier⁶ (Freie Universität Berlin) and it was implemented with the help of colleagues Otis Crandell, geologist Octavian Popescu and pilot Simion Cîmpean, being identified sourced from Almăjului Mountains, Aninei Mountains, Poiana Ruscă Mountains, Metaliferi Mountains, Zarandului Mountains with their valleys and Mureș River Valley. There were studied mountain zones for which already existed information from geology, being evidenced some raw materials sources, from the category of eruptive and sedimentary rocks, either on the river valleys, in quarries, or in large opened spaces, on mountain roads or on access roads eroded by pluvial waters.

In aval from Pietroasa commune, Timiș County, near Fărășești village, there is an entire exploitation area, on Bega River Valley, on "Sodol" meadow, on approximately 700 meters, plateau limited by *Băleasca Valley*⁷ (Ursulescu 1999, 169), *Dâmpu Moianului* and Bega river (fig. 6), where there have been documented clogging pits, having variable depths, over 3 meters. The same type of extraction pits are visible, this time very clearly, on the coast of the versants that border this plateau, the entire zone being "disturbed" of this anthropic interventions.

The pits, today being invaded by vegetation, are being displayed on a surface of over one hectare, with an irregular shape, with a distance between them of 50-100 meters, with dimensions of over 15 meters, different as a shape, sometimes superficial, but visible.

The pits, invaded today by vegetation, are being displayed on a surface having over one hectare, irregular shaped, having the distance between them of 50-100 m,

⁶ We express here, our entire gratitude and consideration for Professor dr. Wolfram Schier for all his support.

⁷ Information from the grandmother of Baroni family from Fărășești, "Sodol" meadow being the family's hayfield, the names of this places are probably lost, changed today, being part of the old toponomy. Between Fărășești and Crivina de Sus there was *Culmea Vătranului* (Ursulescu 1999, p. 168): "vătrani" meaning the fire hook.

with dimensions of over 15 m length, different as a shape, sometimes superficial, but visible.

Dîmpu Moianului is the versant that limits Sodol's water meadow, at approximately 400 m from Bega River, in the opposite side (coordinates 45°49'20,16''N; 22°21'40,71''E) 224 m from the sea level), displayed on terraces, the first two having in their competency silicious rocks, Balkan flint, silicious grit stones, jasp and chalcedony that are the object of the exploitation, and from approximately 60 m high, mica-schist of low quality and very rarely quartz.

The base material from here is comprises "Banat" flint, crossed by manganese oxide, silicious grit stones of good quality with chalcedony spots, brow-reddish jaspers or silicified wood, silicious concretions characterized by a concoidal crack, in different color-tones of ochre which covers the superior layer of the meadow and side of *Dâmpu Moianului*.



a.



b.

Fig. 4. Pietroasa, (Timiș County, Fărășești village, "Sodol" meadow. a) The enclosure of an exploitation pit, boarded by low quality sillicolites; b) silicolite boulder.



a.



b.

Fig. 5. Pietroasa (Timiș County), Fărășești village, *Dâmpu Moianului*, aspect from the area of flint exploitation.

The entire ensemble seems to be an exploitation centre (fig. 4-5). Upstream and downstream this point, at 4-6 km, it was indentified the same silicious material in which pregnant is the chalcedony, the opal crossed by a series of manganese black oxide network, known in archaeology as "Banat" flint (Comșa 1971, 15-19; Comșa 1975, 5-19), identified also in the right side of Bega river, before Pietroasa village, along the valley that tributaries Bega river (fig. 6).

E. Comșa mentioned very well these points, verified by us too, on a direction along Bega river, the entire area being composed, petrographically from the same category of silicolites, that were exploited, according to Comșa even since Paleolithic period Comșa 1971, 18).



Fig. 6. Pietroasa (Timiș County). The placement of the zone with "Banat flint".

The petrographic materials identified by groups of mountains were: Almăjului Mountins – freshwater flint, silicolite and black chert, silicified wood; Aninei Mountains – silicious stratiform accidents; Poiana Ruscă Mountains – jasp, diatomit, gheizer chalcedony, brown flit (fig. 7) (Catalogue 13/a) – "replacement silicios slate" – pure quartz (biochemical rock)) (Ungureanu 2008, 106), "Banat flint", corneus, banatite, andesite; Zarandului Mountains, Glșa Carriere – horned limestone and horned dolomite. A great part of the Vinča culture lithic industry from Tărtăria – archaeological research 2014 – is being configured from brown flint, identified in the zone "Carieră" Silivașu de Jos (Hunedoara), the same material being present on all over the east versant, but we do not have analysis for attribution of the raw materials.

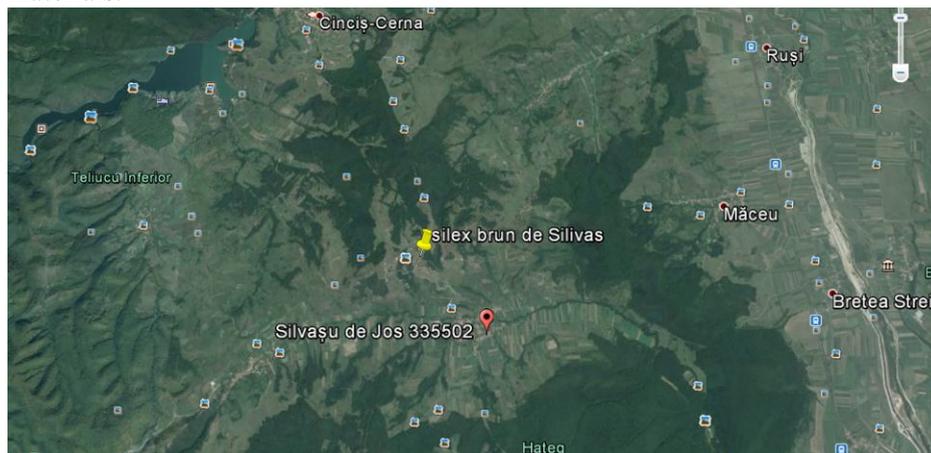


Fig. 7. Silivașu de Jos (Hunedoara County). The placement of the zone with brown flint (Catalogue 13/a).

The catalogue of the identified rocks

 <p>1. Poiana Ruscă Mountains, Lugoj Basin, Bulza (Timiș County). Jasp.</p>	 <p>2. Poiana Ruscă Mountains, Lugoj Basin, Bulza (Timiș County). Diatomit.</p>
 <p>3. Poiana Ruscă Mountains, Techerău, Bодii Valley. Gheizer calcedonie.</p>	 <p>4. Poiana Ruscă Mountains, Valea Nandrului, Hunedoara County, "Ocolul Silvic" Point. Jasp.</p>
 <p>5. Poiana Ruscă Mountains, Valea Nandrului, Hunedoara County, "Ocolul Silvic" Point. "Banat flint".</p>	 <p>6. Poiana Ruscă Mountains, Valea Nandrului, Hunedoara County, "Ocolul Silvic" Point. Chalcedony (brown flint).</p>

 <p>7. Poiana Ruscă Mountains, Cârjiți, Hunedoara County. Jasp.</p>	 <p>8. Poiana Ruscă Mountains, Chergheș, Hunedoara County. Jasp with small leads of quartzite.</p>
 <p>9. Poiana Ruscă Mountains, Pietroasa, Timiș County, Bega Valley, 45°49'16N, 22°21'33E. "Banat flint".</p>	 <p>a) b)</p> <p>10. Poiana Ruscă Mountains, Fărășești village, Timiș County, Bega Valley. a) "Sodol" meadow point, "Banat flint" and b) Izvorul rece.</p>
 <p>11. Poiana Ruscă Mountains, Sasca Montană, Timiș County. Silicious accident.</p>	 <p>12. Poiana Ruscă Mountains, Silivașu de Jos, Hunedoara County. Opal, chalcedony. 45°39'43.35"N 22°54'54.34"E.</p>

 <p><i>a</i> <i>b</i></p> <p>13. Poiana Ruscă Mountains, Silivaşul de Jos (Hunedoara County). "Cariera". a) Brown flint 45°39'43.35"N 22°54'54.34"E b) Opal.</p>	 <p>14. Poiana Ruscă Mountains, Ocna de Fier, Caraş-Severin County. Boulder with all the four phases from quartz, opal, chalcedony and hialit.</p>
 <p>15. Metaliferi Mountais, south, Banpotoc Valley, Hărău village (Hunedoara County). Silicified sandstone.</p>	 <p>16. Almăjului Mountains, "Scamnul Cruşoviţei", Caraş-Severin County. Silicolite, fragment from a nodule.</p>
 <p>17. Almăjului Mountains, "Scamnul Cruşoviţei", Caraş-Severin County. Black chert - silicolite.</p>	 <p>18. Almăjului Mountains, Căuniţei Valley, Caraş-Severin County. Fresh water silicolite (as the Balkan one!).</p>

 <p>19. Almăjului Mountains, "Ogașul Cirinii", Caraș-Severin County. Silicolite.</p>	 <p>20. Almăjului Mountains, <i>Ogașul Irezni</i>, Sicheviței Valley, Caraș-Severin County. Silicified-opalized wood.</p>
 <p>21. Aninei Mountains, Aninei Valley, Caraș-Severin County. Limestone with silicious stratiforme accidents.</p>	 <p>22. Zarandului Mountain, Cariera Galșa, Arad County. Horned-dolomite rock.</p>
 <p>23. Poiana Ruscă Mountains, Glimboca Valley, Caraș-Severin County. In the river's bed. Andesite.</p>	 <p>24. Poiana Ruscă, Mountains, Glimboca Valley, Caraș-Severin County. In the river's bed. Banatit.</p>

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NEW RECOVERED ARCHAEOLOGICAL ARTIFACTS FROM CRAIVA “PIATRA CRAIVII” DACIAN FORTRESS (CRICĂU COMMUNE, ALBA COUNTY) I.

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***Abstract:** The authors analyze a curved dagger, sica type, found near Piatra Craivii Dacian fortress, recovered from a treasure hunter. Following its analysis, it was found that it comes from a cremation grave dating from Dacian period. One can find analogies of the dagger both in the so-called cultural horizon "Padea-Panaghjurski Kolonii" from south of the Carpathians and also in the Getic and Dacian sites from Transylvania, Transcarpathian Ukraine, Wallachia and Moldavia.*

***Key words:** curved dagger – sica, cremation grave, Dacian fortress, Padea-Panaghjurskii Kolonii horizon.*

The discovery context

The beginning of the 21st Century in Romanian archaeology is marked by an unseen previously phenomenon with multiple connotations, a phenomenon that places those involved in researching the underground remains of civilizations and cultures in front of a new and complex challenge. We are here referring to the emergence of dilettantes and *pseudo-archaeologists* amongst owners of metal detectors, commonly referred to as *detectorists*. We will not accomplish here a detailed analysis of this phenomenon (additional literature on the subject: Teodor 2014; Ciută 2012; 2014; Ciută, Ciută 2015, Ciută, Ciută 2015a), as we will limit ourselves to the conclusion that the Romanian society is, once again (!) unprepared to adequately and efficiently react to the consequences of this type of investigations, resulting in most cases in the irreversible destruction of archaeological contexts

and/or the plundering and loss of often important and spectacular artefacts of national heritage status.

Like we have specified with another occasions (Ciută, Ciută 2015, note 4), the year 2014 represented an interval in which the phenomenon of making geo-physical detections by no specialists in archaeological areas, is developed with an extreme manner, impossible to anticipate at the moment of commencement and implementation of the laws who rules the regime of this activities on the territory of Romania.

The artifact presented in this study was recovered from the above mentioned type of *detectorist* during the judiciary investigations inside a penal file, and all the information is being related to the originate context where recovered, on the same judiciary way, from a witness¹, who indicated exactly the place from where was extracted, specifying more other details associated with the area of the context and also about the object.

Thus it was stolen, along with other objects in the area of the Dacian settlement and fortress from Craiva - "Apoulon", a monument of national importance², specifically in the north-east of the site, not far from recent units of archaeological research excavated in the points: "Terrace V" and "Șura", according to those who have researched this site (Berciu *et al.* 1965, 155-166; Berciu, Popa 1970, 261-274; Moga 1981, 103-116.; Moga *et al.* 2006, 142-143; Moga *et al.* 2007, 140-142; Moga *et al.* 2008, 140-142; Moga *et al.* 2008, 106-109).

The perimeter of the context of origin was located at a distance of approx. E-SE 420 m in a straight line towards the mountain plateau and approx. 140 m NE from the archaeological research units from the "Șura" point, in a small clearing. The glade has a relatively round shape with a slope with southerly direction, and is in close proximity to the forest road flowing through the forest edge, on the watershed or edge evolving east, between Craiva Basin south and Cricăului Basin north. The highest point of the glade at less than 10 m from the indicated road, covered with young peanut threes, during the detections was found several artifacts, including the dagger presented below³.

¹ Due to the fact that the penal file is in progress, we do not specify dates about the identity of the involved persons, for understatedly reasons. At the end of the penal process all data will be public.

² LMI code: AB-I-s-A00028; RAN code: 4160.01.

³ Because, in this moment, the investigations of precise identification of recovered and/or unrecovered artifacts associated with the dagger are not completed, we will venture into their presentation, but as a working hypothesis, we can mention funeral of deposits, given the characteristics of type *sica* daggers and their associated parts.

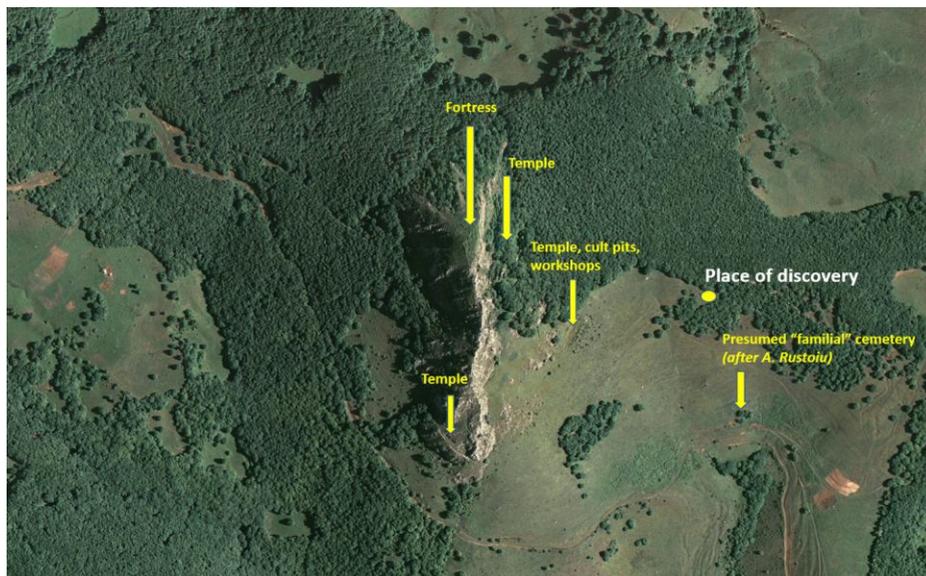


Fig. 1. The place of discovery of the curved dagger and of the main discoveries from Dacian site of Craiva - "Piatra Craivii".

Dimensions and explanation:

The iron curved dagger had the following dimensions:

- Blade length – 22.5 cm;
- Maximum and minimum width of the blade: max. = 3.4 cm; min. = 3 cm (right of the press handle);
- Maximum and minimum thickness of the blade: max. = 6 mm (right at the handle); min. = 2 mm (at the top);
- Handle length – 12 cm;
- Maximum blade width – 3.5 cm;
- Maximum width handle – 3 cm;
- Width of the collar next of the blade – 1,6 cm;
- The width and diameter of Collar at the end of the handle – 1,5 cm; $\emptyset = 2,5 \times 1,7$ cm;
- Length and diameter of fastening rivets – 2 cm; \emptyset decorated (incised) ends = 1 cm.



Fig. 2. Curved dagger from Craiva – "Piatra Craivii" (photo by Călin Șuteu).

The artifact present at the moment of discovery, a layer of iron oxide was present on the entire surface, consistent to its top, being noted a mechanical cleaning intervention made by the "discoverer" of the blade, on the handle area⁴.

The blade of the dagger, triangular in section, is curved, with greater emphasis near the top, being bent in antiquity. The decoration is constituted by a register ornamental formed on the side handle, a ribbon suggests two longitudinal channels (so-called "egress of blood" - *Blutrinnen*), coupled with another composition consisting of an incised line waves and two arranged *in garland*.

⁴ For the expertise, the artifact was subsequently cleaned and treated properly by Mr. Ștefan Lipot, in the Conservation and Restoration Laboratory of the Department of History, Archaeology and Museology of the University "1 December 1918", whom we thank here.

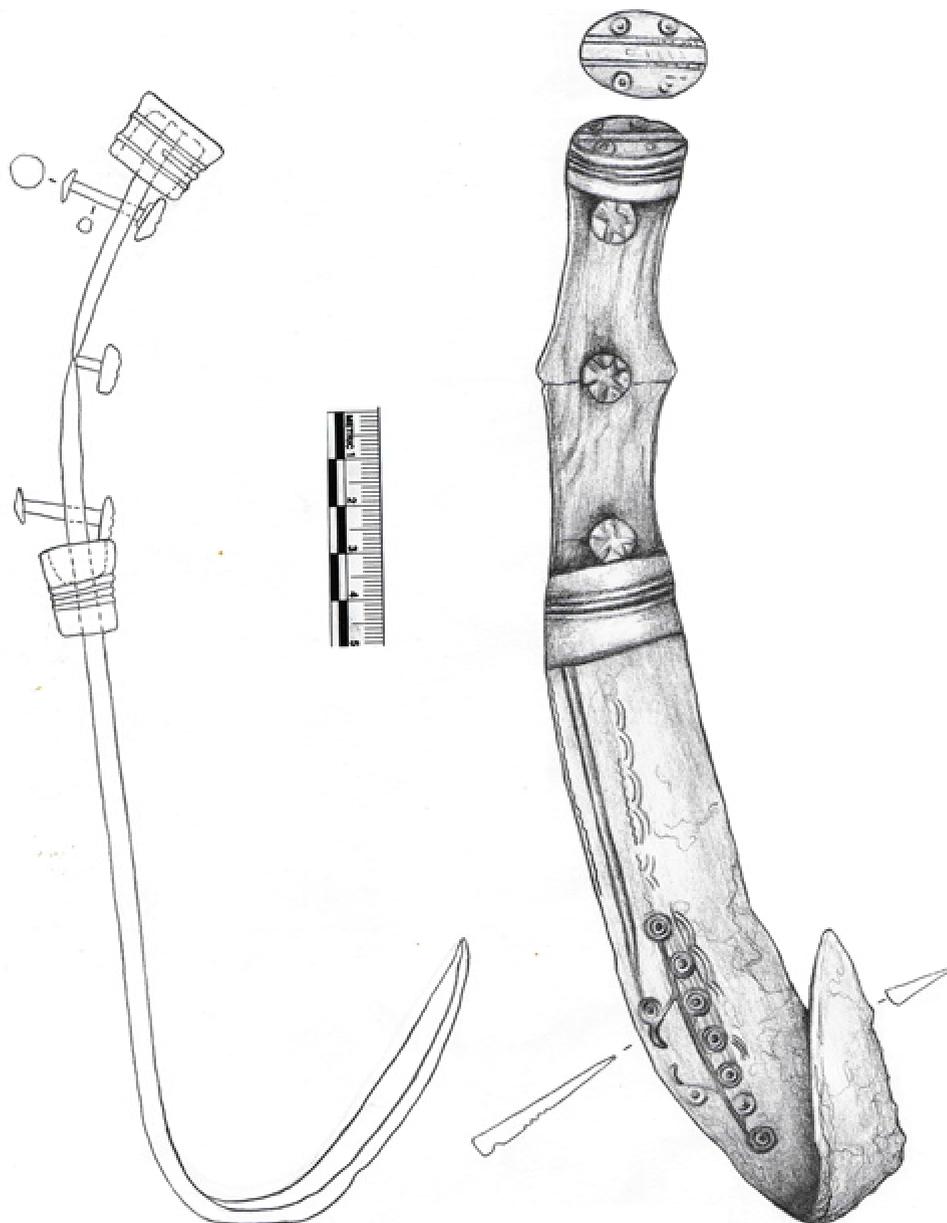


Fig. 3. Curved dagger from Craiva – "Piatra Craivii" (Drawing made by Ștefan Lipot).

The central element of decorative structure is shown in the middle and to the top part where there are two *avimorphic* representations in affront position (eagles, as suggested their beaks and eyes well singled out), below which are played by seven circles, incised by punching, arranged in a line. They are "linked" together by parallel incised lines, being also noticeable underneath, but only on a certain area, further elements displayed "in garland" (Fig. 2-3).

The handle of the dagger has a rectangular shape so its profile is wider in the middle area. The hilts, which were not preserved, were joined by three rivets with heads, from the decorated blade, semi globular shaped and decorated by five to six radial incisions. The other ends of the rivets, which only two were kept in full, are cone-shaped. Finally, fixing hilts was completed, in the contact area, with the blade of a collar guard, whose decor is achieved by two parallel incised lines form of grooves. The second collar disposed in the terminal, with additional shows a similar decor on end, four die-cut circles and parallel, displayed in pairs of two and separated in the middle by two parallel lines, protruding (Fig. 2-3).

Comments

Through the features frames the piece from "Piatra Craivii" in the group of *sica* type daggers (discussions regarding the origin, spread, functionality and typology at Rustoiu 2007, 67-82; Borangic 2009, 22-73), weapons whose genesis and evolution occurs within the Thracian aristocratic milieu from south of the Danube, in the Balkan Peninsula, spreading further and north of the river, from the second century BC (LT C2), being used until the disappearance of Dacian kingdom (Rustoiu 2007a, 69). As we noted, they meet overwhelming during centuries II-I. BC (LT C2 - LT D1), especially in funerary contexts, belonging to a warriors elite, generally found associated with defensive/offensive weapons, harness and sometimes with costumes and adornments (Rustoiu 2002, 16-19; Spânu 2001-2002; Łuczkiwicz, Schönfelder 2008, 159-210). Initially they occurred mainly in the area between northwest and northern Bulgaria, northeastern Serbia and southwestern Romania, the center area of the so-called cultural horizon *Padea-Panagjurskii-Kolonii type*, supra-ethnic and supra-regional structure (Woźniak 1974, 2225-226; Rustoiu 2002, 13-19; Łuczkiwicz, Schönfelder 2008, 159-210).

The dagger from Craiva find morphological analogies, both of cultural environments from south of the Danube, for example at Osen (Borangic 2009, pl. XIII/4), Varna (Borangic 2009, pl. X/5) and Vinograd (Woźniak 1974, 90, fig. 8/24) in Bulgaria and especially from north of the river. We mention here the findings of flat graves cremation as those in Călărași (Dolj County)(Rustoiu 2002, fig. 41/5), Cetate (Dolj County)(Rustoiu 2002, fig. 39/5), Rast (Dolj County)(Rustoiu 2002, fig. 42/3-5) and in Transylvania we notice similarities with some pieces from Blandiana (Alba County)(Rustoiu 2002, fig. 20/1), Bulbuc (Alba County)(Borangic 2014, fig. 12), Hunedoara-Castle Garden (Hunedoara County)(Sîrbu *et al.* 2007, fig. 8; Roman, Luca 2012, fig. 1/8), Teleac (Alba County)(Rustoiu 2002, fig. 20/1).

Finally, analogies with the discussed piece we find in Transcarpathian Ukraine in the necropolis of the settlement from Malaja Kopanja (*Komuzopouko* 2009, fig. 24/1-2), but also in the case of some objects whose place of provenance is unknown (See, for example, Sîrbu 2011, 252, fig. 2).

In terms of ornamentation, the analyzed *sica* present elements that are found on other daggers, but without knowledge of a piece with an identical setting. Additionally, as a novelty, we note the presence of decorative elements made of incised lines arranged "in garland". The problematic of the ornamental registers was initially approached by Z. A. Wozniak (Wozniak 1974, 99-101, where distinguished four stylistic groups), reopened by A. Rustoiu (Rustoiu 2001, 181-194; Rustoiu 2002, 57-62. For the area of Bulgaria, see Torbov 2005) who considered that the presence of zoomorphic ornaments on the blade daggers is typical for northwestern Bulgaria and South-West Oltenia Transylvania (Rustoiu 2002, 58), while geometric representations (die circles and lines) know a much wider territorial extension (Rustoiu 2002, 58).

Regarding the affront eagles on the dagger from Craiva, note similarities with the rendering and execution represented a dagger from Altmir (Bulgaria)(Rustoiu 2001, fig. 3/3), Orodol (Dolj County)(Rustoiu 2001, fig. 3/6) and Bulbuc (Alba County)(Borangic 2014, fig.12). Regarding the presence of simple concentric circles made by punching, they find their similarities in many more discoveries. We note, however, a very good analogy for setting the spout of our part in Bulbuc (Alba County)(Borangic 2013, fig. 10c).

Regarding the significance of the presence of these decorations on the daggers they have a definite symbolic connotation, especially because overwhelmingly came from funerary contexts (Rustoiu 2002, 60; Spânu 2001-2002, 99).

Another noteworthy aspect is the voluntary bending of the dagger. And in this case we can speak of a "pattern" widely encountered such discoveries within (and beyond), on which we will not dwell on the moment (Măndescu 2012).

Fine chronology coordinates for the dagger discussed are rather difficult to attribute, given its removal from the archaeological context by unauthorized persons⁵. The presence of other funerary finds in Piatra Craivii can be a foothold in overall necropolis dating here (Rustoiu 2007, 83-98; Popa 2008, 357-365; Rustoiu, Gheorghiu 2010, 447-457). A first funeral inventory comes from accidental discoveries of the late nineteenth century (Herepely 1901, 76-77, pl. XXI/228-233; Rep. Alba 1995, 83), which were performed and interpreted correctly after more than a century (Popa 2008, 357-365) and whose dating was proposed, broadly throughout I century BC (Popa 2008, 362). Possibly related to this inventory is a dagger with a complex decoration (Rustoiu 2007, 83-97 *sqv*, fig. 1/1), which has its good analogies with similar piece from tomb no. 1 of Mala Vrbica – Ajmana (Rustoiu 2007, 87, fig.

⁵ We hope that during the processing of other artifacts associated with the dagger is possible to obtain more data.

1/2), in Serbia, in the Iron Gates, in a context LT D1 (approx. 150-75 BC), another from Popitsa (Bulgaria)(Rustoiu 2012, 174, fig. 9/3; Torbov 2005, Pl. II/3) and in a hoard(?) of objects find on the southern slopes of Rtanj mountain near the town Vrmđza in Serbia, recently published (Милојевић, Милановић 2015, p.40-41, pl. I/11)⁶. Another dagger, whose features make all plausible the origin of a grave, is being kept in the National Museum of History⁷, in course to be published soon (Sîrbu, Borangic 2016). Finally, a third discovery of the funerary "Piatra Craivii" probably as a result of illegal activity detection was partially published (Rustoiu, Gheorghiu 2010, 447-457)⁸. On the basis of the brooch from the grave inventory, it was dated to the period between the last third of I century BC - beginning I century AD, and is, according to the authors, the late expression of the Padea Panaghjurskii Kolonii-group in Transylvania (Rustoiu, Gheorghiu 2010, 451)(Rustoiu, Gheorghiu 2010, 451).

Therefore, based on the funerary discoveries done so far in Craiva "Piatra Craivii" we tend to believe that they rather fit in the sub-phase of D2's of later Latène.

Corroborating the certain late dating of one of the mentioned graves with other similar complexes from other locations, we ask whether the use of "Padea - Panaghjurskii Kolonii group" may be applicable for the period rise of Burebista (approx. 60-40 a. Chr.)(Dobesch 2001, 781-811) and later?⁹

⁶ Slovenian researcher D. Božič is cautious considering the existence of a deposit in this case, pointing out they come from some illegal detections, Critically analysing the parts chronology same author concludes the majority of the pieces are dated LT D1, two of them LT D2 and one piece probably dating to old antiquity. (Božič recommendation on <https://www.academia.edu/16580021>).

⁷ On its existence was made aware of us, years ago Dr. Horia Ciugudean. Our subsequent attempts to study the track have failed. Recently, more successful, proved endeavors researcher Valeriu Sîrbu.

⁸ The Inventory, preserved today in the Museum of Gherla (Cluj County), consisted exclusively of iron pieces, consisting of a hybrid fibula, a curved dagger, a spearhead and probably a long sword late Latène type, last piece lost.

⁹ In this direction, see also the separation what E. Teleagă, makes between the tomb of the warrior with waggon from Cugir, assigned to the graves with weapons Padea-Panaghjurskii Kolonii (in the range of LT C2- approx. 250-150 B.C. and LT D1 - approx. 150-75 B.C.) and the warriors of Burebista (Teleagă 2014, 309; 311). Several questions regarding the chronological connections, and not only, see at Măndescu 2013, 127-128. See also Łuczkiwicz, Schönfelder 2008, 161-162. Recently, V. Sîrbu proposes to eliminate the term "Padea-Panaghjurski Kolonii" defined awarded funerary discoveries by Wozniak (with subsequent contributions). He believes they are Dacian monuments, being rejected and the possibility that at the genesis of the Dacian kingdom have participated groups of warriors came from south of the Danube. Arguments in Sîrbu, 2011, 253 (where is proposed abandonment of this term discoveries in southwestern Transylvania and Ukraine) and Sîrbu 2015, 13-14 (for the whole complex of the group recalled the centuries II-I. B.C.).

The dagger published here, though discovered under less favorable conditions, completes the overall image of the funerary finds in the area of the south and north of the Lower Danube between late Latène's and particularly the one in the Dacian settlement from Craiva-"Piatra Craivii". Based on oldest and recent discoveries is confirmed the existence of an aristocratic necropolis¹⁰, whose behavior and inventory reveals supra-regional and supra-ethnic patterns and connections.

¹⁰ Its location, proposed on the basis of incomplete information (cf. Rustoiu 2015, fig. 29) is considered to be corrected by the presented plan and others to be published later (see Fig. 1).

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OBSERVATIONS CONCERNING A ROMAN BRONZE IMPORT DISCOVERED IN THE DACIAN FORTRESS FROM PIATRA NEAMȚ- BÂTCA DOAMNEI

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Keywords: *Dacian era, Piatra Neamț type cup, Roman import, metallographic analysis, Bâta Doamnei Fortress*

Synopsis. *This article contains a series of observations regarding a bronze cup of Italian provenance, discovered in the Dacian station at Piatra Neamț-Bâta Doamnei during the archaeological campaign of 1958. The terminological importance of this piece comes from the fact that a new morphological type for bitronconic cups was defined around it, with few like it, either whole or fragments, being documented in pre-Roman Dacia. The stratigraphic context of the discovery is being analysed again (Eastern terrace, section J, dwelling, -20 cm) while the morphological descriptions of the object and its decorations is being re-evaluated. A hefty chapter is dedicated to the artefact's chronology, also using the results of triage and correspondence analysis. In our opinion, the archaeological and, implicitly, the chronological context of this object is tied to the second half of the 1st Century BC, specifically its end.*

The subject of this study was motivated by the possibility of detailed study on metal artefacts, discovered through archaeology, from the important Dacian station at Piatra Neamț-Bâta Doamnei (fig. 1) (With due thanks to our colleagues who contributed, through analyses and bibliographical support, to the emergence of this study: dr. Dragoș Diaconescu, dr. Gh. Dumitroaia, dr. Aurel Rustoiu, dr. Iosif Vasile Ferencz).

Without insisting in this context on general information regarding the site (Gostar 1969, 9-10; Buzilă 1970, 237-238), we stopped for now on a single piece, named initially *oenochoe of gilded bronze*, discovered during the second campaign of systematic research, coordinated by Constantin Matasă in 1958 (Matasă *et al.* 1961, 339, 342, fig. 3/7; the *gilded* aspect for bronze cups was already relevant in the literature decades ago, through diverse discoveries, e.g. F. Baratte *et al.* 1984). The photography of piece was copied in diverse other publications with the description of *gilded bronze vessel* (Gostar 1965, fig. 5/7; Gostar 1969, p. 21, fig. 34; Cucoș 1970, fig. 15/6; Berciu 1972, 666; Glodariu 1974, pl. XLV/B24/b; Pippidi 1976, 94) and considered an import (Greek or Roman). A. Buzilă deserves the credit for correctly describing, through metallographic analysis, the nature of the object (*bronze vessel*) (Buzilă 1985, 719-720) and restoring it according to the most modern standards of the 80's (Buzilă 1985, 719-723). Although not particularly pretentious, nor part of

any deposit or tomb, and a rarity among Dacian finds in the Moldavian Sub-Carpathians (Carpathian foothills) the artefact can constitute a potential chronological anchor for dating a stage of the fortress's functionality, parallel to the possibility of completing some economical, commercial and aesthetic information, synthesized by Prof. I. Glodariu in his fundamental work dedicated to the commercial relations between Dacia and the Hellenistic and Roman worlds (Glodariu 1974, 52-53) and completed by various later studies (Sanie 1981, 56, nr. 1, pl. 10/1a-c, pl. 56/1; Beldiman 1988, 77-78, nr. 5, fig. 3/5).

Methodology

The first point of analysis is trying to thoroughly reconstitute the archaeological context of the piece's discovery, with the problem of its restoration as a secondary concern. The second point, the morphometric/descriptive, reflects the dimensions of the piece, the literature's data being completed with novel ones and observations on the description of all the components of the piece as well as the data on utilized paleotechnology, visible to the naked eye. The next problem was to find the vessel's

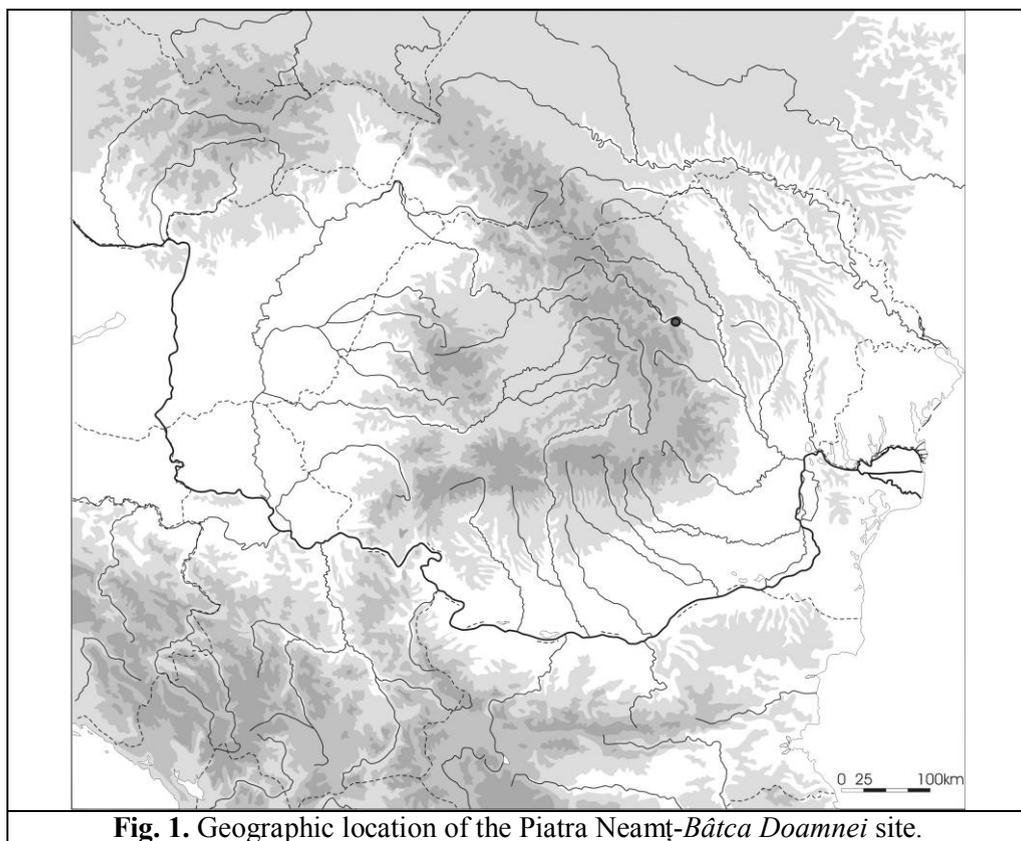


Fig. 1. Geographic location of the Piatra Neamț-Bâtca Doamnei site.

typological and chronological fit. Established typologies were used (ex. Eggers, Boube-Piccot, Rustoiu) and for the dating we tried to account for the site's chronology, the general data of the discovery's context as well as the internal chronology of the piece. The use and functionality of the piece constitutes the fourth point of analysis, with an eye to the route data for similar pieces, doubled with historic information on this type of artefact. The last methodological concern is the need to publish and interpret the metallographical data and integrating them in national and European databases.

The piece's archaeological context.

Turning to the initially published data (Matasă *et al.* 1961, 339, 342, fig. 3/7) and consulting the valuable documentation at the Piatra Neamț Museum (Bîtea Doamnei file, #4875), the stratigraphical position of the piece was clarified. It was found in the southern end of the eastern terrace, in the south of section J, depth of -20 cm, very close to a compact mass of burnt adobe considered by the finders to be the remains of a burned construction, found at -20 to -25 cm (it also occupied the eastern half of section I, with the rest of the adobe mass going under the eastern profile of these sections).

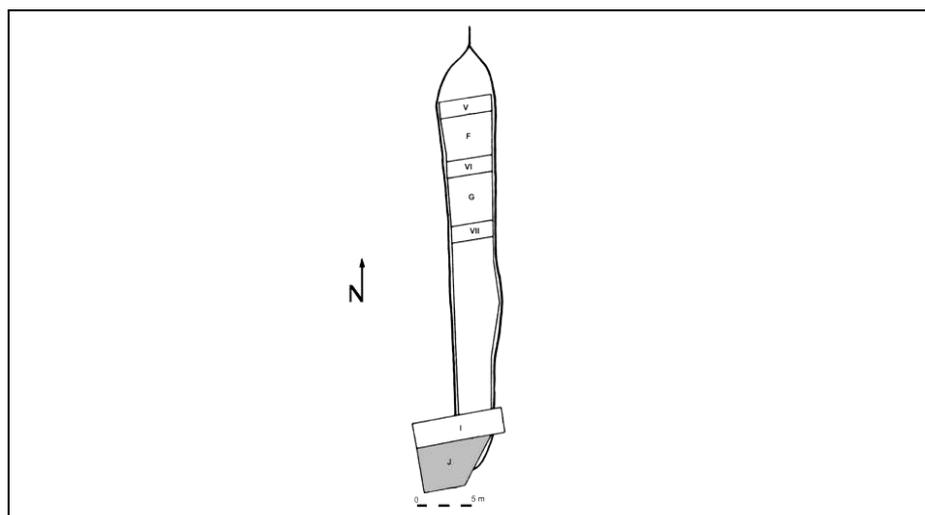


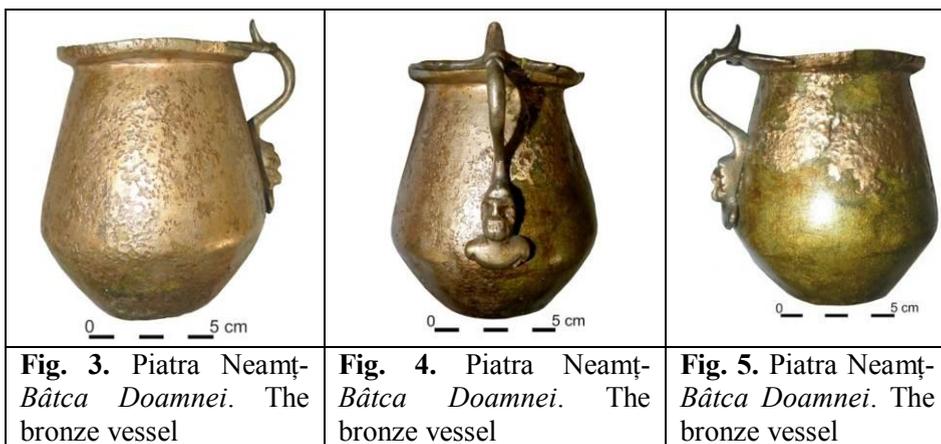
Fig. 2. Archaeological dig plan (cited from Matasă *et al.* 1961, processed), with the eastern terrace's southern end (section J) marked.

A. Buzilă includes it in the dwelling's inventory, to which, considering the primary data, we agree, pending the full processing and publication of the complex's inventory. Regarding the piece's position, it was discovered on its side and during excavation its bottom was broken, the handle came off and its right arm was broken. The rough texture of the metal is ascribed to the high temperatures generated by the fire (Buzilă 1985, 719-720), with the corrosive agents working mostly on the upper

side of the piece, relative to its initial position, identified archaeologically. We have no data on where the vessel's mouth was facing or any contents it might have had, with the bronze surface being marked at the time of discovery by large surfaces of varying degrees of corrosion.

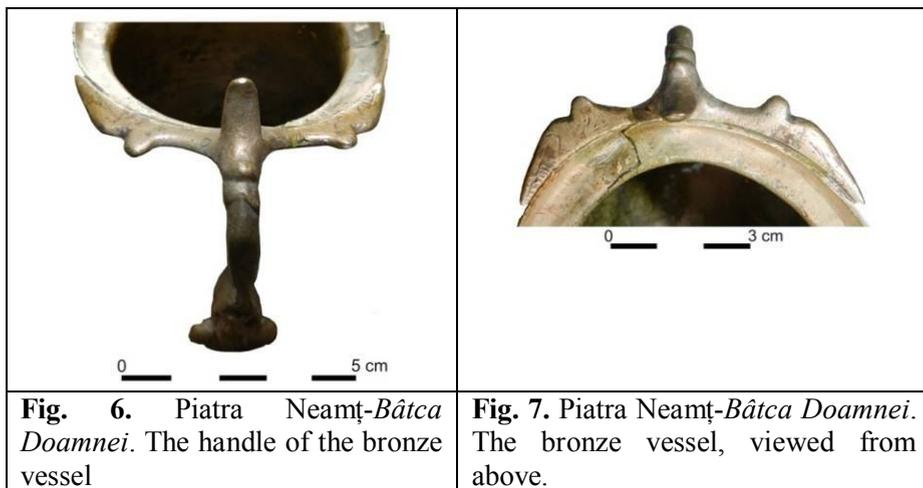
The piece's morphology and description.

The vessel is bitronconic, with the a shorter lower cone (1/3 of the total height), slightly pronounced shoulder, no neck and the rim flared outward in two stages at different angles (the edge of the rim has a slightly wavy aspect), a slightly convex base, with an attached handle reaching slightly above the rim, 8.5 cm high (fig. 3-5).

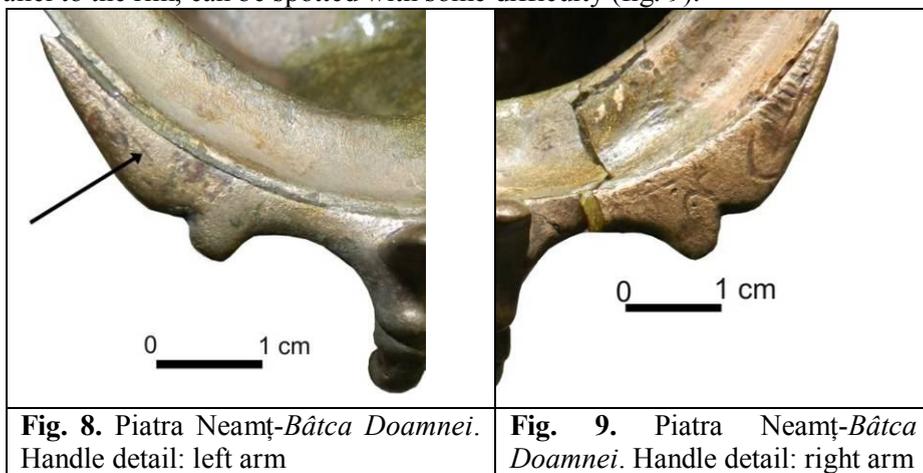


The piece's size is as follows: height of the container, 10.5 cm, diameters of the slightly oval mouth, 8.1 and 7.8 cm (this results from a later mechanical deformation of the upper part of the vessel, around the handle, due to the abandonment of the piece's context or during excavation, manipulation and storage), maximum diameter, 9.1 cm, base's diameter, 5.1 cm, handle height, 8.5 cm, handle arms' span, 6.1 cm, total piece height 11.7 cm.

The handle, which was cast, is highly arced, with a round section (fig. 6-7) and welded to the rim by a part-circle attachment and to the vessel's thickest segment by an anthropomorphic representation, with no macroscopic traces of piercing the vessel's wall to affix the handle.



Regarding the decorations on the upper part of the torch, we notice that the left arm (perpendicular view) only has a single incised line (fig. 8). The opposite arm is decorated, near its end, with 12 parallel lines and one more perpendicular to these, with two twinned half-circles. Two small sockets with a sinuous contour, near this decorative element, can be tied to the casting process and do not represent, in our opinion, part of the handle's decor. Closer to the button, another superficial line, parallel to the rim, can be spotted with some difficulty (fig. 9).



The top of the torch is decorated with a vertical button, slightly arced, with two small elongated lumps (fig. 6), playing a part in handling the object and representing the stylized head and neck of a swan. The lower end of the handle holds a human

bust, lightly sketched, with an oval face and beard (32 mm tall), in the Hellenistic style (fig. 10).



Fig. 10. Piatra Neamț-Bâțca Doamnei. Detail: lower handle

This relief represents a man with an expressively contoured bare chest, a well-marked and detailed chin with a short beard, suggested by the six vertical and superficial incisions (fig. 13). The slightly hooked nose is represented realistically and the deep-set eyes accentuate the figure's sober countenance. The hairstyle (our opinion)(fig. 11, 12) or folds of the cone-tipped hood, according to others (Sanie 1981, 56), is marked by eight main incisions, slightly oblique and placed asymmetrically, with a further three short incisions on the right of the figure to accentuate this detail (fig. 11). Macroscopic observations have found no traces of welding small metal supports to better fix handle to vessel. The vessel's volume is 350 ml.

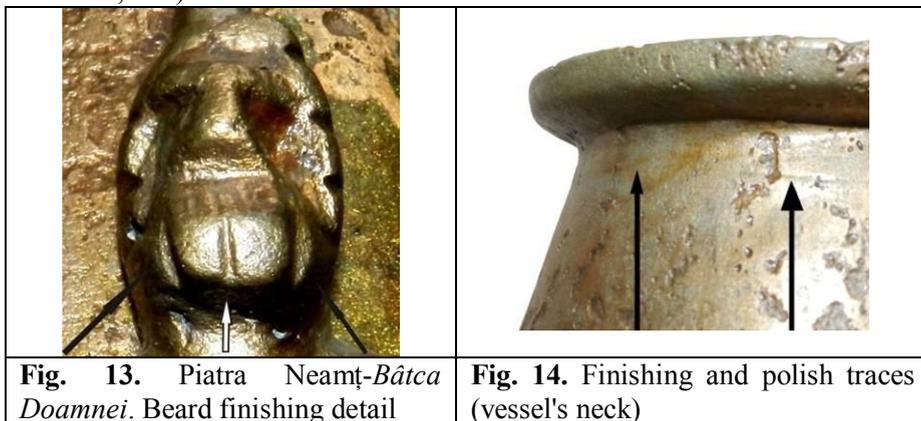


Fig. 11. Piatra Neamț-Bâțca Doamnei. Right side detail (lower handle)

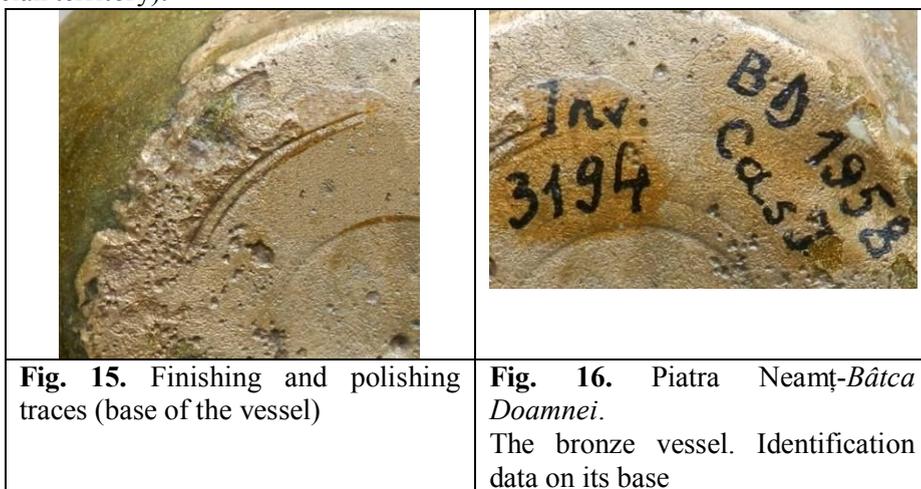


Fig. 12. Piatra Neamț-Bâțca Doamnei. Left side detail (lower handle)

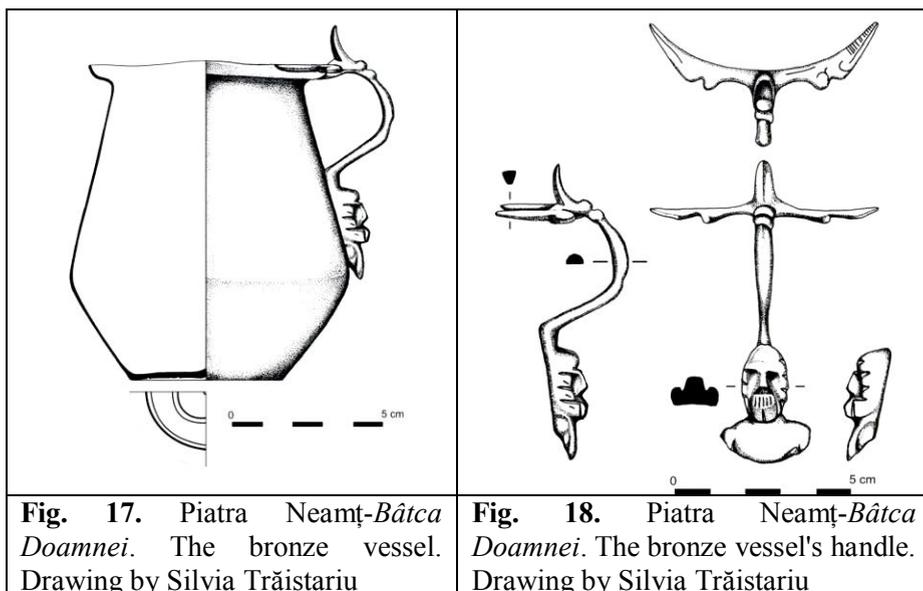
The vessel is made of bronze, 1 mm thick in its body and 2 mm thick at the base. It was hammered into shape and finished with abrasive materials and polishing on a fast-spinning wheel (*lathe*) (inv. #3194). The remains of these last two processes are visible on the upper neck (a slightly deeper line)(fig. 14) and in the concave bottom of the vessel as a centring point and four superficial concentric circles (fig. 15). Initially, thanks to the polish, the vessel was brilliant in aspect. This is still partly seen on the small parts of the vessels that have escaped corrosion (Buzilă 1985, 720).



This artefact documents numerous mechanical stages of the technological process (forging (?), cutting, polishing, bending, deformation), as well as casting and decoration techniques, through observation by naked eye and magnifying glass. No traces or areas of obvious use can be seen macroscopically, which would suggest long use (the sum of technological observations on this piece will be the object of a more extensive study, yet to be published, treating bitronconic bronzeware across Dacian territory).



The graphical illustration of the bronze vessel according to all European regulations was a necessity, given the piece's importance and to overcome certain obstacles to the publishing of black and white photos of it (fig. 17, 18).



Typology and chronology of the cup

Though typological orderings and proposals for functionality have emerged in Romanian archaeological literature for many types of pieces (ceramics, fibulae, coins etc.) for the purpose of extracting chronological and historical observations and conclusions, for the category of objects analysed here, within Dacian space these approaches are limited to C. Beldiman's article (Beldiman 1988) and the extensive and valuable study by A. Rustoiu (Rustoiu 2005), in which, on the basis of this cup and especially its handle, the Piatra Neamț type is defined, which has gained acceptance in European archaeological literature as well (Boube-Piccot 1991, p. 30, n.11).

Even though the number of bitronconic cups with handles preserved is relatively small in the Balkan area, the typological palette of recipients is significant enough to discuss. We notice a degree of standardization of this shape, regarding the mouth's diameter, the maximum diameter, the height and the bronze shaping method, based on the fragments from the same typological register discovered at Bobaia, Costești, Pescari, Țigănești, Židovar and partially Dunăreni. The first author to describe the decorations found on the Bâțca Doamnei vessel (Sanie 1981), identifies the horizontal part of the handle as a stylized bird with outstretched wings. The

argument is offered by the presence of clues suggesting plumage (Sanie 1981, pl. 10/1a, erroneous drawing, oversized for the indicated scale, with the plumage details drawn too schematical, with important elements drawn wrongly or omitted) and the button, shaped like the head of a swan. The recent publication of a Piatra Neamț type cup handle from Șimleu Silvaniei allows the authors to identify the upper horizontal part of the piece with a bird, wings outstretched (Pop, Plantos 2009, p. 125), as well as to clarify an aspect regarding the correct interpretations of the hairstyle details, our argument being the same piece, so as to cite only nearby analogies (Pop, Plantos 2009, pl. 2/1 with identical hairstyle details).

For Transylvanian space, publishing the Bobaia hoard inventory offers important data regarding bitronconic vessels, with the trove of coins it contained (Chirilă-Iaroslavschi 1987-1988) for chronological support. The link between the bronze cup (though fragmented and without handle) and the presence of a relatively large quantity of monetized silver (about 1.5 kg) (*terminus post quem*, Republican denarius C. Naevius Balbus; *serratus*, Roma), as well as the lack of Hunedoara type coins, demonstrates that this recipient is already part of the specific typology of luxury goods, dated around the end of the Ist Century BC's first quarter (Chirilă-Iaroslavschi 1987-1988, p. 85).

A. Rustoiu groups the discoveries at Țigănești and Pescari in like manner, opining in favour of dating the vessels there in the first half of the Ist Century BC and toward its middle (Rustoiu 2005, 62). Summing up and discussing general aspects regarding bronze cups in the Intra-Carpathian Dacian world and its links to the centres of production was already the object of a sub-chapter in our Cluj-Napoca colleague G. Gheorghiu's doctorate thesis (Gheorghiu 2005).

In our opinion, dating this type of cup to the whole period of the IInd and Ist Centuries BC (Chirilă-Iaroslavschi 1987-1988, 69) is much too stretched, as well as tributary to the wide chronology proposed by prof. Glodariu for these Roman import pieces, although at the same time a dating is proposed only for the Ist Century BC (Glodariu 1974-1975). If we can draw formal similarities (bitronconic profile, shape of the base and rim, height, the identical handle mounting method) between the Bâta Doamnei cup and the silver vessel of Vedea (Popescu 1937-1940, 186, 187, fig. 8), which is part of a hoard studied again by prof. Glodariu, who attributed it to the IInd and Ist Centuries BC as well. (Glodariu 1974, 64-65, 67, 70), for the Vedea cup the chronology imposed by the "little spoon" fibulae remains relevant (end of the Ist Century BC and even the start of the Ist Century CE), which was noted in relation to the possibility of longer use for this type of vessel (Rustoiu 2005, 62). The case of the bitronconic cup at Dunăreni can only be invoked from the perspective of the elements composing the upper part of its handle and its association with a hoard of Republican Denarii (the last coin being minted in 55 BC), while the vessel at Filipovici fits into the same typologies of associations (Raev 1977, 605, 637, nr. 20, pl. 27/4). While the situation in Moldova cannot enter the discussion due to the small number of pieces, discoveries in Transylvania and Banat confirm that this type of

artefact is part of that special category only found in hoards, associated with other pieces (Bobaia, Lupu, Pescari etc.) and fortified settlements or fortifications (Costești). A fragment of handle belonging, from our point of view, to a Piatra Neamț cup was recently published (Costea 2010). The stratigraphic context (Section III/2001, quadrant 24, -28 cm, “in the north-western part of the edifice, in the pavement then resulted” (Costea 2010, 155), ensures a relative dating of this fragment, according to its discoverer, to a chronological interval before the sanctuary with limestone column bases (Costea 2010, 156), respectively, the end of the first half of the Ist Century BC or around its halfway point.

Considering the archaeological discoveries and the comparative analysis methods of the first half of the XXth Century, Rádnoti fixes the time around the halfway point of the Ist Century CE as a superior chronological reference point for the appearance of the latest pieces of this type (Rádnoti 1938, 23). According to the typology of H. J. Eggers, this type of bitronconic cups are dated across the Ist Century BC (late La Tène) and the Ist Century CE (late La Tène, early imperial period) in the Germanic areas (Eggers 1951, pl. 11/122). In the context of analysing bronzeware from Noricum, H. Sedlmayer assigns the Piatra Neamț type of vessel to the first half of the Ist Century BC (Sedlmayer 1999, Taf. 1/3). Along with the synthesis dedicated to the Roman civilization east of the Carpathians, S. Sanie, having the associations between the recipe's shape and the swan handles to hand, opts to place the Bâta Doamnei vessel in the Ist Century BC (Sanie 1981, 56).

The contexts and stratigraphical situations on Romanian territory containing the same type of piece (Țiğănești, Bobaia, Vedeia, Costești, Pescari) have been recently discussed by P. Popović as well, with all being placed, for the majority in view of the coinage present, in the Ist Century BC (Popović 1992, 71-72), with the Piatra Neamț cup being committed, by mistake, we believe. A different chronological position has been recently expressed, with the Piatra Neamț cup type placed between 125/120 and 50 BC. (Boube-Piccot 1991, 26), to which opinion A. Rustoiu rallies as well (Rustoiu 2005, 52).

We generated a database and loaded all types of bronzeware in it (as reunited in by A. Rustoiu in his 2005 study, without any addition from us save to include the handle discovered at Șimleu Silvaniei), along with artefacts discovered in the context of other pieces (coins, mainly). Regarding the analysis of contexts in which the pieces were discovered, most most (58%) come from stratigraphic contexts with low or no chronological relevance and with those originating in uncertain contexts or chance finds (15%) form a majority. Artefacts from archaeological complexes which allow tight dating is low (12%), followed by hoards (10%)(fig. 19).



Fig. 19. Analysis for the type of contexts of Roman imports in Dacia (situation in 2005)

The types of vessels and other associated artifacts were given the following indicatives: **E18**=the Eggers E18 situla Eggers, **E20.1**=Eggers E20 situla (with trapeze attachments), **E20.2**=Eggers E20 situla (cu with perforated attachments), **E21**=Eggers E21/22 situla, **EB**=Beaucaire type situla, **EC1**= Costești-Tilișca type situla (Tilișca variant), **EC2**=Costești-Tilișca type situla (Costești variant), **CA**=Piatra Neamț cup, **CB**=Gallarate cup, **CC**=bitronconic cup, undetermined type (generally, fragmentation of recipients motivated the creation of this category, although the possibility that some of the recipients and fragments belong to another type is statistically low, **CP**=goblet, **MA**=Mastos, **FN**=knotted fibula, **DO**=ornamental disc, **DD**=Dyrrhachium Drachma, **DA**=Apollonia Drachma, **TT**=Thasos Tetradrachm, **DR**=Republican Denarius, **FS**=fibula with rhombic shield, **FL**=small spoon fibula, **OR**=Orbavasso-Ruvo cup, **CI**=Idria cup, **SP**=Pescate type simpula, **SS**=strainer, **TA**=Aylesford type skillet.

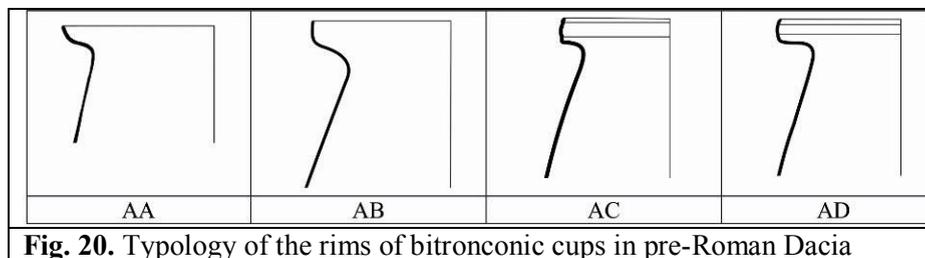


Fig. 20. Typology of the rims of bitronconic cups in pre-Roman Dacia

From an analytical perspective, the morphology of these bronze cups' rims (fig. 20) can serve as a future criterion for analysis, along with the typology of bases, handles and the relation between the diameters of the base and rim, and the vessel's

height. Thus, 4 types (AA-AD) were resolved for Dacian territory, with varying degrees of inclination for the rim's wall.

Although very few metal vessels have been discovered in enclosed contexts, their baggage of information, along with the totality of pieces reviewed by A. Rustoiu (Rustoiu 2005) can be analysed from several points of view without making the role of these results an absolute, regarding the chronology of these Roman imports. Considering the mentioned inconvenience, an already classical method of analysis was used (seriation/combinatory analysis)(Babeş 1993; Sîrbu *et al.* 2007; Măndescu 2010), with a small number of attributes, doubled by correspondence analysis.

By processing the data through these two methods, some useful elements to our study could be observed. Firstly, the seriation reveals an association between certain analysed elements and a possible chronological ordering (table 1). Secondly, the results of correspondence analysis were analysed, where the minimal sum of objects (*sites*) is 1 and the minimal sum of variables (bronzeware components, bronzeware, coins, fibulae, goblets etc., expressed through codes, excepting ceramics) is 2 (table 2). Regarding associations, both seriation and correspondence analysis confirm a distinct cluster grouping the discoveries from Bobaia, Pescari, Țigănești, Vedeia, and respectively the relation between the coins struck by the towns of Dyrrhachium, Apollonia, Thasos and probably the recipients from Gallarate, Pietra Neamț or new (!) types. In this series logic lie also the Vedeia cup, the similar discoveries at Costești and Zidovar, not being seriated. The Costești materials, as suggested, come from different archaeological contexts and suggest different chronological evolutions (the eccentric group within cluster 2), The Costești-Tilișca situla (Costești variant), not seriated, is found close to the bronze ladles with horizontal, detachable handles (Pescate), the last category of objects with a certain chronology within the Ist Century BC. The discovery of a bronze attachment from a type E20 (Eggers) situla at Brad (L1, S V, level 3; archaeological context: second half of the Ist Century BC to first decades of the Ist Century CE) suggest a later dating, specifically the second half of the Ist Century BC for the other materials with stratigraphy (Tilișca, Pietroasele) as well as those without (Craiva). The situla attachment (Eggers E18) discovered at Bâta Doamnei, revisited recently in the archaeological literature (Rustoiu 2005, 54-55) deserves an aside. This piece (inv. #5457, Neamț County Museum Complex) was discovered in section X/1967, m. 3 at -70 cm, its stratigraphic context without any other metal pieces. Its placement at the end of the series, without a direct connection to the rest of the studied elements and close to the E20 sites (the variant with trapeze attachments) confirm previous observations that, chronologically and by association, through the complexes at Brad and Tilișca, it dates between the second half of the Ist Century BC and the first decades of the Ist Century CE (Rustoiu 2005, 55).

Site	DD	DA	TT	CC	EC2	E21	CI	SP	EC1	TA	E20.2	SS	E20.1	E18	CA
Bobala	1	1	1	1											
Pescari	1	1		1											
Țigănești			1	1											
Vedea				1											
Zidovar				1			1								
Gușterita					1										
București						1									
Costești				1	1	1		1	1						
Bănița								1							
Cărlomănești								1							
Luncani								1							
Poliana								1							
Radulești								1							
Ocnita							1	1		1					
Divici						1		1		1		1			
Suncuius												1			
Răcățiu											1				
Tilișca								1	1		1				1
Pietroasele								1				1			1
Brad													1		
Craiva										1		1	1		1
Berghin														1	
Popești														1	
Piatra Neamț															1
Șimleu Silvaniei															1

Table 1. Data processing after seriation.

The Piatra Neamț-Bâtca Doamnei cup, through its stratigraphic context (which we provisionally name *the last level of Dacian epoch architecture*), its lack of association with other published metallic pieces and its eccentric position regarding cluster 2 (table 2, diagram 1) leads us to propose a later chronological placement than that generally attributed to this type of vessel, respectively the end of the Ist Century BC.

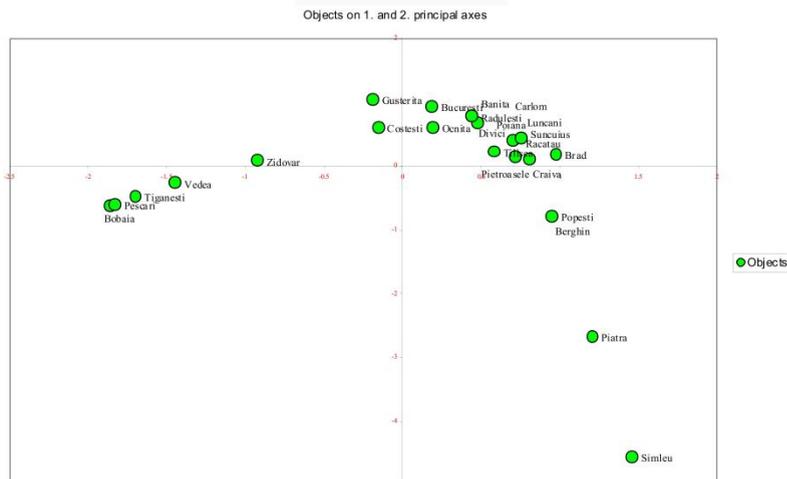


Table 2. Correspondence analysis diagram.

Thirdly we interpreted results obtained from correspondence analysis where the minimal sum of objects (localities) is 1 and the minimal sum of variables (the elements to compare enumerated above, expressed through codes) is 1. We preferred to present only the diagram, considering the type of analysis. We remark that, for bitronconic vessels, the discovery at Lupu, made unique by the nature of its associated content (mastos, a pair of knotted fibulae, ornamental disks) and chronology (end of the IInd Century BC to the Ist Century BC)(Rustoiu 2005, 62), makes the link, through the compact grouping of the other discoveries, with the cup at Piatra Neamț-*Bâtca Doamnei* (table 3). Lacking more data, which can be obtained by introducing all criteria that can be analysed (type of bronze/ceramic recipient or other analysed element, type of the characteristic fragmentary element such as situla attachments, rim profile, base profile, type of handle, chronology of coin series within the inventory of some discoveries); the profile and mass of these categories could not be followed.

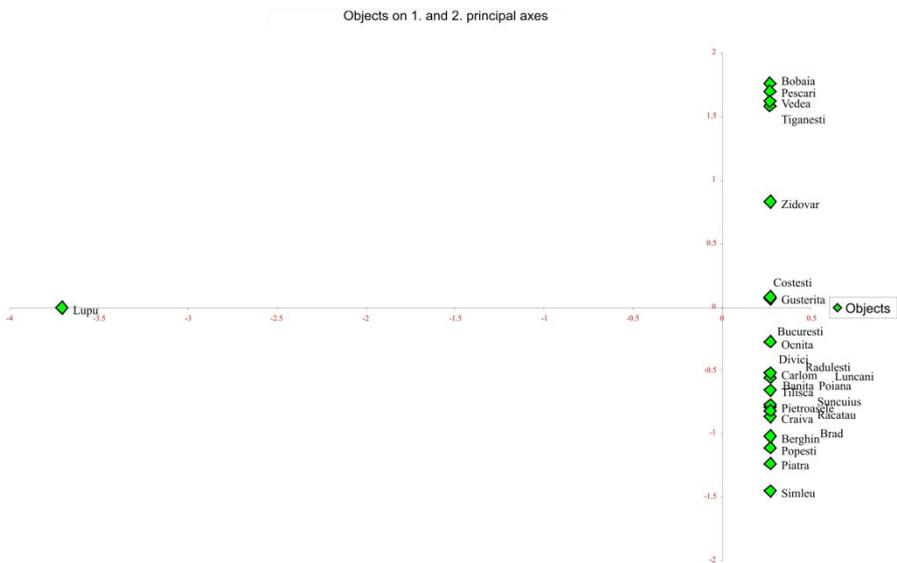


Table 3. Correspondence analysis diagram.

Use/functionality of the artefact.

Both when it was discovered and later, the bronze cup was not associated with an *extended functionality*, within the context of its discovery, although the analogies on hand (which were limited to some fragments) could have suggested a special purpose for the dwelling. Undoubtedly, this piece of *prestige furniture* can be preserved and passed down through multiple generations. Within the literature, the use of this type of cup in household chores (preparing wine or heating up water) has

been proposed, with varying degrees of justification, considering its modest volume. If the mineral compounds inside the cup would have been analysed up to the moment of the first restoration intervention, they could have suggested something in this regard.

Quantitative and qualitative metallographic analysis.

Considering the fact that, for this type of import, the technological aspect is very important, we insisted firstly on the republication of the metallographic data obtained from the metallographic analysis of the piece (Creating a national database of metallographic data for iron and bronze Roman imports is a necessity, derived from the need to obtain relevant results regarding the relation between majority elements as well as the structure of the native ore and the origin-related adjacent elements. Older literature also reflects on the importance of metallographic research for archaeological discoveries in Romania: Wollmann 1967, Wollmann 1971). We wish this task, though for an age where most metallic pieces are iron, to follow in the spirit of the specifics of research projects started in the '80s (prof. Gh. Lazarovici's team), regarding samples and pieces of bronze and copper, analysed at the macro and microstructural levels (metallographic and spectrographic). The morphological aspect can constitute only an analysis criterion for the category of these objects, with numerous aspects regarding the evolution of production workshops being extremely relevant for physical and chemical investigations (Ramin 1977; Riederer 1996). The qualitative element (16 elements) showed the major metallic components of the vessel (Cu=87,10%, Sn=6,48%), as well as resulting elements from spectrographic qualitative determinations (analysis done at the Metallurgic Research Institute in Bucarest, or ICEM, Analysis section, Analysis Bulletin no. 1151/1976)(Al \leq 0,01%, Pb \leq 1%; Zn \leq 0,001%; Sb = 0,1-1%, Fe \leq 0,1%, Mn \leq 0,001%, Mg \leq 0,001%, As \sim 0,01%, Bi \sim 0,001%, P \leq 0,01%, Ni = 0,01-1%, Ag = present, Au = absent, Cr \leq 0,01%)(A. Buzilă 1985). Regarding the main elements in the production “recipe” we remark the association of copper and tin (*tin bronze*), but also the presence of a very low amount of lead(less than 1%) and traces of de zinc. In Europe, for decades now, the importance of metallographic analyses within the study of bronzeware production was evidenced by diverse studies, some of which remain fundamental (Wielowiejski 1988), one of the stressed ideas being the link between the type of alloy and the techniques employed in producing the handles (Wielowiejski 1988, 40-42). Although the piece in question is an import, going over the literature on Dacian bronze metallurgy (IInd Century BC – Ist Century CE) reveals preoccupations tangential to the subject, with this period receiving the least amount of metallographic studies and observations (e.g. the finds at Cugir-Tumulus II, Pecica, Ludești, Grădiștea, synthesized by A. Rustoiu (Rustoiu 1996, 45), Ardeu-Cetățuie (Information amiably provided by I. V. Ferencz, of the Dacian and Roman Civilization Museum, Deva, to whom we send our warm thanks in this way as well), Bădeni (Sanie 1981, 60), Ormeniș (Costea 2010), as against the previous periods

(Copper, Bronze and First Iron Ages) or the following (Roman and medieval periods). Identifying and analysing the few component parts, without any standardised procedure, impedes the gathering of vital paleometallurgic information, such as the source of the copper and the relation between its chemical composition and the analysis of ore samples discovered in archaeological digs or modern and contemporary mining).

Final considerations

The fact that most Roman bronzeware on Dacian territory was *imported* is derived from the sum of pertinent opinions regarding it (Glodariu 1968; Glodariu 1974, 52-64; Rustoiu 1996, 165), our piece being a serialized product found within and without the Roman Empire (Rustoiu 2005, 61, note 62 also citing the most important bibliographical sources on the subject), with units found Eastwards into the former Soviet Union and published for a half a century already (Кропоткин 1970, nr. 808, fig. 53/3, 60/6). A. Rustoiu justly insists on the functions these import goods served in the Dacian world, emphasizing their early presence in some centres of power (fortresses), aristocratic tombs and/or hoards (Rustoiu 2005, 72, fig. 17).

The statement that this type of piece is poorly represented in Moldova, compared to the other territories occupied by the Dacians, remains valid. The analysed vessel's type, together with amphorae, form a category of objects with low frequency among bronzeware originating in North Italy, a situation that holds for other areas bordering the Roman Empire (Glodariu 1974, 58-59).

Although the number of whole pieces, and those that can be made so, is relatively low, our analysis will emphasize other aspects as well, some of them methodological. The first question ties to the situation in which these imports can offer clear dating elements on their own (the pieces' internal chronology) or they can be dated by analysing the contexts in which they are found, with an eye on their chronological relevance. The quality of the answer will have to keep in mind both these concrete situations; creating databases being one solution to analytically relate these pieces with similar ones with clearer chronology, both within the Roman Empire and from Barbaricum (Glodariu 1974, 53). Another element to consider is the fragmented pieces (shards of a vessel or a handle) which belong, typologically, to this series. In this case, we can begin to make statements about the technology with which these vessels were produced and observations on the types of handles and the decors placed on them.

Another relevant aspect is offered by the findings in Scordisci space, Roman imports in general and bronze cups in particular (roughly dated to around the turn of the Ist Centuries BC and CE) (Popović 1992, 64-66, 69-73; Rustoiu 2005, p. 62, opining for an earlier dating of these finds, in the La Tène D1 context), being tied to a fundamental funerary component of representing social status. Through the quality and relevance of associations, the discoveries published from Mala Vrbica-*Ajmana* (M2)(Stalio 1986, 33, fig. 46), Vajuga-*Pesak* (M3)(Popović 1990, p. 171, fig. 4/4),

but also those that are only referred to or which come without stratigraphical data, demonstrates that communities on the right bank of the Danube have a differentiated funeral identity with its own traits. Discoveries on the left Danube bank use many Roman imports in the area of settlements and fortified settlements, their associated funeral grounds, defined as necropoles belonging to the community, part of it or just a family, being furnished with other types of elements (weapons, harness pieces, swords, with ceramics and jewellery being less common). This aspect is completed by another way of funerary manifestation for the tops of the military aristocracy (e.g. Cugir, Costești, Ardeu, Popești), with Roman imports mentioned among the significant attributes (situla, strainer, bronze case etc.)

The geographical repartition of Roman bronze imports, including our type of vessels, does not change the general image of transport routes (Glodariu 1968, 365; Berciu 1972, 665-666; Popović 1992, 73-74). The progress of the last years regarding the relative chronology of bronzeware penetration in the space north of the Balkans (Rustoiu 2005, 73-83; Popović 1987) are completed by the possibility of correlation with dates associated with other pieces within hoards and deposits, with the import of bitronconic vessels throughout the Balkans from Apollonia and Dyrrhachium placed roughly between the end of the IInd Century BC and the first half of the Ist Century CE (Rustoiu 1996, 180-182; Rustoiu 1997, 79; Rustoiu 2005, 73-74).

Publishing the late Roman Republic bronzeware by item and those specific to the Augustan period from *Piatra Neamț-Bâtca Doamnei* is a necessity, imposed by tone of some historical observations and conclusions regarding the territory of Moldova, throughout the Ist Centuries BC and CE, relating to the Italian production centres and the commerce and diffusion routes of their products.

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LIST OF ABBREVIATIONS

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae, Budapesta.
AB N. S.	Analele Banatului, Serie Nouă, Timișoara.
ActaMN	Acta Musei Napocensis, Cluj-Napoca.
AP	Archaeologia Polona, Institute of Archaeology and Ethnology of the Polish Academy of Sciences, Warszawa.
Apulum	Apulum. Acta Musei Apulensis, Alba Iulia.
Археология	Археология СССР, Москва.
BB	Bibliotheca Brukenthal, Sibiu.
BerRGK	Bericht der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts, Frankfurt a. M.- Berlin.
BT	Bibliotheca Thracologica, București.
CA	Cercetări Arheologice, București.
Dacia	Dacia. Recherches et découvertes archéologiques en Roumanie, I-XII (1924-1947), Revue d'archéologie et d'histoire ancienne, N. S., I (1957-), București.
DissPann	Disertationes Pannonicae, Budapest.
Germania	Germania. Anzeiger der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts, Berlin-Frankfurt am Main.
Historica	Historica, Craiova
JahrbRGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums, Mainz.
JRA	Journal of Roman archaeology, Portsmouth.
LȘO	Lucrări Științifice, Oradea.
Materiale	Materiale și cercetări arheologice, București.
MemAntiq	Memoria Antiquitatis. Acta Musei Petrodavensis, Piatra Neamț.
MO	Monographies Instrumentum, Montagnac.
PZ	Prähistorische Zeitschrift, Berlin.
RevMuz	Revista Muzeelor, București.
Sargetia	Sargetia. Buletinul Muzeului Civilizației Dacice și Romane, Deva.
SCIV	Studii de istorie veche (și arheologie), București.
SCIVA	Studii și cercetări de istorie veche și arheologie, București.
Starinar	Starinar, Arheološki Institute, Beograd.
SlovArch	Slovenská Archeológia, Bratislava.
Thrac-Dacica	Thrac-Dacica. Institutul Român de Tracologie, București.