# ZIRIDAVA STUDIA ARCHAEOLOGICA 27 2013

# MUSEUM ARAD



# ZIRIDAVA STUDIA ARCHAEOLOGICA

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### Prehistoric and Second-fourth-century Discoveries on the Present-day Territory of Aradu Nou District, in the City of Arad\*

#### Victor Sava, Dan Matei

**Abstract:** Over the recent years, specialists have started to pay academic attention and to publish the archaeological collection of the Museum Arad. The present initiative is part of the effort to introduce a series of unpublished artefacts into the academic circuit. Gornea-Kalakača-type pottery and vessels dated to the second-fourth centuries discovered during the restricted excavation performed by E. Dörner and E. Ivanoff are the main focus of the present article. Since on-site documentation does not include data on domestic discoveries, the structure of the settlement, or daily life there, we have attempted to supplement such deficiencies through a coherent geographical and chronological presentation of the micro-area. We have thus collected all prehistoric discoveries and all finds dated to the second-fourth centuries in the area around the site that coincides with the present-day territory of the Aradu Nou District, in the administrative area of the city of Arad.

**Keywords**: unpublished pottery, prehistory, 2<sup>nd</sup>-4<sup>th</sup> centuries, Aradu Nou District (Arad City), Lower Mureş.

#### Introduction

Since knowledge on the two chronological sequences mentioned in the title above in the county of Arad remains imperfect, all new contributions to the enrichment and valorization of archaeological remains or complexes can only be helpful in the as accurate as possible reconstruction of archaeological landscape or past living in the Lower Valley of River Mureş.

The rich archaeological depository of the Museum Arad includes numerous archaeological traces that plentifully attest to the good archaeological reflection of the two above mentioned time intervals. Among these archaeological discoveries we will focus on those made in the area of Aradul Nou District, city of Arad, Arad County. Our direct contact with previously unpublished archaeological remains in the institution's storage rooms discovered in the area of this district was the staring point of the present initiative, also supported by our modest archaeological knowledge on the territory of this district.

A large part of the artefacts under discussion was brought to light during archaeological excavations performed by E. Dörner and E. Ivanoff in 1976. Research was then performed inside the Orthodox and Catholic cemetery located in the south-western part of the district. In order that these discoveries do not appear out of context, we chose to deal with all similar artefacts uncovered within the borders of this district.

#### **Geographical context**

The city of Arad is located in the middle of the Western Plain, *i.e.* its subdivision, The Plain of Arad. The latter, bordered by rivers Mureş and Crişul Alb, is genetically a quaternary delta of river Mureş, formed at its exiting the Şoimoş – Lipova Gore. The plain becomes lower in altitude towards the north. Its central part, inside the perimeter marked by the settlements of Socodor, Sântana, Sâmbăteni, Arad, and Curtici is relatively high and horizontal, to the west, while an area of high plain, with a tabular outlook, follows after a low area with marsh-formation tendency<sup>1</sup>. The density of the hydrographic network in the area of Arad is around the quota of 0.41 km/km<sup>2</sup>. As for the quantity of the coefficient, this represents an average between the abundance of the hydrographic network and its absence. The

<sup>\*</sup> English translation: Ana M. Gruia.

<sup>&</sup>lt;sup>1</sup> Posea 1997, 375.

presence of water courses on the surface is also compensated by the rich flow of subterraneous waters, located on two thirds of the surface of The Plain of Arad, at a depth of less than 3 meters<sup>2</sup>.

An area's geographical context is under constant transformation: "thus, through the transformation of the natural plain area in agricultural lands, the primary biocenoses and silvosteppe and forest habitats were profoundly transformed. Industrialization and the development of settlements and of the transportation network led to the almost complete destruction of certain natural conditions"<sup>3</sup>. In this sense, the association of present-day geographical factors to those during Prehistory and Antiquity would be a grave error. The process of anthropization started in 1744 in the areas north of River Mureş, with the channeling and drying of the numerous marshes from the low plain. The operation was only completed during the Communist Period, in 1960–1970<sup>4</sup>. István Ferenczi presents a possible image of the area: "for months on end, a large pond used to stretch from the present-day city of Mukacevo (in Subcarpathian Ukraine) until the current capital of Yugoslavia, not only along the Tisza, but also on the lower course of all its Carpathian effluents. The waters only returned to the riverbeds by the middle of the dry summers, leaving behind, for the rest of the year, extensive marshes"<sup>5</sup>.

As geographical location, the site "Aradu Nou – Cimitirul Ortodox și Catolic" (Orthodox and Catholic Cemetery) is placed on the bank of a former branch of River Mureș. The terrace starts outside the city of Arad, from the south-eastern side, and continues towards the north-west until the intersection of the former branch with the present-day river bed of the Mureș. This former river bed is still depicted on the 1751 and 1860 maps of Arad. The site selection was inspired since the spot is one of the highest in the area and thus had the advantage of providing good visibility and shelter from less violent floods. The site was identified during field research performed by E. D. Pădureanu and D. Matei, and later on by V. Sava, but one cannot establish to what degree it was destroyed by the modern cemetery.

#### **History of research**

An archaeological test trench was performed inside the present-day "Orthodox and Catholic Cemetery" by archaeologist from Arad E. Dörner and E. Ivanoff, between September 22<sup>nd</sup> and November 11<sup>th</sup> 1976. One must state from the very beginning that if field documentation existed, it has been lost, and the only data, extremely lacunary, that we could access was that in the Inventory Register of the Ancient History and Archaeology Depository of the Museum Complex in Arad and some notes that were placed together with the archaeological material. Through the consultation of these sources we were able to establish that five test trenches were performed, but no data is available on their size, horizontal and vertical stratigraphy, and the possible identification of archaeological complexes.

Test trench A was performed on the land of the Orthodox cemetery, outside the concrete fence, by E. Dörner together with pupils from High School No. 3.

Test trench B, excavated by the same E. Dörner and the same pupils, was performed on the land of the Orthodox cemetery, outside the concrete fence and probably near test trench A.

Test trench C was also located inside the perimeter of the Orthodox cemetery, towards the former northern river bed towards Constituției Street, by E. Ivanoff with the help of pupils from High School No. 4.

The fourth test trench, labeled I, was traced in the area of the Catholic cemetery, 30 m towards the Orthodox cemetery.

Test trench II was also traced inside the perimeter of the Catholic cemetery; E. Dörner mentioned the fact that it was located on a so-called "rampart", which is in fact the first terrace of the former river bed of the Mureş. These latter trenches, I and II, were excavated by E. Dörner together with the pupils of one of the high schools mentioned above.

Besides this excavation, we also have data on a series on researches performed by the same E. Dörner in the garden of the former C.A.P. (Cooperativa Agricolă de Producție – Agricultural Production

<sup>&</sup>lt;sup>2</sup> Ardelean 1978, 22.

<sup>&</sup>lt;sup>3</sup> Berindei, Măhăra 1971, 33.

<sup>&</sup>lt;sup>4</sup> Posea 1997, 79.

<sup>&</sup>lt;sup>5</sup> Ferenczi 1993, 44.

Cooperative) in the district of Aradu Nou during 1970. He discovered pottery fragments from the end of the Copper Age<sup>6</sup>.

In 1992, by researching the site of "Bufniţ", P. Hügel has identified artefacts dated to various periods<sup>7</sup>.

A. Mătiuț brought to our attention other discoveries made between 2007 and 2009. Mătiuț, collaborator of the Museum Complex in Arad, has donated several pottery fragments that he found in the river bed of the Mureş, in the area of "Bufniț."

#### Vinča C-type discoveries (Pl. 3/2)

In 2007 A. Mătiuț donated to the Museum Complex in Arad pottery fragments dated to various periods; the donated artefacts were recovered from Mureșului Valley, near the spot called "Bufniț". Among these fragments, one is of the Vinča C-type (Pl. 3/2), fired in a reduced atmosphere, black in color, polished, with inclusions of sand grains in the fabric. Taking into consideration the fact that a single fragment that belongs to this chronological horizon was donated, one cannot formulate hypotheses on the type of site or on other characteristics of this discovery, so we will only mention some analogies.

According to F. Draşovean's typology, the fragment discovered in "Bufniţ" belongs to type A III b<sup>8</sup> and was once part of a trunk-shaped deep bowl, with curved walls and perforated handles placed under the rim<sup>9</sup>. According to the discoveries in Hodoni, Sântandrei, Parţa I, Parţa II, and Zorleţu Mare III, this type of bowl is typical to Northern Banat<sup>10</sup>. In this sense, bowls similar in shape and decoration to the one in Aradu Nou "Bufniţ" were discovered in Hodoni, pit 21<sup>11</sup> (Vinča C layer), dwelling 4<sup>12</sup> and dwelling 5<sup>13</sup> (Tisa layer) and in Sântandrei<sup>14</sup>.

Discoveries from the Final Neolithic made in the Lower Mureş Valley and in Crişul Alb Valley can be attributed to several types of finds. The northern area of Banat, until Vingăi Plain, is typical to Vinča-type pottery, despite the fact that, over time, pottery in this region was attributed to the Tisa type<sup>15</sup>. Fl. Draşovean has proven that these Tisa pottery elements were borrowed by Vinča C pottery from the Tisa fund; besides, it has been also noted that elements typical to pottery from Banat and Szakálhát were also taken over<sup>16</sup>. In a recent study on the pottery from Uivar, B. Dammers called this type of pottery "Tisoid Vinča"<sup>17</sup>. Tisa-type pottery can be found in the area delimited by the Vinga Plain, Crişul Alb Valley, Zărand Mountains, and Tisa Valley. Turdaş and Foeni-type pottery can be found in this chronological level in the western area of the present study (Mureş Valley between Săvârşin and Deva).

Starting from the repertory of discoveries, one can note that the Lower Mureş Valley belongs, from the perspective of pottery style, to the Tisa Plain, even if before the spread of the Tisa-type pottery, phenomena in the two areas are identical. Even since 1979, G. Lazarovici mentioned the existence of Szakálhát-type pottery north of the Mureş, on the basis of discoveries made in Vărşand<sup>18</sup>; furthermore, the influence of Vinča pottery on the linear elements created the Bucovăţ-type pottery in Banat, a regional denomination for the Szakálhát-type pottery<sup>19</sup>.

Among the most important Szakálhát sites in Mureş Valley one can include the one in Arad "Grădişte". G. Lazarovici also integrated the site in Dud "Valea Lugojului" in this chronological horizon,

- <sup>11</sup> Drașovean 1996, Pl. LX/6; Drașovean *et al*.1996, Pl. XXXIX/6.
- <sup>12</sup> Drașovean *et al*.1996, Pl. XLIX/1.

<sup>&</sup>lt;sup>6</sup> Roman 1976a, 31, Pl. 3/1–2; Roman, Németi 1978, 12, Pl. 4/9–10; Luca 2006, 25, Pt. 7/2a; Luca 2010, 22, Pt. 7/2a.

<sup>&</sup>lt;sup>7</sup> Barbu *et al.* 1999, 37, *s.v.*: Pt. 9 (f) [I.H. Crişan, P. Hügel].

<sup>&</sup>lt;sup>8</sup> Drașovean 1996, Fig. 2.

<sup>&</sup>lt;sup>9</sup> Drașovean 1996, 47.

<sup>&</sup>lt;sup>10</sup> Drașovean 1996, 49; Drașovean *et al*.1996, 17.

<sup>&</sup>lt;sup>13</sup> Drașovean *et al*.1996, Pl. LII/1.

<sup>&</sup>lt;sup>14</sup> Drașovean 1996, Pl. LXXVII/7.

<sup>&</sup>lt;sup>15</sup> Lazarovici 1979, 150–152; Goldman 1984, 31, 32.

<sup>&</sup>lt;sup>16</sup> Drașovean 1996, 75–76.

<sup>&</sup>lt;sup>17</sup> Dammers 2009, 238–239.

<sup>&</sup>lt;sup>18</sup> Lazarovici 1979, 156.

<sup>&</sup>lt;sup>19</sup> Lazarovici 1979, 152–155.

while the site in Bodrogul Nou "Către Vale"<sup>20</sup> seems to date back to the same Szakálhát horizon. In the Crișul Alb Valley, a significant *tell* is the one in Vărșand "Viezuriște," where a Szakálhát deposition was found besides a Tisa deposition<sup>21</sup>.

The subsequent horizon, i.e. corresponding to Tisa-type pottery, considered parallel to Vinča B2-C (Lazarovici)/Vinča C1 (Schier), consists in discoveries from Chesinț "Ocob"<sup>22</sup>, Čoka "Kremenyák"<sup>23</sup>, Hódmezővásárhely "Gorzsa"<sup>24</sup>, Lipova "Hodaie"<sup>25</sup>, Macea "Topila"<sup>26</sup>, Seleuș<sup>27</sup>, Szeged "Lebő Halom"<sup>28</sup>, and Şiria "Gropile Nemţeşti"<sup>29</sup>. In the Crişul Alb Valley this horizon was found in Dud "Valea Lugojului"<sup>30</sup>, Seleuş<sup>31</sup> and Vărşand "Viezurişte"<sup>32</sup>.

As previously indicated, in the Lower Mureş area, one finds not only Tisa-type pottery, but also Vinča C pottery, naturally in lesser numbers. Among such sites, two are located north of the Mureş (Arad, "Aradul Nou-Trei Insule-Bufniț," and Comlăuş), but such pottery fragments were not discovered during archaeological researches, therefore one can not formulate hypotheses on the site's character and clear chronology; the other sites containing Vinča C pottery are those in Cornești "Ferma Reiter," Cornești "Iugosloveni," and Hodoni "Picioroane". All three sites are located on the southern border of the area with Tisa discoveries, implicitly on the northern border of the area with Vinča discoveries.

#### Tiszapolgár-type discoveries (Pl. 3/3-4)

Tiszapolgár discoveries in the area called "Bufniț" have been mentioned in time in the specialized literature<sup>33</sup>. Thus, among the artefacts recovered by P. Hügel<sup>34</sup> during field researches performed in 1992 one can also find two "beak-like" handles (Pl. 3/3–4), typical to Tiszapolgár pottery. The items are fired in an oxidizing atmosphere, are brick-red and reddish-brick in color, made of a fabric with inclusions of silt and sand.

In the area of the city of Arad, besides this Tiszapolgár site, one finds mentions of a series of other discoveries part of this chronological horizon. In Horia "Satini", besides pottery dated to the Middle Bronze Age, the second-fourth centuries A.D. and the eleventh-thirteenth centuries A.D., specialists have uncovered in 1970 several Tiszapolgár pottery fragments<sup>35</sup>. One year later, in 1971, M. Rusu mentioned the site in Arad "Gai"<sup>36</sup>, and the piece of information was taken over by other authors<sup>37</sup>. Such data was confirmed when the Miloi Collection was donated to the Museum Complex in Arad. The lot included discoveries of various types: Mureş, BD, HA1, Basarabi, Dacian, second-fourth centuries A.D., and eleventh-thirteenth centuries A.D. In Cicir "Hotar" E. D. Pădureanu discovered in 1972 several pottery fragments decorated with "beak-like prominences", flint flakes and cores<sup>38</sup>, while in Şofronea "Hotarul Satului" N. Kugelman discovered in 1973 several Tiszapolgár pottery fragments<sup>39</sup>. In the same year, E. D. Pădureanu identified Tiszapolgár "archaeological materials" in Arad "Uzina de apă"<sup>40</sup>. In

- <sup>21</sup> Popescu 1956.
- <sup>22</sup> Lazarovici 1979, 190, Pt. 21.
- <sup>23</sup> Banner 1960.
- <sup>24</sup> Gazdapusztai 1963; Horváth 1982; Horváth 1986; Horváth 1987.
- <sup>25</sup> Boroneanţ, Demşa 1974; Lazarovici 1971, 29–30, Pl. XI-XIII; Lazarovici 1974, 61–62; Lazarovici 1975, Pl. 16/8–10; Moga, Radu 1977, 238, Pl. VII; Lazarovici 1979, 200, Pt. 48; Luca 1986; Luca 1987; Luca 2008, 26.
- <sup>26</sup> Comşa 1971, 17–18, Fig. 1, Pt. 21; Roman 1976a, 31, Pl. 2/1–4; Roman, Németi 1978, 12, Pl. 7/9–13.
- <sup>27</sup> Dumitrașcu, Ignat 1987.
- <sup>28</sup> Korek 1958.
- <sup>29</sup> Luca 1985, 458–459.
- <sup>30</sup> Pădurean 1973, 400–401, Fig. 4; Pădurean 1985, 33, Pt. 33.
- <sup>31</sup> Dumitrașcu, Ignat 1987.
- <sup>32</sup> Popescu 1956, 51–65.
- <sup>33</sup> Pădureanu 1985, 28–29; Barbu *et al*.1999, 37, *s.v.*: Pt. 9 (f) [I.H. Crişan, P. Hügel]; Iercoşan 2002, 101.
- <sup>34</sup> We would like to express our gratitude to Dr. Peter Hügel for his kindness in offering for research these archaeological discoveries.
- <sup>35</sup> Pădureanu 1985, 34–35, Pt. XVII/A/a; Barbu *et al*.1999, 76, *s.v.*: Pt. 1 [E. Chirilă, P. Hügel]; Iercoşan 2002, 104, Pt. 13.
- <sup>36</sup> Rusu 1971, 80.
- <sup>37</sup> Lazarovici 1983, 13, Pt. 3; Barbu *et al*.1999, 35, *s.v.*: Pt. 6 (a) [I.H. Crişan, P. Hügel]; Iercoşan 2002, 26, Pt. 3.
- Pădureanu 1973, 400; Barbu *et al.*1999, 53, *s.v.*: Pt. 3[ I.H. Crişan, E. D. Pădurean, P. Hügel]; Iercoşan 2002, 103–104, Pt. 10.
- <sup>39</sup> Iercoşan 2002, 89, Pt. 65, Pl. 120/12–15; 121/1–8.
- <sup>40</sup> Pădureanu 1985, 29, Pt. I/4/a; Barbu *et al*.1999, 37, s.v.: Pt. 8(g) [I.H. Crișan, P. Hügel]; Iercoșan 2002, 101, Pt. 1/b.

<sup>&</sup>lt;sup>20</sup> Luca 1985, 286.

Arad "Grădiște", in the yard of the former "Company for Municipal Roads and Bridges in Arad", E. D. Pădureanu discovered Tiszapolgár pottery fragments in 1978<sup>41</sup>. Another Tiszapolgár site near Arad is located in Bodrogul Nou "La Hodaie-Către vale", identified by S. A. Luca and E. D. Pădureanu in 1983<sup>42</sup>.

#### **Baden-type discoveries** (Pl. 4/1-8)

The pottery fragments under discussion were discovered in 1970 by E. Dörner in the yard of the C.A.P. in the district of Aradu Nou. Just two of these fragments have been published in the monograph work dedicated to the Baden Culture in Romania<sup>43</sup>, and the site was mentioned in several works<sup>44</sup>. The pottery discovered there seems to have been part of a single pot; the fragments were fired in a reducing atmosphere, the firing is of mediocre quality, the color varies from brown to brick-red, and the fabric contains inclusions of sand grains.

Baden-type discoveries in the Western Plain of Romania are part of a very poorly researched chronological stage, mainly due to the fact that the archaeological material has not been published<sup>45</sup>. The representative sites are those in the northern part of the above mentioned plain, such as those in Pişcolt "Nisipărie" (Satu Mare County)<sup>46</sup>, the sites in Ciumești (Satu Mare County)<sup>47</sup>, Girişul de Criş "Râturi" (Bihor County)<sup>48</sup>, and Unimăt "Dâlboci" (Satu Mare County)<sup>49</sup>.

The settlement in Arad "Aradu Nou – Grădina C.A.P." is located on the northern border of Banat, an area that includes a series of discoveries made over time. Several Baden-Culture artefacts were revealed in 1991 during the excavation of a septic tank in the garden of house no. 5, in Tiberiu St. The presence of certain shapes such as the bowl with two partitions, but also the lack of handles with notched ends and of handles with disk-shaped heads typical to the Nevidzan stage support the fact that the site in Arad "Strada Tiberiu, nr. 5" (Tiberiu St., no. 5) is part of the Červený Hrádok stage<sup>50</sup>. Still inside the perimeter of the city of Arad, E. Dörner discovered during on-surface researches a bowl fragment typical to the Cernavodă III-Boleráz horizon<sup>51</sup>. Despite the fact that the exact place of discovery was not mentioned (the only mention made is "the district of Gai"), one can presume that the site in question was "Gai I/Nisipărie." In 2008, E. D. Pădureanu donated to the Museum Complex in Arad several Baden-type pottery fragments discovered on the same spot ("Gai I/Nisipărie")<sup>52</sup> that belong to the Červený Hrádok stage. The pottery material in Sânpetru German "Malul Înalt"<sup>53</sup> belongs to an early chronological horizon, probably Cernavodă III-Boleráz or "another, even more ancient typological unit (maybe the Herculane-Cheile Turzii horizon)"<sup>54</sup>. The site in Bodrogul Nou "Pădure"<sup>55</sup>, also located at a close distance from the city of Arad, was discovered in 1966 by M. Gyula. This is prob-

<sup>&</sup>lt;sup>41</sup> Pădureanu 1985, 28, Pt. I/1/B/b; Barbu *et al*.1999, 36, *s.v.*: Pt. 7(c) [I.H. Crișan, P. Hügel]; Iercoșan 2002, 101, Pt. 1/a.

 <sup>&</sup>lt;sup>42</sup> Pădureanu 1985, 30, Pt. VI/c; Luca 1985, Fig. 3/1, 3, 5, 7, 13; 4/9–10, 17; Barbu *et al*.1999, 45, *s.v.*: Pt. 4 [M. Bărbulescu, P. Hügel]; Iercoşan 2002, 30–31, Pt. 9.

<sup>&</sup>lt;sup>43</sup> Roman, Németi 1978, pl. 4/9–10.

<sup>&</sup>lt;sup>44</sup> Roman 1976a, 31; Roman, Németi 1978, 12; Luca 2006, 25, Pt. 7/2a; Sava, Pădureanu 2009, 34; Luca 2010, 22, Pt. 7/2a.

<sup>&</sup>lt;sup>45</sup> For the county of Arad this is an obvious state of the facts: two of the most important and well-researched sites, those in Sâmpetru German – "Fântâna Vacilor" and Cladova – "Dealul Carierei", have remained unpublished.

<sup>&</sup>lt;sup>46</sup> Roman 1976, 84; Roman, Németi 1978, 14–15, 22, Pl. 21/13, 14; 23/6–11; 24–42; Németi 1979, 527, 529, 534; Németi 1996, 89.

<sup>&</sup>lt;sup>47</sup> For "Bostănărie" see: Zirra 1968, footnote 2; Roman, Németi 1978, 15, Pl. 11/4–6; for "Grajdurile C.A.P." see: Zirra 1968, 1, 3, footnotes 2, 4; Kacsó 1969, 54; Roman, Nemeti 1978, 15–17, Pl. 11/7–16; 12–14; 15/1; 16/1a-b; Németi 1999, 50; for "Păşunea Fântânii" see: Roman, Németi 1978, 17, Pl. 10; 11/1–3; 19/4.

<sup>&</sup>lt;sup>48</sup> Dumitraşcu 1967, 73–74; Dumitraşcu 1968, 257–264; Dumitraşcu, Tăutu 1968, 12; Dumitraşcu 1974, 36–37; Roman 1976, 51, 82; Roman, Németi 1978, 13–14, 22, 23, Pl. 57/7–13; 58–59; 69/4–12; 70–71; 72/1–3, 5; Dumitraşcu 1986, 693; Crişan I. 1988, 341; Ciugudean 2000, 10, 72.

<sup>&</sup>lt;sup>49</sup> Dumitraşcu 1969, 41–45; Roman 1976, 86; Roman, Németi 1978, 18, 22, Pl. 60; 61; 64–68; 69/1–3; Kalmar 1983, 62; Németi 1999, 17; Ciugudean 2000, 53, 84.

<sup>&</sup>lt;sup>50</sup> Sava, Pădureanu 2009, 36.

<sup>&</sup>lt;sup>51</sup> Roman 1976a, 31, Pl. 1/6; Roman, Németi 1978, 12, Pl. 3/1; Németi 2001, 299.

<sup>&</sup>lt;sup>52</sup> The pottery fragments were part of the collection owned by lawyer Gh. Miloi, and after his death, a part of the collection ended up in the possession of E. D. Pădureanu.

 <sup>&</sup>lt;sup>53</sup> Roman, Németi 1978, 12, Pl. 9/2-7; Kalmar, Oprinescu 1986, 200, 203; Barbu *et al*.1999, 111, *s.v.*: Pt. 1 [E. Chirilă, P. Hügel]; Luca 2006, 230, Pt. 532/3a; Luca 2010, 231, Pt. 532/3a.

<sup>&</sup>lt;sup>54</sup> Roman, Németi 1978, 36.

 <sup>&</sup>lt;sup>55</sup> Roman 1976, 51, 80; Roman 1976a, 32, Pl. 4/5–9; Roman, Németi 1978, 12, Pl. 4/1–5; Kalmar, Oprinescu 1986, 201; Barbu *et al.*1999, 45, *s.v.*: Pt. 1(b) [M. Bărbulescu, P. Hügel]; Luca 2006, 44, Pt. 58/1b; Luca 2010, 43–44, Pt. 58/1b.

ably the closest chronological find to the one in Arad "Strada Tiberiu, nr. 5" thus to the end of the Červený Hrádok stage<sup>56</sup>, despite the fact that one of the pottery fragments displays extremely archaic traits<sup>57</sup>. Exact dating details of the site in Cicir "Balastieră"<sup>58</sup> are not available, while the site in Zădăreni "La Vii"<sup>59</sup> is only illustrated by two pottery fragments, thus all attempts to approach the chronology of these discoveries are doomed to fail. Over the years, the multi-strata settlement in Arad "Bufniț"<sup>60</sup> has been researched during several field research campaigns<sup>61</sup>. Besides the numerous Bronze Age and second-fourth-centuries A.D. discoveries, several Baden-pottery fragments were found; unfortunately, no further statements can be expressed on this pottery lot since we were unable to identify it in the storage areas of the Museum Complex in Arad. The final development stage of the Baden-type pottery is expressed by the abundant pottery material found in Sânpetru German "Fântâna Vacilor"<sup>62</sup>, Cladova "Dealul Carierei"<sup>63</sup>, and Sântana "Cetatea Veche"<sup>64</sup>.

Among all the above mentioned discoveries, just the settlements in Sânpetru German "Fântâna Vacilor," Sântana "Cetatea Veche," and Cladova "Dealul Carierei" have been researched through systematic archaeological excavations; the others were identified during on-surface research or were discoveries made by amateurs. The overview analysis of the entire Baden-type pottery on the present-day territory of Romania suffers from the lack of systematic research of the sites and the lack of publications presenting the sites researched so far<sup>65</sup>.

Returning to the pottery discovered in the area of Aradu Nou District, P. Roman has attributed it to the Baden-type<sup>66</sup>, and the piece of information was taken over in time by other authors<sup>67</sup>. We must mention the fact that all pottery fragments belong to the type of common pottery, but their decoration does not display elements useful to their inclusions in any typology<sup>68</sup>. Thus, in the absence of other clear elements, one cannot state with all certainty the characteristics of these discoveries.

#### Cornești-Crvenka-type discoveries (Pl. 4/9-11 - 8/1-12)

This type of pottery was discovered by P. Hügel during field researches in the area of "Bufniț." Specialized literature mentions that several types of artefacts were recovered from the surface of this site, i.e. typical to Starčevo-Criș<sup>69</sup>, Tiszapolgár, Cornești-Crvenka, and the second-fourth centuries A.D.<sup>70</sup> The type of firing of Cornești-Crvenka pottery fragments varies between oxidizing and reduction, the predominant colors are reddish brick-red and grey, while in most cases the fabric included sand grains. As for the finishing of the surfaces, most pottery fragments are smoothed, while a small part of them are polished.

One of the most frequent decorations consists of arches placed in rows (Pl. 5/6; 8/2–7, 12), in combination with other elements that "represent an almost Baroque style"<sup>71</sup>. Such examples can be found in Ciuta "Cornu Dealului"<sup>72</sup>, Cornești "Cornet"<sup>73</sup>, Gornea "Pod Păzăriște"<sup>74</sup>, Macea "Topila"<sup>75</sup>,

- <sup>57</sup> Roman, Németi 1978, Pl. 4/5.
- <sup>58</sup> Pădurean 1973, 399; Pădurean 1985, 31; Barbu *et al*.1999, 53, *s.v.*: Pt. 2 [I. H. Crișan, E. D. Pădureanu, P.Hügel].
- <sup>59</sup> Roman 1976, 86; Roman 1976a, 32; Roman, Németi 1978, 12, Pl. 4/11- 12; Kalmar, Oprinescu 1986, 201; Luca 2006, 276, Pt. 663/1a; Luca 2010, 274, Pt. 663/1a.
- <sup>60</sup> Barbu et al. 1999, 37, s.v.: Pt. 9 (f) [I. H. Crişan, P. Hügel]; Luca 2006, 25, Pt. 7/2c; Luca 2010, 23, Pt. 7/2c.
- <sup>61</sup> Roman, Németi 1978, 12; field researches performed by E. D. Pădureanu (1970); P. Hurezan, P. Hügel (1992, 1998).
- <sup>62</sup> Dörner 1970, 455, Fig. 10/5; Roman 1976a, 32, Pl. 5/5–7; Roman, Németi 1978, 12, Pl. 2/1–10, 3/6–20; Kalmar, Oprinescu 1986, 201, 203; Barbu *et al*.1999, 111, *s.v.*: Pt. 2 [E. Chirilă, P. Hügel]; Luca 2006, 230, Pt. 532/3b; Luca 2010, 231, Pt. 532/3/b.
- <sup>63</sup> Boroneanț 1978, 141, Pl. 6/2; Boroneanț *et al*.1983, 20; Barbu *et al*.1999, 55, *s.v.*: Pt. 1 (b) [P. Hügel, G. P. Hurezan]; Ciugudean 2000, 68; Hügel *et al*. 2004, 97, 99.
- <sup>64</sup> Gogâltan, Sava 2010, 28–29; Hügel *et al.* 2010; Gogâltan *et al.* 2012.
- <sup>65</sup> Sava 2008, 60, Fig. I.
- <sup>66</sup> Roman, Németi 1978, 12.
- <sup>67</sup> Sava 2008, 55, Pt. 3.
- <sup>68</sup> Németi 1987, 104; Crişan 1998, 6.
- <sup>69</sup> To the present day we were unable to proove the existence of Starčevo-Criş Culture discoveries on this spot.
- <sup>70</sup> Pădurean 1985, 28–29; Barbu *et al*. 1999, 37, *s.v.*: Pt. 9 (f) [I. H. Crişan, P. Hügel].
- <sup>71</sup> Gogâltan 1999, 55.
- <sup>72</sup> Gumă 1997, Pl. XXXIII/8, 10; XXXVI/6-7, 16, 19, 29, 31.
- <sup>73</sup> Gumă 1997, Pl. XLII/8, 10, 12; XLIII.
- <sup>74</sup> Gumă 1997, Pl. XXXIX/5, 8; XL/2.
- <sup>75</sup> Sava 2009, Pl. XI/6.

<sup>&</sup>lt;sup>56</sup> Roman, Németi 1978, 41.

Moldova Veche "Ostrov"<sup>76</sup>, Socodor "Căvăjdia"<sup>77</sup> and Satu Mare<sup>78</sup>, and all these sites belong to the Cornești-Crvenka Group<sup>79</sup>. Hachured triangles (Pl. 5/4) can be found in the Cornești-Crvenka environment, in Socodor "Căvăjdia"<sup>80</sup>, Ciuta "Cornu Dealului"<sup>81</sup> and Moldova Veche "Ostrov"<sup>82</sup>. Pottery fragments with brush decoration (Pl. 7/2–13) can be found in a series of settlements part of the Cornești-Crvenka Group, such as those in Cicir "Spinul lui Stanca"<sup>83</sup>, Socodor<sup>84</sup> and Sântana<sup>85</sup>, those part of the Mureș Culture in Klárafalva "Hajdova"<sup>86</sup> and Pecica "*Şanțul Mare*"<sup>87</sup>, those of the Vatya Culture in Baks – "Homokbánya"<sup>88</sup>, and of the Otomani Culture in Vărșand "Movila dintre vii"<sup>89</sup>. One of the frequent decorations consist of wide alveoli girdles placed under the rim (Pl. 4/10–11; 6/2–3, 5–6), widely employed in Ciuta "Cornu Dealului"<sup>90</sup> and Socodor "Căvăjdia"<sup>91</sup>. Thin girdles (Pl. 5/1, 2, 3, 6; 6/4; 8/10) can be found in Ciuta "Cornu – Dealului"<sup>92</sup>, Gornea "Pod Păzăriște"<sup>93</sup> and Socodor "Căvăjdia"<sup>94</sup>.

Through the quoted analogies, one can state with all certainty that this type of pottery represented by the material from Arad "Bufniț" belongs chronologically to the Middle Bronze Age, type Cornești-Crvenka. Over time, a series of researchers have attempted to establish a certain cultural specificity for the Lower Mureş. Thus, I. Ordentlich<sup>95</sup>, C. Kacsó<sup>96</sup> and T. Bader<sup>97</sup> believed that River Mureş was the southern border of Otomani-type pottery, while I. Bóna believed that it was the border of Gyulavarsánd pottery<sup>98</sup>. T. Soroceanu states that the Mureş Valley, upstream from Aluniş, was the development area of the Mureş pottery<sup>99</sup>. In 1999, Fl. Gogâltan believed that the Crişul Alb Valley was the border between Otomani and Cornești-Crvenka-type pottery groups<sup>100</sup>, while northern Banat and the elevated plain of River Mureş was the distribution area of the Cornești-Crvenka pottery<sup>101</sup>.

Polemics in specialized literature on the so-called borders between cultures/types of pottery are, in our view, a distorted view of historic reality. We would thus like to mention that in the expression area of Cornești-Crvenka manifestations in the Mureș Valley one notes the development of sites in which Mureș-type pottery prevails, such as, among the most representative ones, Pecica "*Şanţul Mare*"<sup>102</sup> and Arad "Sub Complexul Muzeal Arad"<sup>103</sup>. In the Timiș Valley but also southwards, Cornești-Crvenka sites alternate with Balta Sărată sites<sup>104</sup>.

- <sup>77</sup> Popescu 1956, fig. 7/8; 8/7–8, 11; 11/9, 11, 13; 12/2–3, 10–11; 15/7; 16/8, 12–13; 22/9; 25/11; 26/1, 4, 11; 27/5; Gogâltan 1999, Fig. 2/2, 6; 7/2; 14/2.
- <sup>78</sup> Gogâltan 2004, Pl. XI, 2.
- <sup>79</sup> See the discussion of the entire issue in Gogâltan 2004.
- <sup>80</sup> Popescu 1956, Fig. 9/8; 13/13; 11/7, 10; 16/7; 22/8; 34/6; Gogâltan 1999, Fig. 1/2, 4.
- <sup>81</sup> Gumă 1997, Pl. XXXVI/8; 18.
- <sup>82</sup> Gumă 1997, Pl. XLIV/16.
- <sup>83</sup> Pădurean 1973, Fig. 3/48, 50–51, 54, 58–59, 62–63, 67–68, 70, 74–75.
- <sup>84</sup> Popescu 1956, Fig. 7/3–4, 9–10, 15; 8/1–2, 12, 14; 12/12, 15, 18; 21/10, 13–14; 23/5–5, 8–9, 11; 35/12; Gogâltan 1999, Fig. 9.
- <sup>85</sup> The material is unpublished and was found during field researches performed by V. Sava, F. Mărginean, and M. Mercea during 2007 or were stray finds identified by M. Mercea. The *tell* is located on the northern border (500 m outside the city) of the city of Sântana and the material is preserved in the collection of the Museum Complex in Arad.
- <sup>86</sup> Fischl 1998, Pl. 21/10; 22/12, 15; 32/7; 33/1, 5; 43/3, 6; 45/8.
- <sup>87</sup> Soroceanu 1991, Fig. 3/8.
- <sup>88</sup> Fischl *et al*.1999, Pl. 42/2, 4.
- <sup>89</sup> Popescu 1956, Fig. 73/7, 9.
- <sup>90</sup> Gumă 1997, Pl. XXXIII/1, 3, 5–6, 12, 16–17; XXXIV/8.
- <sup>91</sup> Popescu 1956, Fig. 7/2, 11, 13–14; 8/1–4; 11/5; 13/3–4, 8; 16/1, 3–4; 21/1; 24/1; 27/9–10; 29/1–2, 6; 31/3–5, 7; 35/12.
- <sup>92</sup> Gumă 1997, Pl. XXXIV/2–3; 3–4, 13/15.
- 93 Gumă 1997, Pl. XXXVIII/1; XXXIX/4; XL/8–9.
- <sup>94</sup> Popescu 1956, Fig. 7/12; 11/6; 13/5, 9; 21/2–3, 16; 24/2, 6.
- <sup>95</sup> Ordentlich 1971, 32, Fig. 1.
- <sup>96</sup> Kacsó 1972, 39.
- <sup>97</sup> Bader 1978, 32.
- <sup>98</sup> Bóna 1975, 123.
- <sup>99</sup> Soroceanu 1991, Fig. 2.
- <sup>100</sup> Gogâltan 1999, 56.
- <sup>101</sup> Gogâltan 1999, Fig. 15.
- <sup>102</sup> Soroceanu 1991, 20–95, Fig. 1–40.
- <sup>103</sup> E. D. Pădureanu's donation. The artefacts were part of the Gh. Miloi Collection and are currently presered in the storage rooms of the Archaeology and Ancient History Department of the Museum Complex in Arad.
- <sup>104</sup> Gumă 1997, Fig. 5.

<sup>&</sup>lt;sup>76</sup> Gumă 1997, pl. XLIV/10.

#### **HA1-type discoveries** (Pl. 8/13–9/1–2)

Decorated pottery fragments were discovered in the bank of River Mureş, in the area of "Bufniţ", and donated by A. Mătiuţ to the Museum Complex in Arad in 2007. They were thoroughly fired in an oxidizing atmosphere, are brick-red in color, and the fabric has inclusions of sand grains; as for the outer finish of the surface, the pottery is flattened (Pl. 8/13, 9/1) or polished (Pl. 9/2).

Among these pottery fragments, the most representative from the perspective of chronological framing is the one decorated with horizontal grooves and in the lower part with grooves forming a garland (Pl. 9/1). This fragment was most probably part of a bi-trunk-shaped pot, type IV.F according to G. Szabó's typology<sup>105</sup>.

The shape of these bi-trunk pots originates in urns typical to period BD/HA1, that already display characteristic traits such as the bi-trunk-shaped body and decoration on the maximum extremity of the body<sup>106</sup>. The earliest items are those in Biharkeresztes<sup>107</sup>, Doboz<sup>108</sup>, Hódmezővásárhely<sup>109</sup>, Karaburma<sup>110</sup> and Nagyhalász<sup>111</sup>. Among the most recent, one can mention one item from Kalakača<sup>112</sup> (dated sometime during stage HB2-HB3), two items from Teleac, level III<sup>113</sup> (associated by the authors who published the site to stage HB3-HC<sup>114</sup>), and Dej<sup>115</sup>, contemporary to level III in Teleac. The grooves forming garlands that decorate the bi-trunk-shaped pots, and not only, are widely encountered on pottery produced towards the end of the so-called Pre-Gáva Horizon (BD-HA1), in Cornuțel<sup>116</sup>, Jánosszállás<sup>117</sup>, Moldova Nouă "Cariera de banatite"<sup>118</sup>, Polgár<sup>119</sup>, Susani "Grămurada lui Ticu"<sup>120</sup>, Timişoara "Fratelia"<sup>121</sup> and Vladimirescu<sup>122</sup>.

As for the dating of these discoveries, one can state that the pottery fragments found in Arad "Bufniţ" belong to stage HA1.

#### Gornea-Kalakača-type discoveries (Pl. 9/3-8; 10)

All artefacts to be described in the subsequent paragraphs were revealed during the 1976 test excavation performed by E. Dörner and E. Ivanoff, when the site in Arad "Aradu Nou – Cimitirul Ortodox și Catolic" was discovered.

The quality of the firing is in most cases good, though in few cases it is mediocre or poor. As for the type of firing, oxidizing firing predominates, but numerous fragments are fired in a reducing atmosphere. The first type has rendered the fragments orange, red, or brick-red in color, while the latter produced grey and black fragments. In most cases the fabric has inclusions of sand grains and is of the semi-fine category; sand was employed in the case of fine pottery, while sand grains for used in the making of coarse-pottery fragments. As for the pottery categories, semi-fine fabric was employed in the large majority of cases. As for the outer finish, one notes that certain fine and semi-fine fragments were polished, while flattening, in most cases of good quality, was employed for the other fragments.

Bowls are the most often encountered pottery shape in Romanian Banat during this chronological horizon<sup>123</sup>. From this perspective, the site under discussion is similar to the rest of discoveries. Thus,

- <sup>116</sup> Gumă 1993, Pl. XIII/12.
- <sup>117</sup> Szabó 2002, Pl. 35/1–2.
- <sup>118</sup> Gumă 1993, Pl. XVII/3.
- <sup>119</sup> Szabó 2002, Pl. 70/2.
- <sup>120</sup> Stratan, Vulpe 1977, Pl. 6/9, 94.

<sup>&</sup>lt;sup>105</sup> Szabó 2002, Fig. 2, IV.F.

<sup>&</sup>lt;sup>106</sup> Szabó 2002, 45, Fig. 2, IV.B.1.

<sup>&</sup>lt;sup>107</sup> Szabó 2002, Pl. 134/1.

<sup>&</sup>lt;sup>108</sup> Szabó 2002, Pl. 146/6.

<sup>&</sup>lt;sup>109</sup> Szabó 2002, Fig. 26, IV.B.2.

<sup>&</sup>lt;sup>110</sup> Todorović 1977, grob 2, grob 3, grob 49, grob 109, grob 185, grob 226.

<sup>&</sup>lt;sup>111</sup> Kemenczei 1984, Pl. CXXIX/9; Szabó 2002, Fig. 26, IV.B.2.

<sup>&</sup>lt;sup>112</sup> Medović 1988, Fig. 295/10.

<sup>&</sup>lt;sup>113</sup> Vasiliev *et al*.1991, Fig. 32/5, 7.

<sup>&</sup>lt;sup>114</sup> Vasiliev *et al*.1991, 100.

<sup>&</sup>lt;sup>115</sup> Horedt 1964.

<sup>&</sup>lt;sup>121</sup> Gumă 1993, Pl. XVI/3.

<sup>&</sup>lt;sup>122</sup> Pădureanu 1985, Pl. VII/2.

<sup>&</sup>lt;sup>123</sup> Gumă 1993, 200.

a large part of the fragments that could be determined were part of bowls with in-turned rim (Pl. 9/5, 8; 10/1, 3–4). Besides this type, one also finds an example of trunk-shaped bowl (Pl. 10/2). Another element typical to this horizon is the pot with straight neck and globular belly (Pl. 10/5–6).

As for the decoration, oblique grooves that start under the bowl's rim are predominant (Pl. 9/8; 10/1, 3–4). Bowls with in-turned rims can be easily combined with other decorative types, such as incisions places in a simple wave (Pl. 10/4), intersected by vertical, short incisions (Pl. 10/2), or parallel incisions combined with angular ones (Pl. 9/8). One also encounters knobs (Pl. 9/8; 10/11) and prominences (Pl. 10/5). Single fragments display the decoration consisting of alveoli girdles (Pl. 10/9), wide incisions (Pl. 10/10), parallel incisions (Pl. 10/6), and notched girdles (Pl. 10/5).

The type of pottery described above belongs to Gornea-Kalakača-type discoveries, typical to the Romanian Banat. Despite the fact that M. Gumă<sup>124</sup> briefly clarified the issues related to this type of pottery, there are insufficient articles dealing with the topic. Nevertheless, despite such drawbacks, one can identify pertinent analogies in a number of publications<sup>125</sup>.

Bowls with in-turned rim and oblique grooves that start under the rim are among the most often encountered elements, with a significant role in dating<sup>126</sup>. Another typical shape is that of pots with straight neck and globular belly decorated with parallel incisions<sup>127</sup>. Pottery decorated with alveoli girdles can be found in the settlements of Kalakača<sup>128</sup>, Satchinez<sup>129</sup>, Gornea "Căuniţa de Sus"<sup>130</sup>, Gornea "Țărmuri-Pod Păzărişte level I"<sup>131</sup> usually placed under the rim. Bowls decorated with knobs placed under the rim are a common element for the sites in Satchinez<sup>132</sup> and Kalakača, where they are found in large numbers<sup>133</sup>. The bowl fragment illustrated on Pl. IV/10 has the closest analogies in the sites of Gornea "Căuniţa de Sus"<sup>134</sup> and Kalakača<sup>135</sup>. The decoration with narrow grooves, placed horizon-tally, can be found in Giroc "Mescal"<sup>136</sup> and Kalakača<sup>137</sup>. Incisions placed in a simple wave represent the characteristic trait of this cultural group. Such elements usually decorate bowls; items similar to the ones in Arad "Aradu Nou – Cimitirul Ortodox și Catolic" can also be found in Kalakača<sup>138</sup>, Giroc<sup>139</sup>, Satchinez<sup>140</sup> and Giroc "Mescal"<sup>141</sup>.

As previously indicated, the chronological identification of the discoveries analyzed here does not raise many questions. Taking into consideration available analogies, we can state with certainty that the pottery fragments discovered in Arad "Aradu Nou – Cimitirul Ortodox și Catolic" belong to the Gornea-Kalakača-type pottery.

Despite the fact that a small quantity of artefacts was available, we did not identify late elements such as small S-shapes, decorative elements made of spots or small circles<sup>142</sup>. The chronological interval attributed to this pottery category in the present-day territory of Banat is restricted to HB2 and it develops until the first part of HB3, maybe even towards its middle<sup>143</sup>. Due to the fact that the pottery material discovered in Aradu Nou does not contain late elements, indicating a Basarabi influence, or elements typical to the Gáva horizon, it can be dated to the end of stage HB2-first part of stage HB3.

Despite the fact that the pottery in Arad "Aradu Nou – Cimitirul Ortodox și Catolic" was discovered in 1976, five years before M. Gumă brought into discussion for the first time the Bosut IIIa-type

<sup>130</sup> Gumă 1979, Pl. IV/1; Gumă 1993, Pl. LIII/6.

<sup>132</sup> Gumă 1993, Pl. XL/4.

- <sup>134</sup> Gumă 1979, Pl. X/1–3; Gumă 1993, Pl. LI/1, 5–6.
- <sup>135</sup> Medović 1988, Pl. 80/3; 119/3; 165/1; 229/3.
- <sup>136</sup> Gogâltan 1996, Pl. 11/9.
- <sup>137</sup> Medović 1988, Pl. 119/9; 244/5; 264/7
- <sup>138</sup> Medović 1988, Pl. 83/1.
- <sup>139</sup> Gumă 1993, Pl. XLII/6.
- <sup>140</sup> Gumă 1993, Pl. XLVII/4.
- <sup>141</sup> Gogâltan 1996, Pl. 7/4.
- <sup>142</sup> Gumă 1993, 200; Gogâltan 1996, 35.
- <sup>143</sup> Gumă 1993, Fig. 10.

<sup>&</sup>lt;sup>124</sup> Gumă 1993, 194–203.

 $<sup>^{\</sup>rm 125}~$  Gumă 1993, 196, with the bibliography.

<sup>&</sup>lt;sup>126</sup> Gumă 1993, 200.

<sup>&</sup>lt;sup>127</sup> Medović 1988, Pl. 29/4; 66/6; 108/5.

<sup>&</sup>lt;sup>128</sup> Medović 1988, Pl. 10/10; 13/8; 131/8;

<sup>&</sup>lt;sup>129</sup> Gumă 1993, Pl. XLIV/4.

<sup>&</sup>lt;sup>131</sup> Gumă 1979, Pl. XV/1–2.

<sup>&</sup>lt;sup>133</sup> Medović 1988, Pl. 8/1; 10/3-4; 11/9; 14/3; 28/4; 40/3-4; 58/1.

discoveries from Romanian Banat<sup>144</sup>, it was placed in the storage rooms of the Museum Complex in Arad and nobody knew of its existence. Without going into details, one must mention that some of the discoveries made during the 1970s and 1980s are also part of this chronological horizon. Among other sites in the county of Arad that belong to the same type of pottery, we should mention the one in Felnac "Complexul Zootehnic"<sup>145</sup>.

#### Finds dated to the second-fourth centuries<sup>146</sup>

Though numerous and of expressed historical value, archaeological traces of the second-fourth centuries A.D. from the current territory of the city of Arad and the surrounding areas still await an in-depth, but also honest analysis. Until then, these traces<sup>147</sup> can only provide a very partial reconstruction of life during these three centuries, with the acknowledgement of enough speculations. The history of the macro-area of which the territory of the city of Arad is part of is also insufficiently known for these centuries<sup>148</sup>, so that one must make reference to data available for the macro-area, but such an approach is not necessarily very useful.

For this reason, the few available data that we hereby include in the academic circuit must be perceived as such and, at some point in the future, as soon as possible we can hope, they must be absorbed in the above mentioned analysis and, if needed, reinterpreted.

None of the ceramic pots included in the catalogue has been preserved entirely; in most cases it is just the rim, neck (maybe part of the shoulder), and more or less of the lower part with the base that have been preserved. In thus case, we believe that the mention of formal analogies in order to refine their chronology would be superfluous. Nevertheless, there are a few cases in which a larger part of the pots' profile has been preserved and those pots could be employed in the search of such analogies. Still, they were found in distinct topographic areas and thus can no longer be used as chronological indicators; significant samples are required for a settlement to be dated according to the typology of its pottery.

The small number of fragments recovered from each topographic spot with more than a single discovery excludes any type of statistics.

From a global perspective, the majority of pottery items in the repertory here is wheel-thrown, from a fabric that is usually fine (but sometimes with inclusions of large sand grains and even pebbles), fired in a reduction atmosphere, and thus displaying nuances of grey. Such fragments were recovered from all topographic spots. In some of them it was the only type of pottery discovered, but this is certainly just a hazard of recovery (such is the case of discoveries made in spots I, II, III, IV, and VI in the catalogue). Besides, all spots in which this type of pottery was the only one found, it is represented by a single pottery fragment or just a few, and this is suggestive for the above mentioned hazard element.

The range of wheel-thrown pottery shapes in the repertory can be encountered among Roman pottery. The other characteristics of this pottery, such as the type of fabric, the type of firing, and thus implicitly color, place it closer to Sarmatian pottery. It is thus an example of locally produced pottery according to Roman technology. This technology was not assimilated as for the quality and level of firing, as several of the fragments in our catalogue display anomalies produced during the process. Those anomalies were caused by the lack of constant temperature during the entire period of firing. As a consequence, the core of the fragments is darker than their surface; more rarely, it is of a lighter grey color. There are also frequent cases in which dark-brick-red spots are visible on the grey surface of the pots, and the core is also grey.

One of the fragments (spot VIII in the catalogue), belongs to a rejected pot that was fired excessively and thus had a vitrified aspect inside the braking section.

<sup>&</sup>lt;sup>144</sup> Gumă 1981.

<sup>&</sup>lt;sup>145</sup> Pădureanu 1993, 22, Pl. IV/4, 6; Sava 2011.

<sup>&</sup>lt;sup>146</sup> We thank our colleague L. Grumeza, for discussions and literature references.

<sup>&</sup>lt;sup>147</sup> Barbu *et al.*1999, 33–42, *s.v.*: Pt. 1 (e, f), 2 (b, g, i, l, m, n), 4 (d), 5 (a), 6 (e), 7 (b, d, e, g, h), 8 (e, g), 9 (c, e, f), 11 (b, c, e, f), 14 [I. H. Crişan, P. Hügel].

<sup>&</sup>lt;sup>148</sup> To this end Hügel, Barbu 1997, 566–568.

There are also pottery fragments made of a fabric similar to the ones described above but fired in an oxidizing atmosphere – that also display firing failures since some parts of the fragments are grey (VII.5 Inv. No. 16061; VIII.12).

The *terra sigillata* fragment (IV) was part of an imported pot, but one cannot identify the producer. For the time being, it must be considered a singular find<sup>149</sup>.

As for the coarse wheel-thrown pottery, some of it was fired in an oxidizing atmosphere (VII.1.1; VII.4.4; VII.4.6; VII.4.8; VII.4 Inv. No. 16056; VII.5 Inv. No. 16061), another in a reducing atmosphere but still with some oxygen present (VII.1 Inv. No. 16003; VII.2; VII.4 Inv. No. 16044; VII.5 Inv. No. 16078; VII.5 Inv. No. 16079). In some cases the firing might have been in a reducing atmosphere, but with an oxidizing post-firing<sup>150</sup>. The pottery fragments with inclusions of pebbles mainly belong to large size pots.

#### **Catalogue of discoveries**

I. Found during on-surface researches performed by museum employees on the bank of River Mureşului, island I (recording date in the I(nventory) R(egister) – 1956).

Jug neck fragment, wheel-thrown from a fabric with inclusions of fine sand; covered in black-grey engobe; unoxidizing firing; grey color, but one part of the fragment's surface turns to dark-brick-red; polished look;  $\emptyset$  max. neck = ca. 6 cm, H = 4.8 cm. Inv. No. 13067 (Pl. 11/4).

II. Found during on-surface researches performed by museum employees on the bank of River Mureșului, island III (recording date in the I. R. – 1956).

Fragmentarily preserved high bowl, a large part of the base broken, lacking most of the body and the entire upper part; rather visibly rolled; wheel-thrown from a fine fabric with inclusions of fine sand but also rather numerous large sand grains and even pebbles; unoxidizing firing; grey color; Ø base = ca. 9 cm, preserved H = ca. 15.5 cm. Inv. No. 13072 (Pl. 11/5).

III. Found during on-surface researches performed by museum employees on the bank of River Mureșului, island III and the surrounding area (recording date in the I. R. – 1956).

1. Fragment from a pot's rim and shoulder; wheel-thrown, made of fine fabric with inclusions of fine sand but also larger sand grains; grey-blackish engobe; unoxidizing firing; grey color of the outer surface, dark-brick-red color of the inner surface, grey-blackish core; decorated on the shoulder with one groove and one furrow;  $\emptyset$  mouth = 16 cm, rim thickness = 2.3 cm, H = 7.9 cm, L = 15 cm. Inv. No. 13079 (Pl. 11/22).

2. Fragment from a tureen, rolled, wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; grey-black engobe, poorly preserved; unoxidizing firing; grey color;  $\emptyset$  base = ca. 11 cm, H = 4.8 cm, L = 8.1 cm. Inv. No. 13081 (Pl. 11/7).

3. Fragment from the base and lower part of a tureen, rolled; wheel-thrown from a fine fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color;  $\emptyset$  base = ca. 10 cm, H = 5 cm, L = 9.7 cm. Inv. No. 13082 (Pl. 11/6).

4. Fragment from a pot's rim and shoulder, nicked rim, rolled; wheel-thrown from fine fabric with inclusions of fine sand but also a few larger sand grains; unoxidizing firing; grey color; upper part of the shoulder decorated with a furrow;  $\emptyset$  rim = ca. 9 cm, H = 7.6 cm, L = 9.1 cm. Inv. No. 13084 (Pl. 11/1).

5. Fragment from the shoulder and upper body part of a jug; wheel-thrown from fine fabric with inclusions of fine sand but also larger sand grains; grey color; decorated through polishing; H = 8.6 cm, L = 7.4 cm. Inv. No. 13087 (Pl. 11/3).

To these one can add three large-size, atypical fragments (Inv. No. 13073, 13074, and 13078) from wheel-thrown vessels made of fabric with inclusions of fine sand, coarse sand, and even pebbles; unoxidizing firing, grey color; one of the fragments (Inv. No. 13073) has a darker grey core and another (Inv. No. 13074) shows traces of secondary firing.

IV. Through a chance find made by two pupils of the General School No. 4 near the bridge in Aradul Nou (Traian Bridge), in the sand (recording date in the I. R. – 1973).

<sup>&</sup>lt;sup>149</sup> About another fragment reproduced in Barbu, Ivanof 1970, 74, reportedly found in Aradul Nou, the Inventory Register records that it was part of an exchange with the Hungarian National Museum, Budapest (Inv. No. 1672).

<sup>&</sup>lt;sup>150</sup> See for this, Rusu-Bolindeț 2007, 60.

The lower part of tureen, with a strongly damaged base, rolled; wheel-thrown from a fine fabric with inclusions of fine sand and numerous pebbles; unoxidizing firing; grey color; inside, on the tureen's surface, one finds residues of the fabric that were fired together with the pot;  $\emptyset$  base = ca. 12.5 cm, H = 10.5 cm. Inv. No. 15331 (Pl. 15/9).

V. Discovered by E. Dörner in the area of "Bufniţ", close to the Mureş, towards Zădăreni (recording date in the I. R. – 1976).

Fragment from a *terra sigilatta* pot, rolled; brick-red engobe with metallic shine; L = 7 cm, H = 2.6 cm. Inv. No. 15741 (Pl. 13/7).

VI. From the donation of High School No. 4 (Aradu-Nou "Fostul Liceu Nr. 4"), from a discovery made behind the Woodworking Professional High School (Nopcea castle) (recording date in the R. I. – 1976).

Small jug with part of the rim, neck, and shoulder, but missing parts from the area where the upper part of the handle was attached; handle missing completely; wheel-thrown from a fine fabric with inclusions of numerous large sand grains; unoxidizing firing; grey color;  $\emptyset$  mouth = 4.2 cm,  $\emptyset$  max. = 7.8 cm,  $\emptyset$  base = 4.3 cm, H = 9.4 cm, rim thickness = 0.4 cm, base thickness = 1.4 cm. Inv. No. 15751 (Pl. 15/8).

VII.1. Excavations by E. Dörner, test trench A (recording date in the I. R. – 1976); "Cimitirul Ortodox și Catolic". 1. Fragment from the rim, shoulder, and belly of a bowl; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; oxidizing firing; brown-brick-red color;  $\emptyset$  pot = 16 cm, rim thickness = 0.9 cm, L = 5.2 cm, H = 5.1 cm. Inv. No. 16000 (Pl. 14/5).

An atypical fragment was found in the same location. It was part of a pot made by hand from a coarse fabric with inclusions of pebbles; unoxidizing firing, blackish core and brick-red outer surface. Inv. No. 16003.

VII.2. Excavations by E. Ivanof, test trench C (recording date in the I. R. – 1976); "Cimitirul Ortodox și Catolic".

An atypical fragment was recovered from this test trench. It was part of a pot made by hand from a coarse fabric with inclusions of large sand grains and numerous pebbles; unoxidizing firing; core and surface inside the pot were blackish, the surface outside the pot is brick-red. Inv. No. 16032.

VII.3. Excavations by E. Dörner, test trench B (recording date in the I. R. – 1976); "Cimitirul Ortodox și Catolic". 1. Fragment from a bowl's rim; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; brick-red-brown color with blackish core; covered in grey-blackish engobe; Ø pot = ca. 29 cm, rim thickness = 1.1 cm, L = 7.5 cm, W = 4.2 cm. Inv. No. 16018 (Pl. 14/9).

2. Loom weight fragment, obtained from the reuse of a pot base that was perforated; strongly deteriorated; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color;  $\emptyset$  = ca 9 cm, min. thickness = 1.4 cm, max. thickness cannot be estimated. Inv. No. 16021 (Pl. 15/4). For analogies, see for example Sóskuti 2010, 182; 4. kép 18, 19.

One more atypical fragment was recovered from this test trench. It was part of a wheel-thrown pot made of a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color. Inv. No. 16019.

VII.4. Excavations by E. Dörner, test trench I (recording date in the I. R. – 1976); "Cimitirul Ortodox și Catolic".

1. Fragment from a bowl's rim; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color;  $\emptyset$  rim = ca. 17 cm, rim thickness = 1.8 cm, L = 6.2 cm, H = 3.7 cm. Inv. No. 16035 (Pl. 14/6).

2. Fragment from a bowl's rim; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color;  $\emptyset$  rim = ca. 29 cm, rim thickness= 1.6 cm, L = 3.9 cm, H = 2.5 cm. Inv. No. 16036 (Pl. 14/8).

3. Fragment from a bowl's rim; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; brick-red-brown color with blackish core; covered in dark-grey engobe;  $\emptyset$  mouth = ca. 20 cm, rim thickness = 1.4 cm, L = 3.6 cm, H = 3.7 cm. Inv. No. 16037 (Pl. 14/4).

4. Fragment from a pot's rim; wheel-thrown from a fabric with inclusions of large sand grains and pebbles; oxidizing firing; brick-red color;  $\emptyset$  rim = ca. 9 cm, rim thickness = 1.5 cm, L = 2.9 cm, H = 2.1 cm. Inv. No. 16038 (Pl. 15/2).

5. Fragment from the base of a bowl? tureen?; wheel-thrown from a fabric with inclusions of fine sand but also a few larger sand grains; unoxidizing firing; grey color but there are also parts on the surface inside the pot that are brick-red; Ø base = ca. 15 cm, L = 6.8 cm, W = 2.4 cm, H = 2.4 cm. Inv. No. 16039 (Pl. 15/7).

6. Fragment from a tureen's base; wheel-thrown from a fabric with inclusions of coarse sand and numerous pebbles; oxidizing firing; brick-red color, in some areas turning grey;  $\emptyset$  base = ca. 9 cm, L = 5.8 cm, W = 4.6 cm, H fragment = 1.4 cm. Inv. No. 16043 (Pl. 15/6).

7. Fragment from a pot's handle; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; the core is of a lighter grey than the outer surface of the fragment, and brick-red areas can be seen of that surface; H = 5.6 cm.,  $\emptyset$  = 1.8 (2.3) cm. Inv. No. 16045 (Pl. 15/1).

8. Fragment from a pot's rim; wheel-thrown from a fabric with inclusions of coarse sand and pebbles; oxidizing firing; brick-red color;  $\emptyset$  mouth = ca. 16 cm, rim thickness = 1.2 cm, L = 3.2 cm, H = 2.4 cm. Inv. No. 16051 (Pl. 15/3).

9. Fragment from a pot's base; wheel-thrown from a fabric with inclusions of fine sand; unoxidizing firing; grey color; grey-blackish engobe;  $\emptyset$  base = ca. 11 cm, L = 4.2 cm, H = 1.9 cm. Inv. No. 16057 (Pl. 15/5).

Several fragments from atypical pots were also found in this test trench. They are inventoried under Inv. No. 16042 (belonging to a wheel-thrown pot, made of a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color but with the outer surface inside the pot turning to dark brick-red); 16044 (from a wheel-thrown pot made of a fabric with inclusions of large-grain sand and numerous pebbles; unoxidizing firing; blackish core, dark brick-red outer surface that turns to dark blackish-grey inside and in some areas outside the pot); 16047 (from a wheel-thrown pot made of a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color); 16048 (from a large pot; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color); 16056 (once part of a wheel-thrown pot made of a fabric with inclusions of fine sand but also larger sand grains and even pebbles; oxidizing firing but a thin part of the core is grey and the surface inside the pot is also blackish-grey in color).

VII.5. Excavations by E. Dörner, test trench II (recording date in the I. R. – 1976); "Cimitirul Ortodox și Catolic".

This test trench has only revealed atypical fragments, inventoried under Inv. No. 16061 (from a wheel-thrown pot made of a fabric with inclusions of fine sand but also larger sand grains; oxidizing firing; brick-red color, but also grey areas); 16064 (from a wheel-thrown pot made of a fabric with inclusions of fine sand; unoxidizing firing; grey color); 16078 (from a wheel-thrown pot made of coarse fabric with inclusions of large-grain sand and numerous pebbles; unoxidizing firing; grey core, outer surface inside the pot turning to dark-brick-red, the outer surface outside the pot brick-red); 16079 (from a wheel-thrown pot made of coarse fabric with inclusions of large-grain sand and numerous pebbles; unoxidizing firing; blackish color but one brick-red area on the surface outside the pot).

VII.6. On-surface discoveries by E. Dörner, on the plot of the Orthodox Cemetery, outside the concrete fence. Fragment from a bowl's rim; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color;  $\emptyset$  mouth = ca. 29 cm, rim thickness = 2.5 cm, L = 4.8 cm, H = 2 cm. Inv. No. 15998 (Pl. 14/7).

VIII. Un-inventoried. According to the two notes written by E. Dörner that were kept with the items, the pot fragments repertoried below are the result of two on-surface researches performed on 10.05.1967 and 18.09?.1972 in the area of "Bufnit".

1. Fragment from a pot's handle and body; made of a fabric with inclusions of fine sand; polished; unoxidizing firing; grey color; H = 10.3 cm, thickness = 1.8 (2.2) cm; (Pl. 13/6).

2. Fragment from a pot's handle, deteriorated; made of a fabric with inclusions of fine sand, larger sand grains, and even pebbles; polished; unoxidizing firing; grey color; H = 12.5 cm, thickness = 1.8 (2.2) cm; (Pl. 13/9).

3. Fragment from a tureen's base; wheel-thrown from a fabric with inclusions of fine sand; unoxidizing firing; grey color but lighter grey core;  $\emptyset$  base = ca. 9 cm, H = 3.2 cm; (Pl. 14/1).

4. Fragment from a pot's handle; wheel-thrown from a fabric with inclusions of fine sand but also larger sand grains; unoxidizing firing; grey color; H = 6.1 cm, thickness = 1.8 (1.9) cm; (Pl. 13/10).

5. Fragment from a pot's rim; wheel-thrown from a fabric with inclusions of fine sand; unoxidizing firing; grey color;  $\emptyset$  rim = ca. 14 cm, rim thickness = 1.9 cm, L = 5.8 cm, H = 2.4 cm (Pl. 12/2).

6. Fragment from a jug's rim and handle; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color;  $\emptyset$  rim = ca. 9 cm, rim thickness = 1 cm, L = 4.8 cm, H = 4.4 cm, handle thickness = 1.9 (2.8) cm; (Pl. 13/1).

7. Fragment from a pot's handle; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color; H = 5.8 cm, thickness = 1.8 (2.5) cm; (Pl. 13/8).

8. Bowl fragment, missing the base; wheel-thrown from a fabric with inclusions of fine sand; unoxidizing firing; grey color;  $\emptyset$  mouth = ca. 18 cm, rim thickness = 1 cm, L fragment = 8.4 cm, H fragment = 7.3 cm; (Pl. 13/2).

9. Fragment from a pot's rim; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color;  $\emptyset$  mouth = ca. 16 cm, rim thickness = 2.2 cm, L = 7.1 cm, H = 4.1 cm; (Pl. 12/6).

10. Fragment from a pot's rim; wheel-thrown from a fabric with inclusions of fine sand; unoxidizing firing; grey color; Ø mouth = ca. 23 cm, rim thickness = 3 cm, L = 7.3 cm, H = 3.2 cm; (Pl. 12/8).

11. Fragment from a tureen's rim; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color;  $\emptyset$  mouth = ca. 21 cm, rim thickness = 1.7 cm, L = 4.4 cm, H = 2.8 cm; (Pl. 12/5).

12. Fragment from a bowl's rim and body; wheel-thrown from a fabric with inclusions of fine sand; oxidizing firing; brick-red color but areas that turn grey; brick-red engobe with darker spots;  $\emptyset$  mouth = ca. 21 cm, rim thickness = 0.8 cm, L = 6.2 cm, H = 3.4 cm; (Pl. 12/4).

13. Fragment from a bowl's rim, deteriorated; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color; grey engobe;  $\emptyset$  mouth = ca. 26 cm, rim thickness = 1.4 cm, L = 4.6 cm, H = 2.5 cm; (Pl. 12/7).

14. Fragment from a pot's rim; wheel-thrown from a fabric with inclusions of fine sand; unoxidizing firing; grey color; grey engobe;  $\emptyset$  mouth = ca. 12 cm, rim thickness = 1.3 cm, L = 3.6 cm, H = 2.8 cm; (Pl. 12/1).

15. Fragment from a bowl's rim; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color, but darker grey core;  $\emptyset$  mouth = ca. 18 cm, rim thickness = 2 cm, L = 3.7 cm, H = 2.1 cm; (Pl. 12/3).

16. Fragment from a bowl's rim; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color; rim thickness = 0.9 cm, L = 3.3 cm, H = 3.8 cm; (Pl. 13/5).

17. Fragment from a bowl's rim and shoulder; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color;  $\emptyset$  mouth = ca. 24 cm, rim thickness = 1 cm, L = 5.5 cm, H = 4.6 cm; (Pl. 12/9).

18. Fragment from a tureen's base; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color outside and blackish core;  $\emptyset$  base = 9 cm, base thickness = ca 1.2 cm, L = 6.4 cm, H = 4.7 cm (Pl. 14/2).

19. Fragment from a tureen's base; wheel-thrown from a fabric with inclusions of fine sand; unoxidizing firing; grey color outside but the core displays a slightly brick-red hue and some of it is grey;  $\emptyset$  base = 9 cm, L = 6.2 cm, H = 5.4 cm (Pl. 14/3).

20. Fragment of a decorated pot; wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; grey color; L = 3.2 cm, H = 4.5 cm (pl. 13/4).

To these one can add 6 atypical fragments from large pots (a fact indicated by their thickness), wheel-thrown from a fabric with inclusions of fine sand and larger sand grains; unoxidizing firing; core or parts of it grey, brick-red outer surface with some grey areas.

Twelve more atypical fragments were once part of wheel-thrown pots made of a fabric with inclusions of fine sand and larger sand grains (the fabric of one of the fragments displays a higher proportion of larger sand grains); unoxidizing firing; grey color, six of the fragment have the core of darker grey color than the outer surface, but one has lighter grey core, a brick-red spot can be seen on the outer surface of one fragment, while another was covered in grey-blackish engobe; as for their decoration, two fragments include one groove and two others shallow furrows.

One should also mention one handle from a pot made of a fabric with inclusions of fine sand but also larger sand pebbles, brick-red in color; and also another handle that was once part of a pot made of a fabric with inclusions of fine sand, larger sand grains, and even pebbles, grey in color.

Finally, one fragment was part of a rejected pot, with a vitrified aspect in section; brick-red color but some of the core and the outer surface are grey.

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Luca 1987	S. A. Luca, Discuții asupra materialului ceramic din stațiunea neolitică de la Lipova – "Hodaie". Apulum XXIII, 1987, 43–53
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Posea 1997	G. Posea, Câmpia de vest a României (câmpia banato-crișană). București 1997.
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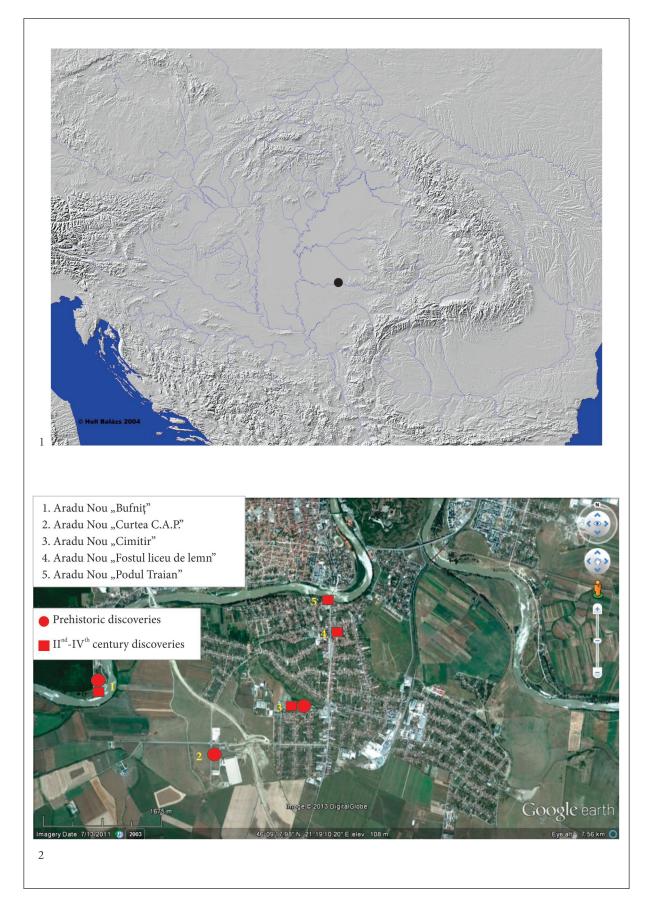


Plate 1. 1. Carpathian Basin map with the localisation of Arad city; 2. Aradu Nou quarter satellite photography with the localisation of the sites mentioned in text.

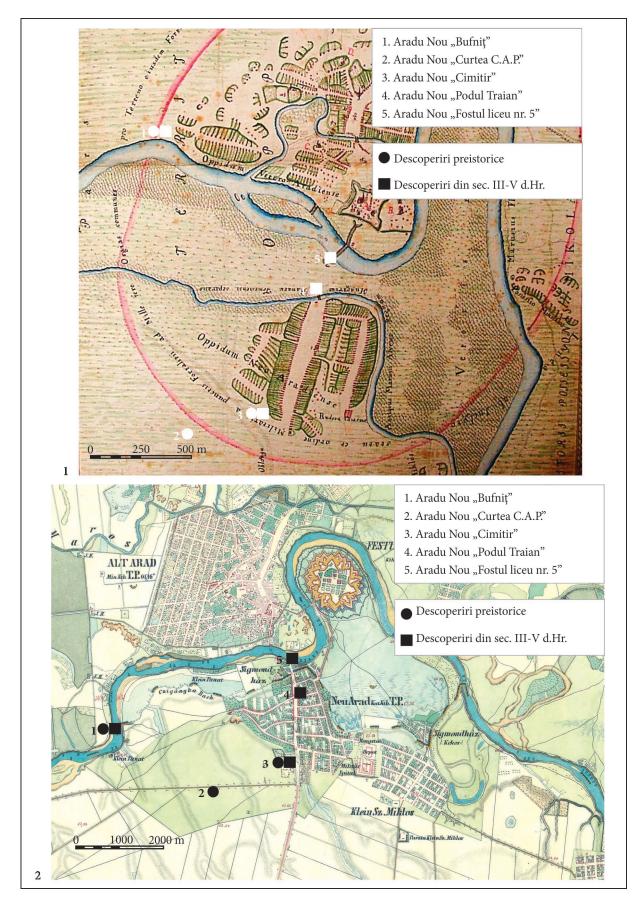


Plate 2. 1. 1751 map of Arad city with the localisation of archaeological discoveries from Aradu Nou quarter; 2. XIXth century map of Arad city with the localisation of the sites.

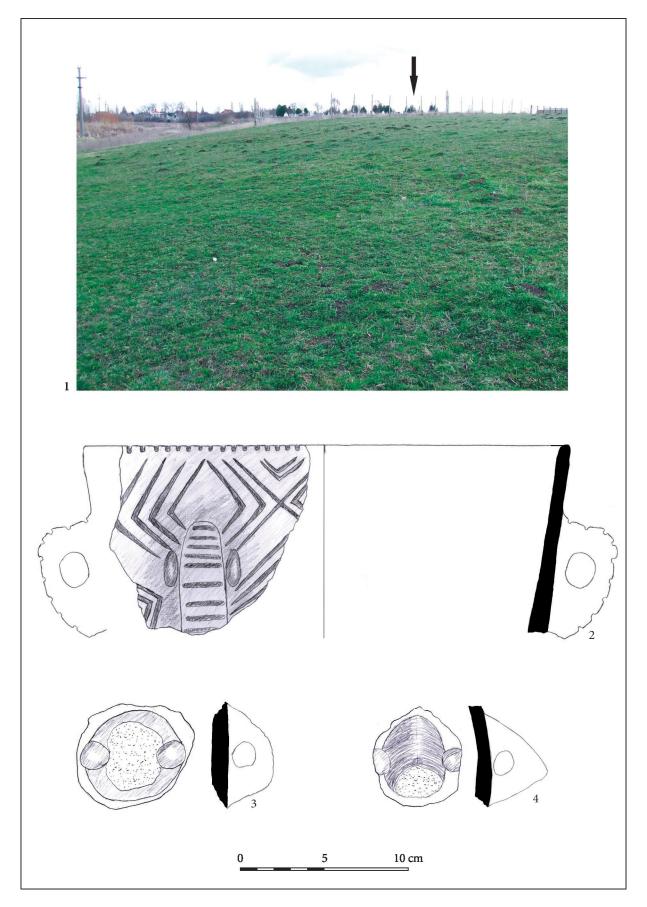


Plate 3. 1. Photo of Arad "Aradu Nou – Orthodox and Catholic Cemetery" site; 2. Vinča C type pottery , "Bufniț"; 3-4. Tiszapolgár type pottery, "Bufniț".

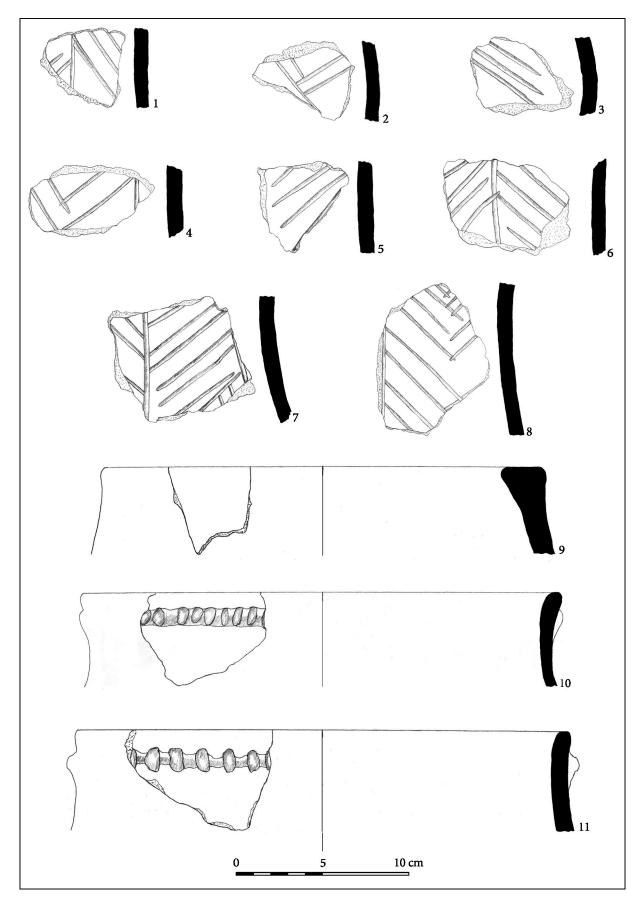


Plate 4. 1-8. Baden type pottery, "Grădina C.A.P."; 9-11. Cornești-Crvenka type pottery, "Bufniț".

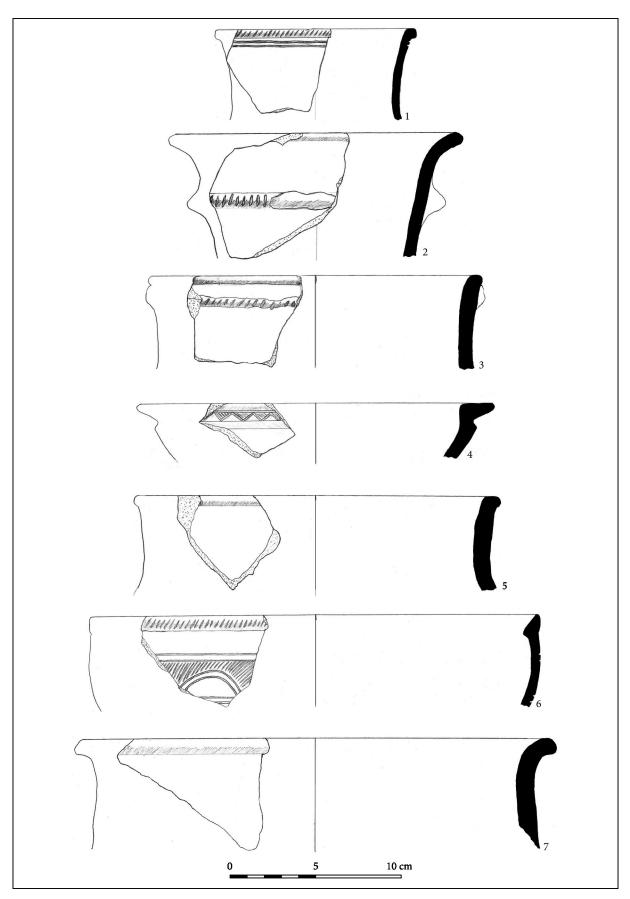


Plate 5. Cornești-Crvenka type pottery, "Bufniț".

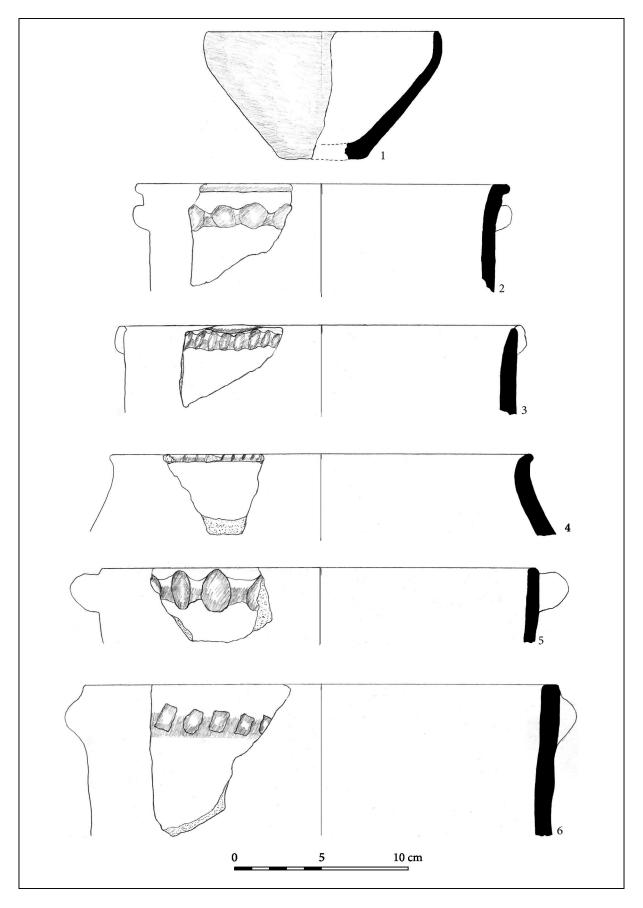


Plate 6. Cornești-Crvenka type pottery, "Bufniț".

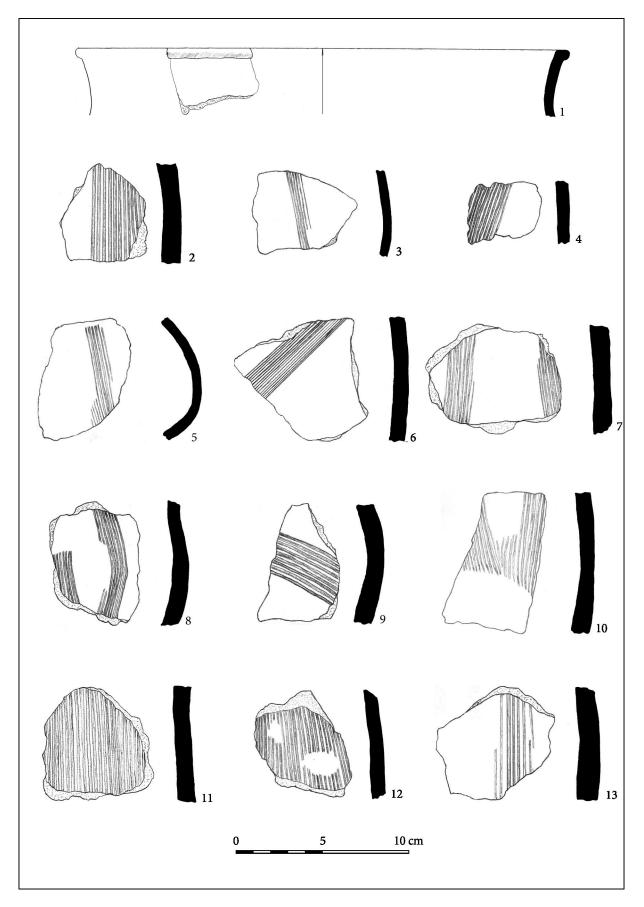


Plate 7. Cornești-Crvenka type pottery, "Bufniț".

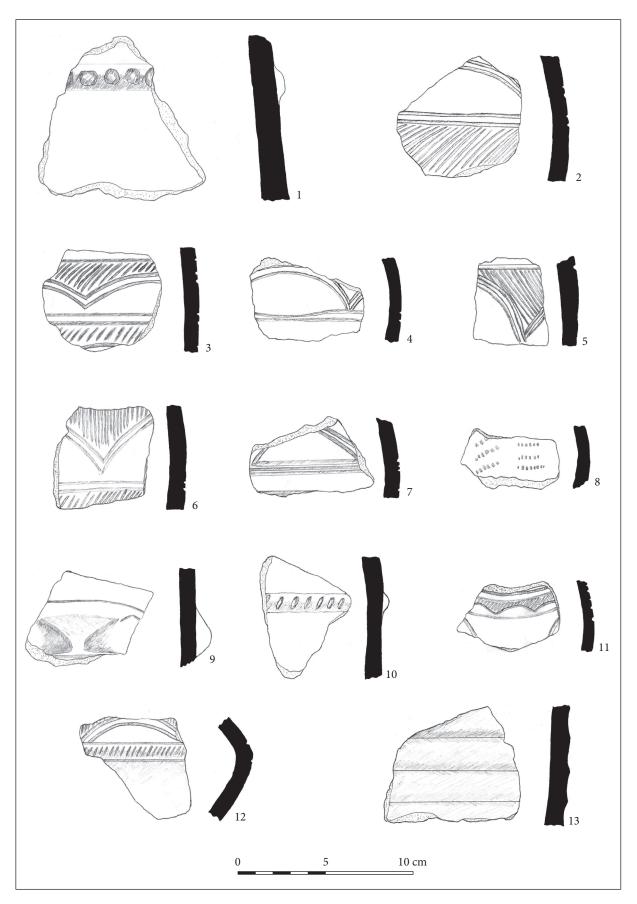


Plate 8. 1-12. Cornești-Crvenka type pottery, "Bufniț"; 13. HA1 chronological horizon pottery, "Bufniț".

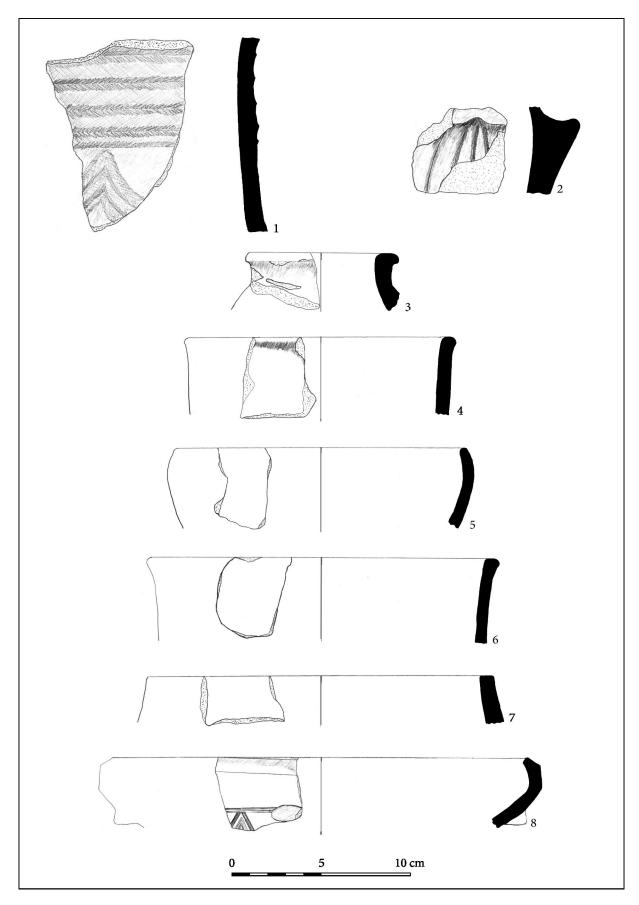


Plate 9. 1-2. HA1 chronological horizon pottery, "Bufniţ"; 3-8. Gornea-Kalakača type pottery, "Cimitirul Ortodox și Catolic".

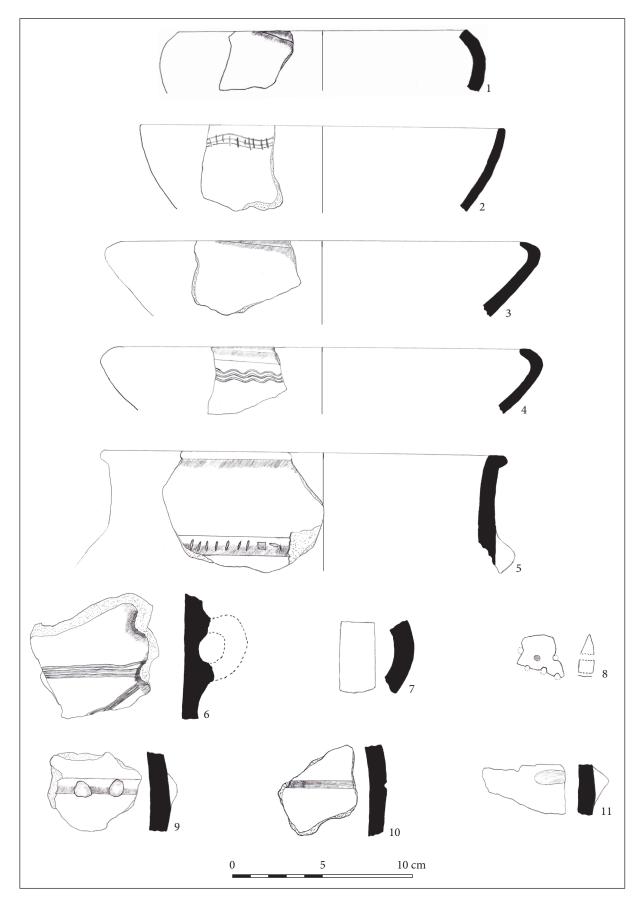


Plate 10. Gornea-Kalakača type pottery, "Cimitirul Ortodox și Catolic".

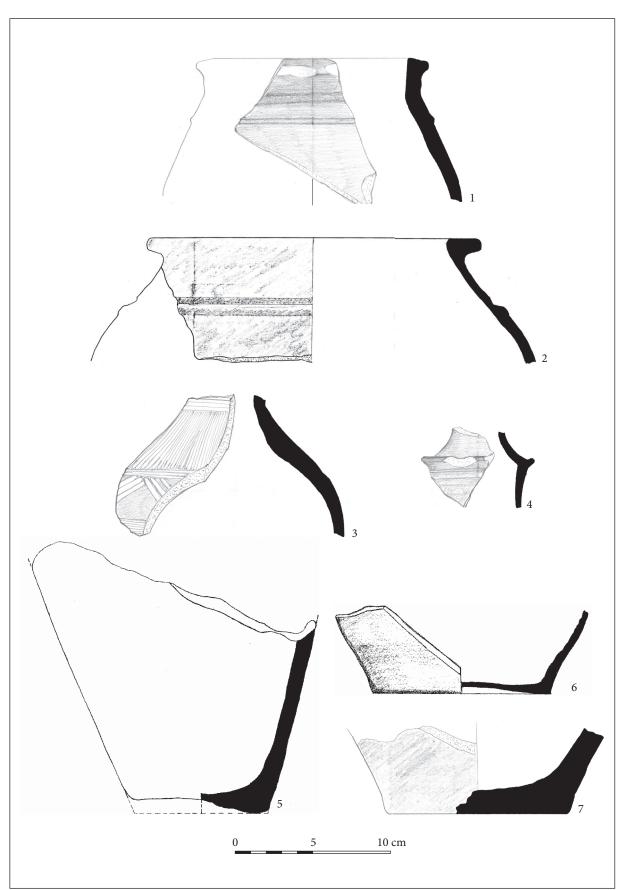


Plate 11. 2nd-4th centuries pottery, "Bufniț".

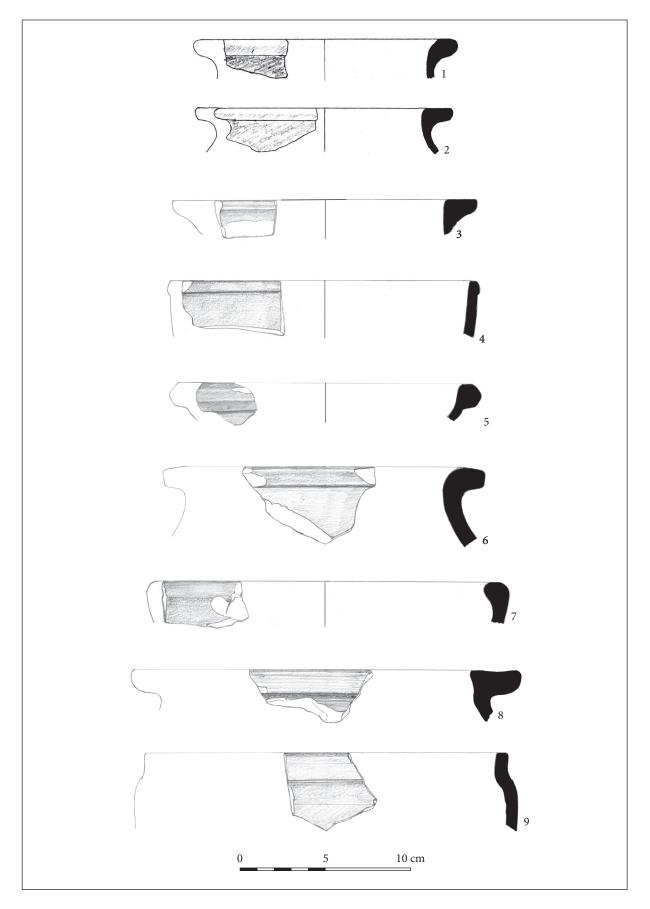


Plate 12. 2nd-4th centuries pottery, "Bufniț".

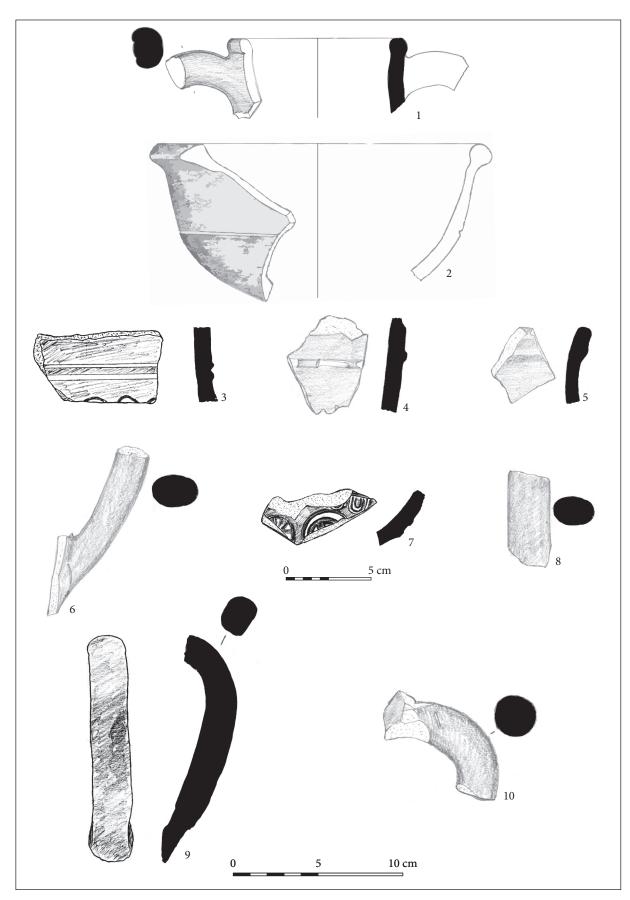


Plate 13. 2nd-4th centuries pottery, "Bufniț".

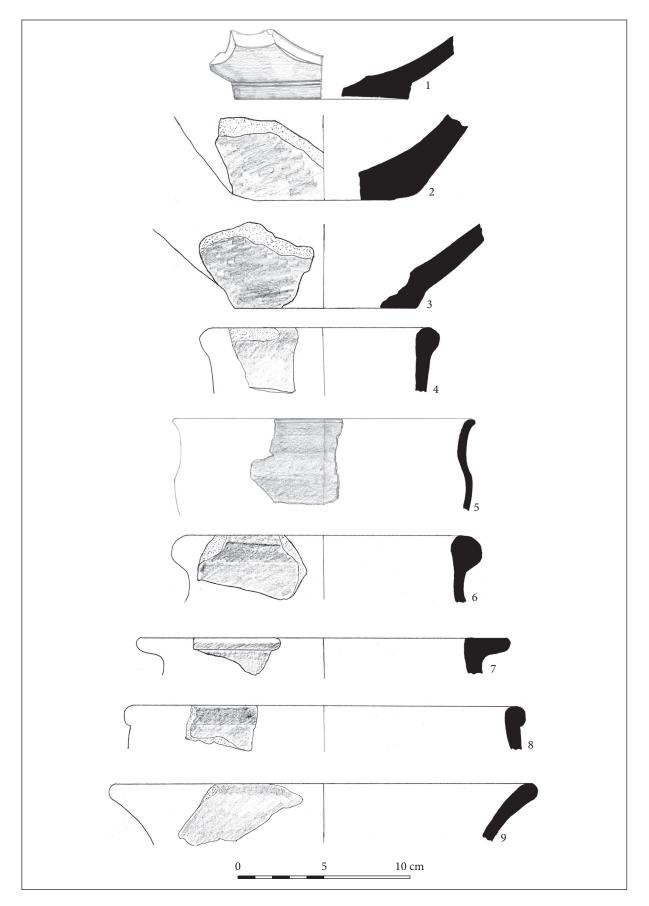


Plate 14. 2nd-4th century pottery. 1-3. "Bufniţ"; 4-9. "Cimitirul Ortodox și Catolic".

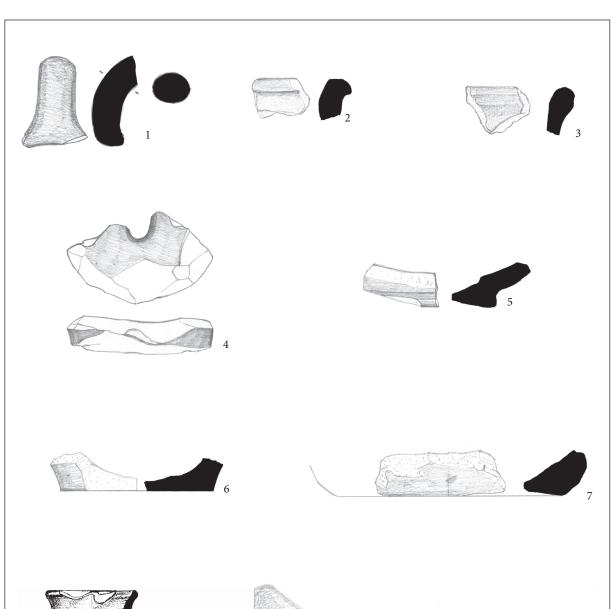


Plate 15. 2nd-4th century pottery. 1-8. "Cimitirul Ortodox și Catolic"; 9-11. "Fostul liceu nr. 4"; 12. "Podul Traian".

5

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10 cm

9

## Abbreviations

AAC AARMSI ACSSTU ActaArchHung	Acta Archaeologica Carpathica. Cracovia. Analele Academiei Române. Memoriile Secțiunii Istorice. București. Annals. Computer Science Series Tibiscus University. Timișoara. Acta Archaeologica Academiae Scientiarum Hungaricae. Budapest.
AÉ	Archaeologiai Értesitõ. Budapest.
AGGH	Acta Geodaetica et Geophysica Hungarica. Budapest.
AIINC	Anuarul Institutului de Istorie Națională Cluj. Cluj-Napoca.
AISC	Anuarul Institutului de Studii Clasice. Sibiu.
AJPA	American Journal of Physical Anthropology. New York.
Alba Regia	Alba Regia. Annales Musei Stephani Regis. Az István Király Múzeum
Alba Regia	Közleményei. Székesfehérvár.
AMN	Acta Musei Napocensis. Cluj-Napoca.
AMP	Acta Musei Porolissensis. Muzeul Județean de Istorie și Artă
	Zalău. Zalău.
AnB S.N.	Analele Banatului, Serie nouă. Timișoara.
Analele ANTIM	Analele Asociației Naționale ale Tinerilor Istorici din Moldova. Chișinău.
Apulum	Apulum. Alba-Iulia.
ArchKorrbl	Archäologisches Korrespondenzblatt. Urgeschichte, Römerzeit, Frühmittelalter. Mainz.
ArhMed	Arheologia Medievală. Brăila, Reșița, Cluj-Napoca.
AS	Acta Siculica. Sepsiszentgyörgy/Sfântu Gheorghe.
ATS	Acta Terrae Septencastrensis. Sibiu.
AUVT	Annales d'Université Valahia Targoviste, Section d'Archéologie et d'Histoire. Târgoviște.
BAM	Brykenthal Acta Mysei. Sibiu.
BAR International Series	British Archaeological Reports, International Series. Oxford.
Banatica	Banatica. Muzeul Banatului Montan. Reșița.
BÁMÉ	A Béri Balogh Ádám Múzeum Évkönyve. Szekszárd.
BCŞS	Buletinul Cercurilor Științifice Studențești. Istorie-Arheologie-Muzeologie. Alba Iulia.
BerRGK	Bericht der Römisch-Germanischen Komission des Deutschen Archäologischen Instituts, Frankfurt a. M Berlin.
ВНАВ	Bibliotheca Historica et Archaeologica Banatica. Timișoara.
BSNR	Buletinul Societății Numismatice Române. Societatea Numismatică Română.
	București.
Caietele CIVA	Caietele CIVA. Cercul de Istorie Veche și Arheologie. Alba Iulia.
CCA	Cronica cercetărilor arheologice. București.
CCDJ	Cultură și civilizație la Dunărea de Jos. Muzeul Dunării de Jos. Călărași.
CN	Cercetări Numismatice. Muzeul Național de Istorie a României. București.
CNA	Cronica Numismatică și Arheologică, Societatea Numismatică Română. București.
Corviniana	Corviniana. Acta Musei Corvinensis. Hunedoara.
Crisia	Crisia, Muzeul Țării Crișurilor, Oradea.
Cumania	Cumania. A Bács-Kiskun Megyei Önkormányzat Múzeumi Szervezetének Évkönyve. Kecskemét.
Dacia N.S.	Dacia. Recherches et Découvertes Archéologiques en Roumanie, București; seria nouă (N.S.): Dacia. Revue d'Archéologie et d'Histoire Ancienne. București.
DMÉ	A Debreceni Déri Múzeum Évkönyve. Debrecen.
DolgKolozsvár	Dolgozatok az Erdély Nemzeti Múzeum Érem- és Régiségtárából (Travaux de la section numismatique et archéologique du Musée National de Transylvanie). Kolozsvár/Cluj-Napoca.

#### • *Abbreviations*

DolgSzeged	Dolgozatok a Szegedi Tudományegyetem Régiségtudományi Intézetéből. Szeged.
Drobeta	Drobeta. Muzeul Regiunii Porților de Fier. Drobeta Turnu-Severin.
EME	Erdélyi Múzeum Egyesület. Cluj-Napoca.
EphNap	Ephemeris Napocensis. Cluj-Napoca.
ETF	Erdélyi Tudományos Füzetek – Erdélyi Múzeum Egyesület. Kolozsvár/ Cluj-Napoca.
FdI	File de istorie, Muzeul de Istorie. Bistrița.
FolArch	Folia Archaeologica. A Magyar Nemzeti Múzeum Évkönyve. Annales Musei Nationalis Hungarici. Budapest.
Germania	Germania. Anzeiger der Römisch-Germanischen Komission des Deutschen Archäologischen Instituts. Berlin.
História	História – történelmi folyóirat. Budapest.
HK	Hadtörténelmi Közlemények. Budapest.
HOMÉ	A Herman Ottó Múzeum Évkönyve. Miskolc.
Istros	Istros. Muzeul Brăilei. Brăila.
JAHC	Journal for the Association of History and Computing. Michigan University.
JahrbRGZM	Jahrbuch des Römisch-Germanischen Zentralmuseums zu Mainz, Mainz.
JAMÉ	Janus Pannonius Múzeum Évkönyve. Pécs.
KL	Kartografické listy. Bratislava.
Korall	Korall Társadalomtörténeti Folyóirat. Budapest.
Közl	Közlemények az Erdélyi Nemzeti Múzeum Érem- és Régiségtárából.
	Kolozsvár/Cluj-Napoca.
Lucrări	Lucrări Științifice. Istorie-Științe-Pedagogie, Institutul Pedagogic. Oradea.
GT	Geographia Technica. International Journal of Technical Geography. Cluj-Napoca.
Marisia	Marisia. Marisia. Studii și materiale. Arheologie – Istorie – Etnografie.
MOA	Târgu-Mureș.
MCA	Materiale și Cercetări Arheologice. București.
MEKSB	A Miskolci Egyetem Közleménye. A sorozat, Bányászat. Miskolc.
MFMÉ StudArch	A Móra Ferenc Múzeum Évkönyve. Studia Archaeologica. Szeged.
MFMÉ MonArch	A Móra Ferenc Múzeum Évkönyve. Monumenta Archeologica. Szeged.
MHB	Monumenta Historica Budapestinensia. Budapest.
MIM	Materiale de Istorie și Muzeografie, Muzeul de Istorie a Municipiului
	București.
MSW	Materialy Starozytne Wczesnosredniowieczne. Kraków.
MW	Materialy Wczesnośredniowieczne. Kraków-Wrocław-Warsawa.
NK	Numizmatikai Közlöny, Magyar Numizmatikai Társulat. Budapest.
NNT	Norsk Numismatisk Tidsskrift.
NZ	Numismatische Zeitschrift, herausgegeben von der numismatischen Gesellschaft in Wien. Wien.
OJA	Oxford Journal of Archaeology, Oxford.
OpHung	Opuscula Hungarica. Budapest.
PBF	Praehistorische Bronzefunde.
Potaissa	Potaissa. Studii și comunicări. Turda.
PZ	Prähistorische Zeitschrift. Berlin.
Régészeti Füzetek	Régészeti Füzetek. Magyar Nemzeti Múzeum. Budapest.
RÉSÉE	Revue des Études Sud-Est Éuropéenes. l'Institut d'Études Sud-Est Européennes de l'Académie Roumaine. București.
RI	Revista de Istorie, Institutul de Istorie "Nicolae Iorga". București.
RM	Revista Muzeelor. Centrul pentru Formare, Educație Permanentă și Management în Domeniul Culturii. București.
RRH	Revue Roumaine d'Histoire, Academia Română. București.
Sargetia	Sargetia, Muzeul Civilizației Dacice și Romane Deva.

Savaria	Savaria – a Vas megyei múzeumok értesítője. Pars historico-naturalis.
bavaria	Szombathely.
SCIVA	Studii și Cercetări de Istorie Veche (și Arheologie). București.
SCN	Studii și Cercetări Numismatice. Institutul de Arheologie "Vasile Pârvan".
	București.
SCȘI	Studii și Cercetări Științifice. Istorie.
SIB	Studii de Istorie a Banatului. Universitatea de Vest Timișoara.
SlovArch	Slovenská Archeológia. Bratislava.
SMIM	Studii și Materiale de Istorie Medie. Institutul de Istorie "Nicolae Iorga". București.
SMK	Somogyi Múzeumok Közleményei. Kaposvár.
SSCR	Social Science Computer Review. North Carolina State University.
Speculum	Speculum. Cambridge Journals Online. Cambridge.
StComCaransebeş	Studii și Comunicări. Etnografie. Istorie. Caransebeș.
StComSatuMare	Studii și Comunicări. Satu Mare.
Stratum plus	Stratum plus Journal. High Anthropological School University. Cultural Anthropology & Archaeology.
Studia Caroliensia	Studia Caroliensia. A Károli Gáspár Református Egyetem szakfolyóirata. Budapesta.
Studia Comitatensia	Studia Comitatensia. Tanulmányok Pest Megye Múzeumaiból. Szentendre.
Századok	Századok. A Magyar Történelmi Társulat Folyóirata. Budapest.
Terra Sebus	Terra Sebus. Acta Musei Sabesiensis. Sebeș.
Thraco-Dacica	Thraco-Dacica. București.
Transilvanian Review	Transilvanian Review/Revue de Transylvanie. Cluj-Napoca.
TS	Történelmi Szemle. A Magyar Tudományos Akadémia Történettudományi
	Intézetének Értesitöje. Budapest.
UPA	Universitätsforschungen zur Prähistorische Archäologie. Bonn.
VAH	Varia Archaeologica Hungarica. Budapest.
VMMK	Veszprémi Megyei Múzeumok Közleményei. Veszprém.
World Archaeology	World Archaeology. London.
ZfA	Zeistchrift für Archäologie. Berlin.
Ziridava	Ziridava, Complexul Muzeal Arad. Arad.
ZMSW	Zeitscrift für Münz-, Siegel- und Wappenkunde. Berlin.