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ACTA MVSEI  
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## LEPENSKI VIR – SCHELA CLADOVEI CULTURE'S CHRONOLOGY AND ITS INTERPRETATION

Aurelian RUSU\*

**Abstract:** *This paper intends to discuss the new interpretation of Lepenski Vir – Schela Cladovei culture's chronology proposed by several researchers on the basis of the new data, in comparison and in addition to the previously known data.*

**Key words:** *Chronology, archaeological interpretation, Lepenski Vir - Schela Cladovei culture, Mesolithic, Early Neolithic.*

**Rezumat:** *Acest studiu discută cele mai recente interpretări ale cronologiei culturii Lepenski Vir – Schela Cladovei, interpretări propuse de cercetătorii pe baza noilor date de cronologie ce completează și compară sistemele cronologice mai vechi.*

**Cuvinte cheie:** *cronologie, interpretări arheologice, cultura Lepenski Vir - Schela Cladovei, Mezolitic, Neolitic Timpuriu*

Lepenski Vir – Schela Cladovei<sup>1</sup> culture seems to have its beginnings simultaneous with the debut of Holocene. This culture was formed in Mesolithic, and in its final stage of evolution it comes into contact with the Early Neolithic cultural complex of Starčevo-Criș<sup>2</sup>.

In the last years, since 1997<sup>3</sup>, the chronological data increased mostly by technological evolution and became somehow<sup>4</sup> more reliable, adding new information to the existing archaeological data. The later, on the basis of stratigraphy, typology and contextual findings has determined at first the internal chronology of each site<sup>5</sup>, and then the

chronology of the culture as a whole. Nevertheless, the interpretations were various, as each of the archaeologists involved in the direct research of the sites had their own particular terminology to address the new discoveries. Thus, there were several periodizations proposed for the internal evolution of Lepenski Vir – Schela Cladovei culture<sup>6</sup>. Therefore the recent research focused on AMS analyses of animal and human bones (while research continued on the whole archaeological findings) discovered in the sites of this culture, aiming, on the basis of the distribution of this materials within the settlements and the spatial relation they bear with the archaeological structures, to obtain a more accurate interpretation of the later, and so, of the whole chronology of this culture<sup>7</sup>.

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<sup>1</sup> This terminology is used, as such, accordingly to their time of appearance in archaeological terminology, as first it was Lepenski Vir culture that was defined, then Schela Cladovei was defined. Later on, it was noticed the similitude between the two, so that the double terminology began to be in use, either as Schela Cladovei – Lepenski Vir culture or as Lepenski Vir – Schela Cladovei culture.

<sup>2</sup> I use this term, for Romanian readers, as it is well grounded in Romanian archaeological terminology.

<sup>3</sup> See Bonsall *et al* 1997.

<sup>4</sup> Because a lot of data is being disregarded on the basis of either it had not been tested with the latest method of age determination, either the archaeological context from where the data was taken it's not a clear one.

<sup>5</sup> The sites are, in their order from upstream Danube's shores to downstream: 1. Alibeg – Pescari; 2. Padina; 3. Lepenski Vir; 4. Vlasac; 5. Cuina Turcului – Dubova; 6. Veterani – „terasă” – Dubova; 7. Ogradena – Icoana; 8. Ogradena – Răzvrata; 9. Hajdučka Vodenica; 10. Ostrovul Banului - Gura Văii; 11. Schela Cladovei – Drobeta-Turnu Severin; 12. Ostrovul Corbului – „Botul Cliuciului”; 13. Velesnica; 14. Ostrovul Mare – Gogoșu - km fluvial 875; 15. Ostrovul Mare

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– Gogoșu - km fluvial 873; 16. Kula. I have to make a mention here, that by mistake in my article from 2010 I named also the site Stubica as one of Lepenski Vir – Schela Cladovei's culture, which was an error.

<sup>6</sup> See Boroneanț 1989, 1999, 2000; Jovanović 1971, 1974; Prince 1983; Radovanović 1996; Voytek and Tringham 1989; Srejić 1966, 1968, 1971, 1972, 1989.

<sup>7</sup> See Antonović 2001, 2006, 2008; Bartosiewicz and Bonsall 2004; Bartosiewicz *et al.* 2001, 2006, 2008; Bonsall 2007, 2008; Bonsall *et al.* 1996, 1997, 2000, 2002, 2004, 2008; Borić 1999, 2001, 2002, 2005, 2006, 2007, 2008; Borić and Dimitrijević 2006, 2007, 2009; Borić and Miracle 2004; Borić *et al.* 2004, 2008, 2009; Boroneanț A. 2011; Boroneanț A. and Dinu 2006; Čuljković *et al.* 2008; Dimitrijević 2004, 2008; Dinu *et al.* 2006, 2007, 2008; Garasanin and Radovanović 2001; Greenfield 2008, 2008a; Jackes *et al.* 2008; Jovanović 2001, 2008; Mihailović 2001, 2007, 2008; Radovanović 1999, 2000, 2006; Roksandić 1999, 2008, 2008a; Roksandić *et al.* 2006; Srejić 1989, 2001; Stefanović and Borić 2008; Vasić 2008.

The main site on which the most recent chronological analyses have focused on, is Lepenski Vir, the eponymous site, the one that, apparently<sup>8</sup>, raised the most difficulties for scientists, through its *uniqueness* within the settlements of Lepenski Vir – Schela Cladovei culture, and mostly by its chronology, that is the moment when it was in use, moment which coincides largely with the appearance, throughout south-central Europe, of the Early Neolithic cultural complex of Starčevo-Criș. In the same time, new chronological data were obtained for the majority of the sites, be that by correction of the old data, or by obtaining fresh new ones. Direct archaeological research, in the field, continued at Schela Cladovei (the project is still ongoing) and at Vlasac (between the years 2006-2008), as also in the proximity of Lepenski Vir site, at the site Aria Babi (between the years 2004-2005) situated on the Košobrdo Hill, where the remains of an Early Neolithic settlement were discovered (Borić 2006, 13; Borić 2008, table 1).<sup>9</sup>

The research on the material excavated and preserved within museums and archaeological institutes' collections (both Serbians and Romanians) offered new archaeological, anthropological, zoological and chronological data. Based on this new data, the author discusses some of the recent proposed interpretations for the chronology of Lepenski Vir – Schela Cladovei culture.

From the start I will point out the fact that, not one single radiocarbon or AMS date can be considered as stable and/or certain, because the technology that is being used to obtain this data is continuously evolving, thus, as it happened before, some data can suffer significant modifications, processed by alternative and improved technologies. Further more, as already stressed out before by the researchers themselves, who had obtain these new data, some of the samples were

not from clear archaeological contexts or were not verified using the latest technology available<sup>10</sup>.

Therefore, I will underline the fact that the chronological data must be considered rather markers to which we relate when trying to fit in time the archaeological discoveries.

The way that these discoveries were researched, recorded and published – a fact that is underlined in the majority of articles having this culture as subject – is important in trying to establish the chronology of a site or of a culture as a whole. And since there are all those discrepancies in the archaeological field research of the sites assigned to Lepenski Vir – Schela Cladovei culture (not only for these ones in the whole archaeology!), stated more or less even by the archaeologists that excavated the sites in the first place and later on by their followers, and by the way the material itself was and still is published or more likely unpublished, then the reconstruction of the chronology was and will be scanty. But there are notable efforts from both sides of the Danube to increase the volume of data, as the publications grew more in number after 2000.

Therefore this paper is interested in the available data and will not take its safety measure on the one waiting to see the light of day.

### The current chronological data

An important paper which provides chronological data for all the sites from the Romanian banks of the Danube is *The Mesolithic at the Danube's Iron Gates: new radiocarbon dates and old stratigraphies* (Dinu *et al.* 2007). The latest and almost complete paper which presents the current chronological data for the majority of the sites from both banks of the Danube is *The Mesolithic of the Iron Gates* (Bonsall 2008). Another new paper is *Absolute Chronology and Stratigraphy of Lepenski Vir* (Borić and Dimitrijević 2009) which provides the data for the eponymous site itself. Another effort regarding Lepenski Vir – Schela Cladovei culture's chronology was made in unpublished (for now) PhD thesis (A. Boroneanț 2010), presented in 2010, having (with an approximate translation) the title as *Transition Period from Mesolithic to Early Neolithic at the Iron Gates*<sup>11</sup>. This paper presents unpublished field

<sup>8</sup> Although sites such Padina, which was so often used in comparison with Lepenski Vir when discussing their internal chronology, is in my opinion a site that also raises problems. Especially with the data so poorly published, and especially because it was used (and probably will be still) as an argument when discussing Lepenski Vir site.

<sup>9</sup> Thus begging to fulfill the desiderate of some scientists that the field research should focus on the upper hills of the Danube in the Iron Gates region, in order to find more data to compare it to the old one founded in the years '60s-'80s of last century, and thus recreate a broader view for the past of this region.

<sup>10</sup> Absolute dating by using Accelerator Mass Spectrometry (AMS) on human and animal bone samples, corrected for the freshwater reservoir effect (see Bonsall *et al.* 1997, Cook *et al.* 2002, Whittle *et al.* 2002)

<sup>11</sup> I leave the author, evidently, the right of having the correct translation of it, as my intention is just to provide the english reader with a possible translation, and thus to help him understand what the thesis is about.

reports of the excavations carried on the Romanian banks of the Danube in the last half of 20th century; therefore its importance is of maximum value. And this effort was followed by the same author in her latest publication, namely *The Mesolithic in Banat* (A. Boroneanț 2011) which capitalizes the work done in her PhD thesis.

In the first publication mentioned above, the authors proposed a 7- stage chronology for the Romanian banks of the Danube, as follows:

- 1- cca. 8800-8300 cal BC – Icoana, Alibeg;
- 2- cca. 8300-7800 cal BC – Icoana, Răzvrata;
- 3- cca. 7800-7300 cal BC – Icoana, Schela Cladovei, Ostrovul Banului, Ostrovul Corbului;
- 4- cca. 7300-6800 cal BC – Icoana, Schela Cladovei, Ostrovul Banului, Ostrovul Corbului, Ostrovul Mare;
- 5- cca. 6800-6300 cal BC – Icoana, Ostrovul Banului, Ostrovul Corbului;
- 6- cca. 6300-6100 cal BC – Icoana, Alibeg;
- 7- cca. 5700-4800 cal BC – Schela Cladovei, Icoana (Dinu *et al.* 2007, 48).

In the second publication, the author proposed a 4 - stage periodization, for both banks of the Danube:

- 1- Early Mesolithic (cca. 13000-7200 cal BC) - Cuina Turcului, Lepenski Vir, Padina, Vlasac;
- 2- Late Mesolithic (cca. 7200-6300 cal BC) - Hajdučka Vodenica, Icoana, Ostrovul Banului, Ostrovul Corbului, Schela Cladovei, Vlasac;
- 3- Final Mesolithic (cca. 6300-6000 cal BC) - Lepenski Vir;
- 4- Early Neolithic (cca. 6000-5500 cal BC) - Cuina Turcului, Lepenski Vir, Padina, Schela Cladovei, Vlasac (Bonsall 2008, 252, Table 10.2.).

In the third publication, the authors proposed a new periodization of the Lepenski Vir site (see figure 1).

In the last publication mentioned, the author A. Boroneanț states that Lepenski Vir – Schela Cladovei chronology is compressed between 7200-6000 cal BC (Boroneanț 2011, 113).

All these papers will be addressed in the paragraphs below.

#### *Discussion on the interpretations of the new chronological data*

The purpose of interpreting all data obtained archaeologically was and still is to establish the periodization of the Lepenski Vir – Schela Cladovei culture, as a Mesolithic or/and Neolithic

culture. The conclusions that most of the *new*<sup>12</sup> researchers came to, on the basis of the new data obtained in the last years of research, is that this culture appears in the Mesolithic period evolving into the Early Neolithic period, being one of the best examples of the so-called *Mesolithic-Neolithic transition* in Europe.

#### First discussion

One first problem that concerns chronological data is that authors often use, in the same paper the two terminologies BP (before present) and BC (before Christ). It would be a desiderate that scientists will choose one of the two.

#### Second discussion

A second problem would be the terminology, which after all, it is just terminology. But some authors regard them as self-explanatory words, and even more, somehow trying to find data to enforce a particular terminology. We should provide clear support for a certain terminology.

Thus, regarding the period called *Mesolithic-Neolithic transition*, there are authors that use the expression *transformational phase* (see figure 1).

The argument for *transformational phase* would be<sup>13</sup> that elements related to Neolithic way of life were found within some of the settlements of Lepenski Vir – Schela Cladovei culture. But, they were not in use by the whole community, thus no major transformation of life appeared within these communities. The one site which brought about this proposed interpretation, was Lepenski Vir itself, where 15 *trapezoidal buildings* (Borić 1999, 41-42)<sup>14</sup>, out of c. 40 (the number differs from author to author, this would be the sum of the buildings assigned to LI or LV II phases) contained pottery, and a more reduced number of them, 8, contained stone tools characteristic of the Neolithic tradition (Antonvić 2006, 129). And from all the other sites, just for the one of Padina III site was mentioned the presence of ceramics, in 8 out of the 17 *trapezoidal buildings* (Radovanović 1996, 280-281) assigned to Padina B phase. Regarding this last site, the evidence is not that clear as some authors would like to believe. On the current data, namely the photographs that show the ceramics *in situ* at Padina, we have to state that the evidence is

<sup>12</sup> Because some of the researchers, such as D. Srejović and V. Boroneanț, engaged before in the research of this culture, and came to the same conclusion years ago, with less data available.

<sup>13</sup> This is my presumption, since no account was ever made on why such expression is being used.

<sup>14</sup> And also see bibliography quoted there.

not supportive for the statement that the ceramics are related with the trapezoidal buildings. If we take an example, namely the photos at figure 8 from D. Borić (1999), one can see, when enlarging the right photograph (see fig.2) that in fact the whole pot is situated about at least 5 cm above the platform of the *house 18*. And as far as I know, *in situ* should not be regarded as an artifact situated in a site, but as an artifact *clearly* integrated in a structure or a cultural level. In this case, the pot is not on the platform of what would be the floor of the structure labeled *house 18*. If it had been, then the pot<sup>15</sup> would have been with its bottom firmly resting on it, and not on a pedestal as it is *clearly* shown in the picture. And this is just one example of a *trapezoidal building* from Padina site, I use here to discuss such statement - ...*abundant Early Neolithic pottery is clearly associated with trapezoidal buildings at Padina* (Borić 2002, p.1026). This example should question the validity of using such expressions as the one quoted. Moreover, the last publication on this site, done by the excavator himself, B. Jovanović also states the uncertainty in relating the pottery with the Lepenski Vir – Schela Cladovei cultural layer (Jovanović 2008, 303), which enforces my argument.

As for the other material aspects specific to Neolithic way of life, they are poorly present and/or archaeological discovered and recorded – that is their spatial relation within the archaeological structures and levels is not clear – since all of these sites present a clear Neolithic phase which overlays the Mesolithic phase. Then what would be *clear* here? The cause of the problem is the fact that the living structures of Neolithic communities were dug deep into the ground, disturbing the former cultural layers and destroying the previous structures which belonged to Lepenski Vir – Schela Cladovei culture.

And when discussing *domesticated*<sup>16</sup> animals associated with Neolithic communities, they seemed not to be identified within the levels

<sup>15</sup> A pot, and the rest of pottery found within house 18 described by the excavator himself, B. Jovanović (2008, p.308-3009) as: *This assemblage has no stylistic or formal similarities with Starčevo-Criș pottery; it is more similar to an unexpected phenomenon of the "Proto-Vinča pottery", with black burnished or grey vessels, of a rather biconic than spherical forms, together with the entire absence of ornamental styles of classic Starčevo-Criș pottery.* And this is an argument further to the one I already stated in the text.

<sup>16</sup> When speaking of herder-harvesters (a terminology more correct than *farmers* for Early Neolithic communities) domestication seems to apply mostly to animal easy for humans to subdue in large numbers, such as sheep, goats, pigs and bovines specific to Near East Asia.

assigned to Lepenski Vir – Schela Cladovei sites, even though, initially (Bököny 1970) they were for the eponymous site, but the recent studies had proved that the first determination was incorrect (Borić and Dimitrijević 2008). As for *domesticated* plants, they seem to lack. This could be by archaeological reasons (methods of research), or by simply not existing.

When discussing a transformation, which would imply the adoption of a new way of life by a community (economic and religious) while continuing to use the same area, the same archaeological structures, in time evolving into a new culture. This is not the case when referring to Lepenski Vir – Schela Cladovei culture, as the majority of its sites show the appearance of a new and different kind of communities, the ones of the cultural complex of Starčevo-Criș. And the elements which define Lepenski Vir – Schela Cladovei culture are just in a small scale transmitted onwards into the Neolithic communities, that is the use of the horns of deer as (presumably) mattocks. The way that Starčevo-Criș communities built their living structures is different to the Lepenski Vir – Schela Cladovei. The mortuary rites are, as well, different. The art, the one that made the site Lepenski Vir in the first place so famous in archaeology, has some resemblance into some other sites of the same culture. But regarding the transmission of this into the Neolithic communities, in all the space attributed to Starčevo-Criș cultural complex, in just one site, that is Gura Baciului I, there were reported (Vlassa 1972, p.231-251) some vague similarities. Some which could show *retardation* (term used so freely by N. Vlassa, when referring to Lepenski Vir – Schela Cladovei culture) from artistic point of view, within the Neolithic communities. The association of the boulders from Gura Baciului I with the inhumations discovered here, resemble somehow Lepenski Vir – Schela Cladovei funeral rite, but it is just that the record of it, as also stated by the excavator himself, was so poorly done, that it lacks evidence. Perhaps a future investigation on that site could provide more secure data on this matter.

Upon current research, all the sites assigned to Lepenski Vir – Schela Cladovei culture preserved the moment of the end of its inhabitations by the communities of this culture. Even though the evidence suggested a relatively short time span between that moment and the one of the arrival of Starčevo-Criș communities, the remains of the last, do not offer sufficient archaeological data, on the basis of which we could presume that they were

conscious of the previous inhabitation. In fact, quite the opposite, since so many of their living structures had affectively destroyed the ones of Lepenski Vir – Schela Cladovei culture.

In the light of the information I discussed above, the term *contact phase* would be more correct when referring to the period when Lepenski Vir – Schela Cladovei communities begin to use new artifacts which were of a Neolithic tradition, but continued, at the same time, to rely heavily on their own specific tools.

### Third discussion

As previously stated, the one site that focused the new research to establish its chronology, and thus, somehow of the culture itself, is the eponymous site of Lepenski Vir. In recent studies D. Borić and his collaborators (Borić 1999, 2002; Borić and Dimitrijević 2009) proposed a new interpretation of the stratigraphy of the site, and so, of its chronology, that LV I is LV II, labeled it as LV I-II. Now, let us follow their arguments, which were first stated in 1999, then repeated in 2002 and in 2009.

The arguments are as follows: *Existing photos from Lepenski Vir misleadingly show these semi-subterranean dwellings and their floors placed on flat terrace, whereas they were actually dug down some 0.5-1.5 m (see FIGURE 4) and this has not previously been recognized. It is also necessary to take into account the rows of stone that bordered the sides and the rear of the building floor, casting doubt on the identification of layer/phase Lepenski Vir II. This phase was described by the excavator as consisting of rows of stone in a trapezoidal shape without central hearts (FIGURE 8) and overlaying trapezoidal buildings of phase I. By superimposing trapezoidal buildings of LV I (FIGURE 7) with stone walls of Phase LV II (FIGURE 8) it becomes obvious that construction stones of Phase LV II encircles limestone floors of Phase LV I (FIGURE 9) and are especially pronounced in the steeper terrain of the rear of the settlement.*

*This evidence suggests that architectural features previously identified as Lepenski Vir II are stone footings and walls that surrounded the dug-in sides of the Lepenski Vir I post-framed buildings (Borić 2002, 1035). But exactly the main argument which is put forward, namely the superimposing of the plans (Borić 2002, fig.7-9) of LV I on LV II, clearly shows the fact that some buildings of LV I (nr.1, 2, 63/63', 5, 6, 64, 7, 8, 9, 11, 10, 12) are not overlaid by buildings of LV II, and that some buildings of LV II (nr. XXXIII, XL, XXVI,*

*XXVIII) do not overlap any LV I building (see fig.3, 4, 5).*

Furthermore, another argument is the one that states that the buildings of LV I and LV II were dug into the slope and that *this has not previously been recognized* (Borić 2002, 1035). But this argument is invalid since the archaeologist who excavated the site, namely D. Srejšović, had previously recognized it, as we can read, when he discusses the building of complexes of LV II: *In order to find room for the backs of the houses it was no longer necessary to cut into the slopes of the shelf...* (Srejšović 1972, 74). In the same publication, speaking about the contours of the LV II buildings, he mentions that they were marked the same way as the ones of LV I: *Since the trapezoidal shape was well known, the contours of the foundations were marked out at once, as earlier, by a border of broken stone* (Srejšović 1972, 75). And what is more important, the discoverer of Lepenski Vir stated that there was a clear difference between the two types of structure as the stone blocks that sustained the pillars of the upper part of the constructions, were placed vertically for LV I buildings and horizontally for LV II (Srejšović 1972, 75; Radovanović 1996, 329).

In the same quoted text of D. Borić we find yet another error, namely the one that claims that the excavator described LV II buildings as being *without central hearths* (Borić 2002, 1035) since D. Srejšović had stated it, as such: *the position and shape of the hearth remains the same* (i.e. as in the previous phase LV I) *and the stone receptacle is in its usual place; the hearth construction is however no longer in the ratio 1:3 but most frequently in the ratio 1:2 and the stone receptacles become wide and heavy. The houses did not change their external form, but their interior looked different, they were no longer floored with limestone mortar. As the subsoil was not ideally level and there was no firm floor, the building construction in the interior of the house could not be made up, as earlier* (i.e. LV I), *of small and light stone slabs, but only of a large and heavy stones which frequently had amorphous forms. The irregular shape of the stones gave the houses of settlement II uneven edges and inaccurate proportions* (Srejšović 1972, 75) Therefore not only that there were hearths, but they were built in a different ratio, not 1:3 as for LV I but 1:2, and from stone blocks bigger and heavier than the ones used for the previously phase.

As for the stone walls that would be part of the limestone mortar floors as D. Borić states, what would seem as a new argument, that they *are*



*especially pronounced in the steeper terrain of the rear of the settlement (Borić 2002, 1035) this aspect was also pointed out previously by D. Srejšović: for the great stone blocks which support the high terrace in the western part of the settlement (i.e. in the rear of the settlement) weighed several cwt. each. There was the constant danger too that landslides from the higher terraces might crush the backs of the houses. Directly behind them, therefore, arched supporting walls of stone blocks and slabs were set up to a height of about one metre. These constructions, executed in a dry-stone technique, are solidly built and in some layers have been preserved complete (Srejšović 1972, 74), and this quote continued the one above, in which was described the construction technique of the buildings of LV II, and which would at least deserve a quote mark by D. Borić.*

Moreover, another strong argument, that maintains the periodization proposed by D. Srejšović for the LV I and LV II as being two separate phases, is the stratigraphic one, according to which the cultural level of LVI was formed into a brown soil, which corresponds to the climatic Preboreal period, and that LVII level was identified within a light-yellow soil, which corresponds to Boreal period (Marković, Marjanović 1972, 182-184; Radovanović 1996, 328).

If one reads only the quotes from D. Srejšović presented here, one can clearly see all the facts that point to two different phases/levels. And such detail account used by the excavator cannot leave such suspicion that he would not observe if the stone walls were directly built from the limestone mortar floors! And there are the other details mentioned, such as the different ratio of the hearths (if there had truly been no hearths assigned to LV II then D. Borić would have had a solid argument, but that is not the case), the way the pillars of the upper part of buildings were sustained, and last but not least there is the difference of the soil in which LV I was built and LV II was built.

Furthermore, a recent article on the matter, recognized two different phases, on another argument, namely the one of the presence of ceramic in the buildings, which would *divide the period from 6300 to 5500 cal BC into an 'aceramic' phase characterized by plaster-floored buildings and stone sculptures, and a 'ceramic' phase beginning c.6000 cal BC when Starčevo pottery became an important component of cultural inventory. Interestingly, the appearance of A-features beside hearths, which I. Radovanović (1996) regarded as a relatively late architectural*

*development at Lepenski Vir, also coincides with ceramic phase (Bonsall 2007, 58).*

In the light of what I discussed above, the arguments used by D. Borić and his collaborators fall short when trying to propose that LV I is LV II, and in fact there are a number of arguments that support the phasing of the site into LVI and LVII.

#### Fourth discussion

Now regarding the main (somehow) problem that this site has raised: the fact that its LV I phase started in the same time with the appearance of Early Neolithic throughout South-central Europe and that LV II ends its existence not so long before an Early Neolithic community settled on this site. This fact was the main one that started the debate over whether the community who built LV I and LV II was Mesolithic or a Neolithic one. This, however, is just a matter of paradigm bearing and labeling, as one can see that archaeologists tend to perceive things from their own specialization, be that on Palaeolithic, Mesolithic and/or Neolithic periods.

The first point I would like to make is that the neighboring site Vlasac (situated a few kilometres downstream from Lepenski Vir) had the prototype of buildings for the ones of LVI (Srejšović and Letica 1978; Srejšović 1972) and its living usage had come to an end in the same time that LVI started its existence, but continued to be in use as a funeral site (Borić 2006; Borić *et al* 2008; Borić *et al* 2009). And the neighbouring site of Padina, seem to have had less activity in the same period of the appearance of LVI (situated a few kilometers upstream from Lepenski Vir), and which also on its III-ed sector exposed buildings that resemble those of Lepenski Vir II which seemed younger in date<sup>17</sup>. Therefore, taking this evidence into account, one should not perceive the appearance of LVI as a settlement of an *out of the blue* community, rather of one that had previously lived in the same conditions (i.e. on the banks of the Danube) and which had previously experimented in construction techniques, reaching with LVI their best. From the current evidence, it seemed that the communities from both Vlasac and Padina came together at Lepenski Vir (a site situated somehow at the middle of the distance that separates the two) and built what was to be named LVI, leaving behind their previous settlements, but not abandoning them. And later on, Lepenski Vir II

<sup>17</sup> I use the word *seemed* because the data is not of a clear context, see Borić and Miracle 2004.

architecture influenced the building of Padina B from sector III.

And secondly, already expressed above, the elements which would make us label LV I and LV II communities as Neolithic ones, are not all presented, and even the ones that were discovered, proportionally speaking, are poorly represented in numbers compared to the ones specific for a Mesolithic community.

Thirdly, the dating of the buildings of the site is far from complete, as researchers previously stated.

Therefore, even though Lepenski Vir site starts its *trapezoidal phase*, that is LVI, in the same time as the spread of Neolithic culture in south-central Europe, that should not be regarded in itself as evidence to consider it as a Neolithic manifestation. On the current evidence Lepenski Vir site was build by a *Mesolithic community*.

#### Fifth discussion

The periodization that C. Bonsall proposed at table 10.2. from the article quoted before, has in my opinion 2 flaws.

The first one would be the period labeled in the table *Early Mesolithic* (c. 13000-7200 cal BC) where the sites Cuina Turcului, Lepenski Vir, Padina and Vlasac were assigned. Interestingly enough, the chronological data presented by the same author in the same paper (Bonsall 2008, table 10.1), shows that Cuina Turcului has dates between c. 13000 to 10.000/9500 cal BC while the rest of the sites have the earliest dates as follows: Lepenski Vir – OxA-11715 (8445-7953 cal BC), Padina – OxA-11102 (9760-9307 cal BC), Vlasac – OxA-5824 (9861-8838 cal BC), making the association of this all 4 sites rather difficult on the account of just chronological data, as the last 3 mentioned fall between c. 10000/9500 to 7200 cal BC.

As for the time period labeled in the table *Final Mesolithic* (c.6300-6000 cal BC) the same author mention above designated only the site Lepenski Vir. As far as available data<sup>18</sup>, it indicates that along with Lepenski Vir also Icoana, Alibeg, Padina and Vlasac (Borić, Miracle 2004, Borić 2006, Dinu *et al* 2007) were in use, one way or another, in the time frame c.6300 – 6000 cal BC

#### Sixth discussion

A. Boroneanț in her latest publication, as mentioned above, states that Lepenski Vir – Schela Cladovei culture (*Schela Cladovei – Lepenski Vir culture* as she use the terminology) existed between 7200-6000 cal BC, without any account of why she used these time limits. And what is most intriguing, is that in the same paper, the same author stated: *Between 9500 – 6300 cal BC there seemed to be very few changes in subsistence, architecture, lithic and bone/antler assemblages. It is only after 6300 cal BC that new features are seen in the Iron Gates: the carved boulders, burials under the floor of the houses, plastered floors, pottery fragments (?), polished stone artefacts* (A. Boroneanț 2011, 137). Thus the time limit of this culture should be lowered from 7200 to 9500 cal BC, especially if we consider the available chronological data, and the arguments highlighted in the quoted paragraph, and also added with the fact that: *Mortuary practice are fairly consistent throughout the period* (Bonsall 2008, 276). Because these are what a culture is all about, namely material and spiritual aspects determine one or another. It is fair to ask then why the ending time of this culture would be c. 6000 cal BC and not 6300 cal BC since from then on there appeared features not previously recorded. First of all because, that is the main problem, namely the record of itself, as discussed before. And because the new architecture that appears – *the trapezoidal house form is not clearly documented before the Late Mesolithic* (i.e. before 7200 cal BC); *although such structures may have been built earlier...* (Bonsall 2008, 276), thus allowing the assumption that the interpretation proposed for the trapezoidal houses from the site Vlasac as being the prototype for the ones of Lepenski Vir (Srejović and Letica 1978), might be correct – had been previously used, in a more simple way. Secondly, the subsistence and burial rite continued to be the same. As for the lithic and bone/antler assemblages continued to be in use, with new tools made from yellow-spotted flint and polished stone axes (associated by archaeologist with Neolithic life style). But it must be underlined that the percent of these tools is far outnumbered by the *older* type of tools. Thirdly, only from c. 6000 cal BC the whole material and spiritual aspect seemed to change consistently to what was labeled Starčevo-Criș cultural complex. The term *consistently* was used here because some archaeologists imply that the *trapezoidal buildings* continued to be erected at sites in the Iron Gates gorge with no major change in form and size until

<sup>18</sup> New and more data would be a desiderate one needs in order to have a unquestionable data. But until then, one should not disregard a data just because it is one single or *uncorrected* or from an unclear archaeological context, as the data in itself implies a human activity at a certain moment in time, as in this case we are interested in the time period and not on the cultural aspect of the data.

the end of the Early Neolithic c. 5500 cal BC (Bonsall 2008, 276). But in the latest paper on this matter, it seems that *trapezoidal buildings* might have been abandoned around 5900 cal BC (Borić Dimitrijević 2009, 50). And since the rest of the aspects of material and spiritual cultural manifestations were proven to have changed around 6000 cal BC, it remains to establish more precisely the time of use of *trapezoidal buildings*. Thus, for now, until this last aspect will be further investigated, the upper time limit of Lepenski Vir – Schela Cladovei culture could be c. 6000 cal BC.

The same author named above, judging from bibliography, and from the table (A. Boroneanț 2011, 113) where she divided the *Iron Gates Mesolithic* (one which was largely taken from Bonsall 2008, with one *improvement*, namely that she added the site Alibeg at the period labeled *Late Mesolithic* but using a “(?)”), she missed out D. Borić and his collaborators articles on Vlasac (Borić 2006, Borić *et al* 2009). She also disregarded the data available in the paper of A. Dinu and his collaborators (Dinu *et al* 2007) as follows: *The isolated skull was dated 6530-6390 cal BC (AA66368) but without having been corrected for the fresh water reservoir effect, and thus the date should be disregarded* (A. Boroneanț 2011, 125). Which would imply that all the data was disregarded, and probably that is why the data for Icoana site that I mention before, was not even taken into consideration with a question mark as it was the one for Alibeg site.

Nevertheless, the author implies that Ostrovul Corbului and Ostrovul Mare sites could also belong to *Final Mesolithic* period, on the basis of the old radiocarbon data *and some of their cultural features* (A. Boroneanț 2011, 132). The available radiocarbon and AMS data (Dinu *et al* 2007, table 1 and table 2; Bonsall 2008, table 10.1.) does not support such affirmation. Further analysis should offer a clear data.

As I am trying to point out, we should take into consideration the data as it is, and ask for its improvement, if that should be the case. Or if the data is altogether incorrect, than that should be proven, so that future research will get more precise.

And as previously stated, alongside Lepenski Vir in the time of its flourished activity (c.6300 – 6000 cal BC), also sites such Padina, Vlasac, Icoana, Alibeg were in use. If the dates are incorrect, that remains to be verified, until then they should be regarded as such.

## Conclusion

Chronological time limits of Lepenski Vir – Schela Cladovei culture are, in the light of the newly radiocarbon and AMS dates, between c. 9500 – 6000 cal BC.

From the all the data discussed above, and from the bibliography, one could divide the internal chronology of this culture into 3 main phases:

1- Phase I (cca. 9.500-7200 cal BC) – Alibeg, Padina, Lepenski Vir, Vlasac, Răvrata, Icoana, Ostrovu Banului, Schela Cladovei, Ostrovu Corbului;

2- Phase II (cca.7200-6300 cal BC) – Padina, Vlasac, Hajdučka Vodenica, Icoana, Ostrovu Banului, Schela Cladovei, Ostrovu Corbului, Ostrovu Mare;

3- Phase III (cca.6300-6000 cal BC) – Alibeg, Padina, Lepenski Vir, Vlasac, Icoana<sup>19</sup>.

Where *phase I* would represent the appearance of the first settlements of this culture, with the debut of the Holocene, and their stage formation, as an evolution from the previous forms of cultural manifestations within the given geographical space of the so called *Iron Gates region*.

*Phase II* corresponds to *Late Mesolithic* period, and would represent the appearance of new settlements and abandon of others, while majority continued their existence.

And the last one, *phase III* would be *the contact phase* between the Mesolithic communities of this culture with the Neolithic ones, and also the architectural development of *the trapezoidal buildings* at Lepenski Vir site and the appearance of its specific boulder – sculptures.

Interesting enough, *old* researchers, relying on few, and as proven, more or less incorrect radiocarbon data, had previously assigned this culture to a time span comprising 9<sup>th</sup>-5<sup>th</sup> millennium BC (Srejić and Letica 1978, 158; Boroneanț 2000, 227). This culture exhibits a change around c. 6300 cal BC, mostly in architecture (as well as in art) which from our perspective is more of an evolution of the old forms, and by all means was triggered by environmental changes that occur at the same time, the cooling of temperature, as has been already highlighted by researchers (Bonsall *et al.* 2002; Bonsall 2008, 277; A. Boroneanț 2011, 137). The argument would be that humans respond to environmental change by adapting their way of living. And I do not disregard the suggested possibility that the changes in architecture were

<sup>19</sup> The settlements are arranged according to their position on Danube's banks, starting from upstream of the river.

done as a contact with new cultural knowledge of architecture (i.e. brought by the Neolithic communities). But if that were the case, then shouldn't this type of a feature be documented for the whole area of south-central Europe which was the area of the Starčevo – Criș cultural complex?

Even when all the dating analysis is done for all the sites, namely not one item that can be dated will be omitted, still what should concern us when trying to establish chronology for an archaeological culture would have to be defining first its material and spiritual aspects. And in the case of the Lepenski Vir – Schela Cladovei culture, one can see specific types of expressing these aspects, different from the previous culture from which it originated in the first place, and different from the one with which in its later phase it came into contact.

Since the aim of this paper was to establish the chronology of the Lepenski Vir – Schela Cladovei culture and the correctness of its interpretation, let us look for another perspective on the meaning of chronological data. That would be that it cannot on its own make us consider a culture Mesolithic or Neolithic. Actually what Lepenski Vir – Schela Cladovei culture stands for is exactly this, since it is a culture that appeared in Mesolithic and evolved into Early Neolithic.

We should consider a date as valid until proven otherwise, and not freely dismiss them as invalid on the basis of the lack of a type of analysis, since, that same analysis could prove that the dates were actually valid.

It seems all that the new chronological dates do is to reinforce the views of the culture itself as they were established by its discoverers, namely V. Boroneanț who led the majority for the excavations on the Romanian side of the Danube, and who named the new discoveries Schela Cladovei culture, and D. Srejović who led the excavations at Lepenski Vir and Vlasac, and who named the new discoveries Lepenski Vir culture. The last-named researcher has the merit of being the first to observe similarities between these archaeological-named cultures, and the first one has the merit to accept this and to be the first to use the double terminology when addressing this culture.

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## LIST OF ILLUSTRATION

- Figure 1: Chronological periodization of Lepenski Vir site after Borić Dimitrijević 2009.  
Figure 2. Pot from *House 18* after Borić 1999 figure 8, taken after Jovanović 1969 figure1-2.  
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- Figura 1. Periodizarea sitului de la Lepenski Vir (apud Borić Dimitrijević 2009)  
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<i>Borić &amp; Dimitrijević</i>				<i>Srejović</i>	
Period	LV phase	cal BC @ 2 s.d.	Material culture	Period	LV phase
Middle Neolithic (c. 5900-5500 BC)	III	6002-5752 (A) (6 dates)  6076-5478 (H) (6 dates)	Pits, domed ovens, domesticates, cultigens (?), Middle Neolithic Starčevo style pottery, polished stone axes, 'Balkan' flint; crouched, disarticulated & some extended (?) burials, <i>Spondylus</i> beads	Middle Neolithic	IIIb
				Early Neolithic	IIIa
Transformational / Early Neolithic (c. 6300-5900 BC)	I-II	6240-5845 (A) (20 dates)  6216-5746 (H) (9 dates)	Trapezoidal buildings, sculpted boulders, extended burials parallel to the river, neonate burials, Early Neolithic Starčevo style pottery, polished stone axes, 'Balkan' flint	Mesolithic	II
Late Mesolithic (c. 7500-6300 BC)	-	-	<i>Non-existent at LV?</i>		Ia-c
Early Mesolithic (c. 9500-7500 BC)	Proto-LV 2	7580-7190 (H) (1 date)  8218-7587 (A) (3 dates)	Stone-lined rectangular hearths, extended & disarticulated burials, sitting burial w/crossed legs		Proto-LV
	Proto-LV 1	9441-9150 (A) (3 dates)	Occupation residues, hearths (?), burials (?)		

**Figure 1.**



**Figure 2.**

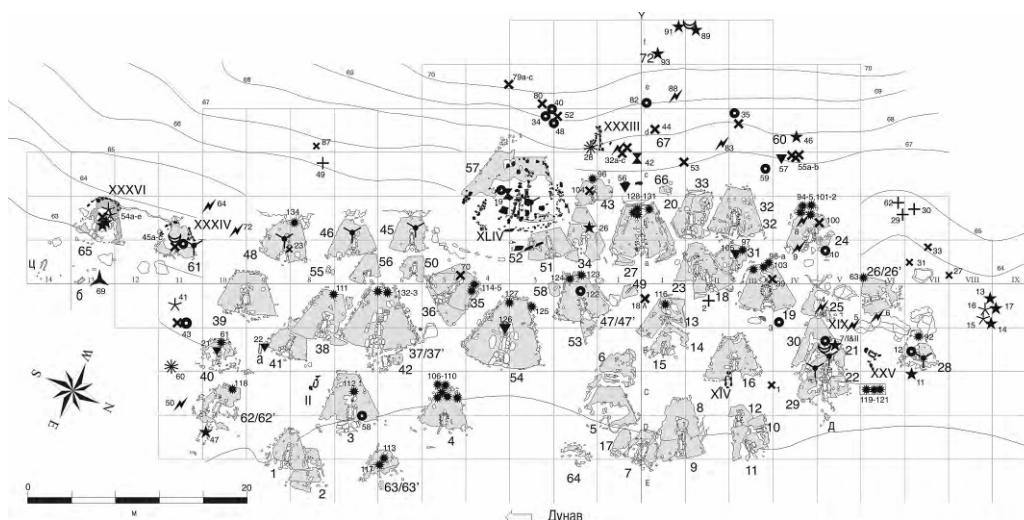


Figure 3.

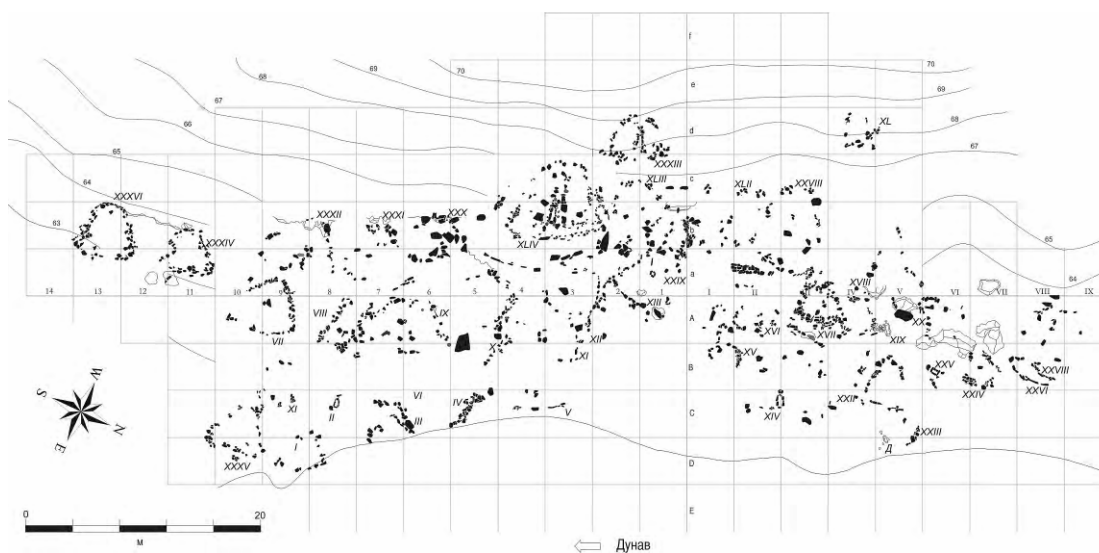


Figure 4

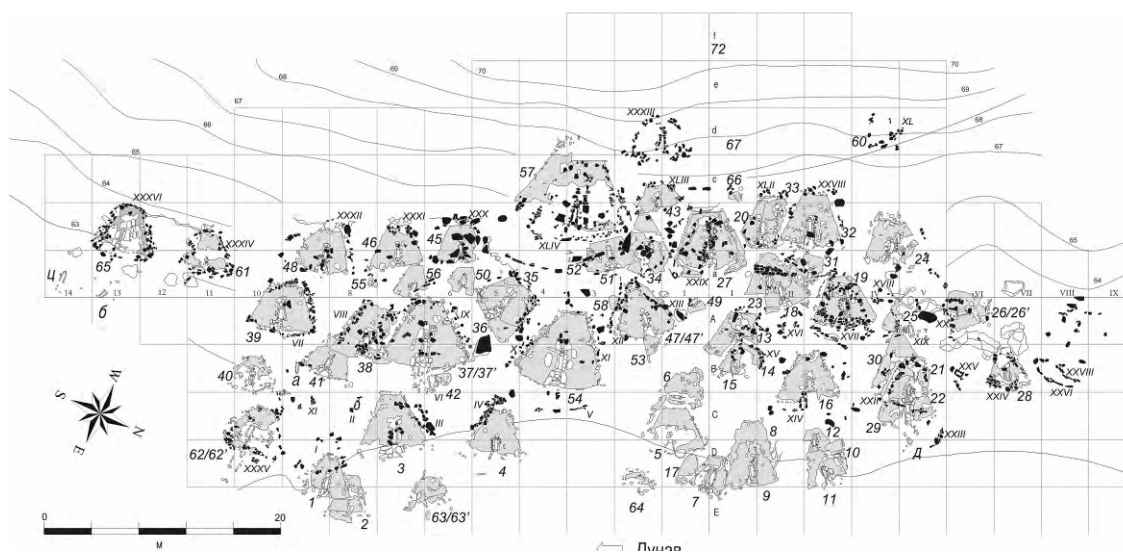


Figure 5.

## A CERAMIC IMPORT FROM NEOLITHIC DISCOVERED AT MIERCUREA SIBIULUI-PETRIȘ, SIBIU COUNTY

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 Dragoș DIACONESCU\*\*  
 Cosmin SUCIU\*\*\*

**Abstract:** The discovery of a Pișcolt III pot, almost entirely, in the foundation of a surface Vinčian house in South-Transylvanian site from Miercurea Sibiului-Petriș was a good prove of exchange system. The presence of the North Carpathian obsidian revealed an important route along Upper Tisza, Someș, Mureș and Secaș rivers, linked northern parts of Hungary and Romania with the South areas.

**Keywords:** Miercurea Sibiului-Petriș, Vinča, Pișcolt, obsidian, trade, bitumen, painting.

**Rezumat:** Descoperirea unui vas aproape întreg Pișcolt III în fundația unei locuințe de suprafață Vinča în situl de la Miercurea Sibiului-Petriș este o foarte bună dovadă a sistemului de schimb comercial. Prezența obsidianului Nord-Carpatic arată o rută importantă de-a lungul Tisei Superioare, Someșului, Mureșului și Secașului, legând regiunile nordice ale Ungariei și României cu alte regiuni sudice.

**Cuvinte cheie:** Miercurea Sibiului-Petriș, Vinča, Pișcolt, obsidian, schimb comercial, bitum, pictură.

### I. General context

The archaeological excavations Miercurea Sibiului-Petriș site led to the discovery of most important materials for all the inhabiting levels. Now we are going to study a ceramic vessel presenting bitumen painted ornaments, discovered on the occasion of L<sub>13</sub> surfaced dwelling research.

The stratigraphic circumstances of the site were repeatedly described (Luca *et al.* 1998; Luca *et al.* 1999; Luca *et al.* 2000; Luca *et al.* 2001; Luca *et al.* 2002; Luca *et al.* 2003; Luca *et al.* 2004; Luca *et al.* 2005).

On short, the Miercurea Sibiului-Petriș site's stratigraphy is as follows:

**I** – the first and the oldest inhabiting level that was researched, has belonged to the Starčevo-Criș archaeological culture, presenting several sub-levels:

**Ia** – the dwellings belong to the Starčevo-Criș IB phase;

**Ib** – the dwellings belong to the Starčevo-Criș IC-IIA phase;

**Ic** – after a chronological hiatus, the dwellings appertaining to this sub-level belong to the Starčevo-Criș IIB-IIIa phase.

**II** – the second level belongs to the Vinča archaeological culture, the old phase (A and evolving to B<sub>1</sub>):

**IIa** – the dwellings – dwelling pits – were done in two stages:

**IIa<sub>1</sub>** – the dwellings belong to the Vinča A<sub>2-3</sub> phase (on typological and stylistic basis, some of the <sup>14</sup>C data indicates the fact that it could even be a Vinča A<sub>1</sub> phase!);

**IIa<sub>2</sub>** – the dwellings belong to the Vinča A<sub>3</sub> phase.

**IIb** – the surfaced dwellings belong to the Vinča A<sub>3</sub>-B<sub>1</sub> phase.

**II / III** – the researches unpublished yet resulting from the campaigns of year 2007, let to the discovery of pits containing archaeological materials Vinča B<sub>1</sub> phase, presenting painted items appertaining to the Transylvanian archaeological culture of Lumea Nouă; the future researches will reveal more details on this concern. Due to the fact that the stratigraphy of the site was already published, we prefer to name this level II / III, it evolving – anyway – after Vinča B<sub>1</sub> and before Vinča C<sub>2</sub>.

**III** – the level appertains to the Petrești archaeological culture; the surfaced dwellings,

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presenting bulky clay flooring, appertaining to the AB phase of the culture.

**IV** – the pits of this level are done by the Celto-Dacians during the 2<sup>nd</sup> and 1<sup>st</sup> centuries B. C.

**V** – the greaves and some of the heterogeneous archaeological complexes of this level are from the Gepid period.

**VI** – this level is represented by a semi-engrossed dwelling, presenting a stone fireplace, which could be dated in the first millennium A. D.

## II. The IIB sub-level

The surfaced dwellings of the IIB level are: L<sub>3</sub>; L<sub>11</sub>; L<sub>13</sub> and L<sub>14</sub> (for the positioning, see plan 1). These are done of a wooden superstructure, mere put together by clay. The flooring is made of river stones of medium size, carefully chosen. The stones were confined and, some times, covered with clay. Numerous ceramic fragments were discovered on flooring. As it seems, some of them had the function of strengthening the flooring, being, as a consequence, pushed to the previous levels. Towards the corners of the dwelling, clusters of river stones were observed, having the obvious function of sustaining the corner pillars. All this, as well as the lack of foundation pits and ditches, broth us to the conclusion that the dwellings were raised up on a wooden support (see plan 2). The covered heating systems that were discovered (hearths presenting two or three levels of soldering) were placed in the exterior of the dwellings, towards their corner. Around them, towards the dwelling walls, several complete vessels were discovered, of small and medium dimensions. There was also discovered a system for preserving the grains, a barn made of clay, as an annex of one of the dwellings.

As it could be seen in the plan 2, middle register of the plate, in a foundation pit (L<sub>13</sub> dwelling), attached to the profile, having a ritualistic characteristics in these authors' opinion, a ceramic vessel has been discovered. It presents painted ornaments, being entirely different from the early Vinčian context of the researched level. The vessel was displayed in a vertical position, the pit having the deepness in accordance with its height, so that the vessel had its lip placed immediately under the flooring of river stones and oriented towards its south-east margin.

## III. The description of the Pişcolt import vessel

The vessel is of a different nature when comparing with the ceramics appertaining to the surfaced dwelling. As it could be observed in the

1-9 photos, the vessel has a brick-like colour and matt aspect, presenting a detached slip and partially preserved painting. The composition of the paste mix mud, sand, organic materials residues and pounded shivers, al in the same percentage. The vessel was appropriately baked.

As it seems, the surfaced for painting was prepared using a white engobe, merely preserved (photo 1-4). The bitumen painting is preserved on small surfaces as well. There is possible, though, to trace some of the initial strips of thin lines, underlined by thicker ones (Figure 1). The painted strips are perpendicular on the lip of the ceramic vessel. Between the perforated handles, the painted ornaments represent arches, oriented towards the bottom of the vessel.

Along the vessel's lip, there is a deep groove, parallel with it. Between the vessel's lip and the groove the painted ornament is entirely different, presenting small rhombi, arranged in rows perpendicular on lip, shaded in thin, oblique lines.

It is important to be noticed that the restored handles of the vessel (photo 5-9) are not in accordance with the historical reality, in these authors' opinion. They were a lot smaller, being what is called „little ears” and broader, as a small piece preserved of the initial handle shows (photo 2).

A carefully done description implies the description of the vessel shape as well. It is entirely different of everything that is to be found in the Vinča archaeological culture, but is common in the Pişcolt archaeological culture. There is to be emphasized the fact that the ceramic vessel has a corrugated container, closer to a square shape than a round one (photo 9). As we shall see, the shape as well as the nature and the ornaments of the vessel are closer to the characteristics to be found in the north-western part of Romania and the north-eastern part of Hungary.

On the other hand, this kind of vessels is not a rarity for the site in Miercurea Sibiului-*Petriş*. In the proximity of the L<sub>3</sub> dwelling, a ceramic fragment was discovered in 2003. It was ornamented in a similar manner.

IV. Analogies in which considers the form, nature and ornaments of the Pişcolt vessel

Painted motives presenting strips of arches are to be found also in Berea X-*Colina cu Măcriş*, Ciumeşti-*Bostănărie*, Săcuieni-*Horo* (Comşa, Nanaşi 1972, Figure 3/2-5, 7, 12-13, 16-17, 20,

22, 36; Virag 2007, 31), Pișcolt-Lutărie (Lazarovici, Nemeti 1983, Figure 12/1; Virag 2007, p. 31), Halmeu-Vamă (Virag 2004, Figure 8/1-3, 5; Virag 2007, 31), Urziceni-Vamă (Virag 2004a; Virag 2007, 31) and in Ukraine, in Zavtavne-Kovadomb I (Potushniak 1997, pl. III/1, 4-6, 8-10, 13-17, 19-22, 24; VII/7, 10, 14, 16, 18; Virag 2007, 31).

Vertical, oblique or horizontal parallel strips are to be found in Berea X-Colina cu Măcriș, Urziceni-Vamă (Virag 2004; Virag 2007, 31), Săcuieni-Horo (Comșa, Nanași 1972, Figure 3/15, 5/17, 7/5; Virag 2007, 31), Andrid-Pășune (Virag 2007, 31) and Bicaz-Igoaie (Virag 2007, 31).

Perhaps the most suited analogy for this vessel is the one in Vărzari (Ignat 1982; Kalmar 1999, pl. XV/2). In the same work there are presented analogies in which concerns the form and ornaments, presented in the annexed tables (Kalmar 1999, shape – Figure 88 / FX – version; ornament – Figure 90 / OE – on the vessel's container, 1F ? – for the ornaments on the vessel's neck).

## V. Discussions

As we previously mentioned, the vessel of Miercurea Sibiului-Petriș presents the best analogies with the Pișcolt archaeological culture, phase III, as it was published in the north-west territory of Romania.

In *Blaja-Grind Cehal* (Satu Mare county) there are archaeological materials similar to the vessel of Miercurea Sibiului-Petriș, technologically (Virag 2007, 27-30) as well as in the fashion and the technology of ornamenting (engobe, strips of arches, arches, strips of parallel vertical, oblique or horizontal tick lines, which frame groups of thin parallel lines: Virag 2007, 30-31, pl. 6/5, 9). In this particular case, the vessel in pl. 9/6 is the closest to our discovery, the text reminding us of the existence of vessels presenting a middle register having four hollows oriented to the interior (Virag 2007, 29). There is to be noticed that pl. 8/1-2 envisage two ceramic fragments illustrative – in these authors' opinion – for the close connection extent between this culture and the early phase (A) of the Vinča archaeological culture, here in a state of evolution to the B<sub>1</sub> phase.

The discoveries of **Vărzari** (Ignat 1982; Kalmar 1999, pl. XV) are the latest of the archaeological culture, the funerary context of the discovery giving them a particular character.

The question to be asked is how come this vessel was discovered here? We consider that the most plausible way was the one of exchanging and for that matter we could present arguments connected especially with the trade having the obsidian as object.

The pieces of Miercurea Sibiului-Petriș have been compared with samples of obsidian harvested from the Mediterranean sites (Lipari, Pantelleria, Sardinia, Palmarola, Melos and Yali) as well with the *North Carpathian* sources (Carpathian 1 – Slovakia, Carpathian 2 – Hungary) (Biagi *et al.* 2007a, 319). The analysis clearly demonstrates the *North-Carpathian* origin of obsidian found in Miercurea Sibiului-Petriș (Biagi *et al.* 2007; Biagi *et al.* 2007a).

In which concerns Transylvania, a recent study analysed 15 samples of obsidian, described as *Neolithic* without a more specific relative dating: 5 pieces discovered in the area of the city of Oradea (the archaeological sites of Seleuș, Salca, Tășnad) and 10 pieces in the area of city of Cluj (the archaeological sites of Iclod, Țaga, Cheile Turzii and Bucin) (Constantinescu *et al.* 2002, 374). Most of the samples are connected with the 1 and 2 *North-Carpathian* sources (Slovak and Hungarian). Some of the samples seem to be connected with the rough material area of *Yali* (Constantinescu *et al.* 2002, 375-376, Figure 4-6). If the information will prove to be correct, we can take into account migrations or the intense exchanges from/with the southern area. The available data could be used only if we shall have more information concerning the cultural provenience of the pieces analysed on this occasion.

In which regards Miercurea Sibiului-Petriș the oldest pieces appertain to the Starčevo-Criș levels, comprising 5 pieces of obsidian of which 4 have their origin in the *Carpathian 1* source, while one of the pieces came from *Carpathic 2E* source. The low number of items corresponds to a similar low number of chopped pieces (Biagi *et al.* 2007, 132-133). There are no traces of *in situ* processing of the pieces, which led us to the conclusion that they reached Miercurea Sibiului-Petriș already processed, which supposes the existence of a commercial activity based on reciprocity, according to a *step by step* principle.

For the Upper Neolithic stage, we are facing an increased number of obsidian pieces which had reached Miercurea Sibiului-Petriș. Thus, for the Vinča A<sub>2-3</sub>-B<sub>1</sub> levels, there were identified 39 pieces of which 35 connected to the *Carpathian 1*

source while 3 to the *Carpathian 2* source. As a difference when comparing to the previous period, 6 retouched pieces were determined along with 2 splinters coming from the nucleus processing which supposes the processing *in situ* of the pieces (Biagi *et al.* 2007, 132-133). The increment of pieces number is not unexceptional having in thought the growing area in which the Carpathian obsidian was introduced during this period. It advanced with more than 400 km towards south, in comparison with the previous period, reaching Mandalo in the Greek Macedonia (Kilikoglou *et al.* 1996, 343). In which concerns Miercurea Sibiului-*Petriş*, the percentage of the obsidian for this period is of 21, 08 %, at a 320 km distance in straight line from Viničky (*Carpathian 1* source – Slovakia).

As a conclusion, the new analysis on materials on the route Tisa, Someş, Mureş (middle) and Secaş reveal an uniform distribution of Carpathian obsidian at this cultural horizon (Kaczanowska, Kozłowski 2008; Constantinescu *et al.* 2002; Biagi *et al.* 2007; Biagi *et al.* 2007a) and strong connections with the populations having under their control the upper basin of the river Tisa. Apart from the discoveries marking this itinerary, the existence of the exchange route is supported by the bitumen painted vessel described above.

On the other hand, even the map showing the discoveries in the old lineary of Transylvania (map 1) reveals the positioning of the discoveries in a way that suggests that one of the protruding ways is the one on Someş.

The presented data were obtained as a result of the analysis performed on materials from Miercurea Sibiului, up to the year 2005. The data for the chopped materials and for the obsidian harvested

during 2006-2007, are still to come. The samples were analysed by Professor Paolo Biagi.

In which concerns the absolute dating of the IIB level of Miercurea Sibiului-*Petriş* we could refer to the  $^{14}\text{C}$  data, GrN-29053:  $6350 \pm 130$  BP for the L<sub>11</sub> dwelling (Figure 2).

This indicates the latest time for the import of the ceramic discovered by us in Miercurea Sibiului-*Petriş*. There is also the possibility of comparing this date with the one already known of Ciumeşti, even if the origin of this is not certain.

The latest date for the Neolithic levels of Miercurea Sibiului-*Petriş* is GrN-26606:  $6180 \pm 40$  BP and appertains to some pits from II / III levels, Lumea Nouă archaeological culture (the pit partially disturbed the B<sub>9</sub> earth-hut, appertaining to the Ic level, Starčevo-Criş culture. As it could be easily seen, the dates of the two levels are close to each other in time.

For a better correlation of the data from Miercurea Sibiului to the data from the cultural medium of Pişcolt, there is the data from Ciumeşti. This is  $6280 \pm 100$  BP (Maxim 1999, p. 133; Băcuet 2008, 67). About the data of *Ciumeşti*, there is no information about the laboratory and the sample number, or the provenience of the complex. Zoia Maxim (Kalmar) mentions only that the data „appertains to the middle stage of the first phase of the *Pişcolt* group” (Maxim 1999, 133).

The data corresponding to the L<sub>11</sub> dwelling which indicates the chronological level has a great error possibility. Unfortunately, the only data of *Pişcolt* from Ciumeşti has a similar great error, which does not allow more precise synchronisms from the absolute data perspective. As a consequence, we restrict ourselves to the ceramic vessel of Miercurea Sibiului, dating in the Pişcolt III phase, maybe final II.

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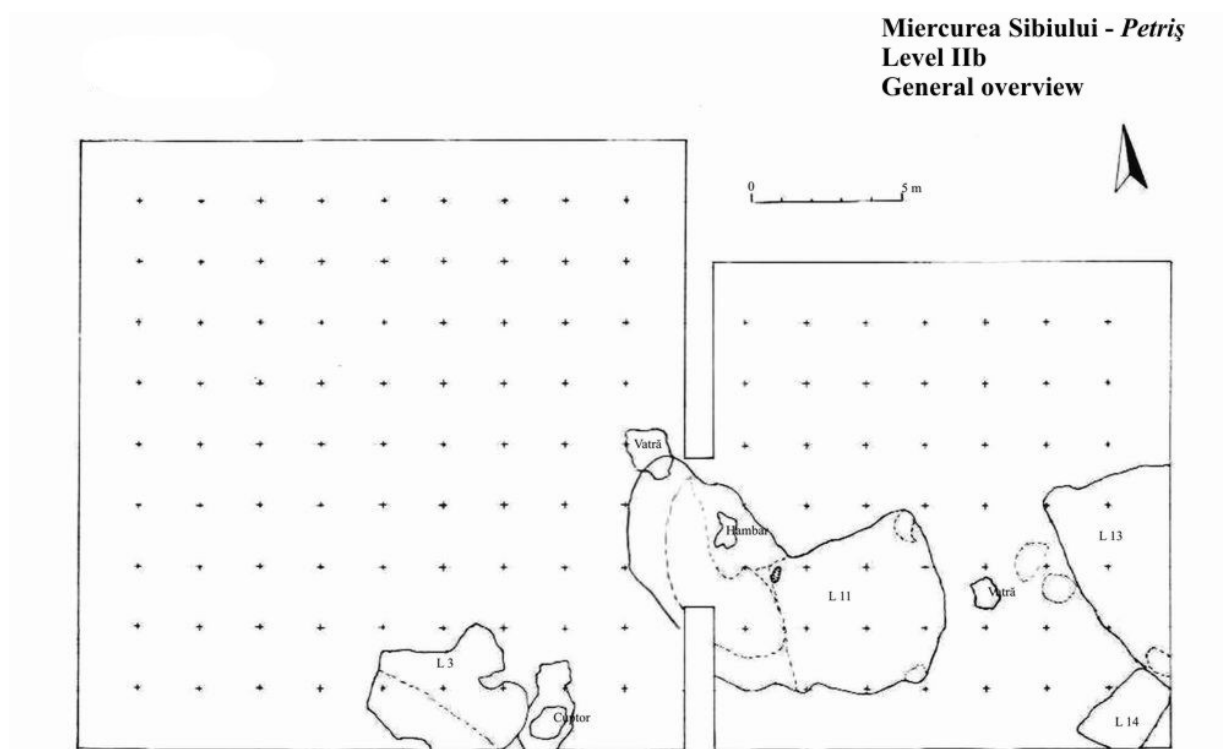
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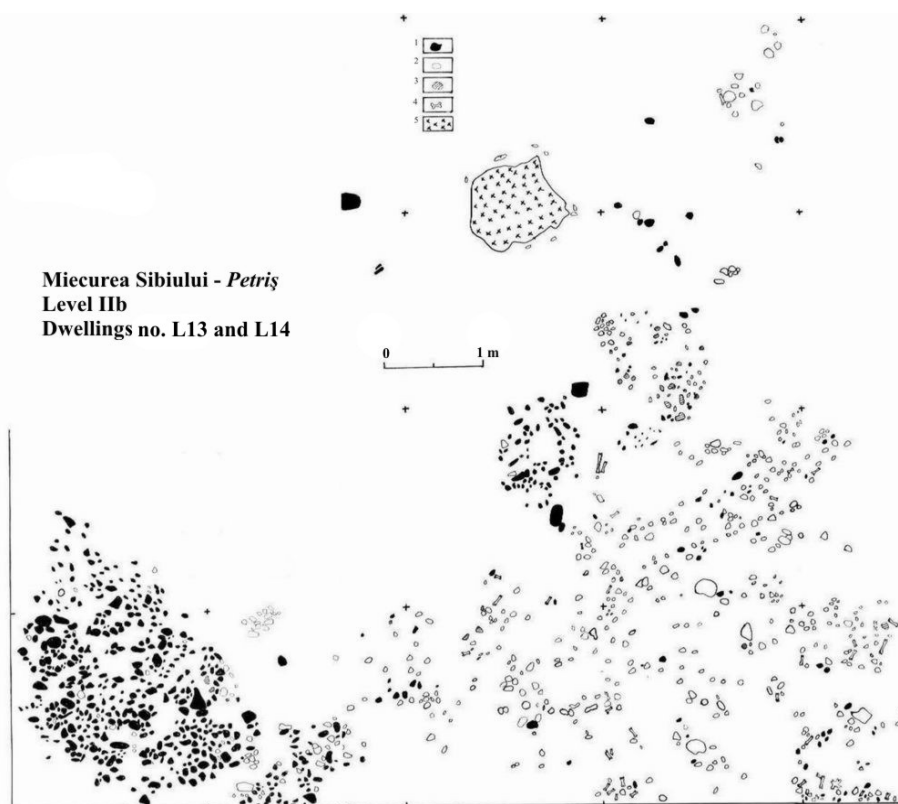
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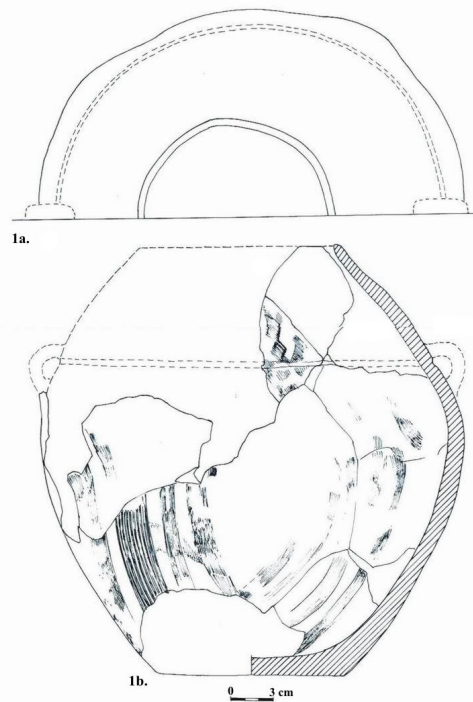
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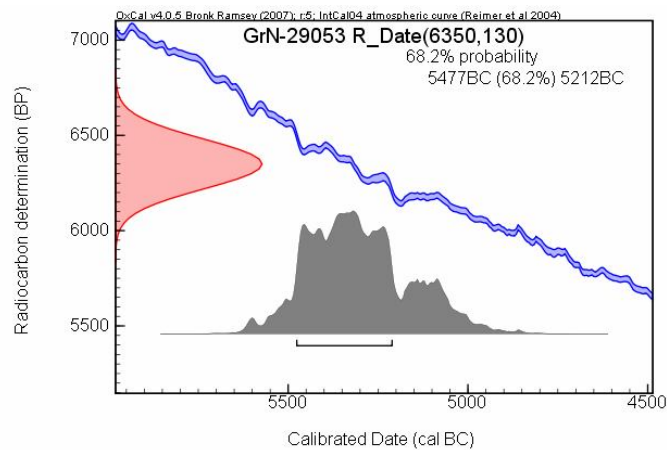
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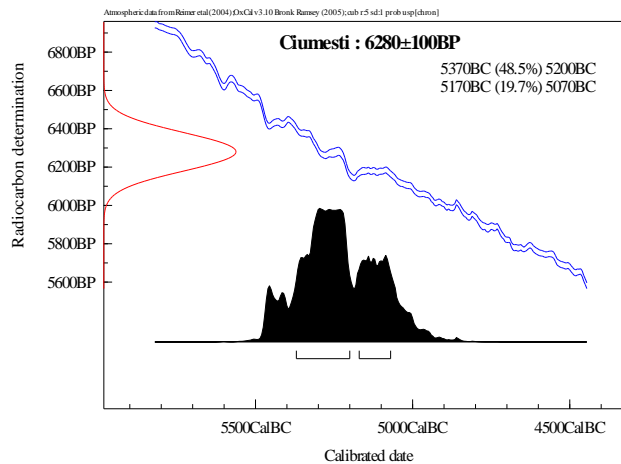
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## COMPARATIVE STUDY REGARDING EVOLUTION OF VEGETATION IN THE ARCHAEOLOGICAL SITE FROM LIMBA-OARDA DE JOS (ALBA COUNTY)

Beatrice CIUTĂ\*

**Abstract:** *This paper is a comparative study of vegetation between actual times and Neolithic times. These reconstruction attempts were made with the help of archaeobotanical and dendrological analyzes. Based on these analyses we managed to reveal which tree species populated the prehistoric area from Limba-Oarda de Jos. Accordingly with these results we state that species like Quercus robur, Alnus glutinosa, Ulmus minor, Cornus mas and Sambucus nigra were populated the target area of our study.*

**Keywords:** *evolution, reconstruction, paleoenvironment, archaeobotany, vegetation.*

**Rezumat:** *Articolul de față prezintă studiul comparativ privind evoluția vegetației între perioada neoliticului și perioada actuală. Această încercare de reconstituire s-a bazat pe analize arheobotanice și dendrologice. Am reușit să demonstrăm ce specii de arbori au populat zona sitului de la Limba-Oarda de Jos în preistorie. Conform analizelor specii de arbori ca Quercus robur, Alnus glutinosa, Ulmus minor, Cornus mas și Sambucus nigra creșteau și cresc în zona aflată în atenția noastră.*

**Cuvinte cheie:** *evoluție, reconstituire, paleoenvironment, arheobotanică, vegetație.*

### Introduction

Within scientific activities of the research project “Reconstruction of prehistoric communities’ vegetal diet based on palaeoetnobotany indicators recovered from archaeological sites<sup>1</sup>” were conducted exploratory research to determine the development of vegetation in the area of prehistoric settlements from Limba-Oarda de Jos. Information obtained from interdisciplinary research aimed to define the settlement’s hinterland will be presented in a synthetic manner in this study, following by a detailed study next year in a separate volume with subject of project presented above.

The activities involved field trips in order to make analyzes of geomorphologic features of the area and to pick soil samples from the ensemble of archaeological sites from Limba-Oarda de Jos. Also we aimed to get an archaeobotanical profile and to identify and reconstruct the actual vegetation in order to determine similarities and differences between period’s subject of our attention (Neolithic era).

Following preliminary research on the geographical location of the site it was decided that the sampling strategy for archaeological and archaeobotanical analyses and for current vegetation study, to pursue a geomorphologic and botanical profile for the area where are located prehistoric sites from Limba-Oarda de Jos.

In this direction were been collected soil samples on pedogenetic horizons in order to accomplish a specific systematic study.

A number of palynological and archaeobotanical samples from the hinterland of Limba settlement have been analyzed in the past so that we relate to these too. It should be noted that analyses are punctual and yet allow only the study of vegetation development during the Neolithic. Analysis of samples in processing will allow the completing of studies conducted so far and therefore to achieve a more relevant botanical and palynological diagram.

### Geomorphology area description

The complex of prehistoric sites from Limba has offered a series of elements consisting of vegetal remains and / or imprints of plants in different contexts (Ciută, Daisa 2000, 25-37; Ciută, Daisa 2002, 51-59; Ciută *et al* 2004, 103-112).

They helped to advance identification proposals regarding plants and trees species used by human

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<sup>1</sup> CNCS Project, type PD developed between 2010-2012 (contract no. 63/28.07.2010)



communities that lived on the first terrace of Mures during prehistorically times.

The station known generically under the name: *the archaeological site of Limba*, is situated in the south-west of Transylvania, on the middle course of the Mureş river, in the area delimited by the river's thalweg. The area of the previous archaeological investigations lies on the left bank of the Mureş river, between the localities of Limba (Ciugud commune) and Oarda de Jos (suburb village of the town of Alba Iulia), on both sides of the county road (D.J. 107C) that links the two localities, at about 3.5 km south-south-east from the administrative centre of Alba Iulia. The sites, as we are speaking of several distinct sectors (points) of the archaeological ensemble – individualized by toponimy (Figure 1) but also by the distinct characteristics of the successive archaeological deposits, conferring them therefore the status of proper sites – occupy a vast area, the entire surface of the 1<sup>st</sup> terrace of the Mureş river actually, in the place where the river changes its general flowing direction from south to the west in an ample meander (Figure 2-3) (Ciută 2009, 338).

In a broader meaning, the perimeter of the prehistoric settlements lies on the 1<sup>st</sup> terrace, having a wide and smooth aspect, situated in the interior of the area of confluence of the Mureş and Sebeş rivers, in the “contact zone” of the Secaş Plateau and the Mureş Valley, in its most western sector, delimited by the two above mentioned rivers, between the western extremity of Limba (Ciugud commune) and the eastern part of Oarda de Jos (today a district of Alba Iulia) (Figure 4).

Having the aspect of a wide plain, slightly precipitous to the north and north-east, the area is characterized by the fundament of a relatively high and well profiled non-floodable terrace, on the east-west direction, fully exposed to the sun, fragmented by numerous creeks and/or torrents that cross it radially, by strong water springs which are to be found especially in the contact area with the river meadow and the alluvial plain of the two large rivers, by very fertile soils, and also by the presence of the western hills and knolls of the Secaş Plateau (*Coasta Barbului and Hoanca Chişoii*), which dominate it in smooth slopes from the south to the east (Ciută 2009, 339).

The course of the Mureş river, strongly pushed back to the east and south-east in this sector by the Ampoi river – which runs downstream from the west, from the Trascău Mountains and Ore Mountains, bringing with it massive quantities of alluvial deposits and flows into the Mureş river near the north-eastern

extremity of the archaeological site – and to the north by the course of the Sebeş river, influenced by the slightly slope of its alluvial plain, cause these two rivers to “dig” (erode) permanently the basis of the terrace, shaping it more and more clearly profiled, due to its geological fundament of sandstone and clay, typically for the entire western frame of the Secaş Plateau, made out of gravels and wind deposits of the *loess* type (Figure 5-6) (Ciută 2009, 339).

To describe soil types from the middle basin of Mures a distinction must be made from the very beginning: on the right side predominate alluviums and alluvial soils, but also rendzine, embaziom and brown soils; and on the left side prevailed leached chernozem (Roşu 1973, 163) chernozem soil leachates cernoziomoide podzolic and leachates. Repeated overflows of Mures River led to the alluvial soils which are the latest soils.

As specifically in the Alba Iulia vicinity, on the both sides of Mures, are found brown clay podzolic iluviale soils and clay podzolic-iluviale soils. The type soils mentioned above are characterized by predominantly base reaction and can be included in submontane silvestre soil, which are relatively fertile soils (Roşu 1973, 160).

Its excellent position, as well as the advantages given by the above mentioned characteristics and by the abundance of fertile soils and useful mineral resources (gravels, sand, wood, clay etc.) turned this wide, fragmented terrace since the earliest times into an extremely favorable ecosystem for the human habitat. In pre- and protohistory, the terrace proved to be a true area of concentration of human inhabitation, which is proved by the systematic archaeological investigations done here in the last years and by discoveries, accidental or following surface investigations, done in the last 50 years (*RepArh Alba* 1995, 23; Ciută 2009, 337-362).

From morphologically point of view our target area includes the lower terrace of Mures, in the immediate vicinity of a meadow area. In these regions on the Mures terraces are highly prevalent the leachates and chernozem strong pseudogleizate soils, a very fertile soils (Morariu *et al.* 1980, 76).

Hydromorphic soils represented by lacovişti and humico-gleic soils are encountered in the meadow and the lower terraces of Mures. They are soils with moisture excess whose evolution is strongly influenced by the stagnant water and high ground water which in turn influences the soil pH in the area (Morariu *et al.* 1980, 77). The pH is influencing strongly the nutrient availability and the microorganisms and plants presence in soil. The pH is the measure of hydrogen ion concentration.

Depending on their pH value, soils can be acidic, neutral or alkaline. Most plants prefer a pH between 5.5 -7.5 but some species may prefer more acidic or alkaline soils.

However, for optimal growth each plant requires a particular pH (in a particular field).

For example fungi prefer acidic conditions, while most bacteria particularly those that provide nutrients to the plants have a preference for moderately acid or slightly alkaline soils. In fact, under strong acid condition the nitrogen fixation and mineralization of plant residues is reduced. For example, legumes are those who helping nitrogen stabilize and nutrients fixing within the soil.

Plants absorb nutrients dissolved within soil water and nutrient solubility depends on pH.

From here the availability of different elements are different on each pH levels.

Each plant needs different amounts of elements and that is why each plant requires a particular pH range for growth optimization.

Cereals and straw plants generally prefer a soil neither too alkaline nor too acid.

The diversity of relief and geological structure is directly reflected within the composition of vegetation. The vegetation from the middle Mures basin corresponds mostly to oak, beech and hornbeam trees (Roşu 1973, 33).

In sublevel of durmast we meet mixed forest of beech (*Fagus silvatica*) and oak (*Quercus Polycarp*) which is prevailing between tree vegetation.

Black alder (*Alnus glutinosa*) and white alder (*Alnus incana*) grow especially in the Mures valley (Roşu 1973, 134).

In turn, the thermophilous oak floor (*Quercus robur*) conditioned by a milder climate once has covered large areas in the corridors of depression and low hills somewhere between 200-500 m altitudes. In current time it is represented by a few patches of forest in the Secaşelor Plateau and the surrounding hills as well as scattered clumps near in the contact areas of floodplain (Buza, Hozoc, 1985, 28). The few old trees found in the Mures valley reveal that this species had covered much wider area in the past (Morariu *et al.* 1980, 82).

Paleoenvironment analysis: reconstruction and determination

The primary premise from which we start our analysis are that the current specific geo-climatic of area it is no different from that existing in prehistory (Dumitrescu, Vulpe 1988, 18); prehistory of which segment falls between

beginnings and evolve phase of Holocene (Ciută 2009a, 41-49).

Starting with archaeobotanical (Daisa, Ciută 2000, 58) and dendrologiyca (Ciută *et al.* 2004, 16) analysis carried in the past combined with the current recognition in the field, will try to point out which trees species were populated the target area in Neolithic time. Thus according to results revealed by spores-pollen analysis in the Neolithic was developed the phase of spruce with hazel and mixed oak (Cârciumaru 1996, 20-27; 1999, 141-142; Tomescu 2000, 235-270).

Climatic conditions which become now very favorable has generated an explosion of forest essences, a constant competition for occupation and domination of unoccupied lands. Also now has been stabilizing all floors vegetation which has been maintained, mostly with small changes in altitude, until nowadays (Cârciumaru 1996, 20).

It is considered that the climate from spruce with hazel and mixed oak phase have been much warmer than today, at its beginning with a dry shade, and become hot and humid (Cârciumaru 1996, 20).

By corroborating the archeobotanical and dendrologiyca analysis we are able to illustrate the tree species inhabited the area from Limba-Oarda de Jos.

The information obtained is very valuable in our habitat reconstructing attempt from prehistorically times.

Thus, at present, in the target area investigated we can state that we have determined six species of trees and shrubs; species which fits perfect in the existing ecosystem (Figure 7-8)

1. *Acer platanoides* (maple);
2. *Ulmus minor* (elm);
3. *Quercus robur* (oak);
4. *Alnus glutinosa* (alder) (Daisa, Ciută 2002, 51-59);
5. *Cornus mas* (cornelian cherry);
6. *Sambucus nigra* (Black elder) (Ciută *et al.* 2004, 103-112).

From archaeobotanical analysis of species revealed (find detailed in Tab. 1) it can be seen that the presence of high percentages herbaceous within soil samples might indicate the existence of an open, unwooded land. This fact is illustrated also by the high percentages of herbaceous species like Poaceae, but other *heliophile* herbaceous: *Caryophyllaceae*, *Rosaceae*, *Anthemideae* and *Cichorioideae*.

The analysis of soil samples has revealed macro remains from cultivated plants (cereals) (Ciută *et*

al 2004, 111) macro remains of plants which grows closely in lands with agricultural practices, especially within trodden settlements following human activities like *Chenopodiaceae*, *Artemisia*, *Plantago*, *Ranunculaceae* and *Urtica* (Figure 9-10).

Attempting a comparative study between focused periods, respectively Neolithic and the current time it can be observed that many of the species that inhabit now the area of the site of the Limba-Oarda de Jos are found according with archeobotanical results in time specified.

Therefore, we can say that climate and geomorphological changes occurred overtime were not so drastic as to lead to a change in vegetation type in the subject area of our attention.

Concluding, with the risk to repeat again, the predominant woody species now are those installed on the banks of rivers such as the species of *Alnus*, in our case, *Alnus glutinosa*.

The current presence of beech species (*Fagus*), oak (*Quercus*), elm (*Ulmus*) close to the site of the Limba-Oarda de Jos reveals the existence of woods in that area in the past.

On a larger scale looking for analogies to confirm our results in areas surrounding the Limba-Oarda de Jos site, after analyzing pollen spectra studies close to the area in question, namely the Sebes Mountains, in marshes from Prigoana at an altitude of 1350 m, has been identified vegetation development during spruce with hazel and mixed oak phase. Therefore after the crossing of pine-spruce stage when there two curves intersected, the spruce with hazel and mixed oak phase begins with sudden increase of hazel tree, up to 70%. In turn the elements of mixed oak has stated in the following order: lime-elm-oak. Together they accounted only slightly over 9% (Cârciumaru 1996, 21).

Currently from the elm-oak-lime mixture we found two of them, respectively oak and elm. It remains to the future analyses to find out if lime was among the trees that populated the area of our interest.

Analysis of samples on work correlated with results from complementary research directions will allow a more precise description of vegetal environment from the prehistoric period subject of our study.

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## LIST OF ILLUSTRATION

- Figure 1. The location of the prehistoric settlements.
- Figure 2. Marking the name of prehistoric settlements according by toponimic.
- Figure 3. Mark areas where archaeological excavations have been conducted.
- Figure 4. Overview of the area from Oarda de Jos.
- Figure 5. Overview regarding the course of Mures River around Limba area.
- Figure 6. Overview of the points Limba Bordane and Vărăria located in the elbow of the Mures River Terrace.
- Figure 7. Current vegetation represented by trees and shrubs relevant for and prehistoric times.
- Figure 8. Typical vegetation for habitat area with lăcovişti soil from Mures River Terrace.
- Figure 9. *Chenopodiaceae* and current herbaceous found also in neolithic times within area of settlement from Limba-Oarda de Jos.
- Figure 10. Specific areas of human habitation vegetation (*Urtica dioica* in the foreground).

### LISTA ILUSTRAȚIILOR

Figure1 Localizarea în teren a ansamblului de situri preistorice Limba-Oarda de Jos, cu precizarea sectoarelor distincte ale acestuia.

Figure 2. Imagine generală a sitului cu marcarea sectoarelor cu toponimice distincte.

Figure 3. Marcarea zonelor unde au fost efectuate cercetări arheologice.

Figure 4 Vedere de ansamblu dinspre est a arealului ansamblului arheologic Limba-Oarda de Jos.

Figure 5 Vedere de ansamblu asupra cursului Mureșului în sectorul Limba-Oarda.

Figure6 Vedere de ansamblu asupra punctelor *Bordane* și *Vărăria* aflate în zona cotului de terasă de pe malul Mureșului.

Figure 7 Vegetația actuală reprezentată de arbori și arbuști din zona de luncă a Mureșului, specii relevate și în depunerile arheologice ce corespund epocii neolitice.

Figure 8. Vegetație tipică zonei de lăcoviști din arealul Mureșului la Limba.

Figure 9 *Chenopodiaceae* și plante erbacee actuale regăsite în epoca neolitică în arealul așezării de la Limba.

Figure 10 Vegetație specifică zonelor cu locuire umană (în prim plan *Urtica dioica*).



Figure1 B. Ciută 2011



Figure2. B. Ciută 2011



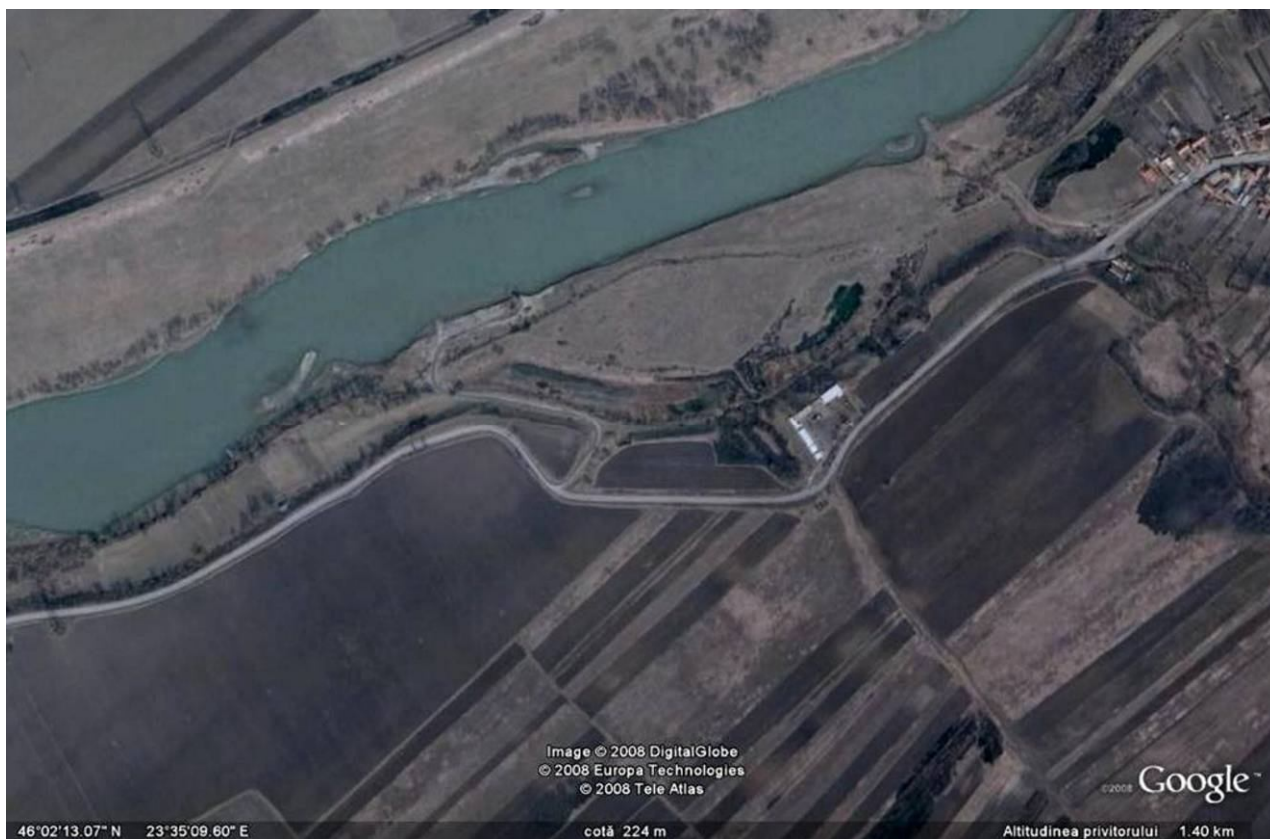


Figure3 B. Ciută 2011



Figure 4 B. Ciută 2011





Figure 5 B. Ciută 2011



Figure 6 B. Ciută 2011





Figure 7 B. Ciută 2011



Figure 8 B. Ciută 2011





Figure 9 B. Ciută 2011

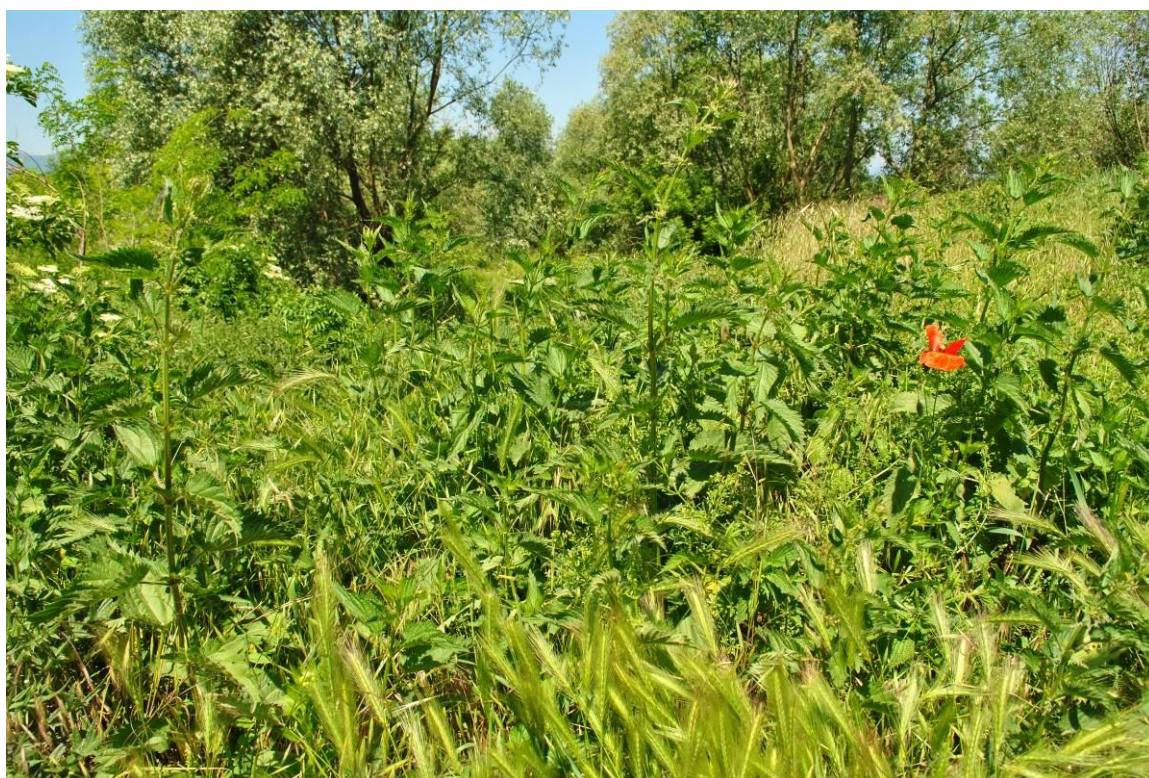


Figure 10. B. Ciută 2011

Originea probei	Bordei (Limba)		Podea	Conținutul unui vas	
Descrierea Probei	Proba 1	Proba 2	Proba 4	Proba 5	Total
Nr. Laborator	1	2	3	4	
Dimensiunea probei în litri	10 litri	10 litri	20 litri	0,3 litri	40,3
Nr resturilor carbonizate	307	470	85	15	877
Nr. Resturilor necarbonizate	0	1	93	0	94
Nr. total al resturilor de plante	307	471	178	15	971
Carbonizate:					
<b>Fructe:</b>					
<i>Cornus mas</i>	1				1
<b>Plante tinctoriale:</b>					
<i>Anthemis cf. tinctoria</i>	1				1
Plante sălbatice:					
<i>cf. Asteraceae</i>	1				1
<i>Bromus sp.</i>	1				1
<i>Caryophyllaceae</i>	1				1
<i>cf. Carex sp.</i>	1				1
<i>cf. Centaurea sp.</i>		1			1
<i>Chenopodium album</i>	1	8			8
<i>Chenopodium cf. botryus</i>	2				2
<i>Chenopodium cf. polyspermum</i>	1				1
<i>Chenopodium cf. urbicum</i>		2			2
<i>Chenopodium sp.</i>		16	1		17
<i>cf. Echinochloa sp.</i>	1				1
<i>Galium sp.</i>	1				1
<i>cf. Galium sp.</i>			1		1
<i>Hyoscyamus niger</i>	1				1
<i>cf. Malva sp.</i>	1				1
<i>Poaceae</i>		2	1		3
<i>cf. Rosa sp.</i>	1				1
<i>cf. Setaria sp.</i>	1				1
<i>Sambucus nigra</i> sau <i>S. Recemosa</i>		1			1
<i>Trifolium/Melilotus sp.</i>	1				1
<i>Urtica dioica</i>	1	3			
Neîncadrabile:					
<i>Fabaceae (frg)</i>	1		1		2
<i>cf. Fallopia convolvulus (frg.)</i>			2		2
Nedeterminate	3	26	26	9	64
Necarbonizate,					

probabil recente:					
<i>Amaranthus sp. sau</i> <i>Atriplex sp.</i>		1	8		9
<i>Asteraceae</i>			16		16
<i>Chenopodium album</i>			36		36
<i>Chenopodium</i> <i>hibridum</i>			2		2
<i>Chenopodium sp.</i>			3		3
<i>Hordeum vulgare</i> (sem)			10		10
<i>Hordeum vulgare</i> (ic, rest. tulpini, rest. frunze)			8		8
<i>Stellaria media</i>			1		1

**Table 1.** Wild plant species revealed within soil samples.





## COPPER AND GOLD METALLURGY IN THE PETREȘTI CULTURE

Sorin TINCU\*

**Abstract:** *On the territory of Romania, the appearance of the first copper objects was at a horizon represented by IIIB-IVA, IVB phases of Criș. However, about a real copper metallurgy we can speak only in a moment marked by the appearance of massive copper pieces. In Transylvania this moment corresponds with second phase of Petrești (A-B) culture and the first phase (A) of Tiszapolgár culture, chronologic frame that is according with archaeological realities and the terminology from Hungary.*

**Keywords:** *Copper metallurgy, Copper Age, Petrești culture*

**Rezumat:** *Pe teritoriul României, apariția primelor obiecte de cupru are loc la un orizont cronologic reprezentat de fazele IIIB-IVA, IVB ale culturii Criș. Cu toate acestea, despre o metalurgie a cuprului în adevăratul sens al cuvântului putem vorbi doar în momentul apariției pieselor masive din acest metal. În Transilvania, acest moment corespunde cu ce-a de-a doua fază din evoluția culturii Petrești (A-B) și cu prima fază a culturii Tiszapolgár (A), palier cronologic aflat în perfectă concordanță cu realitățile arheologice și terminologia din Ungaria.*

**Cuvinte cheie:** *Metalurgia cuprului, Epoca Cuprului, Cultura Petrești*

Although the first copper objects from Romania appeared at the Starčevo-Criș IIIB-IVA, IVB (Beșliu, Lazarovici 1990, 111; Beșliu, Lazarovici, Olariu 1992, 98) chronological horizon, about a real copper metallurgy it can't be spoken until the moment of appearance of the metal massive pieces, which presumes the entire amount of technological processes which have as result the obtaining semi- or finished metallurgical products (For a wide discussion, see Diaconescu 2009, 11.) and also the finishing proceeds on the finished product. In the centre and western part of Romania, this moment corresponds with the evolution of the Petrești and Tiszapolgár cultures. Also, when refers to Petrești culture, the specialized studies frame it in the first stages of Copper Age (Lazarovici, Lazarovici 2007, 15.), or in the Early Eneolithic.

Because the problems of the inside periodisation of the neo-eneolithic were approached recently (Diaconescu 2009, 88-89.), we will make only the repertoire of the copper objects belonging to the Petrești culture and will have some discussions regarding these.

For making this repertoire, we took in consideration the following elements: A – the name of the area; B – the identifying manner of the artifacts; C – the type of the object; D – dimensions; E – the phase of the Petrești culture to

which the artifact belong; F – storage location; G – references; H – the spectral analyze (The model used for making this repertoire is that proposed by Diaconescu 2009a, 41-91).

*\*For the spectral analyzes see appendix 1.*

### 1. ALBA IULIA (Alba county)

- A. *Lumea Nouă*
- B. rescue research 2003.
- C. copper hair ring.
- D. diameter cca 3 cm.
- E. Foeni (Foeni-Mintia) group.
- F. 1 Decembrie 1918 University, Alba Iulia.
- G. Gligor 2008, 167-172.
- H. spectral analyze: Pierre and Marie Curie University, Paris.

### 2. CAȚA (comună, Brașov County)

- A. unspecified
- B. systematic research
- C. copper flat bracelet
- D. diameter: L= 4,5 cm, l= 2 cm.
- E. unspecified
- F. Muzeul Național de Istorie a Transilvaniei Cluj Napoca.
- G. Aldea, 1979, 28; Marțian 1920, 153, Roska, 1942, 116, Vlăssă, 1962, 25, nota 7; 1963, 488, nota 7; 1964, 362, nota 54; 1976, 67, nota 54; Mareș 2002, 42, 47, 78, 121, 196, 468, Pl. 58/6.
- H. spectral analyze: Stuttgart Museum (Mareș, 2002, 202); spectral analyze: Măgurele Laboratory.

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### 3-5. GHIRBOM (parish Berghin, Alba County)

#### a)

- A. Fața
- B. systematic research, Aldea, 1971.
- C. Fragment of axe, Pločnik type  
(Vulpe assigns it with probability to this type.).
- D. Dimensions: 4,1 x 1,6 cm.
- E. Petrești AB
- F. Muzeul Național al Unirii Alba Iulia
- G. Aldea 1979, 25-29; Horedt 1976, 180; Mareș 2002, 239; Maxim 1999, 161; Paul 1992, 110; Vulpe 1973, 232; 1975, 53.
- H. not carried out.

#### b)

- A. Fața
- B. systematic research, Aldea, 1971.
- C. piece of native copper
- D. dimensions: 4,2 x 1,1 cm
- E. Petrești AB
- F. Muzeul Național al Unirii, Alba Iulia
- G. Aldea 1979, 25-29; Mareș 2002, 239; Maxim 1999, 161; Paul 1992, 110.
- H. not carried out.

#### c)

- A. Fața
- B. systematic research, Aldea, 1971.
- C. bead.
- D. diameter: 0,5 cm.
- E. Petrești AB
- F. Muzeul Național al Unirii, Alba Iulia
- G. Aldea 1979, 25-29; Mareș 2002, 239; Maxim 1999, 161; Paul 1992, 110.
- H. not carried out

### 6. MEDIAȘ, (Sibiu County)

- A. unspecified (in the old literature it is mentioned in Hașag, Loamneș parish, Sibiu county.)
- B. chance discovery.
- C. hammer-axe, Székely and Nádudvar type.
- D. unspecified.
- E. unspecified.
- F. Mediaș Museum (nr. inv. 92).
- G. Roska 1942, 105, nr. cat. 20; Popescu 1944, 29, nota 4; Vulpe 1975, p. 27. nr. cat. 42, pl. 4/42; Maxim 1999, 168, nr. 610; Mareș 2002, 261-262, discovery nr. 1, pl. 18/1.
- H. not carried out

### 7-8. NOȘLAC (Alba County)

#### a)

- A. Pe Șes
- B. archaeological researches M. Rusu 1962-1963

C. copper pin.

D. -

E. Petrești A-B și B

F. Univ. 1 decembrie 1918, Alba Iulia.

G. Vlassa 1967, 420-422; Paul 1992, 141-142; Maxim 1999, 172; Rep. Alba 1995, 129-130; Mureșan *et al* 2007, Table 1; Table 5.

H.

#### b)

A. Pe Șes

B. archaeological researches 1962-1963.

C. copper pin

D. -

E. Petrești A-B și B

F. 1 December University 1918 Alba Iulia

G. Vlassa 1967, 420-422; Paul 1992, 141-142; Maxim 1999, 172; Rep. Alba 1995, 129-130; Mureșan *et al* 2007, Table 1; Table 5.

H.

### 9. PLĂIEȘTI (Moldovenesti parish, Cluj County)

A. Roata Șoarecelui

B. private collection Apăczai din Plăiești.

C. hammer-axe, Pločnik type.

D. unspecified.

E. unspecified.

F. unspecified.

G. RepCluj, 1992, 314, nr. cat. 1; Maxim 1999, 176, nr. cat. 761; Mareș 2002, 279, discovery nr. 1.

H. not carried out.

### 10. SEBEȘ-ALBA (Alba County)

A. unspecified.

B. chance discovery.

C. hammer-axe, Ariușd type

D. unspecified.

E. unspecified.

F. Muzeul Național Brunkenthal Sibiu (inv. A 6389).

G. Vulpe 1975, 36; Mareș 2002, 297.

H. not carried out.

### 11. SIBIU (Sibiu County)

A. chance discovery

B. chance discovery.

C. hammer-axe, Vidra type.

D. Dimensions: L= 13,8 cm.

E. unspecified.

F. București City Museum (lost today).

G. Roska 1942, 197, nr. cat. 78, Figure 238; Popescu 1944, 29, nota 4 (tipul 2); Bognár-Kutzián 1972, 144; Vulpe 1975, 22, nr. cat. 27, pl. 3/27; Maxim 1999, 183, nr. cat. 923; Mareș 2002, 298, discovery nr. 1, pl. 15/3.

H. not carried out

**12-13. ȘEICA MICĂ (Sibiu county)**

**a)**

- A. unspecified.
- B. chance discovery.
- C. hammer-axe, Pločnik type.
- D. dimensions: L = 12 cm, diam.g.c. = 2 cm.
- E. unspecified.
- F. Muzeul Național *Brunkenthal*, Sibiu (inv. A 305).
- G. Popescu 1944, 30, pl. II/2; Vulpe 1973, p. 224, Figure 2/1; Vulpe 1975, p. 19, nr. cat. 2, pl. 1/2; Maxim 1999, p. 186, nr. cat. 971; Mareș 2002, pp. 302-303, discovery nr. 1, pl. 12/8.
- H. spectral analyze: Stuttgart Museum .

**b)**

- A. *Im Steizen*
- B. chance discovery.
- C. flat axe, type Sălcuța, flat, slim axes group.
- D. dimensions: L. = 11 cm.
- E. unspecified.
- F. Muzeul Național *Brukenthal*, Sibiu (inv. A 311).
- G. Popescu 1944, p. 37, pl. 2/7; Vulpe 1975, p. 57, nr. cat. 256, pl. 32/256; Mareș 2002, p. 302, discovery nr. 2, pl. 51/4.
- H. spectral analyze: Stuttgart Museum (Mareș, 2002, 304.)

**14. ȘONA (Alba County)**

- A. unspecified
- B. chance discovery
- C. hammer-axe, Pločnik type.
- D. dimensions: L= 10,5 cm, diam.g.c. = 1,6 cm.
- E. unspecified.
- F. unspecified.
- G. Blajan, Stoicovici, Tatai, Man 1982-1983, 104-105.
- H. Cu = 99,05%

**15. ȘURA MICĂ (Sibiu County)**

- A. unspecified
- B. chance discovery
- C. hammer-axe, Pločnik type.
- D. dimensions: L. = 16 cm, diam.g.c. = 2,1 cm.
- E. unspecified
- F. Muzeul Național *Brunkenthal* Sibiu (inv. A 304).
- G. Popescu 1944, 30, pl. III/9; Vulpe 1975, 20, nr. cat. 11, pl. 1/11; Maxim 1999, 187, nr. cat. 1005; Mareș 2002, 306, discovery nr. 1, pl. 12/9.
- H. spectral analyze: Stuttgart Museum (Mareș, 2002, 307).

**16-21. TURDAȘ (Hunedoara County)  
a-d)**

- A. *Luncă*
- B. hoard or chance discovery.
- C. Three hammer-axes, and a fragment from a axe (From the Zsófia Torma collection.), probably from another similar specimen, Pločnik type.
- D. dimensions: L. = 13,4 cm.
- E. unspecified.
- F. Muzeul Național de Istorie a Transilvaniei, Cluj-Napoca (inv. V 9564, V 9565 = P 855, V 9566 = P 859, V9567 = P 848).
- G. Roska 1942, 287, nr. cat. 69; Popescu 1944, 29, nota 4; Bognár-Kutzián 1972, 142; Vulpe 1973, 223, and notes 43, 44, 70, Figure 2/3 included in Tibava type; 1975, 20, nr. cat. 4-7, pl. 1/4-7; Maxim 1999, 189, nr. 1051; Mareș 2002, 326, discoveries nr. 1-3, pl. 13/6, 8, 9).
- H. spectral analyze Stuttgart Museum (Mareș, 2002, 327); spectral analyze Măgurele Laboratory (L18 at Beșliu, Lazarovici=1652 at Mareș; L21 at Beșliu, Lazarovici 1653 at Mareș; L12 at Beșliu, Lazarovici 1654 at Mareș)

**e)**

- A. *Luncă*
- B. hoard or chance discovery in the settlement.
- C. brățel.
- D. diameter= 5 cm; L. = 13,4 cm.
- E. unspecified.
- F. Muzeul Național de Istorie a Transilvaniei, Cluj-Napoca (inv. V 9568).
- G. Mareș 2002, p. 327, pl. 58/8.
- H. spectral analyze Stuttgart Museum (Mareș, 2002, 327); spectral analyze Măgurele Laboratory (Beșliu, Lazarovici 1990, 133, 137, tab. 1, 3.)

**f)**

- A. *Luncă*
- B. systematic research S.A. Luca (Luca 2001).
- C. link.
- D. exterior diameter = 0.9cm; interior diameter = 0.7cm; bar thickness = 0.15cm; bar width = 0.3cm.
- E. Petrești AB.
- F. Castelul Corvinilor Museum, Hunedoara, nr. inv. A5538
- G. Luca 2001, 92.
- H. not carried out.

**22-23. VINEREA (locality that belong to Cugir City, Alba County)**

**a)**

- A. unspecified.
- B. chance discovery.
- C. Two Axes, Pločnik type.
- D. unspecified.



- E. unspecified.
- F. unspecified.
- G. Popa 2005, 9.
- H. unspecified.

#### 24. VURPĂR (Sibiu County)

- A. unspecified.
- B. chance discovery.
- C. Flat axe, Sălcuța type, flat-slim axes group.
- D. Dimensions: L. = 14,5 cm.
- E. unspecified.
- F. Muzeul Național Brukenthal, Sibiu (inv. A 1934).
- G. Popescu 1944, 37, pl. 2/6; Vulpe 1975, 57, nr. cat. 257, pl. 32/257; Mareș 2002, 340, discovery nr.1, pl. 51/6.
- H. spectral analyze Stuttgart Museum (Mareș 2002, 341).

As one can notice, by using the chronological principle, the number of copper objects belonging to Petrești culture was greatly increased. But from the 24 objects only 7 were discovered in stratigraphic conditions. As for the pins discovered at Noșlac, the amount of tin in their composition practically transforms them into bronze items (Mureșan et alii 2007, Table 1, Table 5), which rises questions about their chronological and chronological affiliation. When he published them N. Vlassa pinpointed them precisely “*on the platform of the dwelling discovered in Trench II, square 32*” and has identified analogies for them in the levels Troy II and Alișar IB (Vlassa 1967, 420-421). This type of pins was also discovered at Mersin, dated between 5000-4900 BC (Yalçın 1999, 22, Abb. 8; Garstang 1953, 139, Plate XXI), and on the territory of Romania as well at: Băile Herculane, Glina, Malnaș and Vidra (Mareș 2002, 130). Chronologically this type of pins are framed within the following cultures: Sălcuța IIc-III (Herculane I stage; Băile Herculane, nr. 80), Cucuteni A (Malnaș, nr. 1243 - This is probably the piercing tool from Malnaș-Băi (Covasna County) nr. 1243, see Mareș 2002, 255-256 and not a needle with a running head), final stage of Gumelnița B1 (Vidra II D [Vidra, nr. 1754]) (Mareș, 2002, 132). Such artifacts with a great content of tin were discovered at Vel’ke Raškovce (4,54% Sn) (Novotna 1977, 21; Diaconescu 2009, 199) or Vidra (6,5% Sn) in the layers belonging to Gumelnița culture (Vulpe 1973, 221, n. 28; Diaconescu 2009, 200.). Although the piece from Vidra was dated by Mareș during the Bronze Age (Mareș 2002, 335), this chronology can be questioned since the tell from Vidra does not contain levels from this age (Diaconescu 2009, 200, note 755). As for the settlement from Noșlac,

a habitation of the Hallstatt period was research in the area (Rep. Alba, 129). Until these artifacts will be definitively placed within a chronological and cultural frame we will continue to place them, with

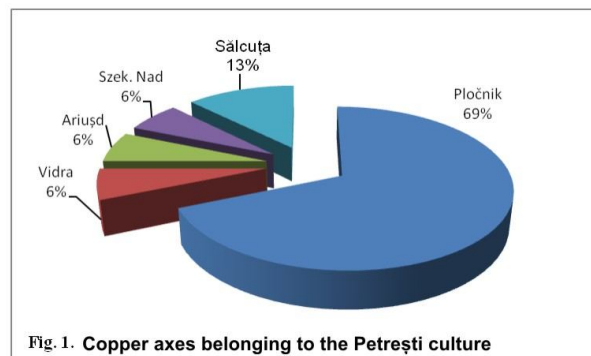


Fig. 1. Copper axes belonging to the Petrești culture

reserves, within the Petrești culture.

As for the copper axes one can notice their type diversity, reflected by a relatively small number of such items. From 16 such objects we have 5 types of axes: Pločnik, Vidra, Ariușd, Székely and Nádudvar and the flat Sălcuța variant of the axe. A number of 11 axes belong to the Pločnik type, 2 to Sălcuța and 1 to Ariușd, Vidra and Székely and Nádudvar types (Figure 1).

The presence in this repertoire of the axe belonging to the Székely and Nádudvar type can seem surprising. Typologically they are placed above the Crestur type axes and they probably belong to the Tiszapolgár culture (Apagy stage). Their evolution (the Dorog and Monostorpály variety) develops until the middle-copper age in the time of Bodrogkeresztúr culture (Mareș 2002, 100; Diaconescu 2009, 189). Being aware of the fragility of this argument we consider that this copper axe from Mediaș could belong to the late stage of Petrești culture (The settlement from Apagy-Nagysziget is considered by Bogнар-Kutzian a possible settlement with two levels of habitation belonging to the two phases identified in the necropolis of Basatanya, a fact which indicates a Bodrogkeresztúr habitation in this point. Considering that the second axe was identified at a depth of only 13 cm, around a possible hearth, it is very likely that it belongs to the Bodrogkeresztúr habitation. See Diaconescu, 2009, 192, note 701).

The hammer-axes type Vidra can be precisely dated because of the discoveries from Bucșani (Gumelnița A1 and beginning of stage A2), Mărgineni (Cucuteni A2), Cucuteni (Cucuteni A3) and Teiu, dated Gumelnița B1. This type of pieces was discovered in Bulgaria, at Gabarevo and Varna, and it is dated in stage III of the Kodjadermen-Gumelnița-Karanovo VI culture and in stage III of the Varna culture (Mareș 2002, 102; Diaconescu 2009, 192).

As for the Ariușd type axes, we must note the fact that such items have yet to be identified in closed complexes that could determinately date them. Still the moment of their apparition is estimated within stage A4 of the Cucuteni culture (Mareș 2002, 105). The presence of two Ariușd type axes together with six Jászladány type ones in the deposit from Plakuder (Bulgaria) indicates at least a partial contemporaneity of the two types of axes (Diaconescu 2009, 196). It is an accepted theory that the end of Petrești culture happens during the A4 stage of the Cucuteni culture/ beginning of stage AB- the end of Tiszapolgar culture/ the beginning of Bogrogheresztúr - Decea Mureșului (Mantu 1998, 184; Lazarovici, Lazarovici 2005, 401; Diaconescu 2009, 260.), therefore the Ariușd type axe from Sebeș could be a Cucutenian import in the area of the Petrești culture. Such types of axes as the one in Sebeș were also discovered in Transylvania in the north-western area, at Sălărd, this point being under the influence of the Tiszapolgár culture (Mareș 2002, 104; Diaconescu 2009, 172).

The dating of the narrow, flat axes of the Sălăuța variety is made sure by the artifacts discovered at Sălăuța and Cerât at stage III of Sălăuța culture (Vulpe 1975, p. 58) and at Cuptoare in Sălăuța IIc stage (Radu 2002, p. 73, pl. 18/1). Therefore it is most likely that this type of axes discovered at Șeica Mică – *Im Steizen* and Vurpâr belong to the Petrești culture.

The copper axes from Turdaș present several problems, especially through the fact that their different shapes (Roska 1942, Taf. CXLV/1-6), which from chronological and typological points of view cover a great expanse of time (Vulpe, 1975). This shows just how heterogeneous the structure of the collection is, and most likely these items were not discovered at the same archaeological site, a fact that was signalled by the author (Luca, 2001, 93). Lacking any real proof, placing the aforementioned artifacts within the Petrești culture must be made under reserve. Further clarifications are needed for the axe discovered at Beșeneu (Pădureni), Moacșa Parish, Covasna County. This is constantly attributed to the Petrești culture (Lazarovici *et al.* 1995, p. 219; Maxim 1999, 174; Mareș 2002, 269; Diaconescu 2009, 198), although no other discoveries belonging to this culture were ever signalled here. Considering this aspect we place the axe within the Ariușd group (Maxim, 1999, p. 174). The Cornești type axe from Ocna Sibiului belongs to the Bodrogheresztúr (Mareș 2002, 102) and not to Petrești culture.

(<http://clasate.cimec.ro/detaliu.asp?k=4FD27C2CEC964DEEA49D30DFC4D53EF8>).

As for the metal resources exploitation we must underline too (Diaconescu 2009, 198), the studies coordinated by Prof. Gheorghe Lazarovici, that link the copper bracelet and axes from Turdaș, the bracelet from Cața and the axe from Beșeneu (discoveries assigned to the Petrești culture) to the copper source from Bălan - Harghita County (Lazarovici *et al.* 1995, p. 219). This fact suggests tribal exchange or common exploitation of the same resource by both Petrești culture and Ariușd group representatives.

Among the massive copper artifacts belonging to Petrești culture, the ones that benefitted of spectral analyses were actually the ones discovered in uncertain stratigraphic conditions. The only massive copper artifacts discovered with clear stratigraphy, the axe fragment from Ghirbom was never analyzed.

### **Conclusions:**

This repertoire has helped us by using chorological principles to notice the fact that the copper artifacts attributed to the Petrești culture has significantly increased. The representative type of axe for this culture is the Pločnik type, which is present in a far more concentrated number than the other types (Figure 1), even if we cannot speak of a great number of artifacts altogether.

At the moment the Petrești culture metallurgy is far from being certain since the only artifacts discovered that have certain stratigraphic conditions are the ones from Ghirbom and the link from L2 at Turdaș. The hair ring from Lumea Nouă, although discovered with certain stratigraphy, is assigned to the Foeni/ Foeni-Mintia group (The definition of Foeni/Foeni-Mintia group is based on the discoveries from Banat, with some additions of the archaeological research in Alba Iulia-Lumea Nouă. Because in Transylvania the separation of the pottery belonging to this group from the Early Petrești ones is still an ongoing process, for the moment, we prefer a common approach of these two genetically related cultural entities.).

Since the criteria for defining the Copper Age (*Kupferzeit*) is copper metallurgy (*a chain of actions that ends in obtaining some metal artifacts, by mechanical and thermal treatments*) (Diaconescu 2009, 88), we must notice the fact that as the Petrești culture is concerned, the massive copper artifacts appear during its second stage (A-B) of evolution. Therefore, at least in

Transylvania, we can talk of a real Copper Age at this moment, which coincides chronologically with the first stage (A) of the Tiszapolgár culture (Diaconescu 2009, 259-260), a situation that is terminologically reflected by the archaeological realities from Hungary.

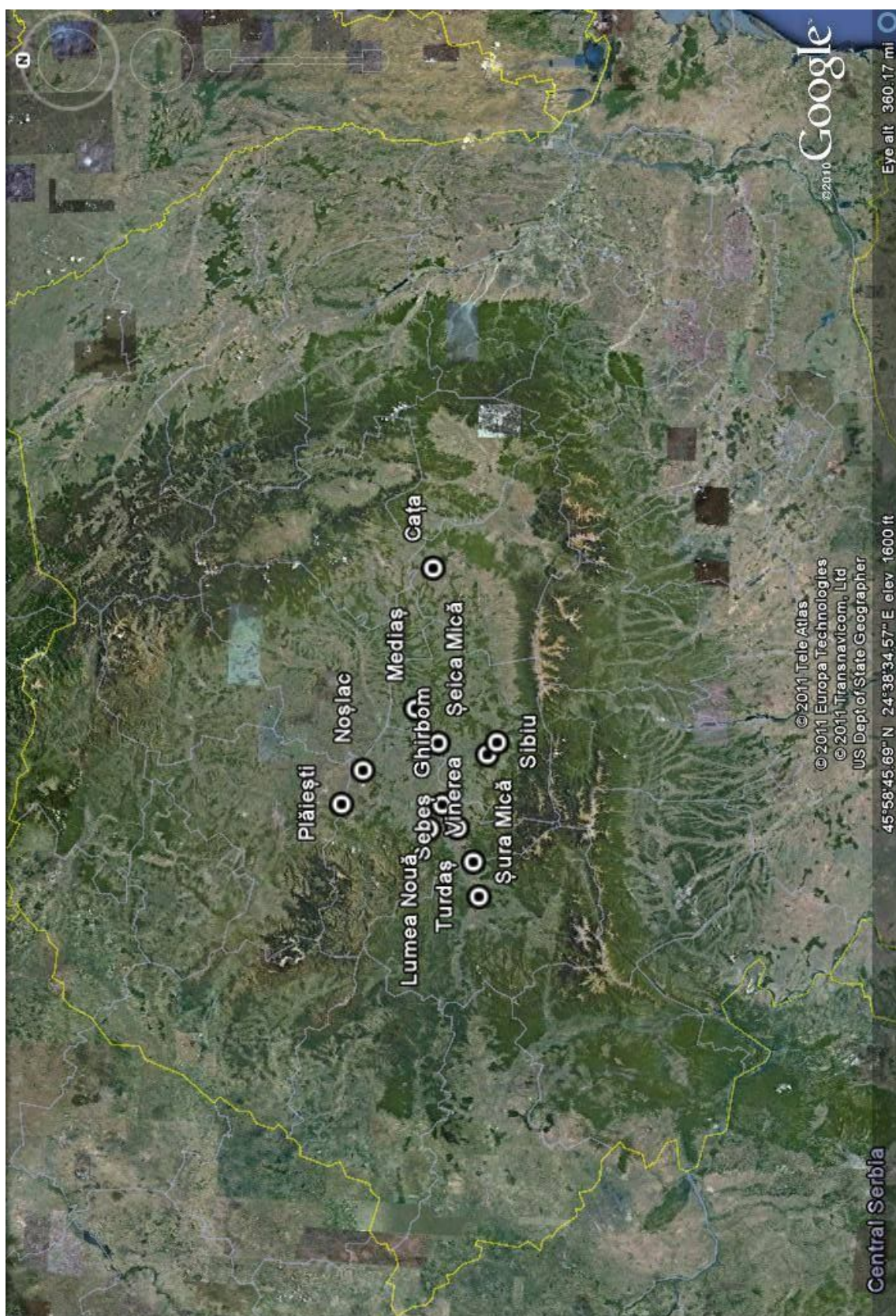
The author wish to thank for the financial support provided from the program co-financed by THE SECTORAL OPERATIONAL PROGRAM FOR HUMAN RESOURCES DEVELOPMENT, Contract POSDRU 6/1.5/S/26 – "DOCTORAL STUDIES, A MAJOR FACTOR IN THE DEVELOPMENT OF SOCIO-ECONOMIC AND HUMANISTIC STUDIES".

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Pl. I – The repertoire of the copper object belonging to the Petrești culture

## APPENDIX 1

### 1. ALBA IULIA (Alba county)

spectral analyze: Pierre and Marie Curie University, Paris.

	Cu	C	SI	Al	Nr. inv.
keV	8,046	0,277	1,740	1,487	
Wt%	99,50	0	0,26	0,25	
At%	98,85	0	0,58	0,57	

### 2. CAȚA (comună, Brașov county)

spectral analyze: Stuttgart Museum.

Nr. analyze (%)	Sn	Pb	As	Sb	Ag	Ni	Bi	Au	Zn	Co	Fe	Nr. inv.
8978	0	0	0	0	traces	0	0	0	0	0	0	II6147

spectral analyze: Măgurele Laboratory.

Nr. analyze PPM	Au	As	SB	Se	Cr	Ag	Ni	Sc	Fe	Zn	Co	Tn	Sn	Nr. inv.
L24	0,32	19	3,1	1,4	1,599	17,9	43,8	0	0	31,9	0	0,19	0	II6147

### 7-8. NOȘLAC (Alba county)

a) spectral analyze: Pierre and Marie Curie University, Paris.

Nr. analiz. (%)	Cu	Sn	ZN	Al	Fe	Pb	Ni	Total	Nr. inv.
S1A	93.1	6.1	0	0	0.3	0	0.5	100.0	

b) spectral analyze: Pierre and Marie Curie University, Paris.

Nr. analiz. (%)	Cu	Sn	ZN	Al	Fe	Pb	Ni	Total	Nr. inv.
S3	94.8	4.5	0	0.4	0.1	0	0.2	100.0	

### 12-13. ȘEICA MICĂ (Sibiu county)

a)

spectral analyze: Stuttgart Museum.

Nr. analiz. (%)	Sn	Pb	As	Sb	Ag	Ni	Bi	Au	Zn	Co	Fe	Nr. inv.
8896	0	0	0	0	Traces	0	0	0	0	0	0	A 305

b)

spectral analyze: Stuttgart Museum

Nr. analiz. (%)	Sn	Pb	As	Sb	Ag	Ni	Bi	Au	Zn	Co	Fe	Nr. inv.
8994	0	0	0	0	Traces	0	0	0	0	0	0	A 311

### 14. ȘONA (Alba county)

Cu = 99,05%

**15. ȘURA MICĂ (Sibiu county)**

spectral analyze: Stuttgart Museum.

Nr. analiz. (%)	Sn	Pb	As	Sb	Ag	Ni	Bi	Au	Zn	Co	Fe	Nr. inv.
8895	0	0	0	0	0,32	0	0	0	0	0	0	A 304

**16-21. TURDAȘ (Hunedoara county)**

**a-d)**

spectral analyze Stuttgart Museum

Nr. Analiz. (%)	Sn	Pb	As	Sb	Ag	Ni	Bi	Au	Zn	Co	Fe	Nr. inv.
8981	0	0	0	0	0,03	0	0,014	0	0	0	0	V9566
8983	0	0	0	0	0	0	0	0	0	0	0	V9565
8985	0	0	0	0	0	0	0	0	0	0	0	V9567

spectral analyze Măgurele Laboratory

Nr. analiz. PPM	Au	As	Sb	Se	Cr	Ag	Ni	Sc	Fe	Zn	Co	Tn	Sn	Nr. inv.
L18	0	0	0,72	0	0	4,8	48,99	0	399,9	24,99	16,7	0,2490	0	V9566
L21	11,7	549	18,3	13,9	0	256	0	0	0	33,99	8,8	0,529	0	V9565
L12	0,749	24,4	125	2,499	0	5,4	47,1	0,03	0	13	6,1	0,179	0	V9567

**e)** spectral analyze Stuttgart Museum

Nr. analiz. (%)	Sn	Pb	As	Sb	Ag	Ni	Bi	Au	Zn	Co	Fe	Nr. inv.
8979	0	0	0	0	0,03	0	0	0	0	0	0	V9568

spectral analyze Măgurele Laboratory

Nr. analiz. PPM	Au	As	SB	Se	Cr	Ag	Ni	Sc	Fe	Zn	Co	Tn	Sn	Nr. inv.
L23	7,82	0	3,36	19,6	0	381	47	0	0	22	27,6	2,2	0	V9568

**24. VURPĂR (Sibiu county)**

Nr. analiz. (%)	Sn	Pb	As	Sb	Ag	Ni	Bi	Au	Zn	Co	Fe	Nr. inv.
8905	0	0	0	0	0	0	0	0	0	0	0	4171





## AN ARCHAEOLOGICAL COMPLEX BELONGING TO EARLY BRONZE AGE FROM ȘURA MICĂ (SIBIU COUNTY)

Raluca-Maria TEODORESCU\*  
Vasile PALAGHIE\*\*

**Abstract.** The preventive archaeological research started in 2010 at the bypass road surrounding the city of Sibiu led to the discovery of an archaeological complex named “complex no. 1” near the village of Șura Mică. The article presents the archaeological material. The description of the ceramic materials was carried out, considering the following: shapes, rim variants, bases and handles, decorations, temper, surface treatment, burning and interior and exterior colours of the potsherds. The complex belongs to Early Bronze Age II, possibly a latter phase of Șoimuș group.

**Keywords:** Early Bronze Age, Șoimuș group, Șura Mică

**Rezumat.** În urma cercetărilor arheologice preventive desfășurate pe centura ocolitoare a orașului Sibiu a fost identificat un complex arheologic denumit “complexul nr. 1”, în apropiere de satul Șura Mică. În articolul de față este prezentat materialul arheologic aferent descoperirii. Descrierea ceramicii este făcută calitativ și cantitativ, urmărindu-se catalogul formelor, decorație, amestec, culoare exterioară și interioară, tratarea suprafeței vasului, ardere. Complexul aparține bronzului timpuriu II, posibil unei faze mai târzii a grupului Șoimuș.

**Cuvinte cheie:** Epoca timpurie a bronzului, grupul Șoimuș, Șura Mică

### Introduction

A preventive archaeological research started in 2010 at the bypass road surrounding the city of Sibiu led to the discovery of an archaeological complex named “complex no. 1” near the village of Șura Mică (southeast from Sibiu), on a low terrace on the left side of the Rusciuri creek, strongly affected by modern agricultural works (see map 1) (Diaconescu *et al.* 2011, 238-239).

The complex had a slightly rectangular shape, with rounded corners (see Figure 1) and was shallow (maximum depth 0,32 m), with a hole having a diameter of 0,36 m in the middle (Diaconescu *et al.* 2011, 238-239) (see Figure 2). GPS data taken from the centre of the complex at the “intersection” with the transverse axis of the road from km 17 240 revealed this coordinates: 45° 49'11.2 " N and 24° 04'29.5" S (see Map 2).

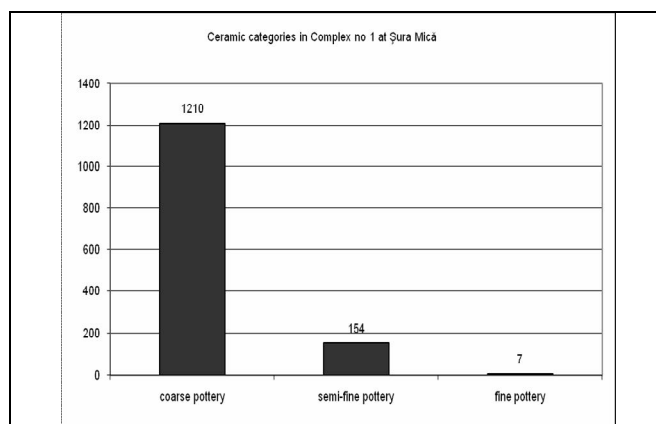
### Description of research method

In the filling of the dense-looking black-grey coloured complex were identified 1444 items: Ceramic fragments, whorls (some fragmented), very few bone fragments and charcoal in small quantities.

Description of the ceramic was carried out, considering the following characteristics: shapes, rims, bases and handles, decorations, temper, surface treatment, burning, interior and exterior potsherds' colours.

### Description of material

Out of the 1444 fragments, more than 88.2% (1210) belong to coarse type, less than 11% belong to the semi-fine category and only 0.5% to the category of fine ceramics.

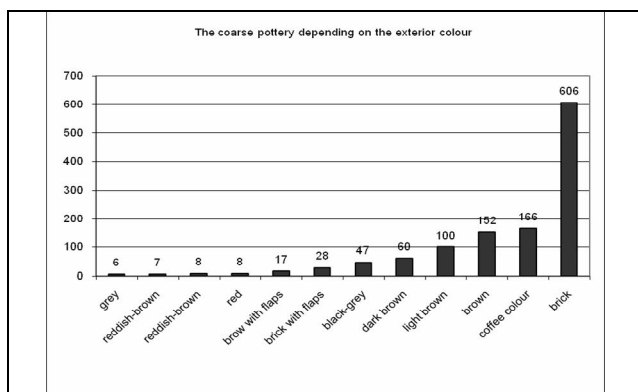


A general characteristic of the **coarse ceramic** is a relatively uniform standard of the technology of ceramic industry – a predominantly brick coloured exterior and brick-coffee, brown coloured interior. All consist in a temper composed of sand, pebbles

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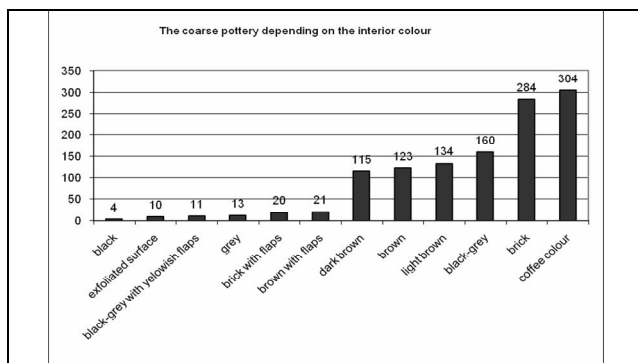
\*\* Brukenthal National Museum, Sibiu,  
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and other categories of degreasers (potsherds, chaff, mud, ochre, mica), in various percentages. In which concerns the exterior colour of the potsherds, there is large number of brick-coloured pottery (606 items), followed by coffee colour (in 166 cases), brown (152 items), light brown (100 items), dark brown (60 items), black-grey (47 items), brick with flaps (28 items), brown with flaps (17 items), red (8 items), reddish brown (7 items), grey (6 items).

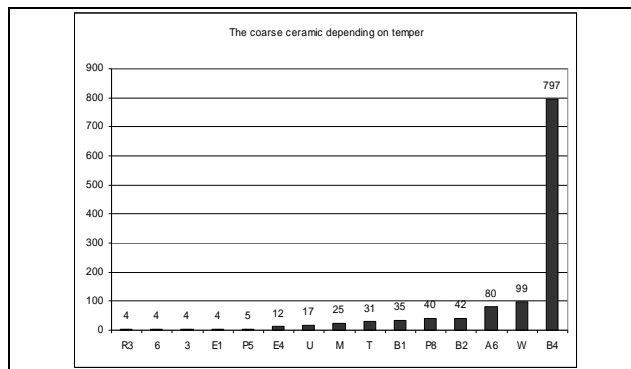


Regarding the interior colour, fragments are coffee coloured (304 items), brick (284 items), black-grey (160 items), light brown (134 items), brown (123 items) and dark brown (115 items).

In our classification follows a number of different colours of pottery fragments, in much lower percentages than specified above. Thus, we must conclude the existence of 21 fragments of brown with flaps colour, 20 of brick with flaps, 11 of black-grey with yellowish flaps, 13 black and 4 of grey colour.

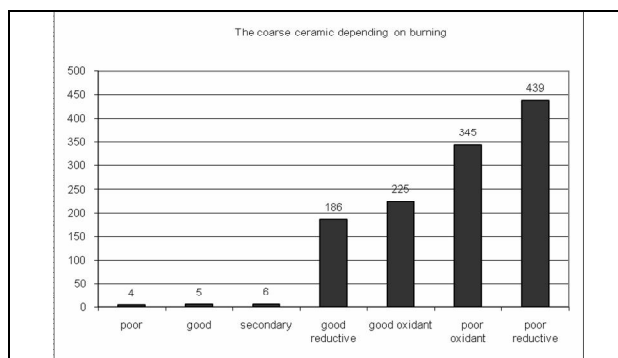


In terms of temper, the coarse pottery from Şura Mică consists of sand, pebbles, potsherds and chaff (code B4) (in 65.8 % of cases), followed by sand, pebbles and potsherds in 8% of the cases (code W) and sand, pebbles, chaff and ochre in 6.6 % of the ceramic material analyzed (code A6). It appears, as noticed, a fairly large proportion of fragments that include ochre in the temper, a possible fortuitous situation.

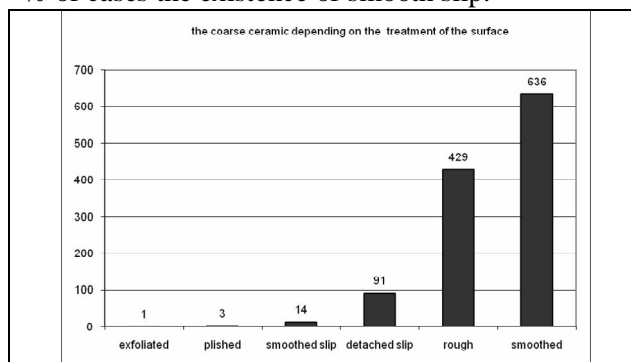


It is interesting to note that in one case was identified a temper of sand, pebbles, potsherds and also a small fragment of a bone.

In terms of pottery burning, the whole ceramic lot from Şura Mică is characterized by poor combustion. In the case of coarse ceramic, in 64.3 % cases was noticed a poor combustion condition, reductive (38.8%) or oxidizing (28.5 %). Ceramic fragments are well burned in 33.9 % of the cases analyzed as follows: 18.5% - good oxidant and 15.4% - good reductive burning.

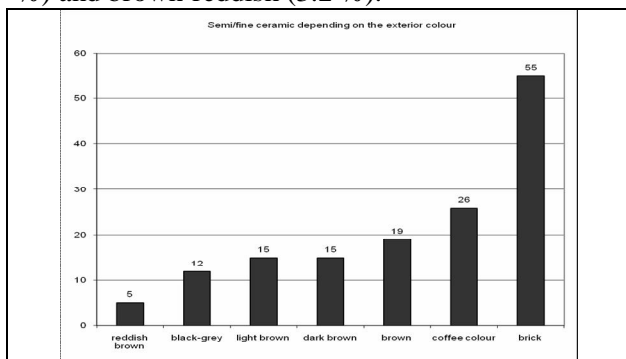


Another criteria of analysis is the treatment of the vessels surface. The archaeological complex contained a large percentage of smoothed surfaces (52,6 %), followed by rough surfaces (35.4 %). It should be noted the relatively large number of fragments with detached slip (7.5 %) and in 1.2 % of cases the existence of smooth slip.

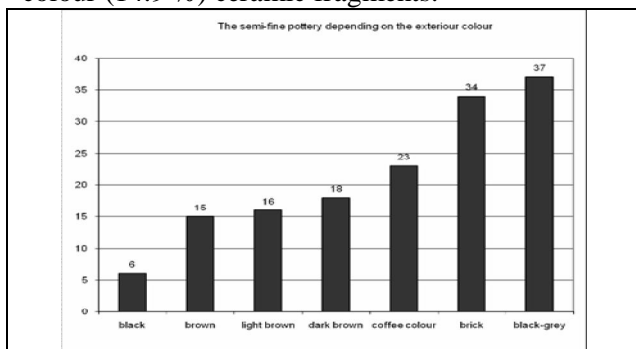


The semi-fine category of ceramics is noticed in 154 cases, representing 11.2 % of the total amount of archaeological material. Regarding the exterior colour of the fragments, the largest percentage is

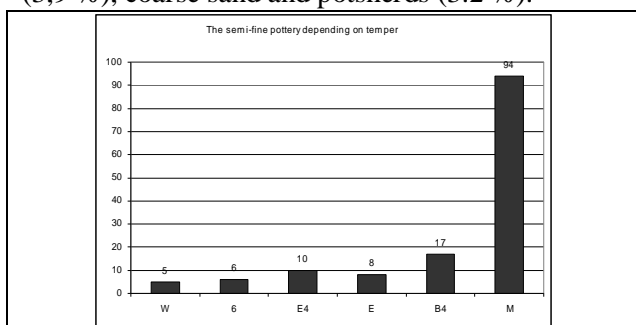
represented by the brick colour (35.7 %), followed by coffee colour (16.8 %), brown (12.3 %), dark brown (9.7%), light brown (9.7%), black-grey (7.7 %) and brown-reddish (3.2 %).



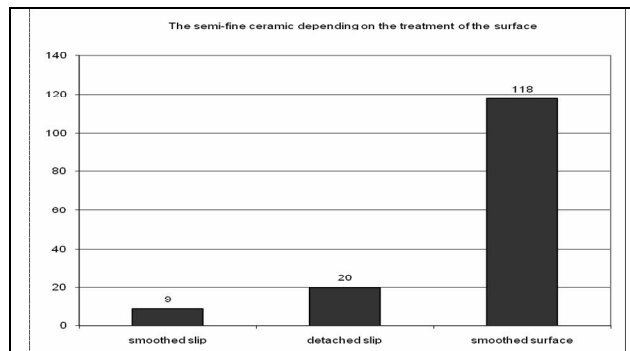
The interior colour is predominantly dark: black-grey – 24 %, dark brown - 11.6 %, light brown - 10.3 %, brown - 9.7 %, black - 3.8 %. Still, we have to mention the relatively high percentages of brick-coloured (22 %) and coffee colour (14.9 %) ceramic fragments.



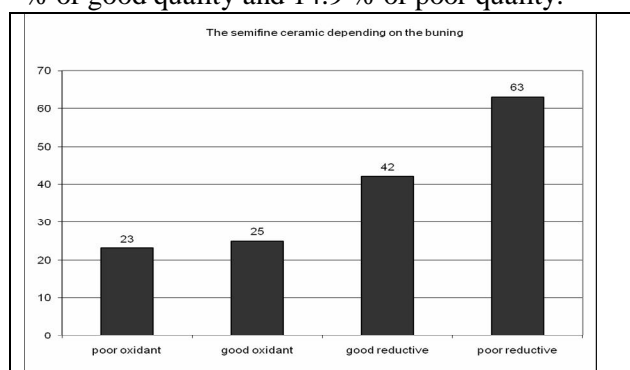
The temper of the semi-fine ceramics is characterized primarily by the absence of pebbles in the categories of degreasers, most of the pottery containing sand, potsherds and chaff as a degreasing agent (61%), sand, chaff and potsherds (11 %) sand and chaff (5.1 %), sand, chaff, mud and pebble (3.9 %), sand and potsherds (3.9 %), coarse sand and potsherds (3.2 %).



Semi-fine pottery from Șura Mică is characterised by a smoothed surface in 76.6 % of cases, followed by fragments with detached slip (12.9 %) and smoothed slip (5.8 %). Again it should be noted the high percentage of pottery with detached slip.



In terms of burning, the semi-fine ceramic category is characterized by the predominance of reductive burning, low in 40.9 % of cases and good in 27.3 % of cases. Oxidant ceramic combustion is in 16.2 % of good quality and 14.9 % of poor quality.



**Fine pottery** is poorly represented in the complex of Șura Mică (only 0.5 % of findings, only seven fragments of potsherds). They are coffee coloured in 3 cases (interior and exterior), grey in one case (interior and exterior), black-grey in one case (interior and exterior). In a single situation the exterior colour is reddish-brown and in another one yellowish brown. In the case of the last fragment of fine pottery, the ceramic is peeling inside and outside, which prevents the establishment of the interior and exterior colour.

In terms of temper, in two cases the fine ceramics contains fine sand, sand and potsherds (two cases), sand, chaff and mud (one case), mud, fine sand and potsherds (one case), fine sand and mud (one case). Unlike previous ceramic categories, we noted the predominance of fine sand and mud used as temper.

In the case of the fine and semi fine ceramic categories, it is to be mentioned the absence of ornaments.

In contrast, for the coarse pottery ornamentation, were used the following decoration techniques: relief and deepening.

**I. Embossed ornaments.** Embossed straps on the shoulder or on the most prominent part of the pots (Ia) are the most common type of ceramic ornaments in this complex, consisting of simple horizontal bands (Pl. 2 / 3, Pl 3 / 4) or with alveolar ornaments (Pl. 1/1-2, 5-11, Pl. 2 / 1, 4, 8-14, Figure

3/1-3, 5-10, 13-14). The buttons (Ib) are simple, sometimes elongated, associated with embossed straps (Pl. 4 / 1, 3, 5, 6, 9-13). The third type of relief ornaments is the cylindrical prominence with a straight end (Ic) (Pl. 4 / 2, 4, 8).

II. *By impression*. The most common settings are the alveola, placed on embossed straps (Pl. 1/1-15, Pl. 2/1-2, 4-15, Pl. 3/1-14).

Analysis of ornaments indicates, at first, a small number of decorative techniques, especially the preference for using embossed straps. Another interesting aspect is the fact that, in the case of the studied ceramic lot, embossed decoration was performed only on vessels of the coarse category. Moreover, the upper position of the decorative elements (on the shoulder or the belly of the vessel) indicates, in addition to the aesthetic character of this type of decor, a functional character of the embossed straps.

#### *Other clay items*

**Whorls** (Pl. 8/1-5) are of different sizes, worked carefully, not ornamented and of bitruncated form. In a case was noticed a very well kept slip of the same colour and consistency as that found on vessels. There were discovered three entire whorls of varying sizes (the largest has a diameter of 40 mm and height 22 mm, the smallest diameter of 22 mm and 19 mm height) and two fragments of whorls. The burning is of good quality, of reductive type (three whorls are grey-black, one grey and one brown with black flaps). The temper is composed in two cases of sand, pebble and potsherds, in two cases of coarse sand and in a case of sand and chaff.

**Clay discs** (Pl. 8/13-17) fragments were found with pottery and whorls, but their functionality is not yet known. There were identified 11 fragments of clay discs, well burned, reductive or oxidant. 7 of them are light brown, two brick, one brown and one blacktopped. Temper in 6 cases consists of sand, pebbles and potsherds in two cases of sand, pebbles, potsherds and chaffs, and, in one case, of sand and chaff, sand, chaff and pebble, or coarse sand, chaff and potsherds.

#### **Materials of unknown form and functionality**

In the category of archaeological material with unknown functionality were analysed four ceramic fragments (Pl. 8/9-12). In one case (Pl. 8 / 9), the pottery fragment is suspected to be a part of a handle.

Given the fact that the material is highly fragmented and, sometimes, strongly peeled, we were not able to identify clear similarities in terms of typology forms. For the rim fragments (Pl. V/1, 5) analogies exist at Șoimuș (Andrițoiu 1989, Figure VI/2; 1992, pl. 8/2,3), Țebea (Andrițoiu

1989, VI/3; 1992, pl. 8/3) and Deva - *Magna Curia* (Rișcuța 1998, 113, Figure 5). For the third ceramic fragment of wide mouthed funnel-shaped, with flaring rim, the best analogies are identified at Sebeș - *Țiglăria lui Weber* (Popa 1999-2001, 83-84, pl. I/2), Deva - *Magna Curia* (Rișcuța 1998, 114, Figure 9/3), Șoimuș (Andrițoiu 1989, 43, Figure III/2, Figure IX/F/19; 1992, 23, pl. V/2; Ciugudean 1996, 104, variant no VI), Gligorești - *Holoame* (Gogâltan, Florea 1994, 32, Figure 6/3). Similar shapes are found in Schneckenberg culture region or belonging to the Jigodin group (Andrițoiu 1992, 23). The rim fragment with arched body and rounded slightly outward lip has analogies in the archaeological sites of Șoimuș (Andrițoiu 1989, Figure III/6, variant A/5; 1992, pl. 5/6), la Deva - *Magna Curia* (Rișcuța 1998, 113-114, Figure 8/1) and Zlatna - *Măgura Dudașului* (Ciugudean 1996, 76, Figure 60/1).

Depending on the types of ornaments, the archaeological materials from the no. 1 complex at Șura Mică has analogies in the archaeological sites from Șoimuș, Țebea - *Ruști*, Almaș - *Săliște*, Deva - *Magna Curia*, Iernut - *Hulpiști*, Micești - *Cigașe*, Gligorești and Zoltan.

The ornament with simple embossed straps has analogies at Șoimuș (Andrițoiu, 1989, Figure 3/2, 9, Figure 4/1, 4, 12; Figure 5/4; Figure 6/10), Almaș - *Săliște* (Andrițoiu, 1989, Figure 3/5); Țebea - *Ruști* (Andrițoiu, 1989, Figure 4/9; Figure 5/5-7; Figure 7/3, 5) and Deva - *Magna Curia* (Rișcuța 1998, Figure 8/1-2). The horizontal embossed straps with alveolar ornaments, arranged immediately under the rim are identified in the archaeological sites of Șoimuș (Andrițoiu 1989, Figure 3/14; Figure 4/11), Deva - *Magna Curia* (Rișcuța 1998, Figure 17/2), Iernut - *Hulpiști* (Ciugudean 1996, Figure 85/1-2, 15), Zoltan (Cavruc, Cavruc 1997, Figure 7/2-3), Gligorești (Popa, Totoianu 2010, Figure 7/6) and Micești - *Cigașe* (Popa, Totoianu 2010, Figure 26/10-15).

The simple elongated prominences are sometimes a part of the embossed straps at Cărpiniș (Andrițoiu, 1989, Figure 3/9), Șoimuș (Andrițoiu, 1989, Figure 6/11, 16; Figure 8/2). At Zoltan they appear on the bowls (Popa, Totoianu, p. 38, Figure 18/7; 19/5).

Cylindrical prominences with a straight superior part (Ic) (Figure 4/4, 8) have analogies in the Schneckenberg region (Prox 1940, Figure 15/1-2), but also at Bucium in the frame of Șoimuș group (Andrițoiu 1979, Figure 2/11-12).

The archaeological material that was very generously offered for publication after the preventive archaeological research from Șura Mică, is characterised as a post-Coțofeni unity, given by

the burning, the temper, the surface treatment and the ornaments. The ornaments of type Ia, Id, Iie (Andrițoiu 1992, 25) are not to be found at Șura Mică. The simple or crested embossed straps appear also in Schneckenberg B culture.

Regarding the dating of the archaeological site, we suggest that, based on the ceramic material, the complex from Șura Mică belongs to Early Bronze Age II, as defined by Florin Gogâltan in 1999 (Gogâltan 1999). We manifest certain reserves given the fact that the fragmentation of ceramic material and especially the large amount of potsherds with detached slip could hide some other types of ornaments, such as the *Besenstrich*, which could push the dating of the archaeological

complex into a Early Bronze Age III horizon (Lazarovici 1998, 41-57).

The presence of the simple horizontal stripes would indicate the framing of the complex to the Șoimuș cultural group, but the lack of distinctive ceramic elements such as the „T” form of the pots rim, could indicate that it belongs to a latter evolution phase of the Șoimuș Group.

We would like to take this opportunity to express our sincere gratitude to the archaeological research team from Șura Mică (Dr. Dragoș Diaconescu, Dr. Florian Dumitrescu Chioar, Gheorghe Natea) for allowing us to study and publish the archaeological material and for the constant support in preparing this study.

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## ILLUSTRATION LIST

**Map 1** The archaeological complex from Șura Mică

**Map 2** The archaeological complex from Șura Mică

**Figure 1** The plan of complex no 1 from Șura Mică

**Figure 2** The profile of complex no 1 from Șura Mică (1-ceramic fragment; 2-clay brick, 3-dense black-grey soil)

**Pl. 1-8** Ceramic material from complex no. 1 at Șura Mică (Sibiu County)

**Pl. 9.** Catalogue of forms

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**Harta 1.** Complexul arheologic de la Șura Mică

**Harta 2.** Complexul arheologic de la Șura Mică

**Figure 1.** Planul complexului 1 de la Șura Mică

**Figure 2** Profilul complexului 1 de la Șura Mică

**Pl. 1-8** Fragmente ceramice din complexul 1 de la Șura Mică (jud. Sibiu)

**Pl. 9.** Catalogul formelor

### Description of figures

#### Pl. I:

Pl. I.1 – coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour (interior and exterior), temper of sand, pebble, potsherds, chaff and ochre, poor oxidant burning;

Pl. I.2 – coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and coffee colour to interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning;

Pl. I.3 – coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and coffee colour to interior, temper of sand, pebble and potsherds, poor oxidant burning;

Pl. I.4 – coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and interior, temper of sand, pebble and potsherds, poor oxidant burning;

Pl. I.5 – coarse type, ornamentation with embossed strap and alveolar ornaments, light brown colour to exterior and interior, temper of sand, pebble and potsherds, poor reductive burning;

Pl. I.6 – coarse type, ornamentation with embossed strap and alveolar ornaments, brown colour to exterior and brick to interior, temper of sand, pebble and potsherds, poor reductive burning;

Pl. I.7 – coarse type, ornamentation with embossed strap and alveolar ornaments, coffee colour to exterior and dark brown to interior, temper of sand, pebble and potsherds, poor reductive burning;

Pl. I.8 – semi-fine type, ornamentation with embossed strap and alveolar ornaments, light brown colour to exterior and grey to interior, temper of sand and potsherds, poor reductive burning;

Pl. I.9 – semi-fine type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and grey to interior, temper of sand, pebble and potsherds, poor reductive burning, well smoothed;

Pl. I.10 – coarse type, ornamentation with embossed strap and alveolar ornaments, light brown colour to exterior and interior, temper of sand, pebble and potsherds, poor oxidant burning;

Pl. I.11 – coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and coffee colour to interior, temper of sand, pebble and potsherds, poor oxidant burning;

Pl. I.12 – coarse type, ornamentation with embossed strap and alveolar ornaments, brown colour to exterior and interior, temper of sand, pebble, potsherds and chaff, poor reductive burning, detached slip;

Pl. I.13 – coarse type, ornamentation with embossed strap and alveolar ornaments, coffee colour to exterior and interior, temper of sand, pebble and potsherds, poor oxidant burning;

Pl. I.14 – coarse type, ornamentation with embossed strap with alveolar ornaments going towards the lip, dark brown colour to exterior and brick to interior, temper of sand, pebble and potsherds, poor oxidant burning, detached slip;

Pl. I.15 – coarse type, ornamentation with embossed strap going towards the lip, coffee colour to exterior and black with yellowish flaps to interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning.



**Pl. II.**

Pl. II.1 - coarse type, ornamentation with embossed strap and alveolar ornaments, brown colour to exterior and brick to interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning, detached slip;

Pl. II.2 - coarse type, ornamentation with embossed strap and alveolar ornaments, coffee colour to exterior and coffee colour with black flaps to interior, temper of sand, pebble and potsherds, poor oxidant burning, smoothed;

Pl. II.3 - coarse type, ornamentation with simple embossed strap, brick colour to exterior and grey to interior, temper of sand, pebble, potsherds and chaff, poor reductive burning;

Pl. II.4 - coarse type, ornamentation with embossed strap and alveolar ornaments, coffee colour to exterior and interior, temper of sand and pebble, good oxidant burning, smoothed;

Pl. II.5 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and brown to interior, temper of sand, pebble and potsherds, poor oxidant burning;

Pl. II.6 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and black-grey with yellowish flaps to interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning;

Pl. II.7 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and light brown to interior, temper of sand, pebble, potsherds, chaff and ochre, poor oxidant burning, rough;

Pl. II.8 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and coffee colour to interior, temper of sand, pebble, potsherds, chaff and mica, poor oxidant burning, well smoothed;

Pl. II.9 - coarse type, ornamentation with embossed strap and alveolar ornaments, brown-reddish colour to exterior and light brown to interior, temper of sand, pebble, potsherds and chaff, good reductive burning, rough;

Pl. II.10 - coarse type, ornamentation with embossed strap and alveolar ornaments, brown colour to exterior and brick to interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning, detached slip;

Pl. II.11 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and light brown to interior, temper of sand, pebble, potsherds and chaff, poor reductive burning, smoothed;

Pl. II.12 - coarse type, ornamentation with embossed strap, brick colour to exterior and interior, temper of sand, pebble, potsherds and chaff, good oxidant burning;

Pl. II.13 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and interior, temper of sand, pebble, potsherds and chaff, good oxidant burning, rough;

Pl. II.14 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and coffee colour to interior, temper of sand, pebble and potsherds, poor oxidant burning, rough;

Pl. II.15 - coarse type, ornamentation with embossed strap and alveolar ornaments, coffee colour to exterior and light brown to interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning, smoothed;

**Pl. III**

Pl. III.1 - coarse type, ornamentation with embossed strap and alveolar ornaments, dark brown colour to exterior and brown to interior, temper of sand, pebble and potsherds, poor reductive burning, detached slip;

Pl. III.2 - coarse type, ornamentation with embossed strap and alveolar ornaments, light brown colour to exterior and brown to interior, temper of sand, pebble and potsherds, poor reductive burning;

Pl. III.3 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning;

Pl. III.4 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and coffee colour to interior, temper of sand, pebble and potsherds, poor oxidant burning;

Pl. III.5 - coarse type, ornamentation with embossed strap and alveolar ornaments, light brown colour to exterior and interior, temper of sand, pebble and potsherds, poor reductive burning;

Pl. III.6 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and interior, temper of sand, pebble and potsherds, poor reductive burning;

Pl. III.7 - coarse type, ornamentation with embossed strap and alveolar ornaments, coffee colour to exterior and interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning, smoothed;

Pl. III.8 - coarse type, ornamentation with embossed strap and alveolar ornaments, light brown colour to exterior and black with yellowish flaps, temper of sand, pebble and potsherds, poor reductive burning;

Pl. III.9 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and interior, temper of sand, pebble and potsherds, poor oxidant burning;

Pl. III.10 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and light brown to interior, temper of sand, pebble, potsherds and chaff, poor reductive burning, smoothed;

Pl. III.11 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and light brown to interior, temper of sand, pebble, potsherds and chaff, poor reductive burning;

Pl. III.12 - coarse type, ornamentation with embossed strap and alveolar ornaments, coffee colour to exterior and brick to interior, temper of sand, pebble, potsherds and chaff, good oxidant burning;

Pl. III.13 - coarse type, ornamentation with embossed strap and alveolar ornaments, coffee colour to exterior and dark brown to interior, temper of sand, pebble, potsherds, chaff and ochre, poor reductive burning;

Pl. III.14 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and coffee colour to interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning, slip smoothed;

Pl. III.15 - coarse type, ornamentation with embossed strap and alveolar ornaments, brick colour to exterior and brown to interior, temper of sand, pebble, potsherds, poor oxidant burning, detached slip;

#### **Pl. IV**

Pl. IV.1 – fragment of handle of coarse type, brown colour, temper of sand, pebble, potsherds and chaff, poor reductive burning;

Pl. IV.2 – fragment of handle of coarse type, red colour, temper of sand, pebble, potsherds and chaff, secondary burning;

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Pl. IV.4 – ceramic fragment, circular prominence of coarse type, brick colour, temper of sand, pebble, potsherds, poor oxidant burning;

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Pl. IV.6 – ceramic fragment, prominence of coarse type, brown colour to exterior and light brown to interior, temper of sand, pebble, potsherds and chaff, poor reductive burning;

Pl. IV.7 – ceramic fragment of coarse type, prominence associated with embossed strap, of brown colour to exterior and grey to interior, temper of sand, pebble, potsherds and chaff, poor reductive burning, detached slip;

Pl. IV.8 – ceramic fragment, circular prominence of coarse type, brick colour to exterior and light brown to interior, temper of sand, pebble, potsherds and chaff, poor oxidant burning, detached slip;

Pl. IV.9 –ceramic fragment, prominence of coarse type, brown colour to interior and exterior, temper of sand, pebble, potsherds and chaff, poor reductive burning, detached slip;

Pl. IV.10 – ceramic fragment, prominence of coarse type, brick colour to exterior and coffee colour to interior, temper of sand, pebble, potsherds, chaff and ochre, poor oxidant burning, rough;

Pl. IV.11 –ceramic fragment, prominence of coarse type, brown colour to exterior and light brown to interior, temper of sand, pebble, potsherds, chaff and ochre, poor reductive burning, smoothed;

Pl. IV.12 – ceramic fragment, prominence of coarse type, brick colour to exterior and to interior, temper of sand, pebble, potsherds, chaff and ochre, good oxidant burning;

Pl. IV.13 –ceramic fragment, prominence of coarse type, grey colour to exterior and coffee colour to interior, temper of sand, pebble and potsherds, poor reductive burning, smoothed;

#### **Pl. V**

Pl. V.1 –ceramic fragment, lip of fine type, black-grey to exterior and interior, temper of m<sup>1</sup>l, nisip and cioburi and good reductive burning;

Pl. V.2 –ceramic fragment, lip of semi-fine type, brown colour to exterior and light brown to interior, temper of sand and potsherds and poor reductive burning, slip smoothed;

Pl. V.3 –ceramic fragment, lip of coarse type, brown colour to exterior and interior, temper of sand, pebble and potsherds and good reductive burning;

Pl. V.4 –ceramic fragment, lip of coarse type, brown colour to exterior and dark brown to interior, temper of sand, pebble and potsherds and good reductive burning;

Pl. V.5 –ceramic fragment, lip of coarse type, brick colour to exterior and interior, temper of sand, pebble, potsherds and chaff and poor reductive burning;

#### **Pl. VI**

Pl. VI.1 –ceramic fragment of coarse type, brick colour to exterior and brown to interior, temper of sand, pebble, potsherds and chaff, poor reductive burning;

Pl. VI.2 –ceramic fragment of coarse type, coffee colour to exterior and grey with black flaps to interior, temper of sand, pebble and potsherds, poor reductive burning;

- Pl. VI.3 –ceramic fragment of coarse type, brick with flaps to exterior and brown to interior, temper of sand, pebble, potsherds and chaff, poor reductive burning, smoothed;
- Pl. VI.4 –ceramic fragment of coarse type, red to exterior and coffee colour to interior, temper of sand, pebble, potsherds and chaff, poor reductive burning;
- Pl. VI.5 –ceramic fragment of coarse type, dark brown colour to exterior and black-grey to interior, temper of sand, pebble and potsherds, good reductive burning;
- Pl. VI.6 –ceramic fragment of coarse type, grey colour to exterior and black-grey to interior, temper of sand, pebble, potsherds, chaff and mica, good reductive burning;
- Pl. VI.7 –ceramic fragment of coarse type, brick colour to exterior and coffee colour to interior, temper of sand, pebble, potsherds and chaff, good oxidant burning;
- Pl. VI.8 –ceramic fragment of coarse type, brick colour to exterior and brick with flaps to interior, temper of sand, pebble, potsherds, chaff and ochre, poor oxidant burning;
- Pl. VI.9 –ceramic fragment of coarse type, brick colour to exterior and coffee colour to interior, temper of sand, pebble, potsherds, chaff and ochre, poor oxidant burning;
- Pl. VI.10 –ceramic fragment of semi-fine type, grey to exterior and to interior, temper of coarse sand and potsherds, poor reductive burning, detached slip;
- Pl. VI.11 –ceramic fragment of semi-fine type, grey to exterior and to interior, temper of coarse sand and potsherds, poor reductive burning, detached slip;

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- Pl. VII.1 –ceramic fragment of coarse type, coffee colour to exterior and brick to interior, temper of sand, pebble and potsherds, poor oxidant burning;
- Pl. VII.2 –ceramic fragment of coarse type, brick colour to exterior and to interior, temper of sand, pebble and potsherds, good oxidant burning;
- Pl. VII.3 –ceramic fragment of coarse type, brick colour to exterior and coffee colour to interior, temper of sand, pebble, potsherds, chaff and ochre, poor oxidant burning;
- Pl. VII.4 –ceramic fragment of coarse type, brick colour to exterior and dark brown to interior, temper of sand, pebble, potsherds, poor reductive burning, rough;
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- Pl. VII.8 –ceramic fragment of coarse type, brick colour to exterior and black-grey with yellowish flaps to interior, temper of sand, pebble, potsherds, chaff and ochre, poor reductive burning;
- Pl. VII.9 –ceramic fragment of coarse type, brick colour to exterior and grey to interior, temper of sand, pebble, potsherds, chaff and ochre, poor reductive burning;

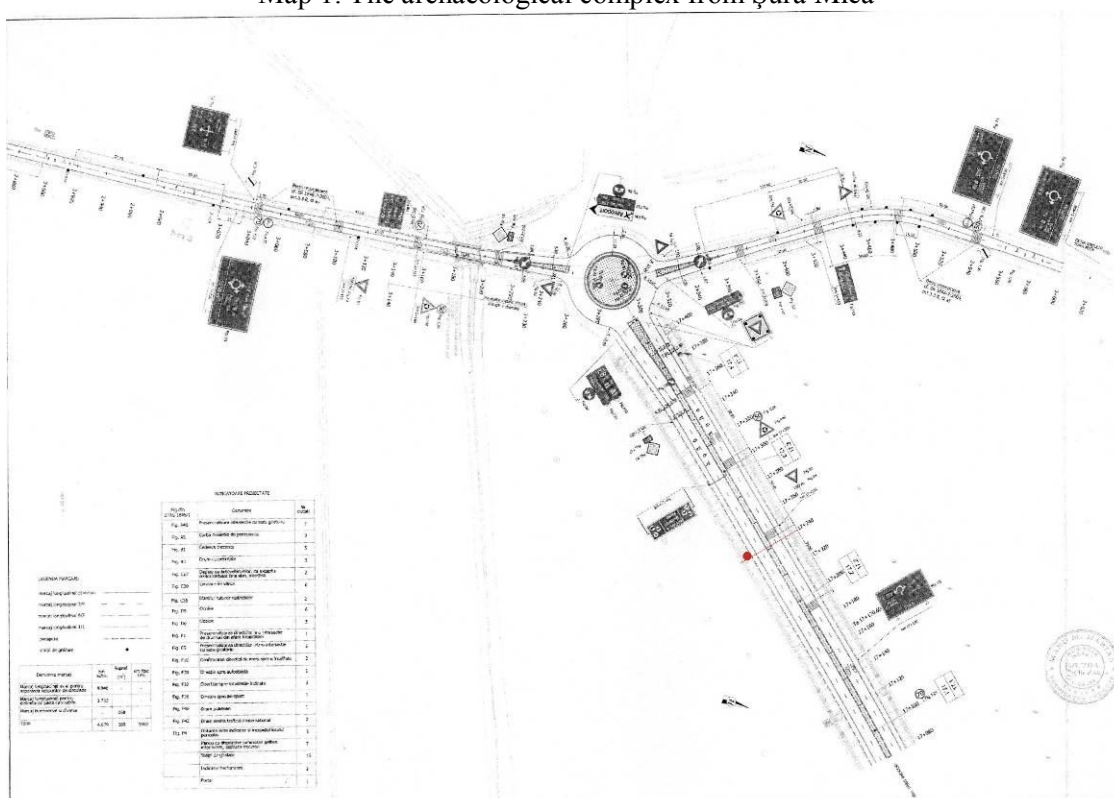
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- Pl. VIII.1 – whorl of black-grey colour, temper of sand, pebble and potsherds, good reductive burning;
- Pl. VIII.2 – whorl of black-grey colour, temper of coarse sand, good reductive burning, slip;
- Pl. VIII.3 – whorl of grey colour, temper of sand, pebble and potsherds, good reductive burning;
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- Pl. VIII.5 – fragment of whorl of coffee colour with black flaps, temper of coarse sand, poor reductive burning;
- Pl. VIII.6 – fragment of handle of semi-fine type, grey colour, temper of sand, pebble and potsherds, good reductive burning;
- Pl. VIII.7 – fragment of handle of semi-fine type, black-grey colour, temper of sand and potsherds, good reductive burning;
- Pl. VIII.8 – fragment of handle of coarse type, brown, temper of sand, pebble and potsherds, poor reductive burning;
- Pl. VIII.9 – fragment of handle of coarse type, dark brown colour, temper of sand, pebble, potsherds and chaff, good reductive burning;
- Pl. VIII. 10 – fragment of handle of coarse type, dark brown colour, temper of sand, pebble, potsherds, good reductive burning;

- Pl. VIII. 11 - fragment of handle of coarse type, dark brown colour, temper of sand, pebble, potsherds and chaff, good reductive burning;
- Pl. VIII.12 –ceramic fragment, unknown functionality, black-grey colour, temper of sand, pebble and potsherds, good reductive burning, slip smoothed;
- Pl. VIII.13 – fragment of clay disc, unknown functionality, coffee colour, temper of sand, pebble, potsherds, good oxidant burning;
- Pl. VIII.14 – fragment de clay disc, unknown functionality, coffee colour, temper of sand, pebble, potsherds and chaff, good oxidant burning;
- Pl. VIII.15 – fragment de clay disc, unknown functionality, coffee colour, temper of sand, pebble, potsherds, good oxidant burning;
- Pl. VIII.16 – fragment de clay disc, unknown functionality, coffee colour, temper of sand, pebble, potsherds, good oxidant burning;
- Pl. VIII.17 – fragment de clay disc, unknown functionality, coffee colour, temper of sand, pebble, potsherds, good oxidant burning;



Map 1. The archaeological complex from Șura Mică



Map 2. The archaeological complex from Șura Mică

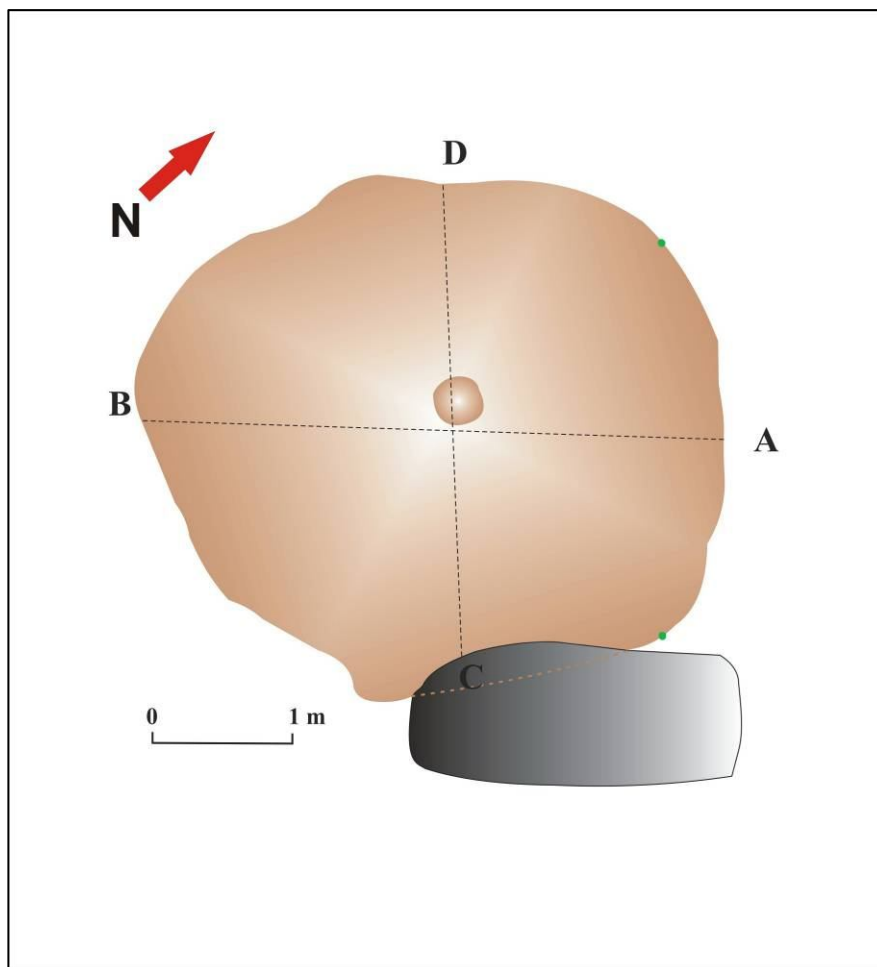


Figure 1. The plan of complex no 1 from Șura Mică

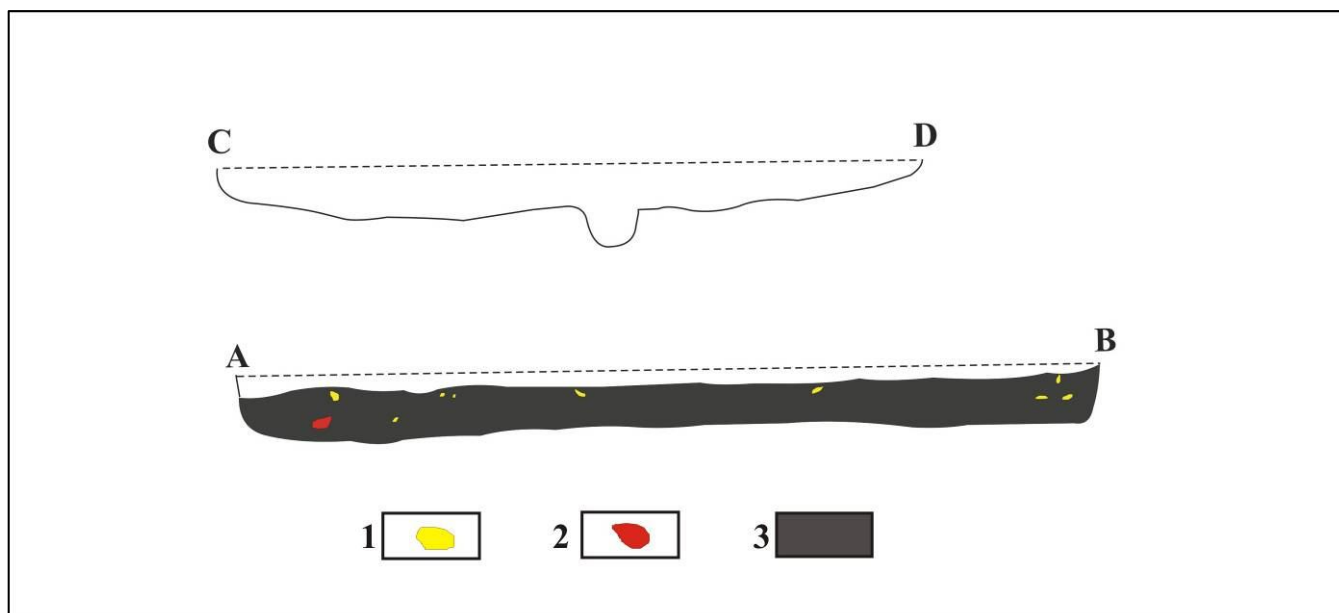
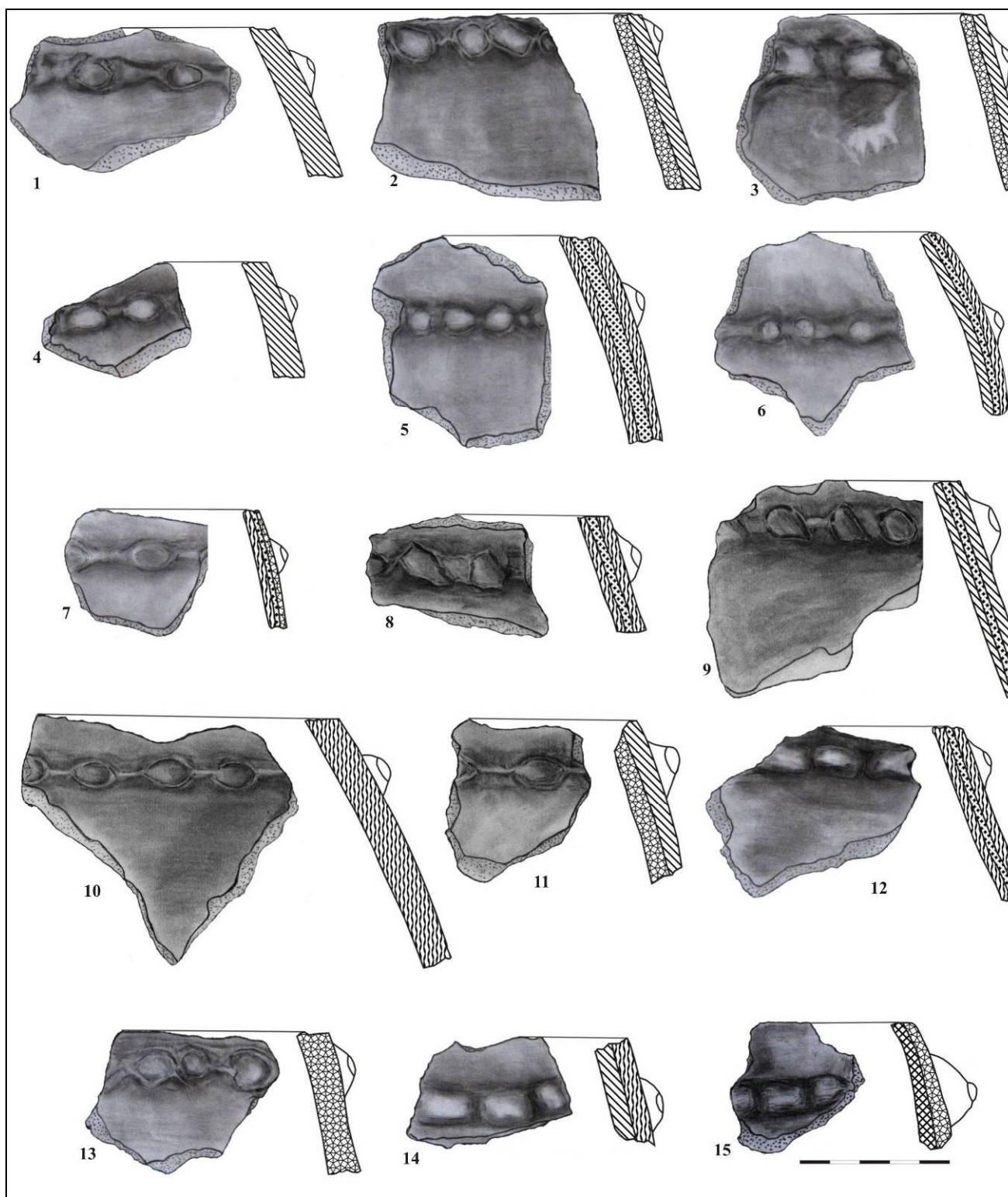
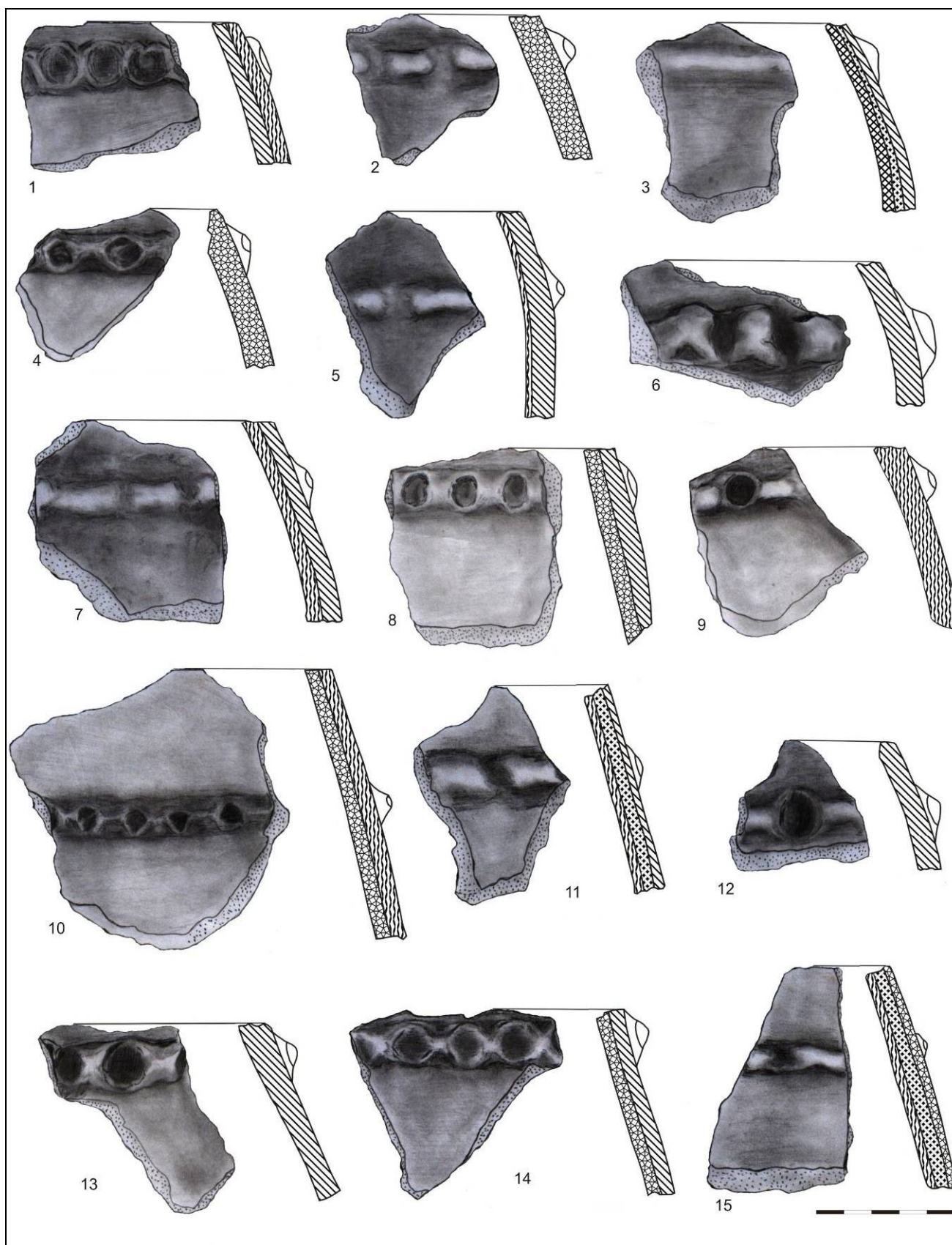


Figure 2. The profile of complex no 1 from Șura Mică (1-ceramic fragment; 2-clay brick, 3-dense black-grey soil)



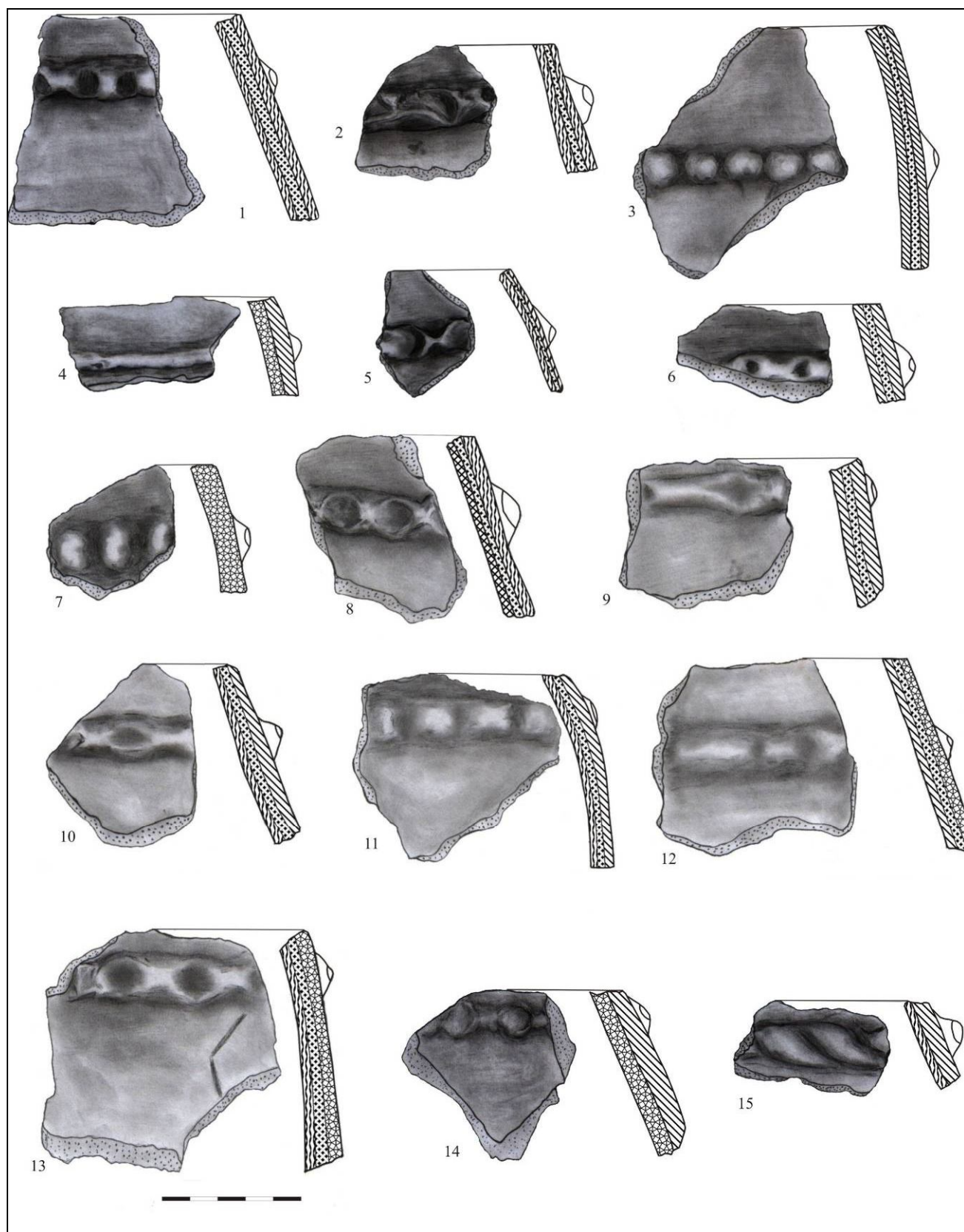


Pl. 1. Ceramic material from complex no. 1 at Șura Mică (Sibiu County)

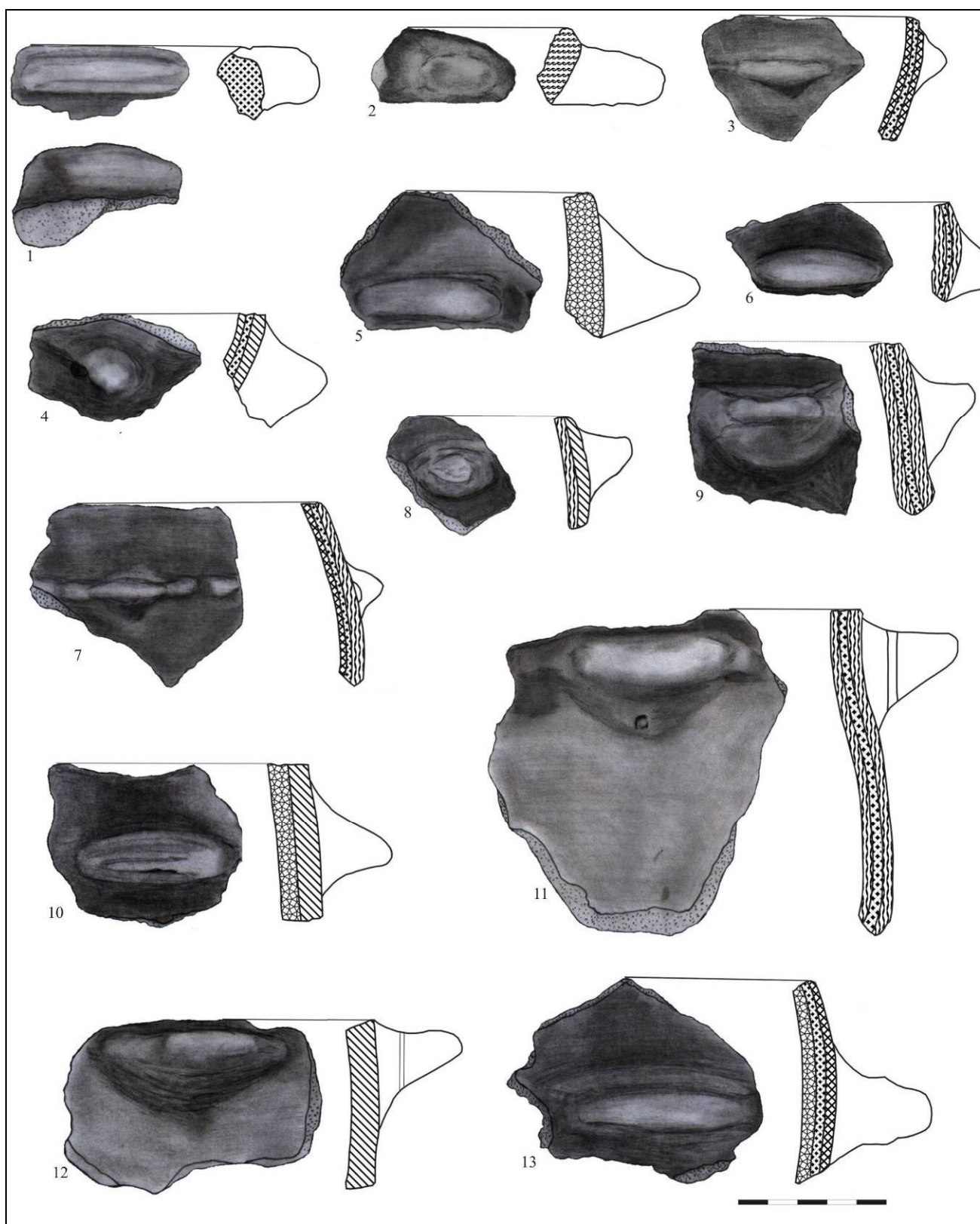


Pl. 2. Ceramic material from complex no. 1 at Șura Mică (Sibiu County)

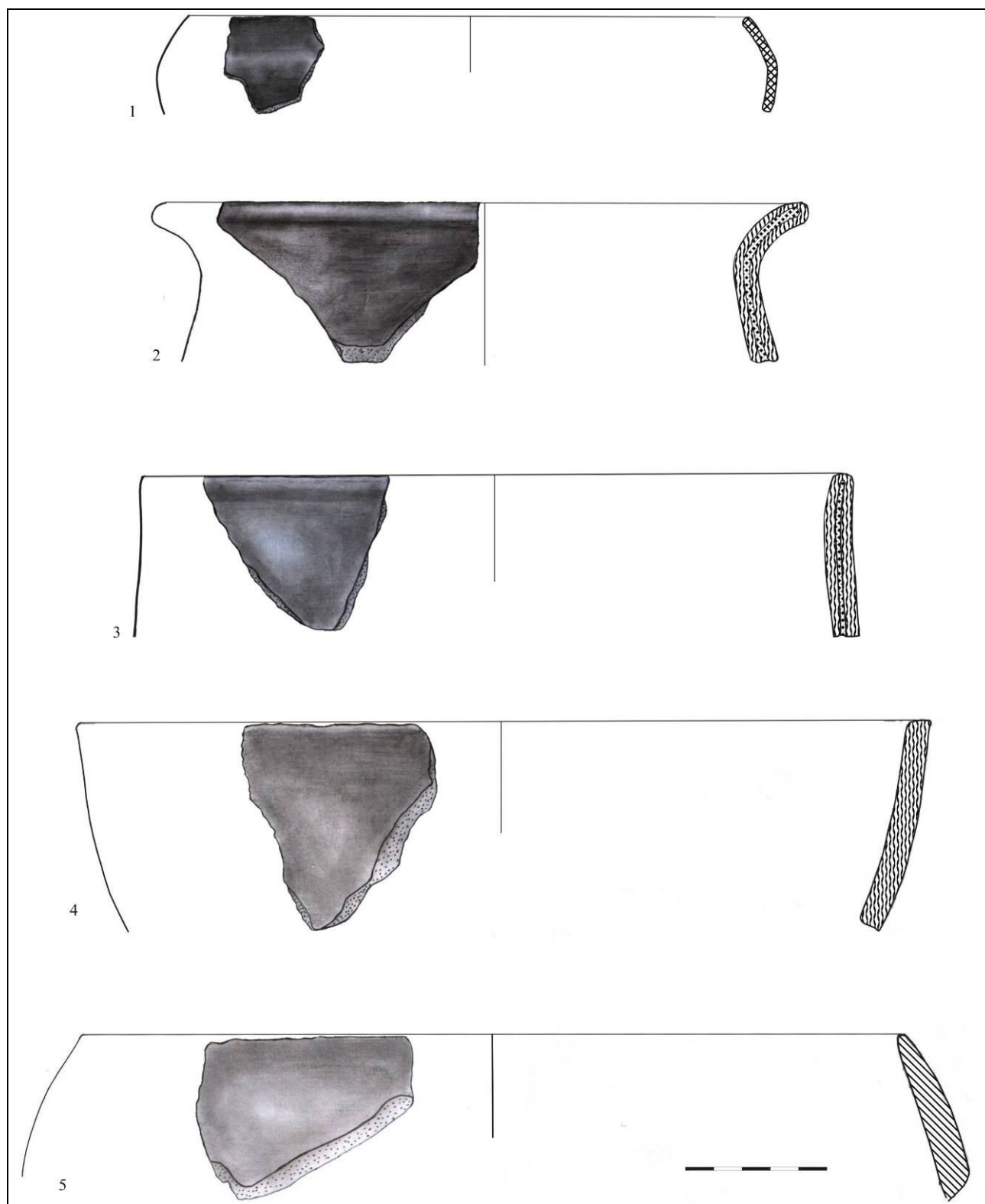




Pl. 3. Ceramic material from complex no. 1 at Șura Mică (Sibiu County)

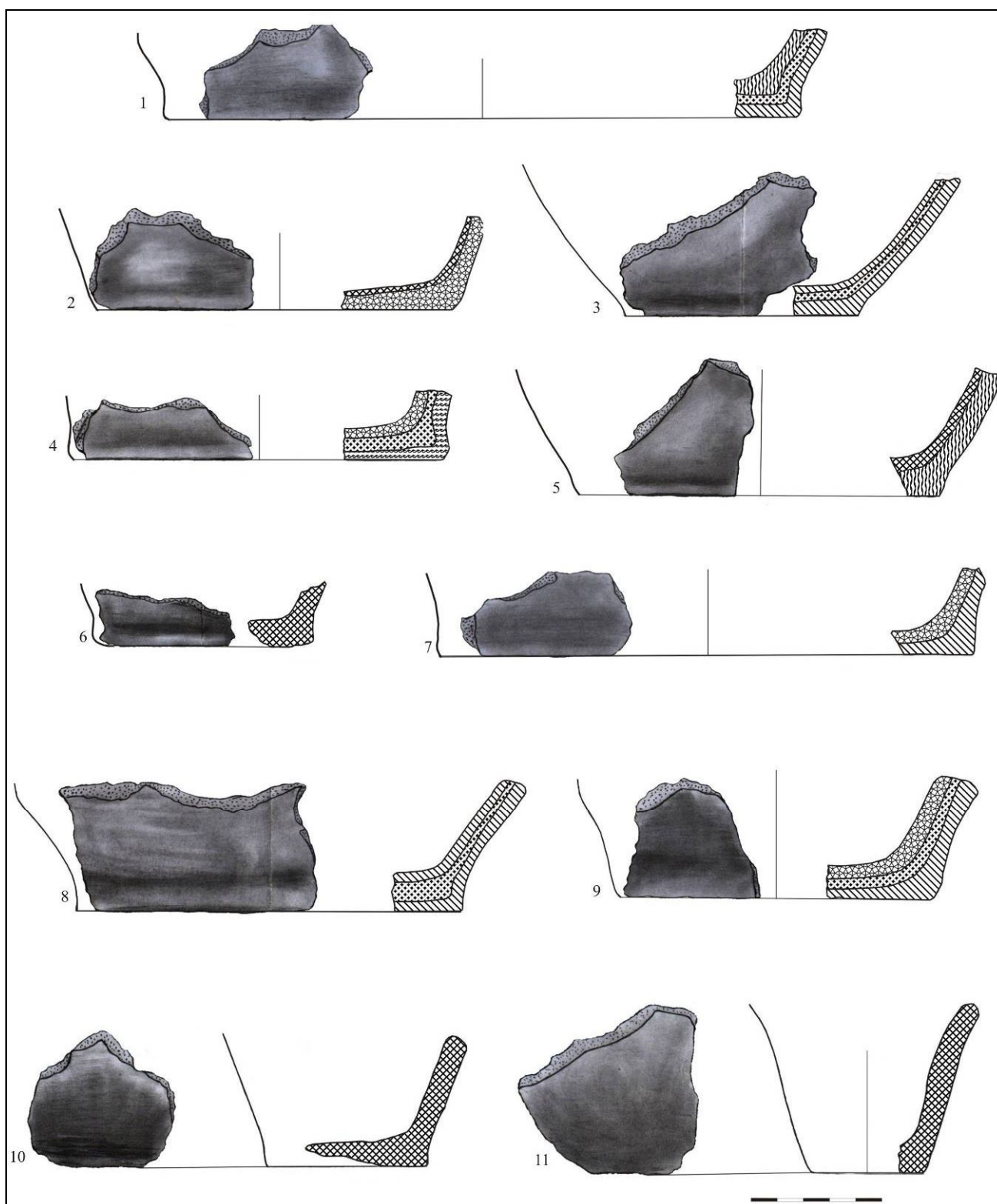


Pl. 4. Ceramic material from complex no. 1 at Șura Mică (Sibiu County)



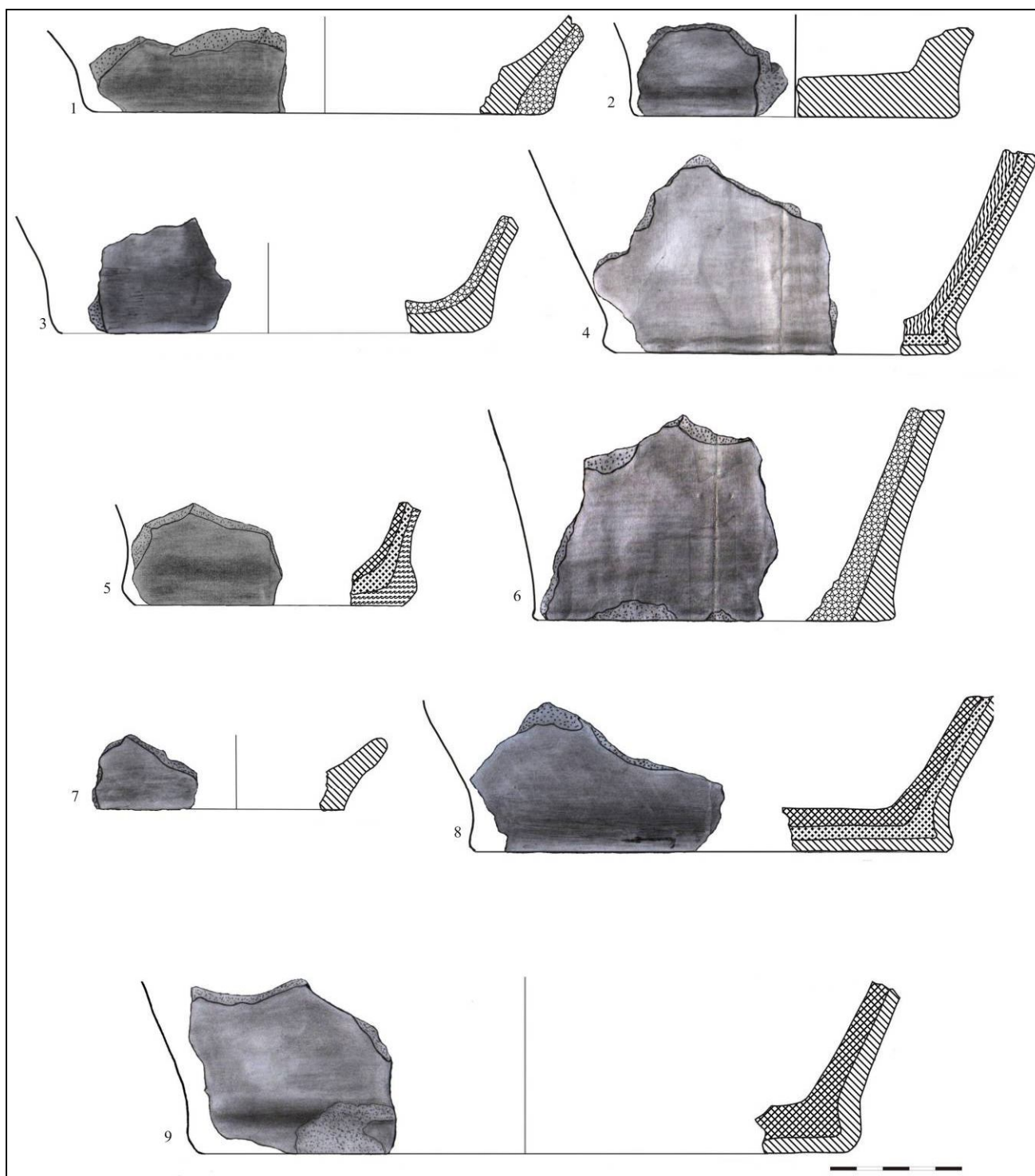
Pl. 5. Ceramic material from complex no. 1 at Șura Mică (Sibiu County)



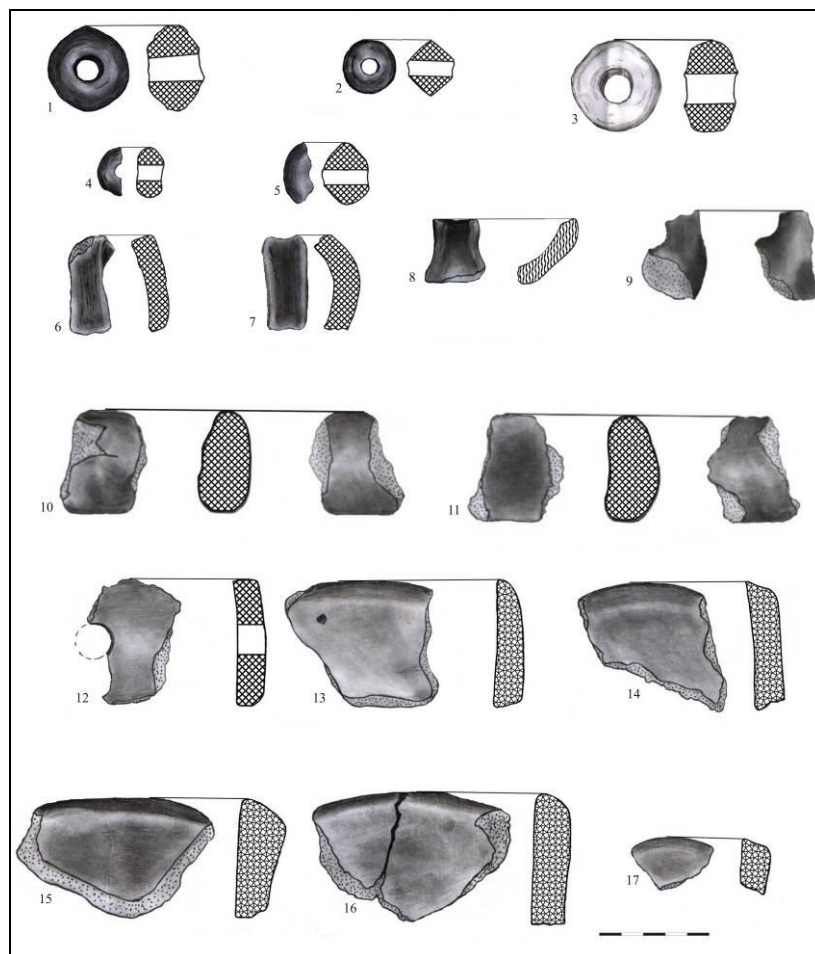


Pl. 6. Ceramic material from complex no. 1 at Șura Mică (Sibiu County)

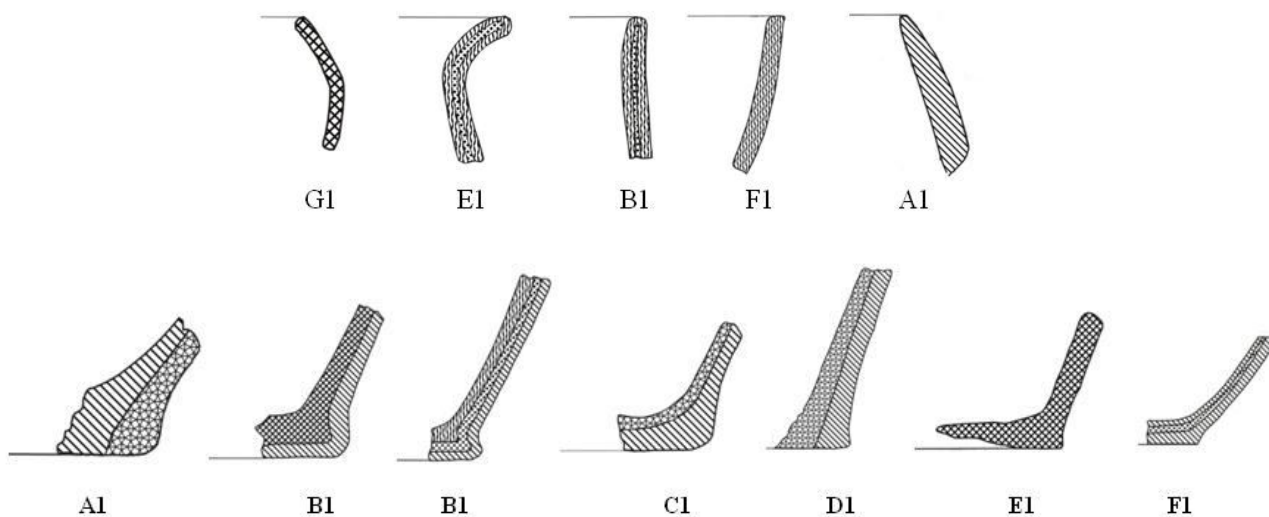




Pl. 7. Ceramic material from complex no. 1 at Șura Mică (Sibiu County)



Pl. 8. Ceramic material from complex no. 1 at Șura Mică (Sibiu County)



Pl. 9. Catalogue of forms. 1-rim variants ; 2-bottom variants



## GORNEA-KALAKAČA DISCOVERIES FROM FELNAC COMPLEXUL ZOOTEHNIC, ARAD COUNTY

Victor SAVA\*

**Abstract:** *Through this article the author presents a few Gornea-Kalakača ceramic fragments discovered by M. Zdroba and M. Barbu at Felnac „Complexul Zootehnic”, between 1975-1978. It should be noted that the lower Mureş valley has not benefited so far from published artifacts belonging to this chronological sequence.*

**Keywords:** *Lower Mureş Valley, Felnac, First Iron Age, Gornea-Kalakača, discoveries.*

**Rezumat:** *Articolul prezintă o serie de artefacte ceramice aparținând culturii Gornea-Kalakača descoperite de către M. Zdroba și M. Barbu la Felnac „Complexul Zootehnic” în perioada 1975-1978. Acest demers se încadrează în preocupările științifice de valorificare a artefactelor aparținând acestui orizont cultural descoperite pe valea Mureșului inferior.*

**Cuvinte cheie:** *Valea Mureșului Inferior, Felnac, Prima perioadă a Fierului, Gornea-Kalakača, artefacte*

The prehistory of the Lower Mureş Valley, at least until around the town of Nădlac, was little valued in comparison to nearby areas. The lack of a systematic publication program of archaeological discoveries kept in the deposit of the Arad Museum, combined with the low interest for the area of specialists determined the existing situation. The findings from the Arad area were used in the vast majority of cases for brief articles and sometimes low in archaeological substance. The large number of unpublished excavations and artifacts represent more than a century of unused Arad archeology. In the twenty-first century, a century where positivist archeology would have been long expired and forgotten, we still have remained anchored at this early stage of the historical sciences. In these circumstances, publication of the artifacts found in specialty institutions deposit rooms becomes a pressing necessity for Romanian archaeology.

Among the many artifacts stored in the deposit of the Arad Museum, the Felnac “Complexul Zootehnic” has caught my attention because of the existence of a well-written documentation. Unfortunately the documentation of the four years excavation relate in particular with the III-IV century AD, XI-XIII century AD and XV-XVI century AD discoveries, since prehistoric layers have been destroyed by the subsequent occupation. However the lack of publications for the area covered by the actual Arad County urges me to publish the existing discoveries.

### Site Location

The Felnac „Complexul Zootehnic” site lies 800 m North-East of the village exit and on the left side of the road from Felnac to Arad. As geographical location the site lies in the Western Romanian Plain, more exact in the Arad Plain, both part of the Great Pannonian Plain. As has been noted the site is located on the first ledge of the Mureş river. The high ledge is shaped like a peninsula that goes deep into the river floodplain.

### The state of research

The first known artifacts that were discovered are five bracelets, three needles and a dagger (these artifacts were made of bronze), belonging to late bronze age (BD/HA1). The bronze artifacts were donated to the museum in 1971 (Petrescu-Dâmbovița 1977, 93, pl. 142/9-17). As a result of these findings Arad Museum archaeological staff (E. Dörner, M. Zdroba, M. Barbu) conducted a small resquing excavation in 1972 and saved several artifacts dated in late bronze age, first iron age and III-IV century AD. A few years later, 1975, M. Zdroba and M. Barbu conducted another resquing excavation on a future treatment plant. This plant had to be raised 200 m North of „Complexul Zootehnic”. The excavation that extended for a period of four years brought to light one of the most interesting multistratigraphic site from Arad County.

During the four archaeological campaigns (1975-1978), were excavated six trenches (S1-5; S1-III)

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and three blocks (A-C). The stratigraphy is summarized at three main levels: level I (upper level) belongs to the medieval period (XV-XVI century AD); level II belongs to XI-XIII century AD; level III belongs to III-IV century AD. In these three levels were also found late bronze age (BD/HA1) and early iron age (Gornea-Kalakača sequence) artifacts. The layers of the prehistoric settlements were destroyed by the subsequent occupations.

Following the 1975 archaeological campaign a short report was published, but the prehistoric findings were not mentioned in it (Zdroba, Barbu 1976). It is worth noted that this report remains the single publication of the resquing excavation from Felnac „Complexul Zootehnic”. With the availability of the 1975 campaign diary one can observe many differences between it and the report published.

E.D. Pădurean points out in 1985 on two occasions Basarabi pottery fragments, without illustrating them, found to the North of the village, on “the old bank of Mureș” (Pădurean 1985, 34), and in 1990 he recalls findings from the place „La Tăietură” (Pădurean 1990, 142). The same Pădurean publishes in 1993 some of the findings of the first Iron Age in the county of Arad, again recalling the Felnac ceramic fragments, the difference is that here the discovery year is 1970 (compared to the previous article where the discovery year is 1972) and illustrates the two pottery fragments (Pădurean 1993, 22, pl. IV/4, 6).

In 1992 C. Kacsó briefly discussed the Bronze Age discoveries occurred here, stating that the artifacts come from the point „La Vii” (Kacsó 1992). M. Gumă also recalls the findings in Felnac, taking information from both E. D. Pădurean and from C. Kacsó (Gumă 1993, 166, 289; Gumă 1995, 103; Gumă 1997, 54, 61). Arad County archaeological repertoire takes information from existing literature establishing the existence of two different sites „La Vii” and „the former C.A.P. terrain” (Barbu *et alii* 1999, 67-68, pct. 2-3). I. Bejinariu publishes in 2004, a bracelet and a needle fragment found in the section „La Vii” (Bejinariu 2003).

Analyzing the specialty literature dealing with the above-mentioned findings, we would be tempted to believe that we are dealing with at least two archaeological sites, in some cases even four. The first set of metal artifacts summarizes discoveries dating in the late Bronze Age (BD/HA1), located at: “the stables for pigs” or “La Vii”. The rest of

the toponyms head us out toward the site excavated by M. Zdroba and M. Barbu. This view was summed up since 1993 (Gumă 1993, 289), being perpetuated by the archaeological repertoires of the County of Arad (Barbu *et alii* 1999, 67-68, pct. 2-3) and the Banat (Luca 2005, 152-154; Luca 2006, 108-109; Luca 2010, 108-109). In the case of the metal discoveries it is clear that the bronze hoard published by M. Petrescu-Dâmbovița (Petrescu-Dâmbovița 1977, 93) and the pieces C. Kacsó has spoken about (Kacsó 1992) and which Bejinariu has published have been discovered in the same place (Bejinariu 2003). This is confirmed by I. Bejinariu (Bejinariu 2003, 68). In the case of the publication on pottery fragments by E. D. Pădurean (Pădurean 1985, 34; Pădurean 1993, 22, pl. IV/4, 6) we would be tempted to think that is quite different from the discovery of the “Complexul Zootehnic”. In reality, those ceramic fragments come from “nearby the Complexul Zootehnic” (Pădurean 1993, 22) (the same point as the “Complexul Zootehnic”), specifically from the northern slope of the terrace where rescue excavations were carried out. The toponym “La Tăietură”, introduced by E.D. Pădurean and taken over by M. Gumă is actually the same point with the “Complexul Zootehnic”. The only thing left to do is to demonstrate the identification of the bronze artifacts site with the site excavated by M. Zdroba and M. Barbu. M. Petrescu-Dâmbovița gives us indices that the bronze hoard was discovered during the removal of “swine stables” and I Bejinariu, citing the memo tab on the Felnac artifacts, preserved in the museum in Zalau writes: “on the cooperative territory (pigs)” (Bejinariu 2003, footnote 2). Starting from here we easily realize that all toponyms mentioned above are actually a single site, the one at Felnac “Complexul Zootehnic”.

#### Description of findings

From what we have seen above, the Gornea-Kalakača ceramic fragments appeared only in sections S1, S2, S4 and square B, so to the edge of the Northern terrace. The fact that in the central plateau, specific artifacts to this chronological sequence have been discovered may be due to several factors. These include the possibility that the habitation of Gornea-Kalakača focuses only on the Northern edge of the terrace. Another possibility is that starting with 1977 the archaeological material may not have been collected with the same rigor. This phenomenon can be seen among the artifacts belonging to other

ages, in the sense that their number decreases dramatically since 1977.

1. Vessel fragment, rim and body, bowl with indrawn rim, decorated with a knob, a row of rectangular punctates and horizontal channelling under the rim; tempered with limestone fragments and crushed sherd, reduction firing, well burned, 10YR-2/1, black<sup>1</sup>, burnished; section 2, 1976; Pl. IV/1.
2. Vessel fragment, rim and body, bowl with indrawn rim; tempered with gravel, oxidant firing, well burned, 5YR-4/4, reddish brown, burnished; Pl. IV/2.
3. Vessel fragment, rim and body, bowl with indrawn rim, decorated with a row of rectangular punctates and horizontal channelling under the rim; tempered with sand, oxidant firing, well burned, 5YR-4/4, reddish brown, burnished; section 2, square 13, ▼ 0,60 m, 1976; Pl. IV/3.
4. Vessel fragment, rim and body, bowl with indrawn rim, decorated with horizontal channelling under the rim; tempered with sand, reduction firing, well burned, 10YR-4/4, dark yellowish brown, burnished; block B, ▼ 0,54 m, 1975; Pl. IV/4.
5. Vessel fragment, rim and body, bowl with indrawn rim, decorated with horizontal channelling under the rim; tempered with sand, reduction firing, well burned, 7.5YR-4/1, dark gray, burnished; section 1, square 15, ▼ 0,90 m, 1975; Pl. IV/5.
6. Vessel fragment, rim and body, bowl with indrawn rim, decorated with horizontal channelling under the rim and an incised line; tempered with sand, oxidant firing, well burned, 5YR-5/4, reddish brown, wiping; section 2, square 5, ▼ 0,50 m, 1976; Pl. IV/6.
7. Vessel fragment, rim and body, bowl with indrawn rim, decorated under the rim with a knob, a row of rectangular punctates and horizontal channelling; tempered with gravel, oxidant firing, well burned, 5YR-4/4, reddish brown outside and 10YR-2/1, black inside, burnished; section 2, square 13, ▼ 0,60 m, 1976; Pl. V/1.
8. Vessel fragment, rim and body, bowl with indrawn rim, decorated with horizontal channelling under the rim; tempered with

- sand, oxidant firing, well burned, 10YR-4/3, brown, burnished; section 1, square 2, ▼ 0,60 m, 1975; Pl. V/2.
9. Vessel fragment, rim and body, bowl with straight rim; tempered with sand, reduction firing, well burned, 10YR-3/1, very dark gray, burnished; section 1, square 2, ▼ 0,60 m, 1975; Pl. V/3.
10. Vessel fragment, rim and body, bowl with straight rim; tempered with gravel, oxidant firing, well burned, 5YR-4/4, reddish brown outside and 10YR-3/1, very dark gray inside, burnished; section 2, 1976; Pl. V/4.
11. Vessel fragment, rim and body, bowl with indrawn rim; tempered with gravel, reduction firing, well burned, 10YR-3/1, dark gray, burnished; block B, ▼ 0,80 m, 1975; Pl. V/5.
12. Vessel fragment, rim and body, bowl with indrawn rim; tempered with gravel, reduction firing, well burned, 10YR-2/1, black, burnished; section 2, 1976; Pl. V/6.
13. Vessel fragment, body, decorated with a row of rectangular punctates; tempered with sand, oxidant firing, well burned, 5YR-4/4, reddish brown, burnished; section 2, square 5, ▼ 0,50 m, 1976; pl. VI/1.
14. Vessel fragment, handle, decorated with a row of rectangular punctates; with sand, oxidant firing, well burned, 5YR-4/4, reddish brown, burnished; section 2, square 5, ▼ 0,50 m, 1976; pl. VI/2.
15. Vessel fragment, base, decorated with a row of rectangular punctates; with sand, oxidant firing, well burned, 5YR-4/4, reddish brown, burnished; section 2, square 13, ▼ 0,60 m, 1976; pl. VI/3.
16. Vessel fragment, body, decorated with an incised zig-zag pattern, it can be observed encrusted with white paste; tempered with small limestone fragments and sand, oxidant firing, well burned, 7.5YR-6/6, reddish-yellow outside and 10YR-2/1, black inside, burnished; section 4, square 16, ▼ 0,70 m, 1976; Pl. VI/4.
17. Vessel fragment, body, decorated on the shoulder with a row of rectangular punctates, followed by three horizontal channellings, another row of rectangular punctates and inverted triangles filled with oblique incisions, it can be observed that the filling incisions of the inverted triangles are encrusted with white paste;

<sup>1</sup> To determint the colors I used Munsell Soil-Color Charts 2009.



tempered with gravel, reduction firing, well burned, 5YR-3/1, very dark gray outside and 5YR-6/6, reddish-yellow inside, wiping; section 2, square 15, ▼ 0,45 m, 1976; Pl. VI/5.

Quality of the ceramics is mostly very good. Four types of temper were identified; the most common is the sand, followed by gravel, fragments of limestone in combination with crushed pottery fragments or sand. Oxidant firing predominates and paste colors range from black to reddish-brick. Most ceramic fragments are burnished, except for two (no. 6, no. 17). An interesting fact is the type of firing of the ceramic fragments no. 10 and 15. The exterior color is brick-red, and the core is dark gray. This is due to the inability to maintain a constant temperature during combustion, which did not allow oxygen to penetrate the entire wall thickness (Anghel 2000, 172). The ceramic fragment number 16 shows a reddish-yellow exterior and black interior, which involves firing the vessel upside down, or overlapped with another vessel, but the case of a reduction firing that has been re-oxidized can not be ruled out (Anghel 2000, 172). Another interesting situation in terms of firing a pottery fragment is observed in case of the fragment no. 17 which has very dark gray exterior and reddish-yellow interior. This may occur if the container has been fired oxidant, but at one point was subjected to a reducing atmosphere (Anghel 2000, 173).

The vast majority of ceramic fragments come from bowls (pl. IV, V/1-5, 7), a normal phenomenon for Banat (Gumă 1993, 200). Of these bowls, a great part have an indrawn rim (pl. IV, V/1-2, 5, 7), and two ceramic fragments represent pottery bowls with a straight rim (pl. V/3-4). In addition to bowls, a vessel is represented, presumably with straight walls (pl. V/6).

Ceramic decoration is not varied, because few fragments have been discovered. Some of the bowls are decorated with horizontal channelling under the rim (pl. IV, V/1-2); channelling are divided into oblique channelling (pl. IV/4-6) and straight channelling (pl. IV/1-3; V/1-2). Another type of decoration is composed of rectangular punctates disposed in a row (pl. IV/1, 3, V/1; VI/2-3) or triangular punctates disposed in a row (pl. VI/1). From the ceramic fragments decorated with rectangular punctates disposed in a row, some are located under the rims of bowls, with straight channelling (pl. IV/3) or in combination

with knobs and straight channelling (pl. IV/1, V/1). In other cases this decor (row of rectangular punctates) is set on the handle (pl. VI/2), or on the body of a vessel (pl. VI/3). In addition to the ornamentation methods described above, the motif consisting of a ground line disposed on a bowl with an indrawn rim (pl. IV/6) can be noticed. A piece of body is decorated with a string of horizontal incisions and waves (pl. VI/4), and one shoulder is decorated with a row of rectangular punctates, followed by three horizontal channellings, another series of rectangular punctates and inverted triangles filled with horizontal incisions (pl. VI/5).

#### Chronological and cultural discovery framing

Bowls decorated with straight channellings below the rim (pl. IV/2, V/2) were discovered in the environment of Gornea-Kalakača in Dorcöl (Jevtić 1983, T. I/1), Giroc "Mescal" (Gumă 1993, pl. XLI/1; XLII/4-5; Gogâltan 1996, Abb. 8/4; 11/4), Gornea „Țărmuri-Pod Păzăriște" lower level (Gumă 1993, pl. LIV/11, 24), Kalakača (Medović 1988, Sl. 295/4), Satchinez (Gumă 1993, pl. XL/2-3; XLIII/4), Silagiu (Gumă 1993, pl. XLIX/2), but also in Basarabi environment by findings from Berzasca "Ogașul Odului" (Gumă 1993, pl. LXXVI/1, 4-5; LXXVII/4) or Lugoj (Gumă 1993, pl. LXVII/1). Bowls decorated with oblique channellings located under the rim (pl. IV/4-5) represent a widespread category, without too great dating relevance (as well as bowls decorated with straight channellings located under the rim). These bowls can be found in the Gornea-Kalakača environment at Boljetin (Jevtić 1983, T. IV/3), Drmno (Jevtić 1983, T. III/4), Giroc "Mescal" (Gogâltan 1996, Abb. 8/3, 5; 11/6), Gornea „Țărmuri-Pod Păzăriște" lower level (Gumă 1993, pl. LIV/13-14), Kalakača (Medović 1988, Sl. 11/8; 46/3; 48/2, 6; 56/5; 60/8; 70/4; 116/6; 121/2; 131/5; 140/7; 274/3; 286/1; 289/1-2), Satchinez (Gumă 1993, pl. XLVI/2; XLVII/2; XLVI/3), but also in Basarabi environment at Berzasca "Ogașul Odului" (Gumă 1993, pl. LXXVI/3), Gornea „Țărmuri-Pod Păzăriște" upper level (Gumă 1993, pl. LXIII/11), Lugoj (Gumă 1993, pl. LXVII/2), Petnica (Jevtić 1983, T. XXII/1), Românești "Peștera cu Apă" (Gumă 1993, pl. LXVI/8), Velesnica (Jevtić 1983, T. VII/6).

Bowls decorated with channellings arranged below the rim, with a row of rectangular punctates (pl. IV/1, V/1) or without (pl. IV/3), the vessel's body decorated with a series of rectangular punctates (pl. VI/3), or handle decorated with a

series of row of rectangular punctates (pl. VI/2) have analogies to Giroc "Mescal" (Gogâltan 1996, Abb. 7/1-2), Satchinez (Gumă 1993, pl. XLV/9). The body of a pot decorated with a row of triangular punctates (pl. VI/1) has its analogues at Giroc "Mescal" (Gogâltan 1996, Abb. 10/4), Mislodin (Jevtić 1983, T. III/9), Petnica (Jevtić 1983, T. XXII/5), in the Gornea-Kalakača environment, but also at Boljetin (Jevtić 1996, pl. VI/2), or Svetozareva (Jevtić 1983, T. XVI/9) in the Basarabi environment.

The pottery fragment decorated with a series of incisions disposed in a wave shape (pl. VI/4) has its analogues in the Gornea-Kalakača environment at Caransebeș / Balta Sărată "Câmpul lui Andrei" (Gumă 1993, pl. LVII/1), Dejani (Gumă 1993, pl. XL/4-5), Giroc (Gumă 1993, pl. XLII/6), Gornea "Căunița de Sus" (Gumă 1993, pl. LI/5-6), Gornea "Țărmuri-Pod Păzăriște" (Gumă 1993, pl. LIV/17; LV/25; LVI), Karaburma (Jevtić 1983, T. I/7), Kalakača (Medović 1988, Sl. 14/3; 28/3; 60/5; 83/1; 87/2; 230/3) or Satchinez (Gumă 1993, pl. XLV/2-3, 6-7, 13; XLVII/1, 3-4). The ornamentation that consists of a series of rectangular punctates, followed by three horizontal channellings, another series of rectangular punctates and inverted triangles filled with horizontal incisions (pl. VI/5) has no exact analogies, although at Kalakača (Medović 1988, Sl. 104/3) we can find a similar setting. The elements that compose the setting described above are common in the Gornea-Kalakača environment so the rectangular punctates are typical for the final phase of Gornea-Kalakača. Triangles filled

with horizontal incisions were found in Caransebeș/Balta Sărată "Câmpul lui Andrei" (Gumă 1993, pl. LVII/7-8), Giroc (Gumă 1993, pl. XLII/5), Girod "Mescal" (Gogâltan 1996, Abb. 8/1; 9/2) or Kalakača (Medović 1988, Sl. 13/3; 14/6; 45/12; 84/1; 104/3; 108/4), and horizontal channellings were found in Giroc "Mescal" (Gogâltan 1996, Abb. 9/5), Gornea "Căunița de Sus" (Gumă 1993, pl. LII/8-10), Kalakača (Medović 1988, Sl. 25/4; 119/9; 190/11; 244/5; 264/7), as well as Satchinez (Gumă 1993, pl. XLV/5-11).

As we have seen above, the cultural and chronological classification of the findings reviewed here poses no particular problem. Given the analogies available, we can state that the few fragments of pottery discovered at Felnac "Complexul Zootehnic" belong to the Gornea-Kalakača group.

Although I only had a small amount of artifacts, items such as small "S"-es were not encountered, but a part of the illustrated ceramic fragments have rows of rectangular or triangular punctates, which mark a late evolutionary stage of the Gornea-Kalakača group (Gumă 1993, 200; Gogâltan 1996, 35). The chronological range assigned to this cultural group, which is manifested in the current area of Banat, is restricted to HB2 and to the first half of HB3, possibly up towards its middle phase (Gumă 1993, Figure 10). Since the ceramic material from Felnac contains late elements, this site could belong to the first part of HB3.

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### LIST OF ILLUSTRATION/LISTA ILUSTRAȚIILOR

*Plate I.1.* Carpathian Basin map with the localisation of Felnac; 2. XIX<sup>th</sup> century map (1860-1865) with the localisation of the site/I.1. Harta bazinului Carpatic cu localizarea sitului; 2. Hartă din secolul XIX cu localizarea sitului.

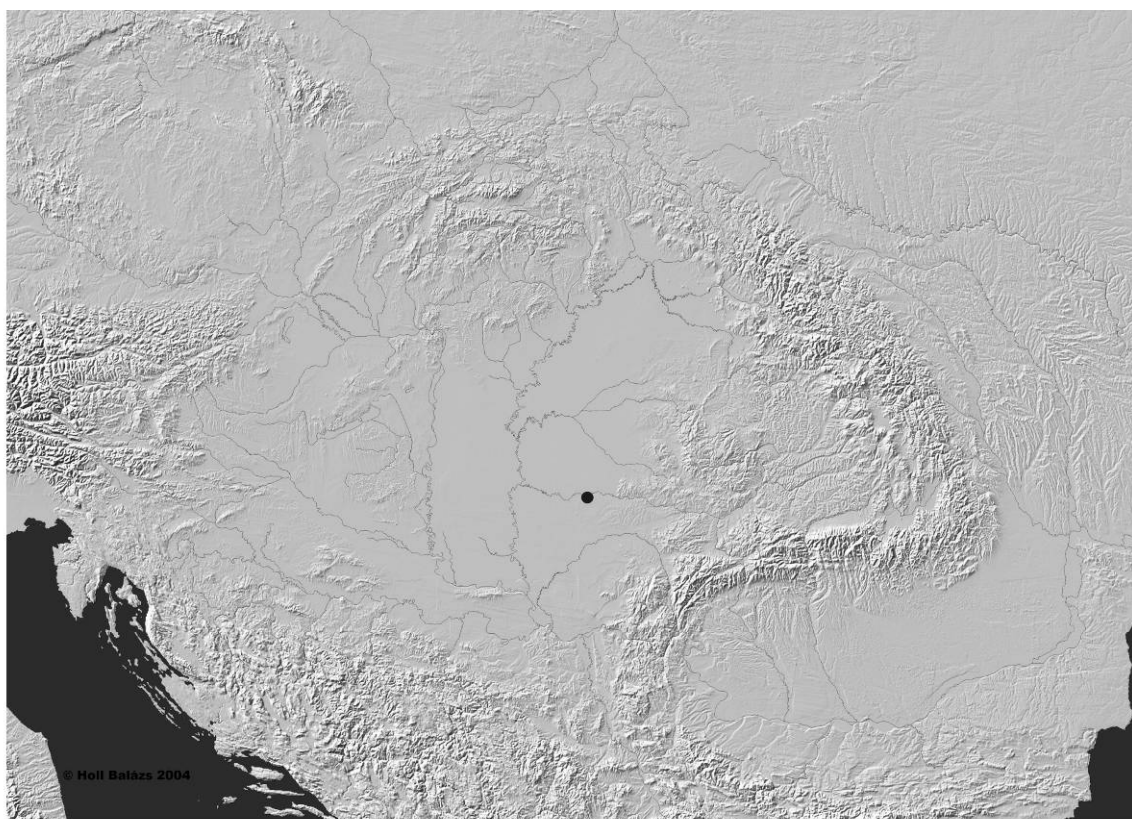
*Plate II.* 1. 1:50000 map of the Felnac area with the localisation of the site; 2. Aerial photography with the localisation of the site/ II.1. Harta regiunii Felnac cu localizarea sitului; 2. Fotografie aeriană cu localizarea sitului.

*Plate III.* Felnac *Complexul Zootehnic*. General plan of the excavation/ Felnac *Complexul Zootehnic*. Plan al cercetărilor arheologice

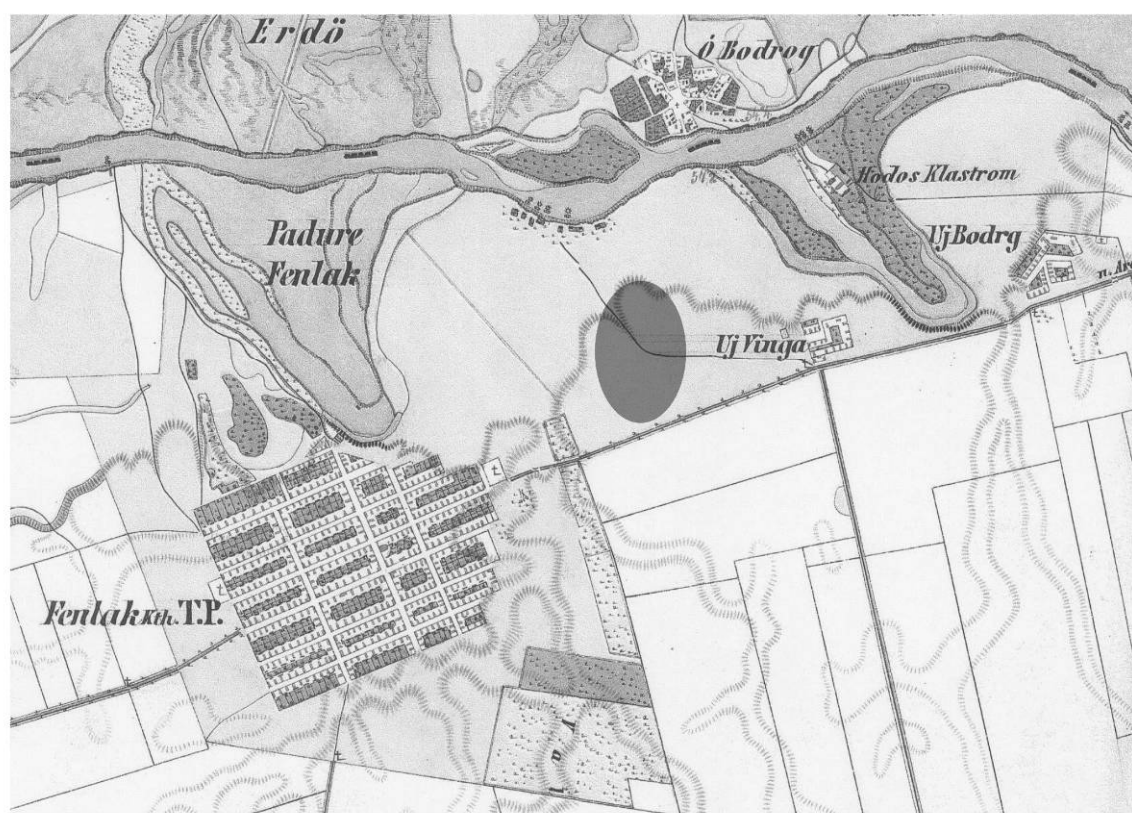
*Plate IV.* Felnac *Complexul Zootehnic*. Pottery/ Felnac *Complexul Zootehnic*. Ceramica

*Plate V.* Felnac *Complexul Zootehnic*. Pottery/ Felnac *Complexul Zootehnic*. Ceramica

*Plate VI.* Felnac *Complexul Zootehnic*. Pottery/ Felnac *Complexul Zootehnic*. Ceramica

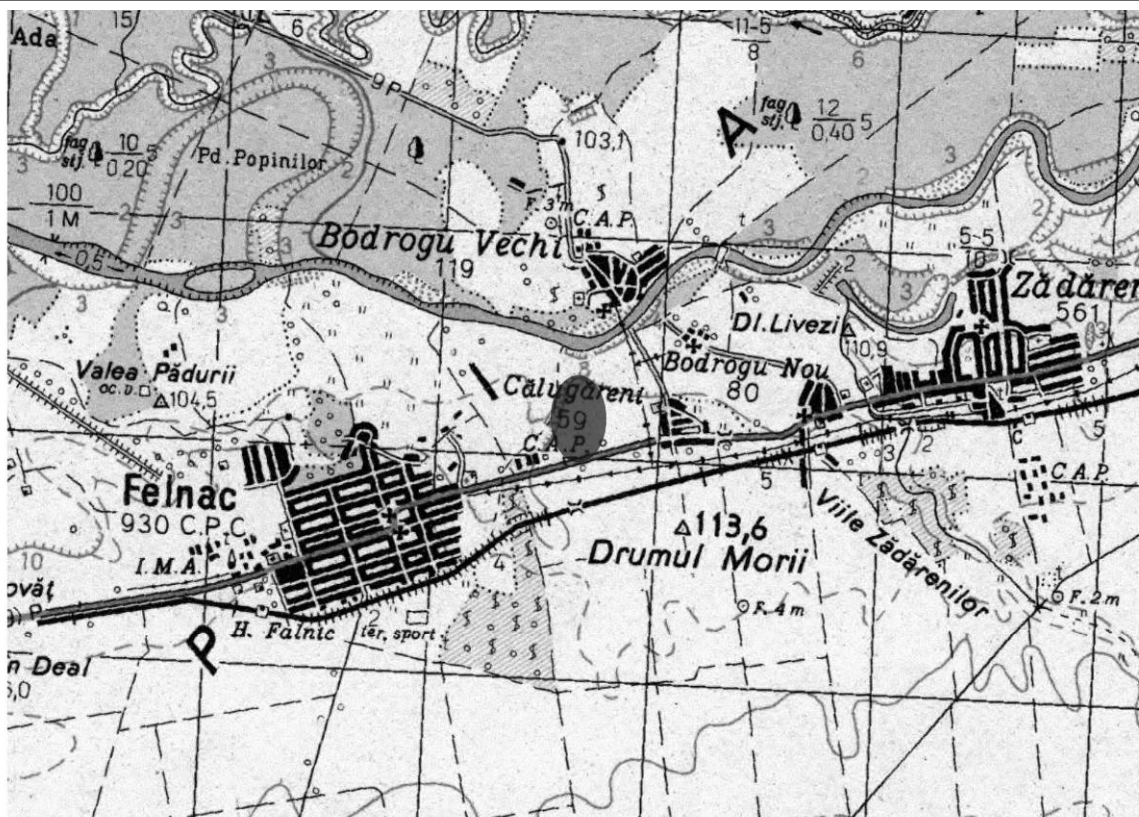


1



2

Plate I.1. Carpathian Basin map with the localisation of Felnac; 2. XIX<sup>th</sup> century map (1860-1865) with the localisation of the site.



1



2

*Plate II. 1. 1:50000 map of the Felnac area with the localisation of the site; 2. Aerial photography with the localisation of the site.*





Plate III. Felnac Complexul Zootehnic. General plan of the excavation.

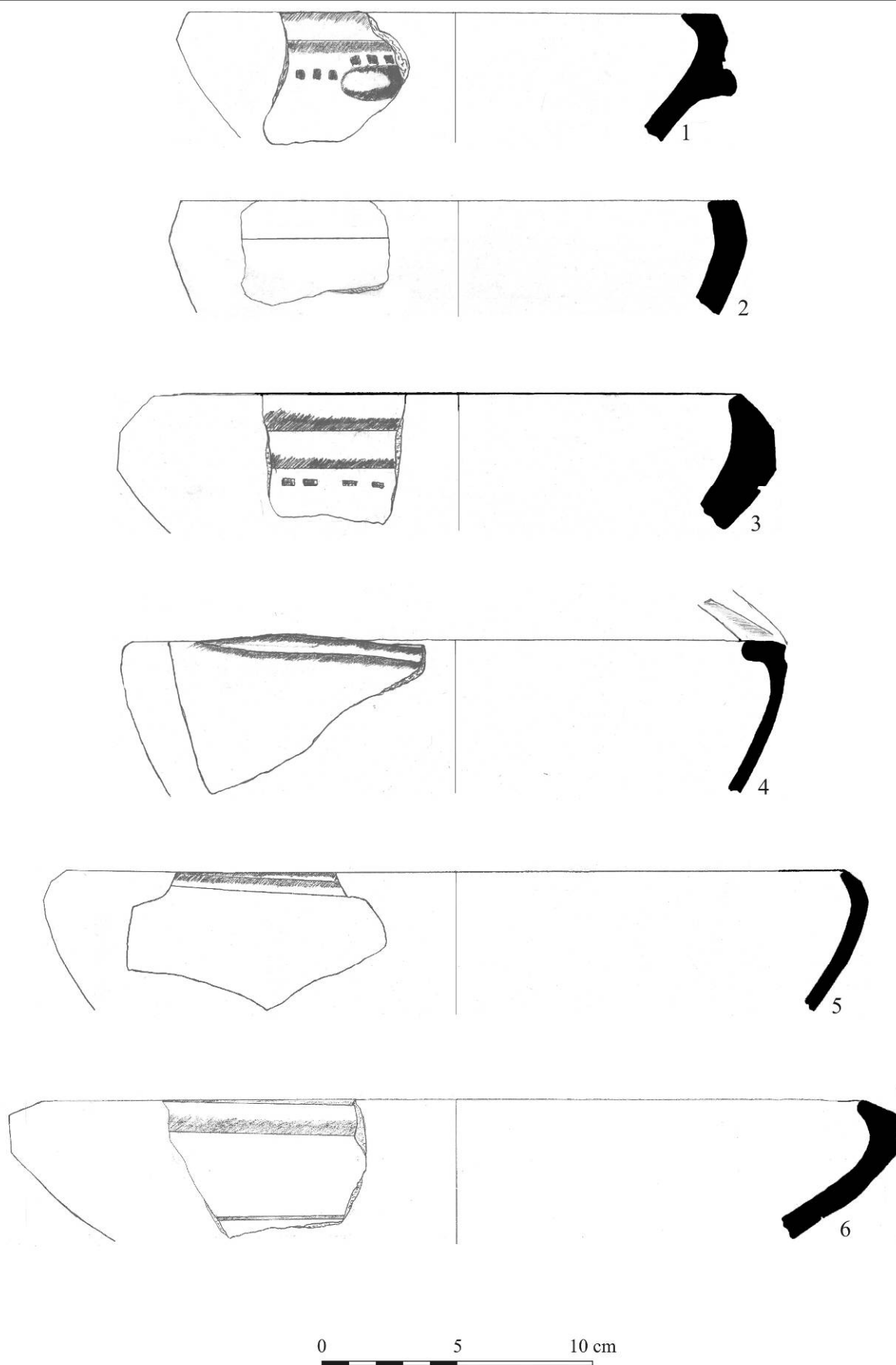
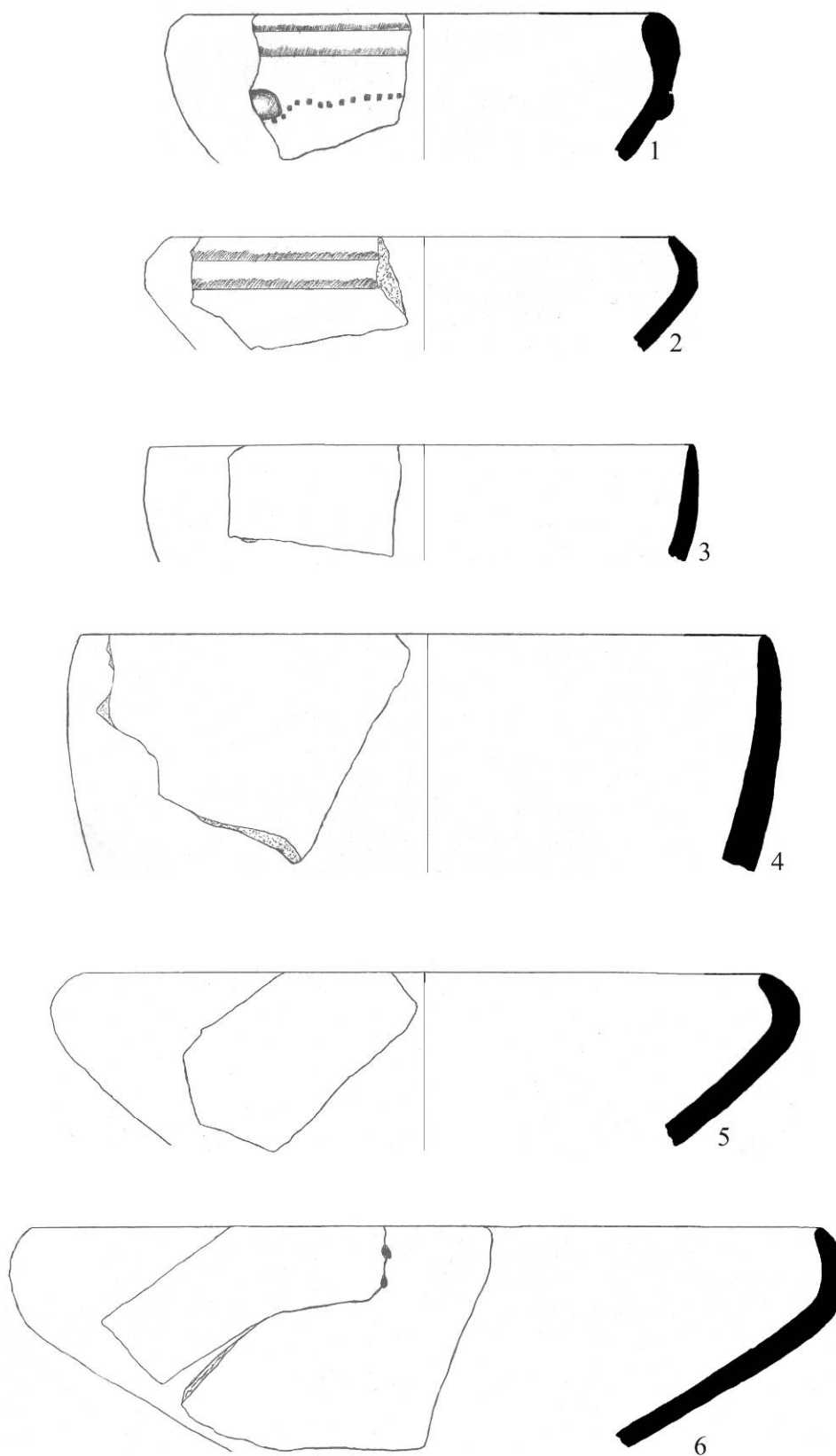


Plate IV. Felnac *Complexul Zootehnic*. Pottery.



0 5 10 cm

Plate V. Felnac Complexul Zootehnic. Pottery.

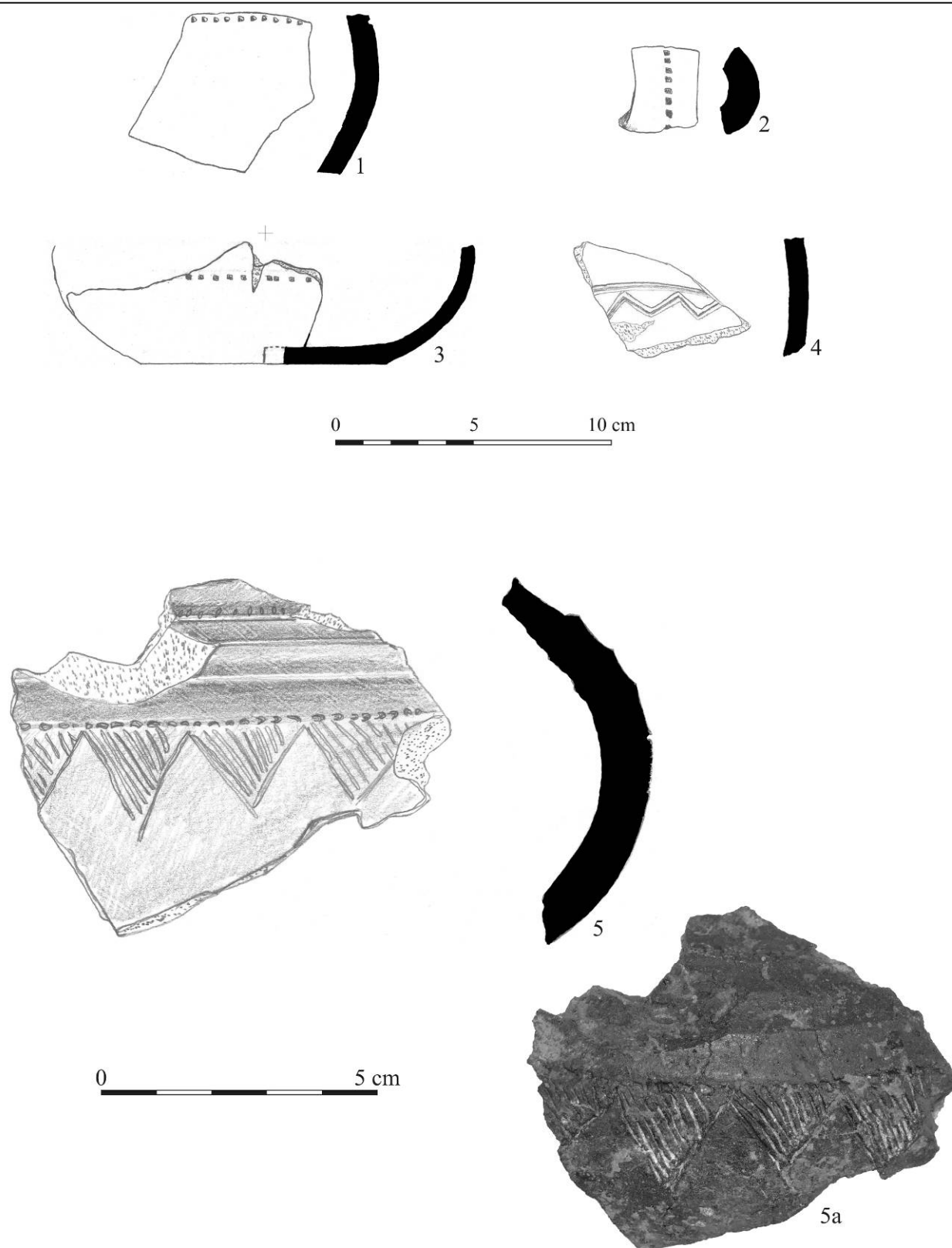


Plate VI. Felnac *Complexul Zootehnic*. Pottery.



## A SICAE FROM THE NATIONAL BRUKENTHAL MUSEUM COLLECTION

Gheorghe NATEA\*  
Oana PONTA\*\*  
Simon SIMION\*\*\*

**Abstract:** *The curve dagger which is the subject of this study was found in the Dacian city from Tilișca, following research conducted by Professor Nicolae Lupu. The piece is slightly curved blade towards the tip, sharp on the inside, triangular in section and without decoration, the handle is in the form of tongue, rectangular in section and is provided with holes for rivets, with which to be attached to handles.*

**Key-words:** *La Tène, curve dagger, sica, Dacian, Tilișca.*

**Rezumat:** *Articolul prezintă cercetările efectuate pe sicae dacică descoperită în cetatea dacică de la Tilișca de către profesorul Nicolae Lupu. Piesa prezintă o lamă ușor curbată cu tăișul pe partea interioară. Lama este triunghiulară în secțiune fără a prezenta urme de decor. Mânerul are forma unui limbi cu secțiune rectangulară și găuri pentru prinderea prăselelor.*

**Cuvinte cheie:** *La Tène, sică dacică, Tilișca.*

Curved daggers (sicae) "have the form of large knives with triangular blade profile, sharpened on the concave side and the tongue to the handle; often the handle tongue, to its base, is a opening for a rivet" (Glodariu 1979, 139).

The curved daggers are a creation of the North Balkan Thracians, their use is attested in the period between V centuries BC and AD I. Between centuries IV – III BC they are quite rare, the number of copies are dated from centuries II – I BC. But there are quite well represented in the centuries I BC – I century AD. (Rustoiu 2002, 57).

It is assumed that this type of item was used only by military leaders, due to their relatively low numbers and focus on how manufacturing. In support of this argument comes from the scene number CXLV on Trajan's Column, which is presented Decebal during suicide with a *sicae* (Daicoviciu 1968, 34). From here you can assume the role of sacred pointed ornament on one side of blade (The Eagle as a symbol of death and the Sun as a symbol of light) and that, on the other hand, most are found in funerary deposits, as a symbol of power and life after death.

Most curved daggers are decorated on the slide, according to this criterion, Z Woźniak make their next classification:

Group A - daggers with ornaments in a realistic manner, with zoomorphic representations;

Group B - daggers that require trim complex combinations circles, dots and lines arranged in zig-zag

Group C - daggers with ornaments composed of circles and longitudinal lines;

Group D - daggers with ornaments consisting of rows of triangles (Daicoviciu 1968, 58, Natea 2008, 109).

The dagger that is the subject of this study is made of an iron bar beat hot with the following dimensions:

- total length of piece : 268 mm;
- blade length: 225.32 mm;
- maximum blade width: 29.40 mm;
- width of the blade near the handle's tongue: 26.52 mm;
- blade's peak width: 9.35 mm;
- blade thickness in the center: 5.1 mm/1.25 mm;
- thickness of the blade in the tip: 1.6 mm / 0.88 mm;
- handle tongue length: 42.68 mm;
- handle tongue width near blade: 17.58 mm;
- handle tongue width in the peak: 3.69 mm;

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- handle tongue thickness: 3.33 mm.

The dagger blade is slightly curved towards the tip, sharp on the inside, triangular in section and without decoration. The blade is slightly bent, but we think we do not intentionally, the ritual, but probably from a stroke during the use of the piece. We rely on these statements by the fact that in this area and the edge is slightly chipped and therefore we believe that the blade was not ritually bent, as we known for more pieces of it's kind in this area. The peak of the piece is broken, but he could not be longer than an inch. The piece is not provided with guard. The handle is in the form of tongue and is provided with holes for rivets, with which to be caught the handle wrapping.

Therefore, the above description is considering a Dacian knife (re) discovered in the National Museum Brukenthal, specifically in it's stores in February 2011, teaching with the procedure for receipt of the museum's collection La Tène; on the place of the dagger or any other data related to the piece (The entry date in the museum, archaeological research, conditions for discovery, etc.), we don't have any information, it is inventoried, so I went to check bibliographic sources. Following this approach we identified the piece in the work of iron Dacian Civilization paper signed by Ioan Glodariu and Eugen Iaroslavschi and published in 1979 in Cluj Napoca. Following research of this study we found that the piece was discovered in the Dacian fortress on the Cățânaș hill (Tilișca, Sibiu) dated between the second century BC - I century AD. In the study mentioned above piece is only mentioned (page 139) and presented in a plate (72 / 8), with which we were able to identify the authors citing the information coming from Nicolae Lupu, author of the research conducted by that time in the fortress of Tilișca.

Next, we will try some brief considerations typological/stylistic contributing to a possible future scientific approach - the comprehensive cataloging of the piece.

Similar pieces were found in the Dacian fortresses from: Căpâlna (Macrea 1966, 22) (Alba), Craiva (Berciu 1966, 49-50) (Alba), Grădiștea Muncelului (Daicoviciu *et al.* 1957, 259), (Hunedoara), Popești (Vulpe 1966, 36) (Giurgiu).

A piece like that shown in our study is found on the hill Magura Moigrad, piece that was discovered in trench 5 / 1984 in the area of ritual pits (?), the piece is dated in centuries I BC-I p. AD and situated typological into the category of robust knife's (Pop, Borangic 2009, 37-38).

In the typology of curved arms of Dacia, proposed by Catalin Borangic, the dagger can be categorized as 10 C, curved daggers category opposite the blade sharp, with almost straight edge (Borangic 2006, 89-90).

Although archaeological research conducted by Nicolae Lupu between 1959-1965 were found many metal objects- published in the monography dedicated to the site (Lupu 1989) and other publications relating to the settlement on Catanaș (Lupu 1962, 477; 1966, 34; 1970, p. 233) - between that we mention a hallstattian dagger, several knives, pruning, tips spear, lances, two fragments from two sites shield umbo and curved tip of a sword - falx - equipped with one of the area median ditch "(Lupu 1989, 74), nowhere is silent about the discovery of the curved dagger, we believe he was lost in the museum store. Another, not insignificant is that the piece was restored and it could get lost among other pieces, reached much later in the museum store, which normally should not happen.

Scanning electron microscopy (SEM) imagines were recorded using dual beam FEI QUANTA 3D FEG, in high vacuum, with an EDT detector (Everhart Thornley Detector), at acceleration voltage at 30kV. The elemental analyses were carried out with an EDX system (Energy Dispersive X-ray) attached at the microscope.

In the SEM image (Figure 1) is presented an overall view of the sample at a quite small magnification. In the Figure 2 and 3 one can see the topography of the sample at bigger magnifications and the marked areas correspond to the place where the elemental analyses were acquired.

Elemental analyses were performed on both sample surface and in cross-section and the results are presented in Table 1.

The presence of the Ca, Si, and the Cl on the piece surface belongs to the resatoration phase, but the results coming from the inside section of the *sicae* are more relevant.

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Currently, the dagger is displayed in the Museum's permanent exhibition Brukenthal - Altemberger House Museum of History in the room dedicated to the Dacian period in the

industry exhibition entitled *Evolution of human communities in southern Transylvania*, and was inventoried in the museum inventory number as A 11085.

**ACKNOWLEDGEMENTS** P.O. acknowledges the ESF programme POSDRU/89/1.5/S/60189 for a postdoctoral fellowship.

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## LIST OF ILLUSTRATIONS

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| <b>Plate 1</b> | The curve dagger from Brukenthal National Museum's collections.                  |
| <b>Plate 2</b> | <b>Figure 1</b> SEM imagine of the sample at x20 magnification.                  |
|                | <b>Figure 2</b> SEM imagine of the sample at x500 magnification.                 |
|                | <b>Figure 3</b> SEM imagine of the sample(A) surface, (B) section.               |
| <b>Plate 3</b> | Energy Dispersive X-ray Analyses - EDAX for the sample (A) surface, (B) section. |

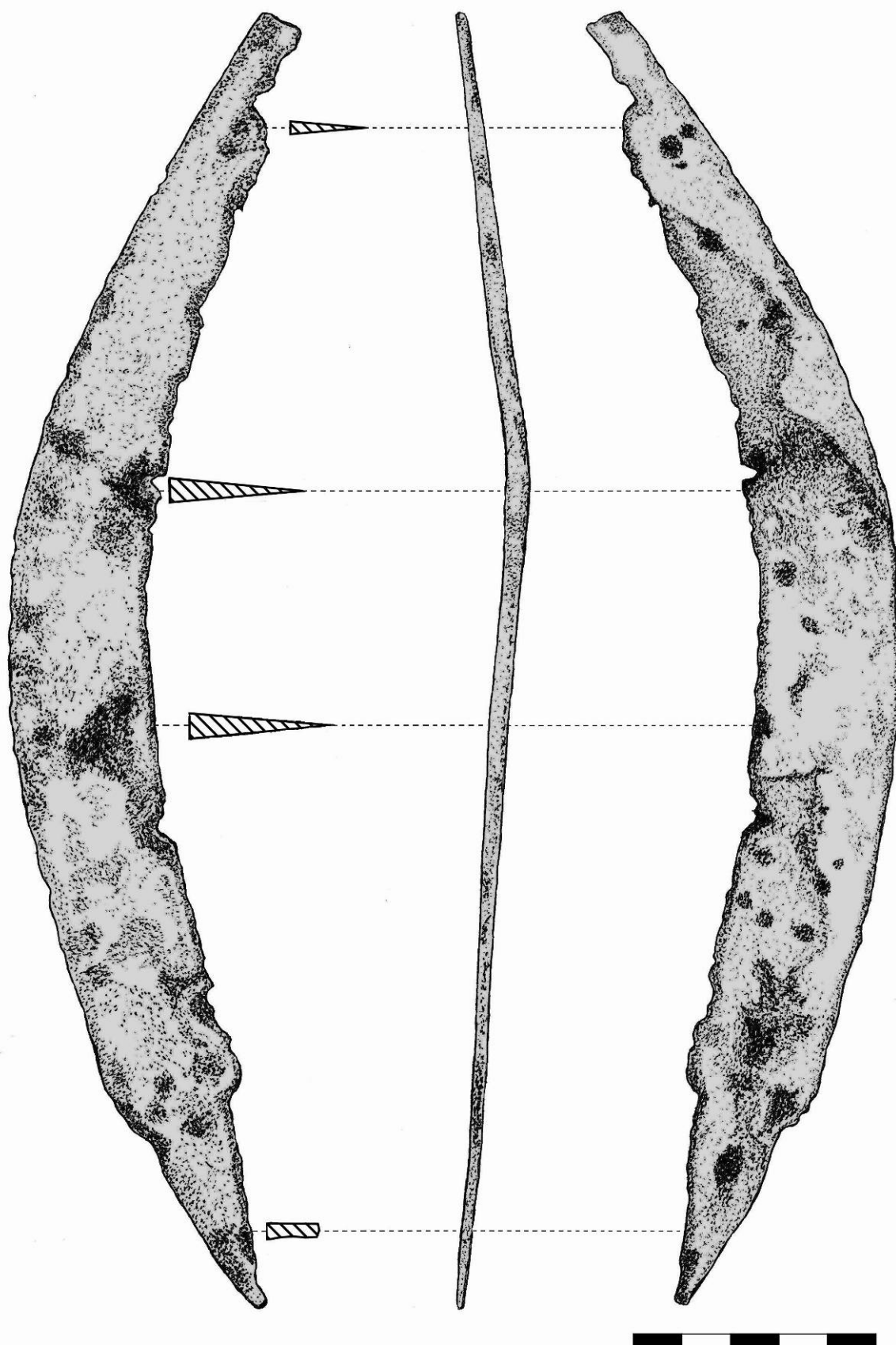


Plate 1

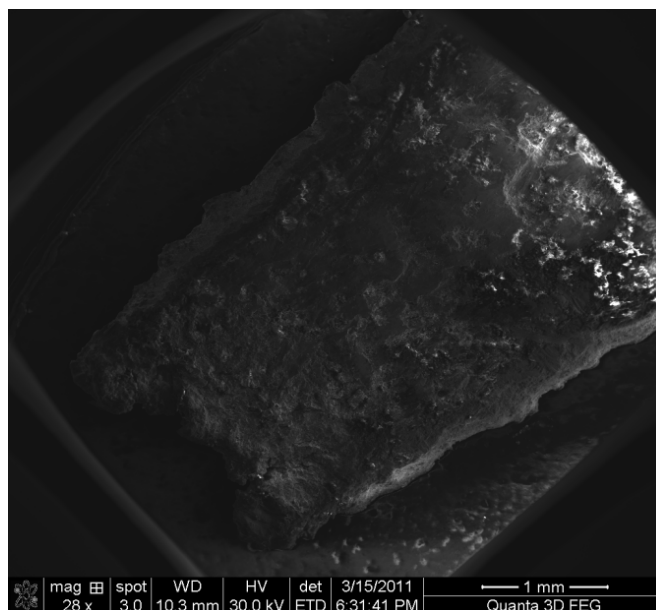


Figure 1.

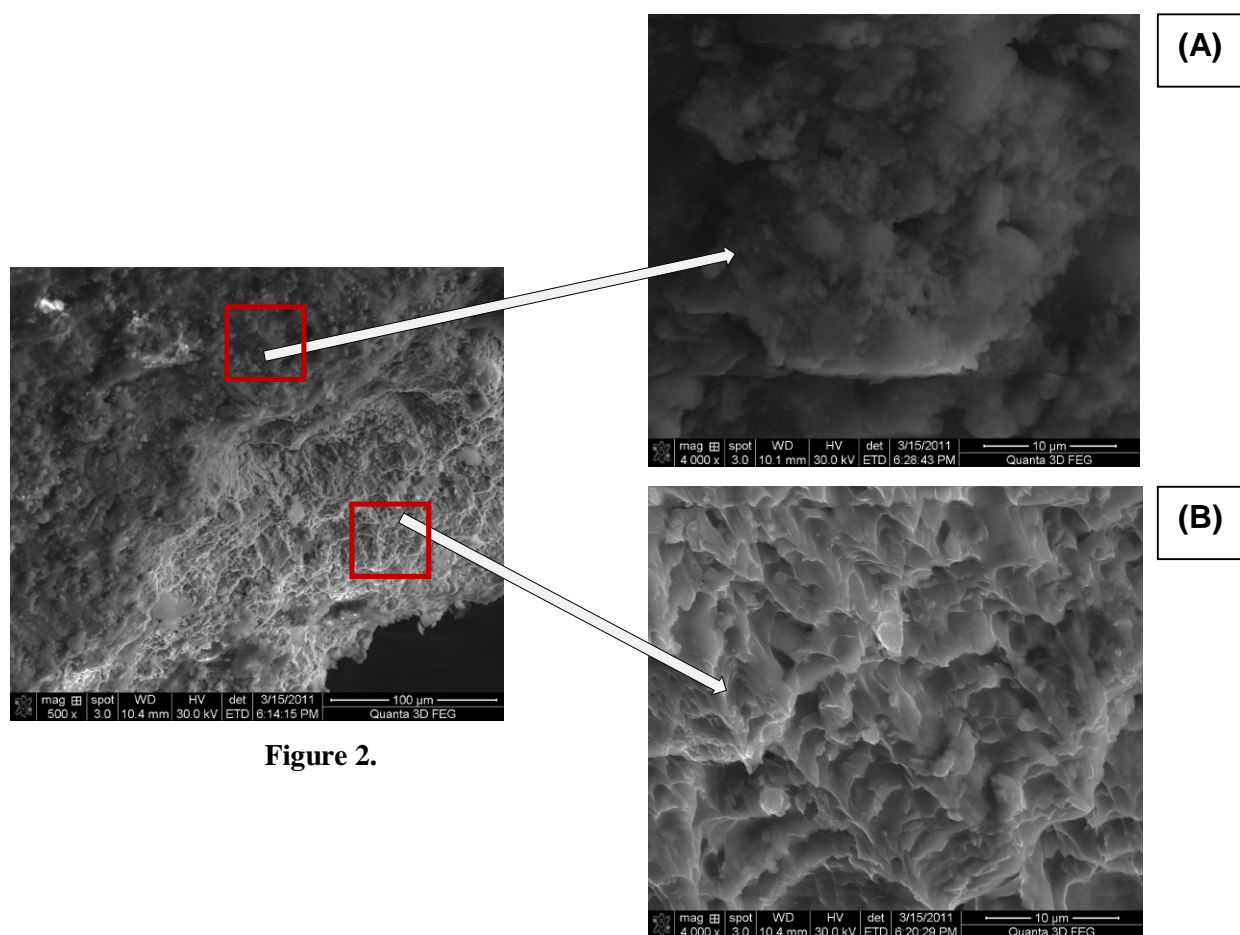
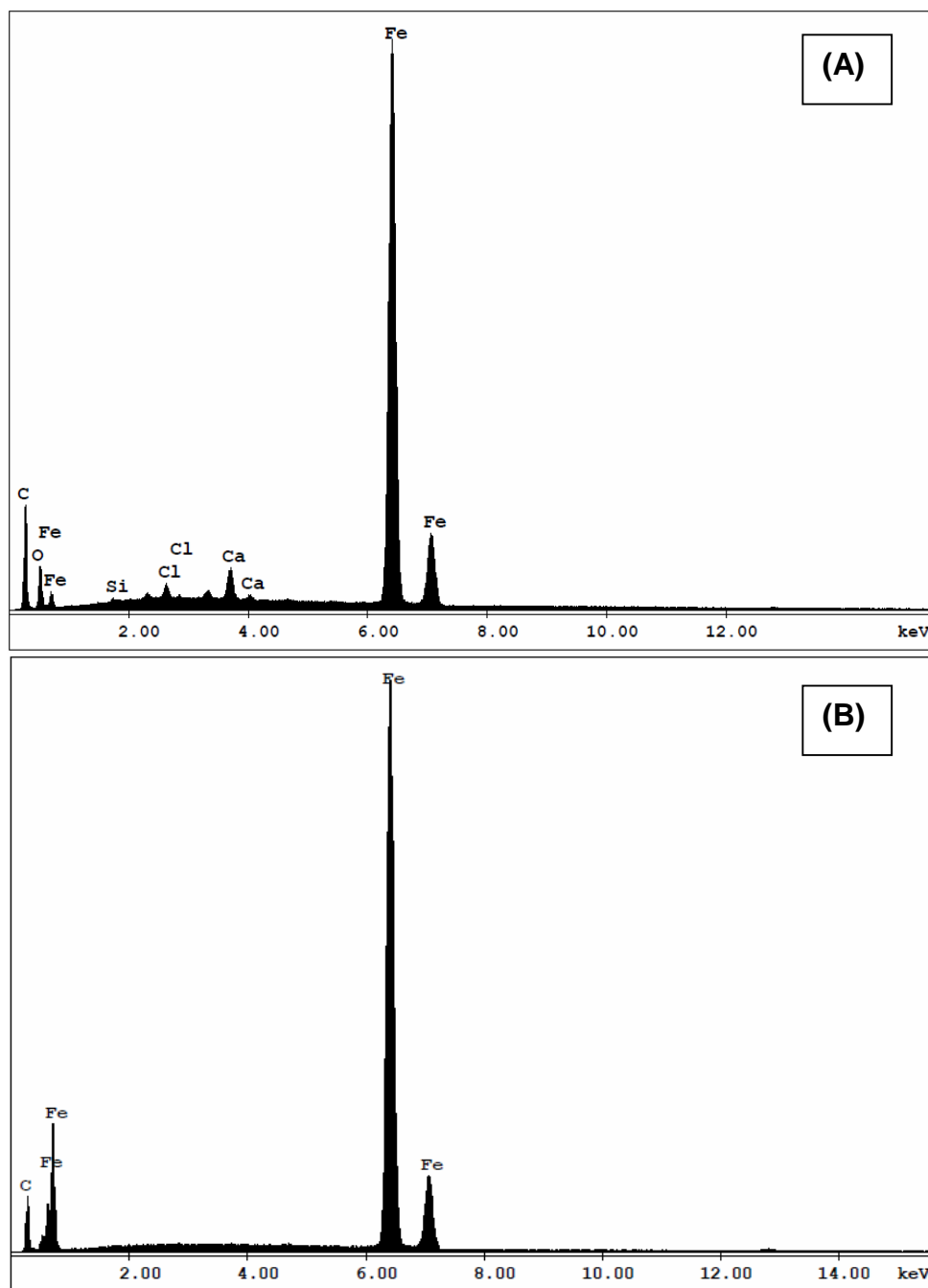


Figure 2.

Figure 3.

Plate 2.



**Plate3.**

**Table 1.**Relative percentage of the sample estimated by EDX analyses.

AREA	ELEMENT (at%)					
	Fe	O	C	Cl	Si	Ca
A	26,6	10,46	61,3	0,46	0,23	0,95
B	43,4	-	56,6	-	-	-





## ISOLATED FINDS OF ROMAN REPUBLICAN COINS FROM BURIDAVA, CONTAINED IN THE COLLECTION OF VÂLCEA COUNTY MUSEUM

**Silviu Istrate PURECE\***

**Abstract:** *The archaeological researches from Buridava (Ocnița, Vâlcea County) have brought to light 40 roman republican coins: 24 isolated finds and 1 hoard with 16 coins. Of those 24 coins we found 18 in Vâlcea County Museum numismatic collection, despite the lack of information from inventory register. From a typological point of view 2 of them are from the second half of II century B.C., 9 from the first half of I century B.C. and 7 from the second half of I century B.C. Is very probable that many of the earliest issues were still in use in the second half of I century B.C., which is one of the most prosperous periods of Buridava's existence.*

**Keywords:** *Buridava, roman republican coins, Dacian settlement, signs on coins*

**Rezumat:** *Cercetările arheologice de la Buridava (Ocnița, județul Vâlcea) au scos la lumină un număr de 40 de monede romane republicane: 24 descoperiri izolate și 1 tezaur ce conține 16 monede. Din cele 24 de monede am reușit să găsim 18 în colecția numismatică a Muzeului Județean Vâlcea, în ciuda lipsei de informații din registrul inventar. Din punct de vedere tipologic 2 dintre ele se încadrează în a doua jumătate a secolului II î. hr., 9 în prima jumătate a secolului I î. Hr. și 7 în a doua jumătate a secolului II î. Hr. Este foarte probabil ca multe dintre emisiunile timpurii să fie încă în uz în a doua jumătate a secolului I î. Hr., care este una dintre perioadele foarte prospere din existența Buridavei.*

**Cuvinte cheie:** *Buridava, monede romane republicane, așezare dacică, semne pe monede*

The Dacian settlement of Buridava (Ocnița, Vâlcea County) is situated on the right side of the Salty Brook, north of Cosota Valley (see plate I), in a small depression surrounded by three hilly peaks. The hill peaks were fortified (named by archaeologists Cetatea 1, 2 and 3) and are placed in a kind of horseshoe which is opened toward Ocnița and the old salt mines (Berciu 1981, 15).

The archaeological researches carried out at Buridava lead to the discovery of 40 roman republican coins (Părpăuță 2003-2005, 90), of which 16 were part of a hoard (Berciu *et al.* 1987, 158-160) and 24 were isolated finds. After researching the numismatic collection of the Vâlcea County Museum we managed to identify the hoard and other 18 isolated found coins, despite the loss of the information from inventory register. The identification of the place these coins came from was done by studying the available archaeological information. In the coin catalog made for those 18 isolated coin finds is mentioned, addition to technical data, the known archaeological context.

### CATALOG OF THE ROMAN REPUBLICAN COINS (see plate II)

#### 1. L. SAVFEIVS

Obverse: X;  
Reverse: L·SAVF/ROMA;  
Crawford 204/1, 152 B.C.;  
D, axis: 6, weight: 2,4 g, diameter: 16,6x18 mm.  
Inventory number: 13813.  
Was discovered in the year 1979, civil settlement, level I, S XXXIX (Berciu 1981, 135).

#### 2. L. SEMPRONIVS PITIO

Obverse: PITIO X;  
Reverse: [L. SEMP]/ROMA;  
Crawford 216, 148 B.C.;  
D, axis: 2, weight: 3,70 g, diameter: 18,5x19 mm.  
Inventory number: 13769.  
Was discovered in the year 1982 in the deposits from northern side of Cetate 1 (Berciu *et al.* 1983, 112).

#### 3. Q. TITIVS

Obverse: Without legend;  
Reverse: /Q. TITI;  
Crawford 341/1, 90 B.C.;

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D, axis: 10, weight: 3,07 g, diameter: 14,4x19,7 mm.  
Inventory number: 4354.  
Was discovered in the year 1966, is not mentioned the archaeological context (Berciu 1981, 132).

**4. Q. TITIVS**

Obverse: Without legend;  
Reverse: /Q. TITI];  
Crawford 341/2, 90 B.C.;  
D, axis: 6, weight: 3,1 g, diameter: 15,9x16,3 mm.  
Inventory number: 1670.  
Is not mentioned the archaeological context and the discovery year (Berciu 1981, 132).

**5. L. TITVRIVS L. f. SABINVS**

Obverse: SABIN;  
Reverse: Q. /L. TI[TVRI];  
Crawford 344/1b, 89 B.C.;  
D, axis: 7, weight: 3,3 g, diameter: 17,3x18,1 mm.  
Inventory number: 13804.  
Was discovered in the year 1978, S XXXVIII, level IIa (Berciu 1981, 132).

**6. L. RUBRIVS DOSSENVS**

Obverse: DOS;  
Reverse: /L. RV]BRI;  
Crawford 348/3, 87 B.C.;  
D, axis: 1, weight: 3,4 g, diameter: 17x18,1 mm.  
Inventory number: 13840.  
Was discovered in the year 1987, S KL II, square 2, depth 1m (Berciu *et al.*, 1988, 178).

**7. L. IVLIVS BVRSIO**

Obverse: Without legend;  
Reverse: /L. IVLI BVRSIO] ?;  
Crawford 352/1 a ?, 85 B.C.;  
D, axis: 6, weight: 3,3 g, diameter: 18,1x19,1 mm.  
Inventory number: 4368.  
Was discovered in the year 1974, S XXV D, level II (Berciu 1981, 132).

**8. L. IVLIVS BVRSIO**

Obverse: Without legend;  
Reverse: LVII/[L. IVL]I BVRSIO;  
Crawford 352/1 c, 85 B.C.;  
D, axis: 12, weight: 3,51g, diameter: 17,7x20 mm.  
Inventory number: 4352.  
Was discovered probably in the year 1974 (Mitrea 1972, p. 367, nr. 42). B. Mitrea mention that the coin is fragmented; certainly this coin was discovered at Buridava, it is mentioned in the inventory register of the Vâlcea County Museum in a group of three coins, two of them being documented with bibliographical references as found in the Dacian settlement.

**9. M. VOLTEIVS M. f.**

Obverse: Without legend;  
Reverse: /M VOLTEI M [F];  
Crawford 385/4, 78 B.C.;  
D, axis: 6, weight: 2,4 g, diameter: 16,6x18 mm.  
Inventory number: 13810.  
Was discovered in the year 1979 in the civil settlement, level IIa, S IX, terrace II (Berciu 1981, 135).

**10. C. CALPVRNIVS PISO L. f. FRUGI**

Obverse: Without legend;  
Reverse: C·PISO L F [FRV];  
Crawford 408/1 a, 67 B.C.;  
D, axis: 5, weight: 3,3 g, diameter: 17,7x18 mm.  
Inventory number: 13814.  
Was discovered in the year 1979 in the civil settlement, level I, S XXXIX (Berciu 1981, 135) (is more probably to be part of level II).

**11. Q. POMPEIVS RVFVS**

Obverse: [SVLLA COS];  
Reverse: [RVFVS COS-Q POM RVFI];  
Crawford 434/1, 54 B.C.;  
D, axis: 7, weight: 3,46 g, diameter: 16,5x17,1 mm.  
Inventory number: 13801.  
Was discovered in the year 1977, S XIV A, L II, level IIb (Berciu 1981, 132).

**12. C. VIBIVS PANSA C. f. C. n. CAETRONIANVS**

Obverse: PANSA;  
Reverse: C VIBIVS C F C N-[IOVIS] AXVR;  
Crawford 449/1 a, 48 B.C.;  
D, axis: 7, weight: 3,46 g, diameter: 16,5x17,1 mm.  
Inventory number: 13805.  
Was discovered in the year 1978 on Colina Sacră, pit 21, in the fine sand layer (Berciu 1981, 133).

**13. CAESAR**

Obverse: CAESAR;  
Reverse: Without legend;  
Crawford 443, 49-48 B.C.;  
D, axis: 2, weight: 2,35 g, diameter: 17,2x17,9 mm.  
Inventory number: 13765.  
Was discovered in the year 1982 in the civil settlement, S XII B/82, depth 1,10m, square 15, level IIa (Berciu *et al.*, 1983, 112).

**14. MARCVS ANTONIVS**

Obverse: M ANTONI-IMP;  
Reverse: [III] VIR R·P·C;  
Crawford 496/1 a, 42 B.C.;

D, axis: 1, weight: 3,36 g, diameter: 16,8x18,1 mm.

Inventory number: 13802.

Was discovered in the year 1977 in house L 3 from the civil settlement, S XIV A, level IIb (Berciu 1981, 133).

#### 15. MARCVS ANTONIVS

Obverse: ANT AVG-[III VIR R P C];

Reverse: ?;

Crawford ?, 32-31 B.C.;

D, axis: 10, weight: 3 g, diameter: 18,5x19 mm.

Inventory number: 4353.

Was discovered in the year 1972 in „Orizontul IV de viitură” (Berciu 1981, 133).

#### 16. MARCVS ANTONIVS

Obverse: [ANT AVG]-III·VIR·R·P·C;

Reverse: LEG ?;

Crawford ?, 32-31 B.C.;

D, axis: 12, weight: 3,14 g, diameter: 18x20 mm.

Inventory number: 4351.

Was discovered in the year 1969 in the civil settlement, level IIb (Berciu 1981, 133).

#### 17. MARCVS ANTONIVS

Obverse: [ANT AVG]-III·VIR·R·P·C;

Reverse: LEG III;

Crawford 544/15, 32-31 B.C.;

D, axis: 9, weight: 3,51 g, diameter: 17x18,2 mm.

Inventory number: 13806.

Was discovered in the year 1978 on Colina Sacră (C1), in pit 23a (Berciu 1981, 133).

#### 18. MARCVS ANTONIVS

Obverse: ANT·AVG III·VIR·R·P·C;

Reverse: LEG·XVII [CLASSI] CAE;

Crawford 544/10, 32-31 B.C.;



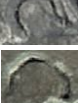

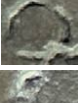









D, axis: 6, weight: 3 g, diameter: 17,3x17,4 mm.

Inventory number: 13770.

Was discovered in the year 1982 on the northern side of Cetate 1, in S A13, square 4, at a depth of 0,30 m, in a mixture of archaeological materials from various times (Berciu *et al.* 1983, 112).

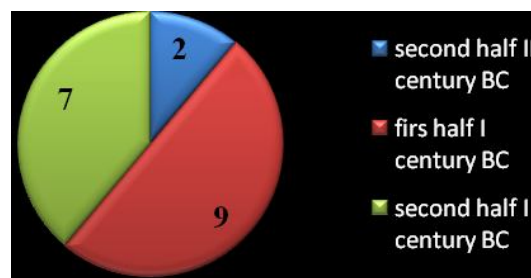
Due to advanced wear noted on most of the coins it was impossible to distinguish with accuracy the form of all incisions present on them. We have to mention some visible interventions that can be connected to metal quality verification or with contra marking phenomenon.

#### SIGNS ON COINS

COIN	SIGN ON OBVERSE	SIGN ON REVERSE
1	A. 	
3	A.  B. 	A. 
4	A.  B. 	
8	A.  B. 	
10	A. 	
12	A.  B. 	A. 
18	A. 	A. 

Of the 18 roman republican total 2 fit, from typological point of view, the monetary issues from II century B.C. (12%), 9 the first half of the I century BC (47 %) and 7 the second half of the I century BC (41 %).

#### CHRONOLOGICAL DISTRIBUTION OF COINS



An important problem connected with the roman republican coin presence in the Dacian space is

generated by the massive copying (Preda 1998, 285-286). Lack of means to identify locally produced pieces can create some chronological problems, coins minted in Rome at the end of II century B.C. could have been copied in I century A.D (Lupu 1967, 102-121). Other chronological problems are generated by long roman republican coin circulation. To correct these chronological problems it is compulsory to associate them with other objects which allow a more precise framing.

At Buridava III main levels of La Tène habitation were identified placed chronologically thus: level I – II century B.C., level II - I century B.C. and level III – I century A.D. Out of the 18 coins we know in which archaeological level were discovered only 9. In level I are mentioned coins number 1 and 10. We consider that in case of coin 10 a typing error was made (Berciu 1981, 135) because the level dating was before this coin

minting moment, while from the level II we know the provenience of 7 coins: 5, 7, 9, 13, 14 and 16.

As we have shown, 16 coins fit, from a typological point of view, the issues from I century B.C. It is possible that the majority of them were in use in the second half of I century B.C., although the report is 9 to 7 in favor of coins minted in the first half of this century. We must take into account this situation also due to the fact that the roman republican coins have, in general, a long circulation period in the area north of the Danube, a fact confirmed also by the intense wear out of many pieces. We think that a large presence of roman republican coins after the first half of the I century B.C may be explained by Buridava's situation after Burebista's power collapse, when it recovered its political and economical independence (Purece 2010, 104-107).

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## LIST OF ILLUSTRATIONS

- Plate I – Location of Buridava  
Plate II – Illustrated catalog of the roman republican coins

## LISTA ILUSTRĂȚIILOR

- Plate I – Localizarea Buridavei  
Plate II – Catalogul monedelor republicane romane



PLATE I

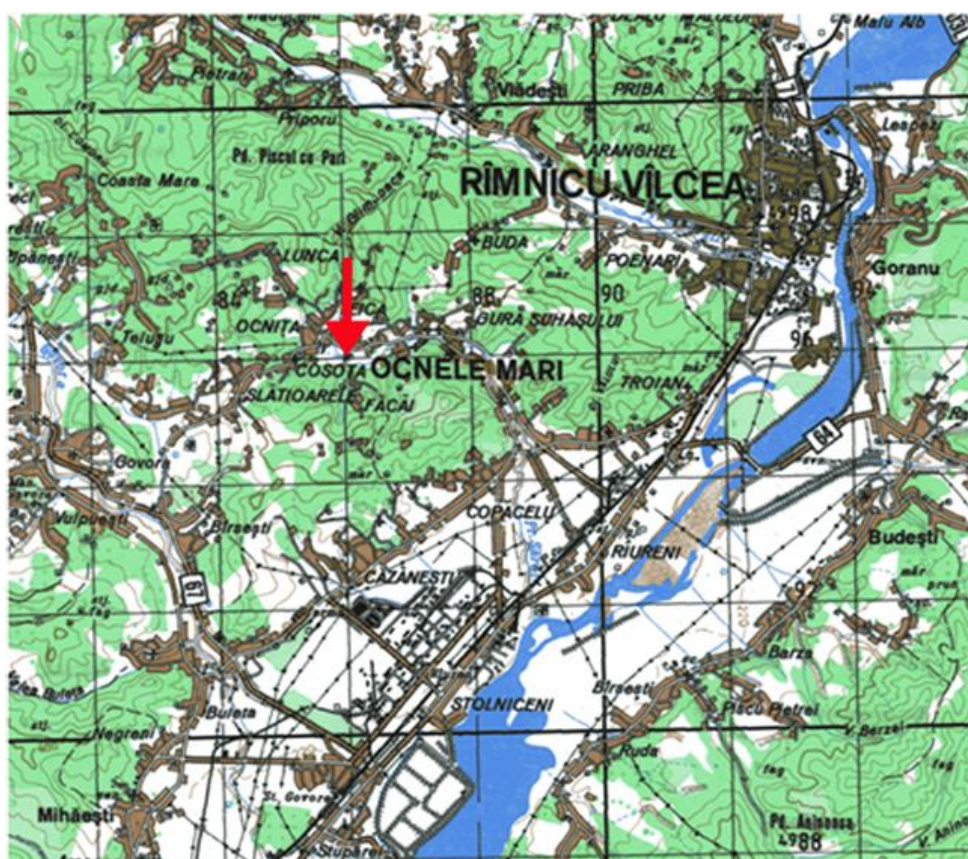


Plate I. Location of Buridava



Plate II. Illustrated Catalog of the Roman Republican Coins



## SEVERAL COIN FINDS FROM TRANSYLVANIA

Claudiu MUNTEANU\*

**Abstract:** *This paper contains informations regarding more than 60 ancient, medieval and modern coins unearthed in Transylvania, in Sibiu, Alba, Hundoara, Braşov and Cluj districts. Some of the items exist in the Brukenthal Museum's numismatic collection while for others only mentions from old inventory registers or publications survived.*

**Keywords:** *coin, ancient, medieval, modern, Transylvania.*

**Rezumat:** *Articolul cuprinde informații referitoare la mai mult de 60 de monede antice, medievale și moderne, descoperite în Transilvania, în județele Sibiu, Alba, Hundoara, Braşov and Cluj. Unele monede se află în colecția numismatică a muzeului Brukenthal în timp ce pentru altele doar mențiuni din registre vechi de inventar sau publicații vechi au supraviețuit.*

**Cuvinte cheie:** *monedă, antic, medieval, modern, Transilvania.*

### Bătrâna, Hunedoara district

In august 1922, in a forest situated near the village, was found a roman imperial coin. The item initially belonged to the ASTRA museum's numismatic collection.

Traian

AE, dupondius, 8,13 g.; 23 x 24 mm.

RIC II 641. Rome, 112 – 114.

Inventory no. T 1286/9542.

### Brateiu, Sibiu district

A roman coin was unearthed in the courtyard of a house from this village.

Antoninus Pius / Marcus Aurelius

AE, sestertius, 26,7 g.; 32 x 34 mm.

RIC 1215. Rome, 140-144.

Inventory no. T 2942.

### Căpâlna, Alba district

In the Mauksch collection, included today in the National Brukenthal Museum's numismatic collection, exists a roman coin unearthed in this village or in its vicinity:

Hadrian ?

AE, sestertius, 17,5 g.; 31 x 32 mm.

Inventory no. T. 3521.

The item cannot be catalogued because of the precarious conservation status.

### Cârțișoara, Sibiu district

In in this village or in its vicinity was found, in the 19th century, a „greek” coin, as mentioned in an old inventory register. The item was probably ancient. No other informations are available.

### Cîrța, Sibiu district

During archaeological excavations at the Cistercian Abbey in 1983 and 1985, several medieval coins were found:

Austria

Leopold (1658 - 1705)

AR, 1 kreuzer, 0,55 g.; 13,7 x 15 mm.

WCoins a, KM# 1136, variant. Hall, second half of the 17th century.

S XXVII or XXVIII in the church (*passim*).

Inventory number T 1957.

Hungary

Stephen V (1270-1272)

Ban Joachim Pectari (1270-1272)

AR, denarius pro Sclavonia, 0,85 g.; 15,4 mm.

Rengjeo 139.

S VIII B, C. 1, - 0,60 m.

Inventory number A 9744.

Wladislaw II (1490-1516)

AR, denarius, 0,51 g.; 14,5 mm.

Huszár 811. Kremnitz, 1511.

Courtyard ?, S XXXVI, - 0,20 m.

Inventory number T 1956.

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Rudolf II (1576-1608)

AR, denarius, 0,42 g.; 15,1 x 16,4 mm.

Huszár 1059. Kremnitz, 1586.

S XXX, C 8 ?, - 0,70 m.

Inventory number T 1960.

Leopold (1658 - 1705)

AE, denarius, 0,45 g.; 14,4 x 15,1 mm.

Huszár 1509. Kremnitz, 168(?).

S XXIX, m 4,35; - 0,65 m. Perforated.

Inventory number T 1958.

#### **Cincu Mic (Cineşor), Braşov district**

In the Brukenthal National Museum's collection exists a roman denarius, found there probably in 1907.

Caracalla

AR, denarius, 2,83 g.; 19 x 20 mm.

RIC IV/1 196. Rome, 212.

Inventory no. T 1285/3415.

#### **Găbud, Alba district**

In a letter of Samuel von Brukenthal dated 1781 is mentioned the discovery of 5 coins of „trajanic origin”. No other informations are available (Schaser 1848, 121sq).

#### **Miercurea Sibiului, Sibiu district**

In the 19th century, a dupondius issued by Hadrianus was found. No other informations are available.

#### **Muncel, Alba district**

In the northern part of the village („între vii”), a medieval coin was found in 1953:

Gdansk

Sigismund I (1506 - 1548)

AR, III grossus, 1,96 g.; 20,5 mm.

Gumowski 571. Year 1538.

Inventory no. T 1285/10854.

#### **Orlat, Sibiu district**

In 1914 was found a medieval coin in the place called „La moară”.

Riga

Sigismund III (1587 - 1632)

AR, III grossus, 2,19 g.; 22 mm.

Gumowski 1453. Year 1594.

Inventory no. T 1285/10860.

#### **Răşinari, Sibiu district**

Bohemia

Leopold (1658 - 1705)

AR, 3 kreutzer, 1,47 g.; 22,7 mm.

WCoins a KM# 590. Prague, 1700.

Archaeological excavations conducted by dr. Petre

Beşliu-Munteanu, 1986, S III, - 0,20 m.

Inventory number T 2004.

#### **Sălişte, Sibiu district**

During archaeological excavations in 1985-1988, conducted by dr. Petre Beşliu-Munteanu (Munteanu Beşliu 1989, 14-21), several medieval and modern coins were found:

Silesia

Joseph I (1705 - 1711)

Billon, 3 pfennig, 0,45 g.; 15,3 x 15,7 mm.

WCoins b KM# 678. Breslau, 1705.

S VI, in the filling.

Inventory number T 1994.

Poland

Sigismund III (1587 - 1632)

AE, dreipöcker, 0,81 g.; 18,9 x 19,1 mm.

Gumowski 972. Cracow, 1622.

Inventory number T 1984. Perforated.

Hungary

Ferdinand (1526-1564)

AE, denarius, 0,22 g.; 14 x 14,9 mm.

Huszár 935. Kremnitz, year ?.

Mass grave or pit (?) (Munteanu Beşliu 1989, p. 18). Fragmented.

Inventory number T 1975.

AE, denarius, 0,25 g.; 15,6 x 11,5 mm.

Huszár 937. Kremintz, 1529 or 1530.

S II, C 4, -0,70 m. Fragmented.

Inventory number T 1976.

Matthia II (1608-1619)

AE, denarius, 0,32 g.; 14,1 mm.

Huszár 1139. Kremnitz, 1611.

S I, C 1, - 0,95 m, on the threshold floor added to the latest church - no. 3 (Munteanu Beşliu 1989, p. 18sq.). Perforated.

Inventory number T 1977.

Leopold (1658 - 1705)

AE, 1 kreuzer, 0,66 g.; 17,5 x 15,7 mm.

Huszár 1498. Košice/Kaschau, 1695.

Inventory number T 1982.

AE, denarius, 0,64 g.; 14,3 x 15,4 mm.

Huszár 1509. Kremnitz, 1694.

S I, C 3, -1,05. Fragmented.

Inventory number T 1978.

Joseph II (1780 - 1790)

AE, ein kreutzer, 8,39 g.; 23,9 x 24,1 mm.

Huszár 1896. Schmöllnitz, 1790.

Inventory number T 1991.

Transylvania

Gabriel Bathory (1608-1613)

AE, 3 grossus, 0,67 g.; 18,1 x 18,9 mm.

MBR 1015. Baia Mare, 161Z.

Inventory number T 1980.

Maria Theresia (1740 - 1780)

AE, pfenig, 2,28 g; 18,7 mm.

MBR 3062. Alba Iulia, 1764.

Inventory number T 1990.

AE, ein greschl, 7,07 g; 22,4 mm.

MBR 3056. Alba Iulia, 1764.

Inventory number T 1981.

Franz von Lothringen († 1765)

AE, ½ kreutzer, 4,57 g.; 21,4 x 22,9 mm.

Huszár 1826. Alba Iulia, 1764.

Inventory number T 1979.

AE, ½ kreutzer, 5,1 g.; 21,1 x 21,4 mm.

Huszár 1826. Alba Iulia, 1764.

Inventory number T 1992.

Joseph I (1705 - 1711)

AE, poltura, 0,72 g.; 18,5 mm.

MBR 2749 – 2750. Hermannstadt, 1707.

Inventory number T 1993.

### Sibiu, Sibiu district

9 medieval and modern coins were unearthed in the last decades in different locations of the city.

*Old City Hall (Altemberger house)*

Württemberg-Öels

Christian Ulrich von Bernstadt (1664-1704)

AR, groeschl (3 pfennig), 0,51 g; 15,3 x 15,8 mm.

WCoins a, KM# 58. Bernstadt, 169(?).

Archaeological excavations conducted by dr. Petre Beşliu-Munteanu, 1984, S II, C 4, -0,50 m.

Inventory number T 2005.

*Azilului Church ?*

Hungary

Carol Robert de Anjou (1308 - 1342)

Ban Mikac Mihaljević (1325 - 1343)

AR, ½ denarius pro Sclavonia, 0.17 g.; 10 mm.

Rengjeo 384.

Bishopric Salzburg

AR, 3 kreutzer, 1,49 g.; 20 mm.

WCoins a, KM# 249, 1689.

Silesia

Leopold (1658 - 1705)

AE, 3 pfennig, 0,57 g.; 15 mm.

W Coins a, KM# 594. Brieg, 1696.

AR, 1 kreutzer, 0,74 g.; 15 x 16 mm.

W Coins a, KM# 612. Oppeln, 1699.

*Şelarilor st.*

?

AE, dreipölker ?, 0,55 g.; 17 x 18 mm.

Illegible, 17th century.

Archaeological excavations conducted by dr. Petre Beşliu-Munteanu, 2008, S III, - 0.60 -0.70 m.

Transylvania

Maria Theresia (1740 - 1780)

AE, ein greschl, 8 g.; 22 mm.

MBR 3100. Alba Iulia, 1765.

Archaeological excavations conducted by dr. Petre Beşliu-Munteanu, 2008. The item was unearthed in a level in which rubble and green-glazed pottery fragments mixed, over the remains of a wall situated in a courtyard.

Hungary

Maria Theresia (1740 - 1780)

AE, Ein kreutzer, 7,3 g.; 24 mm.

Huszár 1763. Velká Baňa, 1780.

Archaeological excavations conducted by dr. Petre Beşliu-Munteanu, 2008, S II, - 0.30 m.

*Manejului st.*

Austria

Joseph II (1765 – 1790)

AE, Ein kreutzer, 8,2 g.; 24 mm.

WCoins a, KM# 2056. Viena, 1781.

Archaeological excavations conducted by dr. Petre Beşliu-Munteanu, 2008, C ?, - 0.70 m.

### Sibiu - Guşteriţa, Sibiu district

Before 1907, in Guşteriţa was found this coin:

Hungary

Leopold I (1657 - 1705)

AE, XV kreutzer, 3,66 g.; 30 mm.

Huszár 1430, variant. Kremnitz, 1696.

### Sibiu - Turnişor, Sibiu district

In 1887, in the National Brukenthal Museum's numismatic collection entered 2 denarii found in or near the village of Turnişor. It is unknown if the



coins were ancient or medieval and nowadays cannot be identified in this collection.

#### **Șeica Mică, Sibiu district**

In the place called *Cetatea Veche* (*Cetate, Alte Burg*), well-known in the scientific literature for a number of discoveries belonging to several epochs, from neolithic to medieval (RepArhSB, no. 5, 211), were found in the last decades these coins: a 3 grossus issued by Sigismund Bathory, 2 of 6 polish grossus and another 2 (3 and 15 kreutzer) issued by Leopold I. Another 3 heavily oxidized and 2 fragmentary coins were also issued in the 17th – 18th century. All the coins belong to a local private collection.

#### **Târnăvioara, Sibiu district**

In the 19th century, a silver denarius was found in or near this village. It is unknown if the item was ancient or medieval.

#### **Tiur - Blaj, Alba district**

For the National Brukenthal Museum's numismatic collection was recently acquired a silver thaler unearthed in april 2008 at Tiur – Blaj. The item was unearthed during works in the garden of the house no. 101 by owner Frățilă Traian.

Rudolf II Habsburg (1575 – 1612)

AR, thaler, 27,44 g.; 40 mm.

WCoins b, KM# 37.4, variant.

Hall, 1612.

#### **Turda, Cluj district**

In the National Brukenthal Museum's numismatic collection exist 3 ancient coins found in this site:

#### **PROVINCIA DACIA**

Philippus Arabs

AE, sestertius, 16,22 g.; 26 x 27 mm.

Martin 2.51.1. Local year I.

Inventory no. T 1326/1.

#### **PROVINCIA DACIA**

Philippus Junior

AE, sestertius, 14,64 g.; 26 x 27 mm.

Martin 2.83.3. Local year I.

Inventory no. T 1326/2.

Crispina

AE, sestertius, 18,89 g.; 29 x 30 mm.

RIC III 665. Rome, 180 – 182.

Inventory no. T 1326/3.

#### **Țapu, Sibiu district**

In the 19th century, a denarius was found in or near this village. It is unknown if the item was ancient or medieval.

#### **Valea Viilor, Sibiu district**

Three medieval and modern coins were found in the proximity of the village in the last decades.

Poland

Alexander Jagello (1501 -1506)

AR, ½ grossus, 0,65 g.; 1,7 x 1,8 cm.

Gumowski 469. Cracow, 1501 -1506.

Hungary

Francisc Rácóczy (1703 - 1711)

AE, poltura, 0,99 gr.; 2,1 x 2 cm.

Huszár 1550. Kremnitz, 1707.

Transylvania

Gabriel Bethlen (1613 - 1629)

AR, breiter groschen, 1,72 g.; 2,3 cm.

MBR 1788 – 1819. Baia Mare, 1627.

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## THE “CORE-PERIPHERY” THEORY. A CRITICAL PERSPECTIVE\*

Zsolt MOLNÁR\*\*  
Vlad ȚOCA\*\*\*

**Abstract:** *The article presents the problematic of the core-periphery model and the world system theory. Discussions around this model have generated a long lasting polemical discussion among large number of European and other scholars, coming from various fields. The present study analyzes the original theory elaborated by Immanuel Wallerstein, it's theoretical reception and its adaptation for historical or archaeological analysis. We are convinced that using the possibilities for interpreting offered by the “core-periphery” model would benefit Romanian archaeology.*

**Key words:** *History, Archaeology, Core-periphery model, World system theory*

**Rezumat:** *Articolul Teoria centru-periferie. O perspectivă critică prezintă problematica complexă legată de teoria sistemului mondial și de modelul centru-periferie. Dezbaterile științifice a modelului interpretativ în cauză, a angrenat într-o lungă polemică majoritatea specialiștilor europeni și nu numai, indiferent de orientarea și opțiunile lor teoretice. În articol am analizat modelul interpretativ elaborat de Immanuel Wallerstein, receptarea științifică și adaptarea lui la cerințele analizei istorice și arheologice. Suntem convinși că utilizarea posibilităților de interpretare oferite de modelul „centru-periferie” ar fi în beneficiul arheologiei românești.*

**Cuvinte cheie:** *Istorie, Arheologie, model centru-periferie, teoria sistemului mondial*

### Introduction

The historical study of contacts between complex societies offers new perspective for interpreting and understanding the social evolution of the human communities.

Multiple attempts at explaining the socio-economical differences between a city and the territories under its authority, between “civilised” and “barbarian” states, or the inequalities between Eastern and Western Europe have developed a series of models and theoretical concepts. (For the theoretical and dialectical analysis of the notion of global inequality see: Alker 1981, 69sq; the comment refers to Alker 1981, 73).<sup>1</sup>

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<sup>1</sup> Analyzing the Wallerstein's modern world system conception the author synthesized: “... in a creative extension of the dialectical tradition, he argues that the power-balancing politics and the globalizing capitalist economy of the sixteenth and seventeenth centuries reinforced each other, since the absence of hegemonic political power meant a greater, less-burden- some reliance on migration, trade and investment

Scholars, in their effort to explain complex global interactions among societies at different temporal horizons have used one of the most intriguing models, the “core-periphery” model. At the same time, this theory also refers to the ways in which these contacts have influenced the evolution of economic, political and social structures of those communities.

Discussions around this model have generated a long lasting polemical discussion among large number of European and other scholars, coming from various fields (Hall 1999, 3sq; Great deal of work was realized about the geographic and spatial aspects of the world-system and it's dynamic see Flint, Shelley 1996, 496sq; the cyclical processes of the world-system, the social relationships of the non state people and the world-system see Dunaway 1996, 455sq; Hall 1983, 582sq; Hall 1986, 390sq; Hall 1991, 212sq; Peregrine 1992, Peregrine 1996, 486sq or the approaches which extend the world-system into the distant past see Chase-Dunn, Hall 1993, 851sq; Chase-Dunn Hall, 1994, 257sq; Chase-Dunn Hall, 1997; Blanton *et*

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relationships for economic expansion”. This paper has been written as part of the CNCSIS IDEI Program: The Phenomenology and Dynamics of the Built Environment. Integrated Research of Historical Heritage and Core-Periphery Relations in Central Transylvania. Code ID\_2248. We thank the grant offering institution for this opportunity.

all 1997; Peregrine, Feinman 1996; Sanderson 1995, 2sq; Frank, Gills 1993, 3sq etc.).<sup>2</sup> For almost five decades the historical academic community has debated over this theory, making it unique from a phenomenological point of view.

The model elaborated by Immanuel Wallerstein includes different entities with which he operates in major political and economic categories (Wallerstein 1974a; Wallerstein 1980). Based on concepts such as “*Weltwirtschaftssystem*” (Röig, 1933)<sup>3</sup>, “*économie-monde*” (Braudel 1985, 216sq)<sup>4</sup> or that of “dependency” (Frank 1967; the comment refers to Marx 1960; Lenin 1968)<sup>5</sup>, the world economic system is, in Wallerstein’s view, made of large economic systems woven in a dynamic economic network.

Developments in the field of historical and archaeological research in the 1960’s, such as the new anti-diffusionist theory (For processual archaeology see: Willey, Phillips 1958; Clarke 1972 Ed.) has opened up new and uncharted horizons (Renfrew, Bahn 1999, 36sq). Attempts at laying out general rules of historical development have led to an early appropriation of Wallerstein’s economic system. In spite of the fact that the author recognised the limits within which his ideas can be applied, many scholars have used it for the distant past, beginning with the Bronze Age (For works related to this subject see: Rowlands *et alii*, 1987 (Eds.), Champion 1989a (Eds.); Frank, Gills 1993a (Eds.); Denmark, Friedman, Gills,

Modelski 2000 (Eds.); Hornborg, Crumley 2007 (Eds.).

The Romanian scientific community did not adopt this model. In its discourse intuitive observations have overtaken real knowledge in the fields of history and archaeology. The only book on the subject – coordinated by Corneliu Gaiu and Horia Bodale (Gaiu, Bodale 2004) – treats the relationship between “core” and “periphery” from prehistory until the end of the 20<sup>th</sup> century. Although a remarkable feat, this experiment reveals a Romanian historical school unfamiliar with theoretical approaches that have made a large impact upon world scholarship (Gogâltan 2004a, 7sq).

The idea for writing the present study is a normal reaction at the above-mentioned omission. We are aware that our approach will not radically change the perception of social relations and models of interaction of human communities in different historical periods. In spite of this, we consider that re-evaluating this topic and the most important contributions to the theory of “core-periphery” relationships offers the possibility of an in-dept approach of this subject and projecting it in the attention of historical discussions. In our study we will analyse a series of concepts such as “world systems”, “core-periphery”/“core-periphery-margins” or the “global system theory”.

*Wallerstein’s “Core-periphery” Model and the World System Theory*

The usage, with multiple significations, of the terms “core” and “periphery” in European literature, dates from the end of the 19<sup>th</sup> century (Champion 1995, 2sq).<sup>6</sup> The superiority of the developed states, the differences between cities and rural territory, between Western and Eastern Europe, between areas that have had a rapid development and those that remained underdeveloped, have been explained through these notions. Immanuel Wallerstein’s uncontested contribution brings together all these ideas in his work: *The Modern World-System. Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*. (Wallerstein 1974a; Romanian translation Wallerstein 1992; For its critical reception see

<sup>2</sup> A major mistake – one that is typical for the studies which criticize the world-system theory and the core-periphery model – is to assume that to have read one or more works of Immanuel Wallerstein’s about the world-system topic is enough to understand the whole perspective of the problematic. The world-system perspective can no longer be associated solely with his work.

<sup>3</sup> Concept coined by Fritz Röig in the 1930’s.

<sup>4</sup> “*Économie-monde*”, a concept coined by Fernand Braudel, referred to an economic entity that crosses political boundaries. It comprised several regional systems connected by a vast network of commercial exchanges. The idea has been appropriated by Wallerstein and further developed in his concept of “world-economy”. Differing from Braudel, for whom the term “*économie-monde*” meant the economy of a world (such as the Mediterranean), Wallerstein’s analysis refers to the modern world system, which is the birth and development of capitalism. Wallerstein noted that the modern world system has the power to assimilate all of the existing worlds, so that the economies of the different worlds are melted together into a world economy (that of capitalist Europe).

<sup>5</sup> Andre Gunder Frank, illustrating the core-periphery relation’s specificity, points out that the development of some regions is proportional with the underdevelopment of others, thus creating an antagonistic relationship. These theories have been strongly influenced by Karl Marx and Vladimir Ilyich Lenin’s ideas about capital and exploitation.

<sup>6</sup> A short review of the use of these concepts by European scholarship beginning with the end of the 19<sup>th</sup> century see T. C. Champion’s foreword to *Centre and Periphery. Comparative Studies in Archaeology*.

Garst 1985).<sup>7</sup> The author has also discussed, in his following works, the theory of a world system characterised by “core-periphery” relations existing between zones with a certain degree of economic, political and social development. (Wallerstein 1974b; Wallerstein 1980. For the Romanian Translation see Wallerstein 1993; Wallerstein 2004; A brief presentation of the theories influencing Wallerstein can be found in DuPlessis 1988).<sup>8</sup>

Meant to explain the rise and dispersion of capitalism (Wallerstein 1993, vol. 3, 11sq)<sup>9</sup> in the early modern period (Wallerstein 1992, vol. 1, 44sq)<sup>10</sup>, analyses based on the “world system” model – from a methodological point of view – represents a theoretical framework for the connections existing between societies that have already been proven empirically (Chase-Dunn, Hall 1993, 858).<sup>11</sup> The world system is a structure dependent on resources, and characterised by the division of labour, and specific production and commercial relations. Wallerstein distinguishes between three regions: core, periphery and an intermediary zone, geographically positioned between the two. The distinctive features of regional differences are: economic opportunities, labour relations, the level of technological knowledge, the intensity of commercial relations

and, last but not least, the political and military might (Wallerstein 1992, vol. 2, 282sq).<sup>12</sup>

According to Wallerstein’s theory the “core” (Wallerstein 1992, vol. 1, 100sq)<sup>13</sup> exploits the periphery according to its particular needs, thus the geographical area of the periphery is meant just for the recruiting of labour and for the exploitation of resources (Wallerstein 1992, vol. 2, 280).<sup>14</sup> In spite of this, their economic relation is one of interdependence, the centre’s need for raw material is met by the periphery’s elite need for luxury products (Wallerstein 1992, vol. 1, 47; the comment refers to Schneider 1977).<sup>15</sup> The “contact zone” – a region geographically nearer to the centre and more developed – a binding element between core and periphery, is meant to reduce the tensions existing at the two poles (Wallerstein 1992, vol. 2, 283).<sup>16</sup> The theory of the modern world system is based on two main concepts: the existence of a hierarchical relation between core and periphery and the notion of world labour division among societies (Chase-Dunn, Hall, 1993, 853; the comment refers to Wallerstein 1992, vol. 2, 290).<sup>17</sup>

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<sup>7</sup> The book is one of the most widely quoted books in the field of social and historical sciences; it generated numerous debates in sociology, political economy and history.

<sup>8</sup> For Wallerstein, the modern world system is a world economy because “the fundamental bond between the system’s parts is of economic nature, although it has been strengthened to a certain extent by cultural relations and, eventually, by political arrangements”.

<sup>9</sup> The American scholar believes that capitalist world economy was born in Europe during “the long 16<sup>th</sup> century” (the concept, borrowed from Fernand Braudel, covers the time span between 1450 and 1640) and, from that moment on, it has spread and it reshaped itself, until it covered the whole world.

<sup>10</sup> In the author’s opinion the three essential factors for the birth and evolution of the European world economy have been: geographical discoveries (which have given way to the European powers’ expansion beyond the continent’s boundaries), differentiated methods of organising labour (for different products and different production zones) and the rise of centralised states, with a strong state apparatus.

<sup>11</sup> Wallerstein uses the concepts of “world system” and “world economy” in order to characterise a system that appeared in Europe at the end of the 15<sup>th</sup> century and the beginning of the 16<sup>th</sup>, an economic entity that included states and empires. The term “world system” does not imply that this economic entity comprises the whole world, instead it is meant to emphasise its expansion, which surpasses any other existing political or legal entity.

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<sup>12</sup> The hypothesis according to which the development and underdevelopment process is acting in a strong relation with the capitalist system, so that only some parts of the world economy (cores) can further be developed, has its origins in the dependency theory. This theory states that continuous development of a region leads in turn to the underdevelopment of others, through unequal commercial exchange.

<sup>13</sup> England, the Low Countries and France “the 16<sup>th</sup> century”, examples given by Wallerstein.

<sup>14</sup> Functional and geographical division of world labour, because of labour’s social organisation discrepancies and the unequal distribution of duties, differences in development between the components of a world system are widened.

<sup>15</sup> The author argues that commercial exchanges and exchange relations represent a pillar of the world economic system. Wallerstein is sceptical about the role played by the exchange of luxury products, a fact generally criticised in reviews of his works.

<sup>16</sup> “These middle areas partially deflect the political pressures that groups situated mainly in peripheral areas could therefore direct towards the states situated in the centre and of the states acting in and through the mechanism of these states”. The system is dynamic. Because of economic expansion, the two poles can reverse themselves; the dependency relations can be modified and sometimes changed. Former central areas or old peripheries that have acquired this superior status can become “buffer zones” of world economy.

<sup>17</sup> Central states of a world economy are characterised by great concentration of capital, production of goods that require an advanced technology, higher wages and making a profit from a diversified production. They find themselves in a stark contrast from peripheral zones characterised by a much less diversified production (often monocultures), low quality goods and a relatively weak state apparatus. In Wallerstein’s view in the absence of these differences that facilitate an effective functioning of the trans-national entities, the world economy would falter and fail.



Wallerstein argues there is no such thing as a “world economy” before the beginning of the modern era, but has an ambiguous position, stating that there have been precedents (Wallerstein 1992, vol. 1, 24sq; the comment refers to Wallerstein 1992, vol. 1, 100).<sup>18</sup> In search for a measure for his analysis the author sees the world economy as a social system having a certain life span (Wallerstein 1993, vol. 3, 189sq; the comment refers to (Frank 1993, 278sq))<sup>19</sup> and clearly defined borders, characterised by specific structures, group affiliation, conflicts, rules of legitimisation and coherence (Wallerstein 1992, vol. 2, 279sq).<sup>20</sup> The term “world” being used rather to offer the system a temporal and spatial dimension (Wallerstein 1992, vol. 2, 281sq),<sup>21</sup> incorporating a series of political entities (Wallerstein 1992, vol. 2, 212sq),<sup>22</sup> value systems and cultural groups (Wallerstein 1993, vol. 3, 53sq; the comment refers to Kohl 1987, 13sq; Kohl 1989, 218sq).<sup>23</sup>

<sup>18</sup> Wallerstein states that the existence of “world economy” relations before the modern era always led to the creations of empires (China, Persia, and Rome). The author argues that because of capitalism’s techniques and technologies, modern world economy has developed without giving birth to new political structures that comprised it because “economic decisions are oriented first of all towards the arena of world economy, while political decisions are oriented towards smaller structures”.

<sup>19</sup> Andre G. Frank believes that a world system “pulsates” when expanding or contracting, stages that bring along modifications of the entities within the system. In Wallerstein’s view, in order to identify the system’s cycles of expansion and regression, one must analyse the production level, work force’s occupation degree, demographic index, productivity rate etc.

<sup>20</sup> Wallerstein identifies two types of social systems: subsistence economies, small in scale but having a greater autonomy (having well defined political and economical boundaries, a limited and basic labour division and reciprocity-based commercial exchanges) and world systems made of complex production and exchange networks.

<sup>21</sup> A world economy’s size and expansion rate depend on its level of technological advancement, especially the one on the transportation and communication capacities within its boundaries.

<sup>22</sup> Within a world economy the political entities are integrated in three different zones depending on the degree of their development and the role they play in the world’s labour division: the states at the core, the peripheral zones and the semi-peripheral areas. In Wallerstein’s view these zones were initially surrounded by the world economy’s “external zones” with which it has some commercial contacts, mostly related to commerce with luxury goods, zones that have been gradually integrated in the system.

<sup>23</sup> Wallerstein’s idea, according to which “world economies” preceding the pre-modern era have been extremely unstable structures, is invalidated by the existence and thriving for a relatively long period of prehistory (the Bronze Age) of a world economy in western Asia, that was larger than any given political structure.

Supporter of Wallerstein’s theory, Thomas D. Hall sees the world system as having a marked social and political dynamics, which periodically integrate certain geographical areas. The stages of integration (Hall 1999, 255)<sup>24</sup> in a world system, respectively, the demarcation lines between these, are determined by indicators such as: bartering of products, political and military interactions between societies, geographical boundaries of the prestige goods economy and systems of information. Hall is convinced that the modern world system is different from the ones preceding it by the fact that it has the technology capable of sustaining the systems augmentation. The World-system theory in fact is a highly political approach to the problem of economic development. Created by policy-oriented intellectuals in its contemporary American form, world-system theory has broadened into a more purely academic enterprise designed to explain the historical rise of the modern West, and provides theoretical and ideological support for a “new international economic order” (Chirot, Hall 1982, 81).

The reception of Wallerstein’s theory, generally received with enthusiasm, was also met by criticism (Skocpol 1977, 1075sq; Garst 1985, 469sq; Denemark, Thomas 1988, 47sq). In Robert DuPlessis’ opinion, the rigid division in core, periphery, semiperiphery or contact zone makes the understanding of the specific internal evolution of each and every area difficult (DuPlessis 1988, 227).<sup>25</sup> Jane Schneider’s review of Immanuel Wallerstein’s work argues that applying the theory beginning with the modern era is restrictive (Schneider, 1977, 21sq; the comment refers to Wallerstein 1992, vol. 1, 47).<sup>26</sup>

We can state that the world system theory, with its relations between centre and periphery offers a framework for analysis and a coherent model for the interpretation of socio-political contacts.

Wallerstein’s Model. Theoretical reception and its adaptation for archaeological analysis.

<sup>24</sup> The author proposes four stages of integration.

<sup>25</sup> “The procrustean categories of core, periphery and semi-periphery fail adequately to theorize or explore the specific trajectories of diverse areas, neglecting critical factors that helped determine the uneven development characteristic of even the capitalist heartlands”.

<sup>26</sup> According to Schneider, in attributing every day goods a central role within the commercial exchanges, Wallerstein ignores the effects and importance of long distance commerce with luxury goods and its role in creating and sustaining a world system.

Although Wallerstein's theory was not meant for the analysis of pre-modern periods, the core-periphery model has been successfully applied in the interpretation of commercial contacts and interactions between pre-capitalist societies.

The adaptation of Wallerstein's model to archaeological analysis was based primarily on outlining the structural and economic differences existing between the modern world system and a so-called “pre-capitalist” world system (Kohl 1987, 17sq).<sup>27</sup> Wallerstein's model is, in this case, corroborated with the “Central Place Theory” elaborated by Walter Christaller (Christaller 1933) and Adolf Lösch (Lösch 1944) and, respectively, with the ideas formulated by cultural anthropology in the 1960's and 1970's, such as “prestige goods economy” (Ekholm 1972) and “the reciprocity of commercial exchanges within early societies” (Mauss 1925; Malinowski 1922; Friedman, Rowlands 1977, 201sq; Mauss 1997; Renfrew, Bahn 1999, 336sq; Astaloş 2004, 47sq; Larsen 1987, 47sq; Earle, 2002, 19sq).

In analysing the west Asian world system of the Bronze Age, Christopher Edens and Phillip Kohl operate a number of modifications of Wallerstein's model. The authors emphasize the political role in the creation of interregional structures and of exchange networks (Rowlands 1987, 5),<sup>28</sup> taking into consideration the specific conditions of this particular historic period: a certain technological uniformity of core and periphery, structural and political instability, and low levels of dependency of peripheries on the cores (Edens, Kohl 1992, 24).<sup>29</sup> The model suggested by the aforementioned

authors for western Asia (third millennium BCE and the beginning of the second millennium BCE) operates with multiple power and production centres, set geographically apart, each of them making the most of its own hinterland (Kohl 1987, 16sq; Ratnagar 2001, 359sq; Edens 1992, 120sq).<sup>30</sup> Philip Kohl in his book published in 2007 wrote: The world system models of the prehistoric past are necessarily partial and provisional. In spite of the fact that the states of the Ancient Near East represents „worlds” interconnected through an elaborate networks of exchange, as well as of political alliances and conquests, they did not constitute a single unit, an inchoate version of the modern “world system.” The strength of the aforementioned interpretative theory is its focus on the relevant unit of analysis, that is, on the area that was integrated economically and politically to the extent that can be considered systemic so that changes in one part of the system affect changes or developments throughout the system (Kohl 2007, 246).

Christopher Eden's and Philip Kohl's model could be more aptly included in the type of relation defined by Christopher Chase-Dunn and Thomas D. Hall as “core-periphery differentiation” (Chase-

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system be proven, similar to that described by Wallerstein for the modern era.

<sup>30</sup> For the discussed area, the Mesopotamian cities, the Ebla kingdom and southern Turkmenistan represented such power centres. Peripheries situated between two or more of these cores oscillated between them, sometimes negotiating the terms and conditions of commercial exchange. Most of Antiquity's systems of intercultural exchange have been fragile, their life seldom spanning several generations. In this respect a good example is being Maysar (Oman), a metallurgic (copper) and commercial core at the end of the third millennium B.C. In Christopher Edens vision during the late 4th and early 3rd millennia (registering a peak), and endured through 2nd millennium B.C. the Persian Gulf trade represented a material connection between these four regions (Southern Mesopotamia, Central-Gulf, South-Eastern Arabia and Indus Valley). All regions are interconnected with each other the emerging changes of the socio-economic conditions in one region effected all others. However, trade, whether maritime or overland, was not the only dimension of interaction between these and other regions of western Asia. Mesopotamian dealings with lands to the east also involved a range of diplomatic exchanges, elite marriages, cultural hegemony, political clientship, and warfare. Together with trade, all these activities defined center-periphery relations, whose nature and intensity altered as the constituent societies changed. The researcher from Harvard is convinced, the local consumption and regional politics provide contexts in which trade acts in ancient center-periphery relations. In other words, analysis of the economic dimension of center-periphery relations must consider the place of trade and to the political economic meaning of trade (and other mechanisms by which goods are acquired) within regions.

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<sup>27</sup> Differences are more acute in technological level, which, naturally, was lower before the Modern Era, when transportation means and capacity were much reduced (and therefore the amount of goods available on the market), and transportation costs have been much higher in the pre-capitalist era, and also what Philip Kohl named “transfer of technologies” from the core to the peripheries that prevents the cores to have the monopoly of more advanced technologies, that has been a current phenomenon in prehistory.

<sup>28</sup> This opinion is also shared by Michael Rowlands: “the most likely difference when compared with pre-capitalist cases is likely to be that the form of exchange is more politically motivated and directed towards control over persons rather than the direct intervention in the technological conditions of production and commodity exchange”.

<sup>29</sup> The area includes, apart from Mesopotamian city-states, vast areas of Syria, Palestine, Turkmenistan, the Iranian plateau and Anatolia. The archaeological material discovered in these territories indicates the existence of commercial exchange networks that presumably would have included these areas since the early Neolithic. But only since the early dynastic period (c. 2900-2400 BCE), through the corroboration of archaeological material and written sources from Mesopotamia, can the existence of an interregional

Dunn, Hall 1993, 19sq, the comment refers to Hall, Chase-Dunn 1994, 302)<sup>31</sup>.

Mogens Trolle Larsen, analysing the Assyrian commercial system at the beginning of the third millennium BCE (Larsen, 1987) argues that this was a vast, profit-oriented network and it surpassed the boundaries of all of the political formations in the area. The city of Assur – a genuine commercial centre – beside its role as medium for the long distance gold, silver, tin and textile commerce (Kohl 1987, 15sq), witnessed also a considerable exchange of daily use products (Larsen 1987, 47sq).

Susan Frankenstein and Michael Rowlands have used the core-periphery model for analysing and interpreting social structures in Germany's developed southwest during the First Iron Age. The ideas presented in the British Museum's Archaeological Institute's bulletin are not very different from those of Wallerstein's original theory (Frankenstein, Rowlands 1978, 73sq).

Authors have been quoting extensively ethnological and archaeological literature available at that time in order to demonstrate the ties existing between the political power and the possession of goods originating from without. Luxury products, monopoly of the social elite (Ekholm 1972), have been obtained through interregional exchanges,<sup>32</sup> based exclusively on the personal relations of those exercising the central power (Frankenstein, Rowlands 1978, 84sq).<sup>33</sup> Prestige goods from the local elites' tombs end up being possessed by these elite following a redistribution that was in direct relation with the raw materials provided (Renfrew, Bahn 1999, 168).<sup>34</sup>

<sup>31</sup> The model is based on the idea that societies on different complexity or development levels interact within the same world system, a relation different from the "core-periphery hierarchy" defined by the peripheries' dependency on centres from an economical, political and ideological point of view. In a study published in 1994, in the aforementioned authors opinion it is clear that world-system theory needs to be stretched, loosened, adapted, and otherwise modified to allow its use in precapitalist settings. Many features that are more-or-less constant in the modern world-system must be conceptualized as variables in precapitalist settings: relative weights of economics and politics in politiceconomy; roles of kinship, tribute, trade etc.

<sup>32</sup> The authors point at vast geographical areas such as the Mediterranean or Central Europe.

<sup>33</sup> In S. Frankenstein and M. Rowlands' opinion the society of the first Iron Age in southwestern Germany was multi layered. The different social strata, as defined based on funerary inventory, are as follows: „Paramount chief status, Vassal chief status, Sub-chief status, Minor chief/Village chief status”

<sup>34</sup> The local elite “pays” tribute to the chieftain, how has his establishment at the core settlement. The tribute means product and food surplus from the territories under the

In Andre Gunder Frank's opinion, trade with prestige goods is more important than the bartering of products. Luxury products, beside their intrinsic value, reflect cultural values, characteristics of production relations and the value system of the society that creates them. Frank presents the theories that refer to the economy of pre-modern societies and “core-periphery” relations, arguing that the modern world system originates in a world system that appeared as early as the Bronze Age (Frank 1993, 389sq).<sup>35</sup> In his opinion, the world system's evolution is cyclical, with alternating periods of social and economical evolution and involution (Frank 1993, 389). All these regions that were part of the system would have been tied by indirect bilateral contacts or, at least, multilateral of a systematic type (Frank 1993, 390). In Frank's opinion it is a little bit too much to ask of “core-periphery” theory to guide the archaeological research to a final conclusion, but the scholars should be thankful - instead of resentful, derogatory and rejecting – for that the model has already done, as much as it has, in the detection of the systemic structural characteristics of the ancient world (Frank 1999, 293; the comment refers to Stein 1999, 173).<sup>36</sup>

According to Rani T. Alexander and Robert S. Stanley's ideas, incipient states' political economies system<sup>37</sup> may be understood by analysing the luxury products' exchange. (Alexander, Santley 1992, 24sq). Depending on the level of central control exercised over the peripheries, the authors have identified three types

authority of the community leader. The core's leader uses this surplus for its exchange value in exterior commerce in order to secure prestige goods and also for the daily needs of his entourage. There was also the possibility, following redistribution that a part of the luxury goods thus gained to be given back to the local elites.

<sup>35</sup> The author argues that the world system included since the third millennium BCE the Arabian Peninsula, the Levant, Anatolia, the territory of modern Iran, the Indus valley, Transcaucasia and parts of central Asia, western Asia, eastern Mediterranean and Egypt. The system would have evolved afterwards so as to include most of the world.

<sup>36</sup> In their approaches, when scholars criticize the Wallerstein's model, as Gil Stein do concluding the “sins” of the theory are the overemphasizing of the interaction and the global structure of the system, neglecting or minimize the internal evolution of the areas called “peripheries”, failing to specify the power relations between the different polities members of an interregional network, risk of missing the essential part of the explanation how the ancient world worked. Peter Wells, Nick Kardulias, Peter Peregrine and Rani Alexander seek to elude it, Gil Stein denies the existence of the world system, like an ostrich, but this attitude will not make it gone away.

<sup>37</sup> In these economies the production and distribution are controlled by the central power.

of interregional systems: „the dendritic political economy”, „the hegemonic empire” and „the territorial empire”(Alexander, Santley 1992, 26sq.). The differences between the three being illustrated by the cores and peripheries’ level of integration into a unified economic system. Santley and Alexander do not hypothesize an evolutionary relationship among these types of core-periphery systems.(Hall, Chase-Dunn 1994, 298.).

Timothy Champion’s adapting of the archaeological realities to Wallerstein’s theory, points out the economic and political relations that benefits cores and is unfavourable for the peripheries. In the author’s opinion the inequality of commercial exchanges has not been felt by the peripheries’ communities, while the factors determining these relations being fundamentally different from the modern ones (Champion 1989, 14)<sup>38</sup>. The introductory study to the collective volume *Centre and Periphery. Comparative Studies in Archaeology* published in 1989 – authored by Timothy Champion, also the volume’s editor – represents a broad historiographical overview of the “core-periphery” concept evolution (Champion 1989, 2sq.). The author claims that pre-modern societies do not represent economic systems based on taxation and global redistribution (Champion 1989, 7). The core-periphery model constitutes a framework for the explanation of the social and economic evolution of different pre-capitalist communities, but classification made based on the antagonistic relations between the world system and the economies outside the system is an error (Champion 1989, 11sq.).

In a book published earlier – written together with Clive Gamble, Steven Shennan and Alasdair Whittle – Timothy Champion advocates for the existence of a pan-European social and economical network beginning with the Bronze Age. (Champion, Gamble, Shennan, Whittle 1984, 220sq.)<sup>39</sup>. The social structure had at its core the

“regional centralised” unit made of one or two fortified settlements and several open ones (Champion, Gamble, Shennan, Whittle 1984, 211sq, Fig. 7.11).

Stephen Shennan reveals an interesting particularity of the core-periphery type of mechanisms in Central Europe (Shennan 1993, 59sq; the comment refer to Shennan 1993, 59sq.)<sup>40</sup>. He believes that beginning with 1800/1700 BCE the Central European area (particularly the Carpathian Basin) – having a surplus of raw materials (copper), which was being traded (For the import of metals from the Carpathian core in Scandinavia also see Kristiansen, 1987) – functioned as a power centre on an European scale with a northern and a western peripheries (Shennan 1993, 62; the comment refers to Kristiansen, Larsson 2005, 125sq.)<sup>41</sup>.

Analysing various aspects of prehistoric societies, Andrew Sherratt aims at translating Wallerstein’s “world system” concept to prehistoric realities. In his article “What would a Bronze-Age world system look like? Relations between temperate Europe and the Mediterranean in later prehistory” (Sherratt 1993a, 4sq.) the author identifies the rise at this moment in history of a core-periphery type of system in the Near East and Egypt, that spread afterwards (Sherratt 1993a, 4) along the Persian Gulf and Mediterranean’s coasts.<sup>42</sup> Appropriating Jane Schneider’s “margin” concept (Schneider 1977, 21)<sup>43</sup>, Sherratt comes up with the idea of a

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characteristic for the central areas towards the peripheries with a less advanced economy.

<sup>40</sup> As a result of the research of mining settlements from St. Veit-Klinglberg in the Salzburg area, S. Shennan analyses the mining exploitation (chalcopyrite) problematic, of producing and trading of bronze items, concludes that the Anglo-American school exaggerate the elite’s role in the Bronze Age. In Shennan’s opinion “core-periphery” relations in central Europe, rich in copper resources, differs from Wallerstein’s classic model. The author affirms the existence of a “resource rich Central European area” (S. Shennan maintains that beginning with the early Bronze Age in the Mitterberg extraction region in the Salzach river valley, 10 to 12 tones of copper have been extracted annually) and a western and northern European periphery which got its needed raw materials from this area by means of long distance commercial exchange.

<sup>41</sup> K. Kristiansen dates the beginning of the rise of this centre of power around 1750-1700 BCE.

<sup>42</sup> In this case the term “core” is applied to urban production centres that are consumers of raw material, and that of “periphery” to societies with an inferior level of political and economic development.

<sup>43</sup> “Marginality is a distinct concept from periphery. In contrast to peripheral areas, marginal ones are disengaged from processes of struggle and competition [i.e. hegemony-rivalry within the core], differentiation, and specialization in

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<sup>38</sup> “The amazement of Greeks, for instance, recorded by Diodorus Siculus, at the willingness of the barbarian Celts to accept as little as one amphora of wine for a slave was probably matched by a similar surprise on the part of the Celts. [...] The inequality may lie not in the balance of trade, nor in the cost of participating, but more in the costs that would be incurred in trying to extricate oneself from the relationship”.

<sup>39</sup> The authors argue that the increased demand for raw material (copper, woven fabrics, amber) and the intensification of the prestige goods commerce coagulates the European space into a socio-economic system. Intensifying of intercultural contacts leads to the widespread of bronze metal processing and of the social and economic values

world system that allows the independent evolution of marginal societies, (Sherratt 1993a, 43; the comment refers to Hall 1999, 11sq.)<sup>44</sup> without having an interdependency relation as in the classic core-periphery model (Sherratt 1993a, 6). Sherratt dismisses the possibility of the existence of a European periphery of the urban civilizations of Near East and Egypt before the middle of the first millennium BCE. He argues that given their Mesopotamian cultural and economic relations, western Anatolia and the Aegean world have witnessed a steady social evolution, thus technical innovations reached Europe's threshold (Sherratt 1993a, 8sqq; the comment refers to Sherratt 1993a, 17sq.)<sup>45</sup>. In this way Europe became the marginal perimeter of a "core-periphery" system centred in the Near East (Sherratt 1993b, 249; the comment refers to Sherratt 1993a, 6sq.)<sup>46</sup>.

The use of bronze as a standard medium for interregional maritime trade that took place between the Syrian-Anatolian and Aegean worlds and the cultural and economical contact between the two regions would press forwards Crete's development (Sherratt, Sherratt 1991, 351sq.). The existence in this period of commercial relations with the Danubian area (especially the exchange of prestige goods), does not entitle us to believe in the establishment of a periphery in this region (Sherratt

1993a, 23sq.)<sup>47</sup>. Considering the Mycenaean influence over eastern and central Europe a myth, (Harding, 1993, 158sq. shares the same opinion) Andrew Sherratt tends to discuss about the existence of cultural contacts between the area around Danube's mouth and Anatolia (Sherratt 1993a, 25)<sup>48</sup>.

The collapse of copper production in central Germany (Harz region) together with the increase both in quantity and in quality of the production in the Carpathian Basin (Kristiansen, Larsson 2005, 125sq.). led to the establishment of a new metal production centre. Prestige goods produced here were exchanged for northern amber (Sherratt 1993a, 29.). The dominant economic position of the Carpathian Basin's production centre ends as new trade routes are established, linking the copper-rich areas east of the Alps with Italy and the Mediterranean, on the one hand, and Bohemia and Scandinavia that provided tin, on the other (Kristiansen 1998, 377sq.).

Thus Europe's evolution in the Bronze Age is outlined as a "margin" of the "core-periphery" system developed in the Near East and the Mediterranean. The development of relations that are characteristic to "margins" through the existence of long distance trade will lead, gradually, throughout the Iron Age, to the establishment of the European periphery (Frankenstein, Rowlands 1978, 78; the comment refers to (Kristiansen 1998, 125sq; (Sherratt 1993a, 42)<sup>49</sup>.

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relation to much older and more developed centres of civilization".

<sup>44</sup> It is rather about the assimilation by the marginal zones of technologies and innovations transmitted through long-distance contacts with the centre that are non-systematic. Sherratt's margin concept is similar with Thomas D. Hall's "contact periphery and marginal periphery" which are areas only partially incorporated into the world-system. These marginal regions are experiencing milder transformations, preserving older untransformed or partial transformed forms of social organisation.

<sup>45</sup> According to Sherratt, now the second wave of innovations spread among the European societies (the first wave being that of inventions brought forth by the "Neolithic revolution"). The elements of this wave have been adopted and transformed in order to suit local needs, serving as a base for future interactions, more complex in nature, in the heart of Europe. The second stage of development beginning from around 500 BCE is characterised by the appropriation of bronze and the use of a number of standardised artefacts that had an effect on the articulation of regional specializations by means of that "common language of consumption and medium of exchange"

<sup>46</sup> Bronze Age world system would be, from Sherratt's point of view, of the core-periphery-margin type. The term 'periphery' is used for those societies that have suffered structural transformations following commercial exchanges with the core areas, a fact that cannot be demonstrated for the European societies of this period. The term that most aptly describes the position of European societies' position within the system is that of 'margin'. This does not suffer structural transformations, only cultural transformations following the exchanges with the core areas.

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<sup>47</sup> The author argues that the distances are extreme, the commercial flow insignificant and the technological differences negligible.

<sup>48</sup> Cores of western Anatolia such as Troy, interested in Transylvanian gold, would rather be those that have sustained intense contacts with this area, reflected in the Danubian material culture, mainly in the production of gold objects (e.g., gold weapons deposits of exotic typologies from Perșinari, Țufălau and Măcin).

<sup>49</sup> Etruria's development as a central zone on the Hallstatt C and D horizons created a Circum-Alpine periphery differentiated from the core by its technological status. The creation of new trade routes by the Etruscans towards central Europe and the establishment of new Greek colonies at the Rhone's mouth (e.g. Massalia) in Hallstatt D, triggered the integration of central European areas into the system as peripheries (as a result of the contacts Hallstattian societies have had with Greek core and the Etruscan world). In Sherratt's opinion, this kind of zones, those „Fürstentum" which Frankenstein and Rowlands interpreted as being local power and redistribution of prestige's goods cores. In the bordering zone between the Mediterranean maritime system and the European trade routes, in Spain the kingdom of Tartessos was established on the lower flow of the Guadalquivir. This society, with a proto-urban culture, was a periphery of the Phoenician world, from where it imported silver in exchange for prestige goods. Another region that

The Aegean commercial system in the 3<sup>rd</sup> and 2<sup>nd</sup> millennia BCE, studied by Nick Kardulias, may picture the notion of pre-capitalist “world system” (Kardulias 1999, 179sq.). In his opinion, the Aegean (Kardulias 1999, 179)<sup>50</sup> commercial system is interlinking part of the eastern Mediterranean world system, which comprised, beside the mentioned area vast parts of Mesopotamia, Egypt, the Syro-Palestinian coast, the island of Cyprus and Anatolia (Kardulias 1999, 195). In order to describe the relations among the Minoan and Mycenaean cores, on the one hand, and those of Egypt and the Levant, on the other, Kardulias uses the concept of “core-core interaction”, (Kardulias 1999, 187)<sup>51</sup> a notion similar to that of “core-periphery differentiation” proposed by Christopher Chase-Dunn and Thomas D. Hall (Chase-Dunn, Hall 1993, 19).<sup>52</sup>

According to Kristian Kristiansen, the “European world system” appears around 2000 BCE, a period in which interregional contacts are accelerated by intensive commercial exchanges (Kristiansen 1998, 359sq.; Harding 2000, 185sq. with the related bibliography.). Obtaining the raw materials needed for metal processing, in turn created interdependency relations between different European regions (Kristiansen 1994, 7).<sup>53</sup> The existence of a common technological lore and an ideological system, shared by the different communities of the 2<sup>nd</sup> and 1<sup>st</sup> millennia BCE does not alter the regional traditions (Kristiansen 1998, 391sq.). Europe was connected to the exchange networks of the eastern Mediterranean (the comment refers to Edens, Kohl 1992, 17sq.; Kardulias 1999, 179sq.; Bass *et al.*, 1989, 1sq.)<sup>54</sup>,

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became a periphery is the Black Sea area after the establishment of the Greek colonies here.

<sup>50</sup> It is a trade of both luxury and consumer goods generated by complex political and social structures, with a redistributive economy based on substantial surplus accumulation from agricultural production and specialised craftsmanship.

<sup>51</sup> Incontestable artistic and economic influences do not prove a subordinate position of the Aegean world within the larger eastern Mediterranean system.

<sup>52</sup>. Societies on different complexity and population density levels within the same system, without being characterised by relations of political, economical or ideological domination.

<sup>53</sup> Through these vast exchange networks a kind of „common stock of metallurgical know-how and common traditions of social and religious value systems that accompanied the flow of bronze”. In I. Wallerstein’s opinion the intensification of commercial contacts is a sign for the creation of a world system.

<sup>54</sup> In this period, in the Near East and eastern Mediterranean, large networks were formed that traded metals (copper, silver, tin), textiles, ceramics etc. The trade circuit in the Mediterranean linked continental Greece with Crete, Cyprus, Egypt, Anatolia, Syria and Near East’s interior. The finds on

and the continental trade routes linked Scandinavia with southern Europe moving along them amber and prestige goods (Harding 2000, 190sq.).<sup>55</sup>

Kristiansen believes that European societies have oscillated between two types of social organisation, as dictated by their indirect (Kristiansen 1998, 399sq.; the comment refers to Kristiansen 1994, 17sq.)<sup>56</sup> or direct (Kristiansen 1998, 401sq.; the comment refers to Frankenstein, Rowlands 1978, 73sq.; Kristiansen 1994, 17sq.)<sup>57</sup> “core-periphery” relations and, respectively, by the changes in the world system and the transformations suffered by the great Mediterranean centres of the 2<sup>nd</sup> and 1<sup>st</sup> millennia BCE. (Kristiansen 1998, 391).<sup>58</sup> The integration in a world system of the European societies in the 2<sup>nd</sup>

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the shipwreck of Ulu Burun show that the Black Sea was part of this trade circuit.

<sup>55</sup> For a brief presentation of the main European trade routes during the Bronze Age and the traded goods (axes, rapiers, swords gold vases, ornaments etc).

<sup>56</sup> The new information and technologies are transmitted within a network that includes a number of regional systems in contact with one another. The more developed areas (such as the Mycenaean culture) represent cores, which positively influence lesser-developed regions. The peripheries maintain their own traditions as well as their economic and social systems – in some respects being more developed than the centres – but being dependent on the centres for obtaining the prestige goods necessary for the local elites. Influences coming from the centre are generally reinterpreted and integrated within the local culture or independent versions of the peripheries are created based on the received input. For the type of social organisation characteristic for indirect core-periphery relations, Kristiansen offers the example of Otomani culture, urn-fields culture and of late Hallstatt principalities.

<sup>57</sup> It is a way of interacting between communities with different levels of development where beside the trade of prestige goods, the periphery borrows also social and cultural values that characterise the centre. The dependence of peripheries on the centres, at least from a political and social point of view, is much higher in this case than in that of indirect relations between core and periphery, as in the case of late Hallstatt principalities in central Europe. According to Kristiansen, this type of relation is characteristic of the ties established beginning with the Greek and Phoenician expansion in the 9<sup>th</sup>-6<sup>th</sup> centuries BCE with those peripheral cultures of the Black Sea, the Balkans and the Iberian Peninsula. For the type of contacts characteristic of direct core-periphery relations, Kristiansen gives the example of the tumular tombs culture and of warrior cultures of Hallstatt C chronological horizon.

<sup>58</sup> These are the sedentary metal production centres, with a distribution/retribution centralised economy under an elite’s control and, respectively, with an organisation characteristic of warrior societies, less centralised socially and economically. According to Kristiansen the crisis and political fragmentation within the 11<sup>th</sup> and 12<sup>th</sup> centuries BCE Mediterranean would have lead to migrations and the change in type of settlement within European communities, while during expansion periods in the Mediterranean the European societies would have developed centralised settlements, prosperous and involved in long distance trade.

and 1<sup>st</sup> millennia BCE has been realised through their bonds with the civilisations of the Mediterranean world characterised by networks of indirect core-periphery relations (Kristiansen 1998, 416). These direct dependency relations have existed not only at a regional level but also on a local one (Kristiansen 1994, 21sq; the comment refers to Kristiansen 1987, 82).<sup>59</sup> By integrating into one or another of these types of relationships, the peripheries are also connected to the centres' ideological and ritual framework (Kristiansen 1987, 74sq; the comment refers to (Kristiansen 1993, 43sq.)).<sup>60</sup> An excellent example is southern Scandinavia, which due to its economic potential and interregional commercial relations represents a central zone. Within this geographical area there have been settlements that can be considered real micro regional power centres (For example the settlement from Kivik see Randsborg 1993, 1sq; Gogåltan 2004b, 45, reference 46).

The studies from the collective volume *Centre and Periphery in the Ancient World*, published in Cambridge in 1987, point out the new possibilities for interpretation offered by the core-periphery model (Wolf 1982, 97sq.)).<sup>61</sup> The volume's

<sup>59</sup> The establishment of power, production and redistribution centres as the ones within the Otomani culture or the principalities from the end of the first Iron Age stand as evidence. From the point of view of social organisation complexity and degree of dependency, for the Scandinavian zone – during the Bronze Age – here are two types of core-periphery relations. The first one is established on a regional level, between the north and, respectively the centre and south of Scandinavia, while the second one materialises in the ideological, economical and political exploitation of the hinterland by the central area. Kristiansen is convinced that for the 2<sup>nd</sup> and 3<sup>rd</sup> early northern Bronze Age periods, southwestern Norway acted as such a central zone.

<sup>60</sup> In Kristiansen's opinion the prestige goods economy and the elite's ideology (the generalisation of ideology centred on social elites begins in the second period of Scandinavian Bronze Age sometime around 1500 BCE, as illustrated by the large proportion of weapons and ornaments present within the discovered archaeological material) represent the basis for a strongly hierarchical social organisation. The existence of such a social structure is proven by finds such as monumental funerary architecture, petroglyphs with ritual themes or bronze deposits from central and southern Scandinavia. The Swedish scholar applies on numerous occasions Wallerstein's model. In his studies he analyses interregional contacts of different geographical areas, and their changes and the effects on prehistoric society, localisation of power centres and the size of the micro regions they control.

<sup>61</sup> The volume's authors emphasize their interest in the study of the economies in the peripheral areas and the influences coming from the central areas. In their opinion the cores' increased demand for raw materials would lead to the establishment of new power structures within the periphery, necessary for streamlining their control and gain of resources. The prestige goods economy and the generalisation of the

contributing authors gave up the established rule of social archaeology and focus on the social and political aspects that surround the individual, seen as an active social character (Rowlands 1987, 1sq.).

Robert Adams has adopted Wallerstein's model. When discussing the pre-modern societies' commercial system, the scholar becomes convinced that political formations, more developed from a social and economic point of view, dominate their less developed neighbours. In Adams' opinion, the core-periphery theory together with other socio-cultural models (e.g. the central place theory) are essential for studying ancient societies, these theories are considered to be the key to unlocking a series of problems. The author warns about the fact that the existence of pre-modern socio-economic systems is possible on the condition of the existence of a linear evolution, based on general socio-economic rules of the communities within it (Adams 1992, 144sq.).

Mary W. Helms examining the concepts and interpretations accorded to geographical distance, exchange and craft production of non industrial societies, discuss the terminological pairings as independent-dependent and core-periphery. According to Helm's opinion, the problem of usage of the aforementioned terms, lies basically in the rather negative, marginal connotations of the expressions such dependent, periphery or frontier. These terms automatically suppose a superordinance of the centre comparing to the periphery. Otherwise the author use the classic core-periphery model, focused on the problems of the economy of the prestige goods (Helms 1993, 179sq.).

In search of a broader framework to explain ancient Greece's evolution from the end of the Geometric period (end of the 8<sup>th</sup> century BCE) to the time of the Roman conquest (2<sup>nd</sup> century BCE-6<sup>th</sup> century CE), John Bintliff applies the "core-periphery" model (Bintliff 1997, 1sq.). In his opinion, in a period of time ending with the decline of the classical era, south-eastern Greece<sup>62</sup> acted as a core, having dependency relations with the neighbouring areas (Bintliff 1997, 19sq.).<sup>63</sup> This

elites' ideology would modify the behaviour of local leaders in the periphery.

<sup>62</sup> The region included the following city-states: Athens, Corinth and Argos.

<sup>63</sup> Methana, Kea, Euboea, Arcadia, Argolida peninsula, Milos Island. Progressively they became dependent on the central region from the point of view of economic relations implying the exchange of raw materials (wood for construction, grain, metal and workforce/slaves) for technological knowledge,



type of relationships are characterised by exchanges of “prime value” for “added value” (Wallerstein 1992, vol. 2, 279sq.).

The way in which Barry Cunliffe (Cunliffe 1993) applies the core-periphery model for the interpretation of archaeological vestiges and economic mechanisms<sup>64</sup> from the barbarian Europe and the Mediterranean world represents a telling example of how, from a methodological point of view, two fields that have been clearly separated in the past, have become closely related (Cunliffe 1993, 10sq.). Beginning with the crystallisation of the Minoan civilisation in the third millennium BCE until the end of Roman civilisation in the 5<sup>th</sup> century CE, European system’s traditional core has been the Mediterranean ecozone, while temperate Europe acted as periphery (Cunliffe 1993, 13). The two parts of the system have been interdependent, bound by interregional commerce (the comment refers to Kipp, Schortman 1989, 376; (Cunliffe 1993, 19).<sup>65</sup> The core-periphery model allows the setting of a general framework for the detailed analysis of the conditions in which social and economic formations have evolved, as well as the relations between them, which produced important changes in the core as well as in the periphery (Champion 1989, 10sq.). As a conclusion to his analysis, Cunliffe points out the most important elements of a “core-periphery” complex system, (Cunliffe 1993, 226.) with stability periods of the exchange relations, followed by periods of the system’s crisis (Cunliffe 1993, 218sq.).<sup>66</sup>

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manufactured goods and luxury goods (military technology, bronze artefacts, painted ceramics, olive oil and wine), or by the obligation to pay tribute as a result of the core’s military domination.

<sup>64</sup> The matters in hand are the economic strategies of the different societies, the nature of trade and the area covered by the commercial network, the relations established between a civilised centre and its periphery.

<sup>65</sup> The matters in hand are raw materials and luxury goods necessary for the proper functioning of its own socio-economic system. In this way, the power centres of the Mediterranean world imported from the barbarian periphery essential raw materials such as copper, tin and later iron, but also valuable goods such as Baltic amber, furs from northern Europe, wild beasts for the arenas, hunting dogs, spices etc. in exchange, periphery’s societies imported luxury goods for the used of barbarian elites with consequences for the creation and maintenance of their socio-political systems. The interdependency between the barbarian and Greco-Roman systems, the trade relations spurred the political centralisation of barbarian communities. Regular exchanges between the Greco-Roman world and the principalities of central and Western Europe, trade following stable itineraries, which swept over large parts of temperate Europe reaching a maximum around 500 CE.

<sup>66</sup> The determined phases are: 1. The period between 530 and 480 BCE, in which there is a classic core-periphery relation between the barbarian world and the Mediterranean

In interpreting Mediterranean world’s relations with barbarian Europe, Michael Dietlers overlooks the barbarian world’s structural relations, emphasising the direct influence of primary Mediterranean centres in the evolution of peripheral systems (Dietler 1995, 126sq.).

Applying the core-periphery model for the Roman Empire’s northern frontier is tied to Lotte Hedeager (Hedeager 1987, 125sq.). The scholar pictures the features of a complex “core-periphery” system, basing her analysis on the political, economic and military relations established between northern barbarian Europe and the Roman Empire in the first four centuries CE (Hedeager 1987, 126.). Based on the Celt or Germanic origin, level of development and the communities’ social political characteristics two peripheries can be distinguished: a semi-periphery and a more distant periphery (Chiefdoms ..., 2sq.).<sup>67</sup>

The “core-periphery” model is not specific only to the research of pre- and proto-history; instead it is widely applied to other historical periods (Stern 1988, 829sq.; Abu-Lughod 1989, 3sq.; Mc.Guire 1989, 40sq.; Szykiewicz 1989, 151sq.; Boutilier, 1995, 22sq.; Dincauze, Hasenstab 1989, 67sq.; Abu-Lughod 1993, 278sq.; Dietler 1995, 127sq.; Williams 1989, 142sq.; Stoddart 1995, 88sq.; Feinman 1999, 53sq.; Wells 1999, 85sq.; Alexander 1999, 103sq.; Jeske 1999, 203sq.; Kuznar 1999, 223sq.; Modelski Thompson, 1999, 241sq.; Dobesch 2004, 11sq.). In analysing the realities of south-eastern Central America in the first millennium CE, Edward M. Schortman and Patricia A. Urban, base their study on “Wallerstein’s classic model” according to which the more developed centre – from a social, economic and ideological point of view –

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civilisations; 2. The period between 120 and 60 BCE, one of multiple relations between Rome and southern Gaul; 3. The period between 50 and 10 BCE, in which a new balance is established; 4. The period from 40 CE until the Marcomannic wars.

<sup>67</sup> The “Buffer zone” or the “Semiperiphery”, in Wallerstein’s view, is populated by Romanised Celtic tribes situated north of the limes, while free Germanic tribes constituted themselves in a distant periphery of the empire, dependent on the import of Roman prestige goods vital for social reproduction. The elements of prestige goods economy (weapons, Roman luxury goods), gold and silver coins are found mostly in “princely” tombs of the distant periphery. They are almost absent in the buffer zone around 200 km from the provinces northern border, demarcating a zone complementary to the Roman territory – characterised by the massive presence of Roman consumer goods – occupied by the former Celtic “oppida”.

politically dominates the periphery, exploiting its raw material resources for its own benefit (Schortman, Urban 1994, 402sq.). By the process of political centralisation, the reciprocal egalitarian relations and exchanges are converted into hierarchical ones that consistently benefit to the ascending faction, which might act on regional or interregional scales, or within the boundaries of a single polity (Urban, Schortman 1999, 125).

### The limits of the “Core-Periphery” model

The “core periphery” theory has been strongly criticised. Colin Renfrew labelled it as diffusionism in disguise (Renfrew 1986, 6; Bahn, Renfrew 1991, 334.)<sup>68</sup> an interpretative model inferior to the theory named “the peer polity interaction”. This theory analyses the social and economic, or symbolic contacts of early states without taking into consideration differentiations of power or the domination of one zone over the others (Bahn, Renfrew 1991, 336sq; the comment refers to Renfrew, Level 1979, 145sq; Renfrew, Bahn 1999, 363).<sup>69</sup>

Gil Stein points out that the original model formulated by Immanuel Wallerstein as well as its adaptations for a historical-archaeological analysis strain the point of evolutive process and the change mechanisms in ancient societies (Stein 1999, 153sq.). The core-periphery relation is just one of the possible political and economic relations between two regions. The determining factors and the degree of control/influence a centre has over peripheral areas are multiple (Stein 1999, 154sq.)<sup>70</sup> Interpreting the contacts between different societies through the core-periphery model

underestimates the “peripheral” cultures’ achievements and originality (Stein 1999, 156.).<sup>71</sup> In Stein’s opinion, the analysis of regional interactions and of their influence on the ways in which power is imposed (ideological, political, military) on local social structures and the processes of change within different communities, leads to the shaping of individual historical trajectories of the communities that have contact with one another (Stein 1999, 159sq; the comment refers to Stein 1999, 173).<sup>72</sup>

Gil Stein’s observations only partially have a factual basis, the core-periphery model takes into consideration conditions, socio-cultural specificity, political and economic profile and the specific dynamics of peripheral regions, characteristics that determine the answers to the core’s expansionist tendencies (Edens, Kohl 1992, 24sq.). Peripheries are not passive structures, but are defined by the notion “negotiated peripherality” (Morris 1999, 63sq.).<sup>73</sup> The introduction of this term in historical analysis leads to a careful examination of the way in which influences coming from a central area are received and/or originally reinterpreted. By attributing to peripheral areas the role of an active agent within the regional and interregional profit-oriented trade networks, one of the most important assertions of Wallerstein’s world system is ignored, namely the one that says that between the core and the periphery exchanges are asymmetrical, the core having the upper hand (Stein 1999, 157.).<sup>74</sup>

<sup>68</sup> „For it readily casts the discussion in terms of dominance (for the supposed core area) and dependency (for the supposed periphery) [...] it can easily lead to the rather unthinking explanation of changes by ‘dominance’ (i.e. diffusion) that processual archaeology has worked hard to overcome”

<sup>69</sup> Contacts between some communities of the “peer polity interaction” type can take a variety of shapes: competition, war, stimulating effect competition, transmission of innovation, symbolic ties, ceremonial exchange of values, the flow of goods etc. The area of these socio-political entities can be calculated on the basis of the XTENT model. In Colin Renfrew and Paul Bahn’s opinion, the idea of affirming the existence of a world economic system based on a low level of interregional trade is unrealistic. The analysis of a region’s evolution and of the socio-cultural interactions only from the perspective of its dependency on central territories leads to erroneous conclusions.

<sup>70</sup> Among the determining factors the following can be mentioned: costs and available means of transportation, differences in technological knowledge, the ways in which the economic production is organised, the degree of use of military power, the relation between ideology and socio-political organisation within the core and periphery.

<sup>71</sup> „The people of the periphery are treated as passive victims of the core’s dynamic expansion. This derives directly from the explicit economic determination of the World System model. Cultures (especially those at the periphery) are seen as economically determined entities whose structure and ideological content are the products of their being part of the core-dominated World System”. The main criticism he brings to the model is the neglect of the periphery’s internal evolutions, of the dynamics of this zone and of the role, which periphery’s societies have played in interregional trade. There is an a priori assumption of the dominance of core over the periphery and the fact that core areas imposed most of times the trade conditions.

<sup>72</sup> Stein warns against a very common mistake occurring from analysis made from the point of view of World Systems, namely the fact that parameters such as distance or costs and available means of transportation can affect the power relations between societies involved in an interregional exchange network.

<sup>73</sup> In the author’s view the notion could represent compromise between the generalisation applied by the World System theory and the real experience of past’s societies.

<sup>74</sup> Stein points out the need to take into consideration the possibility that trade has been profitable for both core and periphery, or even that it might have been only in the peripheries’ profit.

In Michael Dietler’s opinion strictly applying the core-periphery model leads to the neglect of those areas that do not fall into any of the theory’s predefined categories (ex: core, periphery, semi periphery see Dietler 1995, 126.).<sup>75</sup> In this scholar’s opinion it is wrong to use Wallerstein’s model for interpreting the relations between barbarian societies of Central Europe and the Mediterranean world in the first Iron Age (Dietler 1995, 130sq; the comment refers to Frankenstein, Rowlands 1978, 73sq.).<sup>76</sup>

Edward M. Schortman shares a similar opinion. He argues that a “core-periphery” type of analysis concentrates in the first place on the economic aspect of the interactions between different societies, which is on the long distance trade. The other aspects of the intercultural contacts together with their effects are often ignored (Ratnagar 2001, 371sq.).<sup>77</sup>

Anthony F. Harding is also sceptical in what concerns interpreting realities of pre-capitalist periods through the “core-periphery” model (Harding 2000, 418sq.).<sup>78</sup> In his opinion the existence of interregional trade and the prestige good economy’s impact on the formation and consolidation of local hierarchies do not prove also the creation of interdependence relations (Harding 2000, 420.).<sup>79</sup> The use for Antiquity of terms that are specific for the Modern Era, respectively, the separation of economic aspects from the political and social ones, in a period in which social and political institutions played a crucial role in the

economic lives of these communities leads to erroneous interpretations (Harding 2000, 421).<sup>80</sup>

Adapting Wallerstein’s model to the realities of the Bronze Age, Antony Harding speculates on the existence of multiple micro-regional or local power centres, in contact with neighbouring communities and sometimes with much more distant regions through commercial exchange networks.

In spite of his using the “core-periphery” model, Philip Kohl warns of its drawbacks (Kohl 1989, 218sq.). In his opinion, the concepts defined by Wallerstein for the Modern Era do not cover earlier realities (Kohl 1987, 13sq.).<sup>81</sup> The initial concept of “world system” cannot be further applied without adapting the model to each specific situation. The scholar is convinced that core-periphery relations of the “old world” rarely bare similarities with the ones within a modern system, where underdevelopment and dependency relations are periphery’s requisite characteristics (Kohl 1989, 233).<sup>82</sup>

Antiquity’s peripheries have not been necessarily inferior to cores from a technological point of view or in what their capacity for innovation is concerned (Kohl 1987, 19; the comment refers to Kohl 1989, 234sq.).<sup>83</sup> Metal processing did not

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<sup>75</sup> The author believes that in the process of analysis one must leave aside such concepts as the function of prestige goods and functional and territorial core-periphery relations, and that new models for interpretation must be found based on other types of relations and socio-economic processes.

<sup>76</sup> Dietler rejects the interpretation offered by Susan Frankenstein and Michael Rowlands to the situation at the end of the first Iron Age in southwestern Germany claiming there is not enough evidence to attest the redistribution of Mediterranean luxury goods. The scholar argues that such an approach ignores the structural relations that characterise indigenous socio-economical systems.

<sup>77</sup> Edward. M. Schortman in Reply to Ratnagar’s article in *Current Anthropology*.

<sup>78</sup> Following the presentation of the subject’s historiography, Antony Harding concludes that the argument for the existence of a world system beginning with the Bronze Age is more than doubtful.

<sup>79</sup> The matter in hand is the economy of prestige goods, the effect of prestige goods on elites, which offered them the possibility of exercising a local domination by controlling the imports’ flow.

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<sup>80</sup> Capitalist relations differ from pre-capitalist ones in what technological level, costs and labour division, and interactions among individuals are concerned.

<sup>81</sup> As it has been shown above, in the Bronze Age peripheries’ underdevelopment cannot be generally proven because of the interregional transmission of technology. There is no central monopoly of advanced technology, and the existence of dependency relations between the cores and the peripheries is relatively difficult to demonstrate. Because of the transport and communication means’ precarious state, the cores could not impose their complete control over peripheries, the system’s structure being often unstable.

<sup>82</sup> In fact, conditions similar to those in a modern world system in which the core dictates the terms of trade can be met only in the case in which the periphery has suffered the core’s military occupation, or during the system’s periods of crisis. If this was not the case, the peripheries of the antiquity could withdraw from the system and substitute de core with which it traded, if the terms and conditions of trade would no longer be convenient.

<sup>83</sup> The scholar considers being a good example for this the fact that in southern Turkmenistan a power centre has been active throughout the whole of the Bronze Age, with an independent development. Towards the end of the period, the vast majority of its complex settlements, multileveled from an archaeological point of view, have been abandoned. In some cases their evolution continues, but on a much more reduced scale. The recent discovery of late Bronze Age settlements in Margiana and Bactria – with a material culture similar to that of the former settlements of Turkmenistan –, determined some scholars to explain the decline of the old centre and the abandoning of urban dwellings, through the act of moving the

represent the core's monopoly, knowledge was more likely to be spread from one region to another, in other words, it was transferable (Kohl 1989, 234sq; the comment refers to Ratnagar 2001, 362).<sup>84</sup> The Massachusetts scholar sees the world system of the Bronze Age more as a chain of self contained social structures in contact with one another, rather than a unified global system (Kohl 1987, 13sq; the comment refers to Kohl 1987, 23sq.).<sup>85</sup>

In Michael T. Larsen opinion commercial goods are clear proofs of local and interregional socio-economic exchanges. In his studies concerning the commercial relations in the Near East he points out the fact that the "core-periphery model does not offer a plausible explanation for the related problems. Larsen quotes the example of Mesopotamia, for which the parallel existence of a prestige goods economy and of profit-oriented barter commerce has been demonstrated (Larsen 1987, 47sq.).

Criticism has also questioned the durability of contacts between different societies in the pre-capitalist times. Lacking a common system of values and of universally accepted measure units (standard), communities could not develop

constant interregional commercial ties (Ratnagar 2001, 364).<sup>86</sup>

While Anglo-American scholars affirm the existence of a world economic system that integrates the so-called pre- and proto-historic political formations, (Trade..., 1993; the comment refers to Renfrew, Bahn 1999, 339)<sup>87</sup> followers of the so-called "German school" share totally different opinions regarding Antiquity's intercultural contacts and commercial systems. These ideas have been presented in two collective volumes published in Göttingen and Munich (Untersuchungen..., 1985-1989; Handel..., 1995). According to the authors, commercial activities (Schönfeld 1995, 21)<sup>88</sup> being highly conditioned by the gain of profit and wealth generated the individuals' economic and social affirmation (Hänsel 1995, 11).<sup>89</sup>

On the occasion of researching the *Urnefelderzeit* culture's prestige goods (defensive weaponry and bronze vases) Svend Hansen has charted these finds, (Hansen 1994, 11sq; Hansen 1995, 67sq.) suggesting that their geographical diffusion does not indicate anything other than the commercial trade routes of the time (Hansen, 1994, 115sq; the comment refers to (Gogâltan 2004b, 49; the comment refers to Hansen 1994, Beilage 1).<sup>90</sup>

#### The Romanian Perspective on the "Core-Periphery" Model

In Romania – as of now – a single volume concerning the "core-periphery" theory has been published. The contributing authors aim at adapting the interpretative model to the historical and archaeological realities in their field. The variety of subjects is remarkable, covering a wide

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settlements in the plains of Margiana and Bactria. The settlements from these areas, according to the data gathered through archaeological research, would have been four times as numerous as those from southern Turkmenistan. They have been fortified, the settlers' funerary practices change and the finding of weapons become more numerous and complex. Judging this situation, Philip Kohl sketches the following scenario: an old core (southern Turkmenistan) soon after flourishing following its expansion on a large scale, it overtakes regions that have not been previously occupied, that are rich in natural resources. The new settlements (Bactria and Margiana) soon gain a technological advancement in comparison with the old core from the point of view of the quantity and quality of metal production. The former peripheries have transformed themselves into cores, which in turn have been more developed economically, but inferior as social structures compared to the societies they have substituted.

<sup>84</sup> An opposing opinion is formulated by S. Ratnagar, who gives the example of the Oman region (discussed above), a region that used to export copper to power centres. Although rich in metal resources, this region did not succeed in developing a metal processing technology on a level similar to that of Mesopotamia or Harrapa culture, the only metal artefacts discovered here being simple rings, broad blades and needles. This means that not all peripheries benefited from an advanced technological level to match that of the cores.

<sup>85</sup> The scholar believes that the analysis of local and interregional commercial relations facilitates a more correct interpretation of socio-political and dependency relations in that period.

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<sup>86</sup> In the absence of a market system and of universal values of products like in the modern period, it cannot be demonstrated that certain traded objects had the same intrinsic and/or spiritual value for all the communities involved in the interregional trade.

<sup>87</sup> According to the "core periphery" model, the prestige goods – signs of social status and prosperity – are acquired as a result of social and political activities. The study of prestige goods' trade helps both the understanding of the trade relations and the social organisation of pre-modern communities.

<sup>88</sup> The volume's articles' authors define commercial relations as trade activities of prestige and consumer goods, based on negotiation and being profit oriented.

<sup>89</sup> The individuals' social and economic status is reflected in the tombs' funerary inventory.

<sup>90</sup> We agree with Florin Gogâltan who affirms that following the analysis of the geographic distribution of findings of defensive weaponry and bronze vases from the Rhone region and the Carpathian Basin two regional groups can be distinguished, and not a core production zone and its periphery.

time span, from prehistoric time up to the end of the 20<sup>th</sup> century (Gaiu, Bodale 2004.). The issue of this volume shows the interest of Romanian scholars for theoretical models that have been extensively debated in world historiography, an interest that has often been associated with an incorrect use of concepts and methods (Marinescu 2004, 23sq; Gaiu 2004, 77sq.).<sup>91</sup> We do not wish to review this very interesting and, at the same time, intriguing volume, but we will point out some of the most important contributions. Florin Gogâltan's paper, “Nevoia de teorie” (The necessity of theory) is not only radiography of theoretical approaches (or rather their absence) in Romanian archaeology, but also a challenge addressed to traditional historiography (Gogâltan 2004a, 7sq. This idea, the need of the renewal of scientific methodology and the instruments of research has previously made the object of debate in specialty literature. See: Anghelinu 2002, 39sq; Anghelinu 2003, 263sq; Gheorghiu 2003, 170sq; Niculescu 2004-2005, 104sq.). The world system theory and the “core-periphery” model are discussed by the author in another paper published in 2004 (Gogâltan 2004b, 39sq. This idea, the need of the renewal of scientific methodology and the instruments of research has previously made the object of debate in specialty literature. See: Anghelinu 2002, 39sq; Anghelinu 2003, 263sq; Gheorghiu 2003, 170sq; Niculescu 2004-2005, 104sq.).<sup>92</sup> Gogâltan affirms the existence of a pre-monetary economic system (Related to the existence of the so-called „oxhide ingots” and the existence of a premonetary system, see: Ilon 2001, 217sq; Mihovilić *et al* 2003, 23; Bradley, 1985, 695sq; Sommerfeld, 1994; Lennerz-de Wilde 1995, 229sq; Pare, 1999, 421sq; Gogâltan 2004b, 48) and a network of trans-European commercial exchanges beginning with the second millennium BCE, tightly bound to the Mediterranean and Black Sea maritime commerce (Gogâltan, 2004b, 48).

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<sup>91</sup> As an example: G. G. Marinescu considers the periphery a place where “information and the time's technical achievements arrive later”. The author uses the notions “political core” and “economic cores of production and exchange” for some of the fortified settlements of the early and middle Hallstatt (Ciceu-Corabia, Sărățel and Dumitrița) based only on the complexity of their fortifications. In Corneliu Gaiu's opinion “peripheral zone” of the province of Dacia represent territories from more distant geographic zones, situated far from the important communication thoroughfares etc.

<sup>92</sup> In spite of the fact that the author aims, beside the presentation of the topic's historiography, at the analysis of the ways in which the core-periphery model can be applied in Transylvania (in the Bronze Age) he only makes a critical presentation of foreign literature.

An interesting way of applying the core-periphery model – from the point of view of space organising and occupancy – is revealed in Gelu Florea's paper (Florea 2004, 31sq.).<sup>93</sup> The author argues that “core-periphery” relations defined from a territorial and functional perspective can be identified in the Dacian world (Florea 2004, 32).<sup>94</sup> Sarmizegetusa's status as a power and ceremonial-religious centre is proven by the economic mechanisms and by the technological level achieved there (Florea 2004, 33).

One last analysis of the world system theory's problematic and “core-periphery” theory's micro-regional implementation has been carried out by Némethi János and Molnár Zsolt (Molnár, Imecs 2006, 25sq; Némethi, Molnár 2007, 55sq.). Accepting Antony Harding's ideas concerning the functioning of the world system, the authors consider that during the Middle Bronze Age in the Carpathian Basin there have been a number of micro-regions controlled by local power centres. These chieftaincies were a constituting part of a social and commercial system defined by regional and long distance exchange relations (Molnár, Imecs 2006, 42).

#### Instead conclusion

Taken from political economy, the “core-periphery” model is one of the great interpretation theories that have marked the historical discourse in the 20<sup>th</sup> century. Meant at the beginning to explain the birth and spread of capitalism in the early Modern Era, the analysis of a “world system” type – from a methodological point of view – represents a theoretical framework for the relations between societies, relations that have previously been empirically proven. The term “world” is rather a spatial and temporal dimensioning of the system sketched by Immanuel Wallerstein, which includes a number of political entities, value systems and cultural groups.

Wallerstein's theory has been adapted to historical and archaeological analysis in order to explain the global interactions between societies placed on

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<sup>93</sup> The author's options are based on the knowing of specialty literature, with references on how this concept has been applied in the Celtic world for the “oppidum” type of settlement and the territories into which they have been included.

<sup>94</sup> “If there has been a concept for a territory's defence and administration coming from a Dacian Sovereign, it must have been in the form of core-periphery since around Sarmizegetusa has been built a belt of fortifications controlling the access to the capital.”

different chronological horizons. The model offers a generous theoretical framework for analysing the ways in which these contacts have influenced the evolution of the economic, political and social structures of those specific communities.

The presentation in our paper of the “core-periphery” model – both in its original form and its variants adapted for historic analysis and archaeological study – has aimed at pointing out the benefits and limits of such an approach.

One first advantage of using this model is the fact that it incites at the analysis of the specific conditions of complex cultural-economic contacts taking place on a macro-regional scale. The new interpreting perspectives of particular evolution forms of some societies based on the role they play in an interregional system can also be used with dependable results. Criticism of the “core-

periphery” model targets first of all the emphasis on the economic nature of contacts between communities, in the disadvantage of individual social evolution and the inadvertent use of some concepts specific to political economy for interpreting realities previous of the Modern Era. World system theories, no doubt useful instruments of the historical research, will have to meet the challenge of ethnographic, archaeological and historical particularities which confer uniqueness and original development to each polity of the ancient world (LaLone 1999 298sq.).

Irrespective of one being enthusiastic fan or fierce critic of the “world system theory” one must admit it is an extremely intriguing model. We are convinced that using the possibilities for interpreting offered by the “core-periphery” model would benefit Romanian archaeology.

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## THE ANALYSIS OF INHUMATION GRAVES BELONGING TO BIRITUAL CEMETERIES OF TRANSYLVANIA (7<sup>TH</sup> TO 9<sup>TH</sup> CENTURIES)

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**Abstract:** *Based on the analysis of the inhumation graves found in biritual cemeteries in Transylvania the author reaches the conclusion that they cannot be attributed to a Christian population or at least one in the process of Christianization despite the prevalence of the E-W with deviations orientation of the dead. Moreover, based on the funerary inventory one can notice the close bond between these tombs and those of incineration belonging to the same type of cemeteries as well as amongst the populations that practiced these two funerary rites.*

**Keywords:** *Transylvania; funerary rite; funerary ritual; biritual cemeteries; inhumation graves; funerary inventor.*

**Rezumat:** *Pe baza analizei mormintelor de inhumație din necropolele birituale din Transilvania, autorul ajunge la concluzia că acestea, nu pot fi atribuite unei populații creștine sau în curs de creștinare, în ciuda predominării orientării E-V, cu deviații, a defuncțiilor. Mai mult, pe baza inventarului funerar, se remarcă legătura strânsă între aceste morminte și mormintele de incinerare din cadrul acestui tip de necropole, precum și între populațiile ce practicau cele două rituri funerare.*

**Cuvinte cheie:** *Transilvania; rit funerar; ritual funerar; necropole birituale; morminte de inhumație; inventar funerar.*

In Transylvania during the 7<sup>th</sup> and the 9<sup>th</sup> centuries both burial rites (the incineration and the inhumation) were used. Their simultaneous usage within the same cemetery led to the formation of biritual cemeteries. They have been included along with the incineration cemeteries in the same period, in that which Kurt Horedt defined as the Mediaș group (Horedt 1965, 13). Up to the present day only eight biritual cemeteries (Figure 1) which we are certain of have been discovered namely Berghin – În Peri (Aldea *et al.* 1980, 151; Blăjan, Botezatu 2000, 457), Boarta – Șoivan (Dumitrașcu, Togan 1974), Bratei – Cimitirul nr. 2 (Zaharia 1977), Ghirbom – Gruicul Fierului (Aldea *et alii* 1980; Anghel 1997), Gușterița – Fântâna Rece (Nägler 1971), Mediaș – Dealul Furcilor (Horedt 1965), Ocna Sibiului – Lab (Protase 1965; Protase 2005) and Târnava – Palamor (Velter 2002, 450; Blăjan, Botezatu 2000, 456-457). The incineration burial rite is prevalent in all of these burial sites (Figure 2). The biritual character of these cemeteries is proven by the fact that the inhumation graves are inserted amongst those of incineration. The contemporary character of the usage of these two types of funerary rites is given by the fact that in the case of graves with inventory items, these are

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similar. In the present study we will issue an analysis of the rite and ritual of inhumation within these cemeteries, referring only to six out of the eight burial sites because those of Berghin and Târnava have not been published up to now. In our analysis we will start from the shape, depth and setting up of the burial pits, continuing with their geographical orientation, the way in which the dead are laid within the graves, their sex as well as the aferent inventory. However, before starting our analysis we consider that we have to specify the fact that some skeletons have been unsettled by different technical or agricultural works and others have been very badly preserved in most cases either because of the soil, either because of the early age of the children buried.

The depth to which the skeletons have been laid differs from one cemetery from another depending on the type of soil. The maximum limits of the burial depths are at Bratei, between -0, 27 and -2,05m. In the case of the cemeteries from Ocna Sibiului the depth varies between -0, 33 and -0,65m, and at Mediaș between -0,40 and -0,80m. Out of the 9 inhumation graves of Ghirbom only on the case of 7 (except grave 1 și 6) the depths have been mentioned, these varying between - 0, 40 and - 1, 10m. Grave 21A from Boarta was

discovered at -0,45m (for grave 5 the depth has not been mentioned). The only inhumation grave from Gușterița was discovered at -0,40m. As far as the shapes of the burial pits are concerned, in the cases where this could be identified and mentioned, there are more variants. The first category is formed by the rectangular burial pits which usually have rounded corners and this shape is spread especially in the Bratei cemetery (Zaharia 1977, Figure 36, 37, 38), but this is also the case of the grave 6 from Ghirbom (Anghel 1997, 263). A second variant found especially in the cemeteries of Bratei (Zaharia 1977, Figure 37) and Ghirbom (Aldea *et al.* 1980, Figure 8), another variant is that of the trapezium shaped burial pits. The third category is represented by the oval shaped burial pits one of these being Bratei (Zaharia 1977, Figure 38).

Further on, we would like to bring forth the cases in which the burial pits have been especially set up. In grave 215 from the Bratei burial site the existence of clay bond around a bed of sand at the bottom of the burial pit has been noticed, on which the corpse was then laid. In grave 211 wooden boards have been laid on the bottom of the pit around the burial pit and in grave 233 burnt wooden boards have been found under and around the skeleton (Zaharia 1977, 56). In grave 7 from Ghirbom burned planks of wood have been found 17cm above the skeleton (Aldea *et al.* 1980, 166).

The geographical orientation (Figure 3) of the skeleton could be established only in 51 of the cases and differs accordingly: E-W (9 cases), W-E (one case), NE-SW (2 cases), SE-NW (10 cases), NW-SE (3 cases), ESE-WNW (one case), ENE-WSW (18 cases), WSW-ENE (3 cases), NNE-SSW (3 cases) și SSE-NNW (one case). We have to highlight the fact that the dominant geographical orientation on the case of the Bratei cemetery is ENE-WSW, at Ocna Sibiului it is SE-NW, at Ghirbom it is E-W. In some cases also the sex of the dead could be established (Figure 4). So we can talk about 16 men, 6 women (8 if we take the two from Berghin), 29 children (39 if we take the 10 at Berghin into consideration) and for other 13 skeletons the sex is undetermined. In addition to this (Figure 5) most men are ENE-WSW oriented. The women graves are especially SE-NW and NNE-SSW oriented. Most of the children are ENE-WSW and SE-NW oriented. For 29 graves the length of the skeletons could be established. This differs from the children, according to their age between 0, 55 and 1,43m. The length of the skeletons of women is between 1, 50 and 1,54m, and that of the men between 1,50 and 1,69m. Another remark that needs to be mentioned is related

to the age of those buried. In these graves children of different ages as well as adults and seniles were buried if we think for example at the 60-year-old man in grave 5 at Boarta. Regarding the laying of the dead in the burial pit we have to mention from the beginning the fact that in all cases only one dead person was laid, there are no cases of multiple graves as those of biritual cemeteries in Hungary and Slovakia (Sós, Salamon 1995; Sós, Salamon 1995; Kraskovská 1962). In all cases the dead were laid laying down on their backs. The position of the head, fallen to the left or the right must be interpreted as due to the weight of the soil filling the grave pit. The position of the arms and feet as a form of ritual is interesting. Regarding the position of the arms in the cases where they have been found and where specifications have been made, we can distinguish the following variants (Figure 6.1):

a. Both arms lying parallel and next to the body: this situation was noticed at Bratei (Zaharia 1977, 57, 59) in graves 212, 226, 227; in grave 5 belonging to a man about 60 years of age from Boarta (Dumitrașcu, Togan 1974, 94); in the cemetery of Ghirbom (Aldea *et al.* 1980, 158, 162; Anghel 1997, 263) in graves 3, 4 and 5, but also in grave 6 resulted from the digs made in 1995; at Ocna Sibiului (Protase 2005, 18, 24, 34) in graves 32, 63, 111; a subvariant of this position is represented by grave 115 from the Ocna Sibiului grave, in which the right hand has only been preserved up to the elbow (Protase 2005, 35).

b. The left arm lying next to and parallel to the body and the right arm is missing in grave 5 from Medias (Horedt 1965, 9).

c. The left arm lying next to and parallel to the body and the right one is bent at the elbow and lying on the pelvic bones: in grave 7 from Ghirbom (Aldea *et al.* 1980, 162); this situation is confirmed by grave 126 from Ocna Sibiului (Protase 2005, 37).

d. The right arm lying next to and parallel to the body and the left bent at the elbow and lying on the pelvic bones: in grave 17 from Ocna Sibiului (Protase 2005, 14).

e. The right arm bent from the elbow over the waist and the left arm is missing: in grave 211 from Bratei (Zaharia 1977, 57).

f. Both arms lying on the pelvic bones: at Bratei (Zaharia 1977, 59) in grave 233 belonging to a mature aged woman, as well as in grave 234; and also in grave 2 from Ghirbom (Aldea *et al.* 1980, 158).

g. Both arms under the head: there is only one case of this kind, coming from grave 101 from

the cemetery of Ocna Sibiului (Protase 2005, 31-32).

h. The right arm lying away from the body and the left one parallel and near to the body: in two cases, those of graves 222 and 242 from the Bratei cemetery (Zaharia 1977, 58, 60); in the subvariant h1 we included the case of the grave of a child whose right arm is missing in grave 221, from the same cemetery (Zaharia 1977, 58).

i. Both arms bent with the elbows: out was encountered at Bratei in grave 228 belonging to a mature person whose burial pit was probably too short for him / her and this is why both his / her knees are raised (Zaharia 1977, 59).

j. Both arms bent at the elbow towards the right: is the case of a mature individual from grave 226 from the Bratei cemetery (Zaharia 1977, 59).

Regarding the position of the legs, there are more variants as it follows (Figure 6.2):

a. Both legs spread out and parallel thus is the most common case; was encountered in graves 212, 227, 242 from Bratei (Zaharia 1977, 57, 59, 60), in graves 4 and 5 from Ghirbom (Aldea *et al.* 1980, 162), as well as in graves 22, 23, 111 and 115 from Ocna Sibiului (Protase 2005, 15-16, 34-35).

b. Both legs spread out and feet close together in the heel area case confirmed by grave: 6 (from the diggings made in 1995) at Ghirbom (Anghel 1997, 263) and grave 5 from Boarta (Dumitrașcu, Togan 1974, 94).

c. Both legs spread out and coming closer in the tibia area: in grave 221 from Bratei (Zaharia 1977, 58).

d. Both legs bent at the knees towards the left: case confirmed by grave 234 from the Bratei cemetery (Zaharia 1977, 59).

e. The left leg lying over the right one in an X shape: this situation was encountered in only one case that of grave 5 in Mediaș (Horedt 1965, 9).

f. Left leg stretched out and the right one slightly bent at the knee, left heel thus close the right one: in grave 226 from Bratei (Zaharia 1977, 59).

For the graves in which both the position of the legs and of the legs is mentioned, we can distinguish the following combinations (Figure 6.3): aa (graves 212 and 227 from Bratei; graves 3, 4 and 5 from Ghirbom; grave 111 from Ocna Sibiului); ab (grave 5 from Boarta); ala (grave 115 from Ocna Sibiului); be (grave 5 from Mediaș); ca (grave 7 from Ghirbom and grave 126 from Ocna Sibiului); da (grave 17 from Ocna Sibiului); ea (grave 211 from Bratei); fa (grave 2 from Ghirbom and grave 233 from Bratei); fd (grave

234 from Bratei); ga (grave 101 from Ocna Sibiului); ha (grave 242 from Bratei); h1c (grave 221 from Bratei); id (grave 228 from Bratei) and jf (grave 226 from Bratei).

Regarding the inventory items found in the cemeteries we observed that the number of the graves with funerary inventory is larger than the one of the graves without inventory (Figure 8).

The inventory of these graves is made out of ceramic pots layed in as offerings, tools and utensils, finery and clothing items, harness items (Figure 9). In the child graves were found especially finery items and offering pots. In the male graves were found all types of funerary items, but in the female graves finery items only (Figure 10). The most common orientation of the graves with funerary items is ENE-WSW and E-W (Figure 11).

Offering pots (Cosma 2007) have been discovered in 15 cases. These were placed either at the bottom of the burial pit, either lying on one side with the orificetowards the legs or the head. The way in which offering pots were placed into the graves is very interesting a characteristic that has been noted in 13 cases so that more variants can be distinguished (Figure 7):

a. on the right side of the head: in grave 23 from Ocna Sibiului (Protase 2005, 16); in grave 238 from Bratei (Zaharia 1977, 60).

b. on the left side of the head: in graves 32 and 89 from Ocna Sibiului (Protase 2005, 18, 29), but also in grave 224 from Bratei (Zaharia 1977, 58).

c. at the feet of the dead on the right side: in graves 22 and 116 from Ocna Sibiului (Protase 2005, 15, 35); another pot was found in grave 236 from Bratei (Zaharia 1977, 59); in grave 7 from Ghirbom the pot was placed on the upper part of femur (Aldea *et al.* 1980, 166).

d. at the feet of the dead on the left side in grave 24 from Ocna Sibiului (Protase 2005, 16); in grave 223 and grave 225 from Bratei (Zaharia 1977, 58).

e. on the feet : in grave 4 belonging to a 40-45 year-old man from the cemetery in Mediaș. We must make some specifications regarding this pot because according to the findings it was found placed on the feet and then it was moved on the right side of the head as it was being photographed. To take the suspicion that it was in fact an urn, the fact that it contained no burnt bones ashes or coal was mentioned (Horedt 1965, 9).

In the case of grave 21A from Boarta (Dumitrașcu, Togan 1974, 99-100) the place where the pot was placed in the grave is not mentioned, in grave 239

from Bratei lits place could not be mentioned because the skeleton of the child were completely decomposed and in 241 only a few fragments of pottery have been found (Zaharia 1977, 60). Also in relation to the graves in which offering pots have been placed we must highlight the fact that excepting grave 4 from the cemetery in Mediaş and grave 241 from Bratei, which belong to adults all others come from the graves of children. Regarding the geographical orientation of these graves (head-feet), we can mention the fact that in 4 cases it is E-W, in one case W-E, other 3 graves having a ENE-WSW orientation, 4 are SE-NW orientated, one case of SSE-NNW orientation, one case in which the skeleton is NE-SW orientated, and in two cases the orientation could not be mentioned. The existence of offering pots within the tombs certifies the pagan belief that the dead person needed food and drink in the afterworld.

Regarding the other pieces of inventory these have been discovered in only 35 of the graves and can be placed under the following categories:

**a. Tools and instruments:**

*The whetstones.* An item such as this was discovered in grave 2 from the Ghirbom cemetery (Aldea *et al.* 1980, 170).

*The grits.* One item has been found in grave 3 from Ghirbom (Aldea *et al.* 1980, 162).

*The knives.* Have been discovered in grave 5 from Boarta (Dumitraşcu, Togan 1974, 94); in graves 212, 218, 241, 242 from Bratei (Zaharia 1977, 57-60); in graves 3 and 5 from Ghirbom (Aldea *et al.* 1980, 159-162).

*Razor blades.* Were discovered in grave 3 Ghirbom (Aldea *et al.* 1980, 159).

*The flints.* In grave 3 from Ghirbom only one fragment has been found (Aldea *et al.* 1980, 162).

**b. Clothing items:**

*Belt buckles.* Have been discovered only in graves 4, 5 and 7 from Ghirbom and in graves 212 and 226 from Bratei cemetery (Aldea *et al.* 1980, Figure 11; Zaharia 1977, Figure 31).

*Fibulas.* Only one fragment of a reused bronze Roman fibula has been discovered in grave 3 from Ghirbom.

**c. Harness items:**

*Bridle bits.* Two items were discovered in the Avar with horse grave from Bratei (Zaharia 1977, Figure 29,10).

*Stirrups.* Two pieces were discovered in the grave of the Avar with horse from Bratei (Zaharia 1977, Figure 29, 10).

**d. Finery items:**

*Belt ornaments.* Only 6 Avar cast items have been discovered all coming from grave 244 (one) and from the grave of the Avar with horse (the

remaining 5) from the cemetery of Bratei (Zaharia 1977, 88, Figure 34).

*The earrings.* They are of different types like: simple, half moon shaped, with a cluster made of metal grains, with a spiral shaped pendant, with a spheric pendant. A lot of items have been discovered from a number of 19 graves in Bratei (211, 214, 215, 220, 221, 224, 229, 230, 233, 235, 236, 237, 238, M240, 242, 244) and Ocna Sibiului (graves 32, 115, 126); we must also mention the four golden earrings found in the cemetery of Ghirbom which came from grave 1 which was destroyed before the digs (Aldea *et al.* 1980, 154-156, Figure 3-5; Zaharia 1977, Figure 32).

*The bracelets.* Only two items were discovered in grave 1 from Ghirbom (Aldea *et al.* 1980, 155-156, Figure 6).

*The rings.* A bronze item was found in grave 219 from Bratei (Zaharia 1977, 58) and one made out of iron in grave 5 in Ghirbom (Aldea *et al.* 1980, 162, Figure 11/9).

*The beads.* They are made out of glass, chalcedony or even silver. They are of different shapes and colors being discovered as a single one, a pair or in bead ropes. Such finery has been discovered in 15 graves from Bratei (graves 211, 212, 214, 220, 224, 225, 228, 233, 235, 236, 237, 241 and 244) and Ocna Sibiului (graves 111 and 115). These beads are from 7<sup>th</sup> to 9<sup>th</sup> century (Dulea 2001-2002, 221).

All these inventory items are identical with those discovered in cremation graves belonging to the same cemeteries. The funerary inventory has analogies in Transylvania in Avar graves as well as those attributed to the Western Slavs from the tumulary cemetery from Someşeni (Macrea 1959). In addition to this, similar items have been discovered in birital cemeteries belonging to the Avar-Slavs from Hungary and Slovakia (Sós, Salamon 1995; Sós, Salamon 1995; Kraskovská 1962) or in birital cemeteries from south of Carpathians (Cîrjan 1969; Harhoiu 1972). Based on the analogies made, they date from the 7<sup>th</sup> up to the 9<sup>th</sup> centuries.

Besides the basic inventory items found in one grave belonging to a child, from Ocna Sibiului (grave 89) a horse bone placed as offering has also been found (Protase 2005, 48). We also have to mention here the skeleton of a horse placed in the Avar tomb of Bratei, as well as the grave of a horse (near which an offering pot has been found) with an ENE-WSW orientation belonging to the same cemetery and which could not be related to any of the graves (Zaharia 1977, 62, Figure 13). We must also mention that in grave 213 over the skeleton

and within the soli filling of the burial pit from grave 222 from the cemetery of Bratei some coals have been found under the skull from grave 224 coals and burnt bones formed a sort of pillow. Bigger lumps of coal have been found near the feet of the skeletons in graves 234 and 243. All these must be interpreted as a form of ritual (Zaharia 1977, 56).

The anthropological study made on the skeletons of Bratei led to the conclusion that the dead belonged to mediterranean population thus locals (Zaharia 1977, 125). Also an anthropological study was made on two skeletons from Ocna Sibiului and it revealed that they are from two east-european women (Nicolăescu-Plopșor, Wolski 1975, 228). But we believe that from an ethnical point of view of those buried in these cemeteries we must not take out of consideration the fact that Avar and Slavic element. In our opinion, we can speak of cohabitation between Slavs, Avars and the local population.

To conclude, based on the thorough analysis of the inhumation tombs we can state that there is a variety of rituals that were being practiced which

differ from one cemetery to another but which are also common amongst more of these cemeteries. Their most common orientation is E-W (head-feet) with certain deviations does not lead to attributing them to a Christian population or at least one in the process of Christianization. Moreover, the funerary inventory discovered (similar to that of cremation graves from the same cemeteries or from incineration cemeteries belonging to the Mediaș group) is not in favor of attributing them to a Christian population. Also, the ritual presence of coal or of remains of burnt human bones in some inhumation tombs, state two funerary rites that were practiced in the biritual cemeteries and implicitly amongst the populations that practiced them.

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## **LIST OF ILLUSTRATION/LISTA ILUSTRĂȚILOR**

Figure 1 Map of the biritual cemeteries from Transylvania. 1. Berghin; 2. Boarta; 3. Bratei; 4. Ghirbom; 5. Gușterița; 6. Mediaș; 7. Ocna Sibiului; 8. Târnava.

Harta necropolelor birituale din Transilvania.

Figure 2 The ratio between the cremation and the inhumation graves.

Raportul dintre mormintele de incinerare și mormintele de înhumare.

Figure 3 The geographical orientation of graves within cemeteries.

Orientarea mormintelor pe necropole.

Figure 4 The ratio between sexes within the cemeteries.

Raportul dintre sexe pe necropole.

Figure 5 The ratio between the sexes and the geographical orientation.

Raportul dintre sexe și orientare.

Figure 6 The types of lying the dead within the burial pit: 1. the position of the arms; 2. the position of the feet; 3. the position of the arms and feet.

Tipurile de depunere a defuncțiilor în groapă: 1. poziția mâinilor; 2. poziția picioarelor; 3. poziția mâinilor și picioarelor.

Figure 7 The types of placing of the offering pots within the graves and the geographical orientation of the skeletons.

Tipurile de depunere a vaselor ofrandă în morminte și orientarea scheletelor.

Figure 8 The ratio between the tombs with an inventory and those without.

Raportul dintre mormintele cu inventar și mormintele fără inventar.

Figure 9 The ratio between the types of inventory within the cemeteries

Raportul dintre tipurile de inventar pe necropole.

Figure 10 The ratio between the types of inventory and the sexes.

Raportul dintre tipurile de inventar și sexe.

Figure 11 The ratio between the type of inventory and the geographical orientation.

Raportul dintre tipurile de inventar și orientare.



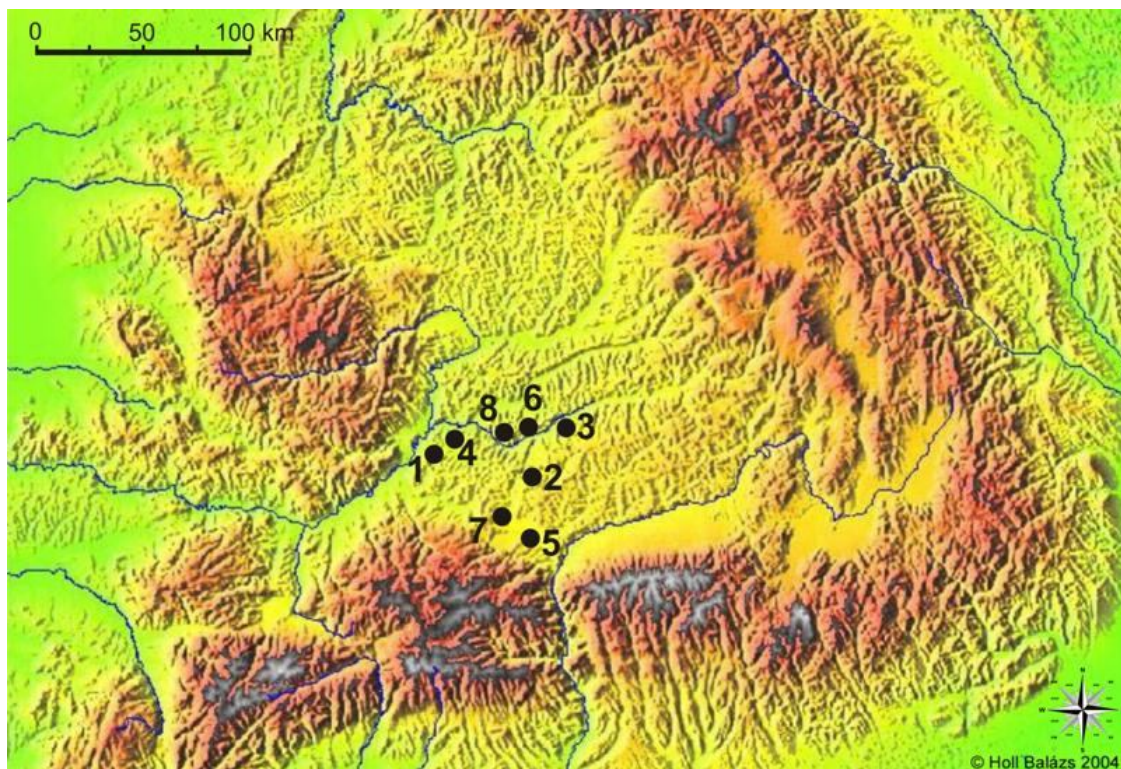


Figure 1

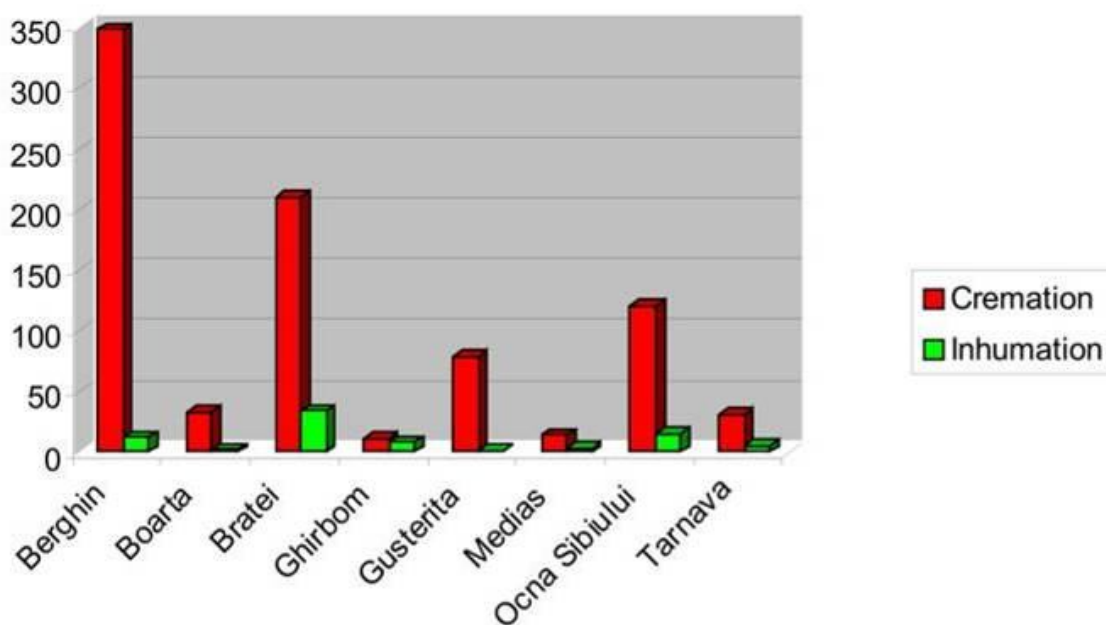


Figure 2

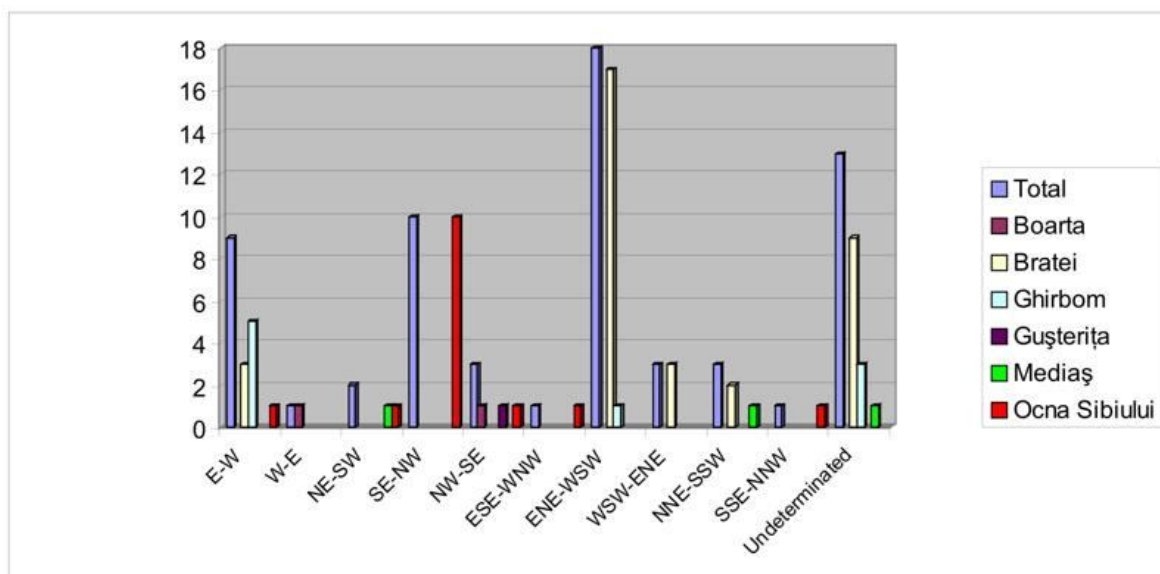


Figure 3

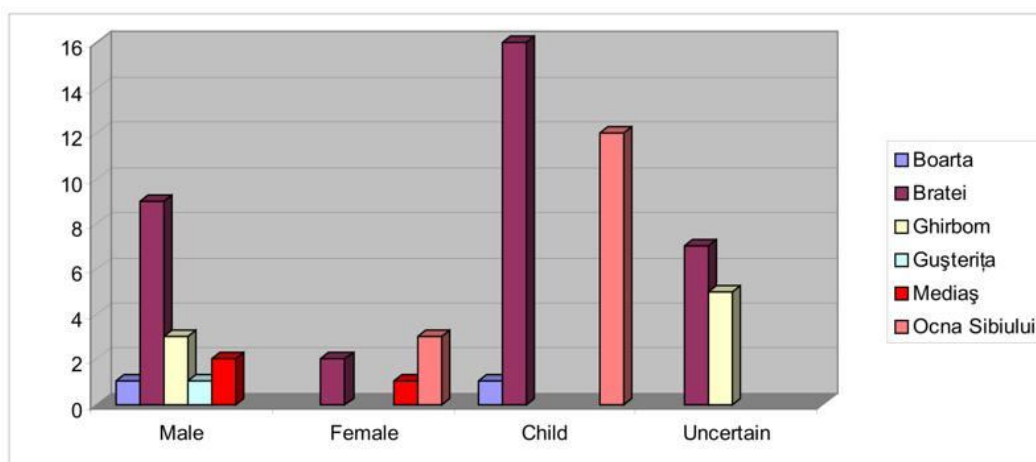


Figure 4

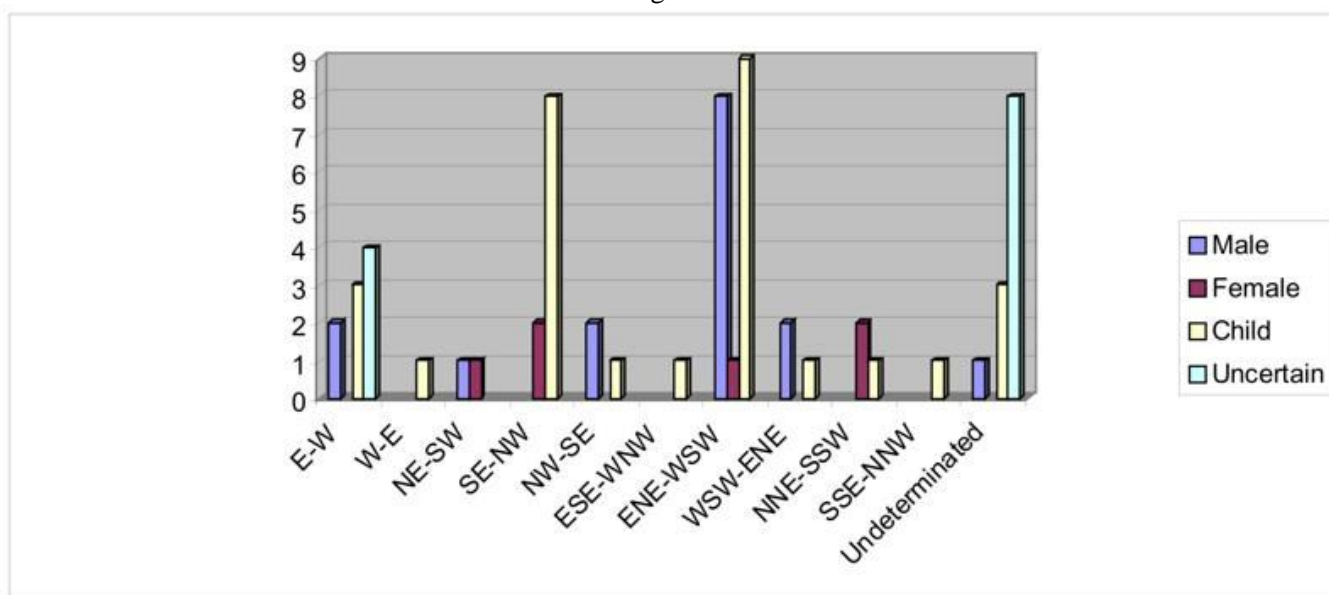


Figure 5

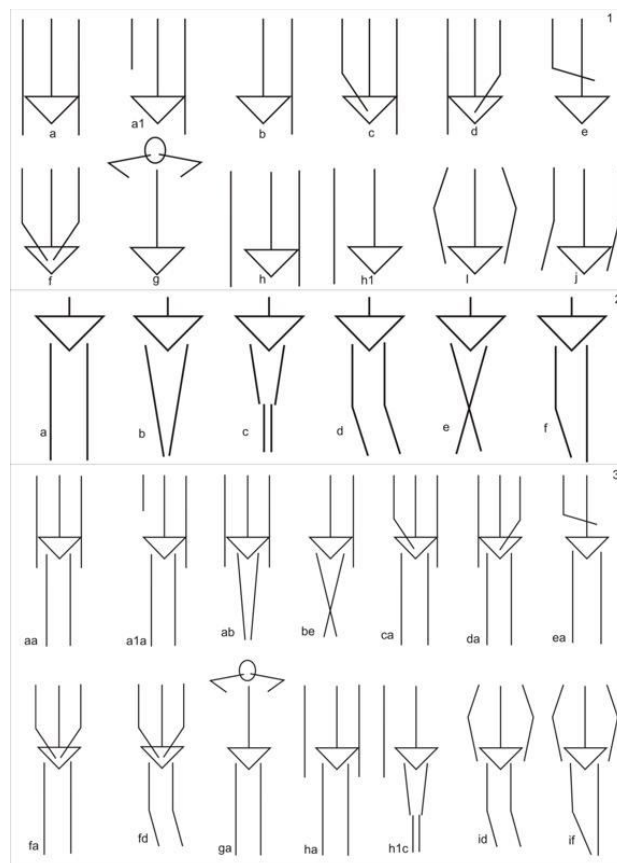


Figure 6

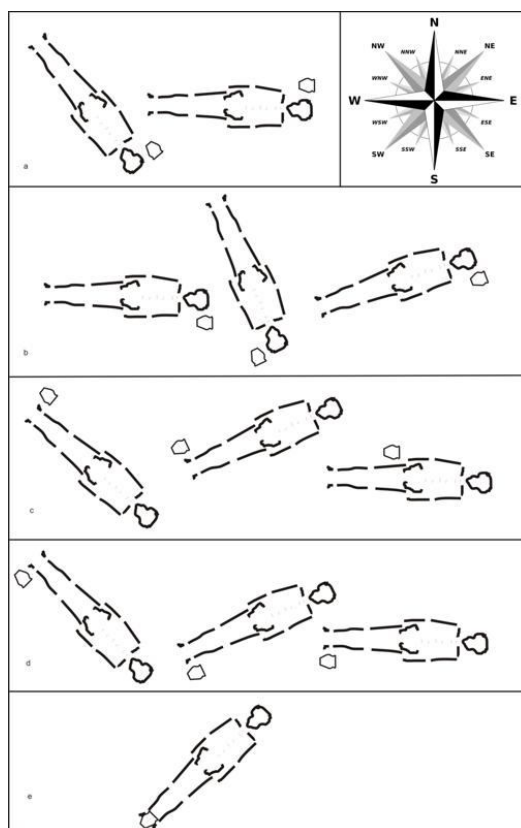


Figure 7

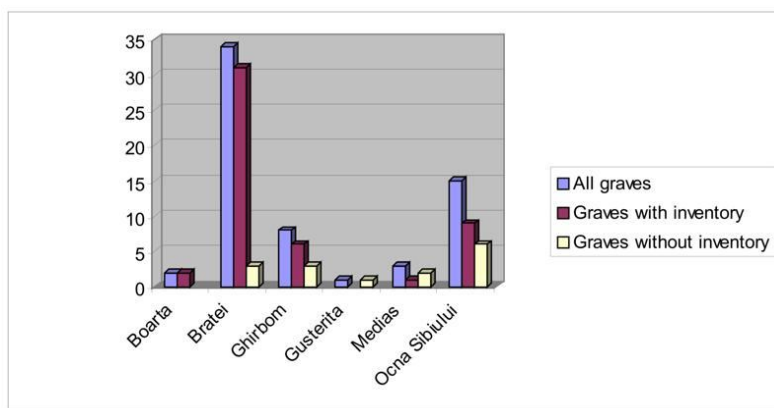


Figure 8

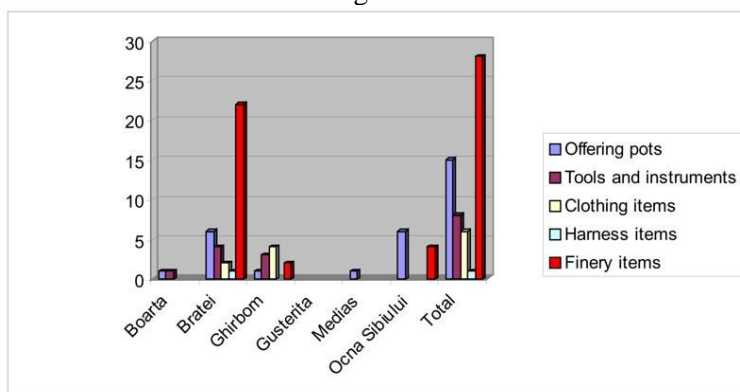


Figure 9

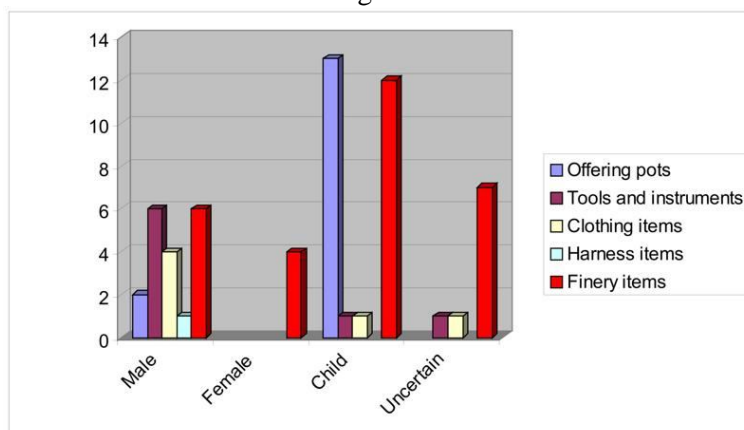


Figure 10

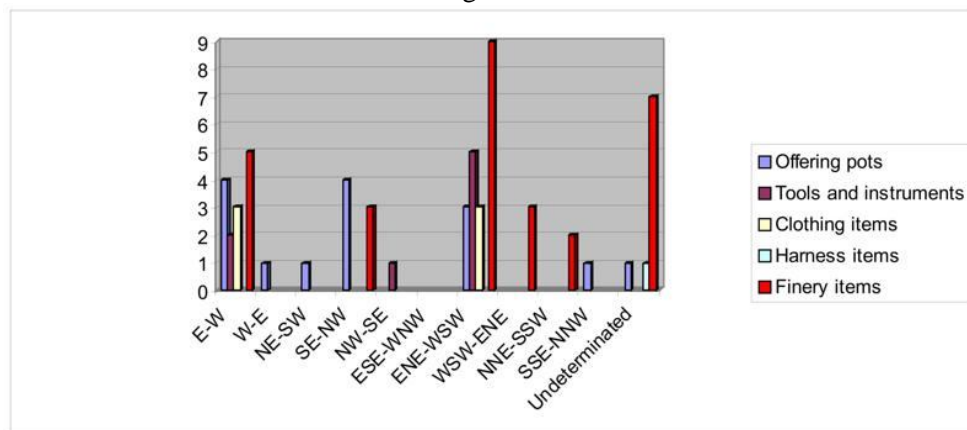


Figure 11



## SIGNET RINGS DECORATED WITH BIRDS

Aurel DRAGOTĂ\*,  
Gabriel T. RUSTOIU\*\*

**Abstract** The article is presenting the signed rings decorated with birds dating from the 10<sup>th</sup> to the 12<sup>th</sup> centuries. These artifacts came from graves placed in Central and Eastern Europe. The signet rings are discovered mostly in funerary inventories belonging to 10<sup>th</sup> century but, according to some archaeologists they can be traced up until the 12<sup>th</sup> century.

**Keywords:** jewelry, rings, early medieval, Central and Eastern Europe

**Rezumat.** Articolul face o trecere în revistă a descoperirilor de inele cu placă ornamentate cu păsări și databile în perioada secolelor X – XII în Europa Centrală și de Est. Acestea reprezintă un artefact întâlnit cu predilecție în inventarele funerare din secolul al X-lea dar se mai regăsesc în înhumări până în secolul al XII.

**Cuvinte cheie:** bijuterii, inele, ev mediu timpuriu, Europa Centrală și de Est

Within category of finger rings a closed variant with round or oval bezel, having as decoration an incised vulture or a bird (pidgeon?) can be observed (Giesler 1981, Pl. 4, 53). Shape 37 covers a time interval between the second half of 10<sup>th</sup> century and the first half of the following. In most cases, the incised decoration is framed on both sides by 2 incisions "X" shaped, sometimes being traversed by a hasta. Other times the „X” traversed by a hasta is included within an incised oval or there is a more complicated geometric decoration (Pl. III/3). The vulture was made in a simple manner on the bezel or was framed by an incised circle. Many times, the body of vulture and the upper part of wings present indented dots. If the bezel was circular, the vulture was depicted so that its wings were close from the two letters „X”. If the bezel was oval, the head and the tail of the bird were framed by the other decorative elements. These rings appear both in women graves and in those of children (girls), to the left or right hand. In general, the vulture is depicted integrally, more or less schematised. Wings are more or less broad. Shape 37 appears in Romania, Macedonia, Bosnia Herzegovina, Hungary, Slovakia or Bulgaria. The aquila or heraldic vulture was a quite frequent motif on the Byzantine monuments and came to be represented to different populations even on everyday jewels.

### Repertory of discoveries:

- ❖ Ablanica-1/M. 70- two skeletons of children. Inventory: bronze earrings; cylindrical and tubular glass beads, yellow, navy blue and brown; bronze ring (d = 0,2 cm) with a round bezel on which a golden eagle was incised (Văžarova 1976, 289, Figure 180<sub>8</sub>)
- ❖ Capidava- ring with an aquila with broad wings (Pl. III/7), quite schematically made (Florescu *et al.*, 1958, 233, Figure 118/4. Motif of vulture appears on ceramics, pendants or appliques and is considered to be of Byzantine tradition.)
- ❖ Csongrád-Vendelhalom/M. 28- Inventory: ring 37, two bronze rings with opened ends; iron fragments, fragments of bronze bent plates and eight beads (Párducz-Tary 1939, 191, Pl. I/36; Szöke 1962, 64).
- ❖ Csongrád-Felgyő, Csizmadia tanya (Bálint 1991, 216, Pl. LIII b/25)- Aquila ring (Pl. III/9)
- ❖ Čoniovit Lăki (reg. Zlatograd)/M. 3- grave with marked pit and covered with lithic material. Inventory: bronze ring (Makova 1964, 20sqg, Figure 4 ) with round bezel decorated with an aquila with broad wings (Pl. III/2)
- ❖ Djerahovi Nivi (reg. Zlatograd)/M. 1 (woman) - with the pit delineated by lithic material. Inventory: two strings of beads were near the chin; two pairs of earrings; on the left hand there were four rings, and

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- on the right there was one. Three amongst rings (Makova 1964, 21sq, Figure 4<sub>3a-b</sub>, 5; Figure 5<sub>3, 4, 6</sub>) discovered on the right hand were made of bronze, with the circular bezel and decorated with pentagram (two finds) and an aquila (Pl. III/6); M. 3- marked with lithic material. Inventory: green, blue, silver, golden and yellow glass beads; ring with aquila (Makova 1964, 24sq, Figure 6<sub>1, 3, 4</sub>) with broad wings (Pl. III/3-5)
- ❖ Greda- two bronze rings with oval bezel decorated with aquila, dating between 9<sup>th</sup> 10<sup>th</sup> centuries (Malchev 1963, 32, Figure 11).
  - ❖ Kiszombor B/M. 202. Inventory: simple rings, „bunch” shaped earrings, pendants, beads, heart-shaped appliques, rings with bird and pentagram; M. 396 (woman)-bronze ring with a bird with broad wings; M. 426- ring with a bird; M. 296 (woman)-ring with pentagram on the right hand (Bálint 1991, 234sq, Pl. LXI a/6; Szöke 1962, 64).
  - ❖ Malé Kosihy/M. 272. Inventory: bronze ring with oval bezel depicting a bird with broad wings (Hanuliak 1994, 53, Pl. 46/57 a, Pl. LVI/C-1); a bronze bracelet made of three intertwined wires (1.1 mm), ended in a loop (Pl. I/2) was on the right forearm.
  - ❖ Miševsko, District Kărdzăli/M. 18- ring with an aquila with broad wings (Văžarova 1976, 304, Figure 188<sub>4</sub>). The following materials had been discovered before start of researches: 1.) three bronze rings decorated with an aquila with broad wings (Văžarova 1976, 309, Figure 193<sub>3, 4, 5</sub>); M. 27- three bronze rings (Văžarova 1976, 304, Figure 189<sub>18-19</sub>) decorated with a bird (d = 2 cm, dbezel= 1, 3 cm); M. 32- ring (Văžarova 1976, 304, Figure 191<sub>6 a-6 b</sub>) with aquila (d = 1, 8 cm, dbezel= 1,5 cm).
  - ❖ Museum from Belgrade (Bálint 1991, 106, Pl. XXXIII a/28)
  - ❖ Mogorjelo/Bosnia-Herzegovina (Miletić 1980, 301, Figure 16/1)
  - ❖ Nyiregyháza-Felsőpázsit. Woman grave having as inventory a ring with the motif of vulture with broad wings (Szöke 1962, 64).
  - ❖ Odartsi/M. 235, M. 401 – rings with golden eagle (Dontcheva-Petkova 2005, 119, Pl. CIV/4, CXLI/1, type IX B); M. 235 (child, 2-4 years). Inventory: on the chest, two crescent pendants made of lead; beads; circular medallion made of lead; on the right arm, a blue-purple glass bracelet; ring with aquila on the skull area, above at 0, 20 m. ( d = 2 cm, dbezel= 1, 4 and 1, 6 cm). Aquila was depicted throughout the whole surface of the chaton, and the head is not discernable (Dontcheva-Petkova 2005, 214sq, Pl. CIV/4). M. 401 /(woman skeleton, 45-50 years); pit of the grave was covered and marked with lithic material; Inventory: to the right hand, a ring with a vulture engraved along the bezel (Dontcheva-Petkova 2005, 230, Pl. CXLI/1 ), the motif being framed on both sides by small stars included in a circle (d= 2 cm, dbezel= 1, 3-1, 5 cm). Other discoveries are known in Veliki Preslav, Pernik, Yakimovo, Durankulak, Pleven Gradesnitsa, Ablatnisa Mishev-Rani, Datura or nearby Zlatograd. Finds discovered in Corinth date between Xth-XIIth centuries, and those from Macedonia are dating according F. Maneva from the XIIth century. They are used together with those with pentagram in the Xth century and up to the middle of the XIth century (Dontcheva-Petkova 2005, 119).
  - ❖ Oradea-„Salca-Ghețarie”/M. 4. The finger ring has in the upper part a circular chaton, decorated by incision with an aquila with broad wings (Dumitrașcu 1983, 51, Pl. XXXIV; Cosma 2001, 525, Pl. 21/8; Cosma 2002, 208sq, Pl. 177/8 ). The bezel is framed on one side and the other by incised lines (d = 2, 4 cm). The funerary inventory is completed with a read bead and two „bunch” shaped earrings (Pl. I/9).
  - ❖ Păcuiul lui Soare (Diaconu 1965, Pl. 314sq, Figure 2/3).
  - ❖ Piatra Frecăței (Aurelian 1962, 585)
  - ❖ Szolnok- Szanda Beke Pál halma III /M. 16 (woman?). Inventory: Kauri shell, ring 37 with incised aquila (Madaras 2006, 228, Figure 12/2), framed by two incised ornaments „X” shaped; „mushroom” shaped button (Pl. I/1).
  - ❖ Sárretudvari-Hízóföld/M. 43 (woman)-Inventory: a fragmentary lock ring was next to skull; to the right hand there are two rings out of which one has a stylized vulture whose head is not discernable (Nepper 2002, 304, Pl. 238/11).
  - ❖ Szentcsanak/M. 79 (woman)-inventory: to the right hand was a ring with vulture (Pl. I/8); to the left hand was a ring with opened ends; under the head was a hair ring made of bronze (Széll 1941, 241,



Pl. VII A/5 a-b); M. 76 (child) – funerary inventory: on the neck, beads, shells and snails, bronze twisted necklace; on the chest, to the right of the elbow, appliques; to the left hand, a ring with vulture with broad wings (Széll 1941, 241, Pl. IV/12 a-b); on the area of ribs and hips, appliques and spikes (Pl. I/3); M. 63 (man); on the left side of the body was a girl skeleton; Inventory: two twisted rings, two globular buttons, strings of beads, lighter, knife, lock-rings made of bronze, fragments of silver plates, twisted silver bracelet with loops; bronze ring decorated with a golden eagle (Széll 1941, 238, Pl. V A/11 a-b); M. 67 (woman)- Inventory: on the right of the head, two earrings with pendant and a hair ring; to the left of the head, a silver hair ring; to the left hand was a ring with vulture having broad wings (Pl. I/6); to the right hand was a ring with pentagram, having the motif framed by one small star; iron knife (Széll 1941, 238, Pl. V B/12 a-b, 13 a-b; Szöke 1962, 64).

- ❖ Tápé-Malajdok B/M. 2: Inventory- ring 37 (Széll 1943, 176, Pl. LVIII/10 a-b), heart-shaped double pendants, bracelet 4, rings (Pl. I/12).
- ❖ Trnovec nad Váhom (Horný Jatov-Trnovec)/M. 246 (woman). Inventory: a lock-ring with s-shaped end; to the left hand was a bronze ring (d = 2, 3 cm, l = 0, 6 cm, lbezel = 1, 9 cm), decorated with a vulture (Točík 1955, 491sq, Figure 236/1; Točík 1971, 155, Pl. XXXI/14; Szöke 1961, 64).
- ❖ Timișoara-Ciorenii/M. 13- finger ring 37 (h = 2, 0 cm, l = 1, 5 cm, Dm = 2, 1 cm) identified in connection with a ring 36, earring 17 b, shape 11 a, fragments of bronze and wire plate (Rădulescu-Gáll 2001, 171, Figure 14).

Graffiti or incised representations of birds (golden eagle) and pentagram are known on some materials from Bulgaria, respectively Pliska and Preslav (Georgiev 1978, 30-39; Ovčarov 1979, 59, Figure 22; Rashev 2008, Pl. CXXXVIII/7). P. Gatev (Gatev 1977, 41sq, Figure 6, type II-2,3) dates rings of this type to the Xth-XIth centuries (Sofia, Hvoina, Liubenovo, Zlatograd, Mineralni Bani). Rings decorated with vulture (type V. 1 according G. Atanasov, V. Grigorov) are closed and have an engraved, oval or round bezel. The head terminates in a pointed hooked beak, and the wings are broad. The triangular tail is fan shaped. Although is represented schematically, the bird is depicted in

relatively exact proportions. In iconography, the heraldic vulture is a universal mediator between the sky and earth in late antiquity. The vulture in heraldic posture represents a main theme in elitist symbolism (Atanasov-Grigorov 2002-2003, 352sq). From a certain perspective, the vulture seems to symbolize power and force.

The shape decorated with aquila is associated with the variant with pentagram (Kiszombor B, Szentes-Szentlászló/M. 67, Miševsko, Djerahovi Nivi/M. 1), twisted bracelets with loop ends (Malé Kosihiy/M. 272), shells, appliques, buttons, necklace 1 b (Szentes-Szentlászló/M. 76), lock-ring with s-shaped end (Trnovec nad Váhom), earrings 17 a-17 b, shapes 4, 9 (Tápé-Malajdok B/M. 2) and 36 Giesler (Timișoara-Ciorenii/M. 13).

Amongst decorated rings, worth noticing are those with incised bird (pidgeon?) quite old motif that appears in Sassanid art but also in Byzantium or christianism. Some birds have in their beaks a sprig. The body is sometimes depicted schematically and dotted (type V. 2 according Atanasov-Grigorov, 2002-2003). Such pieces appear both in Bulgaria (Odartsi, Yakimovo), Romania (Dinogetia) and also in Hungary (Atanasov-Grigorov 2002-2003, 355, Pl. 13).

- ❖ Miševsko, District Kărdžali. Two bronze rings were recuperated before the start of archaeological researches (Vážarova 1976, 309, Figure 193<sub>1,2</sub>), they were decorated with a bird (d = 2 cm).
- ❖ Gradešnica - ring with water bird (?) or a pidgeon (Mašov 1979, 31-47, Figure 9<sub>6</sub>).
- ❖ Tápé-Malajdok B/M. 5 (woman) - ring with an incised bird, in association with two lock-rings and a fragment of wire (Széll 1943, 176, Pl. LVIII/25 a-b; Szöke 1962, 64).
- ❖ Szentes-Szentlászló/M. 85 (child)- inventory: on the right of the skull, a lock-ring; two twisted rings; bird-shaped ring (Széll 1941, 241, Pl. VII B/1a-b).
- ❖ Greda- bronze ring with circular bezel, decorated with a bird included in a circle. The decoration is framed on both sides by a „x” traversed by hasta, included in a circle (Malchev 1963, 32, Figure 11).

In Bulgaria, vulture rings (Grigorov 2007, 55sq, Pl. 63/1-16, type III. 5) are mentioned in the History Museum from Dobrich, Sredishte, Ruyno, Durankulak, Kragulevo, Lukovit and Okorsh. Rings with pidgeon (Grigorov 2007, 56sq, Pl. 64/1-12, type III. 6), appear in Dinogetia, Sredishte, Odartsi, Miševsko, Vetren, Okorsh, Pernik, Yakimovo and in an accidental discovery

from northern Bulgaria. In most situations, the bird (pidgeon or duck) is depicted schematically and the beak is prolonged just like a rod. The two types are distributed approximately in the same time interval, between the second half of the 9<sup>th</sup> century and until the end of the 11<sup>th</sup> century.

Symbolism of birds in medieval art derives from multiple sources<sup>1</sup>. The pidgeon plays a major role taken over from the biblical passage referring to Noah and Flood and then becomes symbol of the Holy Spirit. The vulture is then attributed to Saint John the Evangelist, but also of Resurrection, redemption, courage and generosity (Ross 1996, 37). An iconographic theme connected from Noah's Ark is the pidgeon bringing the olive branch from Mount Ararat (Genesis/8/11; Keller 1975, 392). Vulture / Aquila in Christian iconography represent the fusion of celestial power with the terrestrial one, the two sources of authority which overlap in the Christian church (Fowden 1999, 154).

Vulture represents the sky and heaven (Drijvers 1976, 10). When referring to Romans, vulture symbolizes victory. In the Scripture, vulture represents divine care for people, who through baptism become "*a royal people*" under protection of divinity (Baxter *et al.* 2009, 204).

Rings with vulture and bird appear in funerary inventories mainly in the 10<sup>th</sup> century, but they are used until late in the 12<sup>th</sup> century according some opinions.

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<sup>1</sup> We would like to thank PhD Associate Professor Ioan Albu from "Lucian Blaga" University of Sibiu, for the information on symbolism that he had so kindly offered!

## INELE CU PLACĂ ORNAMENTATE CU PASĂRI

Inelele cu vultur se cunosc din descoperiri funerare din România (Capidava, Păcuiul lui Soare, Piatra Frecăței), Macedonia, Ungaria, Slovacia sau Bulgaria (Greda, Odartsi, Ablanica-1, Čoniovit Lăki). Pajura sau vulturul heraldic a fost un motiv destul de frecvent pe monumentele de artă bizantină și a ajuns să fie reprezentat la diverse populații chiar și pe bijuterii de uz general. Inelele decorate cu vultur (tipul V. 1 după G. Atanasov, V. Grigorov) sunt închise și au placa ovală sau rotundă, gravată. Capul se termină cu un cioc ascuțit, curbat în jos, iar aripile sunt întinse lateral. Coada este triunghiulară sub forma unui evantai. Deși este reprezentată schematic, pasărea este redată cu proporții relativ exacte.

Între inelele ornamentate, se remarcă cele cu o pasăre incizată (porumbel ?), un motiv destul de vechi ce apare și în creștinism. Unele dintre păsări păstrează în ciocurile lor o crenguță. Corpul este reprezentat uneori schematic și punctat (tipul V. 2 după Atanasov-Grigorov, 2002-2003). În Bulgaria, inele cu vultur (Grigorov 2007, 55sq, Pl. 63/1-16, tipul III. 5) sunt menționate în Muzeul de Istorie din Dobrich, Sredishte, Ruyno, Durankulak, Kragulevo, Lukovit și Okorsh. Inele cu porumbel (Grigorov 2007, 56sq, Pl. 64/1-12, tipul III. 6), apar la Dinogeția, Sredishte, Odartsi, Mishevsko, Vetren, Okorsh, Pernik, Yakimovo și într-o descoperire întâmplătoare din nordul Bulgariei. În cele mai multe situații, pasărea (porumbel sau rață) este redată schematic iar ciocul este prelungit ca o tijă. Cele două tipuri se difuzează aproximativ în același interval de timp, cuprins între a doua jumătate a secolului al IX-lea și până la sfârșitul secolului XI. Forma decorată cu acvilă se asociază cu varianta cu pentagramă (Kiszombor B, Szentes-Szentlászló/M. 67, Miševsko, Djerahovi Nivi/M. 1), cu brățări torsadate cu extremități în formă de bucle (Malé Kosihiy/M. 272), scoici, aplici, butoni, colan 1 b (Szentes-Szentlászló/M. 76), inel de păr cu o extremitate în -s (Trnovec nad Váhom), cercei 17 a-17 b, formele 4, 9 (Tápé-Malajdok B/M. 2) și 36 Giesler (Timișoara-Ciorenii/M. 13).

Simbolistica păsărilor în arta medievală derivă din surse multiple. Porumbelul joacă un rol major preluat din pasajul biblic cu referire la Noe și potop, devine apoi simbol al Sf. Duh. Vulturul este apoi atribut al Evanghelistului Ioan, dar și al Învierii, al mântuirii, curajului și generozității (Ross 1996, 37). O temă iconografică este legată de arca lui Noe: porumbelul care aduce ramul de măslin de pe muntele Ararat (Geneza/Facerea 8/11; Keller 1975, 392). În iconografia creștină, vulturul reprezintă fuziunea puterii celeste cu cea terestră, cele două surse ale autorității care se suprapun în biserica creștină (Fowden 1999, 154).

Vulturul reprezintă cerul, raiul (Drijvers 1976, 10) și este un simbol al prestigiului (Didron 1851, 390).

La romani, vulturul este un simbol al victoriei. În scriptură, vulturul simbolizează grija divină pentru oameni, care prin botez devin un „*popor regal*” aflat sub protecția divinității (Baxter et alii 2009, 204).

Inelele cu vultur și pasăre apar în inventarele funerare cu predilecție în secolul al X-lea, dar sunt utilizate după unele opinii până târziu în secolul al XII-lea.

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PLATE/PLANȘA IV. 1-6: Type V. 1; 7-13: Type V. 2: Bulgaria (after Atanasov, Grigorov 2002-2003).

PLATE/PLANȘA V. 1/a-d: Graffiti from Pliska and Preslav; 2: depiction of an eagle on a ceramic pot from Pliska (after Georgiev 1978); 3: Preslav - symbolic depiction of an eagle (after Ovčarov 1979).

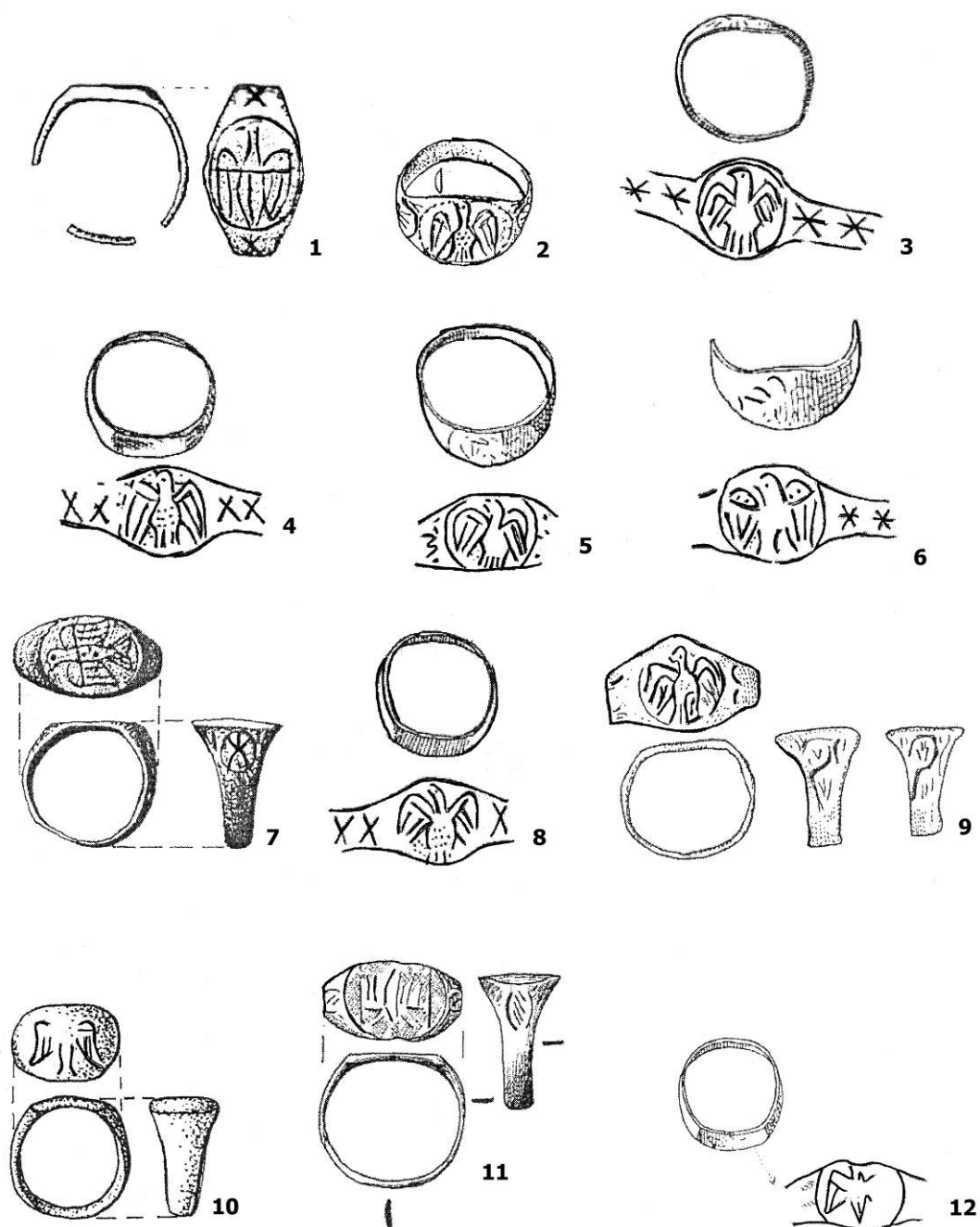


Plate I

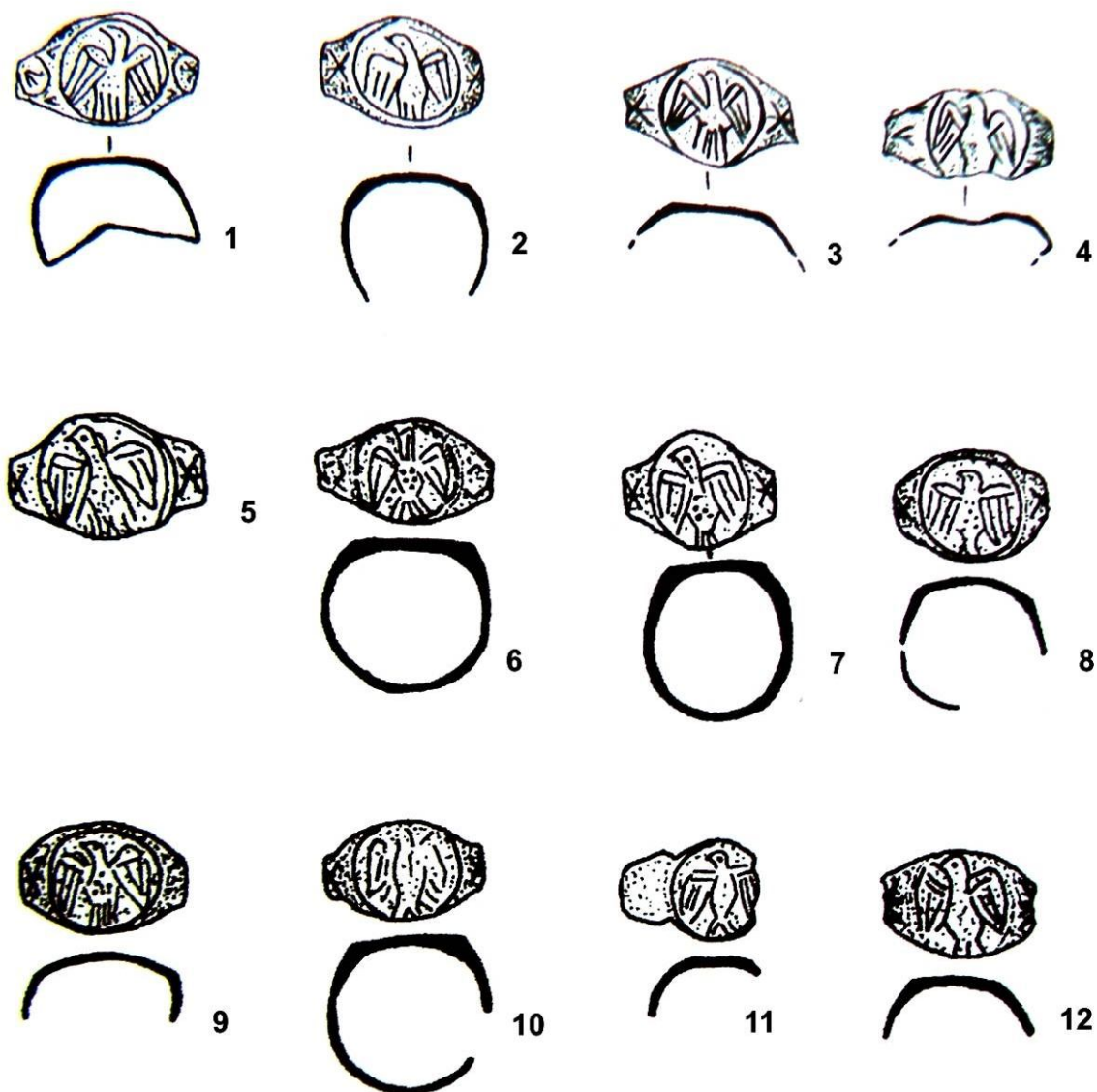


PLATE II



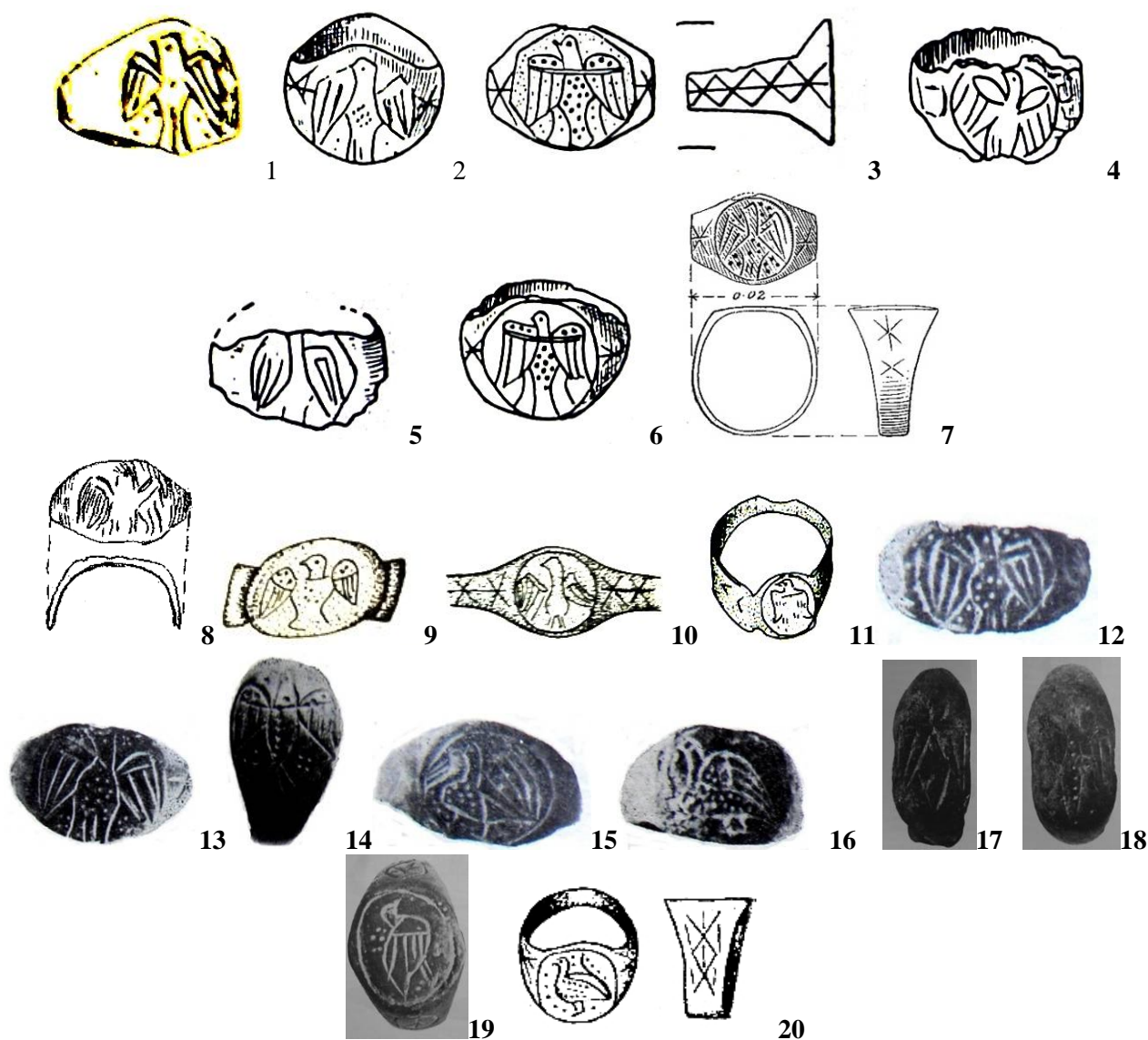


PLATE III

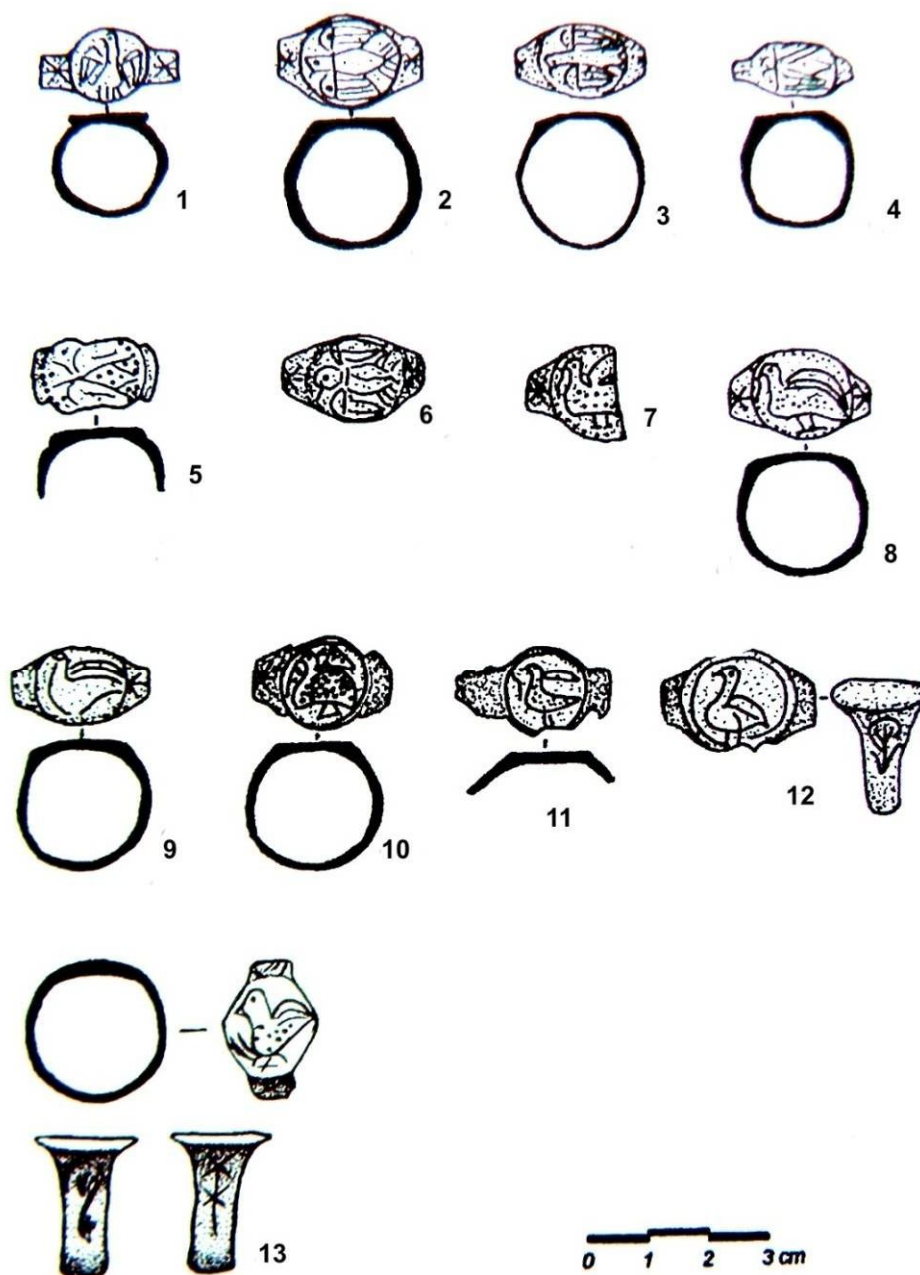


PLATE IV

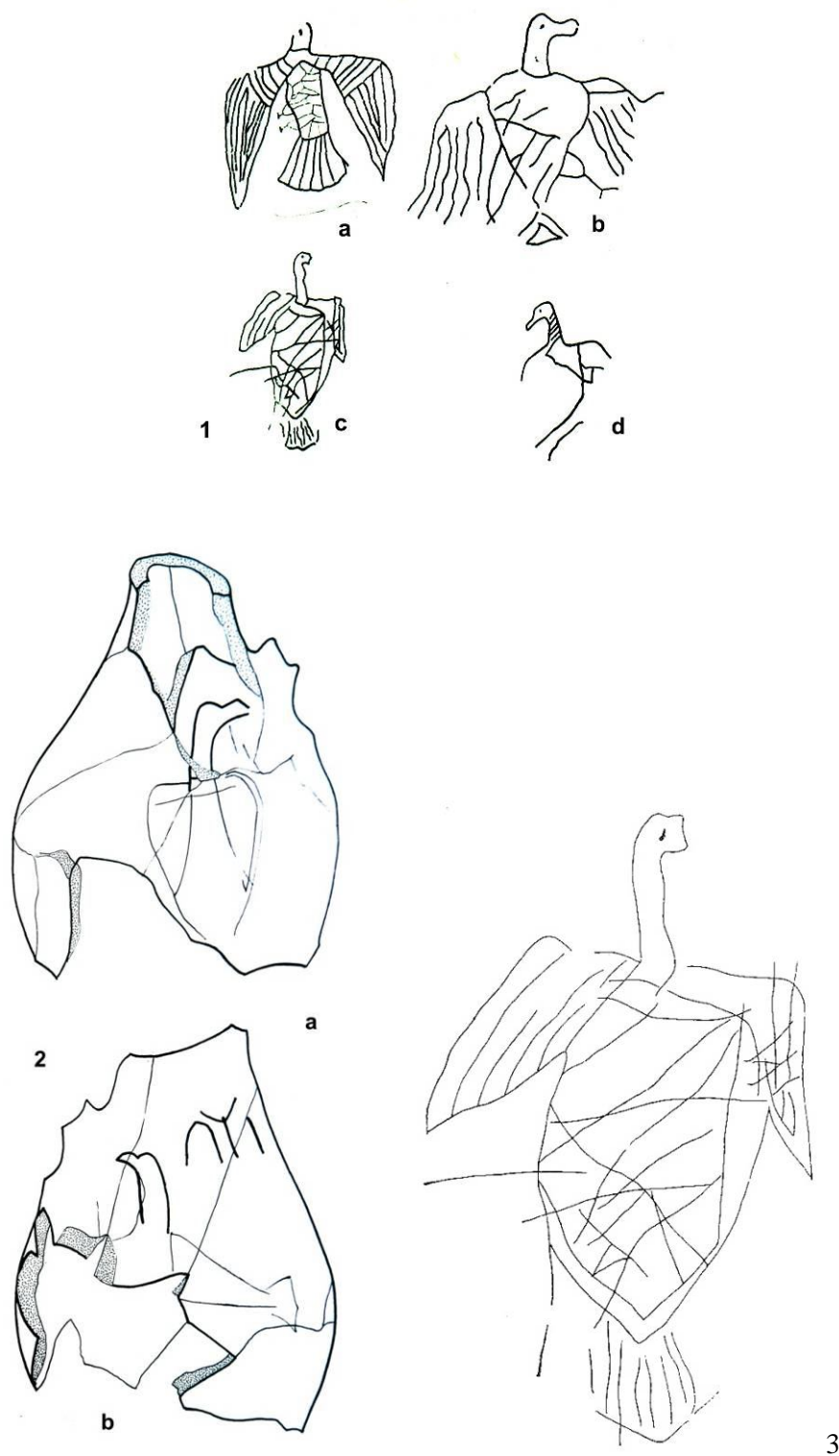


PLATE V

## MATERIAL CULTURE TESTIMONIES FROM THE MEDIEVAL FORTRESS OF AGRIȘU MARE (ARAD COUNTY)

Florin MĂRGINEAN\*

**Abstract:** *The article is analyzing the material culture uncovered in the medieval fortress of Agrișu Mare, Arad County. The items existing in the collections of Arad Museum are dated from the 14<sup>th</sup> to the 16<sup>th</sup> century comprising iron items and pottery. The detailed investigation of the archaeological data concluded that a further systematic archaeological investigation is mandatory in order to gain informations about this important monument.*

**Key words:** *cultură materială, cetate, Ev Mediu, Agrișu Mare, județul Arad.*

**Rezumat:** *Articolul prezintă materialele arheologice descoperite la cetatea medievală de la Agrișu Mare, județul Arad. Piese existente în colecțiile. Complexului Muzeal Arad sunt databile în perioada secolelor al XIV – XVI-lea și se compun în marea majoritate din ceramică și obiecte de fier. Analiza detaliată a materialului impune cercetări arheologice sistematice care să permită o cunoaștere detaliată a acestui monument.*

**Cuvinte cheie:** *material culture, fortress, Middle Ages, Agrișu Mare, Arad County*

As the written testimony bear information about a long forgotten past, the archaeology attest to this past, where the documents fail to exist, revealing material testimonies never found in other sources. The present study has this exact purpose: to present the image of a less spectacular medieval fortress, the one from Agrișu Mare throughout the archaeological material. (plate 1) This „anonymity” is comparing it with the one from the nearby medieval fortress of Șiria, although we have to bear in mind its owners but more important its strategic location. Even if the written testimonies are to be found, both locations are less known in the archaeological literature, even though they have revealed interesting details of material culture or of planimetry.

A close investigation of the archaeological researches performed in Arad County shows a limited number of medieval fortresses or fortifications archaeologically investigated pertaining to the former medieval counties of Arad and Zarand. If we speak about scientific publications with the results of these investigations, the situation is even more unfortunate. This is mostly due to the fact that a good number of these researches were conducted by amateurs or specialists in other historical periods, not familiar with the historical context. However, this is not the purpose of this study since there are several reviews related to the

topic (Rusu, Hurezan 1999, 20-28; Rusu, 2005, 14-25; Țiplic 2006, 11-19; Țeicu 2009, 11-22). We merely want to make the most of the material culture from the medieval fortress of Agrișu Mare kept in the depots of the Museum of Arad.

**Geographical location.** Placed at the bottom of Zarand mountains on a hill called by the locals Cioaca or Csaka, the fortress of Agrișu Mare was overseeing the valley (Posea 1997, 268-269) on east, west and north site. The access towards the ruins of the fortress is provided by two regional roads one coming from Măderat (on the road from Arad to Pâncota) and the other one from Târnova (on the road from Ineu), both ending in the today's village of Agrișu Mare. The village is crossed by the Almaș valley a branch of the Cîgher river. The roads come together on the bottom of the hill allowing a fairly easy ascent towards the fortress through an graveyard and an orchard.

**Historical data.** The historical information regarding the fortress are very few. First mention of the settlement dates back to 1214 (DIR C. III, 1954, 249, 252; Suciu I, 1967, 27), a century earlier than the fortress. Placed in Zarand medieval county, the fortress was erected by András Kölcsei *comites* of Zarand and Békés who received the domain of Felegregy (Egrefyul/Agrișul de Sus) in 1356. Later the fortress is attested in 1406 when is included in the royal domain due to the fact that Ladislau of Egrefy, the son of András Kölcsei, dies without heirs. King Sigismund of Luxembourg

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donates the domain to András Tétényi, heir of the Kapi family. In 1409 the fortress is taken back into the royal domain, and is not mentioned for along period of time up until 1494 (Csánki I 1890, 730). It is highly possible that the domain along with the fortress came in the possession of Majsai Lőrinc, owner of Șiria castle, where it was still in the beginning of the 16<sup>th</sup> century (Rusu, Hurezan 1999, 28-29) when was probably destroyed by the Turkish invasions.

**Historiography.** As it is the case of several other monuments, the researches of medieval fortresses regardless is they are of earth or stone, is fairly modest, not because of the lack of written informations but mostly due to the difficulties in approaching such a topic. Located in difficult reachable areas, these fortresses were always present in peoples mind smostly throught legends or miths .

For the scientist such monuments represented a totally different matter. Even for these few peoples an archaeological approach turn out to be not so easy to do for a number of reasons. This is the case of the fortress of Agrișu Mare.

Mentioned in documents dating in the 19<sup>th</sup> century (Csánki I 1890, 722, 730), the ruins of te medieval fortress of Agrișu Mare remains long forgotten times and their constant dangers<sup>1</sup>. These might the reasons why the fortress was not mentioned at all up until the mid 20<sup>th</sup> century (Suciu I, 1967, 27). It rebecomes an interesting subject in the end of the 20<sup>th</sup> century and the early years of the following century (Engel I, 1996, 308; Rusu, Hurezan 1999, 28-29; Rusu 2000, 565). That is the time when a topographical map is made along with an thorow description of the field (Rusu, Hurezan 1999, 30-31(fig. 2); Rusu 2005, 500, il. CD). In a recent volume older infomations are mentioned besides maps an geographical coordinates. (Karczag, Szabó 2010, 44).

It is important to mentione some “mysterious” ditches observable in some places. These are dividing the earth

Before presenting the material culture it could be interesting to mention the intriguing ditches still visible in the ground sectioning the bank (plate V,3). These are most probably the remains of previous excavations. Unfrourtunately we are not aware of whom made these excavations.

Still, the museum of Arad is preserving in its depots several objects from this medieval fortress. We presumed that these were brought by Sever Dumitrascu<sup>2</sup> (Rusu 2005, 100). After a discussion we came to understand that actially, these are the objects uncovered by a drawing profersor from Ineu<sup>3</sup>. The objects are registred in the archive of the museum in 1970's but we are not aware for sure when the excavations were conducted. Practically these are the only testimonies relted to those excavations.

**Material culture.** Due to the mode of their discovery the objects from Agrișu Mare are offering incomplete informations regarding the medieval fortress. Although we don't possess a lot of informations, the items themselves can draw a picture over the activities conducted in here. The only way to obtain a more general picture is to performe sverela other archeological excavation at the site.

**Bone items.** The only item made of bone, is a grip plate of an knife most probably of a battle knife. Its made of a long bone of a rectangular shape. It has two perforations for the rivets with one part broken. Is has inlays in the shape of conectrical circles arranges in three lines(pl. II, 1). Such decoration is widely spred in medieval times and nor only. Linking the dating of the fortress with such items we could state that these belong to the 15<sup>th</sup> – 16<sup>th</sup> century.

Due to the fact that no rust was found around the rivets we could suppose that those were actually scraps (Rusu, Mărginean 2005, 122), most probably made by locals.

**Iron items.**

Although the quantity of such items is nor very large, several categories of artefacts are to be found. It comprises tools, ironware, weapons, clothes accesories. To this last category three buckles, two having a similar shape(pl. II, 2-3) and a third one different (pl. II, 4). Their dating can only be done in association with the other items.

Belonging to construction ironware(pl. II, 5-6), two frequent itmes were found

An unusual item is a fragment from a reaping hook, used frequently in agriculture. The explanation of its existence here, can be linked to the maintainance of the sorroundigs of the fortress.

<sup>1</sup> The fortresses vulnerablity is mainly on the south-eastern flank, where a stone quarry recently reopened represent a constant danger. An earth road made by the bulldozer is passing by at a distance less than a metre from the fortification line of the fortress.

<sup>2</sup> We would like to thank Mr Dumitrascu for his kindness

<sup>3</sup> We are talking about Mr. Ion Diaconescua colectionar. We would like to express out gratitude to Mr. Ioan Codău from Ineu.

Similar situation were seen in the case of the fortress of Oradea (Rusu *et al.*, 2002, 99) or the one from Timișoara-Dumbrăvița (Drașovean *et al* 2004, 48, pl. LXV. 1-2, pl. LXIX, 1, pl. LXXIV, 5) or the castle of Ozora (Hungary) (Gere 2003, 40-41).

#### Weaponry

The weaponry comprises one knife head and two crossbow heads. (pl. II, 8). The first one, partially preserved is 10, 2 cm long suggesting that the actual size was quite large. Such type was analyzed and published (Rusu 2003, 75-84). The two crossbow heads are also a well known type several identical items being uncovered in a near by area like Frumușeni – Arad County, Timișoara, Oradea etc. It has a pyramidal shape (pl. II, 9-10). The frequency of such items discovered in the last decades suggest how spread was the usage of this weapon (Serdon 2005, 35-39).

#### Pottery.

The items discovered are strictly linked to daily life. Most of the fragments are jar (pl. III, 11-19) fragments of different dimensions (pl. IV, 23-24). Although the fragments are not so many we can state that the pottery is easily datable from the 14<sup>th</sup> to the 16<sup>th</sup> century. These are small and middle size jars like the ones from the nearby fortresses of Șiria, Pâncota, Ineu, Lipova, Șoimoș, Felnac etc

The most interesting fragment is a jug wall is a decoration positioned in small parallel lines doubled at on point by similar ones(pl. IV, 21).

Beside the common pottery a whorl(pl. IV, 20) of small dimensions was also found.

A curious case is the lack of stove tiles. Not in the museum depots nor during the surveys on the location such fragments were not discovered. One can only presume the existence of chimneys.

Items catalogue. The catalogue comprises items from the Arad Museum collection (box no. 281/70). The catalogue has several fields: 1. Current number, 2. Name, 3. Fabrication material, 4. Fabrication technique, 5. Description, 6. Discovery place, 7. Preserving place CMA – Museum of Arad, 8. Inventory number, 9. Illustration number

#### Bone item

1. *Grip plate*; bone, cutting, polishing, perforating, rectangular shape, ( $L_{\text{preserved}} = 12,6$  cm,  $l = 3,1/2,6$  cm,  $g = 0,8$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/1.

#### Iron items

2. *Buckle*, iron, forging, rectangular bar cross section ( $g = 0,4 \times 0,3$  cm), broken, “D” shape( $L = 6,8$  cm,  $l = 3,1$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/2.

3. *Buckle* iron, forging, rectangular bar cross section ( $g = 0,7 \times 0,4$  cm), “D”, shape ( $L = 6,5$  cm,  $l = 3,5$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/3.

4. *Buckle* iron, forging, rectangular bar cross section ( $g = 0,5 \times 0,3$  cm) on the upper part and of circular shape in cross section ( $\varnothing = 0,5$  cm) on the other side, ( $L = 5,7$  cm,  $l = 5,5$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/4.

5. *Ironware*; iron, forging, iron bar with a fixation prick, rectangular in cross section, partially preserved ( $L = 9,3$ ,  $l = 2,4$  cm,  $g = 0,2$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/6.

6. *Ironware*; iron, forging, T“ shape, partially preserved( $L = 15,2$  cm,  $l = 1,5$  cm,  $g = 0,2$  cm) having a rivet on one part and a pyramidal prick in the middle ( $L = 9$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/5.

7. *Reaping hook*; iron, forging, partially preserved, slightly curved, broken on both extremities, ( $L_{\text{preserved}} = 14,1$  cm,  $l = 1/1,7$  cm,  $g = 0,2$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/7.

8. *Knife blade edge*; iron; forging; single cut, partially preserved ( $L_{\text{preserved}} = 10,2$  cm,  $l = 3$  cm,  $g = 0,4$ ); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/8.

9. *Cross bow head*; iron, forging, pyramidal edge, socket ( $L = 7,5$ ;  $\varnothing_{\text{tub}} = 1,1$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/9.

10. *Cross bow head*; iron, forging, pyramidal edge, socket ( $L = 6,7$ ;  $\varnothing_{\text{tub}} = 1,2$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. II/10.

#### Pottery

11. *Bowl rim*; clay, inoxidant firing, sand; fast wheel throw; fragment of a rim with a frame for the cap, light brown inside, black outside ( $\varnothing_{\text{estimated}} = 16,1$  cm,  $g = 0,3$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. III/11.

12. *Bowl rim*; clay, inoxidant firing, sand; fast wheel; fragment of a rim of brownish colour with traces of a secondary firing ( $\varnothing_{\text{estimated}} = 17$  cm,  $g = 0,5$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. III/12.

13. *Bowl rim*, clay, oxidant firing, sand; fast wheel; fragment of a rim with a frame for the cap, crem coloured ( $\varnothing_{\text{estimated}} = 17,1$  cm,  $g = 0,5$  cm); Agrișu Mare “Cetate” 1970; C. M. A.; 281/70; pl. III/13.

14. *Bowl rim*; clay, inoxidant firing, sand; fast wheel, fragment of a rim with a frame for the cap,

black ( $\emptyset_{\text{estimated}} = 14$  cm,  $g = 0,4$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. III/14.

15. *Bowl rim*; clay, inoxidant firing, sand; fast wheel, fragment of a rim with a frame for the cap, black ( $\emptyset_{\text{estimated}} = 14,1$  cm,  $g = 0,5$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. III/15.

16. *Bowl rim*; clay, inoxidant firing, sand; fast wheel; fragment of a rim of black colour with traces of a secondary firing ( $\emptyset_{\text{estimated}} = 15,8$  cm,  $g = 0,3$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. III/16.

17. *Bowl rim*, clay, oxidant firing, sand; fast wheel; fragment of a rim with a frame for the cap, crem coloured ( $\emptyset_{\text{estimated}} = 16,2$  cm,  $g = 0,5$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. III/17.

18. *Bowl rim*; clay, inoxidant firing, sand; fast wheel; fragment of a rim of grey colour with traces of a secondary firing ( $\emptyset_{\text{estimated}} = 16,8$  cm,  $g = 0,4$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. III/18.

19. *Bowl rim*, clay, oxidant firing, sand; fast wheel; fragment of a rim with a frame for the cap, crem coloured ( $\emptyset_{\text{estimated}} = 21$  cm,  $g = 0,7$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. III/19.

20. *Whorl*; clay; hand made; tubular shape ( $\emptyset_{\text{max.}} = 2,1$ ), with a whole ( $\emptyset = 0,6$  cm,  $g = 1,3$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. IV/20.

21. *Jar wall*; oxidant firing, sand; fast wheel; most probably a jar neck, partially preserved cream coloured inside light brick outside, secondary firing; decorated on the neck with two parallel incised rows ( $g = 0,3$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. IV/21.

22. *Lid*; clay; inoxidant firing; sand; fast wheel; fragment of a lid ( $\emptyset_{\text{estimated}} = 14$  cm,  $g = 0,5$  cm), with traces of a secondary firing, crem coloured; Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. IV/22.

23. *Bowl bottom*; clay; inoxidant firing; sand; fast wheel; fragment of a bowl bottom, dark grey ( $\emptyset_{\text{bottom}} = 9$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. IV/23.

24. *Bowl bottom*; clay; inoxidant firing; sand; fast wheel; fragment of a bowl bottom, cream coloured with secondary firing on the outside, ( $\emptyset_{\text{bottom}} = 9$  cm); Agrişu Mare "Cetate" 1970; C. M. A.; 281/70; pl. IV/24.

#### Conclusion

Analizing the material one could only state that several archaeological researches are mandatory in the case of the fortress from Agrişu Mare in order to a better undarstating of its medierval realities.



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## LIST OF ILLUSTRATION/ LISTA ILUSTRAȚIILOR

**Plate 1.** 1. Localisation on the first military Habsburg map, 18<sup>th</sup> century 2. Recent map with the exact location of the village and the ruins; 3. Geographical map, satellite image and geographical coordinates.

**Planșa I.** 1. Localizare după prima ridicare militară habsburgică; 2. Hartă recentă cu localizarea administrativă a satului și a ruinelor; 3. Localizare geografică, imagine satelitară și coordonate geografice.

**Plate II.** Bone and iron items: 1. Grip plate; 2-4 buckles; 5-6 ironware; 8. Knife blade edge; 9-10 crossbow heads

**Planșa II.** Obiecte de os și fier 1. plăsea; 2-4. cataramă; 5-6. piese de feronerie; 8. vârf lamă de cuțit; 9-10. bolți de arbaletă.

**Plate III.** Pottery 11-19 Bowls rim

**Planșa III.** Ceramică: 11-19. buză de vase.

**Plate IV.** Pottery: 20 . *Whorl*; 21. *Jar wall*; 22. *Lid*; 23 -24. *Bowls bottom*

**Planșa IV.** Ceramică: 20. fusaiolă; 21. perete de ulcior; 22. capac; 23-24. fund de vase.

**Plate V.** General views: SE, S, SW view; 2. N and NE view, 3. The supposed ditches of I. Diaconescu

**Planșa V.** Imagini generale: 1. Vedere spre SE, S și SV; 2. Vedere spre N și NE; 3. Presupusa secțiune a profesorului I. Diaconescu.



1



2



3

Plate I.

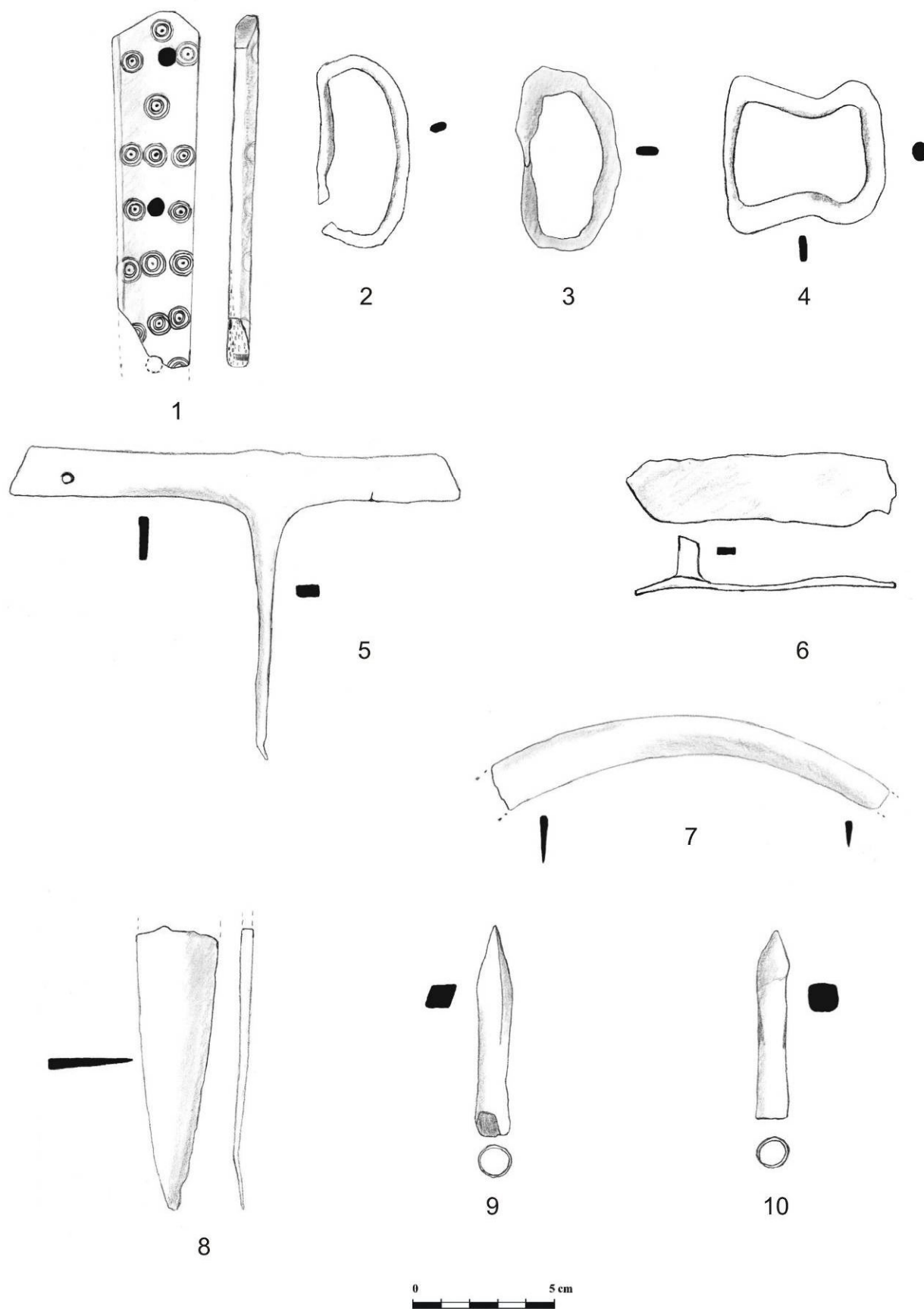
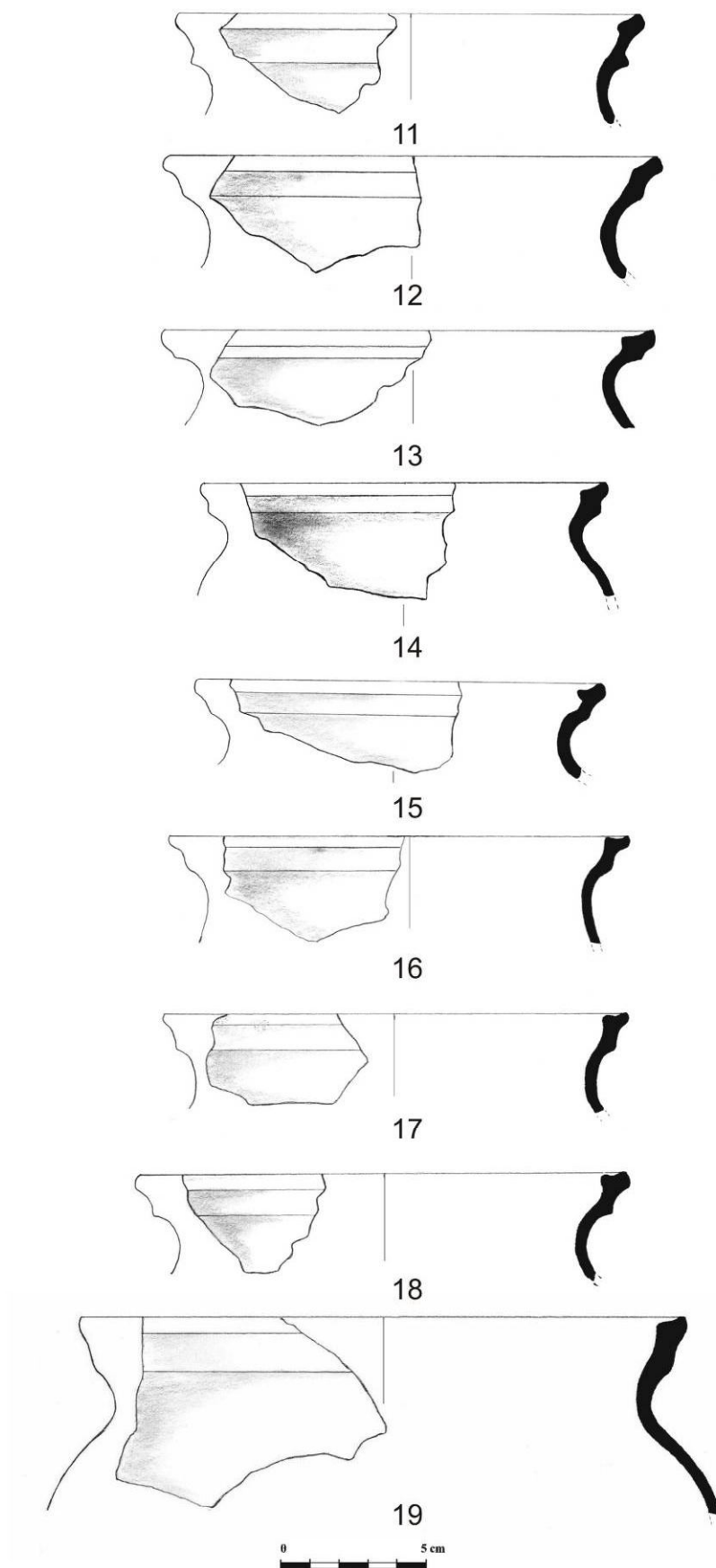


Plate II.



**Plate III.**

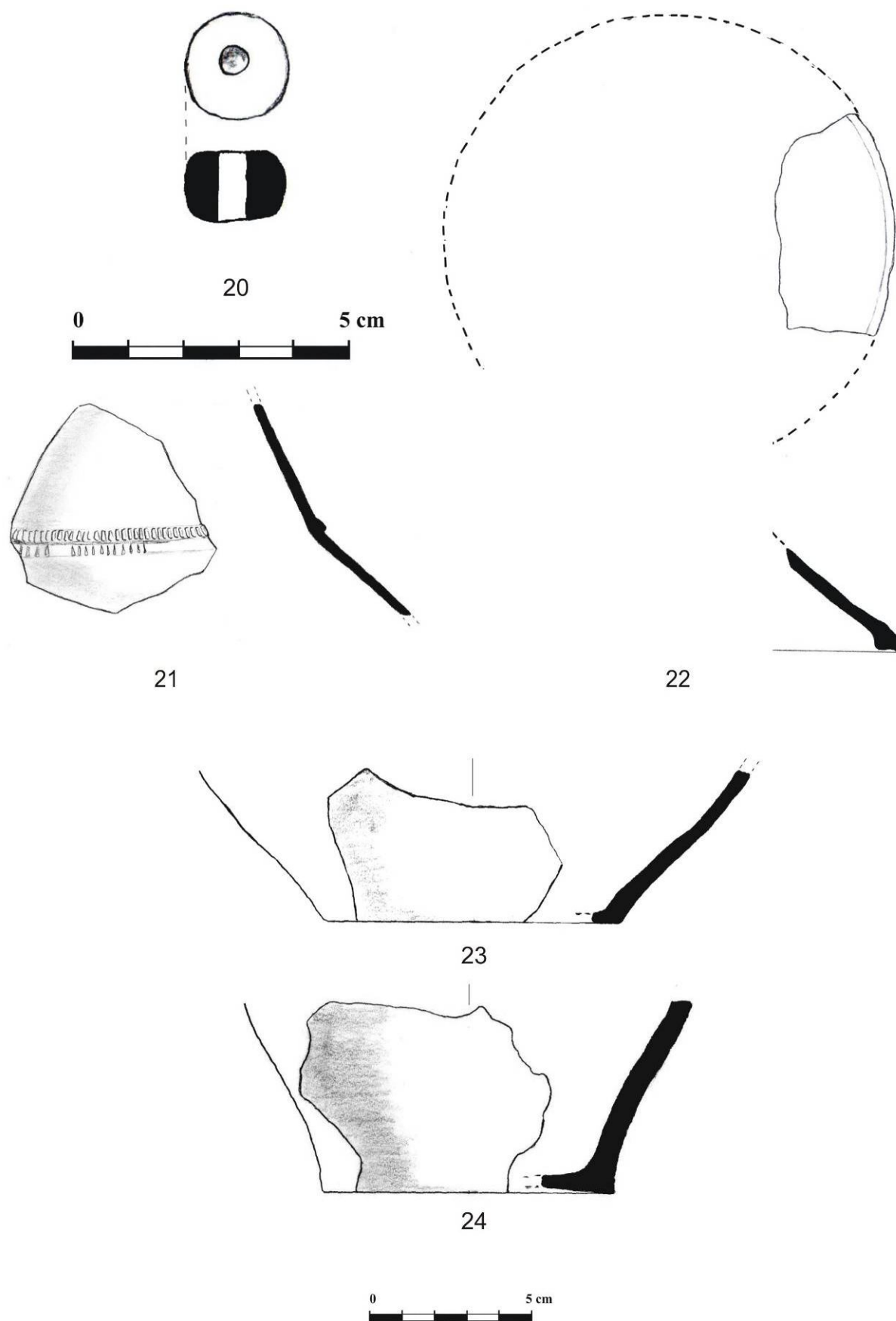
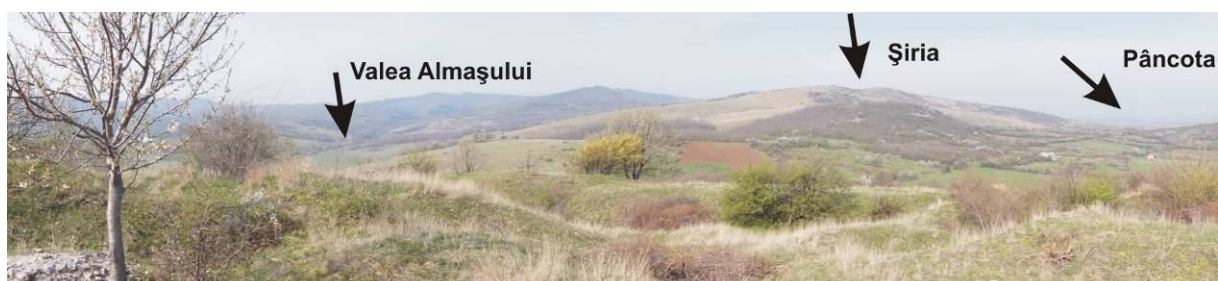


Plate IV.





1



2



3

**Plate V.**





## OBJECTS OF THE NEIGHBORHOOD STREET OBERE WIESSEN IN THE COLLECTION OF THE MUSEUM OF HISTORY – ALTEMBERGER HOUSE

Raluca Maria FRÎNCU\*

**Abstract:** *The article is presenting the oldest mentioned neighborhood from the late medieval town of Sibiu, namely the Obere Wiessen street neighborhood. This is the neighborhood that preserves the oldest neighborhood rules, as an image of an organizational mode of a late medieval society. To the information regarding this neighborhood a number of three objects belonging to this are added. These objects are preserved in the collection of the History Museum – Altemberger House.*

**Keywords:** *neighborhood, neighborhood rules, Sibiu, Museum objects*

**Rezumat:** *Acest articol prezintă cea mai veche vecinătate atestată documentar la Sibiu, este vorba despre vecinătatea de pe strada Obere Wiessen - Livezii de sus - azi Tipografilor. Acestei vecinătăți i-a aparținut cel dintâi regulament al vecinătăților sibiene datat 1563, imaginea asupra modului de organizare al vecinătății a fost completată de obiectele tridimensionale (ladă de vecinătate, semne de vecinătate) păstrate în colecția Muzeului de Istorie – Casa Altemberger.*

**Cuvinte cheie:** *Vecinătăți, statute de vecinătate, Sibiu, obiecte muzeale*

Model of social organization, neighborhoods of Transylvania had an activity of over four hundred years. The first mention of these organization is from the sixteenth century (XVI) and it refers to urban neighborhoods, it is one of Sighișoara whose activity is confirmed by a document issued in 1526, in Brașov their existence had been reported by a document from 1533, while in Sibiu were certified in 1563 by the great neighborhood rules from Obere Wiessen - now Printers.

The original document is not retain, the regulation was published by Gustav Seivert in his work “Die Stadt Hermannstadt. Eine historische Skizze” and take over by Franz Zimmermann in his work “Die Nachbarschaften in Hermannstadt. Ein Beitrag zur Geschichte der deutschen Stadtverfassung und Verwaltung in Siebenbürgen”. The statute consist in 25 items (articles) is the first testimony of the organization of neighborhoods in Sibiu, through its stipulations were brought to the attention of citizens rights and obligations after the acceptance into the neighborhood.

Since the first article of the neighbor statute, he was informed of the obligation to attend the funeral. Who fail to do so was fined four dinars. To prevent spread of contagious diseases, order and cleanliness must be kept both in courtyard and in front of the house, who do not kept was sanctioned four dinars (Zimmermann 1885, 87).

Fire danger was imminent for proper medieval houses, which are made of inflammable material, so an item commonly found in the statutes of neighborhood was on prevention and fire fireproofing.

And also in this statute is a provision that the citizen who has not cleaned the chimney paid to the neighborhood a florin, a large sum for that period (Zimmermann 1885, 88).

Neighborhood father was intended to maintain good neighborhood agreement, both he and the decisions was taken by him must be respected by all members. Quarrels or misunderstandings were not allowed, any dispute must be dealt with and within the neighborhood, and who held anger received a two dinars fine (Zimmermann 1885, 88).

The obligation of each neighbor was, as shown in article twelve of the statutes, to send signals neighborhood's father, not to misinterpret the message or to keep the sign over night. If these provisions were not followed it is given a fine of ten dinars.

Article fifteen related how to behave in society, who struck his first on the table, consuming too much alcohol or have other uncontrolled output was fined ten dinars (Zimmermann 1885, 89).

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Citizen safety was ensured by the rotation of each member of the neighborhood as shown in the article seventeen of the regulation.

This article was brought to the attention of neighbors that who attend the service that night, was obliged to go out before nine o'clock, otherwise he paid a fine of ten dinars (Zimmermann 1885, 89).

Another provision frequently found in the neighborhood regulation was the right to sell wine. In article 25 of statutes rules to be followed in this case are detailed (Zimmermann 1885, 89).

Provisions of this regulation are found in other existing neighborhoods in Sibiu during this period, such as the neighborhood Grossen un Kleinen Ring from 1582 (Zimmermann 1885, 89-90) composed of 15 articles of the neighborhood Hundsdrucken in the years 1582 or 1637 divided into 20 articles (Zimmermann 1885, 93-95) or Heltauergasse (Cisnădie) since 1604 with thirteen provisions.

Comparing the provisions of these statutes it observed the resumption of provisions that were based on the organization of neighborhoods it is about the father of the neighborhood, conditions and entrance fees, provisions for mutual aid of neighborhood members with the occasion of baptism, weddings, funerals and their moral conduct but also provisions for citizen safety and cleanliness of its property in the neighborhood. It should be noted that up to half of the 18 century, Sibiu neighborhoods draw their own statutes each based on the same provisions but presented differently. (Zimmermann 1885, 111-116)

From this period it saw an involvement in the organization of neighborhoods by the town magistrate, the first step was to design a single statute which guides all citizens, this statute is issued by the Sibiu City Hall in 23 November 1651, consist of 32 items.

Statutory provisions result from the main functions of neighborhood, mutual help for marriage, baptism of funeral, or when a family was affected by natural calamity, flood, earthquake, storm.

Another function of the neighborhood was safety of the citizen by day and night guarding the streets and field, fire prevention and extinction, public health.

Protection of moral values was another function of neighborhood that look after to punish those who do not behave civilized and stained the image of the neighborhood (Mihăilescu 2003, 26).

The activity of the oldest city neighborhood can be analyzed by the existing documents in Sibiu

County Department of State Archives in fund dedicated to neighborhood and fines paid by them over the time.

Mentioned in documents since the sixteenth century Oberen Wiessen neighborhood activity continues in the next centuries. At the end of the 18 century when the town magistrate is sharing initiative to improve safety at night by a better distribution of guards among neighborhood mentioned include also Oberen Wiessen (Zimmermann 1855, 11).

After reorganizing the neighborhoods from the XIX century, their member is reduced from 36 to 30 (Zimmermann 1885, 11) including the Oberen Wiessen. From Sibiu neighborhoods statute issued on May 18, 1885 (National Archives of Romania, Sibiu County Department, the fund of neighborhoods of Sibiu, acts no. 15, package 6), we find out that the Wiessen street neighborhood included 5 street and 97 houses, probably the two neighborhoods Oberen and Unteren Wiessen, joined to form a single neighborhood with a much larger number of members.

Mentioned from the 15th century, the street ad several names, such as: 1495 Dy Wyse (Pajiștea); in 1556 is called auff der Wyssen; in 1751 Nedere Wiesen (the part starting from Gheorghe Lazăr street up until the Schiiler Square and Obere Wiesen (from Schiller Square up to today's Papiu Ilarian street); 1827: Wiesengasse; 1934: Livezii street; 1947: Alexandru Petöfi; 1970: Tipografilor. (Sigerus 1997, 112).

Along with documents that neighborhoods are proof of the existence of objects in the collection of the Muesum of History – Altemberger House, it is a box dated 1673 and two neighborhood signs from the 19 century.

#### 1. Neighborhood box

Photo: 1

Description: Neighborhood soft modern box, parallelepiped, with lid partitioning in three fields, one narrow and two squares in the boxes shaped rods are found. The sides are decorated with one small flower, painted brown and white. On the front is found the inscription: *H. Johannes Herbert verehret diese Lade der Ehrliger oberster Wießner Nachbarschaft 1673*, the interior is painted blue up to half height marked with a wavy black line. On the left is set a box with a background similar mobile space closes below. By age and setting the box is very valuable as an artistic and historical testimony.

Material: wood, iron

Transilvanian workshop, author unknown  
Dating: 1673  
Dimensions: Î: 33cm; L: 66cm; A: 36,5cm  
Origin: Sibiu  
National Brukenthal Museum, Museum of history – House Altemberger, Sibiu; no. inv. M5044/14.272.

2. Neighborhood sign

Photo: 2

Description: Neighborhood sign of softwood brown-red, on one side there is the inscription: *OBERE WIESEN GASSEN NACHBARSCHAFT*. At the top mark is a band of iron levels forecast in four cloves fixed central catching ring is found.

Material: wood, iron

Transilvanian workshop, author unknown

Dating: sec. XIX

Dimensions: Î: 17cm; LA: 14,5cm

Origin: Sibiu

National Brukenthal Museum, Museum of history – House Altemberger, Sibiu; no. inv. M4082/14.231

3. Neighborhood sign

Photo: 3

Description: Wooden sign neighborhood of the street Wiessengasse heart-shaped, brown-red on one side there is the inscription: *OBERE WIESSE GASSEN NACHBARSCHAFT 1810-1871*. The grip is a band of iron nailes fixed in two piece body, central catching ring is found.

Transilvanian workshop, author unknown

Dating: 1810

Dimensions: Î: 16,2cm; LA: 15cm

Origin: Sibiu

National Brukenthal Museum, Museum of history – House Altemberger, Sibiu; no. inv. M4081/14.241

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## LIST OF ILLUSTRATION/LISTA ILUSTRAȚIILOR

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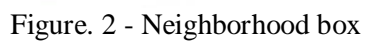
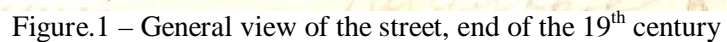






Figure. 4. a. - Neighborhood sign



Figure. 4.b. - Neighborhood sign - backside



Figure. 5. a. - Neighborhood sign



Figure. 5. b. - Neighborhood sign – backside



**ASPECTS REGARDING SPENDING LEISURE TIME  
IN THE 16<sup>th</sup> – 17<sup>th</sup> CENTURIES IN TRANSYLVANIA REFLECTED IN „TRANSILVANICE”**

**Bogdan ANDRIESCU\***

**Abstract:** *The study aims to identify ways of spending leisure time in the 16<sup>th</sup> -17<sup>th</sup> century Transylvania. The research focuses on books of the Transylvanian authors, edited and printed at home or abroad, on works printed in various centers of Transylvania, regardless of their authors (known under the name of "Transilvanice"). The brief periods of peace and calm that marked the principality of Transylvania in the two centuries caused both in the case of patricians, and especially of the noblemen, the continuation, but also the discovery of new ways of spending leisure time: the organization of hunting parties, the regular guild meetings-feasts, gambling, solitary walks, family meetings, courtesy visits; balls.*

**Keyword:** *Transilvanice, spending leisure time, hunting*

**Rezumat:** *Studiul își propune identificarea modalităților de petrecere a timpului liber în Transilvania secolelor XVI-XVII. Cercetarea s-a concentrat asupra cărților autorilor transilvăneni, redactate și tipărite în țară sau străinătate, lucrărilor tipărite în diverse centre din Transilvania, indiferent de autorii lor (cunoscute sub titulatura „Transilvanice”). Scurtele perioade de liniște și de calm care au marcat principatul Transilvaniei în cele două secole, au prilejuit atât în cazul patricienilor, cât mai ales al nobililor, continuarea dar și descoperirea unor noi modalități de petrecere a timpului liber: organizarea unor partide de vânătoare; adunările periodice ale breslelor-ospețele; practicarea jocurilor de noroc; plimbările solitare; întrunirile de familie; vizitele de curtoazie; balurile.*

**Cuvinte cheie:** *Transilvanice, petrecerea timpului liber, vânătoarea*

Rigid living conditions, a hostile – mostly unfavorable environment, innumerable invasions, wars, robberies, epidemics that had fallen upon the 16<sup>th</sup> - 17<sup>th</sup> centuries Transylvania decisively influenced the life of the inhabitants.

The short periods of peace and calm that marked the principality of Transylvania in the two centuries, brought about both to the patricians, and especially to the nobles the continuation and the discovery of new methods of spending leisure time. The organization of a hunting party continues to attract the interest of the nobility, being one of the favourite activities. The organization of regular meetings of guild members, and of the feasts which had frequently taken place, the practice of gambling are modalities of spending spare time, all of them being strictly established by the rules of guild statutes. At the same time solitary walks or together with the beloved one on the city streets or in the garden especially designed, are becoming an almost daily constant for many inhabitants of the principality. The garden will impose more strikingly as a space destined exclusively for

private activities: solitary walks, meeting place for lovers, for close friends, and family gatherings. In this context, friends' meetings occasioned by the invitation at lunch or dinner, contribute to a high extent to the strengthening of friendship ties among neighbours, relatives, among the closest. Courtesy visits are increasingly mentioned in the chroniclers' writings. A significant share of the leisure time will have the balls with their particular fine show (Andriescu 2008, 75-79).

### **Hunting**

One way of spending leisure time much appreciated in the epoch, especially by the Transylvanian nobility consists in the organization and participation in hunting. By the decree of the Hungarian king Vladislav II in 1504 hunting by peasants was prohibited. The motivation which lays at the basis of this decision is interesting: "...many have left the culture of the vine and of the earth, engaging in hunting and poultry...not only on working days, but also on Sunday and other holidays, and even on Christmas days they are hunting by way of not putting themselves out of sinning against God whose commandment they do not hold and of cheating their masters through

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purloin of their income (Prodan 1986, 351).” Concluding that as a result of the practice of hunting, peasants “...almost always fall into begging, and some, deprived of food and clothing, are driven to theft, spoil, and often ending their lives by hanging or by other sentences”, the decree forbade peasants “...either to hunt roes, hinds, rabbits and boars or to catch pheasants and fowls”, each being obliged to “...toil in cultivating lands, hayfields and vine and other mastership of their hands which was to bring use to them and to theirs masters” (Prodan 1986, 352). In what concerns the feudal domains’ peasants, hunting was permitted only as far as it was a given quite common in the frame of the collective serf obligations. Hunting was an important job and a pastime for the nobility. At the princely courts and of the great nobility, great hunts were frequently organized. Moreover, among the staff hired at the princely courts or of the great nobility one may find maestro hunters, hunters, dog trainers and carers, fowlers.

Thus, Gabriel Bethlen had under his care about 50 bloodhounds and two carers. A higher number of greyhounds (150) was held by Prince Michael I Apaffi. (Prodan 1986, 353)

Princely hunts are recorded both in the accounts of the foreign travelers and in the Transylvanian princes’ diaries. Thus, from the story of Giovanni Andrea Gromo in 1564, we find important details concerning Prince John Sigismund’ passion for hunting. Thus, he “...loves any kind of hunting, both larger game such as stags and dears, which are plentiful in the country, and rabbits and birds ... he especially likes hawks hunting and falconry... he trains horses with pleasure and executes figures so beautiful riding them that nobody can overtake him ... he is very tough fighting with spear, and he loves shooting with the harquebus and in this respect, there is no other like him all over the country ... and as for the arc few catch up to him and very few overtake him”. (Gromo 1970, 362)

Important are also Prince George I Rakoczi's personal notes from his own diary, in which he notes more important facts of what happened between the 5<sup>th</sup> of January and the 22<sup>nd</sup> of August 1633. (Rákóczi 1900, 467) Hunting parties do not last longer than a day. In January, he participates at nine hunting parties (this is the month in which the prince spends most of the days as such). In general, the period of time between hunts was of two days. In contrast, the next month, he attended only once for a shooting hunt. Five weeks will pass until the organization of another hunt. Over three weeks he

will go back hunting, the number of the hunted animals being in fact the highest in this period of time, “... rushing with the brawlers to the hill in Sîmniclăuș I hunted a stag, a hind, five deer, four rabbits...in the woods in Șomfalău I hunted a hind, six deer... I myself hunted still nine deer...”. In April, the number of hunting parties at which the Prince participated, rose to five days. In May, he takes part in the game for two days, their number increasing to three in June. In July and August the reserved time for the hunt will fall to a single day.

Sometimes, the number of consecutive days dedicated to the organization of a hunt was high. Thus, Prince Michael Apaffi I noted in his diary that in just eight days he hunted 148 deers, 19 stags and a boar in the woods near Gherla. Seven days will it take and another hunting (the 6<sup>th</sup> to the 13<sup>th</sup> of September 1670) organized by the same prince, noting that he was able to hunt 50 deer, 19 deer, five pigs, two wolves and a bear. (Nedici 1940, 594)

Under the same auspices, hunting parties organized by the noble Hungarian Gabor Haller were held. He wrote in his diary that during the two years (1636-1637), he participated at the hunt for guinea fowl (August), and then for rabbits in November, in December (almost every day) and in January and May. (Haller 1862, 31-45)

Sometimes, hunting parties were not only opportunities of spending the spare time and but also ways in which the princes and the Transylvanian nobles sought to attract the goodwill of the third person. Thus, not seldom, at the hunts of the Transylvanian princes living animals had to be caught in order to be sent as gifts. That was going to happen in the autumn of 1572, when, “... on the 12<sup>th</sup> of November 1572, there came from Transylvania to Vienna five bisons, nine horses and two elks, given on behalf of Stephen Bathory, Prince of Transylvania at that time, to King Rudolf the Second of Hungary, recently crowned ”. (Siebenburgisches Wochenblatt 1983, 156)

Very often, women accompanied their husbands at such hunting. Thus, Princess Anna Bornemisza frequently took part in such activities. When not walking, she used to read the Bible at night until she fell asleep. Another favourite concern of her was “... to handle the clocks”, perhaps to fix the exact time, as it was known the passion that her husband had for repairing clocks. In fact, one of his clocks “...was like a barking dog which barked as often as the hours of the clock showed.” (Apor 1978, 89)

The nobleman Bebek's wife often went hunting together for over 20 braches trained for catching rabbits. (Nedici 1940, 637) In 1558, the nobleman Battyány's wife asked the Palatine to send a brach, telling him he had enough game but does not have the means to catch him. (Nedici 1940, 637)

The writings of the time registered the significant share in venison within the food menus of the nobility of the Principality. Being a participant at the nobiliary wedding, the chronicler wrote down that the menu served was really impressive by the amount and the variety of game meat products: deer, deer, roasted pheasant, rabbits. It is worth remembering the great refinement of the way of preparation of these culinary assortments "... as such were they decorated as if they were alive". (Apor 1978, 118)

And the cookbooks, which already began to be edited in Transylvania, reveal the importance and the appreciation which were given to the preparation of the game meat. Thus, in a cookbook published in the second half of the 17<sup>th</sup> century, there are no less than twenty ways of cooking pigeon meat. It may be consumed both boiled and fried. (Bornemisza 1983, 156) There are present fifteen ways of preparing wild duck. (Bornemisza 1983, 144) The squirrel meat can be consumed both cooked and roasted. The squirrel pate was considered a true culinary delicacy. (Bornemisza 1983, 128) The pelican, both roasted and boiled, should be filled with more fruit, pears, chestnuts, quinces, grapes. (Bornemisza 1983, 140) The eagle, after being roasted in the oven, it is served warm. (Bornemisza 1983, 134) The ostrich meat should be well cooked. In the soup add parsley and nutmeg. "It will be as good as the veal soup." (Bornemisza 1983, 134-135) Roast swan could be served both cold and hot. (Bornemisza 1983, 135) The pheasant was more palatable if a sauce is added. For this, bread is fried, "... the grapes are crushed and diluted with wine." The composition is strained after which it is boiled. The resulted sauce is poured over the roast pheasant. (Bornemisza 1983, 137) Rabbit meat can be cooked in twenty different ways. (Bornemisza 1983, 123-125)

The higher share which all hunting parties represented in spending leisure time is recorded in the second half of the 17<sup>th</sup> century by Papai Páriz Ferenc, he himself combating the education which was given to the young nobles during that period for which "... making oneself the master of the art

of riding, of hunting and parties were supreme values". (Spielmann 1980, 164-165)

#### *Walks and travels*

Other ways of spending leisure time, more often mentioned in the chronicles of time are walks and travels, the mentions taking into account both the nobility and the patriciate of the principality. Prince Michael Apafi I travels a lot, halting less than 24 hours in a town. (Apafi 1900, 151) The most frequently visited were on the domain of the Făgăraș Country and on the Târnaveilor Valley. He cares about mentioning several times that he leaves a town in which he has been present for a short while in order to be reunited with his wife located in an adjacent settlement. There are also frequent cases in which the prince is moving from one place to another to meet his wife. Especially when the prince was in Făgăraș, there is his habit to have lunch in a village, and dinner in another, adjacent to the village. He turns out to be very active trying on one hand to know as thoroughly the social and the economic situation of the villages in its domain, and on the other hand, these visits are as many opportunities of spend leisure time. For example, in 1671, he will spend about four months in the villages of the domain of Făgăraș. (Apafi 1900, 155)

Both the care for his personal health and the wish to spend agreeably the leisure time justifies his frequent trips he takes to the baths of Geoagiu. For example, in May of 1663, he has been there for almost three days. No long time has passed, and on the 20<sup>th</sup> of August, we find him again in Geoagiu, where he will be for five days. Sometimes he is accompanied by his wife. That happened on the 30<sup>th</sup> of November 1663. In that year, he went no less than four times at the thermal baths. He goes to Geoagiu even if only for a day (7 October 1664). The thermal baths at Kis Bors were also frequented. (Apafi 1900, 69)

The walks with his wife were very agreeable for the leisure time. For example, within 11 days the chronicler invites his wife to visit the town of Brașov several times, and in one of those short trips, they decide to spend the night at some friends. (Hegyes 1909, 492)

Here is the model of a relaxing day which the chronicler spends with his dear wife. Fond of hunting as much as her husband, the two decide to go to catch a deer. Unfortunately, they do not have enough chance, succeeding to hunt only a rabbit. However, towards evening they will invite a few

close friends (certainly one of the reasons being even a prepared dinner of the newly game) the conclusion being "... we were happy". Moreover, they continue to spend time together the next day, too. (Hegyes 1909, 519)

Invitations between friends to have a meal were addressed both for breakfast and lunch or dinner. (Hegyes 1909, 510) There were frequent cases when, next to friends, their wives were also invited. On the occasion of such meetings it is recorded only one subject of discussion. The atmosphere was relaxed, they had fun, amusing themselves about the items of clothing they wore. (Hegyes 1909, 527)

Long walks, until late hours, on the streets of the town were the more strengthening the more in the company of dear friends. Sometimes they were held after lunch, and they were a way to ensure the siesta. (Hegyes 1909, 511)

#### The Garden

The existence of gardens was mentioned in Braşov since 1541, in Cluj in 1557, and in Sibiu in 1573. Due to the limited existing space, these gardens were often located outside the city. (Sebestyen 1963, 29-30) The existence of such gardens in the vicinity of Braşov, at the beginning of the 17<sup>th</sup> century, is recorded by the chronicler. (Philippi 1982, 111) Reverend Chishull, who passed Transylvania in Lord Paget's suite, in 1702, confessed that, being in Sibiu, one day he was invited by "... Mr George Reisner, a senator of the city ... to visit his garden beyond the city walls and moats". (Chishull 1983, 206)

In a description of such a garden, the chronicler likes to emphasize the aspects that made her different from that of the West: "... our gardens ... are not so large or great as those enjoyed in France or Italy, they are not mere orchards, where trees are planted at random, the alleys are narrow, barely visible". (Bethlen 1736, 116)

Gardens and parks were common around the noble castles. The Diet in 1552 established severe penalties against those who devastated gardens and orchards. Of the arrangement of a garden Prince George Rakozi I took care, too, at Gurghiu. At Dumbrăveni and Făgăraş the orchard was separated by the park itself. His favorite flowers were roses. The alleys were planted with lime. Through the park passed smaller streams, the banks were planted with flowers. It seems that the maintenance of such gardens was very expensive. Thus, in 1687 there were spent four hundred

florins for the purchase of flowers at the castle from Iernut. (Sebestyen 1963, 41)

Also, many times around the curiae and the headquarters of the feudal domains there were gardens, in these the gazebo type constructions are found. Thus, at Porumbacu de Jos it is signaled one with a floor, having a painted ceiling. The whole garden was usually surrounded by a braided wattle fence. (Sebestyen 1963, 48)

The Făgăraş Fortress Inventory of 1637 records the existence of a beautiful garden, near the Fortress. It was one of the Prince's, the princess's and the guests' favourite place to stroll. It was surrounded by a fence of twigs, covered with shingles. A small part of the garden was planted with cabbage. Near it, was the gardener's house. In the midst of the garden there was a gazebo, a resting place for longer walks. It was a special place to which the gardener had to pay the utmost care. The entire building was surrounded by vines. From the planimetry's point of view, the little house had seven sides. The entry is achieved through a veranda, paved with planks. The foundation was entirely of stone. The ceiling was "... beautifully newly painted". Around the walls there were several bench planks. In the middle of the room, a round table, painted with twelve chairs surrounded standing with arms for one person. The lack of a heating system, of recipients for food storage, further strengthen the supposition that we are dealing with a building designed exclusively for stopovers. Also, surely there was a space of intimacy, of silence, an oasis of tranquility. (Prodan 1970, 422-423)

There are significant testimonies connected with the preoccupations concerning the care given to these gardens. Thus, in the library of Princess Anna Bornemisza who lived a long time in the castle of Făgăraş is mentioned the existence of a book for gardening. (Govor 1994, 88)

In the same context, in the instructions which she gave to the provisional domain of the Făgăraş Country, a great care should be given to the adornment of the garden with more flowers. (Prodan 1987, 22-23) The gardener in charge was a "German". He was helped by an "apprentice gardener". (Prodan 1987, 34)

The garden was a place of intimacy of the couple of lovers, the chronicler recording the existence of "... in the back of the garden of an old swing, which was near a stone bench". (Bethlen 1736, 151)

The garden is the space where the chronicler in love confesses in a troubled way "... I continued to

support myself with my crazy imagination, until I've fallen into a deep sleep, deep sleep, even during so real that I represent what I feel in my soul". (Bethlen 1736, 125) The expectation was not futile because "... the princess did not miss a meeting in the garden". His dreamy state of mood got the princess into the groove and who "... could not help but laugh, which confused me more and made me appear in her eyes embarrassed and as if fallen from the clouds". Face to face with his disorientation "... Princess's laughs multiplied, other moments of clumsiness following, until I became silent." (Bethlen 1736, 126)

A stroll through the garden, after the service, is welcome. Like this sounded one of the regulations of the state adopted by the magistrate of Bistrița, in the first half of the 17<sup>th</sup> century. (Dahinten 1988, 207) The garden thus becomes a place of solitude, of meditation with religious overtones, and thus the resonance of the sermon could be amplified. It is noteworthy that the civil authorities are those that involve direct ordering the leisure time of the individual.

Lunches, feast. Balls

The organisation of the banquets, real feasts, where the closest friends are invited, starts to become more and more a fashion. Thus, the chronicler wants to specify that at that party "...there were 17 guests, 32 dishes and the best wine. (Bereczk 1990, 255)

In chronicles there are also frequent mentions linked to meetings occasioned by invitations at lunches or suppers, where men and their wives took part in. Sometimes, there were two invitations in the same day to different persons for lunch and then for supper. Visits to friends became a custom. Thus, the historian Bánfi György testified that during January, 1644 he had lunch as a guest at his friend, Sigismund Rákoczi. (Bánfy 1862, 113)

The historian recorded that most of these meetings happened during the month his wedding was going to take place. Accompanied by his fiancée, in most cases, he would honour all the invitations. Parts of these visits were probably made in order to hand personally the wedding invitations. (Bánfy 1862, 120-121)

In another writing, the historian mentioned that he was invited to have lunch with other eight persons, just men. He testified that they caroused. There were reasons he didn't reveal, he wasn't too happy about this invitation, his high spirits were completely lacking. However, he tried to hide the inconveniences caused by such situation and he

tried to keep up the appearances. He testified that „we caroused because most of the invited guests wanted it and that's why I couldn't avoid this". (Wesseleny 1973, 712)

It should be emphasized the frequency of such meetings, „feasts" exclusively for men. The honour of invitation for lunch or supper was first an act of honour. During such events, excessive consumption of alcoholic beverages (a fact intensely pointed out by the historian) led often to the outbreak of conflicts which degenerated into true fights. The person who describes such events was an active participant. At least twice times, the historian reported that he witnessed such conflicts, where the prince himself was top billing and the servants had to endure patiently physical punishment applied by their master. (Haller 1862, 43)

The sincere confessions of historian are remarkable. Thus, he mentioned all the situations he was drunk, revealing also the moments when, beyond a certain limit, he provoked violent scandals. For instance, on the 28<sup>th</sup> of January (1638) he had lunch, being invited by his friend Kun Páll. Then, he mentioned he was as drunk as a lord. The amount of consumed alcohol was surely appreciable since next day he considered he didn't drink anything. He repeated the same bacchic state when he had lunch at Rhedei Francisc (on the 3rd of February). In the same month, he honoured other three invitations for lunch in two cases he wrote that „...I was as drunk as a lord". Rare are the cases when such bacchic state last for more than a day. However, on the first half of March, while he was hosted in Făgăraș castle, he wrote that he was drunk for three days, consecutively. (Haller 1862, 44)

Sometimes, these prolonged states of alcohol drinking rose in his soul some remorse. This the more that they all took place in full Lent. Thus, he underlines he has abstained for two days till evening (on the 1st and the 2nd of April) when he was hosted in Făgăraș. But a new lunch invitation is going to come, addressed from the fortress's captain, the historian confessing full of penitence he was again very drunk (the 3rd and the 4<sup>th</sup> of April). (Haller 1862, 44-45)

In his diary Nicolae Bethlen describes the eight days spent at Mihail Teleki court from Késmárk. During the banquets organised for this purpose he pointed out the excessive consumption of alcoholic beverages, the historian mentioning that all the

guests „spent only visiting and carousals whole day, that nobody was sober, because everybody may drink without cease”. Prince's Council is described with the same words, the 10 -12 members often legislated important laws for country while they were drunk. (Barițiu a 1870, 69)

The historian Ioan Bethlen wrote about the risen quantities of alcohol consumed during banquets organised by Transylvanian nobility. As participant, the historian wrote two pull-comic incidents due to the excessive consumption of alcoholic beverages. The nobleman Dionisie Bánffi trying to help prince Apaffi, (these were drunk) hurt himself, „that several days he couldn't walk”. At another banquet, one of the guests, the nobleman Stefan Torma, „was as drunk as a lord”, that he suffered an accident, falling with the head inside a castle latrine, being hardly saved by the servants. (Barițiu b 1870, 127)

Such large quantities of alcohol were consumed by prince Apafi and during diet of May 1665, the historian mentioning that the prince „...drinks accompanied by Alecs. Rákoczi, the magnate comes from Hungary and most other”. Only the stormy debates which took place in the diet will determine the firm intervention of the prince who „...finally...woke sober, stood up hursh the younger and friskyer members”. (Barițiu b 1870, 150)

Performance Diet from February 1666 was marked again by the bacchic excesses, the historian mentioning „...there were scary drunk, that even Apafi who kept the glass as nobody else fell ill because of these excesses”. (Barițiu b 1870, 174)

And during the diet of January 1667 organising banquets led to excessive alcohol consumption „...there were large drunkenness both to the prince and the noblemen meals”. One of the promoter was the prince himself, the historian mentioning „...one day Apafi inviting his brother-in-law Bánffi to have a meal and both of them being as drunk as a lord...”. (Barițiu b 1870, 190)

There are seldom occasions when we find out details about talk subjects in such situations. In a certain case, the historian confessed that, as Márton Deák's guest, the Făgăraș fortress captain, they talked a lot about the earthquake from Italy and its adverse consequences. During a further visit to Mr. Toldalaghi Mihail, he pointed out that the great part of discussions were based on unusual happenings. The discussions about unusual weather phenomena which took place outside of Transylvania captured attention of the messmates,

most of them connected to the religious substratum. Other discussed aspects during such banquets were about politics. (Haller 1862, 47-48)

The humanists also consigned both the existence and the frequency of such meetings between friends. Thus, writing a letter to Cornelius Sceperus, Olahus confessed him his wish to come back into his country as soon as possible. He analysed advantages and disadvantages which implies his return in homeland. He considered that he didn't regret, as long as in Transylvania he enjoyed favorable conditions for studying books and for the company of wise men. The later enjoyed this idea, pointing out the great satisfaction to discuss with „old and distinguished friends” as long as there are also in Transylvania „...a lot of wine of all varieties” (Capoianul 2000, 251) “The chats” with friends accompanied by huge amounts of wine were a reality in Transylvania during the 16<sup>th</sup>-17<sup>th</sup> centuries.

From the second half of the 17<sup>th</sup> century, during the banquets organised by Transylvanian nobility, „the French dance” started to replace more and more the traditional dances. (Wesseleny 1973, 721)

In the second half of the 17<sup>th</sup>-century the balls organised by the prince or the famous noblemen of the principality became daily events. The historian presents us precious data connected to ambience of such parties. (Bethlen 1736, 22) Thus, „...Prince Barcsay in order to attract good will of noblemen and the love of people commended a public feast.” Before the proper ball it was organised a meeting of noblemen of the principality presided by the prince, the presence of women was forbidden, „...they withdraw and they come back only for the ball...”. The ball start by „...a boring recital of acts of bravery”, the assembly must „...toss off their glass”. The historian pointed out the boredom which accompanied such moments, „...languishment...”. Since these boring moments finished, the ball start „...dedicated, almost invariably, to god Bachus”. A main moment of these balls were the dances, the historian offering us a brief description, pointing out the difference to those of France: „...all our dances consist in what you call in France lurches, everybody holds the other one's hand, the first one leads the dancers queue and he starts with a shy step, and then a happier dance and it ends with a movement which consist in returning the dancers many times, the men embrace the women. (Bethlen 1736, 23) The historian keeps on describing the dance, admiring the handsome aspect of the ladies.: „...thus, the

ladies mingled to the men and dancing around a spacious room pointed out their charm and attraction to the numerous audience. (Bethlen 1736, 24)

The historian made references connected to the behavior, attitudes of the women with such occasions.: „...ladies of Transylvania are so modest, that they don't rise the eyes, but during the dance it is necessary to dance with men, this is a reason to talk, much more in the aisles there was no dance. (Bethlen 1736, 25)

#### Courtesy visits

The Sekler nobleman Mikes Kelemen (1690 – 17610) reveals us an important aspect connected to the idea of spending the spare time: the courtesy visits. (Kelemen 1980, 71) Being exiled in Turkey, in Tekirdag, together with the prince Francisc the Second Rákóczi, a leader of the Kurutzs and a few close friends, this was „forced”, from time to time, to accept the invitations of a lady and her daughter's. These are courtesy visits with no purpose in particular, their author not being very pleased with such journeys. During the entire conversation ( which was more like a monologue, the lady speaking ceaselessly, the chronicler saying nothing and making efforts to listen to her) his only wish was to please the lady because...”that's a woman's society”. The invariable themes of the conversation were the recollections of the youth events: beautiful and merry memories of a vanished age, presented in a subjective way, definitely in an exaggerated manner „...she likes to speak but of old things, how and by what means she spent her time before marriage”. This type of conversation induces to the chronicle a great boredom, „...because I can listen to someone for three hours, without saying a word, but then do not ask me what I heard because I know nothing”. But there was the art of conversation: to listen, to leave the impression you are really interested in the subject, all this mental effort serving to a sole purpose: that of no offending the person that stands in front of you. The effort was even bigger because, we can suppose that, at least one part of the topics kept repeating over and over again.

#### A day from an exiled prince

Mikes Kelemen describes a day from the former prince of Transylvania. Francis the 2nd Rakoczi who was in exile in Turkey. (Kelemen 1980, 69-70) We can guess that during his staying in Transylvania, spending his free time was withdrawn under the same coordinates. Everything was done after a well-established ritual nothing

was left at the mercy of fate.

Everywhere ruled a perfect order.”..not even in a monastery was a more perfect order than in the Prince's house.” There was a real ritual, imposed by the former prince and respected not only by the servants, but also by the close friends. There were respected with strictness the exact time of the three daily liturgies. The same strictness was kept for the exact time of serving breakfast, lunch and dinner. „...after liturgy he goes in the house for breakfast at half past ten the drums strike for lunch...the drums for dinner strike at half past six.”

Until lunch time, the prince had taken part at two liturgies at six and at eight in the morning. After the first liturgy surrounded by close friends he used to drink a coffee and smoke a tobacco in the dining-room. After lunch time, which used to be served at 12 o'clock, the prince used to go again in the chapel for a half an hour, this time alone, without taking part in the liturgy...” The lord goes in the chapel alone and stays there until three o'clock”.

After dinner usually not prolonged after eight o'clock he withdrew preparing for the „night-sleep”. The programme was respected by everybody on daily basis.

The prince used to go hunting twice a week „the prince rides his horse twice a week and we hunt till evening, a lot of quails and legion of rabbits being found here, and the red quails are more than the grey ones”. He would spend the rest of his time reading and writing. Even when the prince was ill, the programme was strictly followed, „don't think My Prince that anyone would spoil all these...for the orders are the same even if the Master were ill. The beats of the gong are the ones that command the flow of time and implicitly the life of the exiled.

The organisation of some hunting matches, the periodical assembly of the guilds, the high frequency of feasts organisation, the practice of gambling on a large scale, walking and travelling, balls, the courtesy visits were all ways of spending free time in Transylvania in the XIVth-17th centuries. Considering that generosity of the tackled subject can lead to many interpretations and assessments, in the course of the historical investigation, the few remarks of the present study allow us to find a certain continuation but also „the discovery” of new ways of spending free time.



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## TOMBSTONES OF THE BRUKENTHAL MUSEUM COLLECTION

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**Abstract:** *This catalogue is based on the tombstone collection of the Brukenthal Museum in Sibiu, including 65 funeral monuments. Mostly, they belong to the post-medieval communal cemetery and have the emblem of the guild or the coat of arms of the nobleman and an inscription. The tombstones are important historical sources.*

**Keywords:** *tombstone, Brukenthal, collection, craft, guild.*

**Rezumat:** *Catalogul prezentat se bazează pe studiul pietrelor de mormânt din colecția Muzeului Brukenthal din Sibiu. Colecția cuprinde 65 pietre de mormânt recuperate, în majoritate, din cimitirul evanghelic postmedieval. Pe cele mai multe se pot vedea stema breslei sau blazonul nobiliar și o inscripție. Pietrele de mormânt sunt izvoare istorice importante.*

**Cuvinte cheie:** *piatră de mormânt, Brukenthal, colecție, meserie, breaslă.*

The collection of the Brukenthal Museum in Sibiu includes 65 tombstones, recorded in the museum inventory in the period from 1897 to 2007. They mostly belonged to the communal cemetery, located outside the town precinct (the 16<sup>th</sup> century - the end of the 19<sup>th</sup> century). The protocol records of the tombstones are lost but the Engber photo-collection of the museum has some photos *in situ*.

The Mathias Niedermaier's tombstone (inv. Nr. M6512/7831) was recorded in 1908. Previously it was preserved in the courtyard of Karl Niedermaier, a relative of the deceased man. The tombstone M6513/1983, donated by Johann Schell, was included in the museum collection in 1908. This tombstone had been preserved in the courtyard of the successors, as well as an uninscribed tombstone (M6510/16786) which was uncovered in 1955 in the courtyard of Anna Schuster (Konrad Haas St. / Poschengasse nr. 12).

The main group of tombstones (inv. Nr. M7096 - M7149) came into the possession of the museum in the 60's -70's of the 20<sup>th</sup> century, when the cemetery was destroyed.

The most recent tombstone in the collection was uncovered in 1988, during the archaeological excavation in the Hospital Church in Sibiu (Beșliu, 2008:69). It is now exhibited in the Brukenthal Palace (inv. Nr. M9253).

The provenance of some tombstones is unknown.

Many tombstones commemorate craftsmen (Bielz 1936-1937, 20-21, photos 41, 42); others a chemist, noble men and clerks, like Martinus Czekelius, the constable of the Town Hall in Sibiu.

An important funeral monument in the museum collection, and the first one that entered it, belonged to the governor of Transylvania, Samuel von Brukenthal (Spek 1947, 39). It was donated to the museum in 1897. It is cut in marble. The others are cut in stone.

The tombstones have a vault part and a visible one. The emblems of the craft guilds, the inscriptions and ornaments are engraved on the upper side. Previously, some were door frames, others are reused tombstones.

The tombstones are important for the history of the Transylvanian craft guilds, mentality (Rus 2010, p. 161-170), ethnography (Sigerus 1923, 153-168) and language.

The tombstones in the catalogue are in chronological order.

Abbreviations: H: Height; W: Width; D: Depth.

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## THE CATALOGUE

### 1. T. W.'s tombstone

Date: 1574

Dimensions: H: 112 cm; W: 52 cm; D: 15 cm

Description: At the top, the monogram and the death date (A); in the central field, the funerary elegiac distich (B); below, the emblem of the tanners' guild:

A TW / 1547 /

B NASCIMVR AC / OMNES SVMAM /  
PROPERAMVS AD / HORAM  
ET NIHIL / HAEC VITA EST / QUIA  
LABOR AT/QUE DOLOR /

Inventory: M9253

Bibliography: Beşliu 2008, 69, 104, photo 36

Figure 8, E.

### 2. Tombstone (?)

Date: the 17<sup>th</sup> century (?)

Dimensions: H: 207 cm; W: 71 cm; D: 26 cm

Description: At the top, Kemény of Gyerőmonostor's coat of arms (?). The place for the inscription is empty, (unfinished stone ?).

Inventory: M 5987

Figure 1, A.

### 3. Michael Pla...s tombstone

Date: 1750

Dimensions: H: 125 cm; W: 44 cm; D: 13 cm

Description: At the top, in a garland, the emblem of the weavers' guild, above a crown; below, the inscription:

17//50

MICH(AEL) ... PLA ..

Reused tombstone; the lower part of the inscription was erased.

Inventory: M7124

Figure 7, E.

### 4. Maria Victoria de Rusch's tombstone

Date: 1762

Dimensions: H: 46.5 cm; W: 45.5; D: 19 cm

Description: At the top, two coats of arms; below, the inscription:

ILL(USTRISSI)MA D(OMI)NA D(OMI)NA  
MARIA VICTORIA ... / ET ROLLANDI  
RELICTA VIDUA QUOD ... [MAR]/TINI DE  
RUSCH PRINZI(PA)TUS  
TRANN(SILVANI)/CI SECRETARII  
CONSORS NATA DI[E ...] / IN D(OMI)NO  
1762 DIE 29 MARTII AETATIS SUE 6...

Inventory: M7776

Figure 1, B.

### 5. Stephanus Czinck's tombstone

Date: 1772

Dimensions: H: 40 cm; W: 21 cm; D: 10.5 cm

Description: In a garland, the emblem of the hatters' guild; below, the inscription:

STEPHAN/US CZINCK /AN(N)O 1772

Inventory: M6511.

Figure 6, C.

### 6. Thomas Schuster's tombstone

Date: 1773

Dimensions: H: 109 cm; W: 27 cm; D: 16 cm

Description: At the top, the inscription:

THOM(AS) / SCHUSTER // 1773 //

In the central field, the emblem of the blacksmiths' guild; below, the inscription:

Quatrain.

Herr deine / wunden zum / beschluß /  
Ergreiff ich / wen(n) ich sterben / muß, /  
Drum setzt / miir diese Grab/schrift beÿ /  
Dasz Jesu todt / mein Leben / seÿ.

Inventory: M7137

Figure 1, C.

### 7. Michael Buldesch's tombstone

Date: 1777

Dimensions: H: 114 cm; W: 37 cm; D: 12 cm

Description: At the top, in a garland, the emblem of the masons' guild and a crown; below, the inscription:

17//77

HIR RUET IN HERN DER /SELIG HER  
MICH(AEL) BULDESCH/.

Inventory: M7122

Figure 7, C.

### 8. Georg Werder's tombstone

Date: 1779

Dimensions: H: 122 cm; W: 41 cm; D: 15 cm

Description: At the top, an angel; below, the inscription (A), a fragment from Apocalypse 2,10. In the central field the emblem of the rope makers' guild, repeated in the crest; below, the name of the deceased (B). In the lower field the date (C) is framing the emblem of the gloves makers (?). Under the emblem two rows of the explanatory inscription (D), referring to the number of graves, probably two:

A Sey getreu bisz in /den Todt, so will  
ich dir / die Krone des Lebens geben //

B GEORGIUS WERDER //

C 17//79

D Dieser Stein bezeichnet zwey [...]

Reused tombstone.

Inventory: M7139

Figure 1, D.

### 9. Nicolaus family's tombstone

*Date:* 1781

*Dimensions:* H: 180 cm; W: 20 cm; D: 43 cm

*Description:* The tombstone is concave. At the top, a niche; below, the inscription:

[...] SEPVLTVRA SE... /  
[...] SVAS [...] NICOLAVS IN ... /  
SI LICET [...] AS TA .../  
IV OBIT AN(N)O .../  
[AETA]TIS 2 MENSIVM .../  
[M]ARIA FAR[HI]N AETA[TIS...]/  
... S OBIT ... 1742 ... /  
... 18 MAII ... ARIS /  
... IASL ... 17.. DIE /  
... 10 A [PRILIS SV]AE AE[TATIS...]/  
[...] RIS  
[...] ME[...] ERLVO [...] /  
IA OB [IIT] 1781 AE[TATIS...]  
[...] CTAVI [...] OB An(n)o 17[...]  
[...] 80/  
[...] /  
[...] ST [...] JOR /  
MONVMENTI E[...]/  
[...] E[...] MEI /

*Inventory:* M7442.

### 10. Georgius Theis' tombstone

*Date:* 1789

*Dimensions:* H: 112 cm; W: 43 cm; D: 14 cm

*Description:* At the top, the name of the deceased; below, in a garland, an anchor finished in a cross form and the monogram MH; the date and a funerary poem:

GEORGIUS THEIS  
1.7./5.3.  
Meine [...] ist dahin und [...] auffgege [...] /  
neb [...] Hirten [...] nicht legen [...] Er [...] /  
gnis Dir in [...] nur mein [...] vor [...] /  
1789".

*Inventory:* M7125

Figure 7, E.

### 11. Michael Hirsch's tombstone

*Date:* 1789

*Dimensions:* H: 71 cm; W: 22 cm; D: 11 cm

*Description:* At the top, the representation of a book; below, the inscription:

MICHAEL / HIRSCH. / 1789.

*Inventory:* M7107

Figure 1, E.

### 12. Jacob Tzerszer's tombstone

*Date:* 1789

*Dimensions:* H: 76 cm; W: 38 cm; D: 11 cm

*Description:* At the top, the coat of arms: an eagle

in two concentric circles; above, the crown from which an eagle comes out; below, the inscription:

Jacob Tzerszer / 1789.

Below, the unreadable words of a funerary poem.

*Inventory:* M7112

Figure 1, F.

### 13. Mathias Niedermaier's tombstone

*Date:* 1790

*Dimensions:* H: 90 cm; W: 20 cm; D: 16 cm

*Description:* At the top, the emblem of the shoemakers' guild; below, the inscription:

MATHI/AS : NIE/DERM/AIER: / DIE 5 /  
MAIO / AN(N)O / 1790

*Inventory:* M6512

*Bibliography:* Bielz 1936/1937, 21; photo 42

Figure 2, A.

### 14. Andreas Urbanus's tombstone

*Date:* 1791

*Dimensions:* H: 95 cm; W: 23 cm; D: 14 cm

*Description:* At the top, a crown; above a garland with the emblem of the weavers' guild; below, the inscription:

ANDREAS / URBANUS / 1791

*Inventory:* M6513

*Bibliography:* Bielz 1936/1937, 21; photo 41

Figure 2, B.

### 15. Michael Conrad's tombstone

*Date:* 1793

*Dimensions:* H: 127 cm; W: 31 cm; D: 17 cm

*Description:* At the top, the emblem of the weavers' guild and a crown in the top; below, the inscription:

MICHAEL CONRAD / 1793.

*Inventory:* M7128

Figure 2, C.

### 16. Tanner's tombstone

*Date:* 1794

*Dimensions:* H: 71 cm; W: 38.5 cm; D: 13.5 cm

*Description:* The emblem of the tanners' guild; below, a fragment of the inscription:

... 1794

*Inventory:* M7126.

### 17. Tombstone with chronogram

*Date:* 1794

*Dimensions:* H: 152 cm; W: 35 cm; D: 15 cm

*Description:* Convex shaped tombstone. Inscription partially visible:

VnVerhofft entsCh/LIef Der BIeDre /  
freVnD MaVtner /  
Llebe GVete lindern / Alter :VbeLsten / Vor  
SIn thVn /

DEN(ATUS) 14 MAY / 1794

Chronogram:

DDDCLLLVVVVVVVVVIII = 1794

Inventory: M7127

Figure 2, D.

### 18. Iohan Drodlauf's tombstone

Date: 1794

Dimensions: H: 80 cm; W: 25 cm; D: 10 cm

Description: At the top, the emblem of the shoemakers' guild; below, the inscription:

IOHAN /DRODLAUF/ 1794/.

On the narrow side of the tombstone an inscription (?):

ESO?TIAT.

Inventory: M7108

Figure 2, E.

### 19. Martinus Czekelius's tombstone

Date: 1797

Dimensions: H: 130 cm; W: 37 cm; D: 9 cm

Description: At the top, the coat of arms (crowned oval cartouche: man with anchor), in each corner a number of the date; below, a funerary poem and information about the deceased.

Quatrain:

1//7//9//7

Voll krönt die / Fröm(m)igkeit,

Hier / reichlich in der Zeit, /

Und nach der Sterb- /lichkeit

Mit ewger /Himmels-Freud //

MARTINUS CZEKELI(US) Stadt-Höpfner

Inventory: M7116

Figure 7, B.

### 20. Samuel Hemper's tombstone

Date: the 18<sup>th</sup> century (?)

Dimensions: H: 60 cm; W: 35 cm; D: 16 cm

Description: At the top, the emblem of the knivesmakers' guild; below, the inscription:

SAMUEL / HEMPER / Meserschmiedt-Meister.

Inventory: M5353

Figure 2, F.

### 21. A shoemaker's tombstone

Date: the 18<sup>th</sup> century (?)

Dimensions: H: 32 cm; W: 25 cm; D: 12 cm

Description: The emblem of the shoemakers' guild. Inventory: M7129.

### 22. Johann Roth's tombstone

Date: the 18<sup>th</sup> century (?)

Dimensions: H: 125 cm; W: 44 cm; D: 13 cm

Description: At the top, the emblem of the shoemakers' guild; below, the inscription, partially

legible:

Jahr ... / Joh[ann] Roth / Bur[g-Zi]schmenma/cher

Inventory: M7140.

### 23. Uninscribed tombstone

Date: the 18<sup>th</sup> century

Dimensions: H: 33 cm; W: 20 cm; D: 11 cm

Description: A skull and two cross bones.

Inventory: M6510

Figure 3, B.

### 24. Johann... family's tombstone

Date: the 18<sup>th</sup> century

Dimensions: H: 155 cm; W: 44 cm; D: 10 cm

Description: The tombstone is deteriorated; the guild emblem is not visible, but the garland, the crown and a fragment of the inscription:

FAMILIEN GRAB /Des /JOH[ANN...] / ...

Dieser ....

Inventory: M7111.

### 25. Johann Gottlieb Schuster's tombstone

Date: the second half of the 18<sup>th</sup> century

Dimensions: H: 111.2 cm; W: 50 cm; D: 16 cm

Description: At the top, the emblem of the chemists; below, the inscription partially deteriorated:

Der / Sanften Ruhe meines gut[en] / Vaters  
des IOH(ANN): GOTTL(IEB): / SCHUSTER  
Bürger(liche)r APOTHEKER /Geb(oren) in  
Cuur-Sachsen zu Wa-/arenbrück Anno 1726  
die 18/ M ... 3 die 25/.

Inventory: M7878

Figure 3, C.

### 26. A wheelwright's tombstone

Date: the end of the 18<sup>th</sup> – the beginning of the 19<sup>th</sup> century.

Dimensions: H: 164 cm; W: 44 cm; D: 14 cm

Description: At the top, the emblem of the wheelwrights' guild; inscription partially legible:

dein . . . /MICH.....GEB /W[AGNER]  
MEISTER/.

Inventory: M7118.

### 27. Johann Schmidt's tombstone

Date: 1801

Dimensions: H: 84 cm; W: 26 cm; D: 12 cm

Description: In a garland, the emblem of the hatters' guild; above, a crown; below, the inscription. The tombstone was reused, preserving some previous letters (we can see a W). Inscription:

Johann /Schmidt / AN(N)O 1801.

Inventory: M7110

Figure 3, D.

### 28. Daniel Royko's tombstone

Date: 1802

Dimensions: H: 131 cm; W: 36 cm; D: 12 cm

Description: A garland painted in green with a crown at the top. In the centre, between two rosettes, a double cross with an anchor at the bottom; below, the inscription:

*HIC IACET EGREGIUS DANIEL /DE  
NOMINE. ROYKO,/ CUIUS IN  
HUNGARIA PATRIA /CSETNEK ERAT.  
/NON EUIT ILLE QUIDEM GE/NITOR  
SED PROLIS AMATOR/ IMMO PATER  
VERUS, CON/IUGIS ARDOR ADHÆC./  
VERUS AMOR FRATRUM TUTE/LAQUE  
VERA SORORUM./ QUI LEGIS HOC  
VERUM. TU./ QUOQUE DILIGE ABI./  
OBIIT CIBIN(II) DIE 9NA DECEM/BRIS  
ANNO 1802/.*

Inventory: M7511

Figure 3, E.

### 29. Johannes Knall's tombstone

Date: 1807

Dimensions: H: 105 cm; W: 25 cm; D: 16 cm

Description: The emblem of a guild; above an ornament with three rosettes; below, the inscription:

*IOHANNES /KNALL /DEN 2TEN  
/SEPTEMBER /1807.*

O in the date number also used as *obiit* (Θ).

A stone door frame reused as tombstone.

Inventory: M7132.

### 30. J. P.'s tombstone

Date: 1810

Dimensions: H: 95 cm; W: 25 cm; D: 15 cm

Description: At the top, the emblem of the ropemakers' guild; below, the monogram and the date:

*/J.P. /1810/.*

Inventory: M7106.

### 31. A wheelwright's tombstone

Date: 1816

Dimensions: H: 148 cm; W: 25 cm; D: 14 cm

Description: At the top, the emblem of the wheelwrights' guild and the death date; in the first row the name of the deceased is preserved.

*[1//]8//1//6*

*Andreas*

Inventory: M7119.

### 32. Michael Wallentin's tombstone

Date: 1824

Dimensions: H: 146 cm; W: 38 cm; D: 13 cm

Description: At the top, the emblem of the shoemakers' guild in a garland, a crown at the top; below, the inscription:

*1824 Michael Wallentin / Zischmenmacher /  
Meister/.*

Inventory: M7144

Figure 3, F.

### 33. Johan Unchi's tombstone

Date: 1831

Dimensions: H: 165 cm; W: 43 cm; D: 11 cm

Description: At the top, in a garland, the emblem of the butchers' guild, above a crown; below, the inscription:

*Mensch bestelle dein / Grab / denn du must  
sterben / JOHAN UNCHI  
/FLEISCHHACKER / MEISTER  
/G(e)s(torben) 30 NO(V)EM(BER) / 1831.*

Inventory: M7099

Figure 4, A.

### 34. Georg Kroner's tombstone

Date: 1832

Dimensions: H: 175 cm; W: 40 cm; D: 20 cm

Description: At the top, the emblem of the butchers' guild; below, the inscription:

*GEORG KRONER /DEN(ATUS) 1 MAI  
/1832*

Reused tombstone.

Inventory: M7146.

### 35. Andreas Krämer's tombstone

Date: 1835

Dimensions: H: 122 cm; W: 31 cm; D: 12 cm

Description: At the top, in a garland, the emblem of the masons' guild; above, a crown; below, the death date and a funerary poem.

Quatrain:

*Wenn ich einst /im dunklen Grabe /  
Lange ueber ge-/schlum(m)ert habe /  
Dann lies diese /Zeilen hier: /  
Und w[ei]ch eine Thräne mir//  
And(reas) Krämer/*

Inventory: M7117

Figure 4, B.

### 36. Serfözö János's tombstone

Date: 1838

Dimensions: H: 173 cm; W: 42 cm; D: 16 cm

Description: At the top, the emblem of the shoemakers' guild held up by two lions; above a crown; below, the inscription:

*1838./ MEGHOLT 62 /ÉVÉBEN /SERFŐZŐ  
JÁNOS / SÍRHÁLMA / EZ SETÉT  
BOLTOZOT /LÉSZEN HELYE TESTEM. /A*

*MENYORSZÁG PEDIG /KIKÖLTÖZÖT.  
LELKEM /NEK./*

Inventory: M7114.

### 37. Michael Schmidt family's tombstone

Date: 1841

Dimensions: H: 151 cm; W: 41 cm; D: 16 cm

Description: At the top, the emblem of the coopers' guild; below, the inscription:

*Familien Grab/ des /Michael Schmidt/  
Faßbinder Meister/ 1841/*

Inventory: M7147.

### 38. Johann Ambrosi family's tombstone

Date: 1842.

Dimensions: H: 91 cm; W: 45 cm; D: 9 cm.

Description: At the top, the emblem of the bakers' guild, held up by two lions; at the top a crown; below, the inscription including a quatrain:

*Familien-Grab / des / JOHANN AMBROSI /  
Zweij Kinder ruhen hier /  
Der Eltern Freud gewesen /  
Sie waren unsere Zier /  
Und müssen hier Verwesen /  
Sie starben im Jahr / 1842.*

Inventory: M7115.

### 39. Christian Saurer's tombstone

Date: 1845

Dimensions: H: 95 cm; W: 51 cm; D: 11 cm

Description: The emblem of the millers' guild held up by two lions; above, a crown; below, the inscription:

*H[ie]r ruhet/ Christian Saur(er) / M[ü]ller  
Meister/ den ... Iuli 1845/.*

Inventory: M7104

Figure 6, E.

### 40. Johan Michael Theil's tombstone

Date: 1845

Dimensions: H: 123 cm; W: 35 cm; D: 10 cm

Description: At the top, the emblem of the shoemakers' guild; below, the inscription:

*RUHESTÄTTE / DES / JOH THEIL /  
ZISCHMENMACHER / MEISTER / 1845*

Inventory: M7098

Figure 4, C.

### 41. Joseph Essig family's tombstone

Date: 1846

Dimensions: H: 184 cm; W: 38 cm; D: 10 cm

Description: At the top, the emblem of a paver, below, the inscription:

*Familien Grab /des /Joseph Essig/  
Pflasterer Meister /gestor(ben) im 51  
Leb(en)sjahre/ den 24 März 1846/.*

Inventory: M7145

Figure 8, C.

### 42. Johan Gross's tombstone

Date: 1847

Dimensions: H: 121 cm; W: 31 cm; D: 15 cm

Description: At the top, a bird with a twig in its beak sitting on a crown; the date 1729 and inscription (A) below. In the middle part: a garland with the emblem of the milers' guild and an inscription (B), below, a skull and cross bones.

A 1729 // VON ... //... EDEN/BVRG.

B Johan / Grosz / 1847 //

V in EIDENBVRG is engraved like N inversum (mirror image).

Reused tombstone.

Inventory: M7103.

Figure 4, D.

### 43. Georg Hütter family's tombstone

Date: 1847

Dimensions: H: 110 cm; W: 34.5 cm; D: 8 cm

Description: In a garland the emblem of the tailors' guild; below, the inscription:

*Familien Grab / des / Georg Hütter / Burg-  
Manskleider/macher / 1847.*

Inventory: M7138

### 44. Martin Wagner's tombstone

Date: 1847

Dimensions: H: 110 cm; W: 40 cm; D: 12 cm

Description: At the top, the emblem of the wheelwrights' guild; below, the inscription:

*/Martin.... Wagner Meister, /1847*

Inventory: M7097.

### 45. Johann Binder family's tombstone

Date: 1848

Dimensions: H: 139 cm; W: 26 cm; D: 9 cm

Description: At the top, the emblem of the turners' guild; below, the inscription:

*Familiengrab /Des /Joh(ann). Binder  
/Drechsler /Mäister/1848/.*

Inventory: M7113

Figure 7, A.

### 46. Michael Kraus family's tombstone

Date: 1848

Dimensions: H: 143 cm; W: 45 cm; D: 16 cm

Description: At the top, the emblem of the bakers' guild; below, the inscription:

*Familien Grab /des /MICHAEL KRAUS  
/WEISBÄCK-MEISTER /AN(N)O. 1848/.*

Inventory: M7135

Figure 4, E.



**47. Iohann Georg Speck family's tombstone**

Date: 1851

Dimensions: H: 165 cm; W: 35 cm; D: 13 cm

Description: At the top, the emblem of the weavers' guild; below, the inscription:

*Fam(ilien)-Grab / (des) / I. GEORG SPECK  
/Wollen[weber]-Meister / 1851/.*

Inventory: M7123

Figure 7, D.

**48. Johan Conrad family's tombstone**

Date: 1861

Dimensions: H: 81 cm; W: 29 cm; D: 15 cm

Description: At the top, the emblem of the tanners' guild; below, the inscription:

*Familien Grab /des /JOHAN  
CONRAD/...[R]otgerber-Meister 1861...yor  
91.*

Reused tombstone

Inventory: M7136

Figure 4, F.

**49. Joseph Connerth family's tombstone**

Date: 1861

Dimensions: H: 145 cm; W: 43 cm; D: 89 cm

Description: At the top, the emblem of the carpenters' guild; below, the inscription, information about carpenter's daughter:

*Familien Grab / des / JOSEPH CONNERTH  
/ koral: Tischler Meister / JOHAN(N)A  
CONNERTH /geb(oren) den 7. Juni 1854  
/gest(orben) den 20. April 1861.*

Inventory: M7142

Figure 5, A.

**50. A shoemaker's family tombstone**

Date: 1864 (?)

Dimensions: H: 65 cm; W: 22 cm; D: 19 cm

Description: At the top, the emblem of the shoemakers' guild; above, a crown; the numbers of the year in the corners of the emblem and the inscription:

*1864 (?) /...Familien [Grab] ... / ... des*

Inventory: M7102.

**51. Samuel Haas family's tombstone**

Date: 1874

Dimensions: H: 86 cm; W: 39.5 cm; D: 8.5 cm

Description: At the top, in a garland, the emblem of the strapmakers' guild and a crown; below, the inscription:

*Familien Grab / des / Samuel Haas.  
/B(ür)g(er)l(icher). Rimer-Meister /1874/.*

Inventory: M7133

Figure 8, A.

**52. Michael Glatz family's tombstone**

Date: 1880

Dimensions: H: 61 cm; W: 25 cm; D: 10 cm

Description: At the top, the emblem of the coopers' guild; below, the inscription:

*Familien Grab/ des / MICH(AEL) GLATZ /  
1880.*

Inventory: M7101

Figure 5, B.

**53. Shoemakers journeyman's tombstone**

Date: 1891

Dimensions: H: 134 cm; W: 33 cm; D: 10 cm

Description: At the top, the emblem of the shoemakers' guild; below, the inscription:

*Grab /der /Schuhmacher /Bruderschaft.  
/1891.*

Inventory: M7100.

Figure 6, D.

**54. Joseph Meister family's tombstone**

Date: 1895

Dimensions: H: 134 cm; W: 34.3 cm; D: 10 cm

Description: Garlands tied with a ribbon; at the top, a bird (a pigeon?); in the garland a vase with flowers sitting on a table decorated with circles; below, the inscription:

*Familien Grab /des /Josef Meister/  
Tischlermeister/ 1895.*

Inventory: M7096

Figure 5, C.

**55. Franz Gross family's tombstone**

Date: 22 January 189?

Dimensions: H: 169 cm; W: 32 cm; D: 10 cm

Description: At the top, the emblem of the milers' guild; below, the inscription:

*Familien Grab /Hier ruhet /Franz Gross  
/Müllermeister /gest. 22 Januar 1891 /im 63  
Lebensjahre /...<sup>a</sup>/Schlummere<sup>b</sup> sanft!/  
a) five erased rows.  
b) first *e* in *Schlummere* superscript in *petit*.*

Inventory: M7120

Figure 5, D.

**56. Samuel von Brukenthal's tombstone**

Date: the beginning of the 19<sup>th</sup> century

Dimensions: H: 113 cm; W: 85 cm; D: 8.5 cm

Inscription:

*CONDITA HAC VRNA / CINERES  
FRATRVM SAMVELIS L. BARONIS ET  
MICHAELIS DE / BRVKENTHAL / ILLE /  
REGIVS M(AGNI): PRINCIPATVS  
TRANSYLVANIAE / GVBERNATOR / HIC /  
SVPREMVVS DISTRICTVS TERRAE  
FAGARAS CAPITANEVS // PATRVO , AC*

*PATRI, CAROLVS L.B. DE /  
BRVKENTHAL, FILIVSQVE IOSEPHVS  
GRATI POSVERE.*

Inventory: M5322

Bibliography: Speck 1947, p. 39

Figure 6, A.

### 57. Simon and Carl Wolff's tombstone

Date: the first half of the 19<sup>th</sup> century

Dimensions: H: 188 cm; W: 42 cm; D: 13 cm

Description: At the top, in an oval, the emblem of the carpenters' guild; below, a garland and the inscription:

*[Hier] / Ruhen / SIMON WOLFF./ und  
dessen Nachkommen / CARL WOLFF  
/CARL WOLFF.*

Inventory: M7134

Figure 5, E.

### 58. A cooper's family tombstone

Date: the 19<sup>th</sup> century (?)

Dimensions: H: 103 cm; W: 27 cm; D: 7 cm

Description: The emblem of the coopers' guild in garland; below, an ornament with dentils and the inscription:

*Familien [Grab].../.*

Inventory: M7105

### 59. A tailor's tombstone

Date: the 19<sup>th</sup> century (?)

Dimensions: H: 47.4 cm; W: 20 cm; D: 12.5 cm

Description: At the top, the emblem of the tailors' guild; below, the inscription:

*Mensch. bestell...*

Inventory: M6509.

Figure 6, B.

### 60. Tombstone

Date: the 19<sup>th</sup> century (?)

Dimensions: H: 72 cm; W: 28 cm; D: 10 cm

Description: The inscription:

*WIE /GOTT / WILL / IST M/EIN /WILL/.*

below, traces of a bird (a pigeon?).

Inventory: M7109.

Figure 6, F.

### 61. Daniel Göllner's tombstone

Date: the 19<sup>th</sup> century

Dimensions: H: 98 cm; W: 28 cm; D: 16 cm

Description: At the top, the emblem of the shoemakers' guild; below, the inscription:

*Daniel Göllner*

Under the name deceased, 4 rows are destroyed;

Reused tombstone.

Inventory: M7130

Figure 3, A.

### 62. Vilipi family's tombstone

Date: the 19<sup>th</sup> century

Dimensions: H: 154 cm; W: 37 cm; D: 10 cm

Description: At the top, the emblem of the wheelwrights' guild held up by two lions; below, the inscription:

*Ruhestatte / der / Fa[mi]li[e] Vilipi / 18[.]0*

Inventory: M7141

Figure 8, B.

### 63. Johann Daniel Schelles's tombstone

Date: the 19<sup>th</sup> century (?)

Dimensions: H: 120 cm; W: 36 cm; D: 9 cm

Description: At the top, rosette and the emblem of the ropemakers' guild; below, the inscription:

*Joh(ann) Dan(niel) Schelles.*

Inventory: M7143

Figure 8, D.

### 64. A tanner's tombstone

Date: the 19<sup>th</sup> century

Dimensions: H: 71 cm; W: 38.5 cm; D: 13.5 cm

Description: The emblem of the tanners' guild; below, the partially legible inscription:

*/...1794/*

Inventory: M7126.

### 65. Friedrich Krauss family's tombstone

Date: the end of the 19<sup>th</sup> century.

Dimensions: H: 96 cm; W: 28 cm; D: 7 cm

Description: At the top, the emblem of the weavers' guild; below, the inscription on several types of writing (fraktur, modern, italic):

*Familien-Grab /des Fried[rich] Krauss  
/Wollenweber.*

Inventory: M7121

Figure 5, F.

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A



B



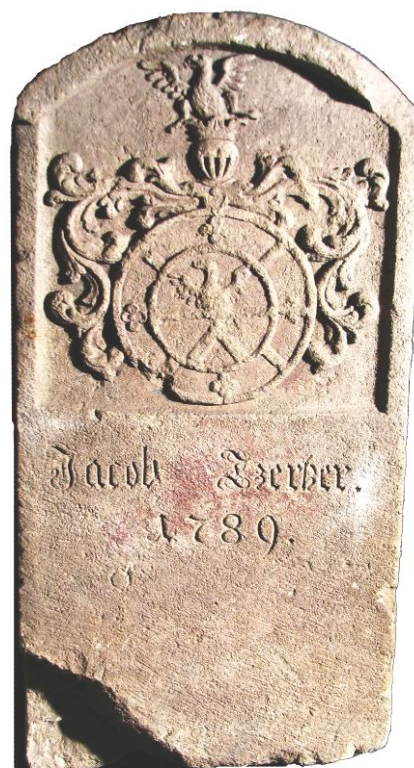
C



D



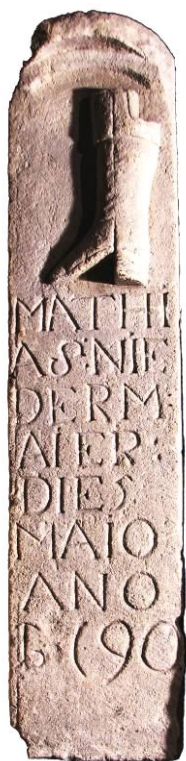
E



F

Figure 1





A



B



C



D



E



F

Figure 2



Figure 3.

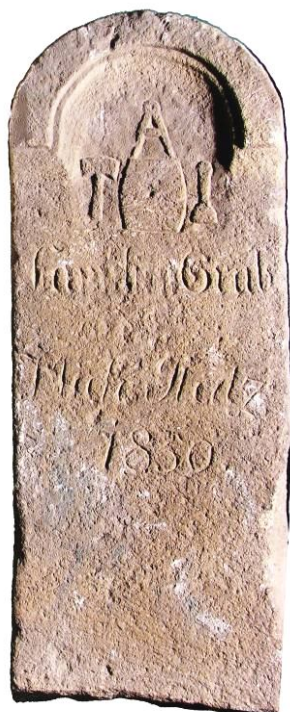




Figure 4



A



B



C



D



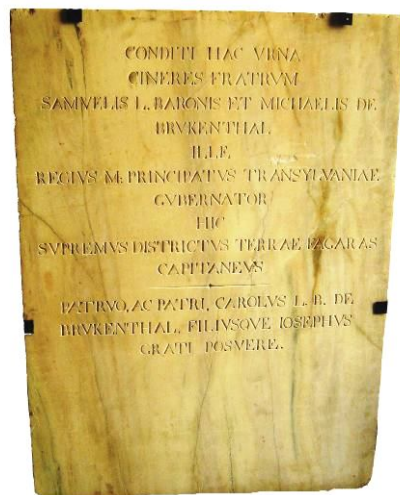
E



F

Figure 5





A



B



C



D



E

Figure 6



F





A



B



C



D



E



F

Figure 7





Figure 8

## VILLAGE AND COMMUNAL SEALS FROM THE COLLECTION OF THE HISTORY MUSEUM „CASA ALTEMBERGER”, SIBIU

Dănuț IVĂNUȘ\*

**Abstract:** *This article describes the Transylvanian village and communal seals (18<sup>th</sup> -19<sup>th</sup> century) from the counties Alba, Braşov, Mureş, Neamţ, Sălaj and Sibiu. There are 26 seals incised or excised, accompanied by a legend written in Latin, German, Hungarian or Romanian. Most of the seals include in the emblem an earmark for animals; others contain images related to fauna or different illustrations.*

**Key-words:** *Transylvania, village and communal seals.*

**Rezumat** *Articolul prezintă sigiliile săteşti şi comunale din Transilvania din secolele XVIII – XIX din judeţele Alba, Braşov, Mureş, Neamţ, Sălaj şi Sibiu. S-au păstrat 26 de asemenea sigilii incizate şi excizate ce prezintă în legendă scrisă în Latină, Germană, Maghiară şi Română. Marea amănunţime a acestor sigilii conţin în blazon semne pentru animale, altele conţin imagini relaţionate cu fauna sau alfel de imagini.*

**Cuvinte cheie** *Transilvania, sigilii săteşti şi comunale*

The category related to the village seals is mostly dealt with, being also the subject of many studies and papers (among which Jude, Cordoş 1978; Mureşan, Popovici 2009). The purpose of the present paper is to present the village seal matrices (further on designated as „seal”) from the collection of the National Brukenthal Museum – History Museum of Sibiu. The 26 seals are acquired from the collectors J. Bakk from Ocna Sibiului (1906), F. Kraus from Sighişoara (1908), the notary Michael Rosler from Cloaşterf (1934), the „Prietenii Muzeului Brukenthal” Association (1938) and the ASTRA Museum (1950). In order to complete this study on village seals I also included here the seals from the ASTRA Museum which I have previously published in a catalogue of the collection (Ivănuş 2009).

The seals have a round (21) or ellipsoidal shape (3) and are made mostly of brass (23), iron (2) or silver (1). The handle grip is either wood, gloved or screwed on metal rod, or metal which is firmly attached to the sealing plate and is provided with a hole for hanging. The seals were made in incision (24) and excision (2), the last being more recent and were used for the ink seal.

The seals are related to villages and communes from 6 counties: Alba, Braşov, Mureş, Neamţ, Sălaj and Sibiu, from the 18<sup>th</sup> – 19<sup>th</sup> centuries: Miercurea Sibiului and Vinţu de Jos (18<sup>th</sup> century), Netuş (1798), Alma, Bratei, Nemşa,

Richiş (1796), Apoş (1821), Negreni (1850), Şoarş (1854) and 16 dating from the 19<sup>th</sup> century.

Most seals (16) include an earmark („danga”- in Romanian language) in the emblem (this represents the sign made with the red iron for marking animals as well as the iron used for marking cattle) and the other ones either a shield or images related to fauna (pigeon) or different illustrations (scale, fortress).

The legend of the village seals includes the name seal (SIGILU, SIGILULU, SIEGEL, SIGILUM, ZEICHEN), the naming of: community, commune (Gemeinde, Község), place (Ort), village (Dorf), the name of the respective place, as well the year of manufacturing. The legend was placed circularly, horizontally or mixed, sometimes taking up the entire space of the seal (commune Şugag).

Regarding the language in which the legends of the mentioned seals were written, it appears that during the 18<sup>th</sup> century the Latin and German were used and continues to be used in the next century along with the Hungarian and Romanian language. Most seals had the script of the legend written in capital letters but there is also a case where cursive writing was adopted (the seal of Şoarş village, dating from 1854). Sometimes a combination of the German and Hungarian language is used in the legend, respectively the English and Hungarian name of the commune (commune Şoarş). In some cases, due to carelessness or to insufficient grammatical knowledge some letters and numbers were engraved the other way round: N from Netuş, 1

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from Apoș 1821 or P instead of B (Aptsdorf instead of Abtsdorf).

The seals are represented in alphabetical order under the belonging counties, although the allocation of some seals to certain localities is questionable and the emblem description is made „in the mirror”.

## I. Alba County

### 1. Reciu (Figure 1, 2)

*Inventory number:* M 2393/14308

*Material:* brass

*Shape:* round

*Dimensions:* D: 3,1 cm; I: 4,5 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with tapered mandrel for the missing wooden handle. In the seal field there is an earmark for animals with an inscription in the Hungarian language, capital letters, circularly, an inscription at the top and one at the bottom: RECSE/KÖZSÉG (Commune / Reciu)

### 2. Șugag (Published in Ivănuș 2009, p. 14; Figure 3, 4)

*Inventory number:* M 2496

*Material:* brass

*Shape:* ellipsoidal

*Dimensions:* DL: 3,1 cm; DLA: 2,6 cm; I: 10,5 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with pear shaped wooden handle carved on the sides. The seal field is limited by an interior continuous simple line and an exterior pearled line, only the inscription in the Hungarian language, in capital letters and a geometrical decorative pattern: SUGÁG / KÖZSÉG (Commune / Șugag)

### 3. Vințu de Jos (Figure 5, 6)

*Inventory number:* M 2383/10396

*Material:* brass

*Shape:* round

*Dimensions:* D: 3,1 cm; I: 5,4 cm

*Dating:* 18<sup>th</sup> century

*Description:* Incised seal matrix with metallic handle with a small pierced bulb at the end for hanging. The seal field includes a shield along with a bee, stamped with an open crown. At the margin of the seal field limited by a pearled circle, above two simple circles, there is an engraved inscription in the Latin language written in capital letters (Alvinc is the name of the locality in the Hungarian language): SIGIL. CATOL. PRIV. COM. GERM. ALVINCZ

(The seal of the privileged catholic German community from Vințu de Jos)

## II. Brașov County

### 1. Bărcut (Figure 7, 8)

*Inventory number:* M 2379/13547

*Material:* brass

*Shape:* ellipsoidal

*Dimensions:* DL: 3 cm; DLA: 2,7 cm; I: 5,3 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with metallic handle lathed in the shape of a conical stump which is firmly attached to the sealing plate, provided with a hole for hanging, placed at a distance of one third from the margin. The name of the commune divides the seal field in two parts: the upper part illustrates a terrace with a tree under which a cow is depicted and the lower part includes an earmark. German inscription, capital letters, at the margin of the seal field limited by a pearled line:

GEMEINDE / BEKOKTEN /  
GROSSSCHENKER STHUL (Commune / Bărcut / Chair Cincu)

### 2. Cincu (Figure 9, 10)

*Inventory number:* M 2348/13539

*Material:* brass

*Shape:* round

*Dimensions:* D: 3 cm; I: 11 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with a wooden mushroom shaped handle, painted dark brown, fastened with a brass gloved ring. An earmark is included in the center of the seal field. The legend is written in German language, in capital letters at the margin of the seal field; the beginning is marked with a star: \* MARKTS-AMT GROSS-SCHENK (\*Cincu Market Office).

### 3. Criț (Figure 11, 12)

*Inventory number:* M 2363/13540

*Material:* iron

*Shape:* round

*Dimensions:* D: 2,7 cm; I: 10 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised round seal matrix with wooden lathed pear shaped handle, brown-yellowish color, fastened with a brass gloved ring. In the field a silver baroque ellipsoidal shield with a globe with a cross. At the margin of the seal field limited by a pearled circle and a linear one, the legend is written in German language in capital letters, above the shield, on the arc of a circle: DEUTSCH KREUZ (Criț)



**4. Dupuş** (Figure 13, 14)*Inventory number:* M 2358/13541*Material:* brass*Shape:* round*Dimensions:* D: 2,4 cm; I: 9,1 cm*Dating:* 19<sup>th</sup> century

*Description:* Excised seal matrix with wooden handle, brown color. The seal field limited by a linear circle includes an earmark and the name of the locality written with capital letters in the German language: TOBSDORF (Dupuş).

**5. Jibert** (Figure 15, 16)*Inventory number:* M 2369/13544*Material:* brass*Shape:* round*Dimensions:* D: 3,1 cm; I: 6,1 cm*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with round metallic handle incorporating in the bottom part three rings in relief, one above the other. The seal field limited by a pearled circle illustrates a shield with an earmark, above there is an open crown and two garlands that remind of lambrequins. The legend is written in the German language, in capital letters and is represented circularly above the shield: GEMEINDE SEIBURG (Commune Jibert)

**6. Şoarş** (Figure 17, 18)*Inventory number:* M 2391/13542*Material:* brass*Shape:* round*Dimensions:* D: 2,6 cm; I: 5,1 cm*Dating:* 1854

*Description:* Round incised seal matrix with wooden handle with a notch in the upper part indicating the correct position for the seal. The handle is tied with wire to the tap catcher. The emblem illustrates an earmark surrounded by a wreath, the exergual legend includes the inscription in the German (commune) and Hungarian (name of the locality) language in cursive writing: \*Gemeinde Sáros 1854 (\*Commune Şoarş 1854)

**III. Mureş County**

**1. Laslăul Mic** (the seal is assigned to the commune Laslăul Mic - Klein Lasseln and not to the locality Laslea – Grosslasseln; Figure 19, 20)

*Inventory number:* M 7717*Material:* brass*Shape:* round*Dimensions:* D: 3,5 cm; I: 7,5 cm*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with metallic handle in the shape of a conical stump which is firmly attached to the seal disc. The legend is illustrated in the seal field, incised, circular and in the center, along with the earmark: KLEIN: LASSLER: ORTS/SIEGEL (The seal of the locality Laslăul Mic)

**IV. Neamţ County**

**1. Bicaz** (nowadays **Bicaz** (?); published in Ivănuş, 2009, p. 9; Figure 21, 22)

*Inventory number:* M 2503/A 4067*Material:* brass*Shape:* ellipsoidal*Dimensions:* DL: 3,3 cm; DLA: 2,8 cm; I: 8,2 cm*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with a mushroom shaped wooden handle, worked on a wood lathe. The emblem depicts a pigeon holding a scale in its beak, pointing to the left. The Romanian inscription is written in capital letters, placed in exergue, between a continuous simple line and a cord shaped one: \* SIGILVLV COMUNEI BICAZU. The upper part of the dial seal is marked with a "B" and three diagonal lines indicating the correct position for applying the seal.

**2. Demuc** (nowadays **Dămuc**; published in Ivănuş, 2009, p.11; Figure 23, 24)

*Inventory number:* M 2507/A 4066*Material:* brass*Shape:* ellipsoidal*Dimensions:* DL: 3,4 cm; DLA: 2,9 cm; I: 11,3 cm*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with wooden handle turned on a lathe, cracked, painted brown. The seal field illustrates a pigeon (raven?) pointing to the left and holding a ring in its beak. The Romanian inscription is written in capital letters, placed in exergue, between an interior continuous simple line and an exterior cord shaped one: \* SIGILULU COMUNEI DEMUCU

**3. Valea Jidanului** (nowadays **Teleac**; published in Ivănuş, 2009, p. 15; Figure 25, 26)

*Inventory number:* M 2516/A 4065*Material:* brass*Shape:* ellipsoidal*Dimensions:* DL: 3,3 cm; DLA: 2,9 cm; I: 10,7 cm*Dating:* 19<sup>th</sup> century

*Description:* Seal matrix with wooden handle, turned into the shape of a mushroom. A scale is represented in the field of the seal. The Romanian inscription is written in capital letters, placed in

exergue, between an interior continuous simple line and an exterior cord shaped one, the beginning of the emblem is marked with a star: \* SIGILULU COMUNEI VALEA JIDANULUI. A "V" is incised at the top of the seal dial indicating the correct position of the seal.

## V. Sălaj County (?)

**1. Negreni** (Published in Ivănuș 2009, p. 13; today there are two villages called Negreni: one in Cluj County and the other one in Sălaj County; Figure 27, 28)

*Inventory number:* M 2495

*Material:* brass

*Shape:* round

*Dimensions:* D: 3 cm; I: 7,2 cm

*Dating:* 1850

*Description:* Incised seal matrix with coarsely cut-off wooden handle, unfinished, unpainted. On the emblem: a terrace with a tree and two birds facing opposite directions. The Romanian inscription is written in capital letters, placed in exergue, the beginning of the emblem is marked by a star: \* SIGILU COMUNIT NEGRÉNY \* 1850

## VI. Sibiu County

**1. Alma Vii** (Figure 29, 30)

*Inventory number:* M 2400/2094

*Material:* brass

*Shape:* round

*Dimensions:* D: 3,3 cm; I: 4,9 cm

*Dating:* 1796

*Description:* Incised round seal matrix with the seal dial turned into a spherical cap; metal handle, slightly bent, turned with a successively increasing and decreasing profile, attached tightly to the seal dial, provided with a hole for hanging that is placed at a distance of one third from the margin. The end of the handle is blunted by beating. The emblem depicts the earmark and the year 1796. The legend is placed in exergue, between two circles in the form of string: SIEGEL. DES. K. FREY. DORFS. ALLMEN (Free Royal Village Seal: Alma Vii)

**2. Apoldu de Jos** (Figure 31, 32)

*Inventory number:* M 2398/14307

*Material:* brass

*Shape:* round

*Dimensions:* D: 3,1 cm; I: 4,5 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with tapered mandrel for the missing wooden handle. The earmark field includes the following inscription at

the top and at the bottom: KIS-APOLD / KÖZSÉG (Commune / Apoldu de Jos)

**3. Apoș** (Figure 33, 34)

*Inventory number:* M 2392/13543

*Material:* iron

*Shape:* round

*Dimensions:* D: 3,1 cm; I: 5,9 cm

*Dating:* 1821

*Description:* Seal matrix engraved in the incision, with metal handle, prismatic, tightly attached to the seal washer provided with a hole for hanging in the top part. The earmark is illustrated in the center of the seal along with the German inscription written in capital letters, circularly, between a simple inner circle and a pearled outer circle: APTS DORF 1821 (Apoș 1821)

**4. Boița** (Published in Ivănuș 2009, p. 10; Figure 35, 36)

*Inventory number:* M 2514/A 4068

*Material:* brass

*Shape:* round

*Dimensions:* D: 2,8 cm; I: 8,8 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with wooden handle turned in the lathe which embodies a bulb at the top. The field of the seal illustrates a fortress wall with a gate on the left and five battlements, a key at the top, surrounded by two laurel branches on the sides. The legend is written in the Romanian language, in capital letters and is placed at the margins of the seal field, limited by a pearled circle, separated by two 6-ray stars: SIGILULU. \* \* COMUNEI BOITIA

**5. Bratei** (nowadays **Brateiu**; Figure 37, 38)

*Inventory number:* M 2372/2095

*Material:* brass

*Shape:* round

*Dimensions:* D: 3,5 cm; I: 4,9 cm

*Dating:* 1796

*Description:* Incised spherical cap-shaped matrix with metal handle turned with a successively increasing and decreasing profile. The hole for hanging is placed at a distance of one third from the margin, in the upper part of the handle while the edge is blunted by beating. The earmark and the year 1796 are indicated in the seal field. The inscription is placed in exergue, between two circles: SIEGEL. DES. K. FREY. DORFS. PRETHEY (Royal Seal of the free village Bratei)

**6. Dobârca** (Figure 39, 40)

*Inventory number:* M 2373/14306

*Material:* brass

*Shape:* round

*Dimensions:* D: 3,1 cm; I: 4,6 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with mandrel tapered in brass for the missing wooden handle. The seal field includes the earmark and the inscription displayed at the top and at the bottom: DOBORKA / KÖSZEG (Commune / Dobârca)

#### 7. Nemşa (Figure 41, 42)

*Inventory number:* M 2399/2093

*Material:* brass

*Shape:* round

*Dimensions:* D: 3,4 cm; I: 5,1 cm

*Dating:* 1796

*Description:* Incised seal matrix; the seal plate is shaped in form of a spherical cap from which the handle, also made of brass, emerges and is tightly attached the seal. The handle is turned, with a successively increasing and decreasing profile. A hole is provided for hanging, placed at a distance of one third from the handle, blunted end through beating. The seal field includes the earmark and the year 1796, and circularly the inscription indicated between two linear circles: SIEGEL. DES. K. FREY. DORFS. NIMESCH. (The seal of the free royal village of Nemşa). On the outside of the seal dial a small cross indicates the correct position for placing the seal.

#### 8. Netuş (Figure 43, 44)

*Inventory number:* M 2370/13546

*Material:* brass

*Shape:* round

*Dimensions:* D: 2,5 cm; I: 5,9 cm

*Dating:* 1798

*Description:* Incised seal matrix with a cylindrical metal handle provided with a hanging hole placed at one centimeter from end. The Latin inscription written in capital letters, circularly and horizontally where the earmark is displayed along with three letters engraved on the inside (G CZ) of unknown meaning: SIGILUM PAGUS NETUS 1798; SUBVILL (Seal of the suburban village Netuş)

#### 9. Merghindeal (Figure 45, 46)

*Inventory number:* M 2388/13548

*Material:* brass

*Shape:* round

*Dimensions:* D: 2,9 cm; I: 4,3 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with a metal handle, shaped as a conical stump, with the base upwards, tightly attached to the seal dial; the end of the handle is blunted by beating. The earmark field includes the German inscription written in

capital letters, placed in exergue, between a linear inner circle and a strap-shaped exterior one: SIG. DES. ORTS. MERGELN. AGN. BEZIRKS: (Merghindeal locality seal, District of Agnita)

#### 10. Miercurea (Published in Ivănuş, 2009, p. 12; Figure 47, 48) (today Miercurea Sibiului)

*Inventory number:* M 2403/16575

*Material:* silver (brass is indicated in the inventory record)

*Shape:* round

*Dimensions:* D: 3,3 cm; I: 8 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix in a rudimentary wooden mount. An oval shield of silver embellished with ornaments is displayed in the field of the seal. Three bound tulips are engraved in the center, surrounded by stag horns. The German legend written in capital letters is displayed at the margins of the seal field limited by two simple linear circles: REISMART STET IN GOTTES HANDT (Miercurea is in the hands of God)

#### 11. Richiş (Figure 49, 50)

*Inventory number:* M 2384/2092

*Material:* brass

*Shape:* round

*Dimensions:* D: 3,4 cm; I: 5,5 cm

*Dating:* 1796

*Description:* Incised spherical cap-shaped matrix, with a brass handle, turned, with a successively increasing and decreasing profile and which is tightly attached to the seal. At the top, the handle is provided with a hole for hanging. The emblem includes the earmark and the year 1796. The inscription in German, placed in exergue, is indicated between two linear circles: ZEICHEN. DES. K. F. MARCKTS REICHESDORF (Free royal fair sign of Richiş)

#### 12. Slimnic (Figure 51, 52)

*Inventory number:* M 2361/15235

*Material:* brass

*Shape:* round

*Dimensions:* D: 2,1 cm; I: 9 cm

*Dating:* 19<sup>th</sup> century

*Description:* Incised seal matrix with tapered metal handle turning. The emblem depicts a horseshoe with the opening downwards (earmark), surrounded by two olive branches. The margins of the seal field include the German legend written in capitals, bordered by a circle adorned with spike-shaped elements: GEMEINDE STOLZENBURG (Slimnic Commune)

By means of this catalog we valued a variety of seals of Transylvanian villages, from the 18<sup>th</sup> – 19<sup>th</sup> centuries, which come to complete existing

information with new sigillographic evidence, reflecting changes in local politics.

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Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8





Figure 9



Figure 10



Figure 11



Figure 12



Figure 13



Figure 14



Figure 15



Figure 16



Figure 17



Figure 18



Fig. 19



Figure 20



Figure 21



Figure 22



Figure 23



Figure 24



Figure 25



Figure 26



Figure 27



Figure 28



Figure 29



Figure 30



Figure 31



Figure 32





Figure 33



Figure 34



Figure 35



Figure 36



Figure 37



Figure 38



Figure 39



Figure 40



Figure 41



Figure 42



Figure 43



Figure 44



Figure 45



Figure 46



Figure 47



Figure 48



Figure 49



Figure 50



Figure 51



Figure 52



## TWO RARE ITEMS IN THE GLASS COLECTION OF THE BRUKENTHAL MUSEUM

Claudia URDUZIA\*

**Abstract:** *The present paper is concerned with the study of two rare items from the collections of the Brukenthal Museum. These are two whimsy bottles with religious theme, one containing a miniature altar and the other a reconstitution of the scene of the crucifixion, with the symbols traditionally linked with this moment. The first one of these bottles can be dated exclusively based on similar items. It is probably a product of the 18<sup>th</sup> Century made in the former territories of Medieval Hungary. The second item contains a note with the exact dating - 1889 and its origin - the hospital in Sibiu. Both items belong to a category of items very rare in Transylvania, but they help us integrate this area into a greater area of Europe where these items were more frequent.*

**Keywords:** *Whimsy Bottles, Transylvania, modern period*

**Rezumat:** *Prezenta lucrare are ca obiect două piese rare din colecțiile Muzeului Național Brukenthal. Este vorba de două sticle cu răbdare cu tematică religioasă, una închizând un altar miniatural și cealaltă o reconstituire a scenei răstignirii cu simbolurile legate în mod tradițional de acest moment. Prima dintre aceste sticle poate fi datată exclusiv pe baza paralelelor în secolul al XVIII-lea și poate fi atribuită spațiului fostului Regat Maghiar. Cea de a doua piesă conține o notă cu datarea exactă - 1889 și proveniența - spitalul din Sibiu. Cele două piese fac parte dintr-o categorie slab reprezentată în Transilvania, dar conectează acest spațiu la spațiul central european unde aceste piese sunt mult mai frecvente.*

**Cuvinte cheie:** *sticle cu răbdare, Transilvania, perioada modernă*

Among the items with a special artistic and historical value from the glass collection of the Brukenthal Museum in Sibiu there are two glass flasks which contain miniature religious themed reconstructions built around the crucifix. Both items belong to the so called whimsy or impossible bottles well known in Europe in the 19<sup>th</sup> Century, but also known in the previous centuries.

\*

The first of the mentioned items, inventory number M 1748 (?), is a flask of colorless transparent glass blown in a cast with a total height of 26 cm. The flask is rectangular shaped (with a section of 11.5 x 8.5 cm), the neck is round and short and the brim is marked with a ring. The glass is thick, with impurities and irregularities which shows that it is a manually made item and not an industrial one. (Urduzia 2007, 52)

The flask has a wooden mushroom shaped shaft with a wooden conic crosspiece. From this shaft leans a wooden pendant with a sharp lower point, which might suggest a votive light.

Inside the flask on a blue wooden base with golden columns joined on the upper side by wooden arches in the same color, which follow the shape of the recipient, there is the naive reconstruction of an altar, made out of wood, paper, wire and fabric. In the middle part of each of the arches there are also wooden golden pendants, made probably with the same purpose of suggesting votive lights. The blue base of the altar is not painted but has pieces of blue paper glued over. Under the base there is a piece of white paper.

The cross in the middle of the altar is simple, made out of wood. The figure of Christ is also made out of wood and has detachable arms. The figure is painted pink, but the hair, the beard, the eyes and the eyebrows are black. The traditional cloth (*subligaculum*) is suggested by painting first with blue and then with gold that area of the figure. A few red painted signs on the figure's arms, legs and chest mark the wounds. The figure is attached on the cross with golden nails. Over the figure of Christ there is a piece of cut paper with the initials *INRI*.

On the left of the crucifix (right for the watcher) there is a small sand-glass shaped object with a small holder on top ended with a circular shape,

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which is probably a symbol of the chalice and Ostia. Because of this object the crucifix is placed a bit eccentric. In front of the cross there are a few objects placed symmetrically: three candles with short holders and two other unidentified objects sand-glass shaped placed in front of the candles. With the exception of the Holy figure and the base of the altar all the wooden objects are painted gold. On each side of the cross, under the lateral arches there is an artificial spray. They are not equal in heights, the one in the right being taller. Both sprays are made out of wire, string, fabric, paper and beads. Judging from the way they are made, the two sprays probably imitated wild rose twigs, with green leaves, pink flowers, red hips and white thorns (?).

In the background of the scene there is a printed piece of paper, glued over a bigger blue paper. The printed paper shows the Mother of Jesus with baby Jesus in her arms, in a gothic church (?) with cross vaulted ceiling and lancet windows. The figures were colored. Under this drawing one can see a few parts of a printed Hungarian text: „*A mindeneknek (te)remtője, ki engem alkotott, hajlékomb(an) lakott. Sirák. 23.*” (*"The Creator of all things, the One who made me, the One who lived in my home. Psalm. 23."*)

The whole composition starting with the base with columns and votive lights, the crucifix, the characteristic items (the chalice with the Ostia, the candles) and the background image makes us believe that the author intended to reconstruct a church interior, an altar. Such whimsy bottles are quite known in the Hungarian territories. For example, in the museums of Veszprem there are seven such items, three in the ethnographical collection of the Laczkó Dezső Museum and four in the Queen Gisella Museum of Ecclesiastical Art. (Lackovits 2000, 100) They can also be found in the German and Austrian territories.

Concerning the dating and the origins of the flask the information is scarce. The item can be dated based entirely on similar items. An item which resembles to a certain point our flask is originally from Transylvania and can be seen today in the Museum of Hungarian Oil Industry from Zalaegerszeg. The item has corresponding dimensions (15 x 9 x 25), shape and theme, was bought in Braşov and was dated in the end of the 19<sup>th</sup> Century. (Benke, Huber 2006, 97) Although the flask from Braşov has a religious theme, because it came from Transylvania and has a lot of gold (it is called the „Transylvanian Gold”), it is considered to be from the auriferous area of Transylvania and to be an atypical mining whimsy

bottle. But the flask from the Brukenthal Museum does not contain gold. It is merely painted in this color. The golden items inside can not have a similar origin, because many of the religious whimsy bottles in Europe have such shades.

The dimensions of the flask (11.5 x 8.5 x 26 cm), and the way the glass was blown can indicate an earlier dating. In Europe the oldest still existing whimsy bottles are rectangular with the medium dimensions of 12 x 9 x 26 cm and the volume of approximately 2 liters. These are dated in the period 1737-1764. (Benke, Huber 2006, 57) Concerning their origins, it is considered that the flasks with quadrate section come from Saxony, while those with rectangular (4:3) section come from Hungary. (Benke, Huber 2006, 57) This is why we believe this bottle to be of Hungarian or Transylvanian origins and dating back from the middle of the 18<sup>th</sup> Century.

\*

The second item from the collections of the Brukenthal Museum, with inventory number M 1749 (old inventory number 15.954), is also a whimsy bottle. The flask is industrially made in thin colorless and transparent glass. The bottle is cylindrical and has a short narrow neck and a brim marked with a glass ring. The total height is 20,7 cm and the diameter is of 8.7 cm (the diameter of the brim is of 3.4 cm). The base of the flask has the number 800 pressed in the glass. (Urduzia 2007, 53)

The bottle is closed with a wooden shaft with a wooden crosspiece and it is sealed with wax. Around the neck there is an ochre piece of paper with the following printed text in Polish:

*„Błogosławieństwo Duchowne Domu  
O Przenajświętszy Panie Jezu Chryste  
Poteżnyi Wszemogacy Bożeniebażiemi  
i Królu Nazarenski! O Przenajświętszy  
Panie JEZU Chryste, Synu Dawidow!  
miluj sienad tym domem. Ukrzyżowany  
..ezu! proszę Cię strzeż tych mieszkańców.”*

*„The Spiritual Blessing of the House  
O holy Jesus Christ  
Almighty God of the Sky and of the Earth  
And king of Nazaret! O Holy  
God Jesus Christ, Son of David  
show mercy to this house. Jesus the Crucified  
Please take care of the inhabitants of this house.”\**

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\* Traducere Uniunea Polonezilor din România „Dom Polski” - Suceava.

Inside the flask there is the reconstruction of the biblical scene of the Crucifixion made out of wood and paper. In the center of the reconstruction sits the miniature cross, which end is extended up in the neck of the bottle, with the probable purpose to maintain the stability of the item. The image of Jesus is cut out of a colored printed paper. The lower end of the cross sits on two pieces of wood joined with a lap joint to form a Greek cross. This base sits above a piece of paper covering the bottom of the bottle, on which the next text was written with a pencil: „*horváth Ihász János kész... 1889 A szebeni 12/9 kórházban*” (*horváth Ihász János the year 1889 in Sibiu 12/9 in the hospital*). Around the vertical cross, on the wooden base there are the items traditionally connected with the moment of the Crucifixion (*Arma Christi*). In front of the cross three dices are placed on which one can see 3, 4 and 5 points. In the dices three small sticks are fastened, which probably represent the 3 nails from the Crucifixion. Although in the art previous to the 14<sup>th</sup> Century there are usually depicted four nails, after this period their number is reduced to three, (Hall 1992, 82) so the small sticks in our bottle can very well represent those. Behind the dices there is a miniature lash made out of wood and white string. Behind this on a holder tied with red string there is a bird, probably a cock, a symbol of the legend of Saint Peter. On the left of the crucifix there is a hammer (towards the exterior) and the place where the symbol of catholic Eucharist (the chalice with the Ostia on top), was placed (it has fallen and it is now on the bottom of the bottle). On the right of the crucifix there is an unidentified item (a glass-sand shaped holder and a sharp point – possibly a candle) and a pliers (towards the exterior). Behind the cross sits a long spear, another long stick ended in a cylindrical object (possibly the sponge) and a ladder with five rungs. All items made out of wood are varnished.

Concerning the dating and the origin of this whimsy bottle the text written by hand in Hungarian leaves little doubts. The item was made in 1889 in Sibiu, Transylvania. The way the flask was made and its shape also support this dating. The inventory of the flask is characteristic to a great number of whimsy bottles and was formed during a few centuries under the influence of arts and especially of painting. Although in this case we know the full name of the author (Horváth

Ihász János) we haven't identified any other items made by him.

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The two items belong to a category of rare objects in Transylvania. Until now we have only identified one more whimsy bottle made in Transylvania, which was bought in Braşov and is kept today in the Museum of Hungarian Oil Industry from Zalaegerszeg. In Europe such items are much more common and appeared probably in the 17<sup>th</sup> Century. They are known as *Bottle whimsies*, *Whimsy Bottles*, *Puzzle Bottles*, *Whimsies* or *Impossible Bottles*. In German they are called *Geduldflaschen* (*bottles [made with] patience*). In Hungarian they are called *Türelemüvegek*.

In the past these bottles were made by people forced to isolation such as sick people, sailors, prisoners and others. Usually they were made with simple home made tools (tweezers, needles and strings). The bottles were sealed with a wooden shaft which was blocked with one or more wooden crosspieces. The crosspieces were fixed with the help of a string, which was removed after. (Benke, Huber 2006, 56) The crosspieces made the process irreversible, because the bottle could not be opened after.

The scenes and the objects placed in whimsy bottles pertain to a few general themes: mining, sailing and religion. The oldest whimsy bottle we know of is the one mentioned in an inventory from 1775 but made in 1679. The oldest mining whimsy bottle is mentioned and described in a testament from 1694 from the north of Germany. The oldest sailing whimsy bottle, containing a Turkish war ship dates back from 1784. The oldest religious whimsy bottle is from 1736. (Benke, Huber 2006, 56) Religious impossible bottles can be again divided in a few subthemes: saints' bottles, crucifixion bottles and sacramental bottles.

The two whimsy bottles in the collections of the Brukenthal Museum belong to the category of religious bottles. They help us include Transylvania in an area (central Europe), where these bottles were produced more often and were a little more familiar.

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1. Whimsey bottle with no. M 1748 from the collections of Brukenthal Museum
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2. Whimsey bottle with no. M 1749 from the collections of Brukenthal Museum
2. Sticlă cu răbdare din colecțiile Muzeului Național Brukenthal cu nr. inv. M 1749



Figure 1



Figure 2





## PREHISTORIC POTTERY IN MUSEUM EDUCATIONAL PROJECTS

Anamaria TUDORIE\*

**Abstract:** *This article can be an useful tool in what concerns museum educational projects that have archaeology as a central theme with an emphasize on the study of prehistoric pottery. There are indicated some scientific issues about the functionality of this kind of pottery and the way it was made, some theoretical aspects of educational projects in museum, the way a pot was reproduced by children and the results of the activity.*

**Keywords:** *pottery, educational projects, experimental archaeology*

**Rezumat:** *Lucrarea de față se dorește a fi un instrument util în abordarea proiectelor educative din muzee care au ca temă centrală arheologia și în special studiul ceramicii preistorice. Sunt prezentate atât aspecte de ordin științific, legate de funcționalitatea vaselor și a modului în care ele erau realizate, aspecte teoretice în abordarea proiectelor educative, activitatea propriu-zisă de reproducere a unui astfel de vas, precum și rezultatele obținute.*

**Cuvinte cheie:** *ceramică, proiecte educative, arheologie experimentală*

### 1. General Context

Museum education has become one of the priorities of contemporary museology, orientated towards all types of teaching, from primary education to college, having as a purpose to form the adult audience (Hrib 2009, 75). Beside conserving and studding collections, the Museum has to promote them and to facilitate the access of the public.

Museums have the role of school but also “show” being in the same time a place for entertainment, the last characteristic being the one that separates them from the other didactic forms. Nowadays the educational function of the museum is an essential one and the museographer is the most indicated person to explain how an exhibition is formed and to tell the story or the objects that compose it.

The purpose of educational projects is to cultivate the habit of children and young people to visit the museum. By having them around, the museum becomes a vivid and dynamic institution.

Brukenthal National Museum conceives educational activities which are fit to the school curriculum, but also completes it when necessary. Even so, the museum should not be confused with school, and activities must not be transformed in real “lessons” where the teacher (the museographer in this case) teaches, while children are taking notes, so that in the end they would have to take a test or write an essay on the theme “A visit at the

museum”. Learning should be orientated towards discovery and analogies with things and phenomena that are daily present in their lives and they should got the opportunity to became creative and to spent time into the museum in a pleasant and attractive way, so that in the end they would want to come back.

### 2. Experimental Archaeology Workshop

The workshop<sup>1</sup> can be defined as a room or a building where the area and characteristic tools are being used for producing or repairing handmade things. In what concerns art, a workshop can be the given name for large studio, which implies specialized assistance or it also can be referred to a series of lessons that are being thought by an artist, where some techniques are being explained to the students.

In what concerns education, a workshop is a relatively short and intensive course, a seminary or a series of meetings where the participants, usually in a small number, interact and exchange information.

Being addressed to primary school children, our project had as main objectives to introduce them into the fascinating world of archaeology by presenting some specific activities that an archaeologist has to do. There has been also taken into account the fact that they should be implicated in experimental activities as making some objects after prehistoric models, as stone tools or pottery and to simulate an archaeological digging, using a

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<sup>1</sup> DEX (1998) definiton – working group, studio.

specially designed kit. Under the aspect of dissemination, specific knowledge from the curatorial point of view we tried to explain the process that an artefact has to follow from the moment of its discovery in an archaeological research and until this object is located into the exhibition.

With the *Experimental Archaeology Workshop* Brukenthal National Museum addressed to different type of request coming from children, parents and teachers that were interested in an extra activity for the ones already made with the whole class, having a limit of 10 participants in a group.

We had 4 groups enrolling children coming from the same school and class but also children that were the only representative of a school, from first grade, second grade and most of them from the fourth grade.

Children signed up to this workshop mainly after the recommendations made by the teachers that have already participated to other activities with the museum. The schedule was established considering the school hours and the end of the parents working hours, in order that the children could spend in a useful and instructive way the time until the parents could get them.

The frequency of meetings was once a week and the workshop had eight main stages:

1. Introductory meeting;
2. Prehistoric stone production;
3. Prehistoric pottery;
4. How to make a clay lamp;
5. Stratigraphy and archaeological digging;
6. Visit at the History Museum *Altemberger House, The Emergence of Human Settlements in Southern Transylvania* exhibition;
7. Simulating and archaeological digging;
8. Preparing the exhibition.

Some of these stages as Prehistoric stone production, Prehistoric pottery, Stratigraphy and archaeological digging were preceded by a visit in the exhibition *The Emergence of Human Settlements in Southern Transylvania*, some of the modules being practically the starting point for the above mentioned activities.

As suggested in the title of this paper, we shall insist only on the third activity of the workshop – Prehistoric Pottery. Considering the logistics and the age of the participants, we have followed as

possible as we could, the steps in creating a prehistoric pot, before the potter's wheel was invented.

3. Prehistoric pottery functionality and production  
Prehistoric sites are the provider of a great quantity of ceramics and its analysis represents the most important source of information about the way ancient communities used to live, but they are also an important reference point in establishing chronological details.

The highest number of archaeological ceramic objects is represented by pottery which could have been used for different purposes: for keeping and/or transporting liquid and solid contains, cooking, serving food and water or of a cultic role. Each and every one of these situations determines the use of a different type of pottery and the way they were used is stated by observing the archaeological context of the discovery but also with ethnoarchaeological studies. It is also a fact that functionality of pottery can't be strictly set by the morphological point of view because it is quite possible that it could serve different (multiple) purposes.

Even though some burned ceramic objects appeared even since Upper Paleolithic, as the figurines from Dolní Věstonice, the spread and the adaptation to the techniques of ceramic production didn't occur until the middle of the seventh millennium BC (Bailey 2000, 77).

Karen Vitelli argued that the earliest ceramic vessels do not possess the characteristics that would associate them with food warming or cooking and the fact that before the appearance of pottery and a period after there have been many methods for food preparation that didn't include the use of pottery (Bailey 2000, 80). For Early Neolithic in Greece none of the vessels discovered was identified as cooking pots, while in the Late Neolithic approximately 30% of the pots were used for cooking. The appearance of cooking pots almost 1000 years after emergence of Neolithic in Greece suggests the differences in diet between the Early and the Late Neolithic in Greece (Urem-Kotsou *et al.* 2002, 110).

The new Neolithic way of life was considered to be closely related with the appearance of pottery. Pottery has been connected with sedentism, food production and storage. So, pottery appears as a necessity for the Neolithic communities and it should not be considered a subordinate part of the "Neolithic package" (Urem-Kotsou *et al.* 2002, 109).

Prehistoric pottery must also be considered a very important social and symbolic element. Pottery was one of the powerful elements which people used to build alliance networks and in difficult times these alliances would have served for providing support or food. It is possible that these alliances to be founded on regular meetings where they shared food and drinks or fasting. Food and drink were served in special decorated pottery (Bailey 2000, 82).

First pots from Greece, for example, were only a few in number, small sized, barely ornamented and fired at low temperatures (below 650°C) in an oxidizing atmosphere (Bailey 2000, 77).

From the morphological point of view, a vessel has three zones: orifice (including neck and collar), body and base (Rice 1987, 213, Figure 7.2a). When maximum point of the vessel's development is in the superior part, there is also a shoulder.

The method of ceramic production was improved along time, from the clay selection, the use of special degreasing substance and firing technique.

The first step in making pottery is represented by the selection of the clay.

Although clay is a very plastic material that can be easily modeled, in high temperature it will crack. The use of the decreasing substance has the purpose to prevent cracking while the pot is being fired or dried. After the clay balls were smashed, water and decreasing substance was added (Ciută *et al.* 2000, 107).

When this mix became homogeneous, the pot can be modeled by making some rolls of clay and putting them in spiral shape – coiling technique, on a prop.

The pots base was probably made of some rolls of clay or it was used a ball from the same mix as the rolls and than it was shaped (Shepard 1965, 55). The body of the pot was practically made by the clay rolls. With the use of a wooden or bone tool the vase was modeled and the base was bind to the body (Ciută *et al.* 2000, 110-111).

In what concerns small sized vessels, with thinner walls (although this technique hasn't been confirmed yet) it is possible that the potter modeled them by pressing them out from a ball of clay by hand (Shepard 1965, 55, Ciută *et al.* 2000, 112; Ciută 2005, 80).

The fact that Early Neolithic communities preferred to make vessels with spherical or conical shape can be explained by the easiness of modeling (Ciută 2009, 67).

While the pottery is being dried, a physical process takes place: part of the water is eliminating by vaporization. The drying process is recommended only in some seasons: spring-summer or summer-autumn, in order to avoid extreme temperatures or humidity. Also, the drying should take place in an area which is protected by the sun rays, avoiding in this way the cracking of the pots (Ciută *et al.* 2000, 116).

The surface of the vase treatment is highly important because it secures certain impermeability in case of storing, cooking or transporting food. This treatment is also directly dependent with the potters wish to decorate or not the vessel. So, it is possible that immediately after the pot is shaped the surface to be treated or to be decorated, because the clay is still "plastic" enough to be processed (Shepard 1965, 65).

Made of a fine suspension of pipe clay, resulted after draught, this substance was used for covering with a very thin layer the pot, before firing, so that some flaws or the base color to be covered (Ionescu, Ghergari 2006, 451).

Another method used for the treatment of the vessel is represented by the polishing, outside and inside the pot, usually with a smooth stone. This procedure has the purpose, as the one mentioned above, to reduce porosity.

Applying a slip on the pot, a thin layer of high quality clay, has the advantage to improve its color and texture. The slip has to be very well fixed on the pot's surface and nor to exfoliate (Shepard 1965, 67).

Some of the vessels were painted before firing, as the Petrești communities (Paul 1992, 67) and other after this process. Painting pottery before burning gives them durability while they are being used (Breazu 1999, 44).

In what concerns color, in prehistoric times, inorganic substances were most used for painting the pottery (Ștefan, Mazăre 2001, p. 265).

For example, in Neolithic period, in order to get a red color for painting the pot, hydrated iron oxide (Fe<sub>2</sub>O<sub>3</sub>) was used, this fact being confirmed by the physical-chemical analysis. The hydrated iron oxide exists in some clay compositions as the red ochre (Ciută *et al.* 2000, 117).

During the firing a chemical process takes place and the vessel is becomes durable (Crabtree, Campana 2004, 23). If while drying the physical water is eliminated, during firing the rest of the water is also eliminated.

#### 4. Reproducing Prehistoric Pottery

In order to test the level of the knowledge of the students they have been encouraged to enumerate the activities they believe an archeologist has to do. In this context the students found out that there is a difference between the archeologist, geologist and paleontologist.

The students learned about the stages of prehistoric pottery production, as they were described above, but using terms and explanations appropriate for their age. The information was fixed once we visited the specific section in the permanent exhibition from the History Museum (Figure1, a).

After the theoretical part was covered up, three images with prehistoric vessels: Starčevo-Criș culture, Turdaș culture and Petrești culture were presented to the students so that they could select the one they wanted to reproduce (Figure 1, b).

From the clay given the students made some rolls and then putted them in spiral shape and created the vases's shape. The vases were modeled with the use of some wooden objects but also by pressing the clay with their hands, because of the small size of the pots they created (Figure1, c-d).

In what concerns the surface treatment, first of all they had to decide what kind of ornament they will create. Some plastic ornaments could be selected, as pinches, impressions with finger tip, incisions with an object, stitches (Figure2, c). In this phase the ears were also created. After all this process the pots were left for drying, until the next meeting (Figure 2, d).

The last session of making pottery was dedicated to its painting (Figure 3, a-d).

The pottery that resulted after this project (Figure 4, a-c) was part of the exhibition *My Archeology Museum*, a museum imagined by children. The exhibition was created with the objects designed by children during *The Experimental Archaeology*

*Workshop* and it contained a distinct sector, dedicated to pottery (Figure 5, a-b).

In this exhibition there have been set two coordinates, a series of exhibits sustained the information with the help of information labels and the other series gave color with the objects children created during the Workshop.

All the objects have been labeled with the name of the children who created it. Pictures taken during the workshop were also added.

The opening was on the 1<sup>st</sup> of June 2010 in the temporary exhibition room of the History Museum, *Altemberger House*.

#### 5. Conclusions

This type of educational activity is based, first of all, on an interdisciplinary approach, also with a large spectrum of activities: guided visits, moulding, painting but also playing.

Very useful for this project, but also for other educational activities, was the concept and design of the permanent exhibition *The Emerge of Human Settlements in Southern Transylvania*. The technologies of prehistoric pottery production, from clay moulding to firing are presented in several modules.

In order to evaluate the results of this project and the impact on the participants, a questionnaire was addressed to their parents. Quite relevant for the activity presented in this paper is the fact that 47% from the participants were impressed by the simulation of an archaeological digging and 11% by the pottery making (Figure6).

Another remark on the results of the questionnaire is that 83% of the parents are interested in participating with their children at similar workshops from the Brukenthal National Museum, this being a reason for the Education Department to organize and plan activities where children and parents could participate together.

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## LIST OF ILLUSTRATIONS

**Figure 1 – a.** Image from the exhibition *The Emerge of Human Settlements in Southern Transylvania* from The History Museum, *Altemberger House*, module C2; **b.** Image taken during the *Experimental Archaeology Workshop*, the activity of reproducing prehistoric pottery after three given models: a Starčevo-Criș culture vessel, a Turdaș culture vessel and a Petrești culture vessel; **c. –d.** Images taken during the *Experimental Archaeology Workshop*, the activity of reproducing prehistoric pottery: modelling.

**Figure 2 –** Images presenting different stages of reproducing a prehistoric vessel: **a.** putting the clay rolls spiral shape in order to get a vessel form, **b.** modeling the vessel, **c.** decorating the vessel, **d.** the drying of the vessels.

**Figure 3 – a-d** Images taken during the *Experimental Archaeology Workshop*, the activity of reproducing prehistoric pottery: painting the vessels.

**Figure 4 – a.** Image presenting a vessel created by the participants at the *Experimental Archaeology Workshop*, after a Starčevo-Criș culture one; **b.** Image presenting a vessel created by the participants at the *Experimental Archaeology Workshop*, after a Petrești culture one; **c.** Image presenting a vessel created by the participants at the *Experimental Archaeology Workshop*, after a Turdaș culture one.

**Figure 5 – a.** Image taken into the exhibition *My History Museum, Clay modeling* module; **b.** Image taken into the exhibition *My History Museum, Clay modeling* module – visit of the participants and parents.

**Figure 6 –** Chart presenting the results of the questionnaire applied to the parents of the participants, the answers on the questions: *What impressed your child most during the Experimental Archaeology Workshop?*



a.



b.



c.



d.

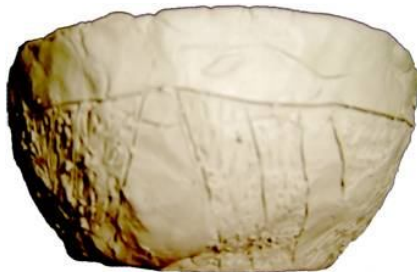
Figure1



a.



b.



c.



d.

Figure2





a.



b.



c.



d.

**Figure3**



a.



b.



c.

**Figure4**

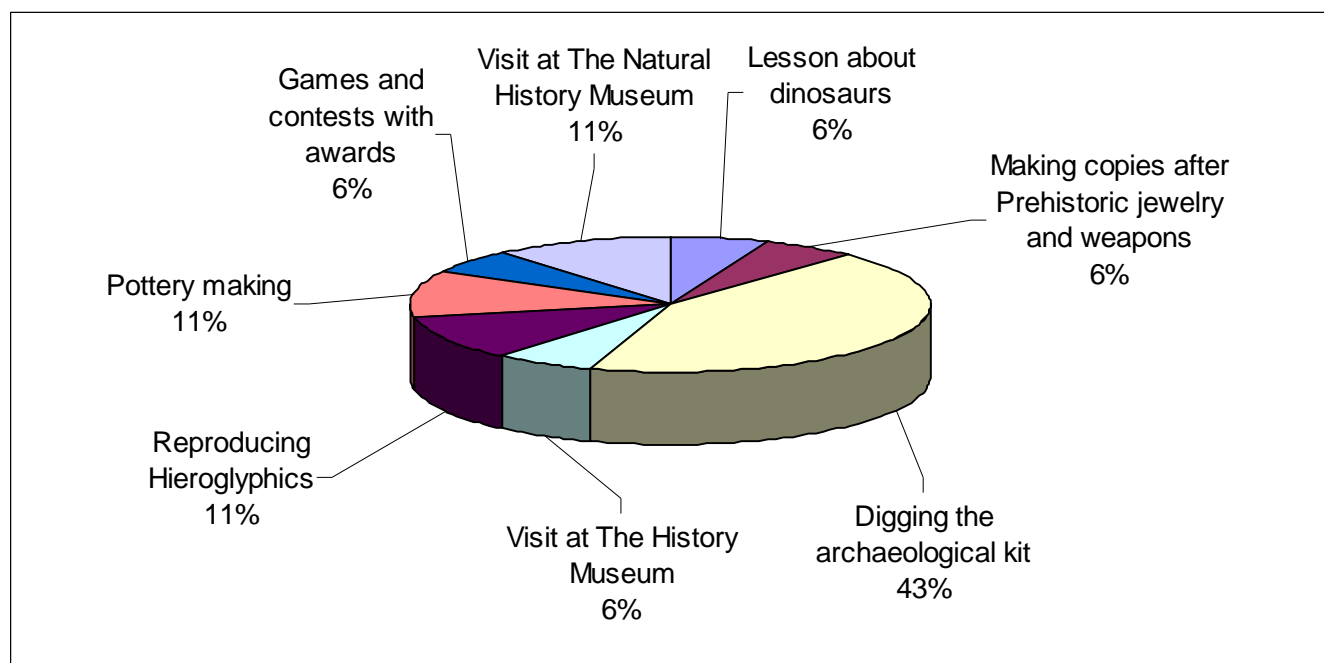


a.



b.

**Figure5**



**Figure6**

**THE PREHISTORY OF BANAT** (EDITORS-IN-CHIEF NIKOLA TASIĆ AND FLORIN DRAŞOVEAN),  
**I. THE PALAEOLITHIC AND MESOLITHIC** (EDITED BY FLORIN DRAŞOVEAN AND BORISLAV  
 JOVANOVIĆ), EA THE PUBLISHING HOUSE OF THE ROMANIAN ACADEMY, BUCHAREST,  
 2011, 245 P., 77 FIG., ISBN: 978-973-27-2057-8.

**Elena-Cristina NIŢU\***

Inițiativa publicării unei Preistorii a Banatului în mai multe volume, care să cuprindă teritoriul românesc și nordul Serbiei, cu editori în chief Nikola Tasić and Florin Draşovean, este fără îndoială lăudabilă. Proiectul, care se va finaliza printr-o serie de cinci volume (*The Palaeolithic and Mesolithic*, *The Neolithic*, *The Eneolithic*, *The Bronze Age* and *The Iron Age*), a implicat nenumărate instituții culturale din România și Serbia, cum ar fi Romanian Academy of Sciences, the Timișoara Branch, the Museum of Banat, the Serbian Academy of Sciences and Art etc.

Primul volum apărut se numește *The Palaeolithic and Mesolithic*, edited by Florin Draşovean and Borislav Jovanović. Lucrarea este structurată în șase capitole: I. Introduction, II. The Palaeolithic in Banat, III. The Paleolithic in northern Serbia, IV. The Mesolithic in Banat, V. The continuity and future research, VI. Appendix.

Încă din introducere, sunt precizate dificultățile întâlnite în realizarea acestui volum, datorate cercetării inegale a siturilor, slaba cunoaștere a paleogeografiei regiunii, lipsa datărilor absolute, informații puține referitoare la sursele de materie primă litică și „as well as the inadequate degree of publication of archaeological and palaeoecological material” (p. 17). De asemenea, se precizează că unele cercetări vor fi publicate aici pentru prima dată și o atenție specială va fi acordată tranziției de la Paleoliticul mijlociu la cel superior.

Ce-a mai amplă parte a lucrării este Capitolul II, *The Paleolithic in Banat*, semnat de Ion Cornel Bălțean, care, din păcate, prezintă și cele mai mari probleme. Acesta este subîmpărțit în numeroase subcapitole și debutează cu considerații generale asupra perioadei. Caracteristicile paleoliticului sunt descrise foarte sumar și, în ciuda titlului, acest subcapitol este mai degrabă o pledoarie asupra necesității efectuării unor studii de geomorfologie și sedimentologie. Desigur, aceste studii sunt foarte necesare, însă, aveam să constatăm că tocmai acestea lipsesc cu desăvârșire din acest capitol.

The initiative of publishing a Prehistory of Banat, in several volumes, comprising the Romanian territory and northern Serbia, with Nikola Tasić and Florin Draşovean as editors in chief, is doubtlessly worth praising. The project, which will be concluded through a series of five volumes (*The Palaeolithic and Mesolithic*, *The Neolithic*, *The Eneolithic*, *The Bronze Age* and *The Iron Age*), has involved innumerable cultural institutions of Romania and Serbia, such as Romanian Academy of Sciences, the Timișoara Branch, the Museum of Banat, the Serbian Academy of Sciences and Art etc.

The first volume issued is called *The Palaeolithic and Mesolithic*, edited by Florin Draşovean and Borislav Jovanović. This work is structured in six chapters: I. Introduction, II. The Palaeolithic in Banat, III. The Paleolithic in northern Serbia, IV. The Mesolithic in Banat, V. The continuity and future research, VI. Appendix.

Even since the introduction, the authors present the difficulties encountered in the realization of this volume, due to the unequal research of the sites, to the poor knowledge of the paleogeography of the region, to the lack of absolute dating, to the insufficient information on the lithic raw matter sources “as well as the inadequate degree of publication of archaeological and palaeoecological material” (p. 17). At the same time, it is mentioned that some research works will be published here for the first time and a special attention will be given to the transition from the Middle to the Upper Paleolithic.

The amplest part of this work is the second chapter, *The Paleolithic in Banat*, signed by Ion Cornel Bălțean, which, unfortunately, also presents the biggest problems. It is divided in its turn into numerous subchapters and starts with general considerations on the period under analysis.

The features of the Palaeolithic are very briefly described and, despite its title, this subchapter is rather a pleading concerning the need to carry out geomorphological and sedimentological studies. Sure, these studies are very necessary, but we were about to realize that they were totally absent from this chapter.

The following subchapter is called *Some terminological remarks on the use of*

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Următorul subcapitol se numește *Some terminological remarks on the use of quartz/quartzite as raw material in some Palaeolithic settlements in the Banat*.

Necesitatea unor considerații terminologice asupra utilizării cuarțului și cuarțitului este neîndoieabilă, însă autorul nu utilizează suficient literatura de specialitate în acest domeniu destul de dificil. Sunt citate doar două lucrări ale lui Vincent Mourre (1996, 1997) fiind selectate doar câteva aspecte privind utilizarea cuarțului, cum ar fi diferența dintre cortex și neocortex, stigmatul de cioplire, accidentele particulare, în timp ce multe alte elemente caracteristice sunt neglijate. Era de așteptat în continuare ca noțiunile propuse de Vincent Mourre (1996, 1997) să fie utilizate în analiza materialului litic din Banat, însă, după cum aveam să constatăm, în afară de utilizarea temenului de neo-cortex, ele lipsesc cu desăvârșire din lucrare. Din acest motiv, ne întrebăm ce rol are acest sub-capitol în economia lucrării din moment ce noțiunile despre tehnologia cuarțului nu sunt întrebuințate.

Partea de structură geologică a regiunii Banatului este foarte amplă și documentată consistent. Din nefericire, nu este precizată motivația și scopul realizării unui studiu atât de amplu despre structura geologică, în condițiile în care lucrarea este despre paleoliticul din zonă. Urmează un studiu despre tipul de roci utilizate în Preistorie, în care sunt descrise caracteristicile petrografice generale ale rocilor și care nu are nicio legătură cu paleoliticul din Banat. Un subcapitol necesar și bine documentat este cel referitor la depozitele cuaternare.

În continuare urmează istoricul cercetărilor și cea mai consistentă parte a studiului: (II. 5.) *Dovezi paleolitice în Banat*. Această parte debutează cu un subcapitol intitulat sugestiv (II. 5. 1.) *Analize pedologice și considerații stratigrafice asupra profilurilor din așezările paleolitice din Banat*. Conform titlului, ne așteptam la un studiu extrem de necesar și puțin tratat în arheologia românească. Din nefericire, am constatat că acest titlu nu corespunde cu conținutul. Nu există nicio analiză pedologică, iar așa zisele considerații stratigrafice lipsesc cu desăvârșire. Acest capitol este doar o simplă compilație de descrieri stratigrafice publicate de-a lungul timpului de autorii care au efectuat cercetări în așezările din Banat. Prin urmare, titlul capitolului nu concordă cu conținutul acestuia.

Următorul subcapitol este intitulat (II.5.2.) *Repertoire of Palaeolithic archaeological sites*. Având în vedere acest titlu, ne așteptăm să urmeze

*quartz/quartzite as raw material in some Palaeolithic settlements in the Banat*.

The need for some terminological considerations on the use of quartz and quartzite is doubtless, yet the author does not use the specialized literature of this quite difficult domain sufficiently. Only two works of Vincent Mourre (1996, 1997) are quoted, just a few aspects on the use of quartz being selected (such as the difference between cortex and neo-cortex, knapping features, particular accidents), while many other characteristic elements have been neglected. One could have expected that the notions proposed by Vincent Mourre (1996, 1997) would be used in the analysis of the lithic material of Banat, yet, as we were about to notice, except for the use of the term of neo-cortex, they are completely missing from this work. For this reason, we wonder what the role of this subchapter in the economy of this work may be, if the notions concerning the quartz technology are not used.

The part on the geological structure of Banat region is very ample and consistently documented. Unfortunately, there is no mention of the motivation and the goal of realizing such an ample study on the geological structure when this work deals with the Palaeolithic of the area. Then a study on the type of rocks used in Prehistory follows, describing the general petrographic features of the rocks and having no connection to the Paleolithic of Banat. A necessary and well-documented chapter is the one concerning the Quaternary deposits.

After that, the history of the research and the most consistent part of the study follows: (II. 5.) *The Palaeolithic archaeological evidence in the Banat area*. This part begins with a subchapter suggestively entitled (II. 5. 1) *Pedological analyzes, sedimentological remarks on stratigraphical profiles of the palaeolithic settlements in the Banat*. According to the title, we were expecting an extremely necessary and little approached study of the Romanian archeology. Unfortunately, we realized that this title does not correspond to the content. There is no pedological analysis, and the so-called stratigraphic considerations are totally missing. This chapter is just a simple compilation of stratigraphic descriptions published in time by the authors who carried out researches in the sites of Banat. Consequently, the title of this subchapter does not agree with its content.

The following subchapter is entitled (II.5.2.) *Repertoire of Palaeolithic archaeological sites*. Considering this title, we were expecting to find a

un repertoriu al aşezărilor, deşi aceste situri au mai fost repertorizate de curând (Luca 2009).

Aveam să constatăm că acest subcapitol este însuşi studiul autorului asupra aşezărilor, deci titlul din nou nu corespunde cu conţinutul. Această parte, care trebuia să reprezinte de fapt contribuţia autorului, prezintă nenumărate nereguli. Pentru a nu abuza de spaţiul acordat unei astfel de analize, ne-am limitat la doar câteva exemple, precizând de fiecare dată pe scurt trimeritele bibliografice necesare identificării neregulilor. .

Primul aspect care trebuie semnalat este că nu există nicio analiză tehnologică originală. Acest lucru nu ar fi neapărat o problemă dacă era realizată o sinteză corectă asupra ansamblurilor paleolitice. Din păcate, toate informaţiile şi analiza materialului litic este preluată ca atare şi tradusă după Fl. Mogoşanu (1978) şi Al. Păunescu (2001). În economia lucrării, o parte mult prea importantă este ocupată de tabele tipologice care sunt traduse, fără vreo adăugire, de la autorii menţionaţi mai sus. În câteva cazuri, pentru a nu da impresia de preluare totală, sunt eliminate din tabele piesele care au coeficient zero. Niciun tabel tipologic nu are sub el explicaţia şi autorii după care a fost preluat, adică Fl. Mogoşanu (1978) şi Al. Păunescu (2001). Aceştia sunt menţionaţi din când în când doar în text. Minimum de rigurozitate ştiinţifică impune ca un tabel sau grafic dintr-o lucrare să aibe explicaţie şi să fie numerotat. Pentru un necunoscător al bibliografiei paleolitice româneşti sau pentru un necunoscător al limbii române, acest capitol poate da impresia muncii lui Ion C. Bălţean. Preluarea unui tabel ca atare de la un autor, chiar dacă este tradus într-o limbă străină, fără a explica sub el de unde este luat, se numeşte *plagiat*.

Pentru susţinerea afirmaţiilor de mai sus, o să oferim în continuare, dintre nenumăratele exemple (tabelele pentru nivelele I, II, III de la Coşava (p. 47, 48, 49) sunt preluate după Fl. Mogoşanu (1978, 80; tabelul pentru nivelul musterian de la Gornea (p. 50) este plagiat după Al. Păunescu (2001, p. 151); tabelele pentru nivelele III, IV, V, VI (p. 57, 59) sunt preluate de la Fl. Mogoşanu (1978, 72-73), doar două.

repertoire of the settlements in the area, although these sites have been catalogued recently (Luca 2009). We were about to realize that this subchapter is the author's own study on the settlements, so again the title does not correspond to the content. This part, which was supposed to represent in fact the author's contribution, presents innumerable irregularities. In order not to abuse of the space usually given to such an analysis, we have contented ourselves with just a few examples, each time presenting in brief the bibliographic references needed in order to identify the irregularities.

The first aspect that needs to be pointed out is that there is not one original techno-typological analysis. This would not necessarily be a problem, provided a correct synthesis on the Paleolithic series had been realized. Unfortunately, all the information and the analysis of the lithic material is taken over as such and translated from Fl. Mogoşanu (1978) and Al. Păunescu (2001). In the economy of this work, a much too important part is occupied by typological tables, which are translated, without adding any supplementary information, from the above-mentioned authors. In a few cases, to avoid the impression of total imitation, the pieces whose coefficient was zero were eliminated from the tables. None of the typological tables has been provided with any explanation and the authors it has been taken from, namely Fl. Mogoşanu (1978) and Al. Păunescu (2001), under it. They are simply mentioned here and there only in the text. A minimum of scientific rigor requires that a table or graph in a scientific work should have an explanation and be numbered. For someone who does not know the Romanian Paleolithic bibliography, or for someone who does not know Romanian, this chapter may give the impression of being the labor of Ion C. Bălţean. Taking over a table as such from an author, even though it may be translated into a foreign language, without explaining underneath where it has been taken from, is called *plagiarism*.

In order to support the above-mentioned statements, below, we will provide, out of the countless examples (the tables for levels I, II, III from Coşava (p. 47, 48, 49) are taken over from Fl. Mogoşanu (1978, 80); the table for the Mousterian level from Gornea (p. 50) is copied from Al. Păunescu (2001, 151); the tables for levels III, IV, V, VI from Româneşti-Dumbrăviţa (p. 57, 59) are taken over from Fl. Mogoşanu (1978, 72-73), only two (fig. 1, 2).



Exemplele de plagiat nu se opresc la tabelele tipologice, ci continua și când este vorba despre comentarea acestora. Iată doar câteva exemple:

The examples of plagiarism do not stop at the typological tables, but continue as well when commenting them. Here are just a few examples:

„...cele două gratoare tipice cu bot („à museau”) sînt făcute astfel: unul plat pe lamă aurignaciană, iar celălalt pe așchie-capac de nucleu...”(Fl. Mogoșanu 1978,. 75)	„The two nosed end-scraper were manufacured, one on a <i>core tablet</i> , and the other on an Aurignacian blade.” (I. C. Bălțean 2011, 48).
Nu lipsesc nici gratoarele nucleiforme și nici gialăile („rabots”)..” (Fl. Mogoșanu 1978, 75)	„One schould remenber the presence of the core-like end-scraper and the <i>rabot</i> type pieces..” (I. C. Bălțean 2011, 48)
„Pe baza acestor observații credem că este vorba despre un facies musterian în care tehnica Levallois este absentă, fără forme bifaciale dar bogat în racloare ...” (Al. Păunescu 2001, 142)	„This tool poin out to a Mousterian industry characterized by the absnece of the Levallois technique and of the bifacial shape, but rich in scarpers”. (I. C. Bălțean 2011, 45).
„Indici tipologici pentru stratul inferior: IG = 39,09 IB = 8,18 IGA = 16,36 Ibd = 8,18” (Fl. Mogoșanu 1978, p. 80)	„The characteristic tipological indices for this level are: IG 39.09% IB 8.18% IGA 16.36% IBd 8.18% „ Ion. C. Bălțean 2011, p. 48)

Mult mai gravă este asocierea plagiatului cu un fals. Pentru așezarea de la Gornea-Dealul Căuniței, autorul capitolului precizează cu entuziasm: “Although the number of typical pieces is very small and cannot be subjected to the technical-typological analysis after the Bordian method, we can still identify types such as” (p. 50). Constatăm cu uimire că nu autorul identifică aceste tipuri, ci Al. Păunescu (2001, 151) pe care autorul „uită” din noi să îl citeze. Ion C. Bălțean „are meritul” doar de a pune datele într-un tabel, probabil ca să nu mai semene cu textul original al lui Al. Păunescu (2001, 151) și să abată atenția cititorului de la plagiat. Abia o pagină mai jos, când este adus în discuție tabelul tipologic, o notă de subsol amintește de Al. Păunescu (2001). O să redăm mai jos textul original al lui Al. Păunescu (2001, 151) cu determinarea pieselor, din care am exclus tipurile de taloane identificate, alături de tabelul publicat de Ion. C. Bălțean, p. 50.

„I. Așchii Levallois tipice: 19 (...); Ia. Lame Levallois: 5 (...); II. Așchii Levallois atipice: 7 (...); III. Vârfuri Levallois neretușate: 5 (...); IV. Vârfuri Levallois retușate: 3 (...); V. Racloare simplu drepte: 2 (...); VI. Racloare simplu concav: 2 (...); VII. Racloar dublu-drept: 1 (...); VIII. Racloar dublu drept-concav: 1 (...); IX. Racloar dublu convex-concav: 2 (...); X. Cuțit à dos natural : 1 (...); XI. Piesă cu *encoche* clactoniană: 2 (...); XII. Piesă denticulată: 1 ...” (Al. Păunescu 2001, 151).

Much more serious is the association between plagiarism and forgery. For the settlement of Gornea-Dealul Căuniței, the author of the chapter enthusiastically mentions: “Although the number of typical pieces is very small and cannot be subjected to the technical-typological analysis after the Bordian method, we can still identify types such as” (p. 50). We realized with amazement that it was not the author that identified those types, but Al. Păunescu (2001, 151) whom once again the author “forgot” to quote. Ion C. Bălțean only “has the merit” of putting the data in a table, probably in order to make it look less like the original text of Al. Păunescu (2001, p. 151) and to distract the reader’s attention from plagiarism. It is only a page after this, when the typological table is discussed, that a footnote reminds of Al. Păunescu (2001). Below, we will quote the original text of Al. Păunescu (2001, 151) with the determination of the tools, from which we have excluded the types of butts identified, along with the table published by Ion. C. Bălțean, p. 50.

„I. Așchii Levallois tipice: 19 (...); Ia. Lame Levallois: 5 (...); II. Așchii Levallois atipice: 7 (...); III. Vârfuri Levallois neretușate: 5 (...); IV. Vârfuri Levallois retușate: 3 (...); V. Racloare simplu drepte: 2 (...); VI. Racloare simplu concav: 2 (...); VII. Racloar dublu-drept: 1 (...); VIII. Racloar dublu drept-concav: 1 (...); IX. Racloar dublu convex-concav: 2 (...); X. Cuțit à dos natural : 1 (...); XI. Piesă cu *encoche* clactoniană: 2 (...); XII. Piesă denticulată: 1 ...” (Al. Păunescu 2001, 151).



Ord. no.	Types of pieces	No.
1	Typical Levallois flake	19
1a	Typical Levallois blade	5
2	Atypical Levallois flake	7
3	Unretouched Levallois point	5
4	Retouched Levallois point	3
9	Single straight side-scrapers	2
11	Single concave side-scrapers	2
12	Double straight side-scrapers	1
14	Double straight-concave side-scrapers	1
17	Double convex-concave side-scrapers	2
38	Naturally backed knife	1
42	Notched piece	1
43	Denticulated piece	1
<b>Total implements</b>		<b>50</b>

Componența tipologică a ansamblului litic după Ion. C. Bălțean, p. 50

Typological structure of the lithic series according to Ion. C. Bălțean (2011), p. 50

La finalul studiului, Ion C. Bălțean precizează „As there no match between the total number of discovered pieces claimed by Florea Mogoșanu (147) and the number resulting from above table (154)”. Această afirmație este surprinzătoare, din moment ce Fl. Mogoșanu (1978) și Al. Păunescu (2001) prezintă același număr de piese, adică 154. Explicația acestei „enigme” a autorului este simplă: Dl. Bălțean plagiază informațiile de la doi autori și uită acest lucru. În tabelul de la pagina 51, preia ca atare informațiile despre materialul brut de la Al. Păunescu (2001, 151), la care adaugă un număr de 76 de așchii atipice determinate de Fl. Mogoșanu (1978, 31). Prezentăm în continuare informațiile originale de la Al. Păunescu (2001, 151) și Fl. Mogoșanu (1978, 31), alături de tabelul publicat de Ion. C. Bălțean (2001, 51):

„XIII. Nuclee: 3, de tip Levallois (1), discoidal (1) și cvasidiscoidal (1); XIV. Așchii non Levallois: 21 (...); XV. Lame non Levallois: 4 ...” (Al. Păunescu 2001, 151).

„La toate aceste piese tipice se mai adaugă și 76 de spărturi și așchii atipice” (Fl. Mogoșanu 1978, 31).

At the end of his study, Ion C. Bălțean mentions „As there no match between the total number of discovered pieces claimed by Florea Mogoșanu (147) and the number resulting from above table (154)”. This affirmation is surprising, as Fl. Mogoșanu (1978) and Al. Păunescu (2001) present the same number of tools, namely 154. The explanation of this “mystery” is simple: Mr. Bălțean copies information from two authors, forgetting to mention it. In the table on page 51, he takes over as such the information on the raw material from Al. Păunescu (2001, 151), to which he adds a number of 76 atypical flakes determined by Fl. Mogoșanu (1978, 31). Subsequently, we will present the original information from Al. Păunescu (2001, 151) and Fl. Mogoșanu (1978, 31), next to the table published by Ion. C. Bălțean (2001, 51):

„XIII. Nuclee: 3, de tip Levallois (1), discoidal (1) și cvasidiscoidal (1); XIV. Așchii non Levallois: 21 (...); XV. Lame non Levallois: 4 ...” (Al. Păunescu 2001, 151).

La toate aceste piese tipice se mai adaugă și 76 de spărturi și așchii atipice” (Fl. Mogoșanu 1978, 31).

Ord. no.	Types of pieces	No.
	Non-Levallois points	21
	Non-Levallois blades	4
	Levallois core	1
	Discoidal core	1
	Quasi-discoidal core	1
	Atypical flakes	76
<b>Overall total</b>		<b>154</b>

Componența materialului litic brut după Ion. C. Bălțean, p. 51.

Composition of the raw lithic material according to Ion. C. Bălțean (2011), p. 51.

Acesta este un exemplu de dublu plagiat, dar și de falsificare a componenței industriei litice din această așezare, lucru extrem de grav.

Mai putem oferi câteva exemple de informații preluate de la Fl. Mogoșanu (1978), pe care nu-l citează. Sunt paragrafe întregi sintetizate din concluziile autorului menționat:

-componența tipologică a nivelelor I și II de la Românești-Dumbrăvița (p. 56) este preluată după Fl. Mogoșanu (1978, 54);

-descrierea ansamblului litic din nivelul IV de la Românești-Dumbrăvița (p. 58) este preluată de la Fl. Mogoșanu (1978, 62), iar nivelul V de la același autor (p. 61-63); concluziile de la nivelul VI sunt sintetizate de la Fl. Mogoșanu (1978, 66)

<sup>a</sup> Este inutil de precizat că absolut toate așezările prezentate în acest capitol sunt tratate în același mod, adică nu există nicio analiză litică efectuată de autor, dar nici măcar o sinteză a studiilor cercetătorilor care au lucrat în Banat. Toate analizele prezentate au fost preluate ca atare, fără nicio adăugire, de multe ori „uitând” să-i citeze pe autorii care le-au afectuat. Textul este alcătuit atât de încălcat încât nu se dorește nici identificarea autorilor care de fapt au studiat materialul, dar nici excluderea totală a lor. Este vorba despre o simplă compilație a unor studii mai vechi presărată pe alocuri cu fragmente plagiare.

Deși autorul nu are nici un fel contribuție, poate doar în a atrage fragmente de articole și studii mai vechi, acesta critică unele aspecte ale analizei litice afectuate de alții. Despre așezarea Coșava, afirmă: „We regret that we cannot have a view of the butt types, of the metrical variation of the support, of the frequency of the pieces that stem from the first stages of the reduction sequence as the material (nowadays in the custody of the History Museum of Lugoj), whose storing conditions render its study difficult if not even impossible with a view to reconstructing its archaeological context from which it stems has not been processed and one makes no references to the lithic implements (the same holds for the other two levels)” (p. 48). Dacă cunoștea bine literatura de specialitate, ar fi putut observa că pentru așezarea de la Coșava există o identificare a tipurilor de taloane și a relațiilor metrice efectuate de Al. Păunescu (2001). În același mod, autorul este nemulțumit și de analiza altor așezări arheologice, din cauza lipsei datelor metrice, tehnologice, a remontajelor (spre exemplu la Românești-Dumbrăvița). Ne întrebăm, în mod firesc, de ce a mai preluat autorul analizele efectuate de alții dacă este nemulțumit de ele? De asemenea, nu înțelegem

This is an example of double plagiarism, but also of forgery of the structure of the lithic industry from this settlement, which is extremely serious.

We can provide as well a few examples of pieces of information taken over from Fl. Mogoșanu (1978), whom he does not cite. There are entire paragraphs synthesized based on the conclusions of the above-mentioned author:

-the typological makeup of levels I and II from Românești-Dumbrăvița (p. 56) is taken over from Fl. Mogoșanu (1978, 54);

-the description of the lithic series of level IV from Românești-Dumbrăvița (p. 58) is taken over from Fl. Mogoșanu (1978, 62), and level V from Fl. Mogoșanu (1978, 61-63); the conclusions for level VI are synthesized based on Fl. Mogoșanu (1978, 66)

It is useless to mention that absolutely all the settlements presented in this chapter are treated in the same way, so there is no analysis carried out by the author, and not even a synthesis of the studies of the researchers who worked in Banat. All the analyses presented have been taken over as such, without any addition, often “forgetting” to quote the authors who carried them out. The text is made up in a very confusing way so that the reader is not able to identify the authors who actually studied the material but will not completely exclude them either. We are dealing with a simple compilation of some older studies, sprinkled with plagiarisms here and there.

Although the author has no contribution whatsoever, except for the translation of some older articles and studies, he criticizes some aspects of the lithic analysis carried out by others. About the settlement of Coșava, he states: „We regret that we cannot have a view of the butt types, of the metrical variation of the support, of the frequency of the pieces that stem from the first stages of the reduction sequence as the material (nowadays in the custody of the History Museum of Lugoj), whose storing conditions render its study difficult if not even impossible with a view to reconstructing its archaeological context from which it stems has not been processed and one makes no references to the lithic implements (the same holds for the other two levels)” (p. 48). If he had known the specialized literature well, he would have noticed that for the settlement of Coșava there is an identification of the types of butts and of the metric relations carried out by Al. Păunescu (2001). Similarly, the author is discontent with the analysis of other archaeological settlements as well, because of the lack of metrical and technological

de ce nu a făcut personal analize tehnolo-tipologice noi care să fie mai bune decât cele vechi. Referitor la săpăturile din 1989 din aşezarea Gornea-Păzărişte, autorul precizează că desenele pieselor publicate sunt nerelevante şi nu respectă rigorile ştiinţifice: “We would not have been so disappointed if the drawings had been carried out after the required principles of the graphic rendering of lithic material, but in the present case this thing is of little avail, too” (p. 52). După o asemenea afirmaţie ne aşteptam să găsim în acest capitol numai desene realizate după principii grafice moderne, făcute de însuşi autorul capitolului. Cu uimire constatăm că desenele folosite sunt tot cele vechi publicate de Fl. Mogoşanu (1978) şi Al. Păunescu (2001). Mai mult, planşele realizate cu desenele vechi nu respectă nici măcar minimum de rigurozitate. Autorul nu ştie că în momentul în care prezintă desenele unor piese acestea trebuie să aibă şi scară. Şi ca totul să fie complet, când este vorba de dimensiunea pieselor, acestea sunt « aruncate » de-a valma pe o planşă sub care este precizat că piesele au scări variabile (!), deci cititorul poate să atribuie orice dimensiune « variabilă » pieselor pe care le vede.

În afară de elementele semnalate mai sus, studiul mai duce lipsă şi de cunoştinţe minime de tehnologie. Aflăm cu surprindere că prezenţa taloanelor plane (sometimes wide) şi faţetate şi a unui bulb bine dezvoltat sunt o dovadă a utilizării unei „indirect percussion with hard percussor or punctiform percussor” (p. 67). Într-o frază atât de mică, dar care, de data aceasta, este contribuţia autorului, sunt cuprinse extrem de multe greşeli. În primul rând nu există percuţie indirectă cu perculator dur, aceşti termeni sunt în totală antiteză. Nu există perculator punctiform, dar există talon punctiform. Prezenţa unui bulb foarte proeminent nu este o dovadă a unei percuţii indirecte, ba din contră, a unei percuţii directe dure. Referindu-se la racloarele din aşezarea de la Gornea-Dealul Căuniţei, autorul afirmă că sunt realizate pe vârfuri Levallois cu taloane faţetate convexe, taloane non-Levallois şi taloane lame Levallois (facetted convex butt, non-Levallois butt and Levallois blade butt” p. 51). Ceea ce frapază este necunoaşterea tipurilor de taloane fiindcă nu există taloane non-Levallois sau Levallois, există doar suporturi. Din exemplele prezentate este evidentă utilizarea unor noţiuni fără a se cunoaşte bine sensul acestora, deşi aceste noţiuni sunt de bază pentru un paleolitician. Citind aceste fraze, înţelegem de ce autorul nu a efectuat o analiză

data and of the refittings (for example at Româneşti-Dumbrăviţa). We are wondering, naturally, why has the author taken over the analyses carried out by others if he was discontent with them? At the same time, we do not understand why he did not make himself new technological analyses, better than the older ones. Concerning the diggings of 1989 from the settlement of Gornea-Păzărişte, the author mentions that the drawings of the published tools are irrelevant and do not respect the scientific rigors: “We would not have been so disappointed if the drawings had been carried out after the required principles of the graphic rendering of lithic material, but in the present case this thing is of little avail, too” (p. 52). After such a statement, in this chapter we would have expected to find only drawings realized according to modern graphic principles, made by the author of the chapter himself. We noticed with amazement that the drawings used are still the old ones published by Fl. Mogoşanu (1978) and Al. Păunescu (2001). Moreover, the figures made based on the old drawings do not respect even a minimum of rigor. The author does not know that when one presents the drawings of some tools, they need to be provided with a scale, too. And on top of it all, when it comes to the dimension of the tools, they are “thrown” helter-skelter on a page in a group of drawings under which it is mentioned that the tools have variable scales (!), so the reader can attribute any « variable » dimension to the items in front of his eyes.

Except for the elements signaled above, the study also misses some minimal technological knowledge. We find out with surprise that the presence of plane (sometimes wide) and facetted butts and of a well developed bulb are proof of the use of an “indirect percussion with hard percussor or punctiform percussor” (p. 67). In such a small sentence, which this time is the author’s contribution, are included very many mistakes. First of all, there is no such thing as indirect percussion with hard percussor, these terms are totally antithetic. There is no such thing as punctiform percussor, yet there is punctiform butt. The presence of a very prominent bulb is no proof of an indirect percussion; on the contrary it is evidence of a direct hard percussion. Referring to the scrapers from the settlement of Gornea-Dealul Căuniţei, the author affirms that they were made on Levallois points with “facetted convex butt, non-Levallois butt and Levallois blade butt” p. 51). What is striking is the fact that the author does not know the types of butts, as there are no non-obvious

proprie a materialului litic și de ce compilează doar tipurile de unelte dintr-un studiu tipologic. Un alt element destul de grav este necunoașterea bibliografiei românești. Pentru așezarea Constantin Daicoviu este menționat ca sursă Octavian Popescu, comunicare personală. Această așezare a fost deja publicată de Al. Păunescu (2001, p. 148), deci nu este o noutate așa cum vrea autorul să sugereze. De altfel, informațiile prezentate sunt doar un rezumat al textului lui Al. Păunescu (2001). Același lucru este observabil și când vine vorba de descoperirea a trei așchii din cuarțit în punctul Curtea, unde este precizat că informațiile sunt de la Emilian Alexandrescu, comunicare personală, deși piesele au fost publicate de Al. Păunescu (2001, 181).

Din punct de vedere bibliografic, autorul face câteva confuzii. De-a lungul textului citează în mod insistent Al. Păunescu, 2002, când se referă la lucrarea „Paleoliticul din spațiul Transilvan”. Aceasta a fost publicată în realitate în anul 2001. De asemenea, în text, dar și în bibliografie, este citat Al. Păunescu, 2001, „Paleoliticul și mezoliticul cuprins între Carpați și Dunăre”, lucrarea fiind publicată de fapt în 2000.

Concluziile acestui capitol sunt, în concordanță cu conținutul, o expunere a diverselor încadrări culturale realizate de arheologii români de-a lungul timpului, de aceea nu mai insistăm asupra lor.

În concluzie, autorul nu are nici-o contribuție proprie, în afară de redarea, de cele mai multe ori în totalitate, a analizelor tehnolo-tipologice făcute de alții după modele lansate în anii 50-60. Dacă cineva dorea să vadă care este stadiul cercetărilor paleolitice din această regiune, putea și singur să citească lucrările lui Fl. Mogoșanu (1978) și ale lui Păunescu (2001), nu era nevoie de o « republicare » a lor.

Având în vedere redarea aproape în totalitate a muncii autorilor menționați, mai corect era ca acest capitol să fie semnat de Fl. Mogoșanu și Al. Păunescu.

Capitolul III al lucrării este intitulat The Palaeolithic in northern Serbia. Structura capitolului este mai lejeră decât precedentul, începe cu mediul geografic, istoricul cercetărilor, descrierea așezărilor și concluzii. Analiza siturilor, chiar dacă unele sunt mai sărace în materiale litice, este destul de bine realizată. De asemenea, ansamblurile litice sunt descrise tehnologic și tipologic. Concluziile sunt pertinente și foarte folositoare pentru cunoașterea paleoliticului din această zonă.

use of certain notions without knowing their meaning well, although these notions are elementary for a paleolithician. Reading these sentences, we understand why the author did not carry out an analysis of his own on the lithic material and why he only compiled the types of tools from a typological study.

Another quite serious element is that he is not familiar with the Romanian bibliography. For the settlement of Constantin Daicoviciu the author mentioned Octavian Popescu, personal communication, as a source. This settlement has already been published by Al. Păunescu (2001, p. 148), so it is no novelty as the author would like to suggest. Actually, the information presented is just an abstract of the text of Al. Păunescu (2001). The same thing can be noticed when it comes to the discovery of three flakes made on quartzite in the point of Curtea, where it is mentioned that the information comes from Emilian Alexandrescu, personal communication, although the materials were published by Al. Păunescu (2001, 181).

From a bibliographic viewpoint, the author makes a few confusions. Throughout the text, he insistently quotes Al. Păunescu, 2002, when he refers to the work *Paleoliticul din spațiul Transilvan (The Paleolithic in the Transylvanian Area)*. It was actually published in the year 2001. At the same time, in the text, but also in the bibliography, the author quotes Al. Păunescu, 2001, *Paleoliticul și mezoliticul cuprins între Carpați și Dunăre (The Paleolithic and the Mesolithic in-between the Carpathians and the Danube)*, while this work was actually published in 2000.

The conclusions of this chapter are in agreement with the content; they are just a presentation of the diverse cultural determinations realized by the Romanian archeologists in time, that is why we will no longer insist on them anymore.

To conclude, the author has no contribution of his own, except for rendering, more often than not in totality, the techno-typological analyses made by others according to models launched in the 1950s-1960s. If someone had wanted to see the stage of the Paleolithic research in this region, he would have been able to read without any help the works of Fl. Mogoșanu (1978) and of Păunescu (2001), without needing any « republication » of these works.

Taking into account the almost complete rendering of the work of the above-mentioned authors, it would have been more correct for this chapter to have been signed by Fl. Mogoșanu and Al. Păunescu.

Capitolul IV. The Mesolithic in Banat, semnat Adina Boroneanţ, este o sinteză foarte utilă pentru cunoaşterea mezoliticului din regiune. De asemenea, în afară de informaţia cuprinzătoare, capitolul mai prezintă şi o bogată grafică, imaginile de arhivă fiind extrem de necesare pentru istoricul cercetărilor arheologice.

Suntem conştienţi de bunele intenţii şi efortul redactorilor acestei serii de a oferi o sinteză regională necesară şi utilă sub titlul de *Preistoria Banatului*. Din această cauză, regretul nostru este cu atât mai mare cu cât această întreprindere a fost lamentabil compromisă de plagiatul practicat pe cea mai mare parte a capitolului semnat de I. C. Bălean, lipsa totală de originalitate şi inutilitatea semnării de Domnia Sa a unui text care de fapt nu îl reprezintă decât dacă îi acordăm cu bunăvoinţă calificativul de compilaţie.

The third chapter of this work is entitled *The Palaeolithic in northern Serbia*. The structure of this chapter is lighter than that of the previous one, presenting the geographic environment, the history of research, the description of the settlements and conclusions. The analysis of the sites, even though some of them are poorer in lithic materials, is quite well realized. At the same time, the lithic sets are described technologically and typologically. The conclusions are pertinent and very useful for the knowledge of the Paleolithic of this area.

Chapter IV, The Mesolithic in Banat, signed by Adina Boroneanţ, is a very useful synthesis on the Mesolithic of the region. At the same time, beside the comprehensive information, the chapter also presents a rich illustration, archive images being extremely necessary for the history of the archeological research.

We are aware of the good intentions and of the effort of the editors-in-chief of this series who meant to provide a necessary and useful regional synthesis under the title *The Prehistory of Banat*. For this reason, our regret is even deeper as this enterprise was lamentably compromised by the plagiarism practiced in most of the chapter signed by I. C. Bălean, through the total lack of originality and the inutility of his signing a text that actually does not represent him except if we kindly award it the attribute of compilation.

## LIST OF ILLUSTRATION

**Plate 1** Nivelul I din situl de la Coșava: tabelul din stanga este publicat de Ion. C. Bălțean, iar cel din partea dreaptă de Fl. Mogoșanu (1978, 80)

Level I from the site of Coșava: the left table has been published by Ion. C. Bălțean (2011, p. 47) and the one on the right by Fl. Mogoșanu (1978, 80)

**Plate II** Nivelele III, IV și V din situl Românești-Dumbrăvița: tabelul din stanga este publicat de Ion. C. Bălțean (2011), iar cel din partea dreaptă este publicat de Fl. Mogoșanu (1978, 72-73)

Levels III, IV and V from the site of Românești - Dumbrăvița: the table on the left has been published by Ion. C. Bălțean (2011), and the one on the right by Fl. Mogoșanu (1978, 72-73)



Ord. no.	Types of pieces	No.	%
1.	End-scrapers	2	1,81
2.	Atypical end-scrapers	2	1,81
4.	Ogival scrapers	1	0,90
5.	End-scrapers on retouched blade	3	2,72
6.	End-scrapers on Aurignacian blade	3	2,72
7.	Fan shaped end-scrapers	1	0,90
8.	End-scrapers on flake	8	7,27
11.	Carinated end-scrapers	9	8,18
12.	Atypical carinated end-scrapers	4	3,63
13.	Nosed end-scrapers	2	1,81
13a.	Atypical nosed end-scrapers	3	2,72
15.	Core-like end-scrapers	5	4,54
16.	Rabot	2	1,81
27.	Dihedral straight burin	3	2,72
28.	Offset dihedral burin	1	0,90
29.	Dihedral angle burin	3	2,72
30.	Burin de angle along the break	1	0,90
31.	Multiple dihedral burin	1	0,90
47.	Atypical Châtelperron point	1	0,90
52.	Font-Yves point	1	0,90
65.	Blade with continuous retouch on one side	15	13,63
66.	Blade with continuous retouch on two sides	15	13,63
67.	Aurignacian blade	10	9,09
68.	Strangled blade	1	0,90
74.	Notched piece	2	1,81
75.	Denticulated piece	4	3,63
77.	Side-scrapers	6	5,45
90.	Dufour bladelet	1	0,90

1	2	3
1. <i>Grattoir sur bout de lame</i>	2	1,81
2. <i>Grattoir sur bout de lame atypique</i>	2	1,81
4. <i>Grattoir ogival</i>	1	0,90
5. <i>Grattoir sur lame retouchée</i>	3	2,72
6. <i>Grattoir sur lame aurignacienne</i>	3	2,72
7. <i>Grattoir éventail</i>	1	0,90
8. <i>Grattoir sur éclat</i>	8	7,27
9. <i>Grattoir circulaire</i>	0	0
10. <i>Grattoir unguiforme</i>	0	0
11. <i>Grattoir caréné</i>	9	8,18
12. <i>Grattoir caréné atypique</i>	4	3,63
13. <i>Grattoir à museau</i>	2	1,81
14. <i>Grattoir à museau atypique</i>	3	2,72
15. <i>Grattoir nucléiforme</i>	5	4,54
16. <i>Rabot</i>	2	1,81
24. <i>Perçoir atypique</i>	0	0
27. <i>Burin dièdre droit</i>	3	2,72
28. <i>Burin dièdre déjeté</i>	1	0,90
29. <i>Burin dièdre d'angle</i>	3	2,72
30. <i>Burin dièdre sur lame cassée</i>	1	0,90
33. <i>Burin dièdre multiple</i>	1	0,90
47. <i>Pointe de Châtelperron atypique</i>	1	0,90
52. <i>Pointe de Font-Yves (Krems)</i>	1	0,90
65. <i>Lame à retouches continues sur un bord</i>	15	13,63
66. <i>Lame à retouches continues sur les deux bords</i>	15	13,63
67. <i>Lame aurignacienne</i>	10	9,09
68. <i>Lame à étranglement</i>	1	0,90
74. <i>Pièce à encoche</i>	2	1,81
75. <i>Pièce denticulée</i>	4	3,63
77. <i>Racloir</i>	6	5,45
78. <i>Lamelle Dufour</i>	1	0,90

## Plate I

Ord. no.	Types of pieces	Lev. III		Lev. IV		Lev. V	
		Total	%	Total	%	Total	%
1.	End-scraper on blade	6	5,26	1	0		
2.	Atypical end-scraper on blade	1	0,88	1	4		
3.	Double end-scraper	1	0,88	0	1		
5.	End-scraper on retouched blade	1	0,88	0	1		
6.	End-scraper on Aurignacian blade	2	1,75	0	1		
8.	End-scraper on flake	15	13,16	3	1		
10.	Thumb-nail end-scraper	1	0,88	1	0		
11.	Carinated end-scraper	7	6,14	0	1		
12.	Atypical carinated end-scraper	6	5,26	1	2		
13.	End-scraper à museau	2	1,75	1	0		
14.	Nosed end-scraper	1	0,88	0	0		
15.	Core-like end-scraper	8	7,02	3	1		
16.	Rabot	6	5,26	1	3		
17.	End-scraper-burin	1	0,88	1	1		
21.	Piercer end-scraper	1	0,88	0	0		
24.	Atypical piercer	2	1,75	0	0		
27.	Dihedral straight burin	7	6,14	6	5		
28.	Dihedral offset burin	3	2,63	3	2		
29.	Dihedral angle burin	2	1,75	4	3		
30.	Angle burin along the break	4	3,51	2	4		
31.	Multiple dihedral burin	1	0,88	1	4		
32.	Burin busqué	1	0,88	0	0		
34.	Burin on straight retouched truncation	2	1,75	3	1		
35.	Burin on oblique retouched truncation	2	1,75	4	0		
36.	Burin on concave truncation	1	0,88	1	0		
37.	Burin on convex retouched truncation	1	0,88	1	0		
39.	Transversal burin on a notch	1	0,88	0	0		
43.	Core-like burin nucleiform	0	0,00	2	0		
60.	Piece on straight retouched truncation	1	0,88	3	0		
61.	Blade with oblique retouched truncation	1	0,88	3	0		
63.	Blade with convex retouched truncation	1	0,88	3	0		
65.	Blade with continuous retouches on one side	6	5,26	0	1		
66.	Blade with continuous on both sides	1	0,88	3	0		
67.	Aurignacian blade	5	4,38	1	0		
74.	Notched piece	1	0,88	1	0		
75.	Denticulated piece	1	0,88	2	0		
76.	Scalar piece	0	0,00	1	0		
77.	Side-scraper	2	1,75	4	0		
84.	Truncated blade	0	0,00	2	0		
85.	Backed bladelets	0	0,00	0	1		
89.	À coche flake	1	0,88	1	1		
90.	Dufour bladelets	8	7,02	0	0		
<b>Total tools</b>		<b>114</b>		<b>61</b>	<b>38</b>		
Simple blades		788					
Flakes		1941					
Cores		47					
Atypical flakes		2165					
<b>General total</b>		<b>5055</b>					

	Niv. III		Niv. IV		Niv. V	
	Total	%	Total	%	Total	%
0	1	2	3	4	5	6
1. Grattoir sur bout de lame	6	5,26	1	1,63	0	0
2. Grattoir sur bout de lame atypique	1	0,87	1	1,63	4	10,25
3. Grattoir double	1	0,87	0	0	1	2,56
5. Grattoir sur lame retouchée	1	0,87	0	0	1	2,56
6. Grattoir sur lame aurignacienne	2	1,75	0	0	1	2,56
7. Grattoir évanouillé	0	0	0	0	0	0
8. Grattoir sur écart	15	13,15	3	4,91	1	2,56
9. Grattoir circulaire	0	0	0	0	0	0
10. Grattoir unguiforme	1	0,87	1	1,63	0	0
11. Grattoir caréné	7	6,14	0	0	1	2,56
12. Grattoir caréné atypique	6	5,26	1	1,63	2	5,12
13. Grattoir à museau	2	1,75	1	1,63	0	0
14. Grattoir à museau atypique	1	0,87	0	0	0	0
15. Grattoir nucléiforme	8	7,01	3	4,91	1	2,56
16. Rabot	6	5,26	1	1,63	3	7,69
17. Grattoir-burin	1	1,87	1	1,63	1	2,56
21. Perçoir-grattoir	1	0,87	0	0	0	0
24. Perçoir-atypique	2	1,75	0	0	0	0
27. Burin dièdre droit	7	6,14	6	9,83	5	12,82
28. Burin dièdre déjété	3	2,63	3	4,91	2	5,12
29. Burin dièdre d'angle	2	1,75	4	6,55	3	7,69
30. Burin dièdre sur lame cassée	4	3,50	2	3,27	4	10,25
31. Burin dièdre multiple	1	0,87	1	1,63	4	10,25
32. Burin busqué	1	0,87	0	0	0	0
34. Burin sur troncature retouchée droit	2	1,75	3	4,91	1	2,56
35. Burin sur troncature retouchée oblique	2	1,75	4	6,55	0	0
36. Burin sur troncature retouchée concave	1	0,87	1	1,63	0	0
37. Burin sur troncature retouchée convexe	1	0,87	1	1,63	0	0
39. Burin transverse sur encoche	1	0,87	0	0	0	0
43. Burin nucléiforme	1	0,87	0	0	0	0
48. Pointes de la Gravette	0	0	0	0	0	0
60. Lame (pièce) à troncature retouchée droite	0	0	2	3,27	0	0
61. Lame à troncature retouchée oblique	1	0,87	3	4,91	0	0
63. Lame à troncature retouchée convexe	1	0,87	3	4,91	0	0
65. Lame à retouches continues sur un bord	6	5,26	0	0	1	2,56
66. Lame à retouches continues sur deux bords	1	0,87	3	4,91	0	0
67. Lame aurignacienne	5	4,38	1	1,63	0	0
74. Pièce à encoche	1	0,87	1	1,63	0	0
75. Pièce denticulée	1	0,87	2	3,27	0	0
76. Pièce esquillée	0	0	1	1,63	0	0
77. Racloir	2	1,75	4	6,55	0	0
78. Raclette	0	0	0	0	0	0
79. Triangle	0	0	0	0	0	0
84. Lamelle tronquée	0	0	2	3,27	0	0
85. Lamelle à dos	0	0	0	0	1	2,56
89. Lamelle à coche	1	0,87	1	1,63	1	2,56
90. Lamelle Dufour	8	7,01	—	—	—	—
<b>Total :</b>	<b>114</b>	<b>99,98</b>	<b>61</b>	<b>99,75</b>	<b>39</b>	<b>99,91</b>

Plate II

## LIST OF ABBREVIATIONS

ActaArchHung	Acta Archaeologica Academiae Scientiarum Hungaricae, Budapest.
ACS	Asociația culturală Sarmizegetusa.
ActaMN	Acta Musei Napocensis, Cluj-Napoca.
ActaMP	Acta Musei Porolissensis, Zalău.
Angustia	Angustia, Sfântu Gheorghe
AnB(SN)	Analele Banatului, Serie nouă, Timișoara.
Annales UA	Annales Universitatis Apulensis
Apulum	Acta Musei Apulensis, Alba Iulia.
Archeologické Rozhledy	Archeologické Rozhledy, Praga
ArchErt	Archaeologiai Értesítő, Budapest.
Arheologia-	Arheologia, Sofia.
ATS	Acta Terrae Septemcastrensis, Sibiu
BAM	Brvkenthal Acta Mvsei, Sibiu
BAR	Brittish Archaeological Reports
BB	Bibliotheca Brukenthal, Sibiu.
BCSS	Buletinul Cercurilor Științifice Studentești. Arheologie – Istorie – Muzeologie, Alba Iulia.
BMA	Bibliotheca Musei Apulensis, Alba Iulia.
CetDacTrans	Cetăți dacice din Sudul Transilvaniei, București.
ComArchHung	Communicationes Archaeologicae Hungaricae
Corviniana	Corviniana. Acta Musei Corvinensis, Hunedoara.
Crisia	Tara Crisurilor Museum, Oradea
Dacia	Dacia. Revue d'archeologie et d'histoire ancienne, Nouvelle Série, Bucharest.
Dolgozatok	Dolgozatok, Szeged
EJA	European Journal of Archeology, Oxford.
FolArch	Folia Archaeologica, Budapest.
Gumowski	Marian Gumowski, <i>Handbuch der polnischen Numismatik</i> , Graz, 1960.
Huszár	Lajos Huszár, <i>Münzkatalog Ungarn: von 1000 bis heute</i> , München, 1979.
Izvestia	Izvestija na Narodnija Muzej Varna
Martin	Ferenc Martin, <i>Kolonialprägungen aus Moesia Superior und Dacia</i> , Budapesta – Bonn, 1992.
Materiale	Materiale și cercetări arheologice, București.
MBR	G. Buzdugan, O. Luchian, C. C. Oprescu, <i>Monede și bancnote românești</i> , București, 1977.
MCA	Archaeological materials and researches, Bucharest.
PBF	Prähistorische Bronzefunde, München.
Rengjeo	Ivan Rengjeo, <i>Corpus der mittelalterlichen Münzen von Kroatien, Slavonien, Dalmatien und Bosnien</i> , Graz, 1959.
RepAlba	Repertoriul arheologic al județului Alba, 1995.
RepArhSB	Sabin Adrian Luca, Zeno-Karl Pinter, Adrian Georgescu, <i>Repertoriul arheologic al județului Sibiu</i> , Sibiu, 2003.
RIC	Harold Mattingly, Edward A. Sydenham, <i>The Roman Imperial Coinage</i> , III, London, 1930.
RMMMIA	Revista muzeelor și monumentelor. Monumente istorice și de artă, București.
SCIV(A)	Studii și Comunicări de Istorie Veche și Arheologie, București.
SlovArch	Slovenská Archeológia, Nitra
StudArchHis-	Studia Archaeologica et Historica. Nicolao Gudea Dicata. Bibliotheca Musei Porolissensis IV/2001, Zalău.
Symposia Thracologica	Symposia Thracologica, București.

Thraco-Dacica	Thraco-Dacica. Institutul Roman de Tracologie, București
WCoins a	C. R. Bruce II (ed.), <i>Standard Catalog of World Coins. Seventeenth Century. 1601 - 1700</i> , 4th ed., Iola, 2008.
WCoins b	C. R. Bruce II (ed.), <i>Standard Catalog of World Coins. Eighteenth Century. 1701 – 1800</i> , 3rd ed., Iola, 2002.
Ziridava	Ziridava, Arad.

## MUZEUL BRUKENTHAL

### PUBLICATIILE PERIODICE APARUTE DE -A LUNGUL TIMPULUI (INCLUSIV PRECURSORII)

CRONOLOGIE	ISTORIE, ARHEOLOGIE	ARTA PLASTICA	STIINTELE NATURII	ETNOGRAFIE
ANTE 1950		Mitteilungen aus dem Baron von Brukenthalischen Museum 1931-1937 – Neue Folge I-VII 1941 – Neue Folge VIII 1944 – Neue Folge IX-X 1946 -1947 – Neue Folge XI-XII	Verhandlungen und Mitteilungen der siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt  1849-1945, 95 de numere	
1950-1989	Studii și comunicări, Muzeul Brukenthal, Sibiu  1956, nr. 1 1965, nr. 12 1967, nr. 13 volum omagial, Anuarul Muzeului Brukenthal, 1817-1967 1969, nr. 14 1973, nr. 18 1975, nr. 19 1977, nr. 20 1981, nr. 21	Studii și comunicări, Muzeul Brukenthal, Sibiu  1956, nr. 4, 5 1956, nr. 7, Istoria culturii 1978, nr. 1 1979, nr. 2	Studii și comunicări, Muzeul Brukenthal, Sibiu  1958, nr. 10, 11 1970, nr. 15 1971, nr. 16 1972, nr. 17 1973, nr. 18 1975, nr. 19 1976, nr. 20 1977, nr. 21 1978, nr. 22 1979, nr. 23 1980, nr. 24 + Supliment 1983, nr. 25 + Supliment 1984, nr. 26 1998, nr. 27 2003, nr. 28 2004, nr. 29 + Supliment	Studii și comunicări Muzeul Brukenthal, Sibiu  1956, nr. 2, 3, 6 1958, nr. 8, 9  Cibinium, Studii și materiale privind Muzeul Tehnicii Populare din Dumbrava Sibiului, Sibiu  1966, vol. I. 1967/68, vol. II 1969/73, vol. III 1974/78, vol. IV 1979/83, vol. V
După 1989	2006, I, 1 2007, II, 1 2008, III, 1 2009, IV, 1 2010, V, 1	2006, I, 2 2007, II, 2 2008, III, 2 2009, IV, 2 2010, V, 2	1998, nr. 27 2003, nr. 28 2004, nr. 29 + Supliment 2006, I, 3 2007, II, 3 2008, III, 3 2009, IV, 3 2010, V, 3	

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