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# ARTICLES AND STUDIES



## AN OENOCHOE WITH GNATHIA DECORATION IN THE NATIONAL MUSEUM OF TRANSYLVANIAN HISTORY

MARIANA CRISTINA POPESCU

DOI 10.54145/ActaMN.I.58.01

**Abstract:** An oenochoe with Gnathia decoration, part of the collection of the National Museum of Transylvanian History is here published. Judging by its style, the vase is part of the Alexandria group. The vessels specific to this group are mainly produced in the workshops of Taranto, during the first half of the 3<sup>rd</sup> century BC. The vessel from the Cluj museum has characteristic ribbing arranged in two vertical registers, on the whole surface of the body and the decoration with stylised geometric and plant motifs, depicted on the neck and in the middle and upper area of the body.

**Keywords:** oenochoe; Gnathia pottery; Alexandria group; Taranto.

**Rezumat:** În cuprinsul notei este prezentată o oenochoe cu decor Gnathia aflată în patrimoniul Muzeului Național de Istorie a Transilvaniei care, din punct de vedere stilistic, face parte din grupul Alexandria. Vase specifice grupului sunt produse în ateliere din Tarent cândva în prima jumătate a secolului al III-lea a. Chr. Vasului aflat în patrimoniul muzeului clujean îi sunt caracteristice caneluri verticale, aranjate în două registre, pe toată suprafața corpului și decorul cu motive vegetale și geometrice stilizate, pictate pe gât și în partea superioară și mediană a corpului.

**Cuvinte cheie:** oenochoe; ceramică Gnathia; grupul Alexandria; Tarent.

Within the collections of the National Museum of Transylvanian History there is an almost entirely preserved oenochoe (missing about three quarters of the handle, nowadays restored) which attracts attention by the elegance of the shape and the painted decoration (Pl. I/1–3). The vessel has a slender silhouette, trefoil spout, elegantly flared, slender neck, elegant baggy body, a rounded handle attached to the lip and body, above the maximum diameter and profiled ring foot, with embossed bands, interspersed with a fine groove (rd. 6.8 cm, h.–to the lip–26 cm).<sup>1</sup> Vertical ribbing, grouped in pairs of three, are arranged on the body in two registers. They are marked by a horizontal strip, painted, framed by grooves. The painted decoration consists of stylised plant and geometric motifs applied on the neck, in the upper part of the body and in the middle part of it. On the neck, the decoration – a double band of ivy leaves (?) to the left, ending with two vertical, arched bands – is included in a quadrilateral firmly delimited by a deep groove; in the upper part of the body are painted, in successive rows, “petals” and dots; and in the middle area is painted a double band of ivy leaves (?), also to the left.<sup>2</sup>

<sup>1</sup> Similar vessels are found in various collections in Europe, for example: Brussels (CVA Belgique 1–Musées Royaux du Cinquenaire; IV D. c., Pl. 1/2 a-b, 4 a-b); British Museum (CVA Great Britain 1; IV D. c., 3, Pl. 1/2).

<sup>2</sup> Due to improper restoration, no observations can be made on the colour of the painting, the glaze or the fabric from which the vessel was made.

Together with three other Greek vessels from the collections of the museum, it was published by I. H. Crişan in the first monograph of Geto-Dacian pottery,<sup>3</sup> as a testimony of Transylvania's trade relations with the Greek world, most likely beginning in the late 5<sup>th</sup> century BC.<sup>4</sup> Regarding the place of discovery for three of the vessels, including the painted oenochoe, I. H. Crişan states that in the inventory records of the museum it is mentioned that they were discovered at Aiud.<sup>5</sup> For the fourth vessel, a kantharos, the author firmly states that it was discovered in the necropolis at Cepari, in an incineration tomb.<sup>6</sup>

Following the references made by I. H. Crişan for the oenochoe and the other two Greek vessels "from Aiud" in the inventory register, we find that Roman vessels entered in the collections of the National Museum of Transylvanian History, via the Museum of Transylvania (Erdélyi Múzeum) as a result of a donation made by Adolf Resch. They have mentioned Aiud as their place of origin.

What we know about Adolf Resch is that he was a jeweller and numismatist from Braşov, collector and merchant of antiques, "the most faithful and reliable business partner" of the Transylvanian Museum Society (Erdélyi Múzeum Társaság) from the beginning of the 20<sup>th</sup> century.<sup>7</sup> In 1902, Adolf Resch offered for sale to the Transylvanian Museum a collection of antiques totalling 3000 pieces, among which were archaeological, prehistoric and Roman objects. Out of the 3000 objects, 1011 pieces were finally purchased.<sup>8</sup> Unfortunately, from the data known so far,<sup>9</sup> we cannot firmly state that the oenochoe and the other two Greek vessels "from Aiud", published by I. H. Crişan, were among the archaeological, prehistoric and Roman objects, purchased by the Transylvanian Museum.

From I. H. Crişan's paper, we find out that the oenochoe was determined by the Bucharest researcher P. Alexandrescu. In his opinion, the vessel is of Italian production, probably Apulia, and dates, most likely in the 3<sup>rd</sup> century BC.<sup>10</sup> The reference made by him to the area of origin of the vessel is confirmed today. The vessel is an italic product, more precisely it is a Gnathia vessel, manufactured in a centre from Apulia.

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Gnathia pottery is a category of fine pottery that appeared in workshops in southern Italy sometime in the second quarter of the 4<sup>th</sup> century BC. The name of the class was given

<sup>3</sup> Crişan 1969, 89–90, 136, Fig. 34/2.

<sup>4</sup> "... a sufficient quantity of Greek pottery belonging to the luxury category was discovered on the territory of Transylvania. It arrived here on the trade route, most likely with the end of the 5<sup>th</sup> century BC, throughout the 4<sup>th</sup> century BC, and at the beginning of the next." In his opinion, these pieces constitute a quantity "sufficient to prove the existence of trade links since the end of the 5<sup>th</sup> century BC and certainly in the 4<sup>th</sup> century BC, between the Geto-Dacian natives of Transylvania and the Greek world" (Crişan 1969, 89–90).

<sup>5</sup> Crişan 1969, 89.

<sup>6</sup> Crişan 1969, 89.

<sup>7</sup> Vincze 2014, 180.

<sup>8</sup> Vincze 2014, 180.

<sup>9</sup> Documents from the archives of the National Museum of Transylvanian History and the archives of the County Museum of Braşov where there are also objects donated by Adolf Resch, or from publications up to 2014, which refer to Adolf Resch (thanks to Mrs. Melinda Mitu and Lucica Scurtu for their support; Vincze 2014).

<sup>10</sup> Crişan 1969, 284, Fig. 34.

after the name of the settlement where such vessels were first discovered<sup>11</sup> and, although inappropriate, it was adopted by archaeological vocabulary as a conventional identifier.

It is accepted today that the Gnathia pottery appeared in workshops in/or around Taranto, producing vessels with red figures (Apulian Red-Figured) and seems to have been the creation of two close painters, Konnakis Painter and Compiègne Painter.<sup>12</sup> The new technique spread rapidly and new production centres appeared in southern Italy and Sicily<sup>13</sup> and in settlements in the Adriatic basin, the production of the latter continuing even after the production of the southern Italian centres ceased.<sup>14</sup> Archaeological discoveries show that Gnathia vessels enjoyed great popularity in the indigenous communities of southern Italy and around the Adriatic basin.<sup>15</sup>

Gnathia vessels are generally made of brown or cream fine, good quality fabric in general, sometimes with olive shades and are mostly covered with glossy black or brown glaze, the decor being painted in white, yellow and red.<sup>16</sup> In the early phase, the connection with the Apulian Red-Figured vases – from which it took technical and stylistic features and decorative motifs (human figures, birds and plant motifs) – is more obvious, the figures being rendered in their entirety.<sup>17</sup> As production advances (middle and late phases), the decor tends to be more schematic – human heads and birds, plant or geometric motifs – there is a tendency to standardise the decorative composition, specific to each identified area/production centre.<sup>18</sup> Basically, if in the initial phase painters can be identified, later, due to the schematisation of decorative compositions, most likely a consequence of reducing the size of the shapes of vessels chosen to be painted and, implicitly, the limitation of space for decoration, they can no longer be identified, but we can talk about decorators and decorative groups.

Based on comparative stylistic studies of the decorative motifs of Gnathia vessels, known from various collections and museums, painters and stylistic groups were identified and three stages of style evolution were proposed: early Gnathia, middle Gnathia and late Gnathia.<sup>19</sup> Based on the same stylistic criteria, the evolution of Gnathia pottery was rounded to the period between 360 BC and 270 BC, the beginnings of production being linked to the end of the production of Apulian Red-Figured vessels, and its end being associated

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<sup>11</sup> The first vessels were discovered in the necropolises of Egnazia and near Fasano, in the middle of the 19<sup>th</sup> century. On the antiques market in Naples in the end of the 19<sup>th</sup> century they were known as “ceramica di Gnathia” (Green 2001, 57; Miše 2010, 3–4).

<sup>12</sup> Green 2001, 58–59.

<sup>13</sup> Kenrick 1985, 67; Green 2001, 59–70.

<sup>14</sup> The Pharos and Issa production centres in Central Dalmatia are worth mentioning. Both began to produce Gnathia pottery under the influence of the Canosa group, sometime in the middle of the 3<sup>rd</sup> century BC. The production of the centre in Pharos ends after its destruction, during the second Illyrian war, late in the 3<sup>rd</sup> century BC, but that of Issa will continue even after the ending of Italic production. The workshops in Issa will continue to produce Gnathia pottery keeping the shapes taken under the influence of Apulian production, instead the decorative scheme will be influenced by the West Slope decor. The combination of Gnathia apulic forms and West Slope decoration is specific to the production centre in Issa (Miše 2015, 30–42; Miše et alii 2020, 2–3).

<sup>15</sup> Green 2001, 71–72; Miše 2015, 23–30, 40–41.

<sup>16</sup> Green 2001, 58; Magnone et alii 2009, 386–391; Magnone et alii 2011, 99–104.

<sup>17</sup> Green 2001, 58, Figs. 1–2; Miše 2015, 4.

<sup>18</sup> Green 2001, 59–70, Figs. 3–43; Miše 2015, 4–6.

<sup>19</sup> Webster 1968, 1–32; Green 1968, 34–50; Green 1971, 30–38.

with the fall of Taranto, from 272.<sup>20</sup> Traditional method, based on the comparative study of the stylistic features of the decorative motifs, proved to be effective given that, for most of the known pieces, coming from various collections, the specialists did not have data on the context in which they were discovered. As the archaeological excavations brought to light vessels decorated in Gnathia style, the chronology of the class and the evolution of the style underwent changes, being proposed new chronological schemes and evolution of the style.<sup>21</sup> Broadly speaking, the second quarter of the 4<sup>th</sup> century BC is accepted for the beginning of production, but the end is placed towards the end of the 2<sup>nd</sup> century BC.

Unlike the vessels with red figures whose distribution is almost exclusively rounded to the Italic area and Sicily, Gnathia tableware was well exported, products from certain centres (especially Taranto and Canosa) being known in the Mediterranean basin (Alexandria, Benghazi, Tocra, Cyrene, Dura Europos, Cyprus, Rhodes, Crete),<sup>22</sup> in the Aegean basin (Corinth, Athens, Aegina, west coast of Asia Minor),<sup>23</sup> in the Black Sea basin (in sites in southern Russia)<sup>24</sup> and the eastern Adriatic basin (for example in Issa, Pharos, Boka Kotorska, Dyrrachion, Lissus, etc.).<sup>25</sup>

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From a stylistic point of view, the oenochoe from the collections of the National Museum of Transylvanian History belongs to the Alexandria group.<sup>26</sup> The name of the group has been given after the place where its most numerous ceramic wares were discovered, Alexandria, but the vessels specific to the group were produced in Taranto in the first part of the 3<sup>rd</sup> century BC, as it is shown above. It was the dominant stylistic group in this period in southern Apulia, with the name being linked to about half of the Apulian production of the time.<sup>27</sup> If the early production of the group can be attributed exclusively to Taranto, later, it seems that it echoed in other centres. Thus, in Metapontum some fragments specific to the group were identified, but which, according to all the characteristics, are local products.<sup>28</sup> Taking into account all the available data, the Alexandria group ware known so far outside Apulia seems to have been Taranto products.<sup>29</sup>

The standard motifs are female heads, birds placed between dots, ivy or floral motifs most often found on kantharoi, oinochoai and pelikes.

The chronological boundaries of the group are quite difficult to fix, some stylistic features suggest that it must have started sometime in the first quarter of the 3<sup>rd</sup> century BC and ended somewhere in the middle of the same century.<sup>30</sup>

<sup>20</sup> Chronological data was summarised by T. B. L. Webster (Webster 1968, 2–4). Previously L. Forti drew attention to the fact that the production of certain miniature vessels continued until the end of the 3<sup>rd</sup> century BC (Forti 1965 apud Kenrick 1985, 68).

<sup>21</sup> Lippolis 1994, 239–282; Green 2001, 73–75; Miše 2015, 15–17.

<sup>22</sup> Kenrick 1985, 67–78; Green 2001, 71.

<sup>23</sup> Green 2001, 71.

<sup>24</sup> Green 2001, 71.

<sup>25</sup> Green 2001, 71–72; Miše 2015, 18–29, map 1–3.

<sup>26</sup> Miše 2015, 72–73, 77–78, nos. 13–14, 21–22, 24–25.

<sup>27</sup> Green 2001, 61.

<sup>28</sup> Green 2001, 61.

<sup>29</sup> Green 2001, 61.

<sup>30</sup> Green 1995, 271–274; Green 2001, 74–75.



The ware of the Alexandria group was among the best exported Gnathia vessels, especially in North Africa, perhaps the best represented Gnathia products outside Italy, J. R. Green proposed as a possible explanation that a large number of Alexandria's inhabitants were from southern Italy and, implicitly, the demand for ceramic products went to the southern italic ones.<sup>31</sup>

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It is difficult, if not impossible, to specify where the oenochoe presented comes from. The mention in the old inventory register of the National Museum of Transylvanian History, taken over by I. H. Crișan, that the vessel comes "from Aiud" suggests a tempting association with one of the La Tène necropoleis identified in the city, but we have no argument to support it.<sup>32</sup> It is indeed very possible that Adolf Resch bought it from someone from Aiud, but where and how the oenochoe got there is a discussion that goes far beyond the present documentary possibilities.

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<sup>31</sup> Green 2001, 71.

<sup>32</sup> I. H. Crișan himself considers the place of discovery a possibility, not a certainty (Crișan 1969, 136). In a later article in which he publishes the discoveries known until then, which can be associated with the two La Tène necropolises on the territory of Aiud, he does not mention the three Greek vessels (Crișan 1974).

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**Pl. I.** Oenochoe with Gnathia decoration, MNIT, inv. no. v1847. **1.** Drawing; **2–3.** Photos.



## THE HOARD OF DACIAN JEWELLERY FOUND AT UILEACU DE CRIȘ (BIHOR COUNTY)

CORINA TOMA

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**Abstract:** The article presents the Dacian silver hoard found at Uileacu de Criș, Bihor County, composed of two necklaces, one made from a band, the other from a twisted bar, two rhombic plate fibulae kept fragmentarily, two pendants and a ring. According to custom, rhombic plate brooches represent the essential landmark in the dating of the hoard, but the proposed timeframes place them in different chronological phases: the years 75/50 BC-AD 25/30 (Kurt Horedt and Aurel Rustoiu) or 25 BC-AD 25 (Daniel Spânu). The attempt to date the rhombic plate brooches according to the association with other types of fibulae does not lead to a conclusive result. To clarify the dating of the hoard, we used the analysis of the necklaces and pendants in the broader context of adornments made with the two techniques: silver plates and twisted bars or wires. In conclusion, taking into account the methodological deficiencies and the changes in the chronology of Thasian tetradrachms, Dyrrhachium and Apollonia drachms and late Republican denarii, whose date of entry into Dacia goes down by about half a century the beginning of Dacian metalworking, it is found that the division of jewellery into clearly defined chronological groups is not possible. The hiding of the hoard from Uileacu de Criș could have taken place during the Augustan period, but the jewellery had been in use for *several* decades.

**Keywords:** Bihor County; metal detection; Dacian silver hoards; chronological phases; the import of Greek and Roman coins.

**Rezumat:** Articolul prezintă tezaurul de podoabe dacice din argint descoperit la Uileacu de Criș (jud. Bihor), compus din două colane: unul din bandă, celălalt din bară torsionată, două fibule cu scut rombic păstrate fragmentar, două pandantive și un inel. Potrivit cutumelor, fibulele cu scut rombic reprezintă reperul esențial în datarea tezaurului, dar periodizările existente le plasează în faze cronologice diferite: anii 75/50 î. Hr.-25/30 d. Hr. (Kurt Horedt și Aurel Rustoiu) sau 25 î. Hr.-25 d. Hr. (Daniel Spânu). Încercarea de datare a fibulelor cu placă rombică în funcție de asocierea cu alte tipuri de fibule nu a dus la un rezultat concludent. Pentru a clarifica datarea tezaurului de la Uileacu de Criș s-a recurs la analiza colanelor și a pandantivelor în contextul mai larg al tehnicii folosite: podoabe lucrate din plăci de argint și cele confecționate prin torsionarea barelor ori a sârmelor. În concluzie, ținând cont de neajunsurile metodologice și de modificările aduse cronologiei tetradrahmelor thasiene, drahmelor de Dyrrhachium și Apollonia și denarilor romani republicani, a căror dată de intrare în Dacia coboară începutul orfevreriei dacice cu aproximativ o jumătate de secol, se constată că împărțirea pieselor de podoabe pe grupe cronologice clar delimitate nu este posibilă. Ascunderea tezaurului de la Uileacu de Criș ar fi putut avea loc în perioada augusteică, dar podoabele erau în folosință de *câteva* decenii.

**Cuvinte cheie:** județul Bihor; detecție de metale; tezaure de podoabe dacice; faze cronologice; importul monedelor grecești și romane.

The hoard of Dacian jewellery presented was found in January 2021, using the metal detector, on a hill near the village of Uileacu de Criş, Tileagd commune, Bihor County. The finders Dan-Alexandru Slăvescu, Ciprian-Marius Matei and Antonio-Octavian Nechifor handed over the pieces to the Tileagd commune City Hall, from where, through the Bihor County Directorate for Culture (represented by senior expert Sorin Bulzan), the hoard came into the custody of the Țării Crișurilor Museum from Oradea.

The appearance on the territory of the current Bihor County – known by the discoveries of Dacian jewellery from Cadea,<sup>1</sup> Oradea,<sup>2</sup> Sacalasău Nou,<sup>3</sup> Tășad<sup>4</sup> and Drăgești<sup>5</sup> – of a hoard made of rhombic plate brooches, necklaces, pendants and a ring determines us to present the discovery from Uileacu de Criş and to connect it to the discoveries from pre-Roman Dacia.

### **The composition of the hoard**

The hoard from Uileacu de Criş is composed of two necklaces, one made from a band, the other from a twisted bar, two fibulae with a rhombic plate kept in fragments, two pendants entirely preserved and a ring, all made of silver. The jewellery was brought in the condition in which it was found. The necklaces are broken into pieces, but the edges indicate recent ruptures and the parts can be reconstituted.

#### *The necklace made from a band (Pls. I/1, II/1)*

–The necklace is made by hammering from a silver band that gradually narrows towards the extremities. The band is decorated with hemispherical protuberances made *au repoussé*, arranged in groups or in a row. The protrusions are surrounded by punched dots. At the ends are two hooks made of wire that extend the band that forms the body of the necklace (Horedt 1973, 138, abb. 5/C2a; Rustoiu 1997, 89/type F; Spănu 2012, 54/type 1).

–The necklace is broken into several pieces. Unfolded length 37.5 cm, max. width 2.84 cm, band thickness 0.09 cm, wire thickness 0.24 × 0.21 cm, weight 36.74 g (inv. no. 26.712).

–Type characteristic to the southern part of the intra-Carpathian area.

–The second half of the 1<sup>st</sup> century BC or during the 1<sup>st</sup> century BC and in the first half of the 1<sup>st</sup> century AD.<sup>6</sup>

The closest analogy is represented by the necklace from Peteni hoard (Covasna County), decorated with protuberances and punched points.<sup>7</sup> The piece from the Cerbăl hoard (Hunedoara County) differs by the position of the punched points and the loop-hook closing system.<sup>8</sup> The necklaces from the hoards from Sărăcsău (Alba County)<sup>9</sup> and Mediaș

<sup>1</sup> Kerényi 1948, 6–12; Fettich 1953, 161–162, Pl. 37–38.

<sup>2</sup> Chidioșan, Ordentlich 1973, 97–100.

<sup>3</sup> Dumitrașcu, Molnar 1975, 45–67; Toma 2013b, 95–113 or Toma 2015, 21–37 (Romanian version).

<sup>4</sup> Chidioșan 1977a, 27–43; Chidioșan 1977b, 67–72; Toma 2013a, 15–23.

<sup>5</sup> Chidioșan et alii 1978, 27–50.

<sup>6</sup> Floca 1956, 17–18; Székely 1965, 63–64; Rustoiu 1997, 89.

<sup>7</sup> Székely 1965, 61, Fig. 6/6; Spănu 2012, 232–233/85, Pl. 91/3.

<sup>8</sup> Fettich 1953, 155–156, Pl. 25/2, 27/2; Spănu 2012, 54–55, 219/25, Pl. 25.

<sup>9</sup> Floca 1956, 11/11, Fig. 8–9, Pl. 28/1–2; Spănu 2012, 240–241/100, Pl. 126/1–2.

– the Vienna lot (Sibiu County)<sup>10</sup> have protuberances surrounded by circular profiles and have hooks at the ends provided or not with conical buttons.

*The necklace made from a twisted bar* (Pls. I/2, II/2)

–The necklace is made from a twisted bar with a quadrilateral section, with arched and incised sides. The bar left untwisted at the ends was modeled in the shape of a hook (Horedt 1973, 138, abb. 5/C2a; Rustoiu 1997, 89–90/type C; Spănu 2012, 56/type 3.1.2a).

–The necklace is broken into uneven pieces. Diameter c. 10.11 cm, bar thickness 0.41 × 0.39 cm, weight 28.18 g (inv. no. 26.713).

–Common type in Transylvania and south of the Carpathians.

–1<sup>st</sup> century BC – 1<sup>st</sup> century AD.

Twisted bar necklaces finished in hooks are present in the hoards from Hetiur (Mureş County),<sup>11</sup> Senereuş (Mureş County),<sup>12</sup> Slimnic (Sibiu County)<sup>13</sup> and, possibly, Şimleu Silvaniei (Sălaj County).<sup>14</sup>

*Plate type pendants* (Pls. I/5–6, II/5–6)

–Two pendants made of a lanceolate, undecorated plate. The fastening system was obtained by narrowing, thinning and rolling the upper part in the form of a loop (Horedt 1973, 138, abb. 5/type A3; Spănu 2012, 69–71).

–The pieces are kept intact. inv. no. 26.714: length 4.11 cm, max. width 0.67 cm, thickness 0.17 cm, weight 1.66 g (Pls. I/5, II/5). Inv. no. 26.715: length 4.20 cm, max. width 0.60 cm, thickness 0.13 cm, weight 1.57 g (Pls. I/6, II/6).

–Unpublished pieces.

–Their dating depends on the context.

The perfect analogies for the pendants from Uileacu de Criş are unknown, but they can be typologically included in the category of plate type pendants.

*Rhombic (bow-)plate brooches* (Pls. I/3–4, II/3–4)

–It's preserved the catch-plate and part of the spring from two rhombic plate brooches. The catch-plates are full and the spring, as long as it is kept, is plain, unadorned (Horedt 1973, 136/type A3; Rustoiu 1997, 44–45/type 11; Spănu 2012, 46/type 2.1.2).

–Inv. no. 26.716: length 5.66 cm, catch-plate length 1.75 cm, catch-plate width 0.97 cm, weight 7.72 g (Pls. I/3, II/3). Inv. no. 26.717: length 3.38 cm, catch-plate length 1.96 cm, catch-plate width 1.13 cm, weight 5.13 g (Pls. I/4; II/4).

–They are spread in the intra-Carpathian area (south of the Târnaveilor basin), in the area between the Carpathians and the Danube and in northern Bulgaria.

–The second half of the 1<sup>st</sup> century BC, until the end of the 1<sup>st</sup> century BC/beginning of the 1<sup>st</sup> century AD.

<sup>10</sup> Spănu 2012, 229/69, Pl. 79/7.

<sup>11</sup> Florescu, Micle 1979, 21–22, Fig. 9–11; Spănu 2012, 227/59, Pl. 62/3

<sup>12</sup> Mărghitău 1976, 46–47, Pl. 21; Spănu 2012, 241–242/104, Pl. 130/1.

<sup>13</sup> Popescu 1948, 51–53, Fig. 8/2, 10/1; Mărghitău 1976, 52–53, Pl. 38; Spănu 2012, 243/106, Pl. 133/2.

<sup>14</sup> Pop 2008, 71, Fig. 66a; Spănu 2012, 246/118, Pl. 149/1.

Because the brooches are kept fragmentarily, references to similar types are impossible to make. We mention the three rhombic plate brooches found at Cadea (Bihor County), decorated with rows of dots and punched circles, associated with denarii issued in the 40s BC.<sup>15</sup>

*Ring* (Pls. I/7, II/7)

–The ring is made of a silver band, with convex section, undecorated (Rustoiu 1996, 105–106/type 1b; Spânu 2012, 61/type 2).

–Outer d.  $2.25 \times 2.04$  cm, inner d.  $1.98 \times 1.77$  cm, max. width 0.51 cm, weight 1.54 g (inv. no. 26.718).

–Discovered in settlements, they do not appear in definite association with other jewellery.

–The second half of the 1<sup>st</sup> century BC – 1<sup>st</sup> century AD.

The closest analogy is the ring fragment made of a convex band, discovered in the fortress of Căpâlna (Alba County), dated during time the fortress was inhabited.<sup>16</sup> Other rings come from the settlement of Popești (Ilfov County), one of them having loose ends.<sup>17</sup> A band-shaped ring, with profiled edges and close ends appears in Vedea hoard (Teleorman County),<sup>18</sup> and in the Coldău hoard (Bistrița-Năsăud County) we have a semicircular ring in section, decorated with two elongated protrusions, diametrically opposed.<sup>19</sup> A “hemispherical” ring is mentioned in the Stupini hoard (Bistrița-Năsăud County).<sup>20</sup>

### Dating the jewellery hoards and coin chronology

The chronology of the Dacian jewellery was established according to the archaeological contexts in which they were found, in the vast majority of cases being hoards. The existing dating is based on the chronology of the Greek and Roman coins, on the typological evolution of certain categories of jewellery and on the interpretation of the associations.

Depending on the presence of Thasian tetradrachms, Illyrian drachms and Roman Republican denarii, Kurt Horedt divided the Dacian silver hoards into three distinct categories: the early group of knobbed brooches (125–75 BC), the middle group of rhombic plate brooches (75–25 BC) and the final group of spoon-bow brooches (25 BC–AD 25).<sup>21</sup> The periodization started from the premise that the Dacian silver hoards appeared after the minting stage of local imitations of Greek-Macedonian type finished, but not earlier than the inflow of the Thasian tetradrachms. Local and imported currencies raise problems related to the period of issue and the time of their inflow into pre-Roman Dacia. In general, local Greek-Macedonian imitations from the second phase of Geto-Dacian coinage were

<sup>15</sup> Fettich 1953, 161, 37–38/1–3; Spânu 2012, 218/18, Pl. 14–15. For coins: Kerényi 1948, 6–12 (t.p.q. 43 or 38 BC); Chițescu 1981, 127–130/37 (t.p.q. 41 or 38 BC); Moisil, Depeyrot 2003, 109–110/108 (t.p.q. 42 BC).

<sup>16</sup> Glodariu, Moga, 1989, 110, 208, Fig. 94/ 7 and 10, 128 (the fifth and sixth decade of the 1<sup>st</sup> century BC – the beginning of the 2<sup>nd</sup> century AD); Spânu 2012, 218/21, Pl. 6/18.

<sup>17</sup> Spânu 2012, 237/90, no. 18–20, Pl. 99/14–16.

<sup>18</sup> Popescu 1941, 186, Fig. 2/4; Spânu 2012, 249/129, Pl. 160/3.

<sup>19</sup> Fettich 1953, 157, 160, abb. 23/3.

<sup>20</sup> Tanțău 1971, 256; Chițescu 1981, 281–283/192 (t.p.q. 41 BC); Moisil, Depeyrot 2003, 123–125/124 (t.p.q. 41 BC); Spânu 2012, 244/112.

<sup>21</sup> Horedt 1973, 151.



dated to the middle of the 2<sup>nd</sup> century BC and the first quarter of the 1<sup>st</sup> century BC, the beginning of the minting being related to the appearance of the tetradrachms of Macedonia Prima and those of Thasos, and its final stage of political centralization during Burebista and the inflow of Republican denarii.<sup>22</sup> The periodization proposed by Horedt is based on the appearance of the Thasian tetradrachms since the second half of the 2<sup>nd</sup> century BC, but numismatic research supports the hypothesis of their import, most likely, together with the Macedonian tetradrachms, only after the minting of copies with the initials *M* and *M slash*, dated by Gina Katsarova in the second decade of the 1<sup>st</sup> century BC.<sup>23</sup> Accepting this late dating has major consequences, because, influencing the diameter and iconography of local Greek-Macedonian imitations (e.g. *Petelea* – with the bust of the goddess *Artemis* and *Inoteşti-Răcoasa* type coins), it imposes a drastic restriction of their chronology<sup>24</sup> and, implicitly, of the Dacian silver hoards.

Significant changes have also occurred in the period of minting of the Illyrian drachms, where early issues – considered landmarks for the early appearance of drachms in the Balkans and Dacia – were lowered from the second half of the 2<sup>nd</sup> century BC<sup>25</sup> in the period between c. 120/100–80/70 BC.<sup>26</sup> Within the coin hoards discovered in Serbia and Romania, the early drachms appear alongside the later ones,<sup>27</sup> and on the territory of Bulgaria, along with the Thasian tetradrachms, some with the initials *M* and *M slash*,<sup>28</sup> associations that undermine the possibility of drachms entering towards the end of the 2<sup>nd</sup> century BC and the beginning of the 1<sup>st</sup> century BC.<sup>29</sup> The massive inflow of drachms in the Danube area is closely related to the increase in the volume of emissions from the last phase of minting, dated in the first decades of the 1<sup>st</sup> century BC or, according to the latest opinions, only in the second quarter,<sup>30</sup> their influx being determined by the Mithridatic wars or by Burebista's campaigns.<sup>31</sup> Around the same period, the appearance of the Roman Republican denarii was set, which would have entered massively in Dacia in the years

<sup>22</sup> Preda 1973, 404–406.

<sup>23</sup> Katsarova 1964; Poenaru-Bordea, Condrea 1973; Mihailescu-Bîrliu 1990, 85; Winkler 1981, 111–112; Preda 1998, 241–241, 248–251; Preda, Palincaş 2005, 85–86.

<sup>24</sup> See the case of Toc-Chereluş Dacian scyphates (Toma 2020, 9–22; Toma, Mărginean 2021, 175–184).

<sup>25</sup> Mitrea 1983, 29.

<sup>26</sup> Picard, Gjongecaj 2000, 157–159 (for Apollonia drachms); Meta 2012, 22, 29–31 and Meta 2014, 326–327 (for Dyrrhachium drachms); Petrányi 2006, 3; Petrányi 2013, 81.

<sup>27</sup> The presence in hoards considered early of older issues does not convincingly support the possibility of their widespread inflow towards the end of the 2<sup>nd</sup> century BC and the beginning of the 1<sup>st</sup> century BC. See the case of the hoards from Dieci (Săşianu 1980, 111–119; Petrányi 2013, 81–82), Zaklopača (Conovici 1986, 78–79; Torbágyi 1993, 121) and Şieu Odorhei (Preda, Marinescu 1986). The presence of early issues in hoards attributed to the period of maximum influx is problematic, as it is considered that the coins came in already-made lots and were quickly hoarded or poorly redistributed, without participating in Dacia in a real monetary circulation (Conovici 1986, 80; Petrányi 2006, 3).

<sup>28</sup> See coin hoards from Lipnica (reg. Vraca), Sadovec and Rupci (reg. Plevne) (Thompson et alii 1973, 81–82).

<sup>29</sup> Preda, Davidescu 1974, 97; Preda, Marinescu 1986, 60; Conovici 1986, 79, 81–82; Torbágyi 1993, 120; Preda 1998, 263.

<sup>30</sup> The last production phase of the workshop in Dyrrhachium is dated to the years 80/70–60/55/50 BC (Meta 2013, 22; Meta 2014, 326), and of the workshop in Apollonia in the years 80/70–48 BC (Picard, Gjongecaj 2000, 157).

<sup>31</sup> Conovici 1986, 75, 81–82; Preda 1998, 264–265; Picard, Gjongecaj 2000, 157; Petrányi 2010, 29; Ujes-Morgan 2012, 374–375; Meta 2012, 22, 31; Meta 2014, 326; Spănu 2019, 172, 175–177.

75–65 BC, this wave being followed by a slow and irregular supply, with the possibility of a recovery dating back to the 40s BC.<sup>32</sup>

Changing the chronology of coins in circulation in the first half of the 1<sup>st</sup> century BC amends the timeframe proposed by Kurt Horedt, a fact already stressed out by Daniel Spânu, who proposed a new chronology and the division into two phases of the Dacian silver hoards.<sup>33</sup> The first phase, set between the years 75–25 BC, defined by association with the knobbed fibulae, and sometimes with bow-rod brooches, is related to the influx of Illyrian drachms and Republican denarii. The second phase, which brings together the rhombic plate brooches, the spoon-bow brooches and the spiral bracelets with zoomorphic figures, is dated between 25 BC–AD 25, the author considering that the separation of the two types of fibulae in distinct groups it is artificial. The chronological division proposed by Daniel Spânu was rejected by Aurel Rustoiu, who tried to reduce the impact of coin chronology on jewellery production, supporting the possibility of using silver from Transylvanian deposits and the hypothesis of earlier arrival in Dacia of some of the coins mentioned.<sup>34</sup> Starting from the division of Horedt, Rustoiu delimited three typo-chronological groups of hoards that contain: 1. knobbed brooches associated with bow-rod brooches, with Thasian tetradrachms, Illyrian drachms and, in one case, with Republican denarii (150/125–75/50 BC); 2. bow-rod brooches (remaining in use) and rhombic plate brooches associated with Republican denarii (75/50–30/25 BC) and 3. rhombic plate brooches (remaining in use), and spoon-bow brooches associated with coins dated to the second half of the 1<sup>st</sup> century BC and in the Augustan period (30/25 BC–AD 25/30).<sup>35</sup>

The two different mentioned timeframes make it difficult to date the hoard found at Uileacu de Criș, because for the brooches with rhombic plate, a category of jewellery considered an essential chronological landmark, we have to choose between the proposals made by Horedt and Rustoiu (75/50 BC–AD 25/30)<sup>36</sup> and the late chronology announced by Spânu (25 BC–AD 25).<sup>37</sup>

### **The chronological landmark function of the rhombic plate brooches**

In the hoard from Uileacu de Criș there are brooches with rhombic plate, but the association of this type with the knobbed fibulae, with late La Tène bow-rod fibulae and with the spoon-bow ones makes their dating difficult. The presence of rhombic plate brooches along with spoon-bow brooches does not raise special problems, proving that the parts remain in use until the late stage.<sup>38</sup> The appearance of rhombic plate brooches is problematic because the association with knobbed fibulae is considered an exception: the

<sup>32</sup> Conovici 1986, 81–82; Poenaru-Bordea, Cojocărescu 1984, 59–72; Lockyear 1996, 385–389; Lockyear 2008, 152.

<sup>33</sup> Spânu 2019, 167–206.

<sup>34</sup> Rustoiu 2020, 13–16.

<sup>35</sup> Rustoiu 2020, 19–22.

<sup>36</sup> See also Rustoiu 1997, 44–45 (the second half of the 1<sup>st</sup> century BC, until the end of the 1<sup>st</sup> century BC/beginning of the next century); Rustoiu 2019, 220 (between the knobbed brooches and spoon-bow ones, being contemporary for a while with the latter).

<sup>37</sup> See also Zirra 2017, 69–70 (the end of the 1<sup>st</sup> century BC, to some extent contemporary with late La Tène brooches).

<sup>38</sup> Rustoiu 1997, 49–50; Rustoiu 2020, 20–21; Spânu 2012, 145 (30/20 BC–AD 20/50); Spânu 2019, 180–181; Other opinions: Floca 1956, 32; Glodariu, Moga 1989, 110–111; Căpitanu 1984, 61–83.

fibula from the Sărăcsău hoard (Hunedoara County), characterized as a morphological “hybrid”, being placed in a “transition phase”.<sup>39</sup>

The presence next to the bow-rod brooches maintains the question marks on the moment of the appearance of the fibulae with the rhombic plate. In view of the association with the knobbed fibulae (Cehetel, Bistrița, Sărmășag and, possibly, Mediaș) and with those with rhombic plate (Săliște and Remetea Mare),<sup>40</sup> Kurt Horedt appreciated that the bow-rod fibulae (*Spätlatënefibeln*) must be attributed (by their shape) to the middle group (75–25 BC), but eventually included them ambiguously in the early and middle groups.<sup>41</sup> In the typology proposed by Aurel Rustoiu, the bow-rod fibulae from the hoards from Cehetel, Bistrița, Sărmășag, Mediaș and Săliște form the category of *filiform fibulae with outer string*, dated between the years 75–25 BC. The examples from Săliște, from a later date, making the transition to the *fibulae with the large bilateral hinge and the string wrapped around the bow*,<sup>42</sup> to which belongs the piece from Remetea Mare. The brooch from Remetea Mare, which Horedt placed under the influence of knobbed fibulae,<sup>43</sup> is considered a hybrid born under the influence of Norican-Pannonian type fibulae, joining the spoon-bow fibula and the Augustan Roman denarii ensuring the dating of this category at the end of the 1<sup>st</sup> century BC and over the next century.<sup>44</sup> Recently, the mentioned fibulae, reunited in the category of *late La Tène brooches with bilateral hinge*, were placed in the first two groups of the new timeframe (150/125–75/50 BC, respectively 75/50–30/25 BC), and the type from Remetea Mare remained an exceptional piece, imitating the Norican-Pannonian type fibulae dated in the 1<sup>st</sup> century AD.<sup>45</sup> The bow-rod fibulae, typologically heterogeneous and associated with brooches having knobs and also with those of the late La Tène type, do not appear in the groups identified by Daniel Spănu, the author considering that their chronology should be established on a case-by-case basis, depending on the context.<sup>46</sup>

The presence of coins in the hoards does not clarify the dating of the bow-rod brooches. Republican denarii appear in the hoards from Ghelinta and Remetea Mare, in the first case with a possible *terminus post quem* placed in the years 68/67 BC,<sup>47</sup> and the last

<sup>39</sup> Rustoiu 2020, 16, 19. See Floca 1956, 11/9, 15, Fig. 7 (a distant form of the “bow-plate fibulae”, a derivative thereof); Spănu 2012, 241/2.1.2; Zirra 2017, 69 (a more primitive one).

<sup>40</sup> The reference to the hoard from Cerbăl (Rustoiu 1997, 40), dated with the help of the Republican denarii (t.p.q. 43 BC), is erroneous, because only fibulae with rhombic plate should appear in the composition (Közli 1875, 215–220; Römer 1886, 385–388; Popescu 1941, 198; Roska 1942, 57/23; Medeleț 1994, 213).

<sup>41</sup> Horedt 1973, 133, 136, 151.

<sup>42</sup> Rustoiu 1997, 40–41. Used in the final period of knobbed brooches and a certain period of time in which the rhombic plate brooches existed, without excluding a remainder in use after 25 BC, but disappear before the end of the 1<sup>st</sup> century BC.

<sup>43</sup> Horedt 1973, 133; Spănu 2012, 45/2.1.1a; Zirra 2017, 67.

<sup>44</sup> Rustoiu 1997, 42–44, 57–58; Rustoiu 2019, 220; Rustoiu 2020, 20. The relationship with the Norican-Pannonian fibulae remains in question, if we pay attention to the morphology of the piece (the catch-plate, the spring, the clamping mode of the outer string). The Bistrița fibulae, another piece with the rod decorated with a knob, is hoarded together with knobbed brooches (Fettich, 1953, 153/abb. 20, 155; Spănu 2012, 45, 216/2.1.1a, Pl. 8/1).

<sup>45</sup> Rustoiu 2020, 17–20; Zirra 2017, 68.

<sup>46</sup> Spănu 2012, 45, 144, 238/95.

<sup>47</sup> Hampel 1895, 276; Popescu 1941, 199; Roska 1942, 96; Fettich 1953, 156; Chițescu 1981, 170/83; Moisil, Depeyrot 2003, 206/224. Twelve unidentified Republican denarii are mentioned, the only chronological framings appear in Horedt 1973, 163, Tab. II.

one considered to reflect realities from the first half of the 1<sup>st</sup> century AD.<sup>48</sup> The presence of an imitation after a tetradrachm of Thasos, the Dyrrhachium drachm, massive bracelets, *mastós* and *kantharos* types of bowls in the Sâncrăieni discovery does not offer certain indications of dating the bow-rod brooches, the constitution of the hoard being placed between the beginning of the 1<sup>st</sup> century BC and perhaps even into the first decades of the 1<sup>st</sup> century AD.<sup>49</sup>

In conclusion, the attempt to date the hoard from Uileacu de Criș according to the chronology of the rhombic plate brooches and then on these according to the association with other types of fibulae does not lead to a conclusive result. The association with bow-rod brooches (which appear next to the brooches having knobs) and their presence in the composition of the hoards from Izvorul Frumos<sup>50</sup> and Gliganu de Jos/Rociu,<sup>51</sup> ended with denarii minted in 81 BC, respectively 79 BC, they make possible the appearance of the rhombic plate fibulae since *the early phase* of Dacian silver jewellery, without thereby understanding the first horizon of Horedt's proposed timeframe.<sup>52</sup> Denarii from the coin hoards of Cadea (t.p.q. 42 BC),<sup>53</sup> Cerbăl (t.p.q. 43 BC)<sup>54</sup> and Remetea Mare (t.p.q. 11/9 BC)<sup>55</sup> support, along with the association with spoon-bow brooches (i.e. Vedeia/Teleorman County<sup>56</sup>), the idea of keeping in use the rhombic plate brooches until the Augustan period. Associations with other categories of Dacian jewellery, which cover the entire period of hoarding: bracelets and rings with overlapped and twisted ends, loop-in loop chains, "foxtail" type of chains, chains made of twisted wire mail, wand-shaped pendants, etc.,<sup>57</sup> suggest the same hypothesis of prolonged use.

### **Manufacturing technique – a possible chronological clue**

Being in a methodological dilemma, in order to restrict the chronology of the hoard from Uileacu de Criș, we turn our attention to the necklaces, and, in terms of manufacturing technique, to the entire repertoire of pieces made in the same way (bracelets, belt sets and pendants).

#### *a. Jewellery made of silver plates or bands*

The necklaces made from a band are associated with knobbed brooches (Sărăcsău), bow-rod brooches (Mediaș – the Vienna lot), rhombic plate brooches (Cerbăl) and

<sup>48</sup> Rustoiu 2020, 20. In the hoard of Remetea Mare there are imitations of the Thasian tetradrachms and the Republican and Augustan denarii, the last minted in the years 32 BC and 11/9 BC (Chițescu 1981, 256/165; Moisil, Depeyrot 2003, 166–167/166).

<sup>49</sup> Spănu 2012, 141–142, 144, 241/102; Spănu 2019, 179–180. See also Egri, Rustoiu 2014, 158–163. Taking into consideration the two bracelets made of a silver rod and the bow-rod brooch, the hoard from Sâncrăieni is dated in LT D1 / Horedt first horizon of Dacian hoards (125–75 BC). For the silver vessels (with different origins) is mentioned a wide chronology (150–50 BC).

<sup>50</sup> Stângă 1992, 152; Moisil, Depeyrot 2003, 31/15.

<sup>51</sup> Theodorescu et alii 1969, 101–109; Moisil, Depeyrot 2003, 32/19.

<sup>52</sup> For a lower dating of knobbed brooches see Babeș 1975, 132 (the middle of the 1<sup>st</sup> century BC); Zirra 2017, 66 (at the beginning of the 1<sup>st</sup> century BC).

<sup>53</sup> Chițescu 1981, 127–130/37; Moisil, Depeyrot 2003, 109–110/108.

<sup>54</sup> Chițescu 1981, 132–135/41; Moisil, Depeyrot 2003, 95–99/101.

<sup>55</sup> Chițescu 1981, 256/165; Moisil, Depeyrot 2003, 166–167/166.

<sup>56</sup> Popescu 1941, 183–187; Spănu 2012, 249/129, Pl. 158–160.

<sup>57</sup> Rustoiu 1996, 107, 110–112, 122; Spănu 2012, 144.

spoon-bow ones (Peteni), suggesting the early appearance and a long existence that covers the entire period of the phenomenon of Dacian silver hoards.<sup>58</sup> In this sense, the Republican denarii from the hoards from Peteni (may not be fully recovered) and Cerbăl offer as *termini post quem* the years of minting 64 BC, respectively 43 BC.<sup>59</sup>

Through the manufacturing technique, the silver band necklaces are connected to the sets of rectangular plates joined by bangles with twisted and overlapped ends.<sup>60</sup> The plates are plain (Tilişca),<sup>61</sup> or decorated (like the necklaces) with hemispherical protuberances made *au repoussé*, surrounded by punched dots (Fântânele, Dolj County)<sup>62</sup> or included in circular profiles (Transylvania no. 12).<sup>63</sup> In the discovery from Tilişca, the belt made of rectangular plates is associated with knobbed brooches, bracelets made of twisted bars and a loop-in-loop chain, closed with a bangle with twisted and overlapped ends on which hang wand-shaped pendants.<sup>64</sup> A fragmentary plate, ornamented with hemispherical protuberances made *au repoussé*, comes from the discovery from Clipiceşti (Vrancea County), where it is associated with a knobbed brooch, a belt formed by twisted wire chain mail connected by bangles with overlapped and twisted ends and Thasian tetradrachms with the initials *M* and *M slash*.<sup>65</sup>

The category of silver plate adornments also includes the pendants from Uileacu de Criş, which send, as a production technique, to the pieces identified as sets from the Mediaş – the Vienna lot hoard<sup>66</sup> and the triangular plate pendants from discoveries Mediaş – the Vienna lot and Transylvania no. 27.<sup>67</sup> The silver plate ornaments appear in Mediaş next to the bow-rod fibulae, a bracelet made of twisted wires, chain made of twisted wire mail, a fragment of a loop-in-loop chain, a ring with twisted and overlapped ends on which hang wand-shaped pendants and spiral rings.

In the Sărăcsău hoard, next to the necklaces made from a band, there are silver band bracelets finished with biconical buttons and bracelets made of parallel, twisted bars, which border an unadorned plate.<sup>68</sup> One of the necklaces and the bracelet made of the band finished with buttons are decorated identically (with punched circles). The punched circles are also used in the case of the atypical plate of the spiral bracelet from Cerbăl,<sup>69</sup> of the rhombic plate brooch from Archar (reg. Vidin, Bulgaria)<sup>70</sup> and Şaeş<sup>71</sup> and of the triangular

<sup>58</sup> Rustoiu 1996, 89 (1<sup>st</sup> century BC and the first half of 1<sup>st</sup> century AD).

<sup>59</sup> Chiţescu 1981, 226–227/142; 132–135/41; Moisil, Depeyrot 2003, 57/57, 95/101.

<sup>60</sup> Rustoiu 1996, 114/type 6, Fig. 73/1–9; Spănu 2012, 68/2.1 and 2.2, 72/2, Fig. 21/2.

<sup>61</sup> Lupu 1989, 77, Fig. 8/2–16; Natea 2013, 347–358.

<sup>62</sup> Berciu 1939, 219, Fig. 255/1–2; Spănu 2012, 224–225/50, Pl. 43; Bondoc 2013, 346/75.

<sup>63</sup> Spănu 2012, 251/155, Pl. 175.

<sup>64</sup> Lupu 1981, 198–202.

<sup>65</sup> Mîtreă 1972, 641–646; Spănu 2012, 220–221/39, Pl. 28/6, 29.

<sup>66</sup> Spănu 2012, 68/2.4, Pl. 18/2.4; 229/69, Pl. 80/3–8.

<sup>67</sup> Spănu 2012, 69/2.1, 229/69/no. 49, Pl. 80/36; 252/170, Pl. 184/7.

<sup>68</sup> Floca 1956, 13, Fig. 11–12, Pl. 29/1–4; Spănu 2012, 58/1.1.

<sup>69</sup> Fettich 1953, abb. 27/3.

<sup>70</sup> Spănu 2012, 253/195, Pl. 190/5; Catalogue 2017, 61/55.

<sup>71</sup> The decoration of the fibula from Saeş (apud Spănu 2012, Pl. 140/3) is completed with arched lines arranged in a zigzag pattern, which often adorns the widened part towards the spring of the bow from the knobbed fibulae (e.g. Bistriţa/Fettich 1953, 153, abb. 20/1, Cehetel/apud Spănu, Pl. 19/2, Mediaş/apud Spănu, Pl. 74–75, Poşaga de Sus/apud Spănu, Pl. 93/1–2, Sărăcsău/ Floca 1956, 10, Fig. 4–5 or Gorni Dăbnik/apud Spănu, Pl. 193/1). The lanceolate plate of the pendants from Gorni Dăbnik brings together the protuberances



plate pendant from Bistrița.<sup>72</sup> Band-shaped bracelets are rare. A copy appears in the hoard from Drăgești (Bihor County), in association with knobbed brooches, a twisted bar bracelet, Illyrian drachms and Republican denarii (t.p.q. 85 BC).<sup>73</sup> Its decoration (punched circles connected by oblique lines) is found on the plate of the rhombic plate brooches from the discoveries from Gliganu de Jos (t.p.q. 79 BC)<sup>74</sup> and Archar.

The manufacturing and ornamental technique binds the ornaments made of silver bands or plates (or in the structure of which such elements appear), and the associations with other categories of ornaments indicate their early appearance and the use until the time of spoon-bow brooches (Augustan period). Exceptions are the bracelets made from a band, which are currently present alongside knobbed brooches. Frequent association of band made necklaces with necklaces and bracelets made of twisted bar (i.e. Uileacu de Criș, Cerbăl and Mediaș), of band bracelets with those made of twisted bar (i.e. Sărăcsău, Drăgești) and the morphology of the bracelets from Sărăcsău (made of three sections: one from a band the other ones are twisted) suggests the parallel use of the two manufacturing techniques.

*b. Necklaces, bracelets and pendants made from a bar or twisted wires*

The necklaces made from a twisted wire are differentiated by the closure system, but the associations with the other jewellery do not indicate chronological gaps. Pieces with loops and with loop and hook appear in combination with rhombic plate brooches, spiral bracelets, twisted bar/wire bracelets, bracelets with twisted and overlapped ends, “foxtail” type of chains, twisted wire chain mail, wand-shaped pendants and spiral rings (Cerbăl, Oradea – Fabrica de Căramidărie,<sup>75</sup> Săliște). Except for the piece from Uileacu de Criș, the necklaces with ends finished in hooks are associated with spoon-bow brooches, spiral bracelets and bracelets with twisted and overlapped ends (Hetiur and Senereuș).<sup>76</sup> The necklace from the Slimnic hoard, atypical due to the short length of the twisted segment, is associated with a massive bracelet made from a bar with loose, parallel ends, and zoomorphically decorated,<sup>77</sup> which appear exclusively in the company of knobbed brooches and bow-rod brooches (Sacalasău Nou, Sâncrăieni, Sărmășag). The twisted wire necklaces are accompanied by rhombic plate brooches and spiral bracelets (Gliganu de Jos and Saeș), and the ones with twisted wires around a rod appear in the Șeica Mică hoard along with spoon-bow fibulae, bracelets with twisted and overlapped ends and “foxtail” type of chain.<sup>78</sup>

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made *au repoussé* and surrounded by punched dots, characteristic of necklaces made from a band and belt plates, with the decoration of the lines engraved in zigzags (apud Spănu, Pl. 193/2).

<sup>72</sup> Fettich 1953, Pl. XXIII.

<sup>73</sup> Chidioșan et alii 1978, 27–50 (t.p.q. 85 BC / Crawford 352/1a?).

<sup>74</sup> Theodorescu et alii 1969, 101–102; Moisil, Depeyrot 2003, 32–33/19.

<sup>75</sup> Rómer 1886, 204–207; Spănu 2012, 231/82, Pl. 87.

<sup>76</sup> In the Sărăcsău hoard there is a necklace made of a untwisted rhombic bar with a hook type closure system finished with biconical buttons. The rod with a quadrilateral section, a singular case in Dacia, because the rest of the necklaces with a smooth body have a circular rod (Cehețel, Moțăței, Sărmășag), suggests the possibility that the craftsman intended to make a necklace with a twisted body. Untwisted bar necklaces are associated with knobbed fibulae and with the bow-rod fibulae (Sărăcsău and Sărmășag).

<sup>77</sup> Popescu 1948, 52, Fig. 8/1; Rustoiu 1996, 93–94/type 1; Spănu 2012, 60/2.4.c.

<sup>78</sup> Floca 1956, 18–29.

The technique of twisting the bars and wires was also used in the case of bracelets, but associated in hoards with knobbed brooches, “foxtail” type of chains, twisted wire chain mail, bangles twisted and overlapped ends and wand-shaped pendants (Bistriţa, Drăgeşti, Mediaş, Oradea-Sere, Sărăcsău, Tilişca).

The association with rhombic plate fibulae from the Cerbăl hoard is an exception. Belt sets made of twisted wire chain mail<sup>79</sup> appear alongside the knobbed brooches, those with bow-rod or bow-plate fibulae, spiral bracelets, necklaces and bracelets made of twisted bars or wires (Tăşad, Mediaş – Vienna lot, Sălişte, Şaeş, Oradea-Sere, Cerbăl and Şimleu Silvaniei).

Following the associations with the fibulae, we deduce that, in the case of the adornments manufactured by twisting the bars or wires, the bracelets and belt elements (associated with knobbed brooches, with those with bow-rod and, singularly, with those with rhombic plate) would “precede” the appearance of necklaces (associated with rhombic plate brooches and spoon-bow brooches), without the bracelets extending their use next to the spoon-bow fibulae (a fact also found in the case of bracelets made from a band), when the characteristic type becomes the bracelet with twisted and overlapped ends.

### **The dating of the hoard and the problem of the typo-chronological phases**

The attempt to frame the rhombic plate brooches in one of the chronological phases proposed by Kurt Horedt and Aurel Rustoiu (75/50 BC-AD 25/30) or Daniel Spănu (25 BC-AD 25) and to establish the moment of hiding the hoard from Uileacu de Criş is difficult. The distribution of Dacian jewellery on groups or typo-chronological phases proves to be a problematic methodological approach. In the chronological separation, it was used both the phase of constituting the hoards, closely related to the production of the pieces, and the period of use, a method that led to double framing, creating problems when the pieces play the role of landmark for dating others. Another shortcoming is the composition of typological groups, following a combined analysis that involved a severe selection that eliminated, due to typological and morphological conservatism, high frequency and general spread, a significant number of types of jewellery.

In the process of dividing into groups or phases, brooches are given a defining role, although the only types that can suggest clear boundaries are knobbed fibulae and spoon-bow fibulae, the former marking the beginning of the Dacian metalworking and hoarding, and the latter the ending period, the spoon-bow fibulae being discovered in overwhelming numbers in settlements. Between the two limits, the appearance of rhombic plate fibulae is difficult to frame. The association with the bow-rod fibulae confusingly framed in two chronological phases (early and middle), does not reveal the moment when the rhombic plate fibulae appeared. The presence in the hoards of the Republican denarii indicates the use of rhombic plate fibulae in the Augustan period (Cadea, Cerbăl), but the hoards from Gliganu de Jos/Rociu and Izvorul Frumos, which contain denarii that entered during the maximum influx period (75–65 BC),<sup>80</sup> claim, if the coins were fully recovered, their appearance at an earlier date, close to the production of bow-rod fibulae.

<sup>79</sup> Rustoiu 1996, 112; Spănu 2012, 67.

<sup>80</sup> The problem of framing in distinct chronological phases and of mixed hoards with *terminus post quem* attributed to the early period (i.e. Gliganu de Jos/Rociu and Izvorul Frumos) extends to spiral bracelets

The category of irrelevant pieces in establishing the internal chronology of Dacian jewellery includes chains, necklaces, bracelets, rings and pendants. The necklaces made from a twisted bar or band present in the Uileacu de Criş hoard are not considered viable dating landmarks, as they belong to the category of adornments with a long period of use: from the early phase of knobbed fibulae until the Augustan period. The silver plate jewellery appears alongside the knobbed fibulae, and the twisted bar necklaces next to the rhombic plate fibulae, seeming to appear slightly later. The absence of the bracelets made from a plate and those made from twisted wires or bars, found next to knobbed fibulae and those with bow-rod, can be an indication in restricting the dating of the hoard from Uileacu de Criş.

Absolute chronologies are closely related to the ratio between jewellery and coins. If we link the beginning of Dacian metalworking to the influx Greek and Roman coins, then the phenomenon of Dacian metalworking cannot be placed before the second quarter of the 1<sup>st</sup> century BC. Given that the Dacian silver hoards are seen as *costume assemblages* and not accumulations made by several generations, it appears that the jewellery was most likely made simultaneously or at short intervals, hence the technological, morphological and ornamental similarities. Adding to these observations, already existing in the literature, the significant restriction of the duration of the phenomenon of hoarding of adornments dictated by numismatic studies, attempts to separate groups or phases (depending on the time of production of pieces and sets formation) and fix them in absolute chronology, they become almost impossible.

In conclusion, giving up the division into phases or typo-chronological groups, we positively think that the fibulae with rhombic plate appeared at a time close to the production of bow-rod fibulae, the ornaments of the shield approaching them to knobbed fibulae, i.e. in a period close to the beginning of Dacian metalworking. During the Augustan period, the hiding of the hoard from Uileacu de Criş takes place and not the appearance of the fibulae with rhombic plate, the Republican denarii from the hoards from Cadea and Cerbăl, which arrived in pre-Roman Dacia in the '40s BC, being added to jewellery sets found in use for several decades.

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with zoomorphic figures, which have controversial dating periods: the first half of the 1<sup>st</sup> century BC (Constantinescu et alii 2010, 1040–1041; Oberländer-Târnoveanu 2013, 113/note 42, 310–318), the middle and late phases of Horedt's proposed timeframe (Horedt 1973, 151; Medeleţ 1994, 198; Rustoiu 1996, 98–99; Rustoiu 2016, 76–77; Rustoiu 2020, 19–20) or between the years 30/20 BC–AD 20/50 (Spănu 2012, 142, 145; Spănu 2019, 180–181). The Peteni hoard, closed with a Roman denarius minted in 64 BC, urges caution, as the association of spiral bracelets with spoon-bow brooches leaves open the possibility of partial recovery (Székely 1965, 58–63; Moisil, Depeyrot 2003, 57/57).



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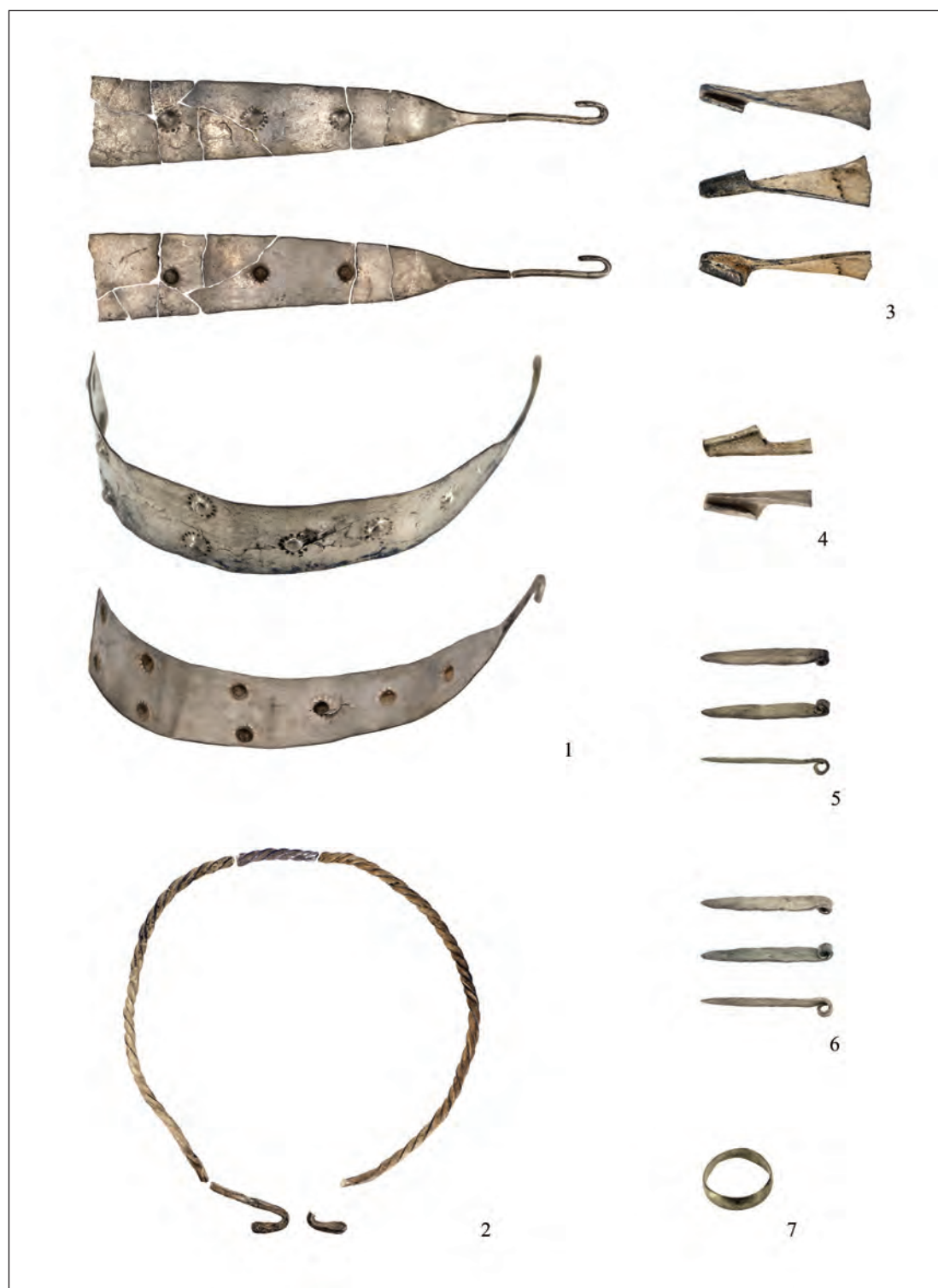
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**Pl. I.** The hoard of Dacian jewellery found at Uileacu de Criş (Bihor County) – before cleaning: **1.** necklace made from a band (inv. no. 26.712); **2.** necklace made from a twisted bar (inv. no. 26.713); **3–4.** rhombic bow-plate fibulae (inv. nos. 26.716–16.717); **5–6.** pendants (inv. nos. 26.714–26.715); **7.** ring (inv. no. 26.718).





**Pl. II.** The hoard of Dacian jewellery found at Uileacu de Criş (Bihor County) – after cleaning:  
**1.** necklace made from a band (inv. no. 26.712); **2.** necklace made from a twisted bar (inv. no. 26.713);  
**3–4.** rhombic bow-plate fibulae (inv. nos. 26.716–16.717); **5–6.** pendants (inv. nos. 26.714–26.715);  
**7.** ring (inv. no. 26.718).

## THE LIMESTONE QUARRY FROM MĂGURA CĂLANULUI

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**Abstract:** Măgura Călanului is a toponym often encountered in the literature, being the limestone provenance place for different constructions found in the area of the Dacian fortresses from the Orăștie Mountains. A recent endeavour focused mainly on documenting the ancient exploitation marks has also led to the identification of certain partially known or completely new aspects of archaeological interest. The paper presents a series of arguments for re-dimensioning the area associated with the limestone extraction throughout different periods and for interpreting Măgura Călanului as a more complex archaeological feature than it has been thought, composed of quarries, fortifications, settlements, and, last but not least, of access routes.

**Keywords:** Măgura Călanului; limestone quarry; Dacian fortresses; Sarmizegetusa Regia; Dacia.

**Rezumat:** Măgura Călanului este un toponim des întâlnit în literatura de specialitate, fiind locul de proveniență a calcarului pentru diferite construcții din perimetrul cetăților dacice din Munții Orăștiei. Un demers recent care a vizat, în primul rând, documentarea urmelor de exploatare antice a dus la identificarea unor aspecte de interes arheologic, parțial cunoscute sau complet noi. Articolul prezintă o serie de argumente care pledează pentru redimensionarea ariei asociate extragerii calcarului, în diferite perioade, și pentru interpretarea Măgurii Călanului drept o entitate arheologică mult mai complexă decât se știa până în prezent, compusă din cariere, fortificații, așezări și, nu în ultimul rând, din căi de acces.

**Cuvinte cheie:** Măgura Călanului; carieră de calcar; cetățile dacice; Sarmizegetusa Regia; Dacia.

Since the 19<sup>th</sup> century, the presence of a large number of limestone blocks amongst the newly uncovered ruins at Grădiștea de Munte and the examination of the geological characteristics of the area had determined the first-hand observers to note that the limestone source was not local. As a result, it should have been searched elsewhere. Gradually, the hypothesis according to which the monumentality of the architectural project represented by the Dacian fortresses in the Orăștie Mountains could have been closely related to the limestone quarry at Măgura Călanului started to take shape. In the last decades, geological analyses have confirmed this assumption.

Only a few studies are dedicated to this quarry, the most important up to this moment being the contributions of Ioan Glodariu (archaeologist) and Ioan Mârza (geologist) from Cluj. They both opened the path for the scientific research of Măgura Călanului and offered the main landmarks regarding the magnitude of the limestone exploitation during the Dacian period.<sup>1</sup>

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<sup>1</sup> Glodariu 1985–1986, 91–102; Mârza 1995, 199–207; Glodariu 1997, 65–84.

The recent endeavour of the National Heritage Institute [Institutul Național al Patrimoniului] regarding the elaboration of the proper documentation for including the quarry on the national List of Historical Monuments, a desideratum expressed by I. Mârza ever since 1995, favoured the undertaking of several field measurements and observations.<sup>2</sup> The obtained results allow the completion of the aforementioned dossier and, moreover, considerably enrich the information on this quarry.<sup>3</sup>

### Geographical and geological context

The studies referring to ancient quarries underline the importance of two natural factors which influence exploitation during several development stages: terrain configuration and geological structure. Both are equally important in regards to accessing the native rock, its quality, the cutting method, transportation, management of the exploitation sites, etc.<sup>4</sup>

Măgura Călanului is located on the middle Mureș Valley, in the perimeter of the Orăștie Corridor. The hill is delimited to the west by the Strei River, to the east by the Turdaș River, and to the south by Văii River. Several localities can be found on the natural plateaus and terraces of its inferior part, generally separated by smooth slopes: Totia and Jeledinți (to the north), Petreni and Sântămăria de Piatră (to the west), Strei-Săcel, Valea Sângeorgiului and Dâncu Mare (to the south), Dâncu Mic and Tămășasa (to the east). The villages Mărtinești and Măgura reside in a higher position, on the eastern slope of the hill<sup>5</sup> (Pl. I/1–2).

The area belongs geologically to the Hațeg sedimentary basin,<sup>6</sup> Măgura being “an erosion relict of a sedimentary stratiform rock deposit, with an almost horizontal position”.<sup>7</sup> The lithological succession, visible today for at least 50 m in height on the southern hillside, reveals “the somehow gradual upward transition from detritic rocks (rich in well rolled rudaceous-arenitic siliciclastic rocks,) with carbonate cement, to oolitic limestones in the upper part of the sequence”<sup>8</sup> (Pl. II/1–2). The latter horizon, with a thickness of more than five meters in some places, was the target of the exploitation. The geological qualities made this limestone a good construction material for the Dacian fortresses from the Orăștie Mountains. In this respect, Șeclăman noted in the cited study “the natural division in polyhedral shaped blocks”, an aspect which considerably facilitates the extraction of the desired volumes of stone, whilst the mineralogical structure allows

<sup>2</sup> Authorised field survey undertaken in February and March 2021.

<sup>3</sup> In the last years, the quarry at Măgura Călanului is the focus of a geological investigation, which also implies some historical-archaeological aspects. So far, this otherwise salutary initiative is biased by the partial comprehension (observation) of the complexity displayed by the situations in the terrain and by the self-promotion desire of the respective researchers. Therefore, the scientific goal switched almost entirely to secondary position. One of the shortcomings is represented by the incorrect estimation of the quarry's dimensions (much smaller), because only the western horizons have been taken into account. See <https://magura-calanului.ro/>, accessed 14.06.2021.

<sup>4</sup> Hayward 2013, 63–78.

<sup>5</sup> As shown on the course of the following pages, the archaeological repertoire of the mentioned localities is significant. Thus, the intense habitation of the area throughout different periods was reflected on the limestone exploitation, as well.

<sup>6</sup> Mârza 1995, 202.

<sup>7</sup> Olteanu, Șeclăman 2019, 18.

<sup>8</sup> Olteanu, Șeclăman 2019, 18.



a simple processing. Moreover, limestone was one of the favourite construction materials in the entire Mediterranean basin. The Greek masons brought in the region in order to contribute to the vast architectural programme commenced by the Dacian royalty in the 1<sup>st</sup> century BC had good knowledge of this rock type and of the related extraction, processing and building techniques.<sup>9</sup>

### **Historiographic digest**

The information gathered during our field research, related especially to the extent and organisation of the quarry, has determined us to resume and, in a certain manner, to reevaluate the data on the discoveries from the region mentioned in the 19<sup>th</sup> century and the beginning of the following one. As witnessed below, even in a short synopsis, the information speaks by itself of an archaeological landscape associated to Măgura Călanului which is in fact much more complex than it was mentioned so far in the papers focused on the respective limestone exploitation.

The prehistoric and ancient traces on Măgura Hill and in the vicinity have been noted on the occasion of presenting some discoveries on the territory of the localities Sântămăria de Piatră, Strei-Săcel and Valea Sângeorgiului or of the discussions related to the construction material used for the Dacian fortresses in the Orăștie Mountains complex.<sup>10</sup>

Fodor András made one of the first mentions concerning the items discovered at Sântămăria de Piatră as a result of the exploitation of the nearby quarry. Describing the monuments from Grădiște Hill (the ancient Sarmizegetusa Regia), he noted that “the ranger of the area had said that stones resembling the ones over there had not been found anywhere at a distance of two (walking) days” and that “such stones had been present only at Deva and Sântămăria de Piatră”.<sup>11</sup> Almost twenty years later, during a trip in Hunedoara County, Finály Henrik visited the Strei Valley. He concluded that the village of Sântămăria de Piatră was full of sculpted stones and capitals. Additionally, the author recorded seeing a Roman camp “north of the village, on a plateau stretching to the west”.<sup>12</sup>

Téglás Gábor organised several documentary fieldtrips in the southern part of Hunedoara County. On that occasion, he noted, studied and signalled many discoveries attributed to the different historical periods attested on the Strei Valley and in the southern side of the present county. In May and October 1884, he made public a part of the results,

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<sup>9</sup> For an overview of the area in discussion and the main chronological landmarks, see Daicoviciu, Ferenczi, Glodariu 1989, 174–227; Glodariu 1995; Gheorghiu 2005; Florea 2011, 107–168. See also the criticism at Lockyear 2004. Regarding the role of the Greek craftsmen in the Dacian architecture from the Orăștie Mountains, see Glodariu 1997, 73.

<sup>10</sup> As previously stated, although the ancient ruins of Sarmizegetusa Regia and its surroundings were only partially visible, the large quantities of limestone blocks, especially at Grădiștea de Munte, drew the attention ever since their discovery. Because the region had no sources for the rocks identified for most of the architectural elements (limestone and andesite), the discussions regarding their provenance appeared shortly after the beginning of the researches developed in the area under the supervision of the representatives of the Vienna administration. In 1805, metallurgy inspector Anton Bögözi named a small village in the vicinity of Măgura Călanului (Totia) as one of the possible exploitation spots, adding that ‘transportation should have been very expensive’ (the same person evaluated the processed stone from Grădiște at the immense amount of 400.000–500.000 florins, proposing its marketing), Jakó 1973, 630; Finály 1916, 17.

<sup>11</sup> Fodor 1844, 303.

<sup>12</sup> Finály 1863, 141.

which were published soon after.<sup>13</sup> Hence, he stated that in the spring of 1884 he had succeeded to spot, in the superior part of the hill between Sântămăria de Piatră and Valea Sângeorgiului, the exploitation place for the limestone used for the constructions from Dealul Bolii.<sup>14</sup> In the same year, he mentioned that the quarry from which the limestone was exploited for the Roman monuments found in the area had been located on Măgura Hill (a quarter of an hour from Valea Sângeorgiului). He added: “the limestone from here was much appreciated not only by the Romans, but also by their Dacian predecessors, because I have found it at all the fortifications which can be classified as Dacian”.<sup>15</sup> In the monograph of Hunedoara County, Téglás resumes that he had seen the limestone exploited on Măgura Hill at the fortifications from Grădiștea Muncelului and Cetatea Bolii, near Petroșani.<sup>16</sup> Moreover, he noticed limestone blocks coming from Măgura near Sântămăria de Piatră in the *Sub Cununi* area and in the fort between Orăștioara de Sus and Orăștioara de Jos.<sup>17</sup>

Sometimes, he was accompanied in these documentary fieldtrips by Szinte Gábor and Téglás István, who were both remarkable drawers.<sup>18</sup> On many occasions Téglás Gábor mentioned that he had been preparing a detailed description of the area, unfortunately unfinished and unpublished. However, we know two of the drawings made by Téglás István in August 1888,<sup>19</sup> the first images – sketches of Măgura Hill, with the marking of the stone exploitation traces at the edge of Valea Sângeorgiului village (Pl. III/1–2).

The numerous Roman period items discovered on the territory of the localities around Măgura Hill (Sântămăria de Piatră, Strei-Săcel, Valea Sângeorgiului), which in fact share limits in this spot, triggered the attention especially on the Roman exploitation. During ancient times, the area was part of the rural territory of the colonia Ulpia Traiana Augusta Dacica Sarmizegetusa, thus it was presumed that an important economical role was played by the stone exploitation in the quarry on Măgura Hill.<sup>20</sup>

The limestone from Măgura Hill (spread on a considerable surface) was exploited northwards, from Sântămăria de Piatră, and southwards, from Strei-Săcel and Valea Sângeorgiului. Traces of the Roman age habitation were observable on the slopes facing the aforementioned localities, such as construction remains, diverse materials, including inscriptions.<sup>21</sup>

Outside the village Valea Sângeorgiului, under Măgura Hill, in ‘the ditch Peru Bercsan (Bercean creek)’ a beautifully decorated gravestone appeared. During ploughing, inscriptions have been found above this spot, on the slope (side) of the hill “Gugutoi/Virvu/Vârfu Gugutoi”. They have determined Téglás to presume in that place the existence of a sanctuary – an inscription dedicated probably to Jupiter and two altars dedicated to Jupiter and Mars had been noticed, together with a fragment of a statue.<sup>22</sup>

<sup>13</sup> Téglás 1886a, 27–32; Téglás 1886b, 65–69.

<sup>14</sup> Téglás 1886a, 30.

<sup>15</sup> Téglás 1886b, 66.

<sup>16</sup> Téglás 1902a, 16, 18.

<sup>17</sup> Téglás 1902a, 18, 146.

<sup>18</sup> Téglás 1891, 82.

<sup>19</sup> Bajusz 2005, 337, 478.

<sup>20</sup> Téglás 1891, 80.

<sup>21</sup> Téglás 1902a, 114–115.

<sup>22</sup> Téglás 1891, 80; Bajusz 2005, 338, Fig. 10/45. A short observation: in 1902 (Téglás 1902a, 115),

From the same Gugutoi Hill (it seems we find the area with this toponym at the border of several localities), but at Streisângeorgiu, close to the road heading from Valea Sângeorgiului to Jeledinți and to the village of Măgura, a funerary monument arrived at the museum in Deva.<sup>23</sup> Furthermore, following the same line of the hill, a funerary stone was found in 1883 north of the village Strei-Săcel, at the north-western foot of Măgura Hill, on the slope named “Goruș” (Csereoldal).<sup>24</sup>

Concerning Sântămăria de Piatră, the Roman settlement was spread “on top of the village, on a hillslope which stretches a lot”. The zone was named “Grădiște” (with the Grădiște Valley coming down the hill). On the forested western slope from close by, a pipe transported water towards the settlement. In the mentioned spot, at about a quarter of an hour walking from Sântămăria de Piatră, ruins were visible. Téglás Gábor found there “the head of a nymph marble statue”.<sup>25</sup> Further, in the point “Faget”, impressive traces of the stone exploitation may be observed on the top of the hill. The locals mentioned the same place under the name “pizmicze” (cellars).<sup>26</sup> In addition, two stamped bricks were discovered on the hill, at the limits of the three mentioned localities.<sup>27</sup>

Téglás concluded that “it seems Strei-Săcel, Valea Sângeorgiului and Sântămăria de Piatră, together with the hill in between them formed a complex”.<sup>28</sup> Few years later he included these finds in the category of ones attributed to the *pagus Aquensis* (which had spread in his opinion on both banks of Strei River).<sup>29</sup>

In later studies, Téglás Gábor recalled many times the quarry near Sântămăria de Piatră, highlighting the broad area of the exploitation resulted from his own field observations.<sup>30</sup>

The limestone resources from Măgura Hill were also noticed by the geologists of the time (end of the 19<sup>th</sup>-beginning of the 20<sup>th</sup> century). The stone sources in Hunedoara County were in the focus of Halaváts Gyula and Schafarzik Ferencz<sup>31</sup> (Pl. IV/1–3). In his paper on stone quarries, Schafarzik records Măgura, from Hunedoara County, amongst the ones with rough limestone.<sup>32</sup> The quarry was exploited in modern times and was located “in the communal pasture, half a kilometre south-east of the locality”. Occasionally, limestone was extracted from that place for construction purposes, in variable quantities.<sup>33</sup> Schafarzik also states that, according to the report of chief geologist Halaváts Gyula, the stone was

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Téglás inversed the place of the discoveries: the funerary stone is placed in the point “Gugutoi”, while the finds indicating the presence of some temples “on the slope rising north of the village, named Perelt-Bercsan”; Téglás, Király 1890, 195, no. 16 = CIL III 12576 = IDR III/3, 17; Téglás, Király 1890, 195–196, no. 18 = CIL III 12575 = IDR III/3, 18; Téglás, Király 1890, 195, no. 17 = CIL III 12577 = IDR III/3, 19.

<sup>23</sup> Téglás 1902a, 114; CIL III 7894 = IDR III/3, 20.

<sup>24</sup> Téglás 1891, 81; Téglás 1902a, 115; Téglás 1885, 238–239, no. 4 = CIL III 7893 = IDR III/3, 16.

<sup>25</sup> Téglás 1891, 82; Téglás 1902a, 114.

<sup>26</sup> Téglás 1891, 82; Téglás 1902a, 114.

<sup>27</sup> Téglás 1891, 81; Téglás 1902a, 113; CIL III 8705<sup>33</sup> = IDR III/3, 21; CIL III 8705<sup>1c</sup> = IDR III/3, 22.

<sup>28</sup> Téglás 1891, 82.

<sup>29</sup> Téglás 1902a, 110.

<sup>30</sup> Téglás 1892, 209.

<sup>31</sup> In the 1890s, both have conducted many documentary fieldtrips on the territory of nowadays Hunedoara County: A Földtani 1898, 739; A Földtani 1899, 697; Téglás 1902b, 138–142.

<sup>32</sup> Schafarzik 1904, XX (paper published in 1909 in German).

<sup>33</sup> Schafarzik 1904, 142.

used in the old times as construction material. At least, this was proven by the fact that the walls of the remote Dacian fortresses located to the south-east, in the spot Cetate above Grădiştea Nouă (Grădiştea de Munte), the two at Costeşti and the one at Piatra Roşie,<sup>34</sup> had been built using the limestone from Măgura.<sup>35</sup>

Besides the discoveries related to stone exploitation on Măgura Hill and its surroundings, prehistoric finds have been signalled ever since the 19<sup>th</sup> century. At Sântămăria de Piatră, south of the village, on the top of Măgura Hill (near the border with Valea Sângeorgiului) and on the north-western slope towards the locality, Téglás collected prehistoric potsherds with incised decoration in many places and in the second point “under the Roman pottery and bricks”.<sup>36</sup> An even larger quantity of prehistoric potsherds was found on Măgura Hill’s slope facing Valea Sângeorgiului.<sup>37</sup> The same situation was noted by Téglás towards Strei-Săcel, where a rich find of bronzes was made.<sup>38</sup>

Numerous and different prehistoric items were found at Valea Sângeorgiului, on the steps (hills) which descend from Măgura’s hillside, in the points Gorgan, Fața (Fața) Bercesan (Bercea): pottery (including Neolithic fragments painted with geometric decoration), hearth fragments, stone objects (axes, chisels), spindle whorls, ceramic weights, bone items. In addition, two barrows have been observed towards east of Valea Sângeorgiului, in the highest point of the road to Dâncu.<sup>39</sup>

Hence, Măgura “from Sântămăria de Piatră and Valea Sângeorgiului” was listed amongst the inhabited and fortified places in prehistoric times,<sup>40</sup> information confirmed by some recent investigations. Archaeological materials attributed to the Coțofeni culture have been found at the end of the 20<sup>th</sup> century during a field survey performed in order to collect samples from the quarry which functioned at Sântămăria de Piatră. At approximately 50–60 m above the aforementioned quarry, on the hilltop Măgura, archaeological material specific for the transition period to the Bronze Age has been collected, consisting mainly in potsherds (common and fine wares).<sup>41</sup> In a recent article, O. Rogozea lists the hill Măgura Călanului amongst the places with Coțofeni and Wietenberg discoveries. Moreover, the authors of the respective study have also identified on the hilltop a circular structure, which they consider to be a possible prehistoric fortification, namely belonging to the Coțofeni cultural milieu (“as fortifications are known in this phase”).<sup>42</sup>

### **Exploitation method and layout of the quarries**

The ideal organisation scheme of a stone quarry is often described<sup>43</sup> (Pl. V/1), most part of its components being easily recognisable at Măgura. Where direct arguments are

<sup>34</sup> Sometimes it is interpreted that he was referring to the walls at Cioclovina. In fact, he was mentioning the fortress at Piatra Roşie.

<sup>35</sup> Schafarzic 1904, 142.

<sup>36</sup> Téglás 1887, 69; Téglás 1902a, 16; Andrițoiu 1976, 398.

<sup>37</sup> Téglás 1902a, 16; Roska 1942, 138.

<sup>38</sup> Téglás 1902a, 16.

<sup>39</sup> Téglás 1887, 70; Téglás 1902a, 16; Andrițoiu 1976, 411.

<sup>40</sup> Téglás 1902a, 33.

<sup>41</sup> Molnár 1996–1997, 363–371.

<sup>42</sup> Rogozea et alii 2017, 151–152

<sup>43</sup> Heldal, Bloxam 2008, 11–13.

missing, other elements can be brought into discussion starting from field observations and available analogies. Therefore, we shall present in the following pages a series of data regarding the extraction areas, the deposit areas for the pieces detached from the exploitation fronts and/or under processing, the lithic wastes resulted from the incipient operations, the possible access and transportation routes, as well as the presence, forwarded as a hypothesis in this stage of research, of the settlement in which the stone cutters, craftsmen and others might have temporarily or permanently settled.

Before discussing the layout of the fronts and the exploitation techniques at Măgura Călanului, we should clarify a series of limitations in the quarry's investigation. Since archaeological research is lacking, our study resumed to partially observing the vertical walls (not visible on their entire height), the configuration of the terrain and the native rock, the traces left by the exploitation tools, and to a series of archaeological topography measurements. Based on the large number of limestone pieces identified at the fortresses in the Orăştie Mountains, several articles proposed the idea that the exploitation belonged, almost exclusively, to the Dacian period. However, we believe that in this stage of research it would be risky to attribute every visible trace of limestone extraction to the respective time span. Moreover, it is difficult to ascertain the amplitude of the exploitations from different historical ages, an aspect which has been emphasised on many occasions,<sup>44</sup> and which is resulting from the following paragraphs. Nevertheless, we stress that the data available up to this moment point out that the quarry was thoroughly used during the period of the Dacian Kingdom, especially in the 1<sup>st</sup> century BC.

Taking into account the destination of the pieces obtained through the exploitation of diverse rock types, quarries have been classified in three categories: quarries for producing construction material, sources for everyday items (querns for example), and quarries where the rock was extracted in order to produce ornamental / decorative items.<sup>45</sup> If we refer only to its use during the Dacian period, Măgura Călanului belongs to the first category. We have to mention that, in a much-reduced quantity when compared to the volume dedicated to construction materials, the limestone from here was exploited inclusively for ornamental elements (for instance, the decorated half domes from Sarmizegetusa Regia).<sup>46</sup>

The exploitation technique usually employed in the ancient limestone quarries consists in the vertical isolation of the blocks by digging channels using picks, axes and hammers specific for the masons. This stage was followed by the beating of wedges, most probably made of iron, allowing the horizontal detachment (Pl. V/2). The activity was facilitated in the presence of joints (natural fractures), which at the same time conditioned the dimensions of the pieces.<sup>47</sup>

In the quarry from Măgura Călanului, the limestone exploitation was performed through opening different fronts and the gradual detachment of various size blocks.

<sup>44</sup> Mârza 1995, 204; Glodariu 1997, 78 ("The same limestone continued to be massively exploited during the Roman age and partially in the Middle Ages"); Iaroslavschi 1997, 31.

<sup>45</sup> Heldal 2015, 14–16.

<sup>46</sup> There was probably a stone exploitation in the vicinity of Sarmizegetusa Regia, for everyday objects. From the place known by the toponym Dosul Brăiței, we have the fragment of a pedestaled dish made from marl, having different morphological features in comparison with the source at Măgura Călanului. For a short while, the presence of limestone in that spot has determined C. Daicoviciu to presume there the existence of a quarry, see E. Iaroslavschi 1997, 29, n. 15.

<sup>47</sup> For the limestone exploitation techniques in antiquity, see Orlandos 1968, 16–20; Bessac 1996, 205–234.



Numerous spots inside the quarry still present visible tool marks resulted after the detachment of the blocks, as well as during the preliminary processing in the immediate vicinity of the extraction point. In addition to the aforementioned narrow channels preserved on some blocks, traces of the metallic wedges have been identified. The majority of such marks were observed on pieces which have already been extracted but, here and there, they are present on the walls of the exploitation fronts, too. Hence, some vertical surfaces and several monolithic pieces display the marks of diverse metallic tools (chisels, drills, axes, hammers, etc.)<sup>48</sup> (Pl. VI/1–3; Pl. VII/1–3).

I. Mârza observed the presence of multiple limestone extraction fronts ('quarries') almost on the entire area of Măgura<sup>49</sup> (Pl. VIII/1). Our recent endeavour allowed a primary inventory of the exploitation traces, offering us a more detailed image of their disposal.

As a result of the measurements, three main areas have emerged, comprising the "quarries" (Pl. VIII/2–3). The first two, located on the eastern side, respectively the median part of the hill, generally include walls with a visible height of one up to three metres, with lengths reaching over 15 m. We have to mention that some of them, disposed almost collinearly, may have been part of a single exploitation front and that natural phenomena could have covered some segments, thus dividing them (Pl. IX/1).

The area in which the most numerous and extended exploitation marks may be observed is located at the western extremity of the hill. They consist of block extraction fronts, agglomerations of limestone pieces in different processing stages (some are summarily cut, others have already well shaped forms), mounds of limestone fragments (most probably resulted through the deposition of the rests and wastes specific to a quarry), access routes, and some terraces (Pl. IX/2–4). If we consider all the types of traces listed above, the area of this zone is close to 13 ha (see limit 1 – Pl. X/1). Bringing into discussion other elements which, directly or not, have influenced the present exploitation leads to the delimitation of an almost double area (we refer especially to the prehistoric fortification and the ramparts mentioned below).

Four such large size fronts can be identified on this hillside (noted C1–C4 on the plan). They appear in the form of walls which exceed sometimes five metres in height (or even over seven meters on some portions). Nowadays, their line is interrupted by landslides but it is possible that, at the time the quarry had been abandoned, it was continuous, reaching lengths of approximately 150 m.<sup>50</sup> Many other small size fronts add to this assemblage. Their orientation is with predilection towards south, being determined by the geological structure (the oolitic limestone layer has a northern inclination).<sup>51</sup>

<sup>48</sup> For an overview of the stone working tools discovered especially within the region of the Dacian fortresses from the Orăştie Mountains, see Glodariu, 1985–1986, 93–99; Glodariu, Iaroslavschi, 1979, 104–108; Iaroslavschi, 1997, 39–42. The inventory and discussion concerning the marks left by ancient tools in the quarry from Măgura Călanului will be the subject of a separate study.

<sup>49</sup> Mârza 1995, 203. In his turn, E. Iaroslavschi mentioned the possibility of the existence of some exploitation marks in many other parts of Măgura, Iaroslavschi, 1997, 31.

<sup>50</sup> It is observable in the field and on the digital model included in the current article that the fronts noted by us C1 and C4 were united during the functioning period of the quarry, thus their joint line was reaching approximately 320 metres. A similar comment is valid for the fronts C3 and C4.

<sup>51</sup> Mârza 1995, 203.

Four agglomerations of extracted and processed limestone pieces (mainly blocks and slabs) are present in this point as well (B1-B4),<sup>52</sup> to which we are adding other two (B5-B6), located at the foot of the hill on the western, respectively southern side (on *Şesul Gorganului*). Today, it is impossible to establish their total number but, taking into account their distribution area, it may be estimated that thousands of such pieces are present in the quarry (Pl. X/1).

Field measurements have revealed that all the fronts appear at very similar elevations, indicating the exploited geological horizon. Consequently, they range from 545 to 560 metres above sea level.<sup>53</sup>

The total surface on which we have registered the existence of extraction fronts reaches 100 ha and if take into account other elements, such as the agglomerations of partially processed pieces, then the area grows considerably, up to approximately 350 ha<sup>54</sup> (Pl. VIII).

Little has been written so far on the permanent or temporary settlement of the workers in the limestone quarry at Măgura Călanului. This situation is caused by the lack of systematic archaeological research,<sup>55</sup> but also by a partial topographic approach of the discussed area.

A logic argument for the existence of a masons' settlement is the large stone quantity necessary for building all the constructions from the Orăştie Mountains. In other words, important human resources had to be ensured in order to complete the diverse logistic operations linked to the exploitation of the quarry.<sup>56</sup> Moreover, the discovery of some Dacian potsherds in the vicinity of the proper quarry has determined I. Glodariu to assume the presence of a temporary settlement of the ones who had exploited and processed limestone on the spot.<sup>57</sup>

G. Gheorghiu considered that stone exploitation in the quarries from Măgura Călanului (limestone), Deva-Pietroasa (andesite) and Craiva-Cubelcărie (limestone) lead to the development of the nearby Dacian settlements.<sup>58</sup> The latter exploitation, possibly with a masons' settlement,<sup>59</sup> is located at a distance of six-seven kilometres from the fortress built with the limestone from Cubelcărie on the Piatra Craivii hilltop.<sup>60</sup> It is also possible that temporary habitat structures had functioned near the andesite quarry from Pietroasa in order to ensure the seasonal supplementary labour force. However, it must be noted that the permanent settlement<sup>61</sup> from the southern part of Deva is very

<sup>52</sup> In all likelihood, the pieces grouped in B2, B3 and B4 belonged to a single immense agglomeration at the moment when the quarry had been abandoned. Hundreds of limestone elements have been taken from it subsequently.

<sup>53</sup> Elevations were recorded in the Stereo 70 projected coordinate system.

<sup>54</sup> It is predictable that the area of the quarry should increase as the archaeological and topographic research will advance.

<sup>55</sup> Such investigations should probably reveal habitat structures, Gheorghiu 2005, 79.

<sup>56</sup> Gheorghiu 2005, 79–80.

<sup>57</sup> Gheorghiu 2005, 41, 79.

<sup>58</sup> Gheorghiu 2005, 76.

<sup>59</sup> Moga 1987, 38; Gheorghiu 2005, 80.

<sup>60</sup> Iaroslavschi 1997, 32.

<sup>61</sup> On the bank of Pietroasa creek, in the point *Cimitirul Ceangăilor* and in the area of the apartment buildings 44–49 in the Micro 15 neighbourhood, Floca 1969, 20; Floca 1977, 175; Andriţoiu 1979, 22–23; Lazăr 1979, 637; Marc 2016, 70. The finds consist of complete or fragmentary ceramic vessels, animal bones, a quern, two silver *Dyrrhachium* coins, as well as a pottery kiln.

close,<sup>62</sup> at just 1.5 km in straight line (the distance is almost double to the Bejan quarry,<sup>63</sup> towards the limits of Almaşul Sec village). In comparison, the distance between the Roman city of Drobeta and the surrounding limestone exploitations is about 8–15 km, with partially processed or completed pieces discovered at the foot of the hills where the quarries had functioned. These items were interpreted as evidence for the existence of stone working workshops in the immediate vicinity of the exploitations.<sup>64</sup>

Two main variants have to be considered for the placement of the masons and workers' settlements: in the proximity of the quarry or at a distance of only a few kilometres. Examples encountered in the Greco-Roman world could also indicate other possible scenarios.<sup>65</sup> Accordingly, many settlements or even small communities could have existed simultaneously or consecutively, depending on the position of the fronts in the current exploitation. For instance, at the Roman imperial quarries from Mons Claudianus and Mons Porphyrites, in the eastern part of the Egyptian desert, numerous settlements and hamlets of the stone craftsmen have been noticed. The habitation was usually concentrated around a nucleus and comprised a fort, temples, dwellings of the officials, public baths, houses of the stonecutters, necropoleis, etc.<sup>66</sup>

Focusing on Măgura Călanului, the field research performed in the spring of 2021 has revealed a fresh set of data. This allows us to widen the area for identifying the settlements related to the activities of extraction, processing and transport preparation for the limestone architectural pieces. The terrain configuration (presence of vast plateaus) and the discoveries mentioned since the 19<sup>th</sup> century, attributed especially to the Roman age, represent valid arguments for locating such habitation clusters in the western and southern parts of the hilltop.

Moreover, it must be observed that terraces are visible on the northern side of Măgura, as well. Following the distribution of the stone exploitation fronts in the north-north-western part of the hill, close to the forest road which gently goes down along with the slope to Pădureni, we have identified a series of processed limestone objects (to be detailed below) and several plateaus, some of considerable dimensions.

These pieces are close to the south-eastern corner of a large anthropic plateau (approximately 700 × 450 m on the axis, having a surface of about 30 ha), with at least two levels (gradually descending towards north). The plateau is bordered by ridges on

<sup>62</sup> Gheorghiu 2005, 79.

<sup>63</sup> O. Floca considered that the Romans exploited both andesite quarries in the area, Pietroasa and Bejan. The author notes that constructions' remains, querns, ceramic pots, tools, coins, and two mason axes have been found, besides an inscription dedicated to Hercules and Silvanus: Floca 1969, 31–33, Fig. 25. In fact, the respective finds were related only to the point Bejan by Téglás G. ever since 1902. The researcher mentioned that the ancient exploitation fronts of both quarries have been already destroyed by modern exploitations from the second half of the 20<sup>th</sup> century, Bodó 2020, 166–167.

<sup>64</sup> Stîngă 1998, 61–62.

<sup>65</sup> Bearing in mind the role played by craftsmen from the Hellenistic milieu in building the Dacian complex from the Orăştie Mountains, we must not exclude the possibility that the organisation of the limestone exploitation would have been of 'Hellenistic inspiration' as well. In this context, the available analogies for the Pontic region could provide a number of clues for approaching the case of Măgura Călanului. For the stone exploitations in Dobrogea supplying the construction material for the Greek cities, see Mărgineanu-Cârstoiu 2006, 14–15.

<sup>66</sup> Hirt 2010, 12–22.



three sides (the eastern and western ones are lower and feature smoother slopes than the southern one), which seem to have been at least partially setup by the human hand. Thus, the impression of an immense stage with U-shaped stands is created. Right at the foot of the southern slope, under a modest exploitation front, there is an elongated terrace, visibly raised above the level of the plateau. The levels of the latter are clearly recognisable in the landscape and feature here and there bulges / mounds similar to the ones already known in the region of the Dacian settlements from the Orăştie Mountains. It is possible that they mark the place of several dwellings and/or stone working workshops yet we could not identify any archaeological materials on their surface.

Another important element which speaks in favour of a settlement is the very presence of a pond (partially dried out) and of several other puddles on the southern level of the plateau, close to the aforementioned elongated terrace facing the southern slope (Pl. XI/1).

The discovery of primary processed pieces at a relatively large distance (about 1.5 km) from the main exploitation fronts brings into discussion another essential component of the quarry organisation, namely the transportation routes. In regards to the limestone exploitation from Măgura Călanului, even some of the data are enough to illustrate the complexity of the approach, such as: the massive volume of pieces which were supposed to be taken out of the quarry towards the destination, where they were used for erecting different types of constructions, the considerable weight of some architectural elements from the region of the Dacian fortresses close to Sarmizegetusa Regia (for instance, blocks of 300–400 kg are frequent and some items are even larger), the long distances that had to be covered, and, at least for some tracks, the terrain displaying significant level differences.

I. Mârza considered two different transportation routes regarding Măgura: a main one at the southern base of the hilltop and a secondary one, descending towards the first from the eastern corner (Pl. XII/1). Furthermore, he assumed the existence of other routes leading to the Orăştie Valley, stating that most probably the limestone pieces were transported to the Dacian fortresses on peak roads in order “to avoid abrupt slopes and to shorten the distance between the exploitation spot and the construction place”.<sup>67</sup>

Our recent field research has confirmed the observations of the geologist from Cluj and offered additional information on the transportation routes. Three pieces have drawn our attention amongst the limestone items mentioned in the paragraphs above. Two of them are preserved in the shape of flagstones,<sup>68</sup> while the third has the form and dimensions similar to the column bases well known in the monumental religious architecture specific to the capital city of the Dacian Kingdom. The “plinth”, in order to maintain the name acknowledged in the literature, has a diameter of 1.1–1.6 m and a thickness of approximately 0.28–0.33 m, resembling the column bases of the temples found in the southern part of the sanctuary in Sarmizegetusa Regia.<sup>69</sup> In this stage of research, it is premature to consider that the piece found on the northern side of Măgura was designed to be part of the respective cult edifices, being possible abandoned, for unknown reasons,

<sup>67</sup> Mârza 1995, 204–205.

<sup>68</sup> The pieces, summary processed in the shape of flagstones, are also found in great number in the ‘deposits’ close to the south-western fronts.

<sup>69</sup> For the column bases of the great limestone temple at Sarmizegetusa Regia, see Apostol, Mateescu 2020, 80–82.

alongside one of the routes used in antiquity. There are many other plausible scenarios, such as its presence in an intermediary point between the extraction and partial processing front and the location where the item received its almost final proportions, within the limits of the quarry.<sup>70</sup> Another possibility is the movement of the artefact (from the vicinity of an exploitation front) in antiquity or even later with the intention to transport it to the nearby settlements.<sup>71</sup> Nevertheless, it is certain that the pieces (the slabs, the “plinth” and the surrounding blocks) are landmarks for one of the northern routes used throughout time for the transportation of lithic material. Hence, I. Mârza’s assumption proves to be well grounded.

A more extensive discussion is required for the western part of the hilltop, in regards to the transportation routes and the proper exploitations. We have already seen that the 19<sup>th</sup> century information on a prehistoric habitation on Măgura has been confirmed by recent research.

The fortification, hypothetically attributed to the Coțofeni culture,<sup>72</sup> is located in a dominant position (the south-west corner of the hill).<sup>73</sup> Hence, it had an excellent visibility at considerable distances and a very good natural defence provided by the steep western and southern slopes. We do not exclude the possibility that it had initially a circular shape, with an approximate diameter of 42–44 m. Today the fortification is cordiform, perhaps being affected by the ancient limestone exploitation. The upper plateau has a maximum diameter of about 32 m and was defended by two earth ramparts: the first is flattened and has a width of approximately 1.5 m; the second measures about 0.6 m in height and has a base width of approximately 4.5 m (Pl. XIII/1; Pl. XIV/1–3).

Our endeavour also allowed the identification of other defensive elements, namely two massive earth ramparts raised on the north-west – south-east direction. They begin just from the edge of the hill, at a distance varying from 85 to 105 m between each other. The first rampart (V1) is clearly visible on a length of approximately 170 m, having today a base width of about 12 m and a height of 1.9 m. The rampart noted as V2 (the inner one) measures 1.6–1.7 m in height, has a base width of 10.5–11 m and a visible length of approximately 205 m.

In this stage of research, we do not know if the circular structure and the massive ramparts were contemporary or not and if they belong to a single fortification (fortified settlement?). However, it is obvious that there is a topographic link between them and the surface comprising the most intensive limestone exploitation in antiquity. There is a possibility that the superposition of the two areas is not accidental. The presence of a dense prehistoric habitation in the south-west corner of Măgura supposes, amongst other

<sup>70</sup> Concerning the finishing of the pieces in the quarry, see Glodariu 1985–1986, 100–101.

<sup>71</sup> Most likely, the presence of hundreds of blocks scattered at the western and southern base of the hill, more or less processed, is explained by their abandonment inside the quarry in ancient times. They were probably moved/rolled towards the inferior plateaus in the medieval or modern periods in order to be transported to the neighbouring localities. The pieces represented a large amount of construction material, having the advantage of being already extracted.

<sup>72</sup> Rogoza et alii 2017, 151–152. We briefly note that the identification proposed by the cited authors of the prehistoric fortification on the 19<sup>th</sup> century maps is erroneous.

<sup>73</sup> In the highest point of the fortification, the altitude is 555 m (elevation measured in the Stereo 70 coordinate system).

things, the setup of the terrain and tracing several access routes towards the upper part of the hilltop. Such factors could have considerably eased the extraction and transportation of limestone on the western side. For instance, a route of this sort probably descended from the area of the C1-C4 fronts and headed west, to the large plateaus above Sântămăria de Piatră, and/or towards the main route noted by I. Mârza, on the southern side of the mount. The immense quantity of limestone blocks abandoned at the foot of the hill, on the western and southern sides, argues for the functioning of these roads for a long period of time.<sup>74</sup>

Significantly, a large rectangular structure was observed at the presumed intersection of the “western and southern routes”, possibly a Roman camp with earth ramparts. Its southern side measures about 139 m, the western one 120 m, while the northern side has 133.5 m in length. On the eastern side, 107 m long, a 20 m interruption of the rampart can be noticed (a gate?). Its hypothetical identification and positioning make possible the interpretation as a marching camp, in use during the conflicts between the Dacians and the Romans at the beginning of the 2<sup>nd</sup> century AD, with the role to block the supply of construction materials necessary in such conditions. However, only detailed research will provide a clear answer regarding the construction type and its chronological framing.<sup>75</sup>

The roads within the quarry and in its proximity are just one part of the problem related to the transportation of limestone pieces in the Dacian antiquity. The paragraphs above reveal that we possess a series of information indicating the existence of several access routes from and towards Măgura Călanului, coming from all directions. This statement acquires greater importance if we also consider the places where the construction material was delivered, in this case the Dacian fortresses from the Orăştie Mountains. I. Glodariu emphasised that all the limestone constructions from there had a single source, that is Măgura Călanului.<sup>76</sup> He estimated that the limestone volume necessary for raising the walls specific to the area of Sarmizegetusa Regia reached 16.000 m<sup>3</sup>, a value that would increase up to 20.000 m<sup>3</sup> if all the other types of monumental constructions would be taken into account (temples, paved roads, channels, etc.).<sup>77</sup>

The distances on which different quantities of limestone have been transported are considerable. Even if we approximate these trails, they still vary from 20 to 60 km (see the map Pl. XII/2 with the presumed directions followed to each fortress).

### Conclusions and research directions

By the time this article is published, the process of including *Măgura Călanului* on the *List of Historical Monuments* should be completed. Thus, the desire formulated more than 25 years ago by I. Mârza, granting the due status to one of the most important historical-archaeological monuments of Romania, will be fulfilled.<sup>78</sup>

<sup>74</sup> Besides, numerous roads are observable on Măgura Călanului, crossing the entire hilltop, on the Austrian map from the end of the 18<sup>th</sup> century. It is possible that many of them were setup in antiquity.

<sup>75</sup> If the fortification proves to be a Roman camp, it might be also linked to the Roman exploitation phase of the quarry.

<sup>76</sup> Glodariu 1997, 77.

<sup>77</sup> Glodariu 1985–1986, 102.

<sup>78</sup> It must be noted that Măgura Călanului has been declared archaeological site and included in the National Archaeological Repertoire since 2010, code 87433.03.

Its research and protection have just started, even almost two centuries after Măgura was recognition as the provenance place of the limestone used for the Dacian fortresses. Another essential contribution of the 19<sup>th</sup> century scholars is represented by reporting the different points with prehistoric and Roman finds around the hill, as well as on its top and slopes. The investigations carried out by I. Glodariu and I. Mârza at the end of the 20<sup>th</sup> century have led to the systematisation of data, the beginning of interdisciplinary research and the identification of the main archaeological and geological characteristics of the ancient limestone exploitation.

Even in a preliminary stage, our endeavour provided a series of crucial information regarding the topography of the site. It becomes clearer that the archaeological landscape of the entire hill is proving to be much more complex, with numerous prehistoric habitation and fortification traces and with the Dacian and Roman exploitations, possibly continued at a different scale in the following periods. The extraction of limestone is just one part of an archaeological entity which displays considerably larger dimensions than believed up to this point, with limits actually marked by natural elements (the rivers mentioned above).

Documenting the main exploitation area of the quarry strengthens the assumption that we are facing an approach typical for the Mediterranean space in regards to the extraction of limestone pieces, mainly for construction material. The performed measurements allow the visualisation of a quarry with working fronts reaching hundreds of metres in length, oriented in many directions according to the terrain configuration, especially north-south and east-west. The traces left by different tools on the surface of the fronts or the numerous detached and/or partially processed items reveal the same techniques from the Greek-Roman milieu. Although the majority of the extracted and abandoned pieces from the quarry present morphological similarities with the architectural elements found in the Orăştie Mountains, we recall that one cannot exclude an effective utilisation of the quarry during the Roman times, or even later.

The identification of secondary fronts in the eastern and northern parts of Măgura Călanului and of partially finished limestone items on the direction of one of the possible northern transportation routes has determined us to expand the ancient exploitation area at over 100 ha, after a minimalist calculation. In addition, it has led to the discovery of large size plateaus, propitious for a settlement or for a workshops zone for processing the pieces extracted in the southern fronts. All these elements confer a broader perspective on the access and transportation routes towards and from Măgura Călanului. As a consequence, direction lines like Valea Mureşului or Valea Streiului join the current discussion with plausible arguments.

Briefly mentioned in the recent literature, the (almost) circular fortification from the south-west corner of Măgura receives a proper presentation at this time, taking into account its principal topographic and morphologic features. It is correlated with other defensive works erected to the east, namely two massive earth ramparts which seem to delimitate the main exploitation area. The rectangular fortification at the foot of the hill represents another surprise in the researched area. Its confirmation as a Roman fort would imply a substantial revaluation of the archaeological and even historical situation of the limestone exploitation.

Although the results of our field research offer new data for the study of this archaeological landscape, we understand that the enterprise must be continued at many

levels. Therefore, the digital terrain model must be completed and perfected through the acquisition of supplementary data (eventually of LiDAR type). Mapping the exploitation fronts and the deposits / agglomerations of partially processed pieces will be expanded on the entire surface of the hill, especially the forested area. Simultaneously, the many roads which cross the hilltop in different directions will be topographically documented.

As far as archaeology goes, the numerous and diverse exploitation marks have to be detailed. The excavation approach is necessary in the case of the circular fortification, the earth ramparts and the rectangular fortification. Trial trenches must be performed on the southern terraces but also on the northern plateaus in order to clarify the aspects concerning the habitat or the craftsmanship activities related to the quarry. Field research should be continued for locating and delimiting the sites and finds mentioned in the 19<sup>th</sup> centuries papers. At the same time, the investigations carried out by I. Mârza on the geological aspects require deepening and contextualisation through long-term multidisciplinary geological research, extended to the eloquent monuments from the Orăștie Mountains, but also to an adequate approach on the archaeological landscape.

The expected undertaking will entail a prolonged time span as well as interdisciplinary team, including specialists from abroad who have already accumulated a vast experience concerning the research of ancient quarries. Nevertheless, this endeavour is vital for the proper comprehension of the quarry and for the adequate assumption of the responsibilities and tasks regarding the preservation, protection and promotion of this outstanding monument.

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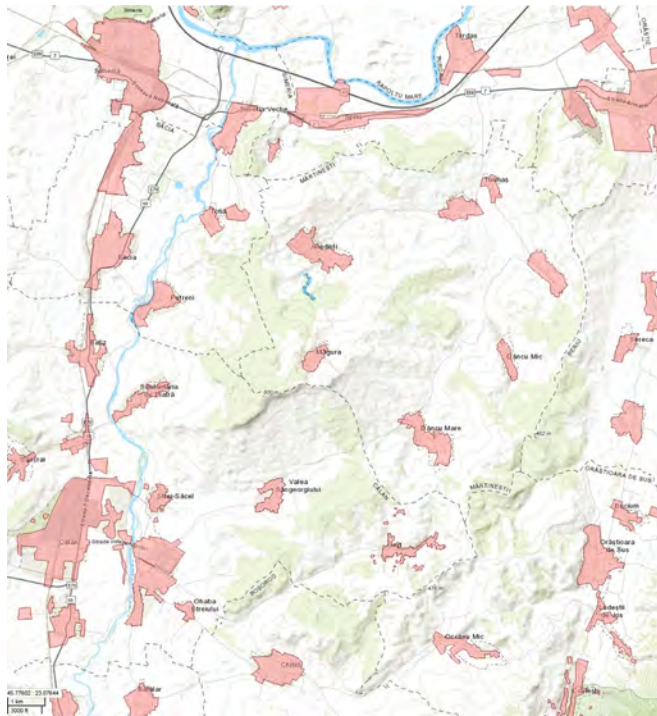
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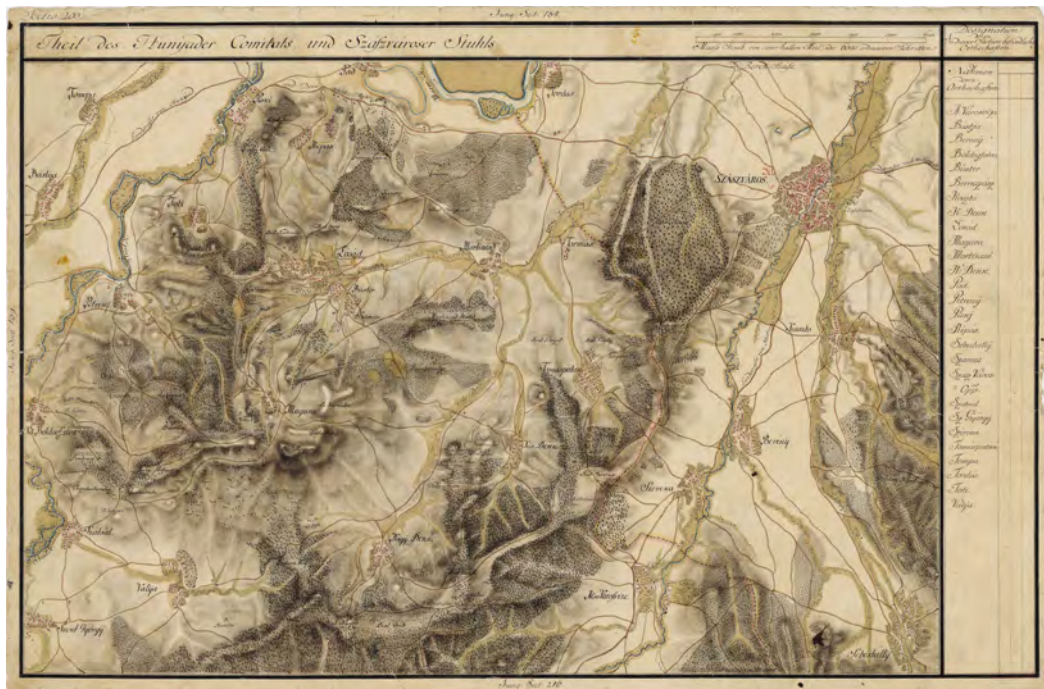
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**Pl. I. 1.** Current localities in the area of Măgura Călanului ([map.cimec.ro](http://map.cimec.ro)); **2.** Măgura in the plates of the Josephinian Land Survey ([https://ro.wikipedia.org/wiki/Măgura, Hunedoara](https://ro.wikipedia.org/wiki/Măgura,_Hunedoara), accessed 12.06.2021).



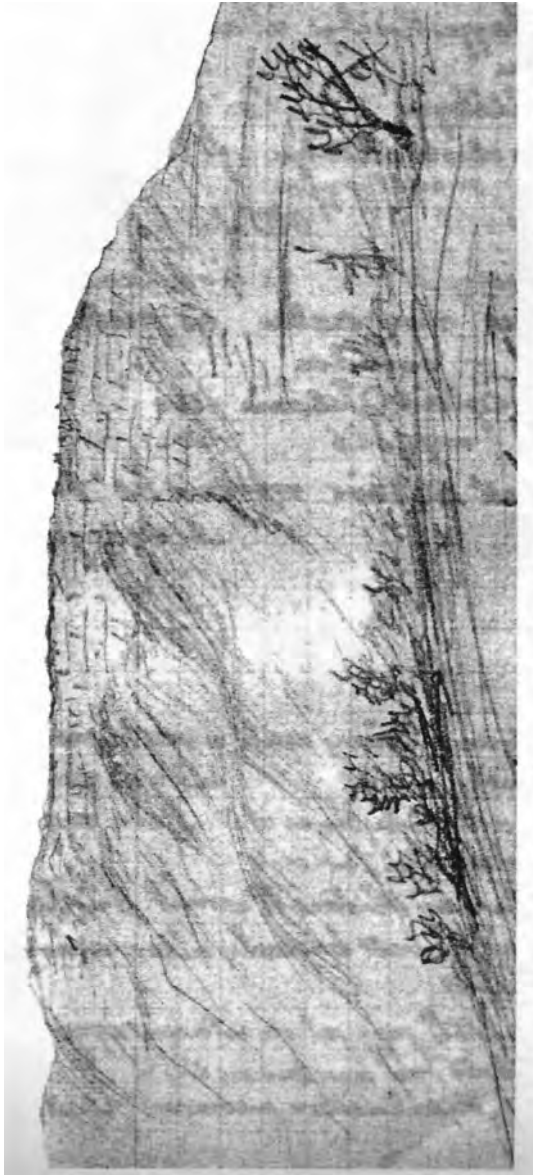


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**Pl. II.1.** Măgura Hill, aerial photography (March 2021, © D. Costea); **2.** Southern hillside of Măgura (aerial photography, March 2021, © D. Costea).



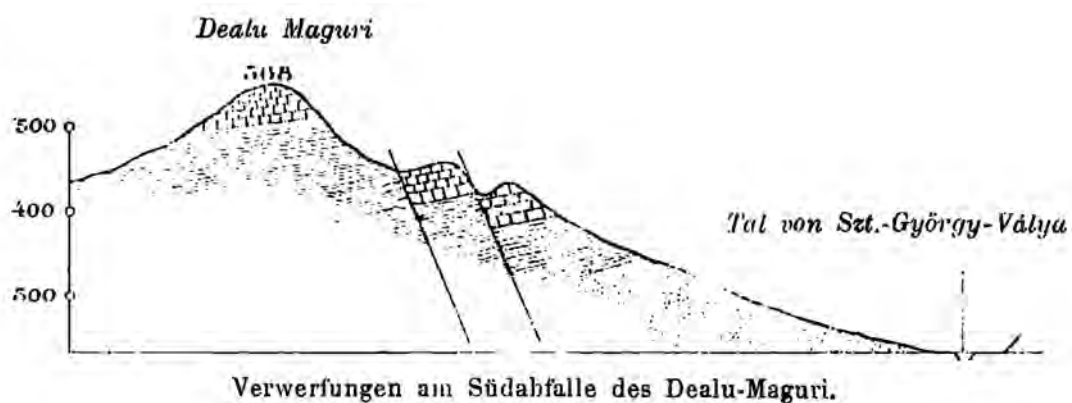
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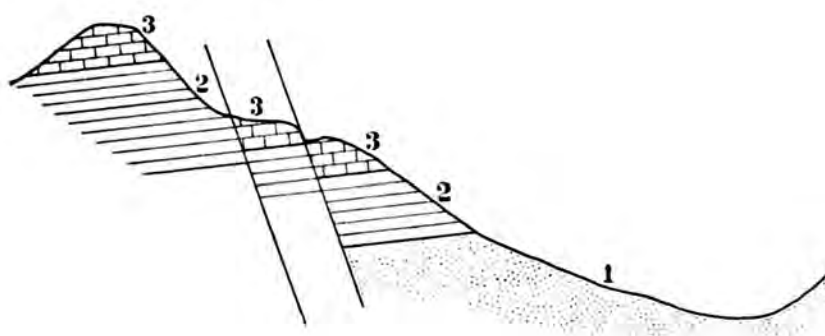
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Pl. III. 1–2. Sketches of Măgura Hill drawn by István Téglás (Bajuzs 2005).





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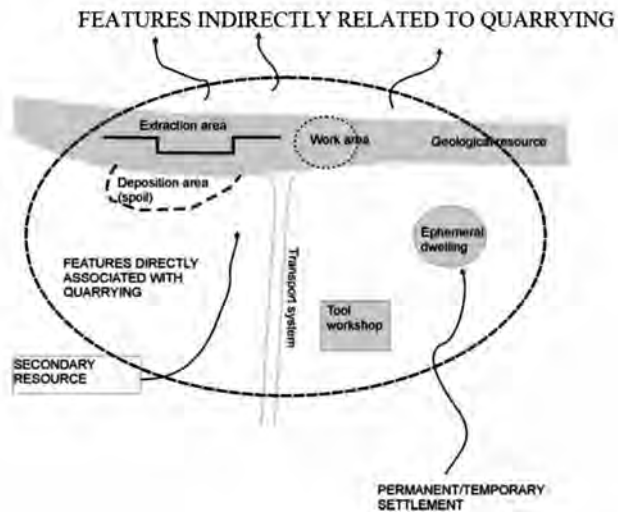
1. clay layers; 2. sand and marl; 3. chalk and marl.

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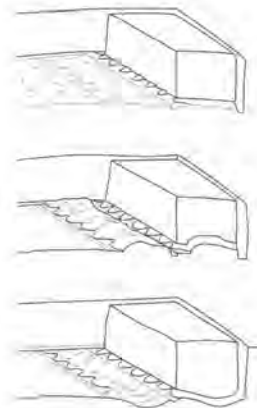
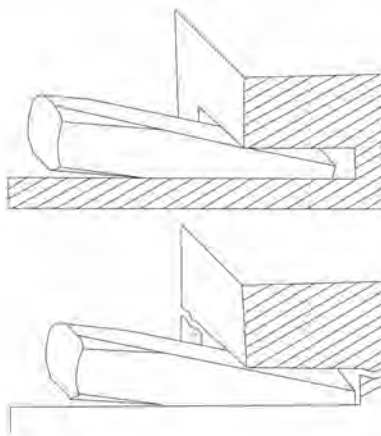
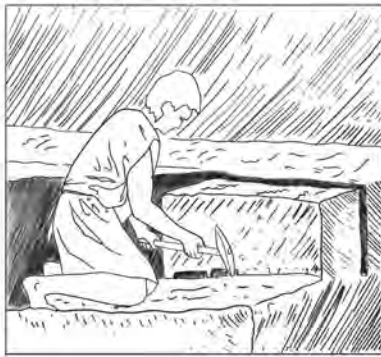


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Pl. IV. 1. Representation of the geological layers specific to Măgura (Halaváts 1901, 108); 2. Representation of the geological layers specific to Măgura (processed after G. Halaváts, published by F. Nopcsa, 1905, Fig. 43); 3. The quarry from Măgura Călanului on the map attached to the paper of Fr. Schafarzík (Schafarzík 1909, III).



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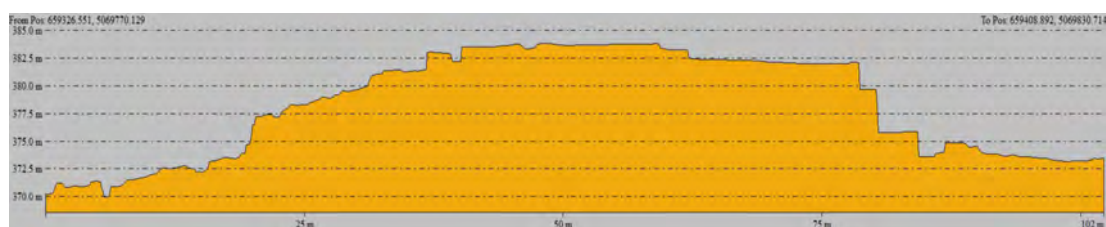
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**Pl. V. 1.** Schematic representation of the component parts of a quarry (after Heldal, Bloxam 2008, Fig. 4);  
**2.** Representations of the extraction technique and of the diverse types of blocks detachment using wedges (Bessac 1996, Fig. 49, 53, 144, 145).





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**Pl. VI. 1.** The visible wall of an exploitation front; **2.** Section of the exploitation fronts (to the right, the gradual stepped extraction); **3.** Large size monolith with exploitation marks, on the western side of Măgura.





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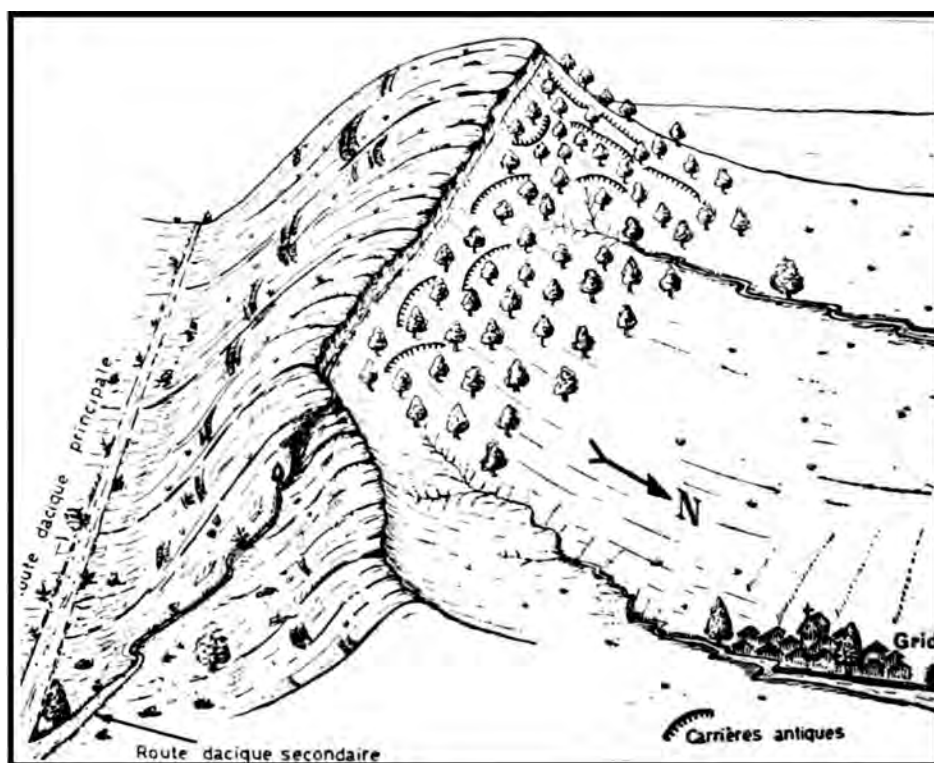


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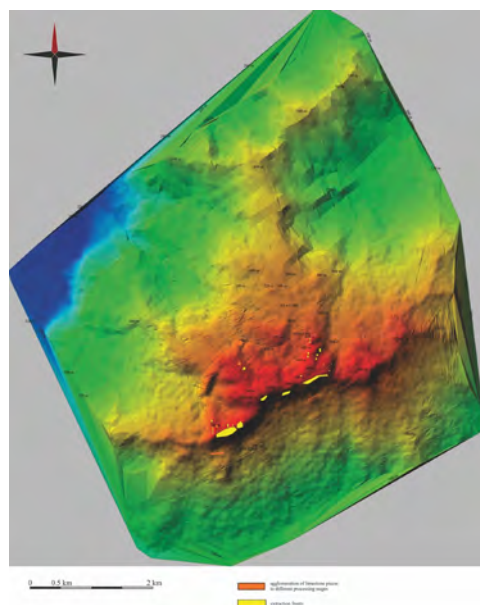


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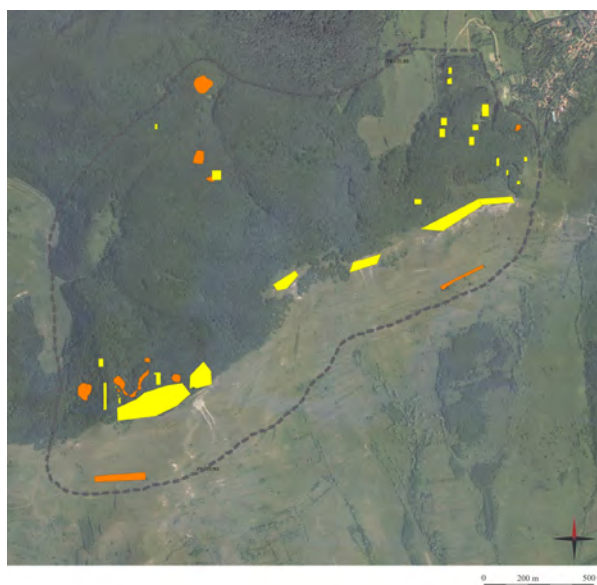
**Pl. VII. 1-3.** Traces of the use of metallic wedges for the detachment of the blocks.



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**Pl. VIII.** 1. Sketch with the distribution of the ancient quarries on Măgura Hill (Mârza 1995, Pl. VII); 2. Măgura Călanului, digital terrain model and positioning of the main exploitation fronts and of the agglomerations of limestone pieces; 3. Măgura Călanului, orthophotomap and positioning of the main exploitation fronts and of the agglomerations of limestone pieces.





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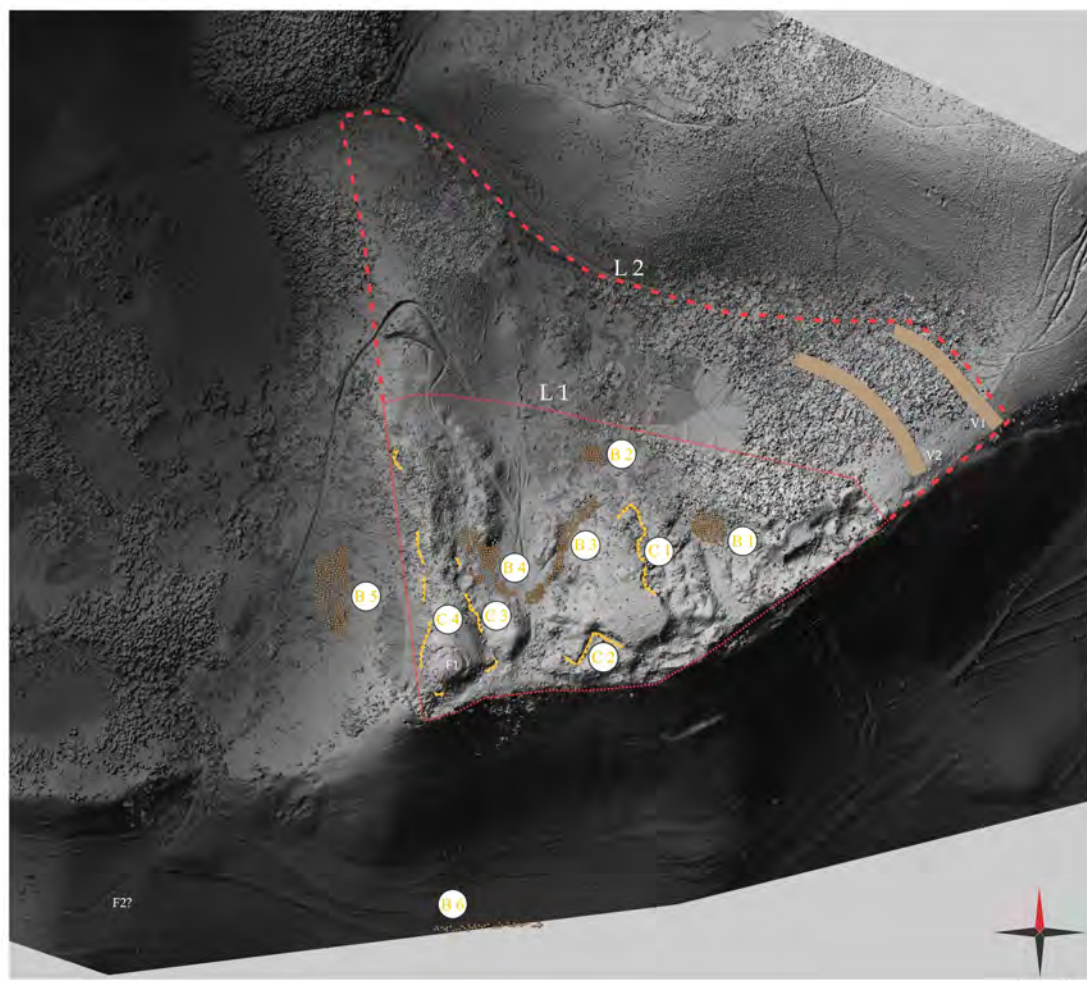


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**Pl. IX.** 1–2. Exploitation front in the eastern part of the hilltop; 3. Limestone pieces scattered nearby the western exploitation fronts; 4. Limestone pieces scattered nearby the fronts and mounds resulted by depositing the exploitation wastes and scraps.



B 1 - B 6 - agglomerations of limestone pieces in different processing stages

C 1 - C 4 - large size extraction fronts

F 1 - the circular fortification from the south-west corner of Măgura

F 2 - Roman fort (?)

L 1 - L2 - the area with the most numerous and extended exploitation marks from the western extremity of the hill

V 1-V 2 - massive earth ramparts

**Pl. X. 1.** The south-west corner of Măgura, digital terrain model and representation of the main extraction fronts, of the areas with agglomerations of limestone pieces, and of the fortification elements.





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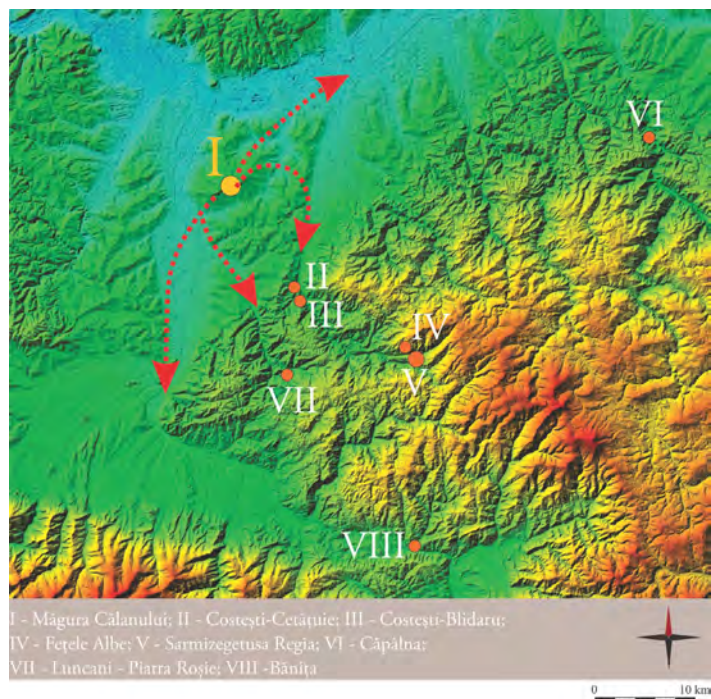


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**Pl. XI. 1.** The plateaus on the northern hillside of Măgura (aerial photography, March 2021, © D. Costea);  
**2.** Plateau on the northern hillside of Măgura; **3–4.** Round limestone elements discovered on the northern hillside of Măgura.



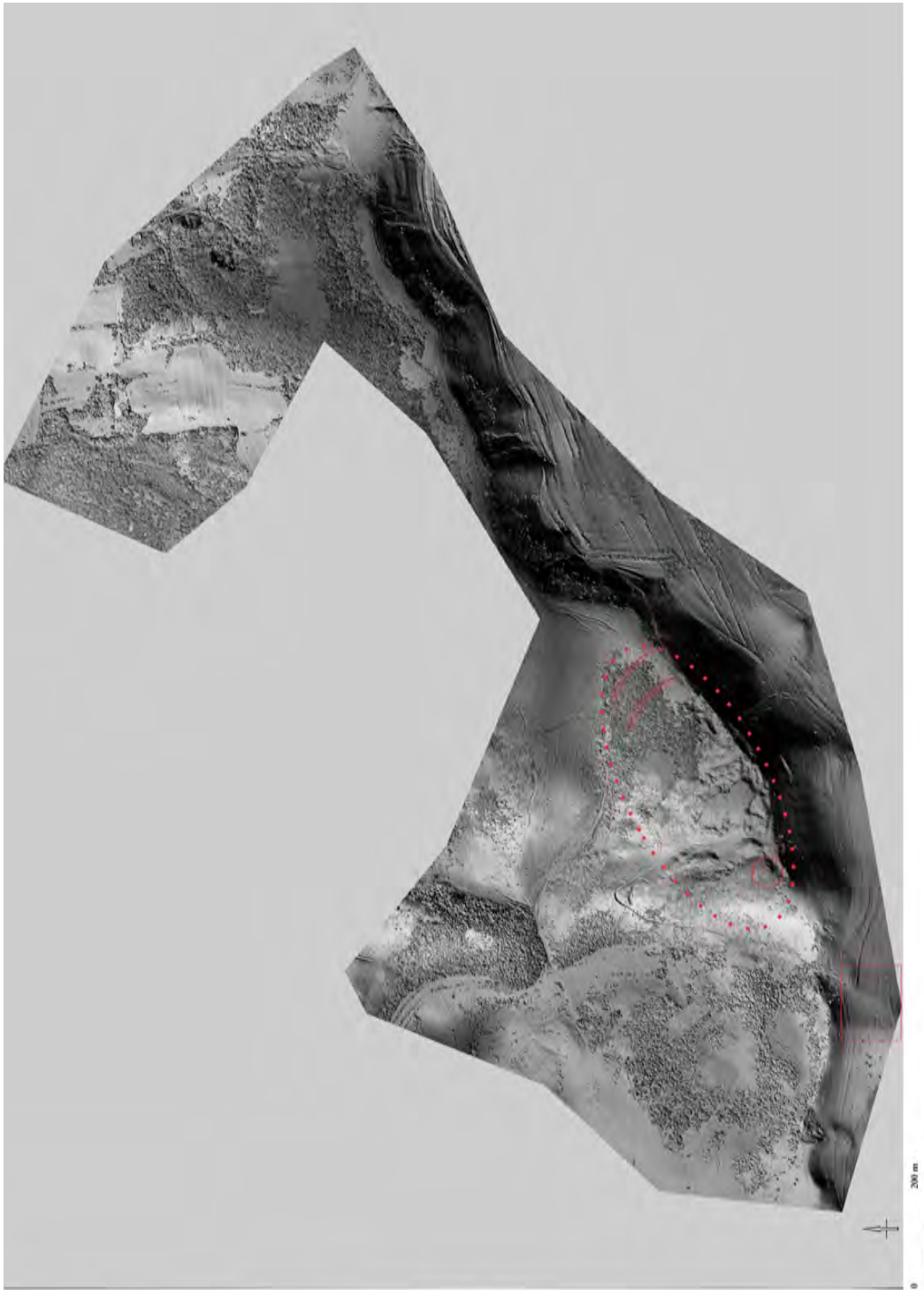
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**Pl. XII. 1.** The “southern route” employed for the transportation of limestone items; **2.** Possible directions for the transportation of limestone pieces from the quarry at Măgura Călanului towards the Dacian fortresses from the Orăștie Mountains.





**Pl. XIII. 1.** Măgura Călanului, digital terrain model with the layout of fortification elements.

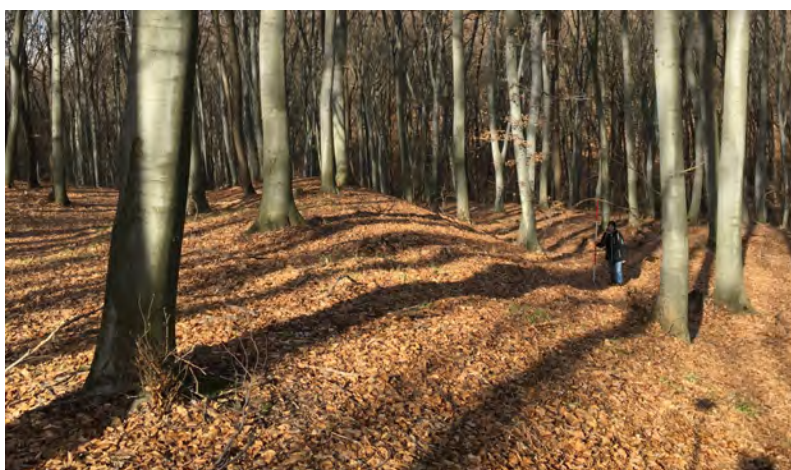




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**Pl. XIV. 1.** The peak of the south-west corner of Măgura on which the prehistoric fortification has been built; **2.** Segment of the rampart and ditch of the prehistoric fortification; **3.** Earth rampart from the upper part of Măgura.



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Pl. XV. 1. Earth rampart from the upper part of Măgura; 2. The Roman fort (?).





## THE DISCOVERY OF A ROMAN MARCHING CAMP IN COȘTIUI, MARAMUREȘ COUNTY, ROMANIA. IDENTIFICATION AND ARCHAEOLOGICAL EXCAVATIONS 2019

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**Abstract:** This article presents the results of investigations of an earthen structure on Imaș Hill in Coștiui village conducted in the autumn of 2019. The encampment closely resembles a medium-size Roman marching camp, a temporary base built by the Roman army on the move during campaigns. It is located 70 km north from the Roman Frontier area (the line of the Roman auxiliary camps from Cășeu/*Samum* and Ilișua/*Arcobadara*). It is the farthest known Roman military point discovered beyond Dacia Porolissensis. The fortification has a distorted rectangular shape, adapted to the hill's outline, and covers the area of 3.59 ha. Its defensive elements comprise a single line of ramparts and an external ditch. The ditch is of the truncated "V-shaped" type with a straight bottom. The heavily eroded rampart is not continuous and has 43 openings along all sides at relatively equal distances from each other. The presence of a Roman camp in the area of one of the richest salt deposits in Maramureș cannot be a coincidence. Discoveries of Roman military sites are known on the former Roman Empire's territory in areas of useful natural resources such as mineral outcrops. The fact that it was built near one of the biggest salt deposits known in the Maramureș Depression is a strong suggestion that Romans could be interested in controlling the salt extraction and perhaps its distribution/trade in the Upper Tisza region.

**Keywords:** Roman marching camp; Upper Tisza River; Coștiui; salt deposits.

**Rezumat:** Acest articol prezintă rezultatele cercetărilor unei structuri de pământ aflate pe Dealul Imaș, în satul Coștiui, efectuate în toamna anului 2019. Fortificația este comparabilă cu un castru roman de marș, o bază temporară construită de armata romană în mișcare în timpul campaniilor. Punctul se află la 70 km nord de zona frontierei romane (linia castrelor auxiliare de la Cășeu/*Samum* și Ilișua/*Arcobadara*). Este cel mai îndepărtat punct militar roman descoperit dincolo de Dacia Porolissensis. Fortificația are o formă dreptunghiulară neregulată, adaptată conturului dealului și acoperă o suprafață de 3,59 ha. Elementele sale defensive cuprind un val de pământ și un șanț exterior. Șanțul este de tip trunchiat „în formă de V” cu fundul drept. Valul, puternic erodat, nu este continuu și are 43 de deschideri de-a lungul tuturor părților la distanțe

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relativ egale una de cealaltă. Prezența unei fortificații romane în zona unuia dintre cele mai bogate zăcămintele de sare din Maramureș nu poate fi o coincidență. Descoperirile de fortificații militare sunt cunoscute pe teritoriul fostului Imperiu Roman în zone cu resurse naturale utile, precum zăcămintele minerale. Faptul că a fost construit lângă unul dintre cele mai mari zăcămintele de sare cunoscute în Depresiunea Maramureșului este un indiciu că romanii ar fi putut fi interesați să controleze extracția sării și, probabil, distribuția/comerțul acesteia în regiunea Tisei Superioare.

**Cuvinte cheie:** castru roman de marș; râul Tisa Superioară; Coștiui; depozite de sare.

## 1. Introduction

In the spring of 2016 a history teacher Marius Voinaghi, along with the “Gemina” group of students from the National College “Dragoș Vodă” from Sighetu Marmăției, conducted several archaeological field-walks in Maramureș County. Due to information provided by Daniel Zapca, on the territory of Coștiui village, they visited a “rectangular structure (...) possibly a Roman camp”.<sup>1</sup> Intrigued by the published information about the site, we visited the village and noticed remains of ramparts and ditches which formed a rectangular feature spreading across Imaș Hill (Epres Hill in Hungarian). To establish the exact character and the chronology of these earthworks, we decided to carry out excavations. This article presents the results of our archaeological investigations conducted in the autumn of 2019.

### 1.1 Site description – Location, topography and geology

Coștiui village lays in northern Romania within the Maramureș Depression which is a part of Upper Tisza Basin. It is located 80 km north-east from Baia Mare and 20 km south-east from Sighetu Marmăției. The archaeological site is located 1.25 km west from National Road 18 and 250 m south from County Road 186A at the Imaș hill (Pl. I). The hill is visible to the left whilst entering the village.

From the topographical point of view, the village sits at the low mountain range area where peaks rise from 312 m to 940 m AOD. The archaeological site is surrounded by four distinct hills flanking it from the North, South-West, East and West. The site is accessible by fairly levelled ground at the southern side and is encompassed by the waters of *Țiganilor stream* to the east, Seneșel to the west and Coștiui River to the north. It occupies an elongated hill, whose height varies from a minimum of 372 m to a maximum 402 m AOD. A small rocky knoll, the highest point of the hill, is incorporated to the line of defences. Longer sides of the earthworks follow the edge of the slope along the North-East and South-West sides.

The geology of Imaș Hill and the surrounding area consists of Miocene rocks like marls, sandstones, and volcanic tuffs.<sup>2</sup> Outcrops of halite, commonly known as rock salt,<sup>3</sup> are present in the north-western and western part of Coștiui Village.

<sup>1</sup> Voinaghi 2016, 186.

<sup>2</sup> Antonescu et alii 1979, 5–23.

<sup>3</sup> Halite is a natural form of salt, which occurs as evaporate deposits such as saline lakes shorelines, or as solid sedimentary salt beds (Pamplona, Kocher, Snethlage 2010, 181).

## 1.2 Historical and archaeological background

Historical development of Coștiui and all archaeological discoveries from its territory are associated with significant salt deposits existing in the area.<sup>4</sup> No doubt production of salt took place in the Medieval Period,<sup>5</sup> but according to some authors, it could have begun earlier.<sup>6</sup>

The discovery of a Neolithic stone axe<sup>7</sup> and numerous artefacts dating to the Late Bronze Age (including two hoards<sup>8</sup>) suggest that salt outcrops in the village could be known since prehistoric times. However, the connection between the prehistoric objects discovered at Coștiui and the salt industry cannot be unreservedly proven, as wooden and stone tools were not found in exactly the areas where salt was extracted. Many researchers also suggest that the salt production began in the La Tène (Dacian) Period,<sup>9</sup> but there is no substantial evidence proving it either.

Numerous Roman coins found in Coștiui and its proximity may confirm the hypothesis that salt could have been mined in the Roman Period.<sup>10</sup> Alexandru Filipașcu mentions a Roman fortification from which some of these coins could come.<sup>11</sup> Unfortunately, we do not know if the author refers to the camp on the Imaș hill or another unknown fortification situated within the village territory.

Anton Constantinescu believes that up to ten mines operated for longer or shorter periods between 600 and 1350 in the eastern part of the current village area.<sup>12</sup> However, some of his assumptions have not been based on any reliable documentary evidence, only on history enthusiasts' early works.

The finds of 13<sup>th</sup>-14<sup>th</sup> century pottery from Apaffi Castle<sup>13</sup> in the village (currently a school) predates the historical documents. Therefore, the mines could be worked as early as the middle of the 13<sup>th</sup> century.<sup>14</sup> The earliest historical document that mentions Coștiui dates to 1474 and refers to "castellum Ronaszek".<sup>15</sup> Up to the 18<sup>th</sup> century, the most common name of the Coștiui village was Rónaszék (also spelt Ronazek; Ronazeek;<sup>16</sup> *Salis Fodina*, Rona Zeke, Rhona Szek, Rhóna-Szék Királyi Sóbánya<sup>17</sup>). From the 18<sup>th</sup> century onwards, the name Coștiui started to appear in the documents (Kostyl, Kostyl<sup>18</sup>).

<sup>4</sup> The halite deposits in Coștiui form a salt pillow, with an estimated thickness of 250 m and reserves of 1078 million tons (Kacsó 2011, 67, 71, 447).

<sup>5</sup> Kacsó 2011, 115.

<sup>6</sup> For the list of authors see Kacsó 2011, 67.

<sup>7</sup> Bobină 2009, 9, no. 14.

<sup>8</sup> Kacsó 2006, 100–101.

<sup>9</sup> M. Bărbulescu, E. Nemeth, A. Rustoiu, H. Pop (For the list of authors see Kacsó 2011, 450).

<sup>10</sup> Bélay 1943, 16; Rethy 2006, 4.

<sup>11</sup> Filipașcu 1997, 21.

<sup>12</sup> Constantinescu 1981, 23.

<sup>13</sup> Popa 1970, 75.

<sup>14</sup> Bélay 1943, 7, 47.

<sup>15</sup> Suciu 1967–1968, 38.

<sup>16</sup> Mihályi 1900, 39.

<sup>17</sup> Szabó 2003 (on line <https://www.arcanum.hu/hu/online-kiadvanyok/ErdelyHelysegnevTar-erdely-bansag-es-partium-torteneti-es-kozigazgatasi-helysegnevtara-1/telepulesek-1C9/c-533/costiui-7E8>, accessed 19.12.2020).

<sup>18</sup> *Tekintő*, 836 (on line [http://www.fatornyosfalunk.com/html/erdelyi\\_helynevkonyv.html](http://www.fatornyosfalunk.com/html/erdelyi_helynevkonyv.html), accessed 14.12.2020).

According to Dénes Csánki, there was a royal fortress in the village area, whose *castellan* is mentioned in a document from 1479 (“Castellanus in Ronazeek”).<sup>19</sup> It is believed that the earliest purpose of this castle was to protect and control the salt mines and its distribution.<sup>20</sup> The castle was yield in 1511, together with the fortress of Hust, to the Perényi family and in 1522. These two fortresses, as well as the town of Sighet, later became the property of Queen Mary of Habsburg, wife of Ludovic II, King of Hungary and King of Bohemia.<sup>21</sup> The salt deposits in Coștiui were among the richest in Maramureș, and the salt mains were operating here until 1934.<sup>22</sup> At present, the only remain of the former salt industry is the 18<sup>th</sup>-19<sup>th</sup> century building which used to be the Salt Chamber’s headquarters.

### 1.3 Previous investigation

The site was discovered in the spring of 2015 by Daniel Zapca, a local history enthusiast and a member of the Pro Detection Association. Using satellite maps, he noticed a large rectangular structure at the edge of Coștiui village, on Imaș Hill. During the first visit to the site on the 21<sup>st</sup> of March 2015, he photographed the earth structure and searched it along the northern ditch and part of the western one using a metal detector, finding only modern artefacts (horseshoes, cans and cartridge tubes).<sup>23</sup> According to the village’s residents, the ditches on the hill were World War II military trenches or water pipe ditches excavated during the communism era. He went to the site for the second time later that year and found a large iron nail (tent peg) “similar to the Roman ones”. Unfortunately, the find was lost in a nearby Hera peak area.<sup>24</sup>

Based on the information provided by Daniel Zapca, the history teacher Marius Voinaghi visited Coștiui several times in 2016 and took the first measurements of the “... rectangular structure with approximate dimensions of 180 m by 200 m, possibly a Roman camp...”<sup>25</sup> The information about the site was published next year by Teofil Ivanciuc, a local history freelance researcher.<sup>26</sup>

In 2018, we visited the site several times to confirm published data. Our observations were presented at the seventh edition of the *Limes Forum* Conference.<sup>27</sup> In the spring of 2019, we went back to the site to take more measurements and photos. Using aerial photography and photogrammetry, we established a detail model of the site and planned the following excavations.

<sup>19</sup> Kacsó 2011, 454.

<sup>20</sup> Pap 1909, 45.

<sup>21</sup> Bietenholz, Deutscher 2003, 399.

<sup>22</sup> See Kacsó 2006, 97–121 and Kacsó 2011, 450–453 for the detail description and history of these mines.

<sup>23</sup> The field walk and the metal detector use was carried out after prior notification of the local authorities (Maramureș County Directorate for Culture and National Heritage), according to the law of possession and use of metal detectors in Romania.

<sup>24</sup> Information provided by Daniel Zapca.

<sup>25</sup> Voinaghi 2016, 186.

<sup>26</sup> Ivanciuc 2017, 17.

<sup>27</sup> *Limes Forum VII* Conference organized by the Ministry of Culture and National Identity, the National Museum of History of Transylvania, the National Museum of History of Romania, the Zalău County Museum of History and Art and the Limes National Commission (Zalău, Sălaj County, December 7<sup>th</sup>-8<sup>th</sup> 2019).



## 2. Methodology

### 2.1. Site documentation methods

Before the archaeological excavation *per se* we applied several documentation methods to obtain a clear image of the site, dimensions of the structure, and a digital model of the terrain. The implemented workflow was based on the UAV (Unmanned Aerial Vehicle) photogrammetric survey. The surface was subjected to a grid-based mapping process using a UAV vehicle, collecting a data set of 900 photos from an altitude of 30 m. The collected data were processed using the Structure from Motion (SfM) method<sup>28</sup> in dedicated software based on the Scale Invariant Feature Transform algorithm<sup>29</sup> that identified the common points from all the photos (the tie points); by calculating the internal and external geometries of the camera and the 3D references in the process called bundle adjustment.<sup>30</sup> The obtained sparse point cloud of the area was transformed into a dense cloud by a densification process based on the Multi-View Stereo (MVS) algorithm.<sup>31</sup>

Next, the dense cloud was exported in the GIS-based software in order to create the digital surface model of the area (Pls. II-IV; based on the Triangulated Irregular Network).<sup>32</sup> Since the archaeological features are located in a non-vegetation area, there was no need for a ground classification process of the points.<sup>33</sup> Thus, the obtained digital surface model has a resolution of 0.3 m, geo-rectified using ten Ground Control Points (GCP)<sup>34</sup> for higher precision of the final model.<sup>35</sup> Together with the 3D results, the data were processed in order to obtain a high resolution ortho-rectified textured mosaic; the same workflow was applied on the archaeological trenches, except the fact that we did not obtain elevation models but textured mosaics: sparse cloud – dense clouds – mesh – textured model. Adjacent to these scans, we used another GIS-based method mainly to observe a particular aspect of the site. The Cumulative Viewshed Analyses (CVA)<sup>36</sup> indicate the visibility and inter-visibility pattern of the structure in relation to its proximity landscape features,<sup>37</sup> resulting in a rather reduced covered area, due to the surrounding hilltops.

### 2.2 Excavations methods

Archaeological research comprised excavations of four trenches, one at each side of the fortification. We aimed to identify the stratigraphy of ramparts and ditches and to find artefacts which would shed some light on the date of their construction.

Trenches were excavated to the natural layer using hand shovels and trowels, reaching a minimum depth of 0.1 m and a maximum depth of 0.93 m. A full written, drawn and photographic record of all identified archaeological features and deposits was

<sup>28</sup> Koenderink, van Doorn 1991, 377–385; Fonstad et alii 2012, 421–430; Westoby et alii 2012, 300–313.

<sup>29</sup> Lowe 2004, 91–110.

<sup>30</sup> Triggs et alii 2000, 298–372; Liu, Zayer 2012, 1–12.

<sup>31</sup> Ștefan, Ștefan 2016, 255–270. See also Ștefan, Ștefan 2016a, 25–35.

<sup>32</sup> See in this direction Floriani, Magillo 2009.

<sup>33</sup> Tomaštik et alii 2017, 151.

<sup>34</sup> See the methodology in Hummel 2016, 797–802. In order to obtain high accuracy topographic points we used a GPS – RTK V90 Plus for the surveying process.

<sup>35</sup> The CVA analyses were acquired based on a 30 m resolution digital elevation mode (provided by SRTM).

<sup>36</sup> See in particularly Wheatley 1995, 171–186.

<sup>37</sup> The parameters of the analyses: T.E. = 2 m, R.E. = 2 m, radius = 3 km.

made. Contexts were recorded using a single continuous numbering system and were summarised in Table 1. All trenches were photographed, and an accurate fully textured 3D model of the whole site, including excavated trenches, was made using photogrammetry. All finds were retained, cleaned and catalogued. The documentation and the discovered materials are kept in the MJIAMM Baia Mare archive.

### **3. Results**

#### **3.1 Site dimensions**

The scanning process's final data confirmed the existence of a distorted rectangular enclosure with an adjacent defensive ditch on all four sides. The precise dimensions of the earth structures are: 194.95 m (North-West facing side), 258.93 m (North-East facing side), 109.27 m (South-East facing side) and 259. 83 (South-West facing side), covering an area of 3.59 ha.

#### **3.2 Stratigraphy and features**

Excavated trenches were rectangular and had a similar size, approximately 8 m long by 1.5 m wide, except Trench I which was 10 m long by 1.5 m wide, and Trench IV which had dimensions of 5 m long by 4 m wide. All trenches were covered by grass, and the measurements were taken from the top of this layer. The trenches were planned at right angles to the visible elements of the fortification to cut through the ditches and ramparts (Pl. IV).<sup>38</sup> Due to the terrain configuration and the soil erosion, the stratigraphy of the trenches slightly varied (Tabel 1).

Trench III (Pls. V-VI), excavated to the maximum depth of 0.45 m, had the best preserved remains of the rampart and the ditch. The general stratigraphic sequence observed in it comprised a topsoil (015) underlined by four contexts: a layer of light grey loam (017, at the highest point of the trench, inside the enclosure); a light grey loam with crushed rock (016, fill of the ditch); a dark grey loam with crushed rock (018, between the ditch and the rampart), and a light grey loam with crushed rock (019, the rampart). Remains of the rampart 019 had 1.4 m width and a maximum 0.14 m height. Deposits 017 and partly 019 were underlined by a dark grey soil (008) with a thickness of 0.15–0.2 m. The base deposit was a natural bedrock (007). The ditch characterised by trapezoidal section (truncated V-shaped type with a straight bottom) and had a maximum depth of 0.45 m. Its upper part had 1.4 m width while its flattened base was 0.45 m wide.

The general stratigraphic sequence observed in Trench I (Pls. VII-VIII) comprised of a topsoil (001) underlined by a dark gravelly grey loam (002), with a maximum 0.17 m thickness downslope. In the middle of the trench 002 was underlined by a layer of light grey gravelly loam (003, area of the ditch and rampart), with a maximum thickness of 0.1 m. This deposit was underlined by a dark grey loam mixed with gravel (004), which formed a fill of the ditch. The ditch had truncated V-shape and a maximum depth of 0.5 m, it had 0.9 m width at the upper part, and 0.5–0.6 m width at its base. The base layer was natural bedrock (005) encountered at minimum 0.2–0.25 m from the top surface, not bottomed.

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<sup>38</sup> Trench I located on the north-west side, Trench II on the north-east side, Trench III on the south-western side and Trench IV on the south-east side (Pl. IV).

Trench II and IV had the same stratigraphy. The topsoil (011 and 012) was underlined by a layer of light grey loam (006 in Trench II and 013 in Trench IV), with a 0.1–0.15 m thickness. The base deposit was brown-yellow loam (009 in Trench II and 014 in Trench IV) which appeared to be a natural layer excavated to a maximum of 0.85 m, not bottomed. Within the 006 in Trench II a lens-shaped deposit of a brown-grey loam with small charcoals (010) was recorded (Pls. IX–X). It was interpreted as a rampart remains and had a maximum 0.25 m thickness and 1.5 m width. The fill of the ditch was not distinguished due to the extremely dry condition of the ground.

#### 4. Finds

Unfortunately, all four excavated trenches did not provide any archaeological material. The only artefacts recovered from the site were found using a metal detector along the edge of the fortification.<sup>39</sup> The scarce amount of finds (e.g. the lack of pottery) might be caused by the fact that the site was hardly excavated and in the future more artefacts may be discovered.

The majority of the recovered artefacts were modern (horseshoe nails and bullets shells), except nine iron objects with analogies in the Roman world and one indeterminate cylindrical pin/nail (Pl. XI/4). The most important finds, which confirms Roman military presence on the site, were two hobnails (Pl. XI/1). These hobnails probably fell out from a *caliga* (or *caligae*), a heavy-soled hobnailed military sandal-boot. *Caliga* are known for being worn by Roman legionary soldiers and auxiliaries of all ranks, up to and including Centurion, throughout the Roman Republic and Imperial Period.<sup>40</sup> Hobnails, called “*clavii caligarii*”,<sup>41</sup> had different shapes and sizes. The smallest ones, such as the ones discovered at Coștiui, were fastened to the edge and middle of a sandal to hold three layers of sole together.<sup>42</sup>

Moreover, seven short and long construction nails were found (Pl. XI/2, 3, 5).<sup>43</sup> All of them characterised by square-section shanks and asymmetric heads and varied in thickness through the length of the shank, which suggests that they were hand-forged. They appeared in sizes from 2.3 cm (2.12 g) to 8.6 cm (48.65 g). One of them was too fragmented (missing head) to allow further identification criterion, but within the collection, the following nail types could be identified: three T-head nails (two were obviously rose-head nails with two sides flattened to form ‘T’, but one spike had a flat head which was not a reshaped rose-head); three L-head nails; one round-head nail (Pl. XI/2). In general, nails recovered from the site have direct analogies in the Roman world and are commonly found on military sites. However, the hand-forged nails changed little until the introduction of cut nails at the beginning of the 19<sup>th</sup> century, so we can’t link them with absolute certainty to Roman activity on the site.

<sup>39</sup> We would like to thank Angela and Alin Stan from ProDetection Association for their help.

<sup>40</sup> Bishop, Coulston 2006, 111–113.

<sup>41</sup> Joseph. *BJ* VI, I, VII; Tac. *Hist.* III, L; Plin. *HN* IX, 33; XXXIV, 412.

<sup>42</sup> Domínguez 2007, 6; Ciugudean, Timofan 2012, 444; Morales et alii 2012, 152, Fig. 4.

<sup>43</sup> “Any sizable excavation on a site occupied in the Roman period is likely to yield at least one nail” (Dungworth 1997, 151). For similar nails see also Angus, Brown, Cleere 1962, 956–968; Mapeli et alii 2009, 51–58; Sharp 2011, 27–29.

## 5. Remarks

### 5.1 Archaeological structures

The Coștiui fortification covers the area of 3.59 ha and has a shape adapted to the outline of Imaș Hill. It resembles a distorted rectangle, with one corner misaligned and slightly deformed, making one of the shorter sides slightly longer than the other, while the two longer sides are almost the same length. Even if you cannot see the corners from one end to another, the defence structures are almost linear. The South-West facing rampart bends slightly in the hill's highest point and causes the distorted west angle of the enclosure so that none of the ramparts are parallel. Also, two angles of the encampment are almost 90 degrees. Its elements comprise a single line of the rampart and the external ditch. The external ditch is of the truncated "V-shaped" type with a straight bottom, and has a maximum depth of 0.6 m and varies in width from 0.9 m to 1.4 m. The rampart is heavily eroded, consisting of material excavated from the ditch, with a maximum height of 0.40 m and approximately 1.5 m width. What's very interesting is that it is not continuous; it has a total of 43 openings along all sides at relatively equal distances from each other (of 2.45 m – 2.90 m width). All these physical characteristics of the structure have direct analogies in the Roman world. Therefore, the Coștiui fortification belongs to the category of temporary Roman camps, frequently encountered in the Roman Empire and outside its borders.

### 5.2 Roman marching camps

Roman camps recognition is based usually on the visibility of their enclosing perimeter rampart and ditch with any gate defences that enables us to detect and interpret sites from an aerial or ground survey.<sup>44</sup> Attempting to categorise a camp is not without certain difficulties. Interpretation of its function and use is not easy, but the description of its size and location might provide some clues helping to identify the camp type.

Considering the location of the Coștiui fortification and archaeological features recognised on the site, we believe that the fortification falls into the broad category of 'marching' camps. In general, marching or 'campaign' camps were temporary bases built by the Roman army on the march during campaigns away from headquarters. As Rebeca Jones noted after Jones and Welfare: "This broad categorisation incorporates a potentially vast range of activities, including exploring new territories, campaigning and conquering, policing land already occupied, scouting, and general movement between permanent stations".<sup>45</sup> Usually, such camps would be used for a single night, but there are known cases of temporary camps used for a few weeks.<sup>46</sup> Because the camps were occupied for a short period of time, they leave very limited archaeological trace and are mostly distinguished by their perimeter traces (remains of ramparts and ditches).<sup>47</sup>

The look of the marching camp depended on the landscape and nature of the ground. The camping site was surrounded by a bank or a ditch, or both together.<sup>48</sup> The earthen features could be supplemented by other defensive structures which would heighten further

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<sup>44</sup> Jones 2009, 524.

<sup>45</sup> Jones 2009, 523.

<sup>46</sup> Jones 2014, 172; Nash-Williams 1969, 123.

<sup>47</sup> Jones 2014, 172.

<sup>48</sup> Nash-Williams 1969, 123.

the rampart. Livy<sup>49</sup> and Vegetius<sup>50</sup> describe a palisade on top of ramparts as additional camps defences.<sup>51</sup> Moreover, “it has been suggested that the so-called *pilum murale* (or *pila muralia*, double-pointed wooden stakes) [which were part of every soldier’s equipment] could have been used to form an additional defence around a temporary camp”.<sup>52</sup> It seems likely that in Coștiui the upper part of the rampart and the openings between them had some defensive elements made of perishable materials like wood that did not survive to our time.

In general, the site where the Roman army would stay overnight had to be chosen very carefully. Construction of any defensive system involved several factors which influence the choice of particular defensive features. As Michael J. Jones noticed, these factors include “availability of materials, soil conditions, topography, a recent historical or military event, the attitude towards the enemy, the hostility of the enemy, tactical plans, and even native defensive-systems”.<sup>53</sup> The site “was not to be overlooked by a hill, whence the enemy might view what was taking place within the camp or fire weapons inside. Nor was the site to lie adjacent to a wood which could conceal enemy forces”.<sup>54</sup> Also, it had to have a close water supply.

### 5.3 Analogical sites to Coștiui fortification

If the above provides us with an insight into Roman thinking, it seems very likely that in Coștiui the topography and geology, so generally speaking environment, determined the camp defences’ layout. In order to understand our military site better, we decided to search for similar Roman camps. Our research matched numerous Roman sites in Wales, Scotland, England, Germany, Spain and Romania, which share some similarities.

#### Similar shape camps

The encampment in Coștiui resembles marching camps from Llanfor I in Merionethshire and Pen Plaenau in Denbighshire, Wales. Llanfor I which lies among farm fields on the floodplain of the River Dee is a large 11 ha (27.2 acres) Roman temporary camp in the form of a trapezium. It has rounded corners, up to six entrances and all sides are of different length.<sup>55</sup> Pen Plaenau lies on the eastern slope of the Berwyn mountains and measures 17.4 ha (43 acres). It is characterised by remains of three internal *clavicula*-gates. The west rampart bends at the west gateway and has distorted the north-west angle so that the north and south ramparts are not parallel.<sup>56</sup> Huge Toller suspects that these irregularities could be caused by the difficulty of laying out straight alignments without direct lines of sight. He believes that the straight south rampart was probably the baseline for laying out

<sup>49</sup> Livy XXXIII, 5.

<sup>50</sup> Veg. *Mil.* I. 21, 24; III. 8.

<sup>51</sup> Jones 2009, 525.

<sup>52</sup> Jones 2009, 525 after Bennett 1982.

<sup>53</sup> Jones 1975, 3.

<sup>54</sup> Jones 1975, 45.

<sup>55</sup> Davie, Jones 2006, 19, 120–122.

<sup>56</sup> Toller 2006, 13–21 (on line <https://coflein.gov.uk/en/site/308852/details/pen-plaenau-roman-marching-camp>, accessed 02.10.2020).



the camp, and the west and east sides were intended to be laid out at right angles to it, but a slight error of two degrees westwards occurred in both these angles.<sup>57</sup>

The choice of the camp setting, like Imaș Hill, would result in the distorted rectangle plan of the fortification. In Coștiui, it is possible that not being able to see the lines of the ramparts while constructing them caused the bend in the South-West facing side and has distorted the west angle. The perfect 90° angle between the North-East and South-East ramparts suggests that they were the baselines for laying out the camp. The fortification initially was intended to have a rectangular shape as both longer sides are almost the same length (258.93 m North – East side and 259.83 m South – West side).

### Short detached length of earth bank and ditch

Ramparts rarely survive to a height of more than a 0.5 m on excavations,<sup>58</sup> while ditches are far more prominent features. Moreover, there is no certainty of what was the Roman camp average height of the rampart. Rebeca Jones<sup>59</sup> compared Vegetius and Pseudo-Hyginus reference to ramparts measurements in “What is a Roman Camp” article. Vegetius states that they should be some three Roman feet in height<sup>60</sup> but Pseudo-Hyginus<sup>61</sup> tells that they should be six Roman feet high and eight Roman feet wide.<sup>62</sup>

At Coștui the ramparts are heavily eroded, with a maximum height of 0.40 m. They are not continuous, and have a total of 43 openings along all sides at relatively equal distances from each other (of 2.45–2.90 m width). Detached banks forming the main line of defences are known from several sites in Wales: Blaen-cwm-bach camp nearby Neath;<sup>63</sup> Clyro at Boatside Farm in Radnorshire;<sup>64</sup> and Pen-Y-Coedcae in Glamorganshire.<sup>65</sup> The similar construction technique of the rampart is also known in other parts of the Roman Empire, for example at Moyapan, in North-Western Spain (Principality of Asturias).<sup>66</sup>

### Camps with square or flattened base of the ditch

Regarding ditches themselves, there is no certainty to the width and depth of Roman camps ditches. As Rebeca Jones noted Vegetius emphasised the importance of deeper ditches “when more serious forces of the enemy threaten”<sup>67</sup> and Pseudo-Hyginus<sup>68</sup> noted that in more secure places, “the ditch is used for the sake of discipline”.<sup>69</sup> We know of *fassa fastigata* (V-shaped) and *fossa punica* (with steep outer scarp) from literary evidence.<sup>70</sup>

<sup>57</sup> Toller 2006, 13–21 (on line <https://coflein.gov.uk/en/site/308852/details/pen-plaenau-roman-marching-camp>, accessed 02.10.2020).

<sup>58</sup> Jones 1975, 69.

<sup>59</sup> Jones 2014.

<sup>60</sup> Veg. *Mil.* I. 24.

<sup>61</sup> Pseudo-Hyginus, *De munitionibus castrorum*, 50.

<sup>62</sup> Jones 2009, 523.

<sup>63</sup> Davies, Jones 2006, 111.

<sup>64</sup> Davies, Jones 2006, 128–130; information provided by Rohan Davies, to whom we thank.

<sup>65</sup> Davies, Jones 2006, 116–118.

<sup>66</sup> Costa-Garcia et alii 2018, 906, Figs. 4, 9, 908, Figs. 7, 4.

<sup>67</sup> Veg. *Mil.* I. 24.

<sup>68</sup> Pseudo-Hyginus, *De munitionibus castrorum*, 49.

<sup>69</sup> Jones 2009, 530.

<sup>70</sup> Jones 1975, 106.

Also, Caesar mentions flat-bottomed ditches, which were presumably trapezoidal shaped, and are often described as a 'truncated V-shape'.<sup>71</sup>

The camp's ditches in Coștiui varied in width from 0.9 m to 1.4 m and depth from 0.45 m to 0.6 m. Of course, the different survival rates may explain lack of uniformity of this feature, but it cannot explain a difference in the shape of the ditch, particularly its base. Trench III had truncated V-shape, and its flattened base was 0.5–0.6 m wide, while Trench I had the uneven, square base (0.45 m wide). It is possible that the same as in the case of Craigarnhall in Scotland camp ditches, "the lack of uniformity may also be due to the work of different units, the nature of the subsoil, and possibly the perceived threat to one of the sides if it benefited from additional natural defences".<sup>72</sup>

The shape of the ditch was determined by its function and had to compromise the practical problems like geological and geomorphological factors. Like Michael J. Jones said, "It had to be substantial enough to be difficult to negotiate, to involve some effort and delay".<sup>73</sup> Also, it depended on the ground character, as Jones noted the flat-bottomed ditches were usually connected with loose subsoil.<sup>74</sup>

Trapezoidal shaped ditches are known from several sites in Wales, including mentioned earlier Llanfor I;<sup>75</sup> Blaen-cwm-bach camp;<sup>76</sup> Glanmiheli<sup>77</sup> and Pen-Y-gwryd (Penygwrhyd).<sup>78</sup> Also, this type of ditches has been documented in Roman camps at Scotland (Thomshill, Balnageith, Boyndie),<sup>79</sup> England (Manchester,<sup>80</sup> York<sup>81</sup>), Romania (Șuțești)<sup>82</sup> or Germany (Wilkenburg).<sup>83</sup>

### Similar size camps and Roman army units in the camp

There is just one camp of similar size to Coștiui known in Wales. It is a marching camp Pen-Y-gwryd (Penygwrhyd) in Beddgelert, Snowdonia (3.8 ha, 9.39 acres) characterised by dimensions of 219 m by 183 m, one entrance, 3 m wide, with neither *titulus* nor *clavícula*.<sup>84</sup> The same site in more recent publication has slightly larger dimensions 220 m by 183 m, (4 ha, 9.9 acres).<sup>85</sup> Pen-Y-gwryd camp is recognised as a temporary camp constructed by a Roman army on campaign.<sup>86</sup> But how big was an army which stayed there overnight?

<sup>71</sup> Jones 1975, 106.

<sup>72</sup> Jones 2009, 526.

<sup>73</sup> Jones 1975, 106.

<sup>74</sup> Jones 1975, 117.

<sup>75</sup> Jones 1975, 117.

<sup>76</sup> Davies, Jones 2006, 23 and 111.

<sup>77</sup> Davies, Jones 2006, 23 and 126.

<sup>78</sup> Davies, Jones 2006, 101.

<sup>79</sup> Gregory 2001, 183, illus. 6, 208, illus. 27, 213, illus. 30.

<sup>80</sup> Jones, Grealey 1974, 43.

<sup>81</sup> Stephens 1994, 8, Fig. 4.

<sup>82</sup> Ștefan, Ștefan, Sîrbu 2017.

<sup>83</sup> Haßmann, Wulf 2015, 140–143; For the photo of the ditch see [https://www.wikiwand.com/de/R%C3%B6misches\\_Marschlager\\_von\\_Wilkenburg](https://www.wikiwand.com/de/R%C3%B6misches_Marschlager_von_Wilkenburg) (accessed on 04.12.2019).

<sup>84</sup> Nash-Williams 1969, 126.

<sup>85</sup> Davies, Jones 2006, 101.

<sup>86</sup> Willes 2012 (on line <https://www.coflein.gov.uk/en/site/301057/details/pen-y-gwryd-roman-marching-camp>, accessed 17.08.2020).

It seems obvious that the size of a camp was determined by the size of the Roman army it planned to enclose. It is generally agreed that one Legion would require about 20 acres (8 hectares) area.<sup>87</sup> Michael J. Jones sustained (1975) that 'about 2.5 acres (1 ha) was the minimum area in which a full cohort could be housed'.<sup>88</sup> Based on Pseudo-Hyginus, Rebecca Jones presumes that a complete cohort (480 men) needed an area of about 35.5 m by 53.2 m (1890 m<sup>2</sup> – approximately 0.19 ha).<sup>89</sup>

Using the information provided by the same ancient Latin author, we obtained similar data to those of Rebecca Jones. Pseudo-Hyginus' famous work, *Liber de munitionibus castrorum*, says that "a century of 80 men occupies a space of 120 Roman feet by 30 Roman feet and although only eight tents are pitched (with eight men (a *contubernium*) occupying each tent and 16 men on guard duty) the remaining space is taken by the centurion".<sup>90</sup> As a result, a Roman army century occupies 3,600 square Roman feet (120 x 30) and the whole cohort 21.600 square Roman feet (120 x 30 x 6 centuries). Given that an accepted modern conversion for one Roman foot (*pes*) is 0.296 m<sup>91</sup> we can estimate that the minimum space occupied by a cohort is 1892.5056 m<sup>2</sup> (21.600 x 0.296<sup>2</sup>) equals 0.4676 acres or 0.1893 hectares. Also, within the camp, space would be given to the headquarters tents of commanding officers, baggage, wagons, and animals. Considering the above, and especially the topography of the Coștiui camp, some parts of the site were not suitable for pitching a tent, we speculate that a maximum of three Roman cohorts of 500 men each could have been there accommodated.

## 6. Cultural background

### 6.1 Maramureș Depression in Late La Tène and Roman Period

Although highly rich in discoveries belonging to the Late Bronze Age, the Maramureș Depression was very sparsely populated from Hallstatt to the Medieval time.<sup>92</sup> The Dacian Period (La Tène and the Roman Age - *Barbaricum*<sup>93</sup>) is no exception. The chronology of archaeological discoveries shows that there is no continuity of habitation in this era. A cessation of Dacian occupation in the Maramureș Depression seems to have taken place in the middle of the 1<sup>st</sup> century AD. A resumption of this habitation, especially in the western part of the Depression, took place at the beginning of the 3<sup>rd</sup> century AD, perhaps at the end of the 2<sup>nd</sup> century AD, after the Marcomannic Wars.<sup>94</sup>

The only discoveries dating back to the time between the second half of the 1<sup>st</sup> century and end of 2<sup>nd</sup> century AD are finds of Roman coins. Majority of these finds group to the south of Tisza River (Pl. XV), while Dacian sites and finds are missing from this area at the time.<sup>95</sup> Even if we assume that the Roman presence in the area was short, we can say that,

<sup>87</sup> Nash-Williams 1969, 124.

<sup>88</sup> Jones 1975, 54.

<sup>89</sup> Jones 2014, 174.

<sup>90</sup> Campbell 2018, 17.

<sup>91</sup> Hosch 2011, 206.

<sup>92</sup> Rustoiu 2019, 386, Fig. 9.

<sup>93</sup> 2<sup>nd</sup> century BC - 3<sup>rd</sup> century AD *grosso modo*. It should be mentioned that there are no known artifacts that support the existence of Celtic, Sarmatian or early Germanic communities in the Maramureș Depression.

<sup>94</sup> Ardeleanu 2019, 305-306.

<sup>95</sup> Ardeleanu 2019, 306-307.

at least for the first part of the 2<sup>nd</sup> century AD, the area south of the Tisza River, if not the entire Maramureș Depression, was a territory under the strict surveillance of the Romans. The discovery of the Roman camp, Roman coins, and the lack of Dacian settlements and finds associated with them, are sufficient arguments in this regard.

## 6.2 Reason behind Romans presence in the region

Roman's presence in the Coștiui village area, based on Roman coins' discoveries, is assumed in the literature.<sup>96</sup> It is believed to be related with the extraction of salt during Roman times by Romans<sup>97</sup> or free Dacians.<sup>98</sup> The presence of a Roman camp in the area of one of the richest salt deposits in Maramureș<sup>99</sup> cannot be a coincidence. Discoveries of Roman camps are known on the former Roman Empire's territory in areas of useful natural resources such as mineral outcrops.

There is no doubt that some Roman fortifications were established in connection with mining operations in Great Britain. Wales is known for Roman fortlets which are believed to have specific functions such as the supervision of the extraction of local lead-silver ores as at Erglodd.<sup>100</sup> Moreover, Roman iron-making in South Wales focused on three main sites Cardiff, Caerwnaf and Usk controlled by Legio II Augusta.<sup>101</sup>

It is relatively certain the salt deposits in Coștiui were known to Romans. Moreover, Coștiui has access to navigable waters which no doubt was used to transport goods and potentially formed a part of a Romans supply-system on the limes. Therefore, attractive mineral outcrops may explain the Roman presence in Coștiui. It is possible the salt industry was considered to be worthy of military supervision or was even kept for some time under Roman control.

There is numerous evidence of large scale production of salt in Roman Dacia, which far exceeded the needs of the province.<sup>102</sup> As shown by the archaeological and epigraphic discoveries as well as the literary sources, the most important salt exploitation areas in Roman Dacia were those in Turda (*Potaisa*), Ocna Mureș (*Salinae*), Ocna Dejului, Sibiu, and several localities in the Counties Bistrița-Năsăud and Harghita (Sovata, Praid, Sânpaul and Mărtiniș).<sup>103</sup> Salt, beside wood and cattle, was an export product. The salt mines, which belonged to the imperial domain, were usually rented with pastures, due to the need for salt for raising animals. In the absence of proper research, the dating of salt mine holdings before the Middle Ages remains only hypothetical. Furthermore, the traces of possible Roman salt mining at Coștiui might have been destroyed by the extraction of the salt deposits in the later periods of time or by the constant subsidence of the ground in the mined areas, which continuously modifies the village landscape.<sup>104</sup>

<sup>96</sup> Bélay 1943, 7, 47; Filipașcu 1997, 21; Réthy 2006, 4.

<sup>97</sup> See for discussion Kacsó 2011, 450.

<sup>98</sup> Wollmann 1996, 245.

<sup>99</sup> Kacsó 2011, 67, 71, 76, 447-453.

<sup>100</sup> Burngam, Davies 2010, 68, 295.

<sup>101</sup> Young 2014, 215.

<sup>102</sup> Wollmann 1996, 249.

<sup>103</sup> Căvruc, Moga, Stănescu 2006, 53.

<sup>104</sup> For example, after mine collapse in 2005, the salt lake called *Lake Francis*, once the main attraction of the area, ceased to exist.

## 7. Conclusions

Until recently the farthest known military point discovered beyond Dacia Porolissensis was a system of linear fortifications at Supuru de Sus (40 km north-west of Porolissum).<sup>105</sup> Coștiui fortification is located 70 km North from the Roman Frontier area (the line of the Roman auxiliary camps from Cășeu/*Samum* and Ilișua/*Arcobadara*). Its layout, size and type of earthen defences closely resemble a medium-size Roman temporary camp. The structure is a Roman marching camp which is the farthest known military point outside Dacia Porolissensis at present.

The fact that it was built nearby one of the biggest salt deposits known in the Maramureș Depression is a strong suggestion that Romans could be interested in controlling salt extraction and perhaps its distribution/trade in the Upper Tisza region. While there is a large area of this region where forts and camps have not been yet located, there is a significant amount of coin finds. These finds might be an indicator of the Roman contacts and/or presence in the area. There is a high possibility that more Roman period sites will be located in this region in the future and it is just a matter of time before they will be recognised thanks to the aerial reconnaissance or fieldworks.

To a better understanding of the Coștiui archaeological site, one should examine it further. The camp needs to be excavated and recorded in order to learn the way the defences were constructed and how they functioned. This task can only be achieved if a large enough part of the site will be investigated. Also, we hope that further research confirms the suggested purpose behind the Roman presence in this place.

**Tabel 1:** Coștiui site stratigraphy

Trench no.	Context	Description	Depth	Type
S I	001	topsoil – hard brown-grey loam with grassroots	0.00 m – to 0.05m	vegetation layer
S I	002	dark gravelly grey loam	0.00 m/0.05 m – 0.10 m/0.17m	deposit
S I	003	light grey gravelly loam	0.10 m/0.17 m – 0.20 m	rampart
S I	004	dark grey loam mixed with gravel	0.17 m/0.20 m – 0.48m	fill of the ditch
S I	005	natural bedrock	0.20 m – 0.48 m n.b.	natural bedrock
S II	006	light grey loam	0.05 m – 0.15m	natural layer
S III	007	natural bedrock	0.10 m – 0.45 m n.b.	natural layer
S III	008	dark grey soil	0.19 m – 0.40m	
S II	009	brown-yellow loam	0.40 m – 0.84m	natural layer
S II	010	brown-grey loam with small pieces of charcoal	0.15 m – 0.40m	rampart
S II	011	topsoil – hard brown-grey loam with grassroots	0.00 m – to 0.05m	vegetation layer

<sup>105</sup> Matei, Gindele 2006, 182.



Trench no.	Context	Description	Depth	Type
S IV	012	topsoil – hard brown-grey loam with grassroots	0.00 m – 0.05m	vegetation layer
S IV	013	light grey loam	0.05 m – 0.15 m	natural layer
S IV	014	brown-yellow loam	0.15 m – 0.75 m n.b.	natural layer
S III	015	topsoil – brown-grey loam with grassroots	0.00 m – 0.05m	vegetation layer
S III	016	light grey loam with crushed rock	0.10 m – 0.44m	rampart and fill of the ditch
S III	017	light grey loam	0.10 m – 0.25m	deposit
S III	018	dark grey loam with crushed rock	0.05 m – 0.20m	deposit
S III	019	light grey loam with crushed rock	0.05 m – 0.19m	rampart

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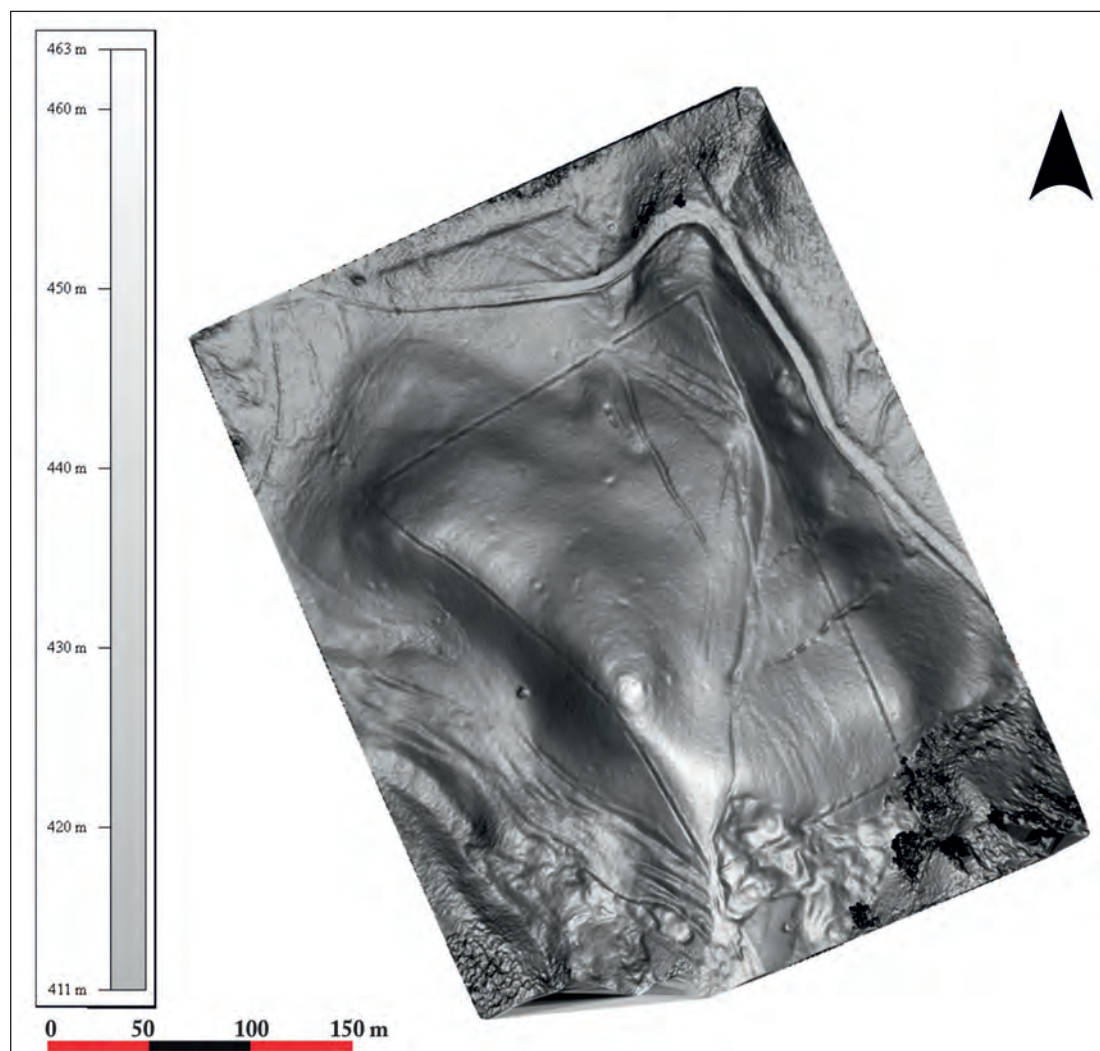
**Horățiu Cocîș**

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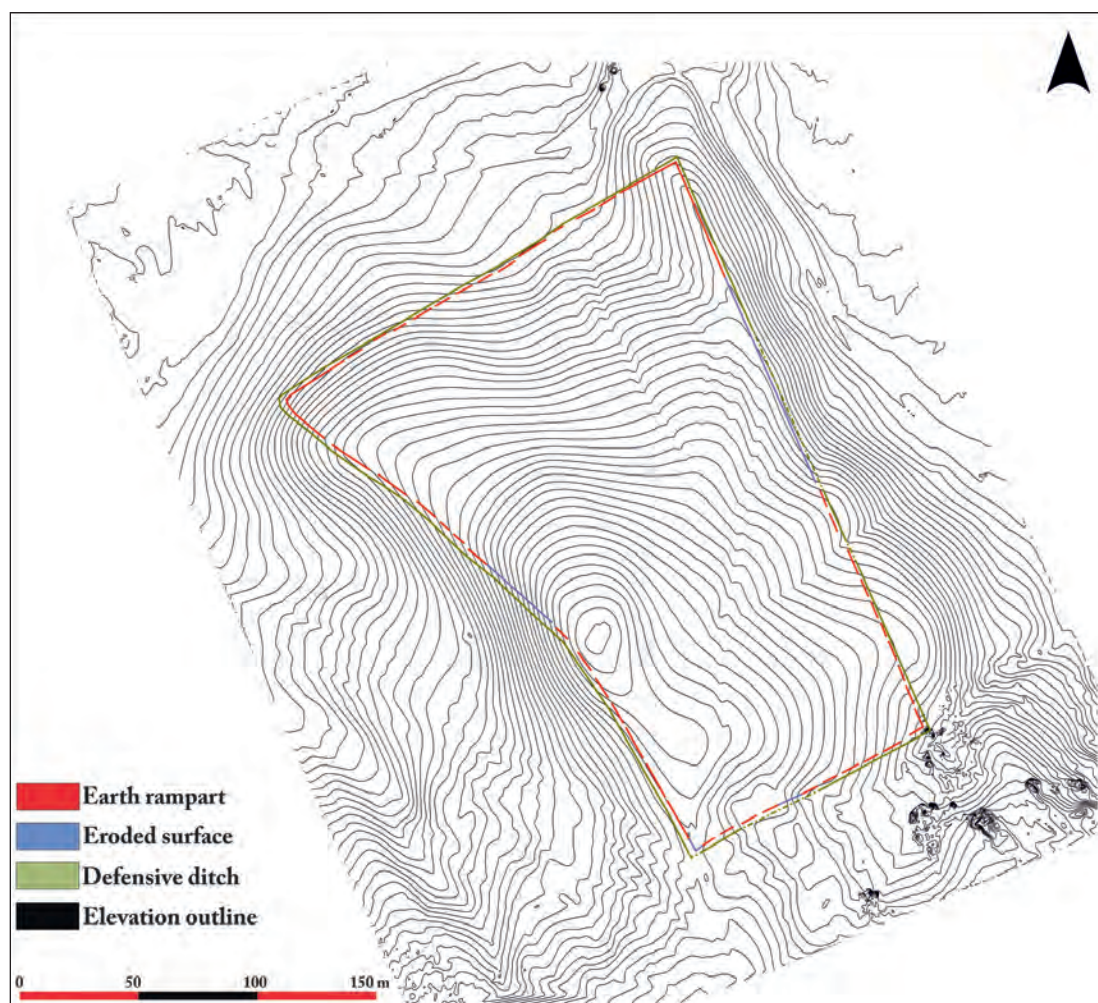


Pl. I. Map showing Coștiui village and the archaeological site's location.

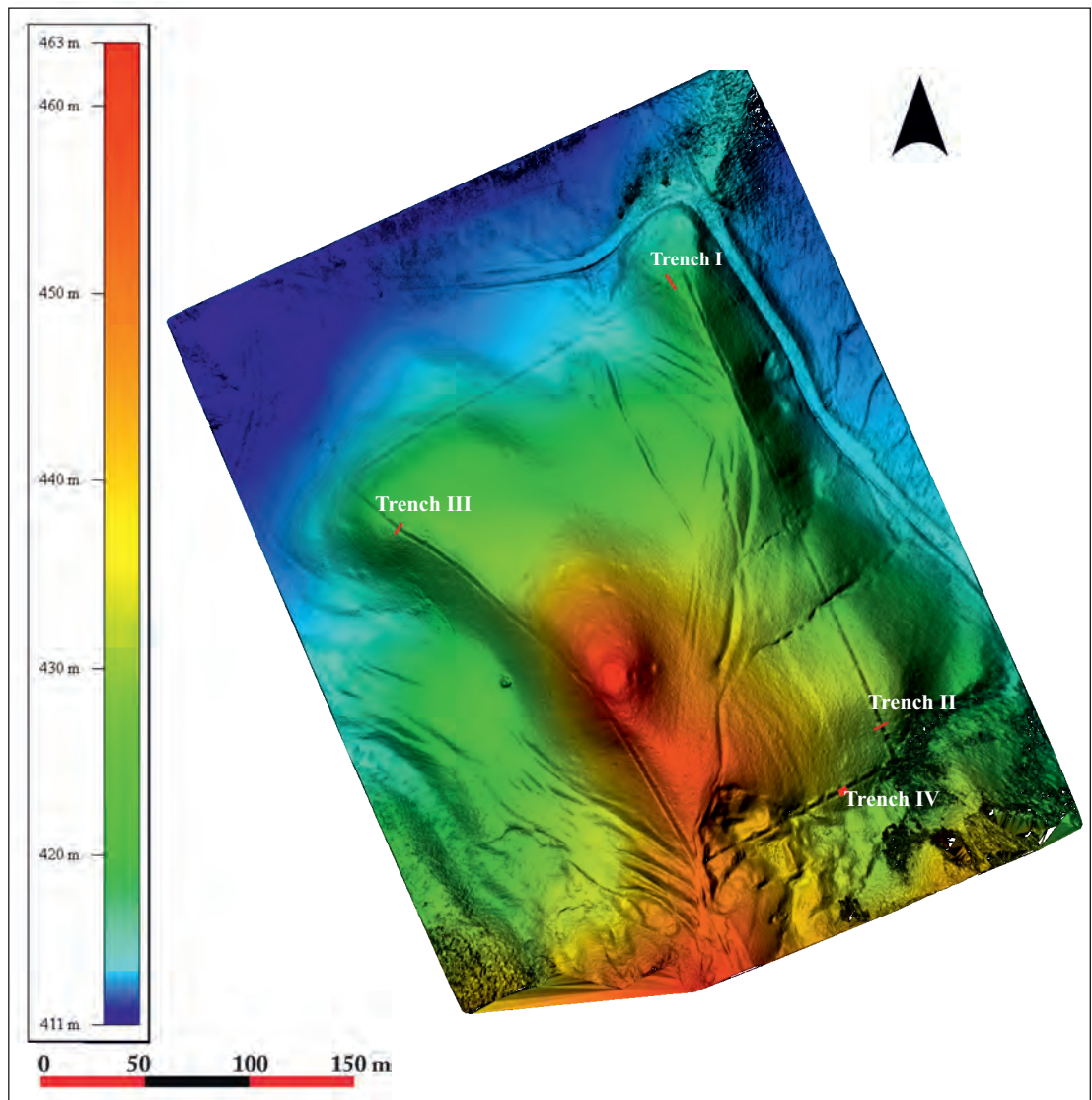


Pl. II. Digital Surface Model (DSM) of the archaeological site in Coștiui.

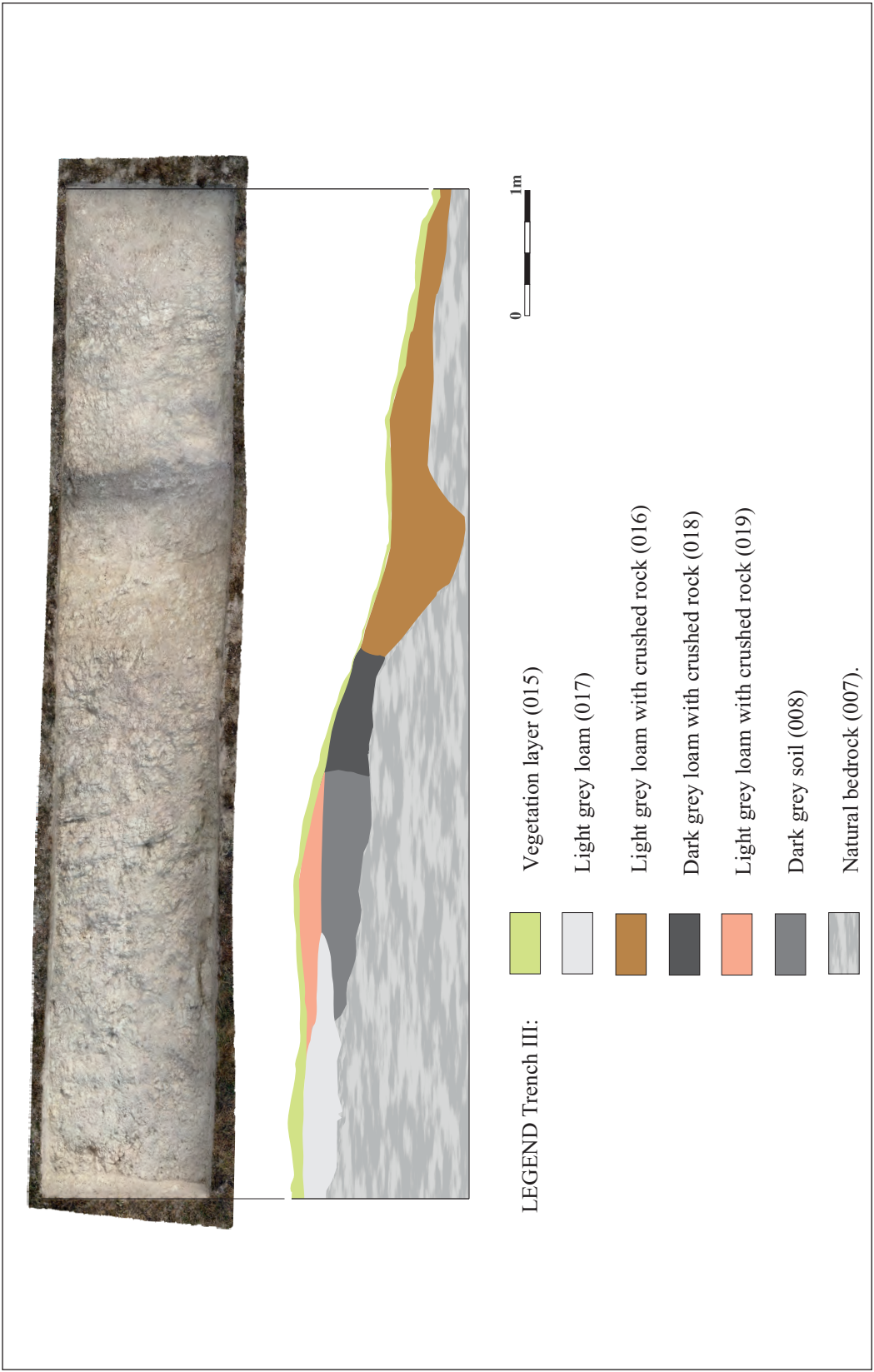




**Pl. III.** Archaeological features marked on plan of two meter contour lines fitted to Digital Surface Model (DSM).



Pl. IV. Excavated trenches marked on the Digital Surface Model (DSM).



Pl. V. Aerial photo of Trench III and its stratigraphy.



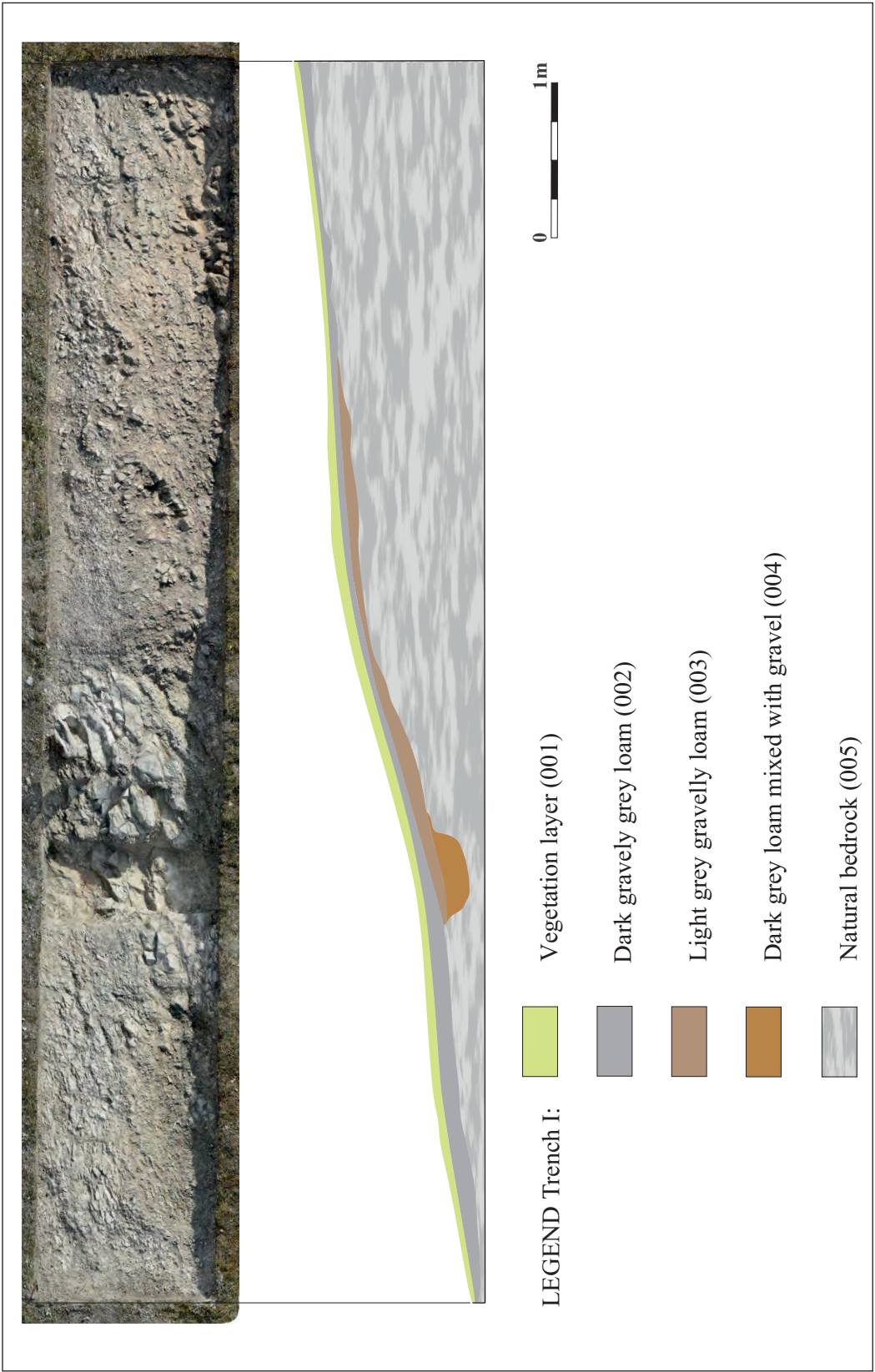


1



2

Pl. VI. North-west facing section of Trench III showing rampart (1) and ditch (2).



Pl. VII. Aerial photo of Trench I and its stratigraphy.





1



2

**Pl. VIII.** Section of Trench I showing rampart (1) and ditch (2).





Pl. IX. Trench II. View to the east.





**Pl. X.** Aerial photo of Trench II across north-east facing rampart and ditch.





Pl. XI. Artefacts recovered from the edge of Coștiui fortification.



**Pl. XII.** Coștiui fortification, north-west facing line of rampart with external ditch.





1



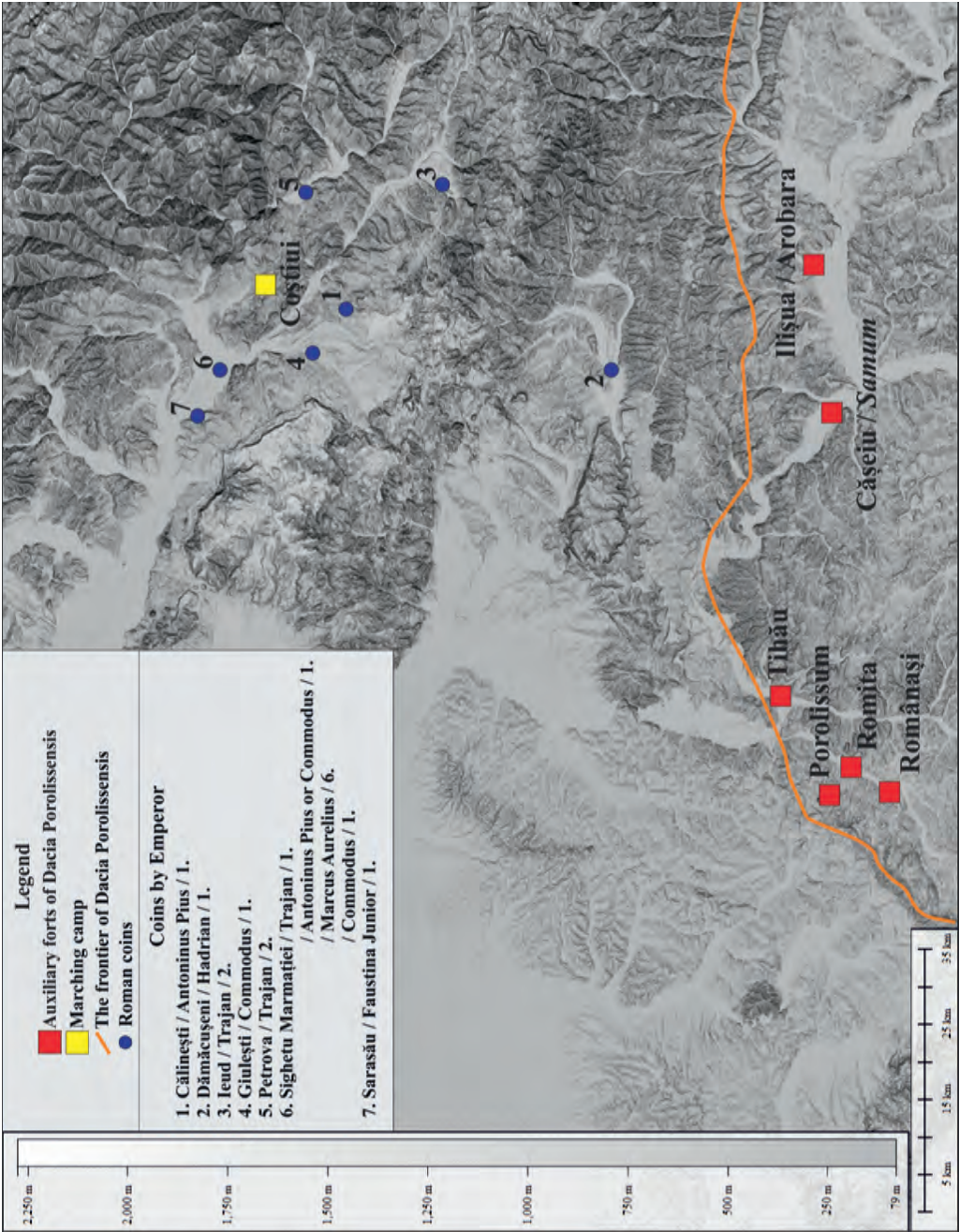
2

Pl. XIII. Northern (1) and western (2) corners of the Coștiui fortification.



PL. XIV. Costiui fortification. View to the south.





Pl. XV. The map of Maramureș Depression showing archaeological discoveries dated between the second half of the 1st century AD and the first half of the 2nd century AD.

## SACIDAVA AND BURTICUM. ON A ROAD BIFURCATION FROM DACIA SUPERIOR

SORIN NEMETI

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**Abstract:** Some of the toponyms conveyed by the Cosmography of the Anonymous Geographer of Ravenna are levied by modern critics either corrupt, or, simply, made-up. This is also the case of the toponym from central Dacia, Burticum, believed a double for Brutia (Rav. Cosm., 4.7, namely, the corrupt form of the same Brucla mentioned by the Tabula Peutingeriana, TP 8.2). Compiling the information from two *itineraria*, Tabula Peutingeriana and the Cosmography of the Anonymous Geographer of Ravenna, shows there were two access routes linking the road on the Olt river valley to the imperial road from central Dacia Superior. From Caput Stenarum (Boița, Sibiu County), the road climbs to Cedonia (Gușterița, Sibiu County) where it bifurcates. The northern branch, described by Tabula Peutingeriana, ran from Cedonia to Sacidava (site La Zid between Doștat and Spring, Alba County) and reached Apulum (Alba Iulia, Alba County). The southern branch, recorded by the Anonymous Geographer of Ravenna, ran from Cedonia to Burticum (the *mansio* from Miercurea-Băi, Albele), intersecting the imperial road at Blandiana (Șibot or Vișu de Jos, Alba County).

**Keywords:** Roman roads; *itineraria*; geography; toponymy; Dacia.

**Rezumat:** Unele dintre toponimele transmise de Geograful anonim de la Ravenna sunt considerate de critica modernă corupte sau, pur și simplu, inventate. Este și cazul acestui toponim din centrul Daciei, care a fost considerat un dublet pentru Brutia (Rav. Cosm., 4.7, adică forma coruptă pentru Brucla menționată și de Tabula Peutingeriana, TP 8.2). Combinarea informațiilor din cele două *itineraria*, Tabula Peutingeriana și Geografia anonimului de la Ravenna, ne arată că existau două căi de acces care legau drumul de pe Valea Oltului cu drumul imperial din centrul Daciei Superior. De la Caput Stenarum (Boița, jud. Sibiu) drumul urcă până la Cedonia (Gușterița, jud. Sibiu) de unde se bifurcă. Ramura nordică, descrisă de Tabula Peutingeriana, mergea de la Cedonia la Sacidava (punctul La Zid dintre Doștat și Spring, jud. Alba) și ajungea la Apulum (Alba Iulia, jud. Alba). Ramura sudică, menționată de Geograful anonim de la Ravenna, mergea din Cedonia la Burticum (*mansio* de la Miercurea-Băi, Albele) și de acolo intersecta drumul imperial la Blandiana (Șibot sau Vișu de Jos, jud. Alba).

**Cuvinte cheie:** drumuri romane; *itineraria*; geografie; toponimie; Dacia.

Some of the toponyms conveyed by the Cosmography of the Anonymous Geographer of Ravenna levied by modern critics either corrupt, or, simply, made-up. The author likely uses *itineraria adnotata* (Veget. Epit. III.6) in his cosmography, a list of places with distances in-between of the sort contained in *Itinerarium Antonini*.<sup>1</sup> For the province of Dacia, the itinerary transmitted by the Anonymous Cosmographer of Ravenna partially overlaps the

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<sup>1</sup> Arnaud 1993, 33–34.

information contained in Tabula Peutingeriana, the single surviving *itinerarium pictum* of the ancient world.<sup>2</sup> At times, the information in the Ravenna Cosmography is briefer, synthesising the list of *stationes* and *mutationes* from Tabula Peutingeriana, other times mentioning new toponyms, difficult to locate in the field, among those recorded by Ptolemy's Geography or the Tabula Peutingeriana. This is also the case of the toponym from central Dacia, Burticum, believed a double for Brutia (Rav. Cosm., 4.7, namely, the corrupt form of the same Brucla mentioned by the Tabula Peutingeriana, TP 8.2).<sup>3</sup>

The analysis of the mentioned context of the Burticum toponym might be useful for understanding the land communication routes of Dacia and the field location of the toponyms recorded by the ancient cartographic sources. The Anonymous Geographer of Ravenna holds that he lists the towns of Moesia Inferior and provides as information sources a series of Greek and Roman "philosophers", namely Porphyrius, Libanius, Castorius and the pair of eponymous consuls Lollianus and Arbitio.<sup>4</sup> In fact, he describes reversely, from north to the south, the road from Porolisum to Romula that crosses Dacia Superior from Porolisum to Apulum, where it forks and detaches from the imperial road to Sarmizegetusa, running further on the Olt river valley to Romula (Rav. Cosm. 4.7).<sup>5</sup> The Olt river valley belonged under Trajan, until the reorganization of the north-Danube land by Hadrian, to the province of Moesia Inferior.<sup>6</sup> Hence, most likely, the confusion of the Anonymous Geographer of Ravenna, who had possibly seen the road stretch Romula – Caput Stenarum on an *itinerarium* through Moesia Inferior. The same road is presented, in more detail, by the Tabula Peutingeriana (TP VI.4–5, VII.1). Thus, Tabula Peutingeriana records ten *stationes* from Romula to Stenarum with distances in-between expressed in Roman miles. The Anonymous Cosmographer of Ravenna conveys for the same road stretch only four *stationes* instead of ten. The made selection is relevant: the start and end of the road, Romula and Caput Stenarum and two intermediary *stationes* with corrupted names, Aluti for Pons Aluti and Betere for Pons Vetus. He chose only four key *stationes* and removed the various minor *mutationes* not by accident. These are the road heads and the places where the road crosses from one bank to another of the Olt River.<sup>7</sup>

On the map of Dacia, reconstructed from archaeological remains, the Roman road from Romula/Reșca to Pons Aluti/Ionești Govorii is visibly lying on the right bank of the Olt river. The ancient town of Romula and the forts of Drăgășani and Enoșești (*Acidava* and *Rusidava* according to their current identification) also lie on the right bank. The road crosses to the left bank at Ionești Govorii, since northward this place, all known and archaeologically investigated forts lie on the left river bank: Sâmbotin, Bivolari, Racovița-Copăcenii, Căinenii, only to cross somewhere to the right bank and ran as such to the exit from the mountains, at Boița. On the basis of the remains today identified in the field, we have previously suggested the following identification of the ancient toponyms: at Ionești Govorii there was a bridge across the Olt River, hence this was *Pons Aluti*, where the road crossed to the left bank of the Olt. Thus, all the other *stationes* recorded

<sup>2</sup> Dana, Nemeti 2019, 292.

<sup>3</sup> Dillemann 1997, 93.

<sup>4</sup> Stolte 1949, 11, 16; Dillemann 1997, 27–28.

<sup>5</sup> Schnetz 1940, 49–50.

<sup>6</sup> Petolescu 1985, 45–55; Piso 1993, 5–6.

<sup>7</sup> Nemeti, Dana 2017, 219–220.

by itineraries north of Pons Aluti lie, mandatorily, on the left bank: *Buridava* (Sâmbotin), *Castra Traiana* (Bivolari-Jiblea), *Arutela* (Racovița-Copăcenii), *Praetorium* (Câineni), up to *Pons Vetus* (Boița). In this case, Boița would be identified with Pons Vetus, where the road would cross again to the right bank.<sup>8</sup> It is however possible that the road crossed to the right bank in the Câineni–Râul Vadului area, so there would Pons Vetus be located,<sup>9</sup> Boița remaining to be identified with the point from the mountains' exit called in sources *Caput Stenarum*, a Latin toponym that fits with the surrounding landscape. Therefore, the four key-toponyms chosen by the Anonymous Geographer of Ravenna in order to describe the road along the Olt river – *Romulas* (Romula), *Aluti* (Pons Aluti), *Betere* (Pons Vetus) and *Caput Stenarum*, could be identified in the field with the settlements and fortifications of Reșca (Olt County), Ionești Govorii (Olt County), Câineni (Vâlcea County) and Boița (Sibiu County). Locating all the other toponyms between Romula and Caput Stenarum on the right or left bank of the Olt River is difficult for two reasons: the distances recorded by the Tabula Peutingeriana might have been corrupted upon copy, while each toponym did not necessarily designate a fort. These might have also been *stationes/mutationes*, certain halt and horse changing places that have not yet been evidenced by archaeological finds. Regardless of how one locates these *stationes* and *mutationes* recorded by sources in the field, whether they do or do not lie nearby the forts by the Olt river and their civil settlements, one thing is certain: the road ran from Romula to Pons Aluti on the right bank of the Olt river, from Pons Aluti to Pons Vetus on the left bank and from Pons Vetus to Caput Stenarum again on the right bank.

Ancient sources record no road bifurcation at Caput Stenarum, although a road running eastwards, to the Cincșor – Hoghiz – Brețcu forts' line existed with most certainty.<sup>10</sup> The road mentioned by the Anonymous Cosmographer of Ravenna and Tabula Peutingeriana runs further to the north-west up to Cedonia. Tabula Peutingeriana records between Cedonia and Apulum only one place, Acidava, situated at 24 Roman miles from Cedonia and at 15 Roman miles from Apulum (TP VII.1) (Pl. I/1). The same road is also reported in the Cosmography of Ravenna, on a reverse path, from Apulum to Cedonia without the mention of distances between the places: Apulon (Apulum) – Sacidaba (Sacidava, for Acidava in Tabula Peutingeriana) – Cedonia – Caput Stenarum (Rav. Cosm. 4.7).

*Item trans fluvium Danubium sunt civitates Mysie inferioris, id est*

- |                           |                           |
|---------------------------|---------------------------|
| 3. Porolissos             | 4. Certie                 |
| 5. Lagiana                | 6. Optatiana              |
| 7. Macedonica             | 8. Napoca                 |
| 9. Patabissa              | 10. Salinis               |
| 11. Brutia                | <b>12. Apulon</b>         |
| <b>13. Sacidaba</b>       | <b>14. Cedonia</b>        |
| <b>15. Caput Stenarum</b> | 16. Betere                |
| 17. Aluti                 | 18. Romulas <sup>11</sup> |

<sup>8</sup> Nemeti, Dana 2017, 217–221.

<sup>9</sup> Suggestion F. Marcu.

<sup>10</sup> Fodorean 2006, with references.

<sup>11</sup> Schnetz 1940, 49–50.



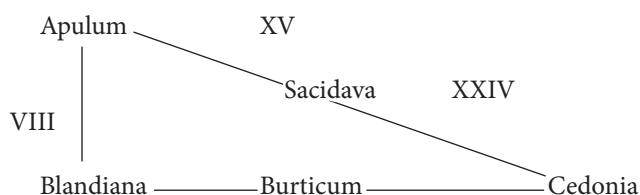
Thus, both sources certify that the road from Dacia Superior between Caput Stenarum and Apulum had two stages, Cedonia and Acidava/Sacidava. A homonym place, Acidava, is recorded by Tabula Peutingeriana on the Olt road, between Romula and Rusidava (TP VII.5), which could be located at Enoșești, Olt County.<sup>12</sup> Likely, the corrupt form in the Cosmography of Ravenna preserves the accurate name of the place from Transylvania, Sacidaba for Sacidava (Rav. Cosm. 4.7). A similar toponym Σανγίδαβα (Sangidava) is reported by Ptolemy (Ptol. Geog. 3.8.7), in the same area (if we take into account the relative nature and imprecision of the Ptolemaic system of coordinates).<sup>13</sup>

Important information, which provides clues for the field location of these toponyms is contained in the subsequent paragraph of the Cosmography of Ravenna. It mentions a road fork at Cedonia, which then joins the imperial road south of Apulum, at Blandiana.

*Item iuxta ipsam Cedoniam est civitas que dicitur:*

- |                    |                          |
|--------------------|--------------------------|
| <b>1. Burticum</b> | <b>2. Blandiana</b>      |
| 3. Germigera       | 4. Petris                |
| 5. Aquas           | 6. Sarmazege             |
| 7. Augmonia        | 8. Augusti <sup>14</sup> |

Hence, another road, different from that running from Cedonia to Apulum, through Burticum, crosses by south and joins the imperial road at Blandiana,<sup>15</sup> after which the itinerary runs southwards, through Germisara (Geoagiu, Hunedoara County), Aquae (Călan-Băi, Hunedoara County) towards Sarmizegetusa. Blandiana, also reported in the Tabula Peutingeriana, lies on the imperial road, at 8 Roman miles south of Apulum. It is a praedial toponym, Blandiana, evidence that this secondary settlement was born on the property (*praedia*) of a certain Blandus.<sup>16</sup>



<sup>12</sup> Dana, Nemeti 2019, 285.

<sup>13</sup> Dana, Nemeti 2019, 309; the same toponym as suggested by Müller 1883, 447.

<sup>14</sup> Schnetz 1940, 49–50.

<sup>15</sup> F. Fodorean takes into consideration in the reconstruction of these road sectors only the information from Tabula Peutingeriana and identifies, after D. Tudor, Boița with Caput Stenarum and Gușterița with Cedonia. In the case of Sacidava, the author does not agree with previous propositions (Șura Mică and Miercurea Sibiului) and assumes a copyist error for distances. The analysis of the late 18<sup>th</sup> century Austrian maps suggests to the author a mistaken route of the Roman road, which joins the two roads: the southern, from Gușterița to Apoldul de Jos and Miercurea Sibiului with that northern, from Cunța – Lancrăm – Alba Iulia. Namely, ignoring the information from the Anonymous Cosmographer of Ravenna makes that the road Gușterița – Apoldul de Jos to join the imperial road not at Vințu de Jos (Blandiana), but at Alba Iulia (Apulum) – Fodorean 2006, 276, 277. In a synthetic study, the author no longer reconstructs the route, but quotes V. Christescu's assumptions, who describes the southern road Gușterița – Apoldul Mic – Vințul de Jos and M. Macrea, who describes the northern road, Gușterița – Miercurea – Doștat – Alba Iulia (Fodorean 2005–2006, 254–255).

<sup>16</sup> Dana, Nemeti 2016, 77–81; Arnaud 1998, 217.

Thus, a triangle between the places at Cedonia – Apulum – Blandiana forms, with two known sides: Cedonia – Apulum XXXIX *millia passuum* (39 Roman miles, namely 57.52 km) and Apulum – Blandiana VIII *millia passuum* (8 Roman miles, 11.8 km respectively). The values of these distances are relative, as some Roman numerals expressing miles might have been transmitted distorted at the time when the medieval document Tabula Peutingeriana was drawn up. An example that starts from two places located in the field is enough: Apulum (today Alba Iulia, Alba County) and Germisara (today Geoagiu Băi, Hunedoara County). Tabula Peutingeriana indicates 9 Roman miles between Germisara and Blandiana and 8 between Blandiana and Apulum, hence between Germisara and Apulum there could be 17 Roman miles, namely 25.07 km. The real distance between Geoagiu Băi and Apulum is of 32.43 km (as the crow flies), therefore even greater on a road that follows relief forms. It results that distances transmitted on Tabula Peutingeriana on the imperial road, at least, are undersized.<sup>17</sup> In general, Blandiana is located at Vințu de Jos (Alba County) based on the kilometre value of the 8 Roman miles conveyed by Tabula Peutingeriana.

This imaginary triangle, composed of one imperial road segment (Blandiana – Apulum) and the two stretches that join it with the Olt road (Cedonia – Sacidava – Apulum and Cedonia – Burticum – Blandiana), records five toponyms, of which only one has been located with certainty in the field. Apulum is identified with Alba Iulia, where lie the ruins of the legionary fortress of XIII *Gemina, colonia Aurelia Apulensis* and *municipium Septimium Apulense*.<sup>18</sup> For the location of the other four, one must use the archaeological information related to the distribution of the Roman remains in the area, the identification of any Roman roads in the field and the relations between the reported places (with the note that distances from Tabula Peutingeriana are no absolute values) (Pl. I/2).

Thus, if one measures 12 Roman miles (17.7 km) from Caput Stenarum (Boița, Sibiu County) towards north-west, one reaches Gușterița (Sibiu County), located at ca. 20 km from Boița. Thus, Gușterița (former Hammersdorf, nowadays part of Sibiu), where Roman finds do exist, could be identified with the toponym Cedonia. There, on the left bank of the Cibin, in the Evangelical cemetery area were discovered the remains of a Roman settlement (walls in the *opus incertum* technique, pottery, lamps, coins, tiles, clay conduits, *tegulae mammatae*, bricks stamped *C(ohortis) N(umidarum)?* – CIL III 8075<sup>49</sup> = CIL III 1633<sup>12</sup> = IDR III/4, 174, tile materials, stone statue, marble plate with the depiction of a dolphin).<sup>19</sup> The place located north-westwards, Ocna Sibiului (Sibiu County) lies too far, at over 30 km from Boița. At Gușterița split the two roads that would join the imperial road

<sup>17</sup> The same note in Simion et alii 2014, 229: between Apulum (Alba Iulia) and Aquae (Călan) on Tabula Peutingeriana are figured, by broken line, five road portions. Between Blandiana and Germisara there are two road stretches, yet only one toponym, Germisara and a distance, 9 *millia passuum*. Thus, the cartographic source misses one *statio* (toponym and distance), a place lying at ca. 9 Roman miles from Blandiana, identifiable with the settlement recently discovered at Șibot (Alba county). The inadvertence is also noted by Al. Diaconescu and F. Fodorean, who interpret it as mistaken distance noting, not as omitted place, – Diaconescu 1997, 14; Fodorean 2006, 59. From the view of the road representation by broken line, the hypothesis of a place omission is much more plausible (Bosio 1983, 123, road without toponyms and distances, e.g. Aquileia – Viruno, TP III.5, IV.1).

<sup>18</sup> Bratu 1992, 28–30; Piso, Diaconescu 1993, 67–82; Ardevan 1998, 45–50.

<sup>19</sup> Gooss 1876, 78; Tudor 1968, 138; TIR L 35, 44; Popa 2002, no. 303.

at Blandiana and Apulum. The northern road that joins Cedonia with Apulum, crossing by Sacidava/Acidava, is mentioned by Tabula Peutingeriana, which also records the distances: 24 Roman miles between Cedonie and Sacidava, respectively 15 Roman miles between Sacidava and Apulum (TP VII.1). In total, the length of the road stretch is of 39 Roman miles, namely ca. 57 km. The distance between Gușterița and Alba Iulia, as the crow flies, is of ca. 56 km. The two stages recorded by the ancient cartographic source are unequal, 24 respectively 15 Roman miles. At ca. 35 km (24 Roman miles) from Gușterița, towards Apulum, lie two close villages, Doștat and Șpring. An important Roman settlement was found at “La zid”, in-between the two villages, where over the course of time emerged construction remains, columns, two stone statues, marble bas-reliefs, a few inscriptions (CIL III 968 = 7729 = 7730 = ILS 4241 = IDR III/2, 306a; CIL III 7728 = 12555 = IDR III/4, 30; CIL III 7731 = IDR III/4, 31) and coins.<sup>20</sup> The various remains emerging as to originate from the Doștat and Șpring villages may be discovered in this settlement, yet many were carried from Apulum and Sarmizegetusa in the Gustav Teleki’s collection.<sup>21</sup> The distance from Apulum to Sacidava is of 15 Roman miles (ca. 22 km), approximately corresponding from the point located between Doștat and Șpring to Alba Iulia (ca. 21 km). Thus, one may reconstruct the road in Tabula Peutingeriana from the Olt Gorge exit to Apulum: Caput Stenarum (Boița, Sibiu County) – Cedonia (Gușterița, Sibiu County) – Sacidava (site “La zid”, between Doștat and Șpring, Alba County) – Apulum (Alba Iulia, Alba County).<sup>22</sup> Field distances broadly correspond to the distances mentioned by Tabula Peutingeriana, wall structures that may be identified with possible *stationes/mansiones* being documented in these places.

The road Cedonia – Burticum – Blandiana<sup>23</sup> is more difficult to locate in the field also owing to the fact that none of the three places has been identified with certainty (compared to the northern road where one end lay at Apulum) and the text of the Anonymous Geographer of Ravenna records no distances.

If Cedonia is Gușterița and the road Cedonia – Sacidava – Apulum crossed by the current places of Gușterița – Spring/Doștat – Alba Iulia, it means that this southern *diverticulum* that starts from Cedonia and intersects the imperial road south of Apulum, in the ancient place with praedial toponym of Blandiana, it should cross a medial *statio*, Burticum, located south of Sacidava. Blandiana is traditionally located at Vințu de Jos, on the right bank of the Mureș river,<sup>24</sup> yet recent finds on the Middle Mureș Valley question such identification. The sites’ clustering on the left river bank at Tărtăria (site Tărtăria II), Pianu de Jos, Balomiru de Câmp, Șibot, Gelmar II and Spini raise the question whether the imperial road did not lie indeed in sector Simeria – Alba Iulia on this bank. If this is the case, the most plausible position of the ancient toponym Blandiana is at Șibot, on the left bank, where recent rescue excavations have identified a large rural settlement with stone architecture of urban appearance.<sup>25</sup>

<sup>20</sup> Gooss 1876, 71, 111; Tudor 1968, 140–141; Moga, Ciugudean 1995, 91–92, 184; Popa 2002, no. 245 (Doștat), no. 646 (Șpring).

<sup>21</sup> IDR III/2, 306a; IDR III/4, p. 37, Doștat.

<sup>22</sup> Macrea 2007, 129.

<sup>23</sup> Christescu 1937, 108.

<sup>24</sup> Tudor 1968, 135.

<sup>25</sup> Simion et alii 2014.

For the location of the *statio*, *mansio* or *mutatio* of Burticum one must take into consideration the area located approximately by mid distance between Gușterița and Vințu de Jos or Șibot (although the Anonymous Geographer of Ravenna provides no numbers for distances between places, like Tabula Peutingeriana does). On an archaeological map of the area, the ruins at Miercurea Sibiului and Apoldu de Jos draw the attention. In 1975, 1977–1978, N. Branga archaeologically investigated at Apoldu de Sus, site Livejoare, a building complex which he believes to have belonged to a *villa rustica*, a wine farm. The proper house (*pars urbana*) (two blocks of buildings sized  $7.5 \times 6$  m, respectively  $10 \times 7$  m), an agricultural appendix (sized  $17.7 \times 12.4$  m) and a nearby tower, which the excavator interpreted as connected to the property,<sup>26</sup> were investigated. The structure that the same archaeologist excavated in 1978–1979 on site Miercurea-Băi, Albele is more interesting though. There, a large building, a thermal installation (*balneum*) and a well were identified, located parallel to an ancient road crossing by in the vicinity, northwards the complex. The building was excavated on a  $17 \times 10$  m area and had four internal divisions, while the thermal edifice was  $11.2 \times 9.5$  m. N. Branga interpreted the Miercurea -Băi, Albele complex as a *mansio* with related bath, and believed it must be identified with Sacidava recorded by Tabula Peutingeriana.<sup>27</sup>

Compiling the information from the two *itineraria*, Tabula Peutingeriana and the Cosmography of the Anonymous Geographer of Ravenna, shows there were two access routes linking the road on the Olt river valley to the imperial road from central Dacia Superior (Pl. II). From Caput Stenarum (Boița, Sibiu County), the road climbs to Cedonia (Gușterița, Sibiu County) where it bifurcates. The northern branch, described by Tabula Peutingeriana, ran from Cedonia to Sacidava (site La Zid between Doștat and Spring, Alba County) and reached Apulum (Alba Iulia, Alba County). The southern branch, recorded by the Anonymous Geographer of Ravenna, ran from Cedonia to Burticum (the *mansio* from Miercurea-Băi, Albele), intersecting the imperial road at Blandiana (Șibot or Vințu de Jos, Alba County).

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<sup>26</sup> Branga 1980, 44–47.

<sup>27</sup> Branga 1980, 47–57; Branga 1978, 91.



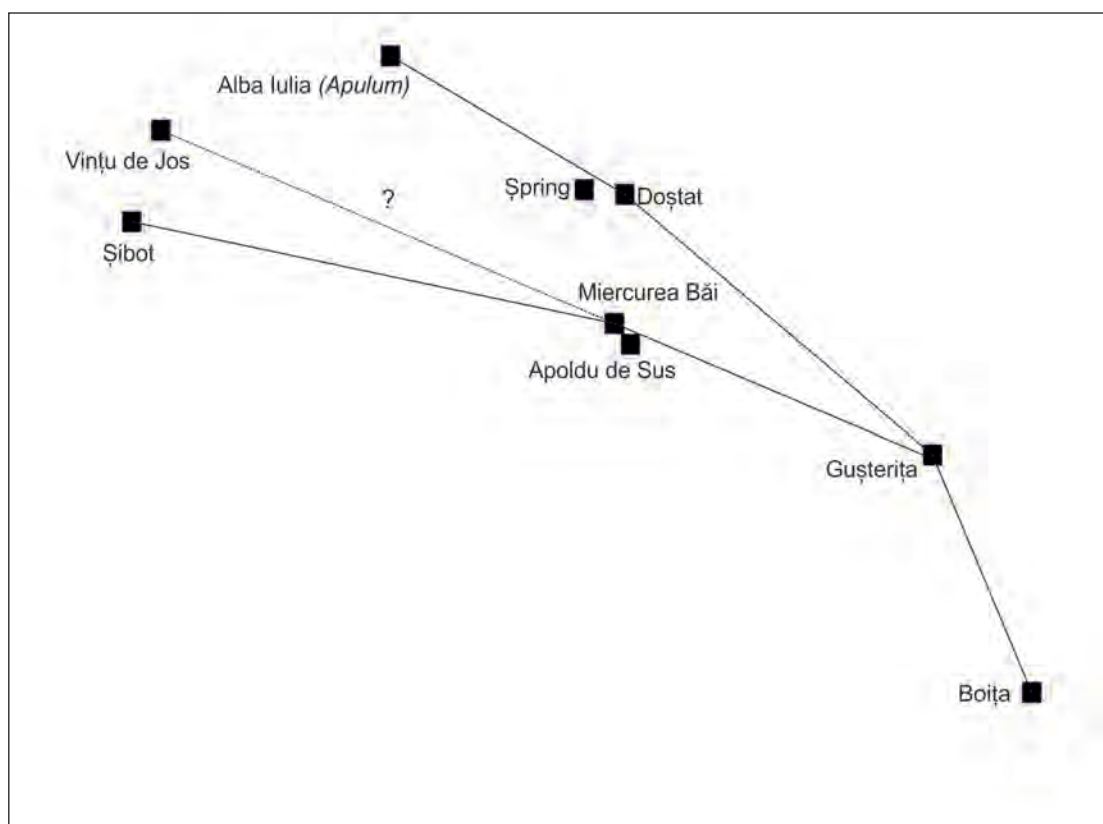
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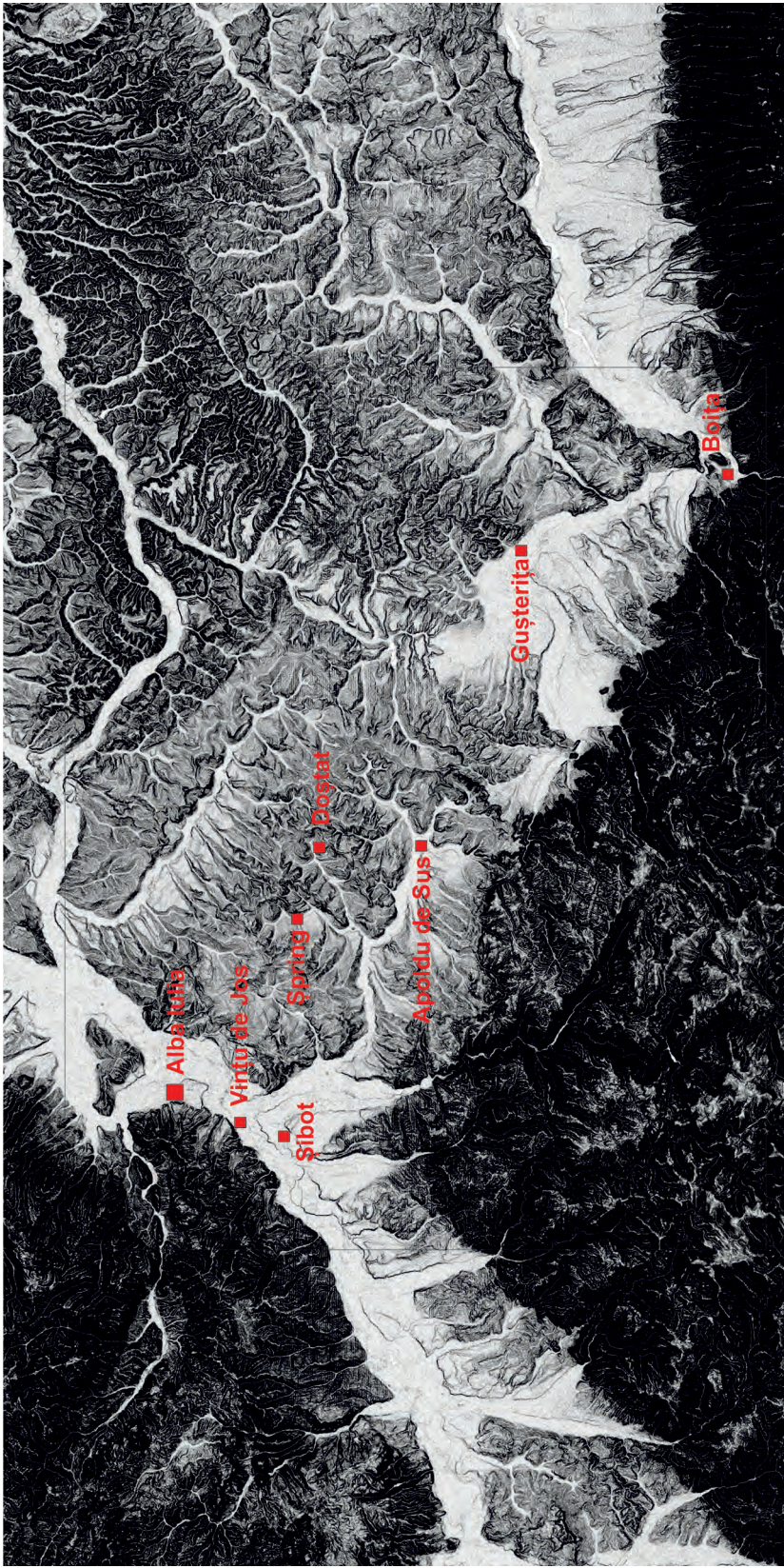
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2

**Pl. I. 1.** *Tabula Peutingeriana*. Fragment with the road from Cedonia to Apulum; **2.** Drawing with the roads Caput Stenarum – Apulum – Blandiana.





Pl. II. The map of the South-Western parts of the Transylvanian Plateau.

## COCCEIUS NASO ALS PRÄSIDIALPROKURATOR VON DACIA INFERIOR UND SEINE DIPLOME\*

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**Abstract:** Cocceius Naso, as praesidial procurator of Dacia inferior, and his diplomas. Through a new fragment of a military diploma from 123 for Dacia inferior, it becomes possible to complete the already known constitution on which the diploma depends. It was issued for *alae* and *cohortes* under the governor Cocceius Naso. He was in office in the province at least from the middle of 122 until after the middle of 126. He is mentioned in altogether ten diplomas. The numerous discharges under him are the result of mass recruitments in the late period of the emperor Domitian or under Nerva in Moesia inferior.

**Keywords:** Dacia inferior; Cocceius Naso; military diplomas.

**Zusammenfassung:** Durch ein neues Fragment eines Militärdiploms aus dem Jahr 123 für Dacia inferior wird es möglich, die schon bekannte Konstitution, von der das Diplom abhängt, zu vervollständigen. Sie wurde für Alen und Kohorten unter dem Statthalter Cocceius Naso ausgestellt. Er amtierte in der Provinz mindestens von Mitte 122 bis nach Mitte 126. Er ist in insgesamt zehn Diplomen genannt. Die zahlreichen Entlassungen unter ihm sind die Folge von massenhaften Rekrutierungen in der Spätzeit von Kaiser Domitian oder unter Nerva für die Truppen in Moesia inferior.

**Schlüsselwörter:** Dacia inferior; Cocceius Naso; Militärdiplome.

**Rezumat:** Publicarea unui nou fragment de diplomă militară din anul 123 pentru provincia Dacia inferior face posibilă completarea constituției imperiale deja cunoscute, după care a fost copiată diploma. Aceasta a fost emisă pentru alele și cohortele aflate sub comanda guvernatorului Cocceius Naso. Acesta a fost procuratorul presidial al Daciei inferior începând cu jumătatea anului 122 și până după mijlocul anului 126, fiind menționat în zece diplome militare. Numeroasele eliberări din vremea lui sunt rezultatul recrutărilor în masă din perioada târzie a împăratului Domițian sau sub Nerva în Moesia inferior.

**Cuvinte cheie:** Dacia inferior; Cocceius Naso; diplome militare.

Im Jahr 2013 wurde in ZPE Band 187, 286 ff. – neben anderen Diplomen, die neue Informationen zu Konsuln und Statthaltern enthielten – auch eine neue Bürgerrechtsurkunde vom 16. Juni 123 veröffentlicht.<sup>1</sup> Erhalten war von dem Diplom allerdings nur die rechte Hälfte von tabella II (von der Innenseite aus gesehen; im Folgenden mit **IIb** bezeichnet).

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\* [Einen Tag, bevor die schon paginierten Fahnen dieses Artikels ankamen, erhielten wir Kenntnis von einem weiteren Fragment der tabella I dieses Diploms, das die inhaltliche Rekonstruktion bestätigt, allerdings einige Änderungen im Wortlaut zur Folge hat. Das neue Fragment wird gleichzeitig mit diesem Beitrag in der ZPE veröffentlicht werden.]

<sup>1</sup> W. Eck, A. Pangerl, *Neue Diplome mit den Namen von Konsuln und Statthaltern*, ZPE, 187, 2013, 273–294. Für kritische Diskussion verschiedener Punkte und wertvolle Hinweise danken wir Florian Matei-Popescu und Ioan Piso.



Der Text enthält auf der Innenseite (unten Abb. 2 rechter Teil) partiell die Namen der Konsuln, ebenso einen Teil des Namens des Präfekten Valentinus, der die Einheit des Diplomempfängers damals kommandierte, und seine Herkunft aus Dyrrachium, allerdings nicht den Namen der Einheit selbst. Vom Empfänger war nur das Ethnikon Syrus zu lesen sowie die Information, dass er sechs Kinder: vier Jungen und zwei Mädchen, zur Privilegierung angemeldet hatte (Abschrift siehe unten). Auf der Außenseite waren die Cognomina der Zeugen zu lesen (siehe unten Abb. 4 rechter Teil), deren Gentilizia aber durch mehrere andere Diplome ergänzt werden konnten.

Gleichzeitig wurde auch noch ein weiteres kleines Diplomfragment aus einer tabella I publiziert (hier mit **Ib** bezeichnet; siehe Abb. 5 das rechte und 6 das untere Fragment), das im Verbund mit tabella **IIB** gefunden worden war. Es enthält einige Informationen, die völlig zu denen in Fragment **IIB** vom 16. Juni 123 passen. Man kann kaum daran zweifeln, dass es sich um denselben Präfekten handelt, da seine *origo* ebenfalls Dyrrachium war; ferner stammte der Soldat ebenfalls aus Syrien wie der Empfänger des Diploms, und es waren mindestens zwei Kinder, in die Privilegierung eingeschlossen – wie sich in Kombination mit zwei späteren Fragmenten ergab, sogar sechs wie auf Fragment **IIB**.

Dieser Befund wurde in ZPE 195, 2015, 231 ff. erneut behandelt und durch zwei weitere Fragmente ergänzt, die beide zu einer tabella I gehören (im Folgenden mit **Ia** und **Ic** bezeichnet; siehe Abb. 5 und 6).<sup>2</sup> Die Zugehörigkeit dieser Fragmente zu dem schon bekannten Diplom ergab sich aus dem Cognomen Valentinus des Präfekten, kombiniert mit der Tribus *Aem(ilia)* sowie mit einem Teil des Datums: *k. Iul.* Durch die beiden Fragmente wurde schließlich geklärt, dass das Diplom für Truppen in Dacia inferior ausgestellt worden war, da auf einem der Fragmente der ritterliche Präsidialprokurator Cocceius Naso genannt wurde, der unter Hadrian diese Provinz geleitet hatte;<sup>3</sup> auf diese Provinz verweisen ferner auch die Namen der zwei Auxiliareinheiten, der *II Gallor(um) et II Fl(avia) Numidarum*, die auf einem der Fragmente zu lesen sind und die beide zum Heer von Dacia inferior gehörten.

Sokonnitemit recht großer Wahrscheinlichkeit in der Zusammenschau aller Fragmente (**IIB** sowie **Ia-Ic**) ein scheinbar stimmiger Text des gesamten Diploms einschließlich der Zeugen rekonstruiert werden. Der folgende Text ergab sich aus dem, was im Jahr 2015 auf Außen- und Innenseite gelesen werden konnte (siehe unten Abb. 1 und 2; siehe auch unten Abb. 2 rechter Teil und Abb. 4 rechter Teil):

*[Imp(erator) Caesar divi Traiani Parthici f(ilius), divi Nervae nepos, Traianus Hadrianus Aug(ustus) pontif(ex) max(imus), tribunic(ia) potestat(e) VII, co(n)s(ul) III, proco(n)s(ul) / peditib(us) et equitib(us), qui milit(averunt) in co]h(ortibus) duab(us), [quae appell(antur) II G]allor(um) et II Fl(avia) [Nu]mid(arum), quae [sunt in Dacia inferiore su]b Cocceio N[ason]e quin/[is et vican(is) plurib(usve) stipe]nd(is) eme[rit(is) di]miss(is) [honest]a miss(ione),*

*quor(um) nomi]n(a subscr[ipta sunt, / ipsis liberis posterisq(ue) eorum civitatem / dedit et conubium cum uxorib(us), quas tunc habuissent, cum est civitas iis data, / aut, si qui cae- lib(es) essent, [cum iis, qua]s po[stea duxissent, dumta]xat si[nguli singulas.*

<sup>2</sup> W. Eck, A. Pangerl, *Eine Konstitution für die Truppen von Dacia inferior vom 16. Juni 123 unter dem Präsidialprokurator Cocceius Naso – und weitere diplomata militaria*, ZPE, 195, 2015, 231–242.

<sup>3</sup> Siehe auch I. Piso, *Fasti provinciae Daciae II. Die ritterlichen Amtsträger*, Bonn 2013, 131 f.

A(nte) d(iem)] XVI k(alendas) Iul(ias) [T. Prifer]o Gemino, [P. Metili]o Secundo co(n)s(ulibus). /

[Coh(ortis) II –]um, cui prae(e)st / [--- f(ilius) Ae]m(ilia) Valentinus Durrac(hio) / [e]xesquiplicario / [--] f(ilio) Syro, / [---] f(ilio) eius, / [--] f(ilio) eius, / [--] f(ilio) eius, / [--] f(ilio) eius, / [--] fil(iae) eius, / [--] fil(iae) e[ius].

[Ti Iuli] Urbani; [L. Vibi] Vibiani; [Q. Lolli] Festi; [L. Pulli] Daphni; [P. Atini] Flori; [L. Pulli] Anthi; [P. Atti] Severi.<sup>4</sup>

Für die Rekonstruktion dieses Diploms war von Beginn an die rechte Hälfte der tabella II entscheidend. Doch in dem dort erhaltenen Text fehlte neben dem Gentile des Kommandeurs auch der Name der Einheit, die er befehligt hatte. Da freilich durch die Innenseite von Fragment **Ib** zwei Kohorten bezeugt waren und die zeilenweise Rekonstruktion auf den Einschluss allein dieser Kohorten zu führen schien, musste man annehmen, er habe tatsächlich eine dieser beiden *cohortes* kommandiert.

Doch wie so oft, tauchen von schon bekannten Diplomen neue Fragmente auf, die dazu zwingen, als sicher angenommene Texte zu überdenken und anders zu rekonstruieren. Dies ist auch bei diesem Diplom der Fall, was sodann auch eine genauere Rekonstruktion weiterer, schon länger bekannter Diplome ermöglicht, die auf dieselbe kaiserliche Konstitution vom Jahr 123 für Dacia inferior zurückgehen. Das gelingt hier durch den Neufund des größten Teils der linken Hälfte der tabella II (im Folgenden **Ila**), die damit fast vollständig erhalten ist. Diese Komplettierung verändert den Text an entscheidenden Stellen und führt zu größerer Klarheit und Konsistenz. Der Text dieses neuen Teils lautet:

Innenseite (Ila; Abb. 1):



SINGVLAS A[---]  
T ROSIAN[---]  
P METILIO [---]  
ALAE I ASTVR[---]  
P VARIVS P F A[---]  
EX S[---]  
TIMIAE SOLONV[---]  
ET TIMIAE [---]  
ET THADEIO [---]  
E]T SALONIO [---]  
ET ---]

Fügt man die schon bekannte rechte Hälfte mit der neuen linken, zusammen, dann erhält man für die Innenseite von tabella II folgenden genau aneinanderpassenden Text (Abb. 2):

<sup>4</sup> Die Zeugen sind in alle in der ersten Hälfte der hadrianischen Regierungszeit bezeugt, siehe RMD V p. 940 ff. Genau dieselben Zeugen erscheinen in gleicher Reihenfolge in einem Diplom für Dacia superior vom 24. November 124 n.Chr.: W. Eck, A. Pangerl, *Sex. Iulius Severus, cos. suff. 127, und seine Militärdiplome*, ZPE 175, 2010, 247 ff. = AE 2010, 1857.



2

SINGVLAS AD XVII K IVL  
T ROSIANO GEMINO  
P METILIO ● SECVNDO COS  
ALAE I ASTVRVM CVI PRAEST  
P VARIVS P F A[E]M VALENTINVS DVRRACH  
EXS[E]SQVIPLICARIO  
TIMIAE SOLONV[-?] F SY[RO]  
ET TIMIAE F EIVS  
ET THADEIO F EIVS  
[E]T SALONIO F EIVS  
[ET ] ● F EIVS  
[ET ] FIL EIVS  
[ET ] FIL EIVS

Der Text der Außenseite beider Fragmente **IIa** und **IIb** mit den Zeugnennamen lautet nun (Abb. 3 und 4):





3



4



[TI IVLI]	VRBANI
[L VIBI]	● VIBIANI
Q LO[LLI]	FESTI
[L] P[VLLI]	DAPHNI
P ATINI	FLORI
L PVLLI	ANTHI
P ATTI	● SEVERI

Der neue Text lässt nun vor allem den vollen Namen des Auxiliarkommandanten erkennen: P. Varius P(ubli) f(ilius) Valentinus; er gehörte der Tribus Aemilia an, in die die colonia Iulia Augusta Du/yrachium eingeschrieben war.<sup>5</sup> Der Präfekt selbst ist bisher unbekannt. In der römischen Kolonie, woher er stammte, ist sein Gentilnomen bisher nicht bezeugt, obwohl er mit großer Wahrscheinlichkeit zu einer der führenden lokalen Familien gehört haben dürfte.

Die wichtigste Information des neuen Fragments ist aber, dass Valentinus keine Kohorte kommandiert hat, sondern die *ala I Asturum*, die, wie man auch durch andere Dokumente weiß, in Dacia inferior stationiert war. Damit ist klar, dass die bisherige Annahme, es seien nur *cohortes* in die Rekonstruktion einzubeziehen, irrig war, da zumindest eine *ala* genannt gewesen sein muss. Damit aber sind die Fragmente **Ia-Ic** nochmals auf eine stimmige Interpretation hin zu überprüfen.

Die Außenseiten der Fragmente **Ia** bis **Ic** führen unter Einbeziehung der Informationen aus Fragment **IIa** zu folgendem Text (Abb. 5):<sup>6</sup>



5

<sup>5</sup> Siehe z.B. CIL III 605, 607, 608, 9741; XVI 1, sowie mehrere Beispiele in CIL VI 2384 = 3884 = 32526; AE 1923, 40; 1966, 390, 391.

<sup>6</sup> Die sehr unterschiedliche Färbung ist wohl darauf zurückzuführen, dass die Fragmente von unterschiedlichen Personen gereinigt wurden, zum Teil wohl auch wenig sachgerecht.

[ESSENT CVM IIS QVA]S PQ[STEA DVXISS DVMTAX]  
 [SINGVL SINGVL XVI] K IVL [vacat]  
 [T ROSIANO GEMIN]O [P METILIO] SE[CVNDO COS]  
 [ALAE I AŞTVR]VM vacat CVI PR[AEST]  
 [ P VARIVS P] F AEM VALEN[TINVS] DVRRAC  
 [ EX]ŞESQVIPLICA[RIO]vacat  
 [ TIMIAE SOLONV.? F ] SYRO  
 [ ET TIMIAE F EIVS ET THADEIO F] EIVS  
 [ET SALONIO F EIVS ET --- F] EIVS  
 [ET --- FIL EIVS ET]ROMVLA[E F]IL E[IVS]  
 [DESCRIP]TVM ET RECOGNIT[VM EX TAB AENEA]  
 [ QVAE F]IXA EST ROMAE IN [MVRO POST TEM]  
 [PLVM D]IVI AVG AD [MINERVAM]

Bei der Rekonstruktion ist davon auszugehen, dass in Zeile 3 offensichtlich bei der Reinigung vieles verschwunden ist, so dass vom Namen des zweiten Konsuls kaum mehr etwas zu sehen ist. Alle lesbaren Angaben stimmen jedenfalls mit dem überein, was inhaltlich auf der Innenseite von tabella II steht.

Auf der Innenseite lassen sich die erhaltenen Textteile der drei Fragmente in dieser Weise anordnen (Abb. 6):



[EQVITIBVS ET PEDITIBVS QVI MILITA]  
 [VERVNT IN ALA VNA ET IN CO]H DVAB  
 [QV APP I AST ET II G]ALL ET II FL [NV]MID QVAE  
 [SVNT IN DAC INF SV]B COCCEIO N[ASO]NE QVIN  
 [ET VICEN PLVR STIPE]N D EME[RITIS DI]MISS  
 [HON MISS QVOR NOMI]N SVBSCR[IPTA SVNT]  
 [IPSIS LIBERIS POSTERISQVE EORVM CIVITAT]  
 [DEDIT ET CONVB CVM VXORIB QVAS TVNC]  
 [HABVISSENT CVM EST]<sup>7</sup> CIV[ITAS IIS DATA]  
 [AVT SI QVI CAEL]IB ESSENT [CVM IIS QVAS ]  
 [POST DVX DVMTA]X SI[NGVL SINGVLAS]

Wenn alle vorgetragenen Überlegungen zutreffen, dann lässt sich der Text des Diploms auf den Außen- und den beiden Innenseiten in etwa so rekonstruieren:<sup>8</sup>

Außenseite tabella I:

*[Imp(erator) Caesar divi Traiani Parthici f(ilius), divi Nervae nepos, Traianus Hadrianus Aug(ustus) pontif(ex) max(imus), tribunic(ia) potestat(e) VII, co(n)s(ul) III, proco(n)s(ul) / equitib(us) et peditib(us), qui militav(erunt) in ala una et coh(ortibus) duab(us), qu(ae) app(ellantur) I Ast(urum) et II Gall(orum) et II Fl(avia) Numid(arum), quae sunt in Dac(ia) inf(eriore) sub Cocceio Nasone quin(is) et vican(is) plur(ibusve) stipend(is) emer(itis) dimiss(is) honesta miss(ione),*

*quor(um) nomin(a) subscripta sunt, ipsis liberis posterisque eorum civit(atem) dedit et conubium cum uxorib(us), quas tunc habuissent, cum est civitas iis data, aut, si qui caelibes essent, cum iis, qua]s po[st(ea) duxis(sent), dumtax(at) sing(uli) sing(ulas). /*

*A(nte) d(iem) XVI] k(alendas) Iul(ias) / [T. Rosiano Gemin]o, / [P. Metilio] Se[condo] co(n)s(ulibus). /*

*Alae I Astur]um, cui pr[ae(e)st / P(ublius) Varius P(ubli)] f(ilius) Aem(ilia) Valen[tinus] Durrac(hio), / [ex]sesquiplic[ario / Timiae Solonu-? f(ilio)] Syro / [et Timiae f(ilio) eius et Thadeio f(ilio)] eius / [et Salonio f(ilio) eius et --] f(ilio) eius / [et --fil(iae) eius et] Romula[e] f]il(iae) e[ius]. /*

*Descrip]tum et recognit[um ex tab(ula) aenea, / quae f]ixa est Romae in [muro post tem/plum d]ivi Aug(usti) ad [Minervam].*

Außenseite tabella II:

*[Ti Iuli] Urbani; [L. Vibi] Vibiani; Q. Lo[l]li] Festi; [L.] P[ulli] Daphni; P. Atini Flori; L. Pulli Anthi; P. Atti Severi.*

Innenseite tabella I und II:

*[Imp(erator) Caesar divi Traiani Parthici f(ilius), divi Nervae nepos, Traianus Hadrianus Aug(ustus) pontif(ex) max(imus), tribunic(ia) potestat(e) VII, co(n)s(ul) III, proco(n)s(ul) / equitib(us) et peditib(us), qui militav(erunt) / in ala una et co]h(ortibus) duab(us), / [qu(ae) app(ellantur) I Ast(urum) et II Ga]ll(orum) et II Fl(avia) [Nu]mid(arum), quae /*

<sup>7</sup> Die Lesung CIV scheint einigermaßen sicher zu sein; davor ist eher eine Verletzung der Oberfläche, kaum ein Buchstabenrest zu sehen.

<sup>8</sup> Die Abkürzungen von Worten innerhalb der Lücken sind nicht genauer zu erschließen.

[sunt in Dac(ia) inf(eriore) su]b Cocceio N[ason]e quin(is) / [et vican(is) plur(ibusve) stipe]n-  
d(is) eme[r(itis) di]miss(is) / [honest(a) miss(ione),

quor(um) no]m(ina) subsc[ripta sunt, ipsis / liberis posterisque eorum civitatem dedit  
et conubium cum uxorib(us), quas tunc habuissent, cum est] civ[itas iis data, aut, si qui cae]-  
lib(es) essen[t, cum iis, quas postea duxissent, dumt]ax(at) si[nguli] // singulas.

A(nte) d(iem) XVI k(alendas) Iul(ias) / T. Rosiano Gemino, P. Metilio Secundo co(n)-  
s(ulibus).

Alae I Asturum, cui prae(e)st / P(ublius) Varius P(ubli) f(ilius) Aem(ilia) Valentinus  
Durrac(hio), / ex sesquuplicario / Timiae Solonu-? f(ilio) Sy[ro] / et Timiae f(ilio) eius / et  
Thadeio f(ilio) eius / [et] Salonio f(ilio) eius / [et --] f(ilio) eius / [et --] fil(iae) eius / [et  
Romulae] fil(iae) eius.

Aus dem neuen Fragment von tabella II ergibt sich eine Konsequenz zum Namen  
des an erster Stelle stehenden Konsuls. Beide *suffecti* sind als Paar bereits in mehreren  
Diplomen partiell bezeugt; beim ersten Konsul wurde dabei stets das verlorene Gentile mit  
*Prifernio* ergänzt:

RMD I 23	<i>a(nte) d(iem) XVI k(alendas) I[ul(ias) T(ito) Prifernio Gemino P(ublio)] Metilio [Secundo co(n)s(ulibus)]</i>
AE 2005, 1712 = 2013, 2196	<i>a(nte) d(iem) XVI k(alendas) [Iul(ias) T(ito) Prifernio Gemino P(ublio) M]etili(o) Secun[do co(n)s(ulibus)]</i>
AE 2013, 2195	<i>[a(nte)] d(iem) XVI k(alendas) Iul(ias) / [T(ito) Prifern]io Gemino / [P(ublio) Metilio] Secundo co(n)s(ulibus)</i>
ZPE 195, 2015, 237	<i>[a(nte) d(iem) XVI] k(alendas) Iul(ias) T(ito) [Prifernio Gemino P(ublio) Metili]o Sec[undo co(n)s(ulibus)] [a(nte)] d(iem) XVI k(alendas) Iul(ias) [T(ito) Priferni]o Gemino [P(ublio) Metilio] Secundo co(n)s(ulibus)</i>

Vom zweiten Konsul ist sicher, dass er in allen Zeugnissen mit dem Namen Metilius  
Secundus angeführt ist, vom ersten Amtsträger ist dagegen nur einmal das Cognomen  
Geminus zu lesen. Das neue Diplom zeigt nun, dass das Gentilnomen Prifernius in der  
Datierungsformel der Diplome nicht zutrifft, da auf der Innenseite von **IIa Rosiano** zu lesen  
ist. Der Senator hat, wie wir aus mehreren Inschriften wissen, einen sehr langen Namen  
getragen,<sup>9</sup> aus dem man bei einer Konsulatsangabe fast zwingend auswählen musste.  
Allerdings hat man in dem officium, in dem der Text für die Konstitution, auf die alle die  
oben angeführten Diplomzeugnisse zurückgehen, nicht willkürlich irgendwelche Namen  
ausgewählt, sich vielmehr danach gerichtet, was offensichtlich der Senator selbst wollte,  
wenn sein Name verkürzt wiedergegeben werden sollte. Denn in drei Inschriften aus Cirta,  
in denen einer seiner Verwandten als sein Legat erscheint, wird dieser als *legatus Rosiani  
Gemini proconsulis in Africa* bezeichnet.<sup>10</sup> Und auch Plinius der Jüngere nennt den jungen  
Senator, der sein Quästor im Jahr 100 gewesen war, in einem Brief an Traian nur Rosianus

<sup>9</sup> Siehe PIR<sup>2</sup> P 38: T. Prifernius Paetus Rosianus Geminus Laecanius Bassus; nach AE 1972, 153 soll der  
Name so gelautet haben: [T. Pri]fernius T(iti) f(ilius) Quir(ina) [Paet]us Rosianus Noni[us Agric]ola C. Labeo  
T[et]tius(?) / [Geminus(?)]. Das spielt hier keine Rolle.

<sup>10</sup> CIL VIII 7059, 7060, 7061.



Geminus.<sup>11</sup> Somit scheint Rosianus diesen Namen als eine Art Gentilnomen verwendet zu haben.

Der Veteran, für den das Diplom bestimmt war, trägt den Namen Timia, der in lateinischen Inschriften bisher nur einmal bezeugt zu sein scheint, in einer stadtrömischen Inschrift, allerdings als Cognomen einer Claudia Timia.<sup>12</sup> Den Namen trägt auch eines seiner sechs Kinder, von denen vier männlichen Geschlechts waren und zwei weiblich. Er selbst ist Sohn eines Mannes, dessen Name am Ende nicht ganz sicher gelesen werden kann: SOLON ist sicher, danach folgt eine von links oben nach rechts unten führende Haste, was auf ein V hindeutet, allerdings ist die rechte Schräghaste nicht erkennbar. So bleibt der Name unsicher. Auch der Name des Sohnes Thadeius scheint bisher, zumindest in dieser Form, unbekannt zu sein.<sup>13</sup> Dagegen ist Salonijs als Gentilnomen zahlreich in lateinischen Inschriften zu finden. Ob der Veteran und die unbekannte, vielleicht schon verstorbene Mutter sich bei der Auswahl der Namen der Kinder nach der Onomastik des syrischen Sprachraums, der Heimat des Soldaten, gerichtet haben, müsste von kompetenter Seite untersucht werden.<sup>14</sup> Zahlreich kommt dagegen der Name der letzten Tochter Romula in den lateinischen Quellen vor.

Der Soldat wurde Ende des 1. Jahrhunderts rekrutiert. Auf welchem Weg er als Syrer in die *ala I Asturum* aufgenommen wurde, die zu dieser Zeit in Moesia inferior stationiert war,<sup>15</sup> lässt sich nicht erkennen. Möglicherweise wurde er aus einer anderen Einheit, der er zunächst angehört hatte, in diese versetzt. Allerdings wurden nicht selten Rekruten in Einheiten eingegliedert, die weitab von deren Heimat stationiert waren. Deshalb darf man wohl vermuten, dass die fünf Fragmente des Diploms, das auf ihn ausgestellt war, nicht in Syrien gefunden wurden. Trifft dies zu, dann ist der Soldat nicht in seine Heimat zurückgekehrt.

Der ritterliche Prokurator Cocceius Naso war schon länger in mehreren Diplomen als Statthalter von Dacia inferior bezeugt.<sup>16</sup> Sein Name muss aber auch in zwei weiteren fragmentarischen Diplomen eingesetzt werden, bei denen bisher nicht erkannt worden war, dass auch diese für Soldaten in Dacia inferior im Jahr 123 ausgestellt worden waren. Dies sind folgende Diplome mit der entsprechenden Ergänzung:

RMD I 23 = AE 2013, 1297 (das in Orlea in Dakien gefunden wurde):

[*Imp(erator) Caesar divi Traiani Parthici f(ilius), d[ivi] N[ervae] nepos, Traianus Hadrianus Aug(ustus) pontif(ex) max(imus), tribunic(ia) potestat(e)*] VII, [*co(n)s(ul) III, proco(n)s(ul) /*

<sup>11</sup> Plinius, ep. 10, 26, 1: *Rosianum Geminum, domine, artissimo vinculo mecum tua in me beneficia iunxerunt; habui enim illum quaestorem in consulatu.*

<sup>12</sup> AE 1974, 154 = EDCS-09400906. Ob Zeugnisse etwa in IG I<sup>3</sup> 80 oder IG IV<sup>2</sup> 1, 96 denselben Namen meinen, müssen wir offenlassen.

<sup>13</sup> Unklar, ob CIL II 7, 246 denselben Namen meint, Taddeus siehe in EDCS-79800180.

<sup>14</sup> Bei H. Wuthnow, *Die semitischen Menschnennamen in griechischen Inschriften und Papyri des Vorderen Orients*, Leipzig 1930 finden sich S. 102 f. Namen, die mit Sal-, S. 110 solche, die mit Sol- beginnen; ob die Namen in dem Diplom in irgendeiner Weise verbunden werden dürfen, wagen wir nicht zu entscheiden. Zu Timia findet sich nichts Ähnliches.

<sup>15</sup> Siehe z.B. CIL XVI 45; RGZM 8; AE 2012, 1957 aus dem Jahr 99; siehe auch F. Matei-Popescu, *The Roman Army in Moesia Inferior*, Bukarest 2010, 167–169, Nr. 1.

<sup>16</sup> Siehe u.a. Piso (Anm. 3).

*equit(ibus) et ped(itibus), qui milit(averunt) in ala una et coh(ortibus) duab(us), quae appell(antur) I Asturum et II Gallorum et II Fl(avia) Numidarum, quae sunt in Dacia inferiore sub Cocceio Nasone civitatem dedit --- cum est civitas iis dat]a, aut, [si qui caelibes essent, cum iis, quas post]ea duxi[ssent, dumtaxat singuli / singulas] /*

*A(nte) d(iem) XVI k(alendas) I[ul(ias) T(ito) Rosiano Gemino, P(ublio)] Metilio [Secundo co(n)s(ulibus)] etc.*

Die Begründung für die hier vorgeschlagene Rekonstruktion ist zum einen der Fundort in Dakien, sodann das Datum *a(nte) d(iem) XVI k(alendas) I[ul(ias)*, und der Name des Konsuls Metilius.

Ferner ist AE 2005, 1712 = AE 2013, 2196 entsprechend zu ergänzen:

*[Imp(erator) Caesar divi Traiani Parthici f(ilius), divi Nervae nepos, Traianus Hadrianus Aug(ustus) pontif(ex) maxim(us), tribunic(ia) potestat(e) VII, co(n)s(ul) III, proco(n)s(ul) /*

*equit(ibus) et ped(itibus), qui milit(averunt) in ala una et coh(ortibus) duabus, quae appell(antur) I Asturum et II Gallorum et II Fl(avia) Numidarum, quae sunt in Dacia inferiore sub Cocceio Nasone --- civitatem dedit --- cum est civitas iis data, aut, si qui caelibes essent, cum iis, quas po]stea duxisse[nt, dumtaxat singuli sing]ulas. /*

*A(nte) d(iem) XVI k(alendas) [Iul(ias) T(ito) Rosiano Gemino, P(ublio) M]etili(o) Secun[do co(n)s(ulibus)] etc.*

Erneut ist der Grund für die Ergänzung das exakte Datum und der Name des Konsuls Metilius Secundus. Zudem stimmt der Name des letzten Zeugen *[P(ubli) Atti] Se[veri]* mit dem letzten Namen im neuen vollständigen Diplom überein.

Der Statthalter Cocceius Naso ist außer in diesen drei Diplomen aus dem Jahr 123 auch noch in folgenden Diplomen bezeugt:

Im Jahr 122: RGZM 20; AE 2003, 2042 = AMN 52, 2015, 137; AE 2007, 1759; AE 2013, 2194 = AMN 56, 2019, 64 ff.; AMN 56, 2019, 60 ff.; damals wurden Soldaten aus drei Alen und fünf Kohorten privilegiert.

Im Text von RMD V 361, das, wie das Konsulatsdatum zeigt, ebenfalls in dieses Jahr gehört, war bisher der Name des Statthalters nicht ergänzt worden:

*[Imp(erator) Caesar divi Traiani Parthici f(ilius), divi Nervae nepos, Traianus Hadrianus Aug(ustus) pontif(ex) maxim(us), tribunic(ia) potestat(e) VI, co(n)s(ul) III, proco(n)s(ul) /*

*equitibus et peditibus, qui militaverunt in alis III et cohortibus V, quae appellantur --- et Gall(or)um Cap(itoniana) et Gall(or)um Atect(origiana) et --- et I Br(acar)aug(ustanorum) et II Fl(avia) Numidar(um) / et II Fl(avia) Bessor(um) et III Gallo]r(um), quae su]nt in Dac(ia) infer(iore) sub [Cocceio Nasone q]uin(is) et vic(enis) plur(ibus)/[ve stipend(iis) emer(itis) dimissis ho]n(esta) miss(ione),*

*quor(um) / [nomina subscr(ipta) sunt,] i[psis] liber(is) poste(risque) / [eorum civi]-t(atem) dedit et con(ubium) cum uxor(ibus), / [quas tunc ha]buis(sent), cum es(t) civit(as) i(i)s [data---]*

*[A(nte) d(iem) X]VI K(alendas) Au[g(ustas)] / Ti(berio) Iulio Capitone, L(ucio) Vitra-si]o Flaminio co(n)s(ulibus)--- etc.*

Schließlich war Cocceius Naso, wie das Diplom AE 2009, 1035 zeigt, auch noch im Jahr 126 im Amt, als Hadrian die zehnte tribunizische Gewalt ausübte. In diesem Jahr wurden Soldaten aus zwei Alen und fünf Kohorten in die Privilegierung eingeschlossen. Cocceius Naso amtierte somit mindestens vier Jahre als Statthalter in Dacia inferior;

möglicherweise war er der erste in der neugeschaffenen Provinz überhaupt.<sup>17</sup> Dafür spricht, dass Iulius Severus, der erste senatorische Statthalter der neuen Provinz Dacia superior, von 120 bis 126 im Amt bezeugt ist.<sup>18</sup> Hadrian sah es zumindest in seinem Fall als sachlich notwendig an, am Anfang eine gewisse Kontinuität bei der Organisation der neuen Provinz zu gewährleisten. Das könnte auch bei Cocceius Naso in Dacia inferior und vielleicht bei Livius Gratus in Dacia Porolissensis zutreffen; auch dieser erscheint in vier Diplomen.<sup>19</sup> Er könnte der erste ritterliche Statthalter von Dacia Porolissensis gewesen sein.

Mit sieben Diplomen aus dem Jahr 122, dreien aus dem Jahr 123 und einem aus dem Jahr 126, also insgesamt zehn Diplomen aus drei verschiedenen Konstitutionen gehört er zu den Statthaltern, die am stärksten in der Überlieferung durch Militärdiplome vertreten sind. Doch außer seiner Statthalterschaft ist über ihn nichts bekannt.

Bemerkenswert ist vor allem die hohe Zahl der Diplome aus dem Jahr 122, die für Soldaten aus drei Alen und fünf Kohorten bestimmt waren, die 25 oder mehr Jahre vorher rekrutiert worden waren, also im Jahr 97 oder früher.<sup>20</sup> Die Einheiten standen damals offensichtlich mehrheitlich südlich der Donau. Das lässt sich für alle sechs Einheiten, die in den Diplomen von 122 für Dacia inferior bezeugt sind, nachweisen; alle standen in spätflavischer und traianischer Zeit in Moesia inferior. Dort waren in den 90er Jahren des 1. Jh. n. Chr. heftige Kämpfe mit den Dakern auszufechten gewesen, mit erheblichen Verlusten auch unter den römischen Truppen, was wiederum verstärkte Rekrutierung zur Folge hatte. Und nach der Ermordung Domitians war es dort zu Unruhen unter den Truppen gekommen, die sich auch auf die Auffüllung der Truppen ausgewirkt haben kann. Genauer lässt sich das erkennen. Doch könnten all diese Verkommnisse dazu geführt haben, dass in der Spätzeit Domitians oder spätestens unter Nerva viele Rekruten neu in die Einheiten aufgenommen werden mussten. Die Folgen, nämlich vermehrte Entlassungen nach 25 oder mehr Jahren, sind dann auf jeden Fall in Dacia inferior in den ersten Jahren Hadrians eingetreten und haben zu einer massenhaften Ausgabe von Diplomen geführt, so dass bis heute so viele überleben konnten. Auf diese Weise könnte man die zahlreichen Diplome unter dem Statthalter Cocceius Naso erklären.

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<sup>17</sup> Siehe Piso (Anm. 3) 132.

<sup>18</sup> I. Piso, *Fasti provinciae Daciae I. Die senatorischen Amtsträger*, Bonn 1993, 42 ff.

<sup>19</sup> Piso (Anm. 3) 111 ff.

<sup>20</sup> Siehe die zahlreichen Diplome, die im Jahr 97 für Soldaten in Moesia inferior ausgegeben wurden: RMD III 140; V 337; AE 2005, 1704; 2009, 1801.

## OLD LAMPS IN A NEW PROVINCE: LOESCHCKE TYPE I LIGHTING DEVICES IN ROMAN DACIA

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**Abstract:** Loeschcke type I volute lamps were the first mass-produced Roman pottery lamps, their appealing shape and unmistakable triangular nozzle along with their rich decoration ensured that they were just as easily recognizable for Roman period consumers, as they are for today's specialists. In Italy their production started in the mid-1<sup>st</sup> century BC and mostly ended by the late 1<sup>st</sup> century AD, being pushed out of the market by the cheaper and more practical *Firmalampen* developed in northern Italy. Even so, type I lamps were used in Dacia, a province founded in a period when these lamps ceased to be produced in Italy. The present study brings into discussion a number of 54 pieces, coming from various sites of the province, mainly Ulpia Traiana Sarmizegetusa as well as from several auxiliary forts. While the archaeological data is scarce and no fabrics analyses could be carried out, the present paper sets out to explore different possibilities with regard to this apparent chronological anomaly. The investigation is based on the patterns of distribution of these lamps in the province, as well as their proportion within the local lamp finds against the backdrop of the chronological evolution of production in Italy and the provinces.

**Keywords:** lamp production; *Bildlampen*; Roman Dacia; ancient industry; ancient economy.

**Rezumat:** Instrumentele de iluminat de tipul Loeschcke I au fost primele opaițe de ceramică romane produse și distribuite în masă. Datorită formei lor specifice, în primul rând a ciocului triunghiular și a decorației bogate de pe disc acestea erau probabil la fel de ușor de recunoscut pentru cumpărătorul din epoca romană, cât și pentru specialiștii zilelor noastre. Producția acestui tip în Italia se poate plasa între mijlocul secolului I. a. Chr. și sfârșitul secolului I. p. Chr., acesta nefăcând față concurenței noilor tipuri mai ieftine și practice din categoria *Firmalampen* dezvoltate în Italia de Nord. Cu toate acestea, opaițele de tipul Loeschcke I se regăsesc în Dacia romană, provincie fondată după ce producția tipului în Italia încetase. Articolul de față trece în revistă un număr de 54 de piese și fragmente provenite de pe diferite situri ale provinciei, în primul rând Ulpia Traiana Sarmizegetusa, dar și din mai multe castre auxiliare. În pofida faptului că datele arheologice cu privire la aceste piese sunt de obicei sărace, și nu am avut posibilitatea efectuării unor analize de pastă, articolul își propune să investigheze posibilele cauze ale prezenței acestor opaițe în Dacia pe baza tiparelor de distribuție și a raportului față de restul tipurilor din provincie, având în vedere și evoluția cronologică a producției din Italia și din provincii.

**Cuvinte cheie:** producție de opaițe; *Bildlampen*; Dacia romană; industria antică; economia antică.

### Loeschcke type I volute lamps: general features and research issues

The generic term “volute lamps with angular nozzles” designates a special group within O. Fischbach's<sup>1</sup> *Bildlampen* category (also known as “picture lamps” or “relief

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<sup>1</sup> Fischbach 1896.



lamps”), consisting of pottery lamps belonging to Loeschcke’s types I to VIII.<sup>2</sup> Loeschcke I lamps (Broneer type XXII, Bailey type A) are characterized by the wide pointed (triangular) nozzle attached to the body with curved sides ending in a pair of ornaments most commonly described as volutes. The development of the type is said to be the result of the innovative trends and experimentation which took place in Graeco-Roman lamp production during the latter half of the 1<sup>st</sup> century BC and led to the appearance of the category known today as Roman relief lamps.<sup>3</sup> The new trends which defined hereafter the industry were based on the so-called “dish-topped” lamp design displaying various decorative relief scenes on the discus,<sup>4</sup> as opposed to earlier Hellenistic types, which were either undecorated or bore very austere ornaments.<sup>5</sup> Indeed Loeschcke type I lamps had developed from Hellenistic prototypes and can be considered the first Roman relief lamps, reaching their peak in terms of distribution and popularity during the first half of the 1<sup>st</sup> century AD.<sup>6</sup> The earliest known examples come from Corinth and display mostly simplistic decoration consisting of simple patterns such as rays and tongues, and various vegetal motifs, as well as a channel between the discus and the nozzle, in similar fashion to their Hellenistic prototypes.<sup>7</sup> The main characteristic of this variant (Bailey type A, group i) appears to be the shallow V-shaped channel between the discus and the nozzle.<sup>8</sup> Apart from Corinth, such lamps were also discovered in Anatolia and North Africa.<sup>9</sup> Similar early variants with geometric decoration, but with the addition of a handle were discovered in Lower Germany at Xanten.<sup>10</sup> The next phase of development represented by the ubiquitous richly decorated variants are illustrated by finds from the Augustan legionary bases of Haltern and Oberaden in Germany.<sup>11</sup> Further early examples were discovered in the military supply depots at Rödgen in Germania superior and at Magdalensberg in Noricum.<sup>12</sup> Based on the assemblages discovered in the 1<sup>st</sup> century AD legionary base at Vindonissa, S. Loeschcke classified the type into three variants: IA, IB and IC based on the width of the nozzle and shoulder form, the earliest variants having narrower nozzles and shoulders, as well as more complex decoration, the classification thus follows a chronological sequence.<sup>13</sup> Later, K. Goethert-Polaschek revised Loeschcke’s system, adding an intermediary nozzle-shape B/C (Pl. I/1).<sup>14</sup> The lamps also underwent a gradual simplification in terms of their decoration. Handles are quite rare, although quite a few cases are known,<sup>15</sup> the phenomenon of applying handles on picture lamps being usually considered a trademark of the Germanic production.<sup>16</sup>

<sup>2</sup> Loeschcke 1919, 23–66.

<sup>3</sup> Broneer 1930, 7–28.

<sup>4</sup> Bailey 1997, 164.

<sup>5</sup> Broneer 1930, 17–18.

<sup>6</sup> Eckardt 2002a, 33.

<sup>7</sup> Broneer 1930, 77–78, fig. 37/422, Pl. XXV/433.

<sup>8</sup> Bussière, Lindros Wohl 2017, 65.

<sup>9</sup> Bussière, Lindros Wohl 2017, 65–67, nos. 76–80.

<sup>10</sup> Fremersdorf 1922, 29, Abb. 22.

<sup>11</sup> Bailey 1980, 127; Alram-Stern 1989, 26.

<sup>12</sup> Frezer 2015, 71.

<sup>13</sup> Loeschcke 1919, 25, Abb. 1.

<sup>14</sup> Goethert-Polaschek 1985, 16, Abb. 7.

<sup>15</sup> See Fremersdorf 1922; Fremersdorf 1942, Taf. 24–26.

<sup>16</sup> Bailey 1980, 127; Eckardt 2002b, 84.

The large-scale Italian production encompasses the latter part of the 1<sup>st</sup> century BC starting with the Augustan period and the greater part of the 1<sup>st</sup> century AD ending probably in the early Flavian period.<sup>17</sup> However, the later variant known as Loeschcke I C seems to have been produced throughout the Flavian period both in Italy and the provinces until the early Trajanic period,<sup>18</sup> and even later in certain provinces, e.g. Pannonia.<sup>19</sup> Even so, the argument that large-scale production of this type held on consistently throughout the 2<sup>nd</sup> century and even until the 3<sup>rd</sup> century<sup>20</sup> is based on little concrete evidence. The emergence of *Firmalampen*, especially the very popular Loeschcke X lamps which appeared around AD 100, essentially terminated the demand for these classic volute lamps.

It is important to stress that Loeschcke's classification was based on material from Vindonissa in Germania Superior (circa 1100 lamps), a legionary base occupied by the Roman army between AD 16/17 and AD 101.<sup>21</sup> This was corroborated with finds from legionary bases in both Germanic provinces, that were either directly imported from Italy, or produced locally (probably by army contractors) as faithful copies of the said imports, as suggested by the kiln finds from Haltern.<sup>22</sup> In other words the classification still in use today for this type was conceived exclusively for the Italian production. Even so, reports and studies on the subject liberally employ this classification with regard to the provincial production of the type, most often citing variants IB/C and IC, and occasionally IB purely on morphological grounds (nozzle width and shoulder form).<sup>23</sup> This is all the more problematic in the case of Dacia, a province which was probably founded after the Italian production of the type ceased altogether or at least stopped exporting (see below). Indeed, it seems that in addition to various regions of Italy (Campania, central and northern Italy, mainly Aquileia), production of this type extended to Pannonia (Poetovio), Achaia (Corinth), Britain (Colchester), Germania Superior and Inferior (Haltern, Köln, Mainz Weisenau, Xanten, Trier), among others.<sup>24</sup> Thus a useful classification would be based on the various production places of the type, rather than on subjective morphological observations. This however is extremely difficult to carry out at the moment, as it would require scrupulous fabric examination and preferably chemical composition analysis based on X-Ray Fluorescence methods (p-XRF and WD-XRF) and the existence of a centralized reference database containing reference groups for each production centre, similarly to the approach implemented lately in the research of terra sigillata pottery.<sup>25</sup> Such initiatives are however hindered by the relative lack of well-documented kiln-finds.<sup>26</sup>

<sup>17</sup> Bailey 1980, 127–152.

<sup>18</sup> Bailey 1980, 152.

<sup>19</sup> See Alram-Stern 1989, 29.

<sup>20</sup> See Broneer 1930, 78; Iványi 1935, 29.

<sup>21</sup> Eckardt 2002a, 20.

<sup>22</sup> Bailey 1980, 127.

<sup>23</sup> E.g. Frezer 2015, 73–91.

<sup>24</sup> See Fremersdorf 1922 (Mainz Weisenau, Xanten); Broneer 1930, 76–78 (Corinth); Iványi 1935, 29; Bailey 1980, 127; Fremersdorf 1942 (Köln); Alram-Stern 1989, 22–29; Liesen 1994, 86–87 (Xanten); Eckardt 2002b, 86–88 (Colchester); Balestrazzi 1988, 153–156 (Aquileia); Istenič 1999 (Poetovio).

<sup>25</sup> See Daszkiewicz et alii 2018 with regard to the methodology applied in the XRF research of terra sigillata, and Istenič et al. 2003 for the same method applied on lamps. For further previous investigations of this type regarding lamps, see Eckardt 2002a, 23.

<sup>26</sup> Eckardt 2002a, 22.

Increasingly, specialists have drawn attention to the fact that: Loeschcke's typology was designed and is relevant for Vindonissa only; the further removed from Switzerland geographically, the more one has to take account of regional and chronological variation by analysing lamps from dated local contexts.<sup>27</sup> That is not to say that typological classifications are redundant, as they are the basis of a common language used in the archaeological literature, however it is increasingly evident that such all-encompassing universal typologies are not suitable for proper archaeological analysis of aspects like production, commerce and material culture in everyday use. To move ahead, an increased focus is required on local production, supply and use patterns, all the more so, as the archaeological record increasingly indicates that lamp supply was mainly based on local production in accordance with the concept outlined by W. V. Harris in his 1980 paper, although there is still no evidence for the existence of a system of organized branch workshops.<sup>28</sup>

### The case of Roman Dacia

There is hitherto no comprehensive study regarding the pottery lamps throughout Roman Dacia and the deeper economic, cultural and social questions raised by this body of material. There are however important monographic studies of large assemblages – e.g., D. Alicu on the lamps from Ulpia Traiana Sarmizegetusa,<sup>29</sup> the first urban centre of Roman Dacia, or C. A. Roman on the lamps of the auxiliary forts in Dacia Porolissensis,<sup>30</sup> as well as the unpublished doctoral thesis of A. Cătinaș on the lamps from in and around the legionary base at Potaissa.<sup>31</sup> These are coupled by quite a few reports on smaller assemblages,<sup>32</sup> which together can offer an extensive – if not too detailed – picture on the matter of “lamp consumption” in the respective province. A primary classification along the lines of S. Loeschcke's seminal work reveals that all three major categories of lamps can be found in the province: 1) “picture lamps” (*Bildlampen*), 2) “factory lamps” (*Firmalampen*), and “wheelmade (circular) lamps”.<sup>33</sup> While there is an obvious chronological meaning to these categories and the types they encompass – as shown by Loeschcke over a century ago in his aforementioned monograph – the production place of the lamps is by no means insignificant with regard to their chronology (see above). Indeed, as shown above, large-scale production and distribution of good-quality pottery lighting devices was not restricted to Italy, the case of Pannonia – especially Poetovio – being highly significant in this regard. Two aspects need to be kept in mind here: 1) there is no reason to assume that all or nearly all of the lamp imports in Dacia are Italian products, and 2) there is clearly a chronological difference between production centres, as shown above with regard to the case of Loeschcke I lamps.

As shown in an earlier study,<sup>34</sup> the inherent chronological value attributed to the lamps based on the ‘classical’ typologies of Loeschcke (1919), Broneer (1930), Iványi (1935)

<sup>27</sup> Eckardt 2002a, 20. For an overview of local lamp production in Dacia see Roman 2008.

<sup>28</sup> Harris 1980, 134–137; Eckardt 2002a, 23.

<sup>29</sup> Alicu, Nemeș 1977; Alicu 1994.

<sup>30</sup> Roman 2006.

<sup>31</sup> Cătinaș 2002. See also the more recently published assemblage from within the legionary fortress: Nemeti 2017.

<sup>32</sup> E.g. Băluță 1961; Băluță 1964; Băluță 1977; Benea 1990; Gaiu 2010.

<sup>33</sup> See Petruț et alii 2014, 76–77.

<sup>34</sup> See Petruț et alii 2014, 76–77.

and more recently Bailey (1980), have only a limited utility with regard to the Roman lamps from Dacia. This admittedly is due to two reasons: 1) the relatively short period of time during which Dacia was part of the Roman Empire, and 2) the chronological differences between the output of different production centres and our relative inability to precisely distinguish between the local and imported products on one hand, and between the origin of the different extra-provincial imports on the other. As such, an assessment of changes occurring in lamp usage throughout the existence of the province – as carried out by H. Eckardt in the case of Roman Britain<sup>35</sup> – is an extremely difficult task. Only a large-scale comprehensive study involving carefully selected assemblages from throughout Roman Dacia relying on archaeometric methods (especially XRF reference groups) could remedy this situation.

The lighting devices included in the category of picture lamps (*Bildlampen*), comprised of Loeschcke's types I–VIII, in the context of Italian production (but also some of the 1<sup>st</sup> century provincial manufacturers, see below) exhibit the best chronological indicators.<sup>36</sup> However, their Italian production is mostly limited to the 1<sup>st</sup> century AD, in the period before Dacia's integration into the Empire.<sup>37</sup> Some examples of picture lamps in Dacia (especially Loeschcke VIII) display a time span that covers the entire Roman rule in Dacia.<sup>38</sup> The same is valid for the *Firmalampen*. The production of early variants designated as Loeschcke type IX lamps was halted at the beginning of the 2<sup>nd</sup> century AD; consequently, their presence is very rare in Dacia, although the few examples of this type discovered in Ulpia Traiana Sarmizegetusa can be regarded as chronological indicators for the beginning of that century.<sup>39</sup> The later variant (Loeschcke type X), however, has a time span that encompasses the entire 2<sup>nd</sup> century AD, with its production continuing throughout much of the 3<sup>rd</sup> century,<sup>40</sup> thus its chronological significance in the context of Roman Dacia is quite limited. The case of the so-called 'wheel-made circular lamps' is somewhat similar. The emergence of this category is usually ascribed to a change in the manufacture technology (wheel-throwing rather than moulding), prompted in part by modifications in lamp usage, which consisted mainly in a shift from vegetal oil fuels to animal fat in the 2<sup>nd</sup> century AD. This type is relatively widespread in Roman Dacia. Contrary to earlier assumptions, the production and propagation of this category of lamps started in the 2<sup>nd</sup> century AD and lasted up to the 4<sup>th</sup> century, and possibly beyond.<sup>41</sup> As a consequence, this category of lamps is also less informative with regard to the chronological evolution of the lighting devices from Roman Dacia. A further difficulty in this line of study resides in the fact that the vast majority of lamps in Dacia appear to be local products, partly in accordance with W. V. Harris' concept regarding the local production and distribution of ceramic oil lamps (see above). In certain provinces, e.g., Britain and Raetia lamps were quickly reproduced locally, thus relying to a lesser degree on imports.<sup>42</sup> Indeed Dacia appears to be such a

<sup>35</sup> Eckardt 2002a.

<sup>36</sup> See Eckardt 2002a, 22.

<sup>37</sup> See Bailey 1980, 314–376.

<sup>38</sup> See Roman 2006, 40.

<sup>39</sup> Alicu 1994, 51–54 (types VIII and IX).

<sup>40</sup> See Harris 1980, 143–144.

<sup>41</sup> See Negru 1996, 76–77; Eckardt 2002a, 33; Roman 2000, 122–123; Roman 2006, 26, 30.

<sup>42</sup> Bailey 1997, 164.



province, and the military seems to have had a crucial impact in this regard (see below). A telling case is that of the factory lamps (*Firmalampen*), as in Dacia a very small percentage of these seem to be Italian imports, the huge majority being manufactured locally. The provincial variants which make up the bulk of the oil lamps in Dacia are often distant from the Italian prototypes, but also from other provincial variants e.g., the lamps coming from Pannonia and the Germanic provinces in terms of chronological and technological (especially qualitative) aspects.<sup>43</sup>

At this time, the number of published Loeschcke type I volute lamps from Roman Dacia stands at 54 (Pl. I/2). Pre-Roman Dacian sites have hitherto yielded only two such lamps.<sup>44</sup> Even so, there is a chance that one of the pieces considered here (no. 54) – a stray find from the hillfort of Deva – also comes from a pre-Roman context. Evidence for local production exists in two cases, at: Ulpia Traiana Sarmizegetusa, where the assemblage includes a number of wasters,<sup>45</sup> and at Porolissum, where the only Loeschcke type I mould within Dacia was discovered.<sup>46</sup> It is important to mention that stratigraphical data ascribed to some of the finds by their original publishers will not be taken into account, as the reliability of these assertions cannot be corroborated by any method.

Over half of the lamps come from Ulpia Traiana Sarmizegetusa (1–30), the first capital of the province and seat of the provincial assembly. According to D. Alicu, nearly half of the assemblage consists of imports (12 lamps) although the author only presents qualitative arguments to support his assertion. Half of the local products (9 lamps) seem to be wasters, probably used as votive depositions, as the vast majority of the lamps were discovered in the temple of Aesculapius and Hygeia.<sup>47</sup> Furthermore, an unspecified number of unpublished type I lamps were discovered in an early-2<sup>nd</sup> century context of the Trajanic forum (*Forum Vetus*).<sup>48</sup> Ulpia Traiana Sarmizegetusa is the only site that stands out with regard to the number of Type I lamps yielded. The remaining part of this group is more or less evenly spread between a number of auxiliary forts mostly from Dacia Porolissensis, Porolissum leading the way with 8 lamps, followed by the forts at Gilău (4), Buciumi (2), Ilișua (2), and Cășeu (1). The largest assemblage of Type I lamps in Dacia Superior comes from Tibiscum, while Apulum is at this stage only represented by a single lamp of this type. The example from Deva was included in the catalogue of the present study, however there is a strong possibility that it belonged to a pre-Roman context. The origins of the imported pieces can be tracked down only in very few cases. Such a case is the inscribed fragment from Buciumi (48) which has analogies at Poetovio (Pl. IV/6),<sup>49</sup> probably the largest production centre of Type I lamps in this area of the Empire. Similarly, two lamps from Tibiscum and Ilișua, each decorated with a horse head (43 and 50) also have analogies at Poetovio,<sup>50</sup> although this case is less conclusive, as we are dealing with a more generic decorative motif than in the previous case. In terms of the iconography, not much can be said, as the motifs

<sup>43</sup> See Bailey 1988.

<sup>44</sup> Egri, Rustoiu 2006, 83, Pl. 31/16–17.

<sup>45</sup> Alicu 1994, 42–43.

<sup>46</sup> Gudea 1989, 508, Pl. CIV A/1; Roman 2006, 142, nr. 186, Pl. 10/186, 23/186.

<sup>47</sup> Alicu 1944, 41–44.

<sup>48</sup> Roman 2006, 35, note 16.

<sup>49</sup> Istenič 1999, 347, No. 437.

<sup>50</sup> Istenič 1999, 410, No. 131.

are either too generic or the lamps are too fragmentary. A further question that needs to be addressed is that of the mould-marks i.e., simple signs or letters stamped into the mould which appear in relief on the base of the lamps, in order that a check could be kept on the output of a particular mould.<sup>51</sup> Even though their use is mostly specific for the early 1<sup>st</sup> century AD, quite a few pieces in the present group of lamps display some sort of mould-marks either in the form of multiple small concentric circles (1, 16, 17, 19, 21, 39) or the letters V, D and C (43–45). On the base of one of the lamps from Gilău (45), in addition to a rather common mould-mark (the letter C in reverse displayed in relief) a somewhat odd pair of motifs are depicted, scratched into the surface of the lamps before firing (*graffiti ante cocturam*): an anchor and a palm branch. According to F. Marcu, who dealt extensively with the lamp in a separate article, unspecified archaeometric analysis were undertaken, which showed that the lamp was manufactured in Italy.<sup>52</sup> Furthermore, the author, based mainly on the occurrence of the two symbols in Christian iconography, especially in the catacombs of Rome considers their use on the lamp as an act of Christian devotion.<sup>53</sup> This is not the place for an extensive discussion of the matter, but considering the vast array of symbols which appear on the bases of lamps, among which the palm branch is quite common, the interpretation of the lamp from Gilău as a Christian symbol is difficult to uphold. Perhaps the anchor and palm branch are an incuse stamp i.e., scratched into the archetype, and had the purpose of keeping track of the archetype.

Returning to the question of distribution, the material seems to be split in two, the majority of the lamps coming from Ulpia Traiana Sarmizegetusa, the rest coming from what can clearly be described as a military environment, consisting of various auxiliary forts situated on the western and northern section of the Dacian Limes, with no finds so far from the eastern and south-eastern areas of the frontier line (See Pl. II). It can be assumed that the majority of the Loeschcke I lamps are imports, notwithstanding that there is some evidence for local production as discussed above. The provenance of the imports is of course at this stage difficult to determine precisely, although given that Pannonian production persisted into the 2<sup>nd</sup> century, it is more likely that most of the imports came from there, all the more so as there seem to be some clear products from Poetovio among the studied lamps (see above). This however does not necessarily mean that the influx of Loeschcke type I lamps continued throughout the entire 2<sup>nd</sup> century or that it went on into the 3<sup>rd</sup> century. If this were the case, the proportion of these lamps in the province would be much higher, especially if we add some degree of local production to the equation. Thus, the only likely explanation appears to be that the distribution of this type in Dacia was limited to the early period of the province's existence, perhaps up to the middle of the 1<sup>st</sup> century, considering the chronology of the Pannonian production. In this case these objects may have reached Dacia either by way of commerce – essentially being imports – or as part of the personal material baggage carried by the arriving soldiers and civilian settlers. Given the low numbers of finds, the latter possibility appears to be more likely. We must bear in mind that lighting devices were essential objects for individuals and groups on the move or who were in the course of resettling in new lands, so it is by no means

<sup>51</sup> Bailey 1976, 102.

<sup>52</sup> Marcu 2011, 300.

<sup>53</sup> Marcu 2011, 300–303.

unusual to directly link pottery lamps to newly arrived populations. Either way we must be dealing with finds linked with the early stages of the province. The situation of Ulpia Traiana Sarmizegetusa could hypothetically be explained through the massive influx of population which marked the founding of the settlement, and these earlier types of lamps could have been brought along by the new settlers. Similarly, the lamps from the auxiliary forts might have belonged to the soldiers who garrisoned these forts following the founding of the province. Furthermore, it is interesting to note that the legionary base at Potaissa, occupied only starting from the early stages of the Marcomannic War in circa 168–170 AD, has so far failed to produce any Loeschcke I lamps, even though the type is present in a number of auxiliary forts in the region.<sup>54</sup> This seems to corroborate the notion that the consistent production of this type seized by the mid-2<sup>nd</sup> century AD. It is of course odd that only one lamp can be accounted for from Apulum, the longest serving legionary base of the province. We must however bear in mind that hitherto relatively little material was published from the legionary fortress. The local reproduction of the type, as indicated by the mould discovered at Porolissum, was probably operated by potters and lamp-makers affiliated to the military, who set up their workshops in the vicinity of military bases, where they mostly copied Italian types.<sup>55</sup> The same could be true for Ulpia Traiana Sarmizegetusa, considering the likely military beginnings of the settlement. The situation is somewhat similar to that of the Flavian period Loeschcke IX *Firmalampen* (Alicu types VIII and IX) which are also present at Ulpia Traiana Sarmizegetusa (44 pieces) but are extremely rare in other parts of the province, as their production ceased in Italy around 100 AD. Due to the chronological situation of Roman Dacia (see above) a massive local production of Loeschcke I lamps could not get under way, as the market was beginning to be flooded by the type X *Firmalampen*. Local production of type I lamps was therefore restricted to a short-lived military production at the beginning of the 2<sup>nd</sup> century.

### Conclusions

A straightforward answer to the presence of Loeschcke type I lamps in Roman Dacia is an impossible task at the moment. However, by analysing the patterns of distribution, as well as their proportion within the lamp finds of the province against the backdrop of the chronological evolution of production in Italy and the provinces (mainly Pannonia), some conclusions can be drawn. First of all, the greater part of the material appears to come from outside of the province, most likely from Pannonia rather than Italy. Although there are some clear signs of local production, the overall low numbers of the type in the province prove its limited output. Indeed, we must be dealing with a military based production restricted to the very early stages of the province centred on copying Italian types, which then shifted to the production of *Firmalampen* types that were pouring out of Italian workshops and flooding the markets of the Empire. This ultimately must have ended the production of type I lamps. A further possibility which must have contributed to the presence of these lamps in Dacia is that at least some, if not most arrived as part of the material baggage of soldiers transferred here and civilian settlers who arrived into the new

<sup>54</sup> See Cătinaș 2002; Nemeti 2017, 134.

<sup>55</sup> Bailey 1997, 165–166.

province. We must bear in mind that lighting devices were essential objects for individuals and groups on the move or who were in the course of resettling in new lands, so it is by no means unusual to directly link pottery lamps to newly arrived populations.

### Catalogue

No.	Place of discovery	Object, state of preservation	Discus decoration	Stamp/graffito	Bibliography	Illustration
1.	Ulpia Traiana Sarmizegetusa	Intact lamp	Acorn and oak-leaf	Mould-marks: two small concentric circles on the base	Alicu 1977, 352; Alicu, Nemeş, 1977, 38, fig. 1, pl. I/1, LVII/L; Alicu 1994, 153, nr. 1, fig. 1/1, fig. 20/1.	Pl. III/1
2.	Ulpia Traiana Sarmizegetusa	–	Acorn and oak-leaf	–	Alicu 1977, 352; Alicu, Nemeş 1977, 38, pl. I/2; Alicu 1994, 153, nr. 2.	–
3.	Ulpia Traiana Sarmizegetusa	–	Acorn and oak-leaf	–	Alicu 1994, 153, nr. 3.	–
4.	Ulpia Traiana Sarmizegetusa	–	Floral motif?	–	Alicu 1977, 353; Alicu, Nemeş 1977, 39, pl. II/3; Alicu 1994, 153, nr. 4.	–
5.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1977, 353; Alicu, Nemeş 1977, 39, fig. 5, pl. II/4; Alicu 1994, 153, nr. 5.	–
6.	Ulpia Traiana Sarmizegetusa	Fragmentary lamp	Rosette	–	Alicu 1994, 153, nr. 6.	–
7.	Ulpia Traiana Sarmizegetusa		Deer	–	Alicu 1977, 353; Alicu, Nemeş 1977, 39, pl. I/4; Alicu 1994, 153, nr. 7.	–
8.	Ulpia Traiana Sarmizegetusa	Fragmentary lamp	Deer	–	Alicu 1977, 353; Alicu, Nemeş 1977, 39, fig. 3, pl. I/5; Alicu 1994, 153, nr. 8, fig. 1/8.	Pl. III/2
9.	Ulpia Traiana Sarmizegetusa	–	Dog chasing a rabbit	–	Alicu 1977, 353; Alicu, Nemeş 1977, 39, fig. 4, pl. II/1; Alicu 1994, 153, nr. 9.	–



No.	Place of discovery	Object, state of preservation	Discus decoration	Stamp/graffito	Bibliography	Illustration
10.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1977, 353; Alicu, Nemeş 1977, 39, pl. II/2; Alicu 1994, 153, nr. 10.	–
11.	Ulpia Traiana Sarmizegetusa	Intact lamp	Dog chasing a rabbit	–	Alicu 1994, 153, nr. 11, pl. I, fig. 1/11.	Pl. III/3
12.	Ulpia Traiana Sarmizegetusa	Intact lamp	Peacock	–	Alicu 1994, 153, nr. 12, fig. 1/12, pl. I.	Pl. III/4
13.	Ulpia Traiana Sarmizegetusa	–	Crow on a tree branch	–	Alicu 1994, 153, nr. 13.	–
14.	Ulpia Traiana Sarmizegetusa	–	Hercules	–	Alicu 197, 353; Alicu, Nemeş 1977, 40, pl. II/5; Alicu 1994, 153, nr. 14.	–
15.	Ulpia Traiana Sarmizegetusa	–	Hercules	–	Alicu 1977, 353; Alicu, Nemeş 1977, 40, fig. 6, pl. II/6; Alicu 1994, 153, nr. 15.	–
16.	Ulpia Traiana Sarmizegetusa	–	Hercules	Mould-marks: three small concentric circles aligned on the base	Alicu 1994, 153, nr. 16, fig. 20/16.	–
17.	Ulpia Traiana Sarmizegetusa	–	Hercules	Mould-mark: the letter V in relief	Alicu 1994, 153, nr. 17.	–
18.	Ulpia Traiana Sarmizegetusa	Fragmentary lamp	Hercules' throne		Alicu 1994, 153, nr. 18.	–
19.	Ulpia Traiana Sarmizegetusa	Fragmentary lamp	Mercuris' staff ( <i>caduceus</i> )	Mould-mark: small concentric circles on the base	Alicu 1994, 153, nr. 19.	–
20.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1977, 352; Alicu, Nemeş 1977, 38, fig. 2, pl. I/3; Alicu 1994, 153, nr. 20.	–

No.	Place of discovery	Object, state of preservation	Discus decoration	Stamp/graffito	Bibliography	Illustration
21.	Ulpia Traiana Sarmizegetusa	Intact lamp	<i>Cista</i>	Mould-mark: small concentric circles on the base	Alicu 1994, 154, nr. 21, fig. 1/21, 20/21.	Pl. III/5
22.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1977, 352; Alicu, Nemeş 1977, 39; Alicu 1994, 154, nr. 22.	–
23.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1977, 353; Alicu, Nemeş 1977, 40; Alicu 1994, 154, nr. 23.	–
24.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1977, 353; Alicu, Nemeş 1977, 40; Alicu 1994, 154, nr. 24.	–
25.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1977, 353; Alicu, Nemeş 1977, 40; Alicu 1994, 154, nr. 25.	–
26.	Ulpia Traiana Sarmizegetusa	Intact lamp	Undecorated discus		Alicu 1994, 154, nr. 26, fig. 1/26.	Pl. III/6
27.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1994, 154, nr. 27.	–
28.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1994, 154, nr. 28.	–
29.	Ulpia Traiana Sarmizegetusa	–	–	–	Alicu 1994, 154, nr. 29.	–
30.	Ulpia Traiana Sarmizegetusa	–	Rosette	–	Alicu 1994, 154, nr. 30.	–
31.	Porolissum	Lamp mould	–	–	Gudea 1989, 508, Pl. CIV A/1; Roman 2006, 142, nr. 186, Pl. 10/186, 23/186; Lăzărescu, Sidó 2018, 35, Fig. 3/22.	–
32.	Porolissum	Fragmentary lamp	Gladiator	–	Roman 2006, 95–96, nr. 43, Pl. 12/43, 17/43.	–
33.	Porolissum	Fragmentary lamp	Goat	–	Roman 2006, 96, nr. 44, Pl. 12/44, 17/44.	–

No.	Place of discovery	Object, state of preservation	Discus decoration	Stamp/graffito	Bibliography	Illustration
34.	Porolissum	Fragmentary lamp	–	–	Roman 2006, 98, nr. 50, Pl. 17/50.	–
35.	Porolissum	Fragmentary lamp	–	–	Roman 2006, 98–99, nr. 51, Pl. 17/51.	–
36.	Porolissum	Fragmentary lamp	–	–	Roman 2006, 99, nr. 52, Pl. 17/52.	–
37.	Porolissum	Fragmentary lamp	–	–	Roman 2006, 99, nr. 53, Pl. 10/53.	–
38.	Porolissum	Fragmentary lamp	–	–	Roman 2006, 99, nr. 54, Pl. 17/54.	–
39.	Tibiscum	Fragmentary lamp	–	Mould-mark: the letter V in relief	Benea 1990, 152, nr. 1. Fig. 1/1, Fig. 12/1a-b.	–
40.	Tibiscum	Fragmentary lamp	Female bust		Benea 1990, 152, nr. 2. Fig. 1/2.	–
41.	Tibiscum	Fragmentary lamp	–	–	Benea 1990, 152, nr. 3. Fig. 1/3.	–
42.	Tibiscum	Fragmentary lamp	–	–	Benea 1990, 152, nr. 4. Fig. 1/4.	–
43.	Tibiscum	Intact lamp	Horse head	Mould-mark: the letter V in relief	Benea 1990, 152, nr. 5. Fig. 12/5a–b.	Pl. IV/5
44.	Gilău	Intact lamp	Bacchic mask with <i>thyrsos</i> and <i>syrinx</i>	Mould-mark: the letter D in relief	Isac, Roman 2001, 368, Pl. I/2a-b; Roman 2006, 94, nr. 39, Pl. 12/39, 13/39, 17/39.	Pl. IV/2
45.	Gilău	Fragmentary lamp, discus is broken	–	Mould-mark: the letter C (retrograde) in relief and an <i>ante cocturam</i> graffito depicting an anchor	Isac, Roman 2001, 368, Pl. I/3a-b; Roman 2006, 94, nr. 40, Pl. 13/40, 17/40; Marcu 2011, 299–305, Pl. I–II.	Pl. IV/3
46.	Gilău	Fragmentary lamp	Bacchic mask with <i>thyrsos</i> and <i>cornucopia</i>	–	Isac, Roman 2001, 368, Pl. I/5; Roman 2006, 96–97, nr. 45, Pl. 12/45, 17/45.	–
47.	Gilău	Fragmentary lamp	Female mask	–	Isac, Roman 2001, 368, Pl. I/4; Roman 2006, 97, nr. 46, Pl. 12/46, 17/46.	–

No.	Place of discovery	Object, state of preservation	Discus decoration	Stamp/graffito	Bibliography	Illustration
48.	Buciumi	Fragmentary lamp	–	Stamped discus inscription: <i>[Pavperis cena pane vinv]</i> RADIC	Chirilă et al. 1972, 55, nr. 6, XLII/3; Gudea, Cosma 2003, 23, nr. 2 Pl. I/2; Roman 2006, 95, nr. 42, Pl. 8/42, 14/42; Petruț 2018, 99.	Pl. IV/1
49.	Buciumi	Fragmentary lamp	Cupid	–	Chirilă et al. 1972, 56, nr. 32, Pl. XLV/2; Gudea, Cosma 2003, 27, nr. 32, Pl. 5/31.	–
50.	Ilișua	Intact lamp	Horse head	–	Protase et al. 1997, Pl. XXXVIII/3; Lychnus et lampas 155; Gaiu 2010, 221, nr. 1, Pl. I/1.	Pl. IV/4
51.	Ilișua	Fragmentary lamp	Bird with spread wings	–	Gaiu 2010, 222, nr. 12, Pl. II/12.	–
52.	Cășeu	Fragmentary lamp	–	–	Roman 2006, 98, nr. 49, Pl. 17/49.	–
53.	Apulum	Intact lamp	–	–	Băluță 1964, 280, Pl. I/1.	–
54.	Deva	Fragmentary lamp	–	–	Băluță 1977, 217, nr. 2, Pl. I/2.	–

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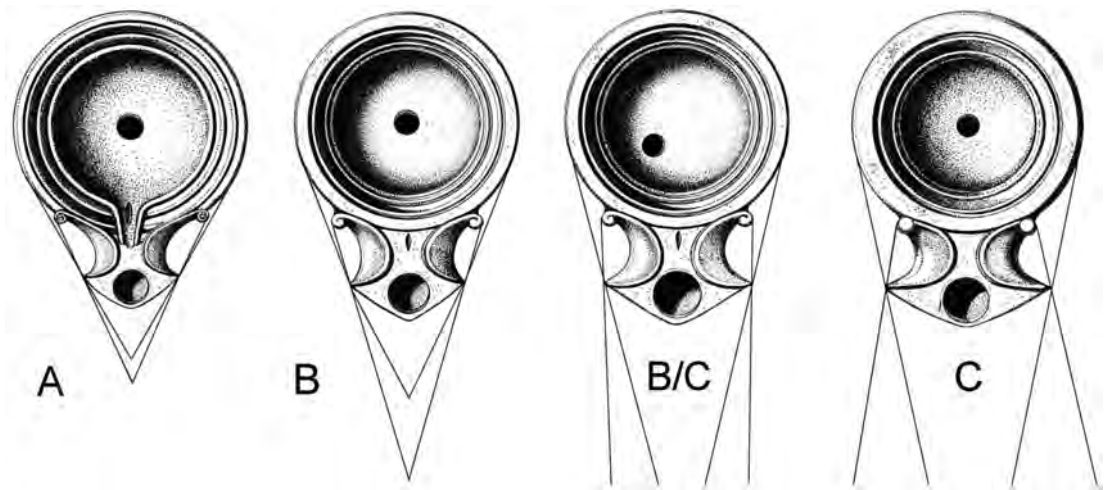
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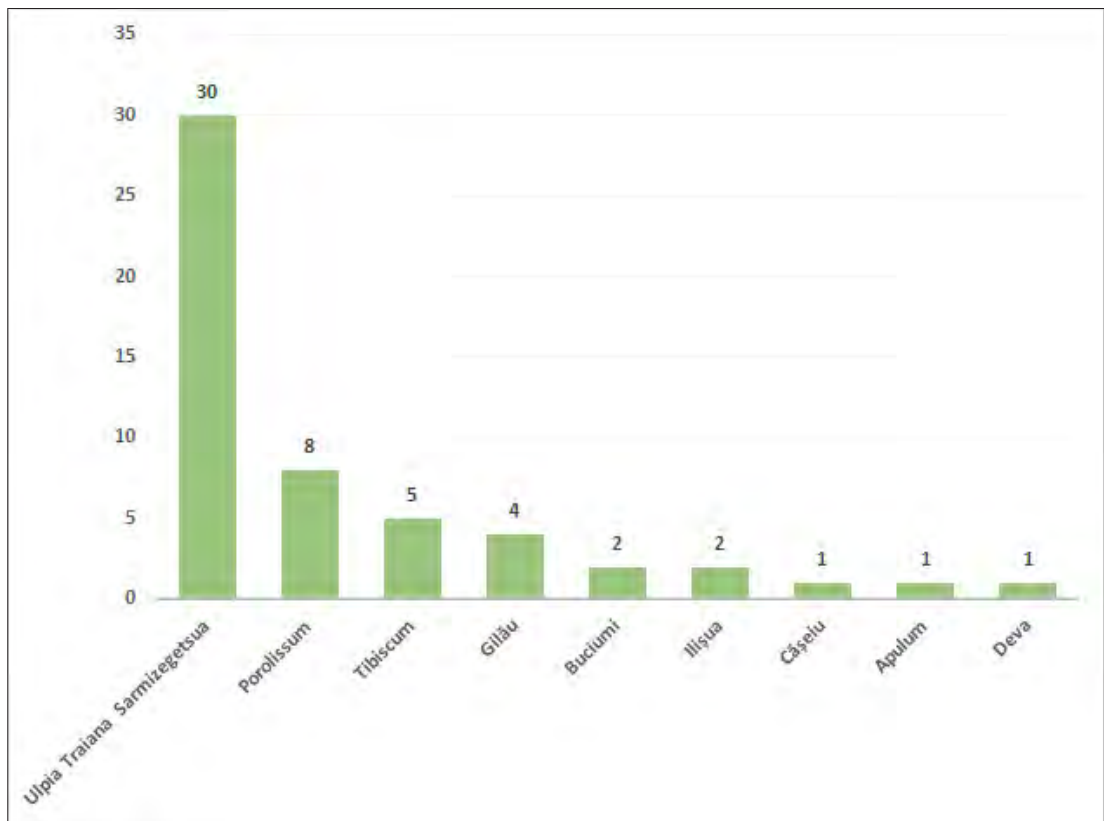
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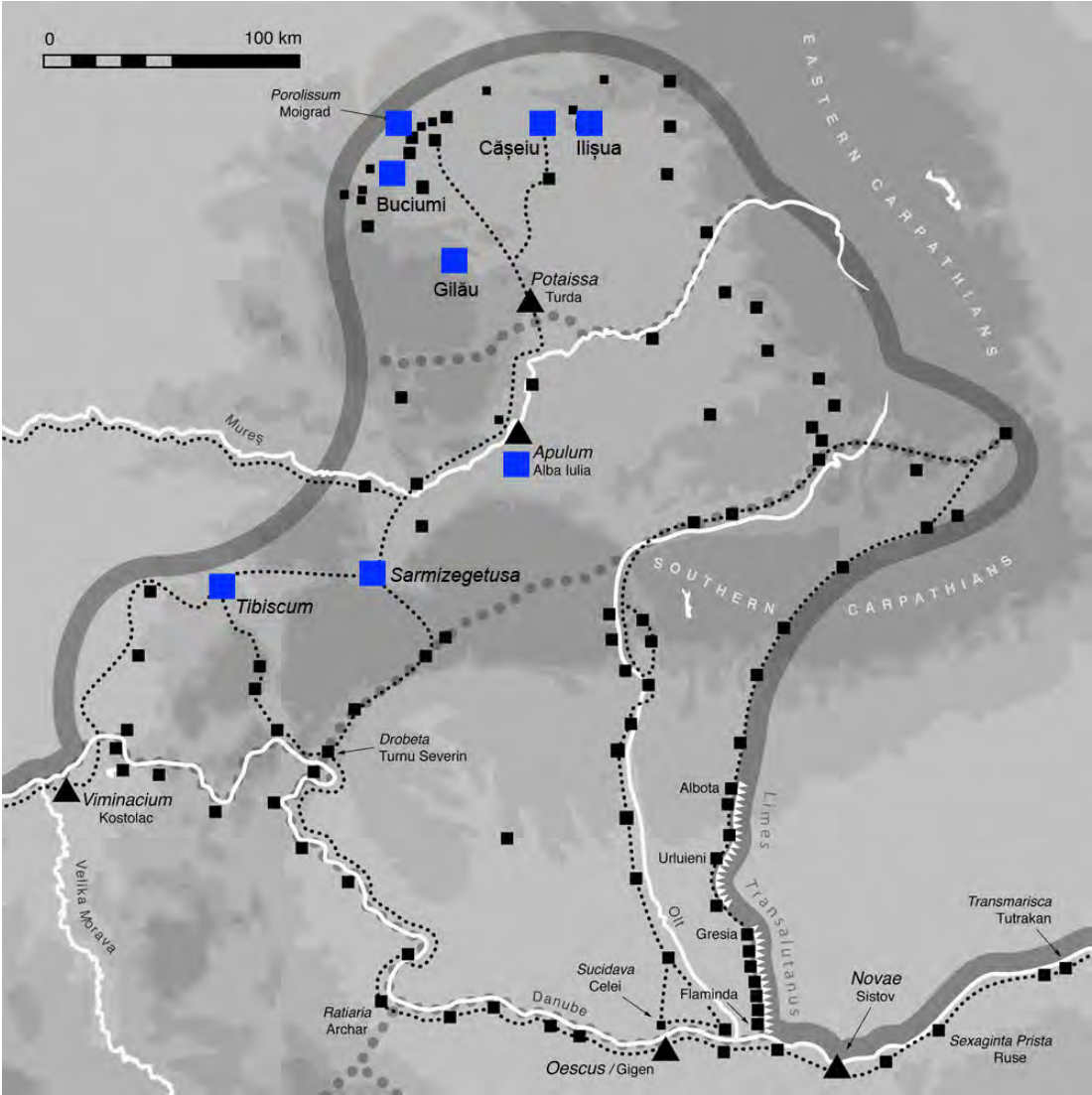
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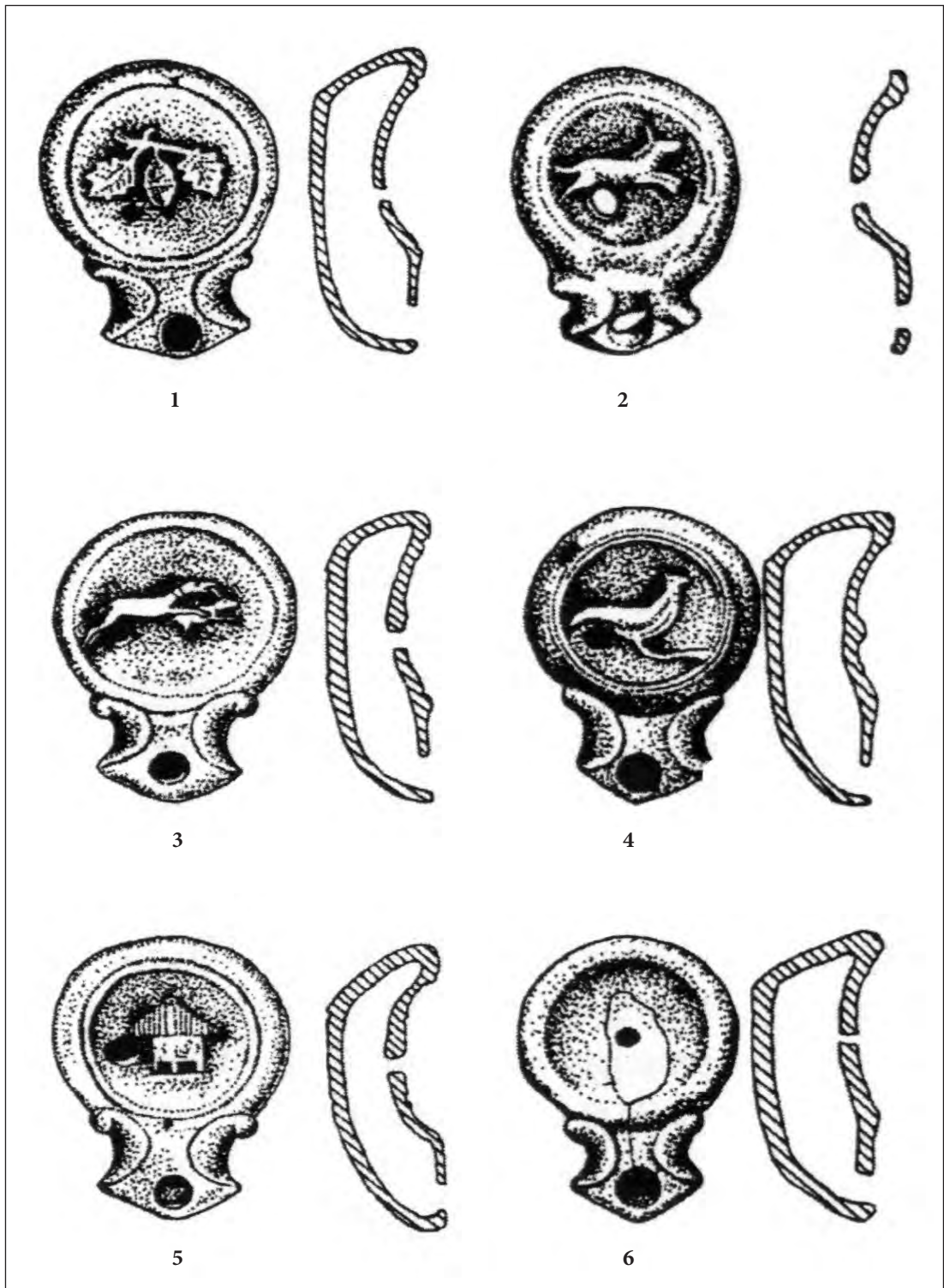
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**Pl. I. 1.** Loeschcke I nozzle forms. Drawing by Jean-Claude Rivel (Bussière, Lindros Wohl 2017, 64, Fig. 1); **2.** The distribution chart of Loeschcke I lamps in Roman Dacia.





Pl. II. The distribution map of Loeschcke I lamps in Roman Dacia  
(Source: <https://www.univie.ac.at/limes>).



Pl. III. 1-6. Loeschcke I lamps from Ulpia Traiana Sarmizegetusa (Alicu 1994, Fig. 1/1, 8, 11, 12, 21, 26).



**Pl. IV.** Loeschcke I lamps from: 1. Buciumi (Roman 2006, Pl. 8/42); 2–3. Gilău (Roman 2006, Pl. 17/39–40); 4. Ilișua (Gaiu 2010, Gaiu 2010, Pl. I/1); 5. Tibiscum (Benea 1990, 152, Fig. 12/5a–b); 6. Lamp from Poetovio with the inscription on the discus: PAVPERIS CENA PANE VINV RADIC (Fischbach 1896, 36, Abb. 15).

## THREE-HANDLED WINE JUGS DISCOVERED AT NAPOCA AND POTAISSA. A ROMAN CERAMIC TYPE WITH “EAR” LUGS REMINISCENT OF THE HELLENISTIC VOLUTE KRATERS

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**Abstract:** The present study aims at clarifying the morphological attributes, functionality, and circumstances of discovery regarding a unique ceramic type identified in the surrounding area of Napoca, as well as within the legionary fortress and the *canabae* at Potaissa. Only four such vessels are known in Roman Dacia so far, and the majority of them come from Potaissa. Based on all their physical characteristics, but especially their handles, the vessels can be classed as “three-handled wine jugs”, reminiscent of volute kraters.

**Keywords:** Roman pottery; krater; *legio V Macedonica*; Potaissa; István Téglás.

**Rezumat:** Scopul studiului de față este acela de a prezenta caracteristicile morfologice, funcționalitatea și circumstanțele descoperirii unui tip ceramic unic, atât în apropierea orașului antic Napoca, cât și în castrul și *canabae legionis* de la Potaissa. Până în momentul de față, în provincia Dacia, sunt cunoscute doar patru astfel de vase, majoritatea provenind de la Potaissa. Pe baza tuturor caracteristicilor fizice, dar în special datorită toartelor, descoperirile pot fi clasate drept “ulcioare pentru vin cu trei toarte”, aducând aminte de forma craterelor cu volute.

**Cuvinte cheie:** ceramică romană; krater; *legio V Macedonica*; Potaissa; István Téglás.

### Introduction<sup>1</sup>

From the 23<sup>rd</sup> to the 30<sup>th</sup> of September 2018, the 31<sup>st</sup> edition of the International Congress *Rei Cretariae Romanae Fautores* was held in Cluj-Napoca, Romania, being organized by the National Museum of Transylvanian History in collaboration with several other museums, institutions and universities across the country. While actively participating in the organization of the exhibition created with this occasion (*The supply of ceramic goods in Dacia and Lower Moesia: imports and local developments*), I had the opportunity of observing a unique Roman ceramic type among the approximately 1000 individual ceramic exhibits that we were unpacking.<sup>2</sup> This particular vessel stood out due

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<sup>2</sup> I would like to express my gratitude to archaeologist and pottery specialist dr. Viorica Rusu-Bolindeț (National Museum of Transylvanian History), who kindly offered me, as well as several other young colleagues, the opportunity to take part in the preparation of one of the biggest events in the field of ancient pottery studies. This endeavour has undoubtedly enriched my knowledge and perception of pottery manufacture and consumption in Roman Dacia, as well as its adjacent provinces, for which I am very grateful for.



to its physical characteristics, the most noteworthy one being its three unusual handles.<sup>3</sup> The uncommon aspect arises from the fact that an additional two circular or ovoidal lug handles were attached to each of the three main handles. These extra handgrips take the shape of “ears” that form two separate loops at the extremities of each handle, in a similar fashion to scrolls or volutes, elements otherwise typically known within the Hellenistic ceramic repertoire.

An identical vessel had been observed in 1913 in the *canabae* of the V<sup>th</sup> Macedonian legion at Potaissa, and it was drawn and described in detail by István Téglás in his archaeological manuscripts.<sup>4</sup> The exact same type of handles was also known to me from my doctoral work, one identical vessel having been identified in 1983 in the headquarters building of the Potaissa legionary fortress.<sup>5</sup> Also, based on my previous observations, in December 2019, archaeologist Paul Chiorean<sup>6</sup> (History Museum Turda) brought a new identical vessel to my attention, which he had just discovered in the *canabae legionis* at Potaissa, at approximately 290 meters west from the North-Western bastion of the fortress. This particular vessel is almost fully preserved, but it has yet to be published by my colleague. The artifact can be consulted at the History Museum Turda.

Therefore, as of date, from what was published or brought to my attention, there are a total of only four ceramic vessels of this particular shape and type known in the Dacian province, making it a rare find. So far, all discoveries have been made in Dacia Porolissensis: one ceramic vessel has been discovered in the surrounding area of Napoca; three ceramic vessels have been discovered at Potaissa.

### Archaeological context of the discovery at Napoca<sup>7</sup>

In its early stages of activity, the ceramic vessel pertained to the Erdélyi Múzeum collection, nowadays The National Museum of Transylvanian History. The institution activated in Cluj-Napoca, having been initiated by the Erdélyi Múzeum Egyesület, a society constituted in the year 1859 with the help of count Imre Mikó's donations. His contribution was made with the specific intent of founding the Erdélyi Múzeum.<sup>8</sup>

The three-handled wine jug (Pl. III/1) was initially registered under the inventory number 4126 (new inventory number: v699). Regarding the location of the artifact, the museum register confirms that it was discovered in Kolozsvár (Cluj), in the “Kertje” (hu)/”Garden” (en) of the Erdélyi Magyar Gazdasági Egylet (National Hungarian Economic Association). No discovery date had been mentioned, but based on other artifacts that were registered at that time we can tell that the wine jug had been discovered before 1860, and registered sometime between 1860–1887.

<sup>3</sup> Isac, Bărbulescu 1976, 177–189, Pl. IV/3; Rusu-Bolindeț et alii 2018, 48, cat. no. 110.

<sup>4</sup> Bajusz 2005, I/2, 531.

<sup>5</sup> L. Nedelea, PhD Thesis, *Vesela romană din castrul legionar de la Potaissa/Roman pottery discovered within the Potaissa legionary fortress*, Cluj-Napoca 2020; Nedelea 2020a, 97–156, Pl. XVIII/2–4.

<sup>6</sup> I want to thank my colleague Paul Chiorean for kindly allowing me to include this observation in the present study.

<sup>7</sup> I would like to express my outmost gratitude to expert museographer PhD Irina Nemeti (National Museum of Transylvanian History) for the promptitude, professional assistance and help provided in identifying the initial inventory number and description of the artifact.

<sup>8</sup> Kolozsvári Kalauz 1894, 34–35; Gáll 2014, 219–293.

Therefore, to have a better understanding of the artifact's date and place of discovery, a series of clarifications are required. The national association for Hungarian agriculture activated between 1827–1945, being initially established by Count István Széchenyi of Sárvárfelsővidéki. It had a series of Chambers across the Hungarian territories, and in 1844 its Northern Transylvanian Chamber was situated in Cluj-Napoca, known as the Erdélyi Gazdasági Egyesület (Transylvanian Economic Association).<sup>9</sup> After several years of stagnation due to the outbreak of the revolution, it gained new momentum in 1853 under the leadership of Imre Mikó, who remained in office until his death in 1876.<sup>10</sup>

In 1869, as one of their biggest contributions, the association established the Institute of Agronomic Studies (Kir. Gazd. Tanintézet Kolozs-Monostoron/the nowadays University of Agricultural Sciences and Veterinary Medicine in Cluj-Napoca, Mănăştur).<sup>11</sup> Its first building was erected between 1872–1873 (Pl. I/1), with documents mentioning Ritter Gerhard as the one who designed its garden (730 acres). The permanent Agro-Botanic Garden was created only in 1903, in the vicinity of the ruins of a monastery dating back to the 11<sup>th</sup> century AD. The initial surface of the garden spread across half a hectare. Today, the Agro-Botanic Garden has a surface of almost 7 hectares, being situated on the terrain of the UASMV Cluj campus, behind the University's Rectorate building (Latitude: 46.7600; Longitude: 023.5733; Altitude: 400.00 meters).<sup>12</sup>

It is my belief that the wine jug was first discovered sometime between 1872–1873, when the construction of the first UASMV building and its garden began (Pl. I/2–3), and registered sometime between 1873–1887. The ceramic vessel was then first published in 1976 by archaeologists Dan Isac and Mihai Bărbulescu, putting it in direct connection with the practice of invoking the *Parcae* (the female personifications of destiny) in Roman Dacia, a supposition based on the unusual three handles of the wine-jug.<sup>13</sup>

**Morphological attributes:** fully restored (initially missing a part of the projecting lip, a superior “ear” lug and the disk foot). Egg-shaped body, three handles attached to the shoulder and the projecting lip; two further “ear” lugs are attached to each of the three handles, giving it an unusual aspect. Several grooves adorn the handles, neck and lip of the vessel (Pl. III/1).

**Firing:** oxidized.

**Fabric:** Munsell 2.5 YR, 7/4 (Light Reddish Brown).

**Finishing and surface treatment:** plain; the body is unevenly painted in a diluted reddish-brown slip.

**Measurements:**<sup>14</sup> RD – 7.80 cm; FD – 6.90 cm; MDB – 10.60 cm; H. – 14.30 cm.

**Chronology:** 2<sup>nd</sup>-3<sup>rd</sup> centuries AD.

**Workshop:** unknown.

**Discovery:** Országos Gazdasági Egylet Kertje (Kolozsvár).

**Storage place:** Museum of Transylvanian History; inv. no. v699; Cluj-Napoca.

<sup>9</sup> Demeter, Venczel 1940; Benkő 1998, 337–355.

<sup>10</sup> Egyed 2001a, 33–48; Egyed 2001b, 99–106.

<sup>11</sup> Gaal 2001, 107–116.

<sup>12</sup> <https://www.usamvcluj.ro/en/about-uasvm/> accessed on the 12<sup>th</sup> of April, 2021.

<sup>13</sup> Isac, Bărbulescu 1976, 177–189, Pl. IV/3.

<sup>14</sup> RD = Rim Diameter; FD = Foot Diameter; MDB = Maximum Diameter of the Body; H = Height.

**Bibliography:** Isac, Bărbulescu 1976, 177–189, Pl. IV/3; Rusu-Bolindeț et alii 2018, 48, cat. no; 110; Nedelea 2020, 97–156, Pl. XVIII/2–4.

### **Archaeological context of the discoveries at Potaissa**

#### **a. Potaissa, *canabae legionis***

Two of the finds were made in the *canabae legionis* at Potaissa. The first had been identified in March 1913, when István Téglás was making note in his journal of a strange discovery somewhere in the area situated East to “Dealul Cetății”/“Fortress Hill”.<sup>15</sup> “A Várhegytől keletre. Fura fülű római edény töredéke. A többi része hiányzik. Eredetileg talán 3 füle volt./East to the Fortress Hill. A part of a strange pot has been discovered. The rest is missing. It could have had three ears.” The journal description is completed by a detailed drawing of the discovery (Pl. III/2), showcasing a vessel identical to the last detail to that discovered at Napoca (Pl. III/1).

The second three-handled wine jug from the *canabae legionis* at Potaissa was discovered in December 2019, by archaeologist Paul Chiorean, at cca. 290 meters West of the legionary garrison (this ceramic vessel is almost fully preserved, and so far the tallest of all discoveries of this type; unpublished; History Museum Turda).

#### **b. Potaissa, *principia* of the legionary fortress.**

The third three-handled wine jug discovered at Potaissa was identified in July 1983 within the fortress itself, on the Southern Flank (*armamentaria*) of the headquarters building, Room no. 24 (Pl. II/1–2). Only one fragment of the handle and the attached “ear” lug remain to this day (Pl. IV/1–2).

This discovery, and many others, were the result of complex archaeological campaigns carried out within the headquarters building (*principia*), as well as its courtyard, between 1974, 1978–1989, 1994–1995, 2008–2011.<sup>16</sup> A total of 1533 individual ceramic vessels have been discovered throughout the archaeological campaigns (table ware, pottery used in food preparation and serving, pottery used for storing food and beverages, pottery with special function): 502 individual vessels were identified within the rooms; 348 individual vessels were identified in the Forumsplatz/Lagerforum; 484 *amphorae* and 199 amphoric *operculae* were identified in the military deposit situated on the Northern wing of the Eastern Flank.<sup>17</sup>

The first trial trench through the *armamentaria* of the headquarters building at Potaissa was made in 1974, on the Southern Flank, namely Room 15. A few years later, in 1982, further excavations were carried out with the intent of unearthing the whole flank. These excavations were prolonged until 1987, when all the rooms on the Southern Flank had been archaeologically investigated. These rooms were then numbered in continuation to those situated on the Northern Flank (Rooms 1–14), following the West-East direction: Rooms 15–28.<sup>18</sup> A total of 137 individual ceramic vessels were identified within these

<sup>15</sup> Bajusz 2005, I/2, 531.

<sup>16</sup> Bărbulescu 1987, 122–164; Bărbulescu 1990, 821–831; Bărbulescu 1991, 22–30; Bărbulescu 1997, 25–32; Bărbulescu 2020a; Bărbulescu 2020b, 421–439.

<sup>17</sup> Nedelea 2020a, 97–156; Nedelea 2020b, 143–164.

<sup>18</sup> Bărbulescu 1987, 146; Bărbulescu 2020a, 35–37.

rooms.<sup>19</sup> Room 24 has yielded only one ceramic vessel, and this comes in the form of an unusual three-handled wine jug (Pl. IV/1–2).<sup>20</sup>

**Morphological attributes:** only one part of the handle and the attached “ear” lug have survived to this day; two grooves adorn the handles (Pl. IV/1–2).

**Firing:** oxidized.

**Fabric:** Munsell 2.5 YR, 7/4 (Light Reddish Brown).

**Finishing and surface treatment:** plain; the body of the vessel was unevenly painted with a layer of diluted reddish-brown slip.

**Measurements:** handle height – 7 cm.

**Chronology:** 170 AD – 271 AD

**Workshop:** unknown.

**Discovery:** 12 July 1983, Potaissa/*principia*/Southern Flank/Room 24.

**Storage place:** History Museum Turda; inv. no. 7888; Turda.

**Bibliography:** Nedelea 2020a, 338, Pl. XVIII/2a–2b.

### Typological classification

In 1960, James C. Gifford defined ceramic “types” as “the combining of a number of attributes into abstract conceptions which when executed in clay by potters, are acceptable to them and a majority of others within their cultural configuration”.<sup>21</sup> When it comes to the ceramic type that makes the subject of this paper, due to its unusual shape, I initially interpreted it as a possible clay *aryballos*, having found similar shapes in both the ceramic and glass repertoires of the Roman Empire.<sup>22</sup> The shape, especially that of the three handles, is so unusual, that one could easily associate it with several other ancient Greek shapes, such as *loutrophoroi*, *amphoriskoi* etc. However, after further research and comparisons, I can now conclude that this ceramic type is a stylized and adapted Roman version of the popular *volute kraters* of the Hellenistic ceramic repertoire.

The difficulty in establishing its correct typological origins laid in the fact that no previous publications had made a connection between all four available vessels, and some of them were published individually, under various shapes, e.g. “pot”, “jug” or “three-handled beaker”, the real functionality of the vessel having been unclear to Romanian researchers.<sup>23</sup> Nonetheless, it is my belief that the four individual finds from Roman Dacia can now be classed as three-handled wine jugs, respectively *volute krater* derivatives, based on the following physical characteristics:

- a. An egg-shaped body;
- b. Columnar handles rising from the shoulder to the projecting lip rim;
- c. The handles curl in a volute (scroll-shaped form) well above the rim;
- d. Secondary “ear” lugs at the base of the handles;
- e. Projective lip rim in several degrees;
- f. Disk foot.

<sup>19</sup> Nedelea 2020a, 97–156; Nedelea 2020b, 143–164.

<sup>20</sup> Nedelea 2020a, 338, Pl. XVIII/2a–2b.

<sup>21</sup> Gifford 1960, 341–347.

<sup>22</sup> Nedelea 2020a, 97–156, Pl. XVIII/2–4.

<sup>23</sup> Bajusz 2005, I/2, 531 (István Téglás calls it a “strange pot with three ears”; Isac, Bărbulescu 1976, 177–189, Pl. IV/3 (jug); Rusu-Bolindeț et alii 2018, 48, cat. no. 110 (three-handled beaker).



All four ceramic vessels discovered at Napoca and Potaissa belong to the common ware category, and they bear no decoration on their bodies. The exterior surface is painted with a thin and uneven layer of diluted reddish-brown slip. The only decoration comes in the form of the three handles which are attached to the lip and shoulders of the vessels. All three handles have two further “ear” lugs attached to them, one at the inferior register of the handle, and one at the superior extremity of the handle. The superior “ear” lugs are raised well above the mouth of the vessels, giving the impression of stylized volutes. This particular design resembles the stylized shape of kraters rendered in numerous Roman mosaics which have banquets and *symposia* as their central theme. Usually, the handles are depicted as scrolls, which are attached to the shoulder of the vessel, and the projecting lip (Pl. V/1–4).

Therefore, from a morphological point of view, the foot, body, neck, lip and handles of the vessels discovered at Napoca and Potaissa are almost identical to that of *volute kraters*. This should not come as a surprise, as there are numerous well-known Hellenistic vase shapes that continued to be manufactured in the Roman Empire, like *kantharoi*, *skyphoi*, *oinochoai*, *lagynoi*, *pithoi* etc, either in their original shape, or in morphed variants. Such examples have been discovered throughout the Dacian province as well.<sup>24</sup>

Even though all four vessels discovered in Roman Dacia look alike, their height differs strongly and can vary between 14 to 25 centimeters. The tallest one has been discovered in 2019 in the *canabae legionis* at Potaissa (History Museum Turda/ unpublished). Despite the fact that the vessels were not manufactured in the same standardized height, the repeating combinations of attributes suggests that all finds fall under the same type, and should be assigned the same functionality, namely that of three-handled wine jugs (i.e. not beakers or pots).

From a morphological point of view all four three-handled wine jugs are almost identical, but so far, two variants can be distinguished within this particular ceramic type, with two vessels each:

Variant I, with broadly rounded shoulders, and two round “ear” lugs attached to each of the three handles. This variant is encountered at:

- a. Napoca; discovered in the 19<sup>th</sup> century (Pl. III/1);
- b. Potaissa, *canabae legionis*; I. Téglás collection/discovered in 1913 (Pl. III/2).

Variant II, with flat shoulders that meet the body at an angle, and two ovoid lug “ears” attached to each of the three handles. This variant is encountered at:

- a. Potaissa, *principia*; discovered in 1983 (Pl. IV/1–2);
- b. Potaissa, *canabae legionis*; discovered in 2019 (unpublished).

### Chronological framework

Given the information available at the moment, the points of reference are scarce when trying to pinpoint a more restricted chronological time frame for the production and use of this particular ceramic type. Some of the factors which lead to this situation are the low frequency of the vessels, as well as the fact that some of the archaeological discoveries were isolated finds, e.g. Napoca – 19<sup>th</sup> century and Potaissa – 1913.

<sup>24</sup> Rusu-Bolindeț et alii 2018, 63, cat. no. 150 (*lagynos*); 47, cat. no. 106 (*kantharos*); 67, cat. no. 162 (*oenochoe*); 100, cat. no. 257 (krater); Mărghită 1970, 558, Fig. 14 (*pithos/dolium*).

Next to the three-handled wine jug discovered in the headquarters building at Potaissa, Room 24, only a few several other artifacts have been recovered: an Isings 50/51 type glass bottle,<sup>25</sup> a bronze shield pendant/military equipment element (90 cm depth),<sup>26</sup> a bronze helmet fastening element,<sup>27</sup> and a bronze key (70 cm depth).<sup>28</sup> Unfortunately, these artifacts are very common throughout the Roman world, achieving great diffusion especially in the 2<sup>nd</sup> century AD.<sup>29</sup> Therefore, at Potaissa, these artifacts offer only a broader chronological time frame, of approximately 100 years, similar with the activity of the legion in this region: AD 170–271.

The ceramic vessel discovered at Potaissa in 2019 – *canabae legionis* has been identified together with several amphoric types which, if published, might hold great potential towards an exact production time frame for this particular ceramic vessel.

### Functionality

The morphological analysis indicates that the functionality of these vessels is that of serving and pouring liquids, mainly wine (*vasa potatoria*).<sup>30</sup> The physical attributes implying that the three-handled jugs were unsuitable as drinking vessels are:

- a. Some containers reach the height of 25 centimeters;
- b. Some containers reach the capacity of 3 *sextarii* (1.6 liters);
- c. The multiple and very elaborate handles;
- d. The “ear” lugs which raise well above the lip rim.

Their capacity measures between one *sextarius* for the smallest vessel, and three *sextarii* for the largest vessel, meaning approximately 546 ml to 1,6 liters. It has to be considered that wine can differ in weight to water, based on the sugar and alcohol contents.

In some cases, these wine jugs were discovered alongside other wine containers, such as import *amphorae*/large-scale transport vessels, locally manufactured table *amphorae*, jugs etc. Most likely, the contents of the bigger containers were poured into smaller ones to then be carried and served within the household or during banquets. Once on the table, they were most likely stationary items, and access to the contents was granted through the use of bronze or silver *simpuli* (ladles), especially for the larger finds. They could have also been used as wine decanters, and of course for pouring the liquids directly (the smaller finds).<sup>31</sup> The three-handled wine jugs discovered at Napoca and Potaissa represent restricted vessels,<sup>32</sup> but the diameter of the rim (7 to 10 cm) does allow for the wine to be processed by stirring or mixing. So far, all vessels, even when filled with liquids are light in weight and can be carried with ease. The shape of the wine jugs does not make them suitable for large-scale or even small-scale transport, but rather for short-term storage.

<sup>25</sup> Fabian 2020, 168, cat. no. 4, inv. no. 8004, MIT.

<sup>26</sup> Fodorean 2020, 196, VIII/cat. no. 9, inv. no. 7917, MIT.

<sup>27</sup> Fodorean 2020, 196, XII/cat. no. 4/ Pl. LXXX, 9, inv. no. 7839, MIT.

<sup>28</sup> Varga 2020, 206, cat. no. 16/Pl. LXXXIV, 6, inv. no. 10233, MIT.

<sup>29</sup> Barbera 2011, 110–121.

<sup>30</sup> Webster 1969, 6.

<sup>31</sup> Plin. *Ep.* 2.6: *Vinum etiam parvolis lagunculis in tria genera descripserat, non ut potestas eligendi, sed ne ius esset recusandi, aliud sibi et nobis, aliud minoribus amicis (nam gradatim amicos habet), aliud suis nostrisque libertis.*

<sup>32</sup> Balfet et alii 1983.

The “ear” lugs attached to each extremity of the three handles offer additional grip and makes the vessel easier to be maneuvered. The contents of the vessels were most likely covered by a lid when not in use.

### Final conclusions

Based on all the evidence, the ceramic vessels of this type were discovered only in Dacia Porolissensis, namely at Napoca (one individual find) and Potaissa (three individual finds). So far the majority of them were discovered at Potaissa, in connection with the activity of the V<sup>th</sup> Macedonian legion. Despite several differences that occur in height and colour of the slip, the repeating combinations of attributes suggests that all the finds can be classed as the same type, namely three-handled wine jugs. Two further variants were distinguished within this type, one with ring “ear” lugs, and the other with ovoid “ear” lugs. There is a strong possibility that the vessels were produced in the same workshop, around the same time, with indications that it could have been produced only after the second half of the 2<sup>nd</sup> century AD. Their main use was that of storing and pouring wine, imitating the shape of volute kraters, in various dimensions. It is certain that this type of earthenware was of particular interest in the military milieu, as it was discovered in both the fortress and the *canabae legionis* at Potaissa. The only “anomaly” so far appears at Napoca, where it was discovered outside the perimeters of the ancient town (if we are not dealing with human error when doing inventory in the 19<sup>th</sup> century, leading to an incorrect discovery place).

However, the origins of the three-handled wine jugs remain to be clarified, as there are insufficient arguments to pinpoint a specific workshop as the main manufacturer. There is a possibility that, based on the low frequency, the vessels could have also been imported by the V<sup>th</sup> Macedonian legion alongside other products (wine *amphorae*) from other provinces. Future mineralogical and petrographic analyses could also bring more light into this issue.

It is my hope that the present paper will encourage further researchers to publish similar finds from Roman Dacia, if they have knowledge of such discoveries.

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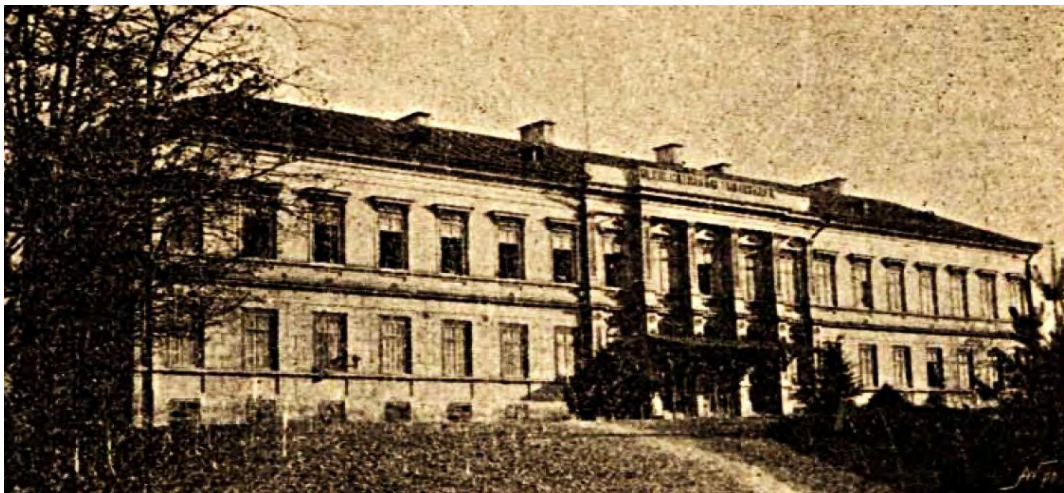
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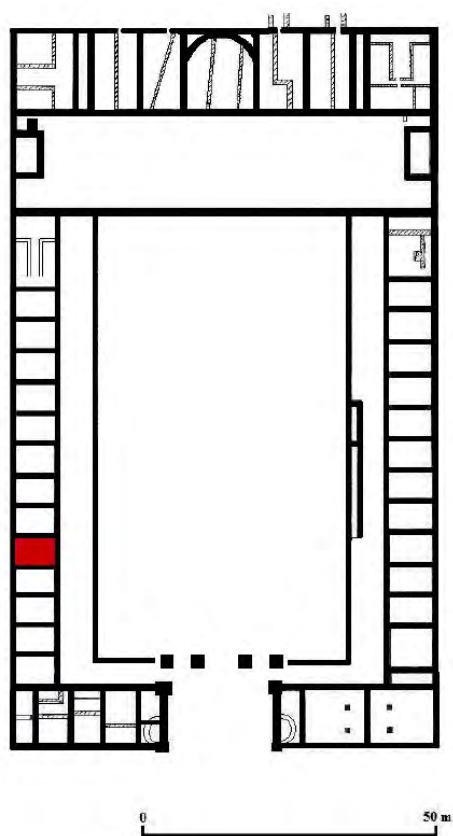
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Pl. I. 1. Kir. Gazd. Tanintézet Koložs-Monostoron (nowadays USAVM in Cluj-Napoca) in 1873 (source: Koložsvári Kalauz, 1894, 37); 2–3. Map of Cluj-Napoca (Koložsvár) in the year 1873, pointing out the newly erected building and its surrounding garden (map source: <http://geoportost.ios-regensburg.de/viewer/BV043865846> accessed on the 15<sup>th</sup> of April/2021).



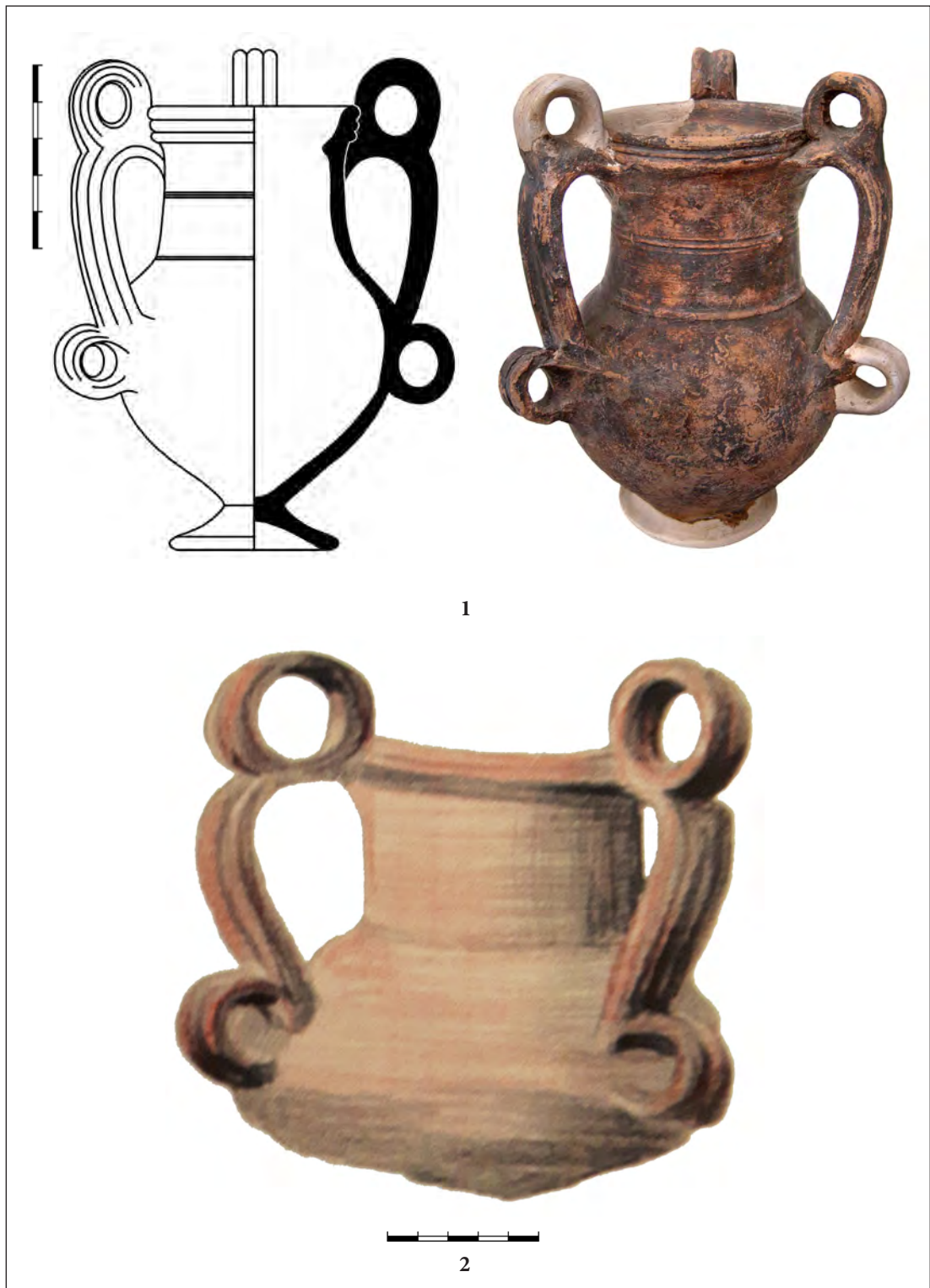


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Pl. II. 1–2. The headquarters building of the Potaissa legionary fortress. Indicated on the plan is Room 24 (source: Bărbulescu 2020, 18, Fig. 8; 62, Fig. 79).



**Pl. III. 1.** The ceramic vessel discovered at Napoca in the 19<sup>th</sup> century (illustration: author's work; photo: ©National Museum of Transylvanian History); **2.** The ceramic vessel discovered by István Téglás in March, 1913, in the *canabae legionis* at Potaissa (illustration source: Bajusz 2005, I/2, 531).





**Pl. IV. 1–2.** The ceramic vessel discovered in 1983 in the headquarters building of the Potaissa legionary fortress (illustration and photos: author's work).



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**Pl. V. 1.** Villa Romana del Tello mosaic (source: <https://www.villalveria.it/en/tellaro-roman-villa/> accessed on the 7<sup>th</sup> of May 2021); **2.** Domus Aventino mosaic (source: <https://ioarch.it/la-scatola-archeologica-della-domus-aventino/> accessed on the 7<sup>th</sup> of May 2021); **3.** Fishbourne mosaic (source: [artuk.org](http://artuk.org) accessed on the 7<sup>th</sup> of May 2021); **4.** Berthouville cup detail (source: <https://blogs.getty.edu/iris/the-fine-art-of-feasting-in-roman-gaul/> accessed on the 7<sup>th</sup> of May 2021).



## DONA MILITARIA. A BRONZE PHALERA DISCOVERED AT SÂNPAUL (CLUJ COUNTY)

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**Abstract:** This study presents a recently discovered artefact nearby Sânpaul, Cluj County. It is a silvered bronze-made disc decorated with the image of Gorgon-Medusa. We identified the artefact as a *phalera*, one of the military decorations awarded in the Roman army. This type of *dona militaria* is rather less frequently recorded by archaeological finds, especially in the Dacia province, the find of Sânpaul thus adding to the repertory of known exemplars. Furthermore, the repertory of reported Roman date archaeological heritage sites in respective area is thus enriched.

**Keywords:** *phalera*; *dona militaria*; Gorgon; Medusa; Dacia Porolissensis.

**Rezumat:** Studiul de față prezintă un artefact descoperit recent în apropiere de localitatea Sânpaul, județul Cluj. Este vorba de un disc confecționat din bronz argintat decorat cu chipul Gorgonei-Medusa. Am identificat artefactul ca reprezentând o *phalera*, una dintre decorațiile militare acordate în armata romană. Acest tip de *dona militaria* este destul de puțin frecvent atestat de descoperirile arheologice, mai cu seamă în provincia Dacia, descoperirea de la Sânpaul îmbogățind repertoriul pieselor cunoscute. De asemenea se îmbogățește repertoriul punctelor cu patrimoniu arheologic reperat aparținând epocii romane din zona respectivă.

**Cuvinte cheie:** *phalera*; *dona militaria*; Gorgona; Medusa; Dacia Porolissensis.

In the collections of the National Museum of Transylvanian History entered a bronze *phalera* discovered by metal detecting nearby the place at Sânpaul, Cluj County.<sup>1</sup>

The artefact is a disc with a diameter of 6.7–6.8 cm, 1.5–2 mm thick, made of bronze by solid casting, covered on the exterior with a very thin silver sheet, which survives only partially today. The interior side is concave forming a raised circle with a 5.2 cm radius, the edge being relatively flat on a 0.7 cm width.

The disc centre is occupied by the portrait of Gorgon-Medusa, rendered with artistry. The mythological figure is represented with a fine, oval face. Its forehead is narrow, eyes are large, skilfully shaped, with marked eyelids and pupils, the nose is straight with strong nostrils, the small mouth is fine with full, half-open lips, cheeks are elongated and the chin is round. The hair is centrally parted, in slightly wavy locks, the hair strands that beautifully frame the face being marked by parallel incisions. On the forehead, symmetrically, are set two short, slightly curly hair strands. On the top of the head, above the forehead, two small wings are placed. From the temples start the bodies of two snakes, arranged symmetrically,

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<sup>1</sup> Inv. no. v64838; the item was discovered through metal detecting by Radu Olaru and delivered to the National Museum of Transylvanian History by counsellor Virginia Rădeanu, County Directorate of Culture Cluj.



twisting around the hair locks, surrounding the cheeks and knotting their tails underneath the figure's chin. Fine scales were depicted on the reptiles' bodies, rendered by semicircular incisions; today, the decorative details survive only partially, in certain areas. Medusa looks straight forward, in a staring, slightly hieratic facial expression.

The portrait is framed by three concentric baguettes, slightly moulded, with geometric patterns, separated by a simple incision each. In those interior, decoration is composed of 1.5 respectively 2 mm diameter pearls. On the exterior line, decoration consists of ca.  $4 \times 5$  mm ovolos alternating with simple of  $5 \times 2$  mm baguettes.

The *phalera* exhibits five circular orifices with a diameter of 3–4 mm. In two, also survive the bronze-made attachment rivets, preserving on a ca. 4 mm length. The orifices were placed asymmetrically on the external, flat area of the disc without being framed on the same baguette and with disregard of any relatively equal distances in-between. These were made subsequent to the manufacture of the artefact, for attachment purposes, by a rather coarse procedure and in contrast with the quality of the piece itself.

The artefact is relatively well preserved, being restored. The item survives intact, lacking only three of the attachment rivets. The silver sheet has partially survived, while the entire surface of the piece exhibits traces of wearing and tearing. Corroded areas are visible on the interior and exterior.<sup>2</sup>

With respect to the findspot, information is brief. The finder did not record the find coordinates, so information on provenance is rather vague: within the range of commune Sânpaul, by the edge of the forest located nearby the village, at a distance of ca. 2 km east the road connecting the city of Cluj-Napoca to Zalău (DN1 F).<sup>3</sup> In the same area, the finder has discovered still by metal detecting, a rectangular bronze sling buckle.

Similar finds are few in Dacia, while formal resemblances with harness appliques or other applique types always turn identification of these artefacts with *dona militaria* disputable.

A similar circular applique, with the depiction of the Gorgon was discovered at Micia. It is a bronze circular artefact, with a diameter of 4.1 cm.<sup>4</sup> The depiction of Medusa is much more schematic, while its artistic quality is rather poor.

A similar object, with a more composite iconography comes from one of the barracks in the fort at Buciumi. On a bronze *phalera* 6.5 cm in diameter is rendered Medusa, in front with two gryphons facing each other.<sup>5</sup> Again, the artistic quality is inferior compared to the item of Sânpaul.

The depiction of Medusa on appliques or other artefacts is related to the deity's apotropaic role.<sup>6</sup> The rich mythological tradition originates in the Greek Antiquity, the

<sup>2</sup> The chemical investigations and curative conservation of the item were carried out by chemist investigator Doina Boroş.

<sup>3</sup> The place of discovery was not precisely recorded by the discoverer and the veracity of the information provided cannot be verified in any way. Uncontrolled detection produces discoveries of artefacts whose historical significance is usually much reduced in the absence of the context of the discovery, moreover, of a certain location.

<sup>4</sup> Pop 1983, 471, no. 2/2, Fig. 3/2; Petculescu 2003, 139, no. 190.

<sup>5</sup> Chirilă et alii 1972, 74, no. 1, Pl. 81–82; Alicu, Rusu 1974, 93–94, no. 2, Fig. 2–2a; Petculescu 2003, 140, no. 194 (believed harness piece).

<sup>6</sup> DA, II, 2, Paris 1896, s.v. *Gorgones*, 1615–1629 (G. Glotz).

variety of iconographic depictions being maintained in the Roman art. No substantial innovations are recorded in the rendering of the *Gorgoneion* in the Roman art, previous types of Greek and Etruscan tradition being adapted and re-designed. Adaptability of the mask type depiction favoured the use of the image on various objects, in minor arts included, and the adjusting of the representation according to the support specificity. The *Gorgoneia* in the beautiful version, of Hellenistic tradition prevails in Roman iconography. Commonly, the portrait is marked by a calm expression, its demonic nature being suggested by the staring look and half-closed mouth.<sup>7</sup> The apotropaic qualities of the mythological figure provided the *Gorgoneion* the status of symbol of choice in the decoration of military equipment items.

Award of honours in the Roman army has a long history, suffering changes along with the army's transformation and reformation. After late 3<sup>rd</sup> century AD, examples regarding this artefact type become sporadic. In literary sources, various military decoration types are mentioned once with the 2<sup>nd</sup> century BC (Caecilius Statius) until early 6<sup>th</sup> century AD (Procopius). Since they are directly connected to conflict history, *dona militaria* may be chronologically framed between early 6<sup>th</sup> century BC, when Rome fought against the other *gentes* from Italy until mid 6<sup>th</sup> century AD, during the Byzantine campaigns against the Ostrogoths. During the Principate, such marks of honour were standardized and ranked, maintaining from under Claudius to the Severan period. In this two century interval, is notable the higher frequency in the award of *dona* under the Antonine dynasty.<sup>8</sup>

Beside the proper artefacts yielded by the archaeological excavations, *dona militaria* are recorded by inscriptions and depicted on both monuments and coins. These are the main sources regarding military awards. The small number of known items is likely the result of their inaccurate identification.<sup>9</sup>

The main types of *dona* are *coronae*, *hastae* and *vexilla*, those of lower rank (*dona minora*) being *torques*, *armillae* and *phalerae*, the latter being the only ones discovered archaeologically. Amongst, the *phalera* represents the most frequent decoration attested by archaeological research.<sup>10</sup>

The term of *phalera* designates both the military decoration and the circular applique which served to decorate horse harnesses, the two artefact types being very similar hence making difficult their accurate differentiation.<sup>11</sup> *Phalerae* were made of bronze, silver, occasionally of semiprecious stones (like chalcedony) or glass paste.<sup>12</sup> Even though literary sources on *phalerae* mention them as made of precious metals, archaeological finds certify artefacts made in bronze and silvered.<sup>13</sup> Discs were decorated with depictions of deities and mythological figures, emperors and royal family members.<sup>14</sup>

<sup>7</sup> DA, II, 2, Paris 1896, s.v. *Gorgones*, 1628 (G. Glotz); LIMC IV, 1, Zürich – München 1988, 353, 360–362, s.v. *Gorgones Romanae* (O. Paoletti); for the diffusion of the artefacts outside the Roman Empire see also Sîrbu, Bărcă 2009, passim; Elschek 2016, 159, 161, Abb. 5.

<sup>8</sup> Maxfield 1981, 19, 43, 55–66; Queneau 2011, 101–103.

<sup>9</sup> Maxfield 1981, 42, 53.

<sup>10</sup> Maxfield 1981, 67–100.

<sup>11</sup> Alföldy 1952, passim.

<sup>12</sup> DA, IV, 1, Paris, 1907, s.v. *Phalerae*, 425–427 (E. Saglio); Maxfield 1981, 91; Pfahl 2013, 471–472, 489–491; Boschung 1987, passim; Feugère 1989, passim.

<sup>13</sup> Maxfield 1981, 95.

<sup>14</sup> Feugère 2019, 51–57; Töpfer 2013, passim; Paunov 2015, passim.

A famous example of *phalerae* identified with certainty as military *dona* comes from the site of Lauersfort, nearby the legionary fortress at *Castra Vetera*.<sup>15</sup> The find consists in a group of ten *phalerae* of which nine are circular, one being in the shape of a half-moon. The artefacts are made of bronze, covered with silver sheet, decoration being made in high relief. The items are decorated with mythological depictions, set on three parallel rows, attached by a system of straps.<sup>16</sup> Gorgon-Medusa is rendered on two in a stance similar to the item discussed here.

According to literary sources, *phalerae* were awarded as early as the Republic to the *equites*, and they were even used as badges by the members of the equestrian ordo.<sup>17</sup> Starting with Augustus, they were given also to infantrymen (legionary soldiers). During the Principate, *dona militaria* were handed out to citizen soldiers, cases when auxiliaries received such decorations being extremely rare.<sup>18</sup> Alike other *dona minora*, *phalerae* were awarded to simple soldiers (*milites gregarii*), under-officers (*principales*) or centurions.<sup>19</sup>

In Roman Dacia, the practice of awarding *dona militaria* is recorded not only by the artefacts themselves, but also by epigraphic information. There is a series of epigraphic mentions in which soldiers fighting in battles occurring in Dacia are decorated with *phalerae*,<sup>20</sup> the epigraphic information thus completing archaeological data.

The find of Sânpaul completes the catalogue of military awards known in Dacia and enriches the sites with reported archaeological heritage known in northern Dacia. Over the course of the archaeological excavations conducted in 2017 on the route of the A3 motorway (Braşov – Tg. Mureş – Oradea) a complex site, conventionally termed site no. 9 was identified within the range of communes Gârbău and Sânpaul. The Roman date finds consist of an altar dedicated to Silvanus and a sanctuary, as well as other structures likely related to a rural settlement.<sup>21</sup> In the vicinity, finds that may be framed to the Roman period are known at Viştea,<sup>22</sup> Mera<sup>23</sup> and Şardu<sup>24</sup>, while the Roman road is visible between Şardu running to the fort at Sutoru.<sup>25</sup>

<sup>15</sup> DA, IV, 1, Paris 1907, s.v. *Phalerae*, 426 (E. Saglio); Maxfield 1981, 54; Pfahl 2013, 481–484; Feugère 2019, 52–54.

<sup>16</sup> Feugère 2019, 52–55.

<sup>17</sup> Maxfield 1981, 91.

<sup>18</sup> Polybius VI.39; Maxfield 1981, 92, 121–127; Coulston 2004, 136.

<sup>19</sup> Cupcea 2014, 15–25, 51–54, 73–92, 113–126.

<sup>20</sup> IDRE I 3; ILS 2663; ILS 2272; CIL III 1940 = IDRE II 301; CIL XI 5646 = ILS 2081 = IDRE I 123; CIL XI 5696 = IDRE I 126; AE 1969–1970, 583 = IDRE II 363; CIL III 6359 = IDRE II 305; CIL II 2424 = IDRE I 173; CIL XI 2112 = IDRE I 130.

<sup>21</sup> Cupcea et alii 2019, 160–164.

<sup>22</sup> Opreanu, Cociş 2004, 275–282; Gudea 2008, 80, no. 88; Lăzărescu et alii 2016, 106–110.

<sup>23</sup> RepCluj, Mera.

<sup>24</sup> RepCluj, Şardu.

<sup>25</sup> Fodorean 2006, 137–138.

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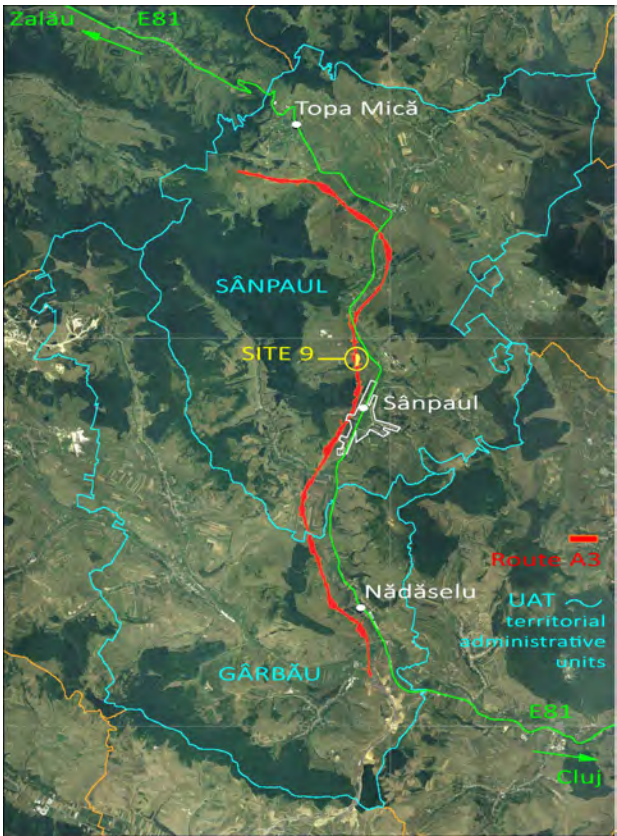
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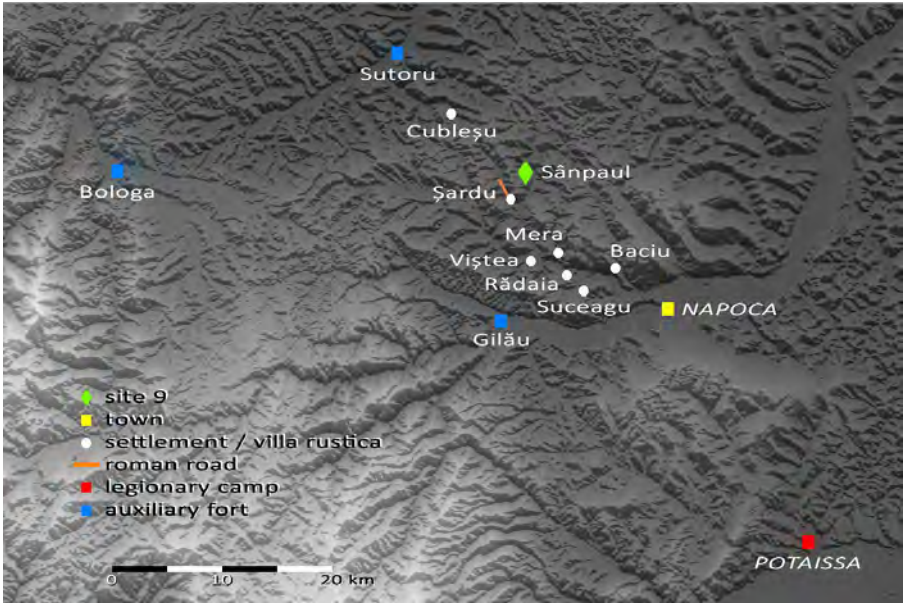
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**Pl. I. 1–3.** Bronze *phalera* – photos by S. Odenie, ©MNIT photo-library; **4.** Bronze *phalera* – drawing ©D. Gheorghe-Șerban.



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Pl. II. 1. The communes of Gârbău and Sânpaul (UAT Map) after Cupcea et alii 2014; 2. Site no. 9. Nearby discoveries attributed to the Roman period (Map on DEM by SRTM image) after Cupcea et alii 2014.

## A DEDICATION TO TERRA MATER AT NAPOCA

EUGENIA BEU-DACHIN, GEORGE CUPCEA, SORIN COCIȘ

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**Abstract:** The votive monument discovered on Regele Ferdinand Blvd. in Cluj-Napoca was dedicated to the goddess Terra Mater by Gaius Iulius Proc(u)linus. The divinity is attested in other cities of the Dacia province as well, the number of discoveries here being higher compared to other Roman provinces. The hole made in the pediment of the monument could be intended for assembly, but given its relatively small size, one cannot say that it had been made to fix the statue of the goddess.

**Keywords:** votive monument; Terra Mater; Latin; Napoca; Dacia.

**Rezumat:** Monumentul votiv descoperit pe B-dul Regele Ferdinand din Cluj-Napoca a fost dedicat zeiței Terra Mater de Gaius Iulius Proc(u)linus. Divinitatea este atestată și în alte orașe ale provinciei Dacia, numărul descoperirilor de aici fiind mai mare în raport cu cel din alte provincii romane. Orificiul realizat prin forare pe frontonul monumentului reprezintă un posibil locaș de prindere, dar ținând cont de dimensiunea destul de redusă a acestuia, nu putem afirma că a fost realizat pentru fixarea statuii zeiței.

**Cuvinte cheie:** monument votiv; Terra Mater; latină; Napoca; Dacia.

The here published Roman monument was discovered during the rescue archaeological excavations on the Regele Ferdinand Blvd., carried out between 17.09.2019 and 29.02.2020. The street works aimed to repair the sidewalks and to introduce optical cables. During these works, the second enclosure wall of the medieval city and the foundations of the medieval tower were noticed, together with the surrounding fortification system. The discovery of the Roman monument took place in front of the building no. 11, at a depth of -30 cm measured from the current road level, in a secondary position, in the modern filling layer situated under the sidewalk. Regele Ferdinand Blvd. is the oldest attested street in Cluj, and it has had several names over time: Ulița Podului (Hung. Híd utca), Wesselényi Miklós Street, Ferdinand Street, Gheorghe Doja Street, and currently Regele Ferdinand Blvd.), suffering during its existence several arrangements (a major one in the 1870s). In the last 150 years, on this important artery sewerage works, as well as works for the introduction of natural gas, electricity, drinking water, and telephone cables have been carried out. The road and sidewalks are crossed from south to north and on the east-west side by 17 pipes belonging to the older or newer networks.



## Description

**Material:** Limestone<sup>1</sup>

**Dimensions:** Height – 44 cm  
Capital height – 19 cm  
Capital width – 32 cm  
Capital depth – 20 cm  
Monument body width – 29 cm  
Monument body depth – 25 cm

**Epigraphic field:** 25 × 29 cm  
Letters height – 4 cm  
Guideline under l. 2

**Hole dimensions:** Diameter 0.9 cm, depth 1.3 cm

**Grammatica:** *ae > e*; syncopation of *u*

**State of conservation:** The item is fragmentary, as the base is broken, as well as both dorsal corners of the pediment, but also its front part. There are no indications that the pediment was decorated.

## Text

TER • RE M[.]  
TRI • G • IVL  
PRO • CLIN[..  
• V • S • L • M

*Terr(a)e M[a]*  
*tri G(aius) Iul(ius)*  
*Proc(u)lin[us]*  
*v(otum) s(olvit) l(ibens) m(erito).*

## Translation

To Terra Mater. Gaius Iulius Proc(u)linus gladly and deservedly fulfilled his vow.

In Rome the Italic deity of earth and vegetation was initially called Tellus Mater.<sup>2</sup> Only from the 1<sup>st</sup> century onwards she acquired the name Terra Mater, being associated with Γῆ/Γαῖα of the Greek mythology. Considered the personification of the fertile land, in which the seeds were buried to germinate, she symbolizes both birth but also death and rebirth, and she supports plant, animal and human life. Iconography (altars, statuettes, wall paintings, terracotta and bronze statuettes, coins, mosaics, reliefs, and so on) represents her either standing<sup>3</sup> or sitting on the throne,<sup>4</sup> draped, with her head covered by a veil and

\* We thank our colleague R. Zăgreanu for his useful suggestions.

<sup>1</sup> Determination made using macroscopic analysis by L. Săsăran (MNIT).

<sup>2</sup> DA V, 1, s.v. *Tellus Mater*, 73–83 (J. A. Hild); RE, II, 9, 1934, s.v. *Terra Mater*, 792–805 (St. Weinstock); LIMC VII, 1, 1994, s.v. *Tellus*, 879–889 (E. Ghisellini); VII, 2, 1994, 605–611, nos. 2–96 (E. Ghisellini); Gesztelyi 1971, 85–90; Bărbulescu 1985, 135–136.

<sup>3</sup> LIMC VII, 1, 1994, s.v. *Tellus*, 879, Type IA (E. Ghisellini).

<sup>4</sup> LIMC VII, 1, 1994, s.v. *Tellus*, 880, Type IB (E. Ghisellini).

wearing a spike crown, or a crown of leaves, flowers or fruits, less often with a diadem or *corona muralis*, accompanied by various attributes, either a *cornucopia* (the most common attribute), a basket of flowers or fruits, spikes, branches, or a sceptre or a *patera*, standing animals (goat, sheep, etc.), or a snake – the chthonic symbol. She can be accompanied by Genii,<sup>5</sup> or other deities or personifications.<sup>6</sup> The frequency in inscriptions of the name Terra Mater is higher than that of the original name Tellus. The monuments representing her and belonging to the period between the 1–6 centuries AD have an ornamental, a funerary or a votive character.<sup>7</sup>

The cult of Terra Mater is mainly spread in North-Africa and in the Danubian provinces (especially in Pannonia, Dacia, Dalmatia<sup>8</sup>). In other areas one can encounter rather isolated evidences.

There are several attestations of the goddess in the inscriptions of the Dacia province, coming from cities such as Apulum, Colonia Dacica Sarmizegetusa, Potaissa, Ampelum, or even from rural settlements such as Alburnus Maior, Salinae, Domnești and others. Her name appears either alone (over 60%),<sup>9</sup> or accompanied by the names of other deities such as Jupiter Optimus Maximus,<sup>10</sup> Diana,<sup>11</sup> Silvanus Domesticus and Hercules,<sup>12</sup> or Jupiter Optimus Maximus together with Iuno and Minerva.<sup>13</sup>

In Alburnus Maior,<sup>14</sup> but also in Ampelum, the worship of the goddess Terra Mater is closely related to the mining profession of the dedicators. Thus, the miners paid special attention to the protective deities of nature (Liber Pater, Libera, Silvanus, Ceres, Diana, Terra Mater), as the ore was considered a fruit of the earth.<sup>15</sup> The inscriptions discovered at Domnești, Bistrița-Năsăud County (ILD 804) and Salinae (IDR III/4, 67) are related to the exploitation of salt. In dedications made by officials (Colonia Dacica Sarmizegetusa – *Tem[onius?]* / *Secund[us pr]o/curator Clo/dius*, Domnești – *[p]ro sal(ute) T(iti) Ael(i) / Mari fl(aminis) col(oniae) / conduc(toris) pas(cui) / et salina(rum) At/ticus act(or) eius*, Potaissa – *c(ives) R(omani) per / [S]atrianu[m] / [et D]ecumum / [m]ag(istros)*, Ampelum – *dec(urio) col(oniae)*), the goddess is probably regarded as a protector of the territory.

The monuments dedicated to the goddess are concentrated in Dacia Superior, and her name is exclusively encountered as Terra Mater, which is also characteristic for the other Danubian provinces in which she was worshiped.

<sup>5</sup> LIMC VII, 1, 1994, s.v. *Tellus*, 880–881, Type III (E. Ghisellini).

<sup>6</sup> LIMC VII, 1, 1994, s.v. *Tellus*, 881–887, Type IV (E. Ghisellini).

<sup>7</sup> LIMC VII, 1, 1994, s.v. *Tellus*, 888 (E. Ghisellini).

<sup>8</sup> Several monuments dedicated to the goddess Terra Mater in Ljubija, Dalmatia, attesting a *vil(icus) of(ficinae) f(errariae)* (ILJug 781) and a *con(ductor) ferrar(iarum)* (ILJug 779) must be connected with the exploitation of iron ore in this area (v. Gesztelyi 1971, 87–88).

<sup>9</sup> ILD 500, Potaissa; IDR III/5, 360, Apulum; IDR III/5, 361, Apulum; ILD 458, Apulum; ILD 378, 397, 409, Alburnus Maior; IDR III/3, 137, Micia; IDR III/3, 330–331, Ampelum.

<sup>10</sup> ILD 804, Domnești, Bistrița-Năsăud County.

<sup>11</sup> IDR III/4, 67, Salinae (Ocna-Mureș).

<sup>12</sup> IDR III/5, 344, Apulum.

<sup>13</sup> IDR III/1, 109 = ILD 175, Denta, Timiș County.

<sup>14</sup> Three altars dedicated to Terra Mater come from Alburnus Maior, Hăbad hill and Valea Nanului (see Wollmann 1985–1986, 280–281, no. 20 = ILD 378; Crăciun, Sion 2003, 296–298, Fig. 16/1 = ILD 397; Zirra et alii 2003, 350–351, no. 8, Fig. 6/8, Fig. 15/8).

<sup>15</sup> Dušanić 1999, 129–131; Nemeti 2005, 84–85 = Nemeti 2019, 90–91.

As for the writing, it is not very correct. *Interpunctiones* do not always appear between words, as we would expect, but also inside them. The popular form *Terre* instead of *Terrae* indicates the monophthongization of the diphthong *ae* to *e*, which in writing appears as a graphic confusion between *ae* and *e*.<sup>16</sup> The syncopation of the unaccented vowel *u*<sup>17</sup> in the surname of the worshiper *Proc(u)linus* also indicates a colloquial use, but one cannot know for sure how old this use is, namely whether the syncopation is an older phenomenon, so that the person received and used the name *Proclinus*, or it is reflected only in writing, because in pronunciation the vowel was weakly perceived, and the scribe misspelled the name. This cognomen derives from a rare Latin praenomen *Proc(u)lus* (Gk. Πρόκλος).<sup>18</sup>

The monument was discovered in a secondary position, and its original location could not be established. In Dacia, the cult of the goddess is mainly related to mining (especially in the areas of Alburnus Maior, Ampelum, Domnești, Salinae), but for the altar discovered in Napoca this aspect cannot be invoked. In this case, one must rather attribute to the goddess the quality of protector of the territory and associate her cult with that of the emperor.

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<sup>16</sup> Mihăescu 1960, 76–78; Beu-Dachin 2014, 79–83.

<sup>17</sup> For the syncopation of *u*, see Mihăescu 1960, 70–75; Beu-Dachin 2014, 75. The cognomen *Proc(u)[l]inus* is testified in Dacia at Apulum: IDR III/5, 481.

<sup>18</sup> Kajanto 1982, 177.

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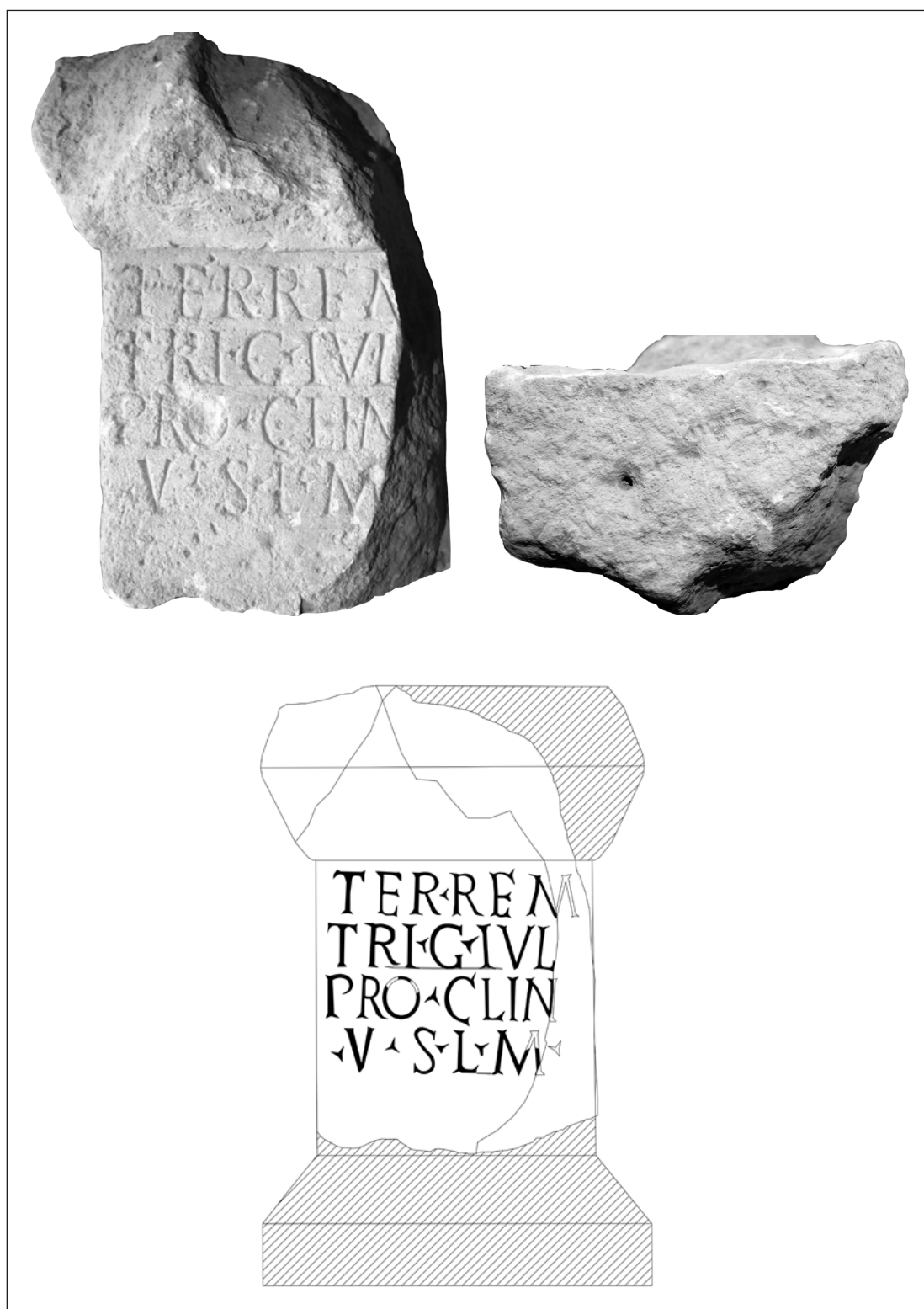
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Votive monument dedicated to Terra Mater, inv. no. v 64849, MNIT. Photo and drawing by G. Cupcea.

## MAURIC FROM APAHIDA (MAURICIUS ≈ MAURICUS)

ÁDÁM SZABÓ

*Memoriae István Bóna\**  
(Heves 1930 – Dunaújváros 2001)

DOI 10.54145/ActaMN.I.58.11

**Abstract:** Based on scattered finds, besides the well-known I<sup>st</sup> (1889) and II<sup>nd</sup> (1968/1969) “princely” graves in Apahida (Romania, Cluj County), dated to the Gepidic age (5–6 centuries AD) (Pl. I), there must have been a III<sup>rd</sup> princely grave there. Apart from these scattered finds, a sealring with a monogram (*symbolum*), found in Apahida – and kept in the Hungarian National Museum – (Pl. II/1–3) refers to the same.

The retrograde monogram on the ring indicates that the sealring was not only a personal jewel, but also a functional tool used for authentication. Although the ring’s precise site in Apahida is unclear, it is still interpreted in connection to the I<sup>st</sup> grave of Onachar, as a similar reading of the monogram is suggested to the one [Ona(c)har|us, cf. Szabó 2020a-b] that stands on the namering. As the letter O of the namering does not appear in the monogram, and the letter M of the monogram does not appear on the namering, the presumption of identical names in case of the two rings can undoubtedly be turned down. Based on its shape, the monogram is a block or box monogram, which can be dated to the period between the 5<sup>th</sup> and 7<sup>th</sup> century AD (Pl. III/1). According to the characteristics of the monogram type, it shows every letter of the word and each letter appears only once. Monograms from this period usually contain either personal names or office names, with genitive ending. Due to these reasons as well, the former readings: *Marc(us)* [J. Hampel], *Audomariu(s)* [I. Bóna], *Mariu(s)* [J. Spier], *Omacar(?)* [C. H. Opreanu] are not adequate. Former literature suggested and used Latin and Greek as reading languages for the monogram. A Greek reading must be considered because there might be a Σ i.e. C (i.e. *sigma lunata*) letter, on the right side of the imprinted monogram (Pl. III/2). Based on the structure of the monogram and the reading rules of the monogram type, furthermore with regards to all the solutions provided by the identifiable letters conjoined in alphabetical order, the monogram gives the Latin MAVRICI (nom. *Mauricius* or *Mauricus* as well) reading (Pl. III/3, 5). A not likely, speculative Greek MAYPIEI (nom. *Μαυρις*) solution (Pl. III/4) could be considered at most a Graecism because of the Latin -i instead of a Greek -ou for the genitive ending. The “Germanized” nominative version of the name without the Latin ending is MAVRIC (*Mauric*). Until now, the name was unknown in Germanic milieu. The -ric (-rik, -rich) ending might have contributed to the use of the name in Germanic milieu.

The sealring was made in a Christian milieu, and its owner was probably a Christian, which is indicated by the long- or Latin cross (*crux immissa*) on the ring head over the monogram (Pl. III/1). Based on the cross and in the context of the Age (5<sup>th</sup>-6<sup>th</sup> centuries AD), it is uncertain whether the ring-owner belonged to the Roman, Byzantine or Arian church. I have found no long- or Latin

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\* The obituary published by Trogmayer 2001, 7–8.

cross paired with a Greek monogram, consequently the ring and its owner must be of Western origin. His name may be related to the soldier martyr Mauricius from Agaunum (Saint-Maurice, Valais canton, Switzerland) and the spreading popularity of his cult among Christians. The name refers to the centre and point of origin of the St. Mauricius (Saint Maurice) cult, the territory of the Burgundian Kingdom, conquered by the Franks in the first quarter of the 6<sup>th</sup> century AD.

Compared to the western Germanic type of the finds, namely the artefacts from the I<sup>st</sup>-II<sup>nd</sup>-III<sup>rd</sup>(?) “princely” graves from Apahida [cf. Gáll et alii 2017, 26–28, nos. 9–10, 11–13], it can be assumed, that *Mauric from Apahida* – who can be examined in the same context –, was a western Germanic *regulus* who fled either from internal political conflict or from the Franc conquest.

Similarly to the *regulus* “*Onachar from Apahida*” [*Ona(c)har|us* ≈ Aunacharius, cf. Szabó 2020a-b], who – based on his name and personal artefacts – had also western Germanic connections, Mauric i.e. Mauricius or Mauricus also settled in the confine of the Gepidic world. He might not only have had a role in the appearance of the eastern Merovingian culture in Transylvania [cf. Dobos 2019], but also in the rise of the settlement in Apahida or its vicinity as a regional political-administrative centre. The damages on the surface of the sealring with monogram indicate its presumably longer usage in a kind of “chancellery” practice.

**Keywords:** Late Roman Age; Early Byzantine Age; Transylvania; Apahida; Gepidic Kingdom; Mauric; sealring; monogram; eastern Merovingian culture; 5<sup>th</sup>-6<sup>th</sup> centuries AD.

**Rezumat:** Pe lângă binecunoscutele morminte „princiare” I (1889) și II (1968/1969) de la Apahida (România, jud. Cluj), datate în epoca gepidică (secolele V–VI p. Chr.) (Pl. I), dacă ținem cont de existența unor descoperiri răzlețe, trebuie să fi existat acolo și un al treilea mormânt princiar. Pe lângă aceste descoperiri, o altă piesă găsită la Apahida întărește această presupunere, anume un inel sigiliu cu monogramă (*symbolum*), care se păstrează la Muzeul Național Maghiar (Pl. II/1–3).

Monograma retrogradă de pe inel indică faptul că piesa nu era doar o bijuterie personală, ci și un instrument funcțional, folosit pentru autentificare. Deși localizarea exactă a punctului de proveniență al inelului cu monogramă nu s-a realizat, se presupune în continuare că există o legătură cu mormântul I, cel al lui Onachar, deoarece există o similitudine între lectura monogramei și cea de pe inelul cu nume [*Ona(c)har|us*, cf. Szabó 2020a-b]. Deoarece litera O de pe inelul cu nume nu apare în monogramă, iar litera M a monogramei nu apare pe inelul cu nume, prezumția existenței unor nume identice în cazul celor două inele poate fi exclusă. După formă, avem de-a face cu o monogramă bloc sau în cartuș, databilă în perioada cuprinsă între secolele al V-lea și al VII-lea p. Chr. (Pl. III/1). Pe acest tip de monogramă este redată fiecare literă a cuvântului în parte și fiecare literă apare o singură dată. Monogramele din această perioadă conțin de obicei fie nume personale, fie demnități, cu terminația la genitiv. Și din aceste motive, lecturile anterioare *Marc(us)* [J. Hampel], *Audomarius* [I. Bóna], *Mariaç* [J. Spier], *Omacar*(?) [C. H. Opreanu] nu sunt potrivite. În literatura anterioară de specialitate au fost sugerate pentru lectura monogramei atât limba latină, cât și limba greacă. O lectură în limba greacă trebuie luată în considerare, deoarece ar putea exista o literă Σ, adică C (sigma lunată) în partea dreaptă a monogramei (Pl. III/2). Pe baza structurii monogramei și a regulilor de lectură pentru acest tip de monogramă și, pe lângă aceasta, ținând cont și de soluțiile oferite de literele lizibile unite în ordine alfabetică, monograma oferă lectura în limba latină MAVRICI (nom. Mauricius sau Mauricus) (Pl. III/3, 5). O soluție puțin probabilă, speculativă, în limba greacă, ΜΑΥΡΙΣΙ (nom. ΜΑΥΡΙΣ) (Pl. III/4) ar putea fi considerată cel mult un grecism, datorită genitivului latin în *-i*, în loc de genitivul grecesc *-ou*. Varianta „germanizată” a numelui la nominativ, fără terminație latină, este MAVRIC (Mauric). Până acum, numele nu era necunoscut în mediul germanic. Terminația *-ric* (*-rik*, *-rich*) ar fi putut contribui la utilizarea numelui în spațiu germanic.

Inelul cu sigiliu a fost confecționat în mediu creștin, iar proprietarul său era probabil un creștin, indiciu oferit de crucea lungă sau latină (*crux immissa*) de pe capul inelului, deasupra monogramei (Pl. III/1). Pe baza crucii și ținând cont de contextul epocii (secolele V–VI p. Chr.) nu este sigur dacă proprietarul inelului a fost aparținător al bisericii romane, bizantine sau ariane. Nu am identificat vreo cruce lungă sau latină asociată cu o monogramă grecească, prin urmare inelul și proprietarul său trebuie să fie de origine occidentală. Numele său poate fi legat de soldatul martir Mauricius din Agaunum (Saint-Maurice, cantonul Valais, Elveția) și de popularitatea în creștere a cultului său în rândul creștinilor. Numele se referă la centrul și originea cultului Sfântului Mauricius, teritoriul Regatului Burgund, cucerit de franci în primul sfert al secolului al VI-lea p. Chr.

Comparând artefactele din mormintele „princiare” I-II-III(?) de la Apahida [cf. Gáll et alii 2017, 26–28, nr. 9–10, 11–13] cu descoperirile vest germanice, se poate presupune că Mauric din Apahida – care poate fi plasat în același context – a fost un regulus germanic occidental, care a fugit fie din cauza conflictului politic intern, fie ca urmare a cuceririi zonei de către franci.

Similar cu așa-numitul *regulus* „Onachar din Apahida” [Ona(c)har|us ≈ Aunacharius, cf. Szabó 2020a-b], care – judecând pe baza numelui și a artefactelor personale – avea și legături vest germanice, Mauric, sau Mauricius sau Mauricus s-a stabilit și el în spațiul lumii gepidice. Este posibil să fi avut un rol nu doar în apariția culturii merovingiene răsăritene în Transilvania [cf. Dobos 2019], ci și în ascensiunea așezării de la Apahida sau a vecinătății acesteia ca centru politico-administrativ regional. Deteriorările de pe suprafața inelului sigiliu cu monogramă indică utilizarea probabil mai îndelungată a acestuia într-un soi de practică „de cancelarie”.

**Cuvinte cheie:** perioada romană târzie; perioada bizantină timpurie; Transilvania; Apahida; Regatul Gepid; Mauric; inel cu sigiliu; monogramă; cultura merovingiană răsăriteană; secolele V–VI p. Chr.

1. The hereunder publication is the text of a lecture titled “*Az apahidai Mauric*” (*Mauric from Apahida*), delivered in December 2020 at the 2<sup>nd</sup> *Ősi írások / Ancient Scripts* conference in Budapest.<sup>1</sup> It is also the continuation of the lecture “*Az apahidai Onachar*” (*Onachar from Apahida*) delivered at the 1<sup>st</sup> *Ősi írások / Ancient Scripts* Budapest conference in December 2019 and published in English and Hungarian versions since. The latter addresses the reading of the Apahida (Romania, Cluj County) namering (Pl. I),<sup>2</sup> while this writing deals with the Apahida sealring i.e. monogram ring (Pl. II/1–3), for the decryption and reading of which I had no suggestions last year. This is why both in the lecture and published material I have emphasized the possibility of a different reading of the monogram ring, as compared to the namering. I have also traced theoretical (‘ad absurdum’) possibilities in an attempt to consider previous readings supported in the literature as plausible [I. Bóna: *Audomarius*, C. H. Opreanu: *Omacar(?)*],<sup>3</sup> as they arose in connection to the namering.

<sup>1</sup> Here I wish to thank for the invitation and comments from the organiser of the conference, academic counsellor Bence Fehér, to thank Zsuzsa Hajnal, Erwin Gáll, Alpár Dobos, Attila Kiss P. and Péter Kovács for their opinion on the manuscript, their professional advice and hints on the literature, Zsuzsa Hajnal for the photographs, the imprint and the photograph of the imprint, Erwin Gáll for the map, Zsófia Masek and Zsófia Rácz for their notes on the PPT presentation of the lecture. Thanks to Noémi László for translating this article into English.

<sup>2</sup> Szabó 2020a, 277–291 and Szabó 2020b, 201–226. Muzeul Național de Istorie a României. Arch.n.: 54580. Cf. also Werner 1967–1968, 120–123 and Popescu 1976, 394. no. 437b.

<sup>3</sup> Bóna 1986, 147; Bóna 1989, 79–80; Bóna in: Bóna et alii 1993, 41; Bóna in: Bóna et alii 1999, 8, and Opreanu 1999, 926–928 = AE 2007, 1193b: *Omacar(?)*; Opreanu 2014.



Nevertheless the name signalled in the monogram cannot even theoretically be considered identical with the name on the namer, as this begins with the letter O, which is formally absent in the monogram. There are two reasons why the upper part of the Latin R or Greek P (Rho) cannot stand for the letter O.<sup>4</sup> 1. In the monogram type of the age, the letter O is either tangentially and quite recognisably linked or it stands separate,<sup>5</sup> the upper part of a P (Rho) or R can only exceptionally be considered an O – there might be a possibly erroneous item beside the case deconstructed here, but even there only the form is slightly similar<sup>6</sup> – and in very rare cases the letter is omitted<sup>7</sup>. The letter form O could at most appear as a frame of the monogram, which in lack of any parallels is even less probable than to consider the upper part of the Greek P or Latin R to be a letter O. Consequently, either in a Greek or a Latin reading, the monogram needs to be read without the letter O.<sup>8</sup> Another possibility is that of the letters AU standing for the sound O, and in the age this is present in both combinations, such as Odoacer monograms spelt as Audo(acar) as well as the name Aunachar spelt as Onachar.<sup>9</sup> Nevertheless in this case a

<sup>4</sup> Considered a more frequent phenomenon by Feind 2010, 20 – but the following examples and almost all the known examples contradict it, see note no. 5 and see note no. 6.

<sup>5</sup> Ld. BMCV- 29, 30 (Vand.): II. Theodosius; 44, 45: Odoacer [erroneous reading in the communication, the monogram is: A<sup>^</sup>V<sup>^</sup>D<sup>^</sup>O that is Audo(acar)]; 50, 51, 57, 58, 59, 78 (Ostrog.): Theoderic [in the communication appears, for no reason, as Theodoric]; 32 (Vand.): Zeno [in three variants]; 32, 33 (Vand.): I. Anastasius [in two variants]; 33 (Vand.): I. Iustinianus [uncertain reading, as there is no letter O in the name, the use of the Latin Dative is superfluous, the independent O might at most be part of a Greek Genitive -*ou* ending, the ending -*ou* was, in later monograms, linked, see below]; 171, 173 (Benev.): Grimoald [still a block monogram, originating from later than the discussed period]. See the same facsimile in Feind 2010, 320; RIC 10: – II. Theodosius nos. 1–5, I. Leo nos. 1–6, Zeno nos. 1–14, Iulius Nepos no. 1, Odoacer no. 1 [on reverse side of coins] – quoted in facsimile Feind 2010, 346. See also PLRE II, 3, 1: nos. 5, 7, 20, 31, 32, 33A, 35; PLRE II, 3, 2: nos. 43, 50, 69; PLRE III, 3: nos. 75, 77, 78, 85, 98, 102, 103; PLRE II, 3, 5: nos. 153, 159, 169, 171, 177; PLRE II, 3, 6: nos. 181, 186, 187, 188, 189, 198, 199, 200, 206, 207; PLRE II, 3, 7: nos. 215, 218, 220, 221, 235, 238, 239, 240, 241, 242, 245; PLRE II, 3, 8: nos. 246, 246–250, 254–257, 262–268, 274, 275, 278, 280; PLRE II, 3, 9: nos. 282, 291, 313, 314; PLRE II, 3, 10: nos. 321, 337–339, 347; PLRE II, 3, 11: nos. 357–358, 366, 372–373, 377, 380, 384, 386, 388; PLRE II, 3, 12: nos. 401–402, 405–406, 410–411, 414–415 – these, even though they belong to type, most are more removed in time and of a more complex structure, reaching towards the form of cross monogram; those containing the omega are also listed here – quoted also in facsimile Feind 2010, 334–345. Cf. also Bulgaria Plate block or cubic monograms II–VI, see the same in Feind 2010, 322–326. DO 1–11–12, 27, 31: I. Anastasius, see the same facsimile in Feind 2010, 327. See also Orghidan 1–3, quoted in facsimile Feind 2010, 330–332 block or cubic monogram drawings. See also drawings by Shumen, Tarse and Zacos, see op. cit. facsimile, Feind 2010, 347–353, 364–381 – with letters O linked tangentially to one of the monogram letters without exception for block monograms. Further examples: <http://www.ancientcoins.ca/monograms/monograms.html>.

<sup>6</sup> See BMCV 31[a] (Vand): I. Leo – exceptional, maybe flawed monogram, O is the upper part of an R-like sign, in another variant (31[b]) O is tangentially linked to a stem; 55 (Ostrog.): Theoderic – O in a form similar to the lower part of a retrograde B; RIC 10: Gundobad no. 1 – quoted by facsimile Feind 2010, 346. Here O could be at most read into the upper part of the B, but during the phonetic notation the almost silent O between D and B must have been omitted.

<sup>7</sup> See BMCV 46 (Ostrog.): Theoderic [in the communication appears, for no reason, as Theodoric]; 55, 78, 87 (Ostrog.): Theoderic – C instead of the formerly independent O on earlier monograms. See the same facsimile in Feind 2010, 320. DO 1- 192: I. Iustinianus, see the same facsimile in Feind 2010, 327. PLRE III, 9: no. 307 – quoted facsimile Feind 2010, 342. RIC 10: Gundobad no. 1 – quoted facsimile Feind 2010, 346. During the phonetic notation the almost silent O between D and B must have been omitted.

<sup>8</sup> Cf. Szabó 2020a, 283–284 and Szabó 2020b, 208, 212–214.

<sup>9</sup> See RIC 10: Odoacer no. 1 [on reverse side of coins] and Szabó 2020a, 283–284 and Szabó 2020b, 208, 212–214: Ona(c)har.

beginning such as AU>O makes no sense in the first place, while in the second, by reading the same letters repeatedly into the interpretation would lead to an inauthentic reading of the remaining letters, laden with emendations. This would carry sense neither as a word on its own, nor as an abbreviation, be it a Germanic, a Romanised Germanic or any other name variant, read in a Greek or Latin context. 2. Based on the monogram type – block or cubic monogram<sup>10</sup> – the reading should as a rule start from the centre outward, a reading from the edges going inward is exceptionally rare, only one instance of such a reading is known.<sup>11</sup> This means that none of the peripheral letters could be considered a leading element of the name if any centre-focused reading might make sense, or there should exist a very strong theory backing a peripheral reading, which is not the case here.

2. Owing to the very character of the monogram, the monogram ring offers several readings while the language it should be read in is also not evident at first. The monogram type and the letters embrace both a Greek and a Latin reading. The attempts at reading the monogram in the 123 years gone by since its surfacing and becoming known were made difficult by the fact that it was considered to belong to the owner of the naming with a much more legible inscription, and thus it was considered to be carrying the same content. To make things even more complicated, the reading of the naming was far from precise before 2019/2020. As for the letters O and M, forming a point of connection for readings based on a similar content of the two rings, we could see how there is no M on the naming and there is no O on the monogram ring. The rightful supposition that the monogram could only stand for a Germanic name expressed using either Greek or Latin letters, did not help much to simplify the matter. Considering the age appropriate for the dating of the ring, that is the 2<sup>nd</sup> half or 3<sup>rd</sup> third of the 5<sup>th</sup> century, one must also take into account the possibility of a person of Germanic origin, born in a Christian or Christianised milieu<sup>12</sup> – receiving a name of Latin or other origin.<sup>13</sup>

3. The oval, single-articulated frame head of the large size gold signet ring designed to be worn on a thumb or over a glove contains a Latin cross (*crux immissa*) and an engraved retrograde monogram (Pl. III/1). The diameter of the ring is 3,1–3,3 cm; that of the ring head is 1,2–1,7 cm; the width of the strap is 1,3–0,7 cm; the strap is 0,6–0,35 cm thick. The ring weighs 54,9 g.

The ring, not excessively worn, nevertheless, on account of its surface marks, put to use for a longer period of time, is only related to the I<sup>st</sup> Apahida “princely” Onachar grave based on the literature [ring inscription: *On^a(c)har|us*].<sup>14</sup> In the year 1889, in his first publication occurring after the surfacing of the grave, Henrik Finály does not

<sup>10</sup> “Block- oder Kastenmonogramme” cf. Fink 1981, 75–86; Feind 2010, 20–21. [I use “Kastenmonogram” as cubic monogram here.]

<sup>11</sup> See BMCV 31 (Vand): I. Leo – exceptional monogram, the reading starts from the side on both variants; 55 (Ostrog.) – In this case the T in the initial Th was represented by applying a bar over the left stem of the central H, thus the initial sound actually does stand in the centre. See similar facsimile in Feind 2010, 320.

<sup>12</sup> Cf. Gáll – Mărginean – Peter 2019, 27–34.

<sup>13</sup> Cf. e.g. Köbler 2014 Anhang 2.: Biblisch-gotischen Namen.

<sup>14</sup> See Gáll et alii 2017, 26, no. 9. Cf. Finály 1889, 305–320; Csallány 1961, 222–223; Horedt, Protase 1972, 174–220; Kuhn, Werner, Horedt 1973, 36–367; Bóna 1986, 146–149; Harhoiu 1987; Kiss 1987; Bóna 1989, 75–83, 79–80; J. Cseh in Bóna et alii 1993, 40–41; Kiss 1995; Oanță-Marghitu 2014, 615–619; Kiss P. 2015, 89–90; Vida 2016, 47–49; Rácz 2018.

mention this ring at all.<sup>15</sup> The ring was sent to the Hungarian National Museum in 1897 by the Alba Iulia jeweller Dávid Springer, naming Apahida as the place of origin. József Hampel recorded the data on the place of origin with a question mark in the inventory book under the number (MNM RT-N) 27/1897.2. The objects brought together with this ring (27/1897.1 and 27/1897.3), but especially the boar-head decorated pendulum are the only links backing the belonging of the ring to the Apahida grave I. Nevertheless there is no data available demonstrating the surfacing of the said objects together. Consequently, despite accepting the data on the place of surfacing, there is nothing to prove beyond a doubt that this ring surfaced in the very same grave I. or Onachar in which the namering and cross ring definitely surfaced (Pl. I).

4. From among known contemporary, almost contemporary and remotely contemporary Byzantine, Italian/Ravenna and Burgundian monograms belonging to the same type, the monogram on the ring shows close formal similarities with the ones of Theodosius II (402–450), Leo I (457–474), Gundobad (473–516), Iulius Nepos/Ricimer (474–475), Zeno (474–475, 476–491), Odoacer (476–493), Anastasius (491–518), Theoderic the Great (474/493–526), Iustinus I (518–527), Iustinianus I (527–565), and with various monograms known from the flip side of coins manufactured beginning with the second half of the 5<sup>th</sup> century in the Sirmium mint.<sup>16</sup> The monograms of the type are mostly Latin. In the 5<sup>th</sup> century only the monogram of Basiliscus (475–476) and a few monogram variants of Zeno (474–491) are Greek, and the trend did not change during the first half of the next century.<sup>17</sup> These examples show how the use of this monogram type spread from Byzantium beginning with the first half of the 5<sup>th</sup> century, and by the second half of the same century it spread in the West, especially among persons at the top of the administrative hierarchy.

5. There are several ways to decipher and read the monogram, based either on a Greek or on a Latin linguistic base (but not mixing the two), in Nominative or Genitive form, as a Germanic, a Latin name or on of some other origin. Nevertheless, each of these variants based on any identifiable letter of the monogram will fail to even remotely resemble the text on the namering, in any of its earlier or present readings. This difficult and complicated relation generates at first reading doubts related to the two rings belonging to the same person. In 1905, taking into consideration only the letters identifiable on their own, J. Hampel suggested the Latin-based reading *MARC(us)*.<sup>18</sup> In 2010, Jeffrey Spier suggested Greek based *MARIAΣ* (Genitive), as referring to the deceased wife of the “Goth or Gepidic Omharus”.<sup>19</sup> J. Hampel set out in the right direction, beginning the reading with the letter M, nevertheless he did not take the united letters into consideration, consequently he

<sup>15</sup> Finály 1889, 305–320.

<sup>16</sup> For the Sirmium mint see latest Gennari 2019, 63–252.

<sup>17</sup> See e.g. BMCV- no. 29, 30 (Vand.): II. Theodosius; no. 31[a-b] (Vand.): I. Leo; no. 32, 33 (Vand.): I. Anastasius; no. 32 (Vand.): Zeno; no. 33 (Vand.): I. Iustinianus; nos. 44, 45: Odoacer; nos. 46, 50, 51, 55, 57, 58, 59, 78, 87 (Ostrog.): Theoderic; nos. 171, 173 (Benev.): Grimoald. DO 1.- nos. 11–12, 27, 31: I. Anastasius; no. 192: I. Iustinianus. Demo 2017, 80–95/95–111. Gennari 2019, 162 and 163–249. Rauch 2015, no. 786. RIC 10: – II. Theodosius nos. 1–5; I. Leo nos. 1–6; Gundobad no. 1; Iulius Nepos no. 1; Zeno nos. 1–14; Odoacer no. 1. For further examples cf. <http://www.ancientcoins.ca/monograms/monograms.html>.

<sup>18</sup> Hampel 1905 (1971), 698.

<sup>19</sup> Spier 2010, 15.

omitted letters from his reading and he also interpreted the monogram in the Nominative case, which guaranteed failure. The significance behind the reading by J. Spier is that he emphasized the difference between the monogram and the name on the namer, and was methodically correct when omitting the letter O, and, just like Hampel, beginning the word with the central letter M. In his suggestion nevertheless he failed to consider the large size of the ring while he also included a certain letter (A) several times into his reading and omitted others (I, V). Despite his good start, his reading is thus inadequate.

6. By accepting Apahida as the actual site of origin, it seems probable that the ring might have surfaced in the scavenged grave of a contemporary person buried on the same perimeter. As in graves of the same period usually only one namer or signet ring was discovered,<sup>20</sup> the monogram ring should be analysed and interpreted in a different Apahida context as compared to that of the namer. With emphasis on the exceptional occurrence, J. Spier tried to back the improbable view in the literature regarding the origin of the two rings in the same grave by stating that Onachar had taken the ring of his formerly deceased wife to his own grave. But the size of the ring denies it having ever belonged to a woman, while on the other hand it must probably have been buried with its owner, who thus could not have been Onachar, whom we know as a consequence of the fact that he was buried with his own ring. István Bóna and also Ștefan Matei have already suggested the probable existence of a III<sup>rd</sup> “princely” grave, based on a belt buckle that would not fit among the objects of the two known graves<sup>21</sup> and also on other, smaller finds.<sup>22</sup> Furthermore, beside the well-known finds of the two “princely” graves (I and II)<sup>23</sup> several contemporaneous pieces of attire are known that heighten such suppositions based on objects not yet seen under the light of any certainty, pointing towards the existence of a further “princely” grave or even other places of burial in the area (Pl. I).<sup>24</sup> Thus, taking into consideration the doubts related to the belonging of the namer and the monogram ring to the same person and to readings of the two inscriptions targeting the same name, and also the evidence supporting the basic difference between the two rings, a specific archaeological context of its own can be recommended for the monogram ring on site, the precise location of which is yet to be discovered.

7. The monogram belongs to the group of block or cubic monograms (“Block- oder Kastenmonogramme”). The type was in use between the 5<sup>th</sup> and 7<sup>th</sup> centuries both on Eastern and Western Roman territory. The type was characteristically arranged around the central letter, with each letter occurring only once, it contained ligatures that don’t necessarily signal related letters. The monograms of the age also contain case-specific endings.<sup>25</sup> On a formal basis, the monogram ring shows no definite sign of belonging either to the Greek or to the Latin context. Similarly, the Latin or long cross above the monogram (*crux immissa*) is specifically related neither to Eastern Roman, Byzantine nor to Western Roman, i. e. Ravenna cultural circles. Still, one thing I have not yet seen, and that is a definitely Greek

<sup>20</sup> Listing many examples Szabó 2020a.

<sup>21</sup> Cf. also Oanță-Marghitu et alii 2009, 227–233.

<sup>22</sup> Matei 1982, 387–392.

<sup>23</sup> See Gáll et alii 2017, 26–27, no. 9 and no. 10, 195–196/3–4 Pls. Cf. Harhoiu 2013, Abb. 15. a good summarising photo of the objects in graves I and II.

<sup>24</sup> Cf. also Matei 1982, 387–392. See Gáll et alii 2017, 27–28, nos. 11, 13.

<sup>25</sup> Cf. Feind 2010, 20–21; Cf. also Fink 1981, 75–86.



lettered monogram displaying a long cross.<sup>26</sup> Nevertheless one cannot state based only on the form of the cross<sup>27</sup> that the object comes from an Arian environment, consequently the contemporary Arian Germanic states might not necessarily be involved in an analysis of the religious relations around the ring, while they also cannot be definitely excluded.<sup>28</sup> Finally, chronological and also structural aspects hinder any suggested reading starting from the left-hand side of the imprint from being adequate (Pl. III/2).

8. István Bóna recommended a Greek reading of the monogram, on a formal basis and also because of the last sign is also readable as a Σ (Sigma). He considered the content of the monogram similar to that of the namerings and the two rings to belong to the same owner. He formulated accordingly his reading starting from the side and containing several repeated letters: “The imprint lends both the interpretations of the names OMARIVΣ and AVD-OMARIVΣ, and the name is by no surprise similar to the one read on the second ring.”<sup>29</sup> In other instances, he stated the following: “Audomharjis/Omharius ... The original, more complete first part of the name begins with the word AVD readable on the monogram sealing of the grave and might be interpreted as ‘happiness-salvation’.”<sup>30</sup>

As a different possibility, the formerly quoted J. Spier suggested a reading emphasizing an exceptional character and containing repetitions of letters, based on a Greek basis: *MARIAΣ* (Genitive).<sup>31</sup> Omitting the irregular repetition of the letter A, in a comment to this, Bence Fehér suggested the possibility *MAPIΥΣ* (Nominative) for consideration, and this is left aside as a possibility to be commented upon hereunder only due to the Genitive case required by the function of the retrograde monogram.

I have listed a series of probable or imaginable, Greek based complete and abbreviated variants without the letter O in 2019, with readings starting ‘ad absurdum’ from the side and having no Genitive ending which guaranteed poor results from the very beginning. These were: *PAMΙΣ* (Ramis), *PAMYΣ* (Ramus), *PAMYΣΙ* (Ramusi), *PAYΙΣ* (Ravis), *PAYΣ* (Raus), *PAYΣIM* (Rausim) etc. but none of these can be sustained as a real or adequate name or abbreviation in the given context.<sup>32</sup> One of those is real though: *PAYΣ* (Raus), it occurs in a Germanic context in a 3<sup>rd</sup> century source (Cassius Dio 72.12) as a Hasdingi Vandal name. The name also appears in a 3<sup>rd</sup>-4<sup>th</sup> century *Alpes Maritimae* inscription fragment.<sup>33</sup> Nevertheless the strong letter M in the monogram excludes this possibility, as it also excludes all variants without an M. Along the same train of thought we might examine the name *PAMΙΣ* (Ramis), which appears in a 1<sup>st</sup> century source as a Germanic Chatti feminine name (Strabon 7.1.4). Finally, as a name-part, an abbreviation, *PAYΣIM* (Rausim) might surface as a theoretical possibility, as a shorter version standing for, say Rausimodus (see Zosimos 2.21.1 and 3).<sup>34</sup> From among the listed variants, the latter falls

<sup>26</sup> Cf. above notes nos. 5, 6, 7 and 16.

<sup>27</sup> For characteristics of cross types in the first millennium cf. Dávid 2012.

<sup>28</sup> Cf. Kiss P. 2019, 369–408.

<sup>29</sup> Bóna 1986, 147; Bóna 1989, 79–80.

<sup>30</sup> Bóna in: Bóna et alii 1993, 41. Cf. also Bóna in: Bóna et alii 1999, 8.

<sup>31</sup> Cf. Spier 2010, 15.

<sup>32</sup> Cf. Förstemann 1856, 1030, 1034–1035; Schönfeld 1911, 182–186, especially 184.

<sup>33</sup> CIL V 7975 = CAG 6, p. 647, *Alpes Maritimae*, Cemenelum (France / Alpes Maritimes County / Tourrette-Levens): *D(is) M(anibus) | Rausi*.

<sup>34</sup> Cf. also Kovács 2013, 193–211.

closest both in space and time to the probable origins of the Apahida monogram ring. It is impossible to establish the ethnicity of the person, but it seems to be a Sarmatian leader. The name is abbreviated, but beyond the reading originating in a flawed starting point, it has no other relation to the 5<sup>th</sup>-6<sup>th</sup> century Germanic community in Apahida.<sup>35</sup>

Finally, as I have previously quoted, based on Latin, J. Hampel recommended the reading MARC(us), while C. H. Opreanu recommended the reading OMACAR(?), considering the monogram to bear the same text as the namerings.<sup>36</sup>

9. Be it based on Greek or on Latin, in the Nominative or Genitive case, two further aspects need to be taken into consideration when reading and interpreting the monogram. One is that the name signalled by it does not at all begin with the letter P (Greek)/R (Latin), but with another letter displayed in the centre of the monogram, as J. Spier and B. Fehér rightfully noted. The monograms of the era are arranged around a central letter. The other aspect, further emphasized, is that the owner, supposed, based on the context and the other possibly related finds, to belong to a Germanic milieu, having been born in the third or fourth quarter of the 5<sup>th</sup> century, might not have had a Germanic name. Finally, an absolutely valid rule is that the same letter cannot be taken several times into account in the same reading. The monograms of the age were edited with an eye for completion, or names were abbreviated before entering into a monogram.

The monogram is usually a name, but it can also be a title.<sup>37</sup> Here we are dealing with a name, both in Latin and in Greek reading. No known Latin or Greek title can be formed out of the letters, not even if one disregards the rules for creating monograms active in the age.

10. The Latin reading of the monogram is a real possibility, especially taking into consideration the location and medium where the ring had surfaced. On the other hand, the monogram rings of the age used for authentication and the monograms on the back side of coins are usually Latin-based, even in Byzantium. The Latin letters of the monogram, presented in alphabetical order and in an anagram are the following: A, a; C, c; I, i; L, l; M, m; R, r; V, v. (Pl. III/3). The central letter is M, the others are linked to that. One might suggest the possibility of a P, p, owing to the form inherent in the letter R, r, but only if the reading would vouchsafe the possibility. The short bars attached to the stem on the right side of the print add up to form a letter C, anything else is out of the question. The upper part of the letter M forms the letter V, its left side, with a bar, forms the letter A, as well as the stem and leg of the letter R. The two stems of the letter M could furthermore be interpreted each as a letter I, while the one on the left side of the print can act as a stem for the letter R, while the right side one as the curve of the letter C. There is no letter standing on its own in this monogram. The set of letters ACIIMRV contains a much greater number of possible combinations than the set of intelligible Germanic, Greek or Latin names it can generate. Excluding from the very beginning the names discussed above beginning with the letter R and setting out from the central letter M of the monogram, and disregarding nonsensical variants, the series of letters can be arranged into the Genitive variant of an

<sup>35</sup> With the same starting point the monogram would even yield the less plausible *PRIAMYΣ* (etc.) name, with a P extracted from the R, as it would be possible in cases properly backed up, but is pointless here.

<sup>36</sup> Hampel 1905 (1971), 698; Opreanu 1999, 926–928 = AE 2007, 1193b. Cf. also Opreanu 2014.

<sup>37</sup> A summary cf. Feind 2010.

actual name, MAVRICI, which is certainly *Mauricius* or maybe *Mauricus*, in Nominative and *Mauric* without the Latin ending, in a possibly “Germanised” form (Pl. III/5).

11. For a long period of time, the language recommended to read the monogram was Greek. One of the reasons was the form of the monogram, presumed to be related only to Byzantium, the others the form of the first letter on the right side of the print, which in Greek reads Sigma (Σ), and the letter form in this case is a *sigma lunata*. The form of the monogram cannot decide the language of its reading. Similar monograms were in use in the Eastern part of the past Roman Empire already at the beginning of the 5<sup>th</sup> century while during the second half of the same century it spread westward. 6<sup>th</sup> century examples are numerous, occurring not only on signet rings but also on the reverse sides of coins and on elements of the built heritage.<sup>38</sup>

From a formal or scientific viewpoint the possibility of there being a Sigma (C i.e. Σ: *sigma lunata*), in the monogram is real. Based on this, the monogram should be examined for an eventual Greek reading. First of all, it should be noted that I found no evidence at all of Latin crosses being used on definitely Greek monograms. The identifiable Greek letters in the monogram, in an alphabetical order, and in a sort of anagram are the following: A, α -Alpha; I, ι -Iota, ι -Iota; M, μ -Mu; P, Π, ρ -Rho; Σ, σ, ς -Sigma; Y, υ -Upsilon (Pl. III/4). The shared, connected or linked stems of P+M and M+Σ withing the monogram display each a letter (I) Iota, M (Mu) and Y (Upsilon) are in a nexus (ligature), the upper part of the Mu forms the Upsilon. The left side of the printed Mu with an added bar also forms a letter A in nexus or ligature. The series of letters A, I, I, M, P, Σ, Y contains a much greater number of possible combinations than the set of intelligible Germanic, Greek or Latin names it can generate. Excluding from the very beginning the names discussed above beginning with the letter R a monogram and setting out from the central letter M (Mu) of the monogram, the letters form the Nominative or Latin Genitive form of a valid name: MAYPIΣI (Μαυρισι), or Μαυρις in Nominative. The Greek reading yields the same name as the Latin does, but with a Latin Genitive ending of -i instead of the Greek -ou. If it had to be read in Greek, the monogram is in the Greek style instead of actually being in Greek. There is a lesser possibility for a name in the Nominative: MAYPIΣ (Μαυρις) as the retrograde character of the monogram (Pl. III/1–2), its function of authentication, requires a Genitive ending. From among the letters of the monogram, this ending could only be an I interpreted in Latin. The theoretical Greek reading could also be justified by a phonetical transcript, in case of which the sound C or rather the sound group CI of the Latin becomes a Sigma (Σ). This would back up the original form of *Mauricius*, as *Mauricus* would have rather been written with a Kappa (K) in Greek.<sup>39</sup> The phenomenon points toward the possibility of the name *Maurici* in Genitive being told the engraver, who heard and recorded it as *Maurisi*.<sup>40</sup> All this is obviously valid if the monogram is Greek, which, as we have seen, is not only hardly probable, but rather is not Greek.

12. A special case surfaces thus with this monogram: it bears the very same name in both languages considered. Based only on the writing or its language thus one cannot

<sup>38</sup> Contemporary and later use in the East and West of monogram rings cf. Hilberg 2000, 63–122. Cf. also note 5.

<sup>39</sup> For linguistic aspects of the matter cf. Väänänen 1963, 55–56; Mihăescu 1978, 196, 199–200; Fehér 2007, 388–389.

<sup>40</sup> For this cf. e.g. Kajanto 1963, 77, 82; Kajanto 1965, 206.

definitely establish the place of manufacturing of the ring. The geopolitical situation and wide network of relations of the site make both a Byzantine and a Western origin plausible.<sup>41</sup> In this specific age the long or Lain cross (*crux immissa*) lends no definite solution to the matter, even though the lack of long crosses on Greek monograms pushes the interpretation towards a Latin linguistic medium. Taking these into consideration and summing up the aforesaid, the Latin variant needs fewer arguments and explanations to hold, especially with regard to the Latin nature of the ending required by the function of the object (-i and not -ou), also to the medium known for the use of names ending in -ric (-rich), and to the presumably Western origin of the ring owner (Pl. III/5).

13. In the context of the Apahida “princely” graves and finds, and marked by his ring as well,<sup>42</sup> the owner must have been a Western Germanic man of higher rank, who lived to see his death on the Northern-North-Eastern periphery of the Gepidic world of the day. He might not have been a king, but he must have been a regional leader of unknown status issuing documents authenticated with his monogram seal. He must have belonged to a Christian milieu, accounted for by the cross on the ring. Despise his supposedly Germanic origin he bore a Latin name instead of a Germanic one, which occurs more than once on the territory of the former Roman Empire both in the early and late imperial ages, with formal variants of Maurus such as Mauricus and Mauricius.<sup>43</sup> In his original milieu he must have used the name without the Latin ending, e.g. simply as ‘Mauric’, the ending of which in this form was similar to the -ric, -rik (-rich) endings of names of highly ranked Germanic leaders known as *regulus*. Besides its original context this might have been a further nudge to use and incorporate the name. But the name of the Apahida Mauric of the age (approximately the last quarter of the 5<sup>th</sup> century – the first quarter of the 6<sup>th</sup> century) is less related to the Mauricus or Mauricius names of the early imperial age than to the early Christian martyr Mauricius, with whose name the names of Christian Mauricius/Maurikios<sup>44</sup> of the late Roman and early Byzantine ages.<sup>45</sup> Among other names known in Germanic / Gepidic milieus so far, this one is certainly a novelty.<sup>46</sup>

14. According to the legend, the Christian soldier of Nubian origin, known only from the legend or from his martyr act by the name of Mauricius, was an exemplary officer of the Thebais (Theban) Legion of the Roman army. He was martyred in Octodurum/Agaunum in the fourth quarter of the 3<sup>rd</sup> century, in 284 or 286, or at the beginning of the next century, in 302.<sup>47</sup> He was later canonised under the name of Saint Mauricius

<sup>41</sup> Cf. generally Halsall 2007; historical and archaeological aspects cf. Kiss 1991; Bóna et alii 1999 (introduction by István Bóna, authors: Ágnes B. Tóth, János Cseh, Zsolt Gallina, Károly Mesterházy, Margit Nagy); Schmauder 2002; Schmauder 2003; Prohászka 2008; Quast 2001, 431–452; Kiss P. 2015; Masek 2018; Vida 2018; Rácz, Vida 2018; studies in the volume Vida, Quast, Rácz, Koncz 2019, with special emphasis on Dobos 2019, cf. with the earlier literature.

<sup>42</sup> Cf. Garipzanov 2018, especially 147–148.

<sup>43</sup> Cf. Kajanto 1965, 206; OPEL III 68.

<sup>44</sup> Cf. PLRE II, 3, 854–862. – In the PLRE collection regarding the period before 527 (II) the name does not appear among persons of higher rank featured in the sources, which, taking into account adults recorded beginning with 527, shows a trend of popularity for this name rising in the last quarter of the 5<sup>th</sup> century.

<sup>45</sup> For naming habits in the early Christian era cf. Kajanto 1963.

<sup>46</sup> For known Gepidic names cf. Bóna et alii 1993, 26–52; Haubrichts 2019, 57–81.

<sup>47</sup> Cf. Eucherius Lugdunensis, *Passio Acaunensium martyrum*. In: *Bibliotheca Hagiographica Latina* 5737 and Bruno Krusch (Hrsg.), *Monumenta Germaniae historica. Scriptores rerum Merovingicarum* III.



(Maurice, Moritz, Móric), his consecrated day being the 22<sup>nd</sup> of September. His cult developed soon in the neighbourhood. A church was built in 390 above his remains transferred to Agaunum (Saint-Maurice/canton Valais/Switzerland). Beginning with 515, under the Kingdom of Burgundy,<sup>48</sup> a royal monastery (abbey) was founded and an institutional cult developed. The cult of Mauricius spread from the site of his martyrdom to the entire Roman world both in Western and Eastern territories and it flourishes to this day.<sup>49</sup> The spreading of the cult and the name is reflected in related names occurring on the territory of the former Roman Empire. According to the known names, Saint Mauricius becomes more popular beginning with the end of the 5<sup>th</sup> century and the beginning of the 6<sup>th</sup> century, in what pertains to adult man in leading positions, registered after 527.<sup>50</sup> Probably the name of the Byzantine emperor Maurikios (Tiberius Mauricius)<sup>51</sup> born in 539 in Arabissus, Cappadocia, who ascended to the throne in 582 and ruled until 602, to later become a saint of the Eastern Church is also related to the martyr of Agaunum. The emperor's name also demonstrates the gradual spreading of the cult and of the name towards the Eastern realms of the former Roman Empire.

15. The presumably late, second half or third quarter of the 5<sup>th</sup> century attachments in the tomb of the Apahida Onachar show connections to Western territories under Franc rule,<sup>52</sup> the name points to the same fact, while the fibula suggests an earlier held, high Western Roman/Italian office.<sup>53</sup> 'Mauric's' name offers the same points of connection. The point of origin for the spreading of this name seems to be related to a territory occupied by the Saal Franks during the first third of the 6<sup>th</sup> century, in continuation of their expansion started by the end of the previous century. The Franc king Chlodimir<sup>54</sup> ordered the killing of the ruler of the Kingdom of Burgundy, Sigismundus (Saint Sigismund, son of the law-maker Gundobad<sup>55</sup> known by his monogram as well) in the year 523. In 532, the Franks defeated the Kingdom of Burgundy, then they divided it in 534.<sup>56</sup> Beside the Franc conquest, a series of inner political tensions by the beginning of the 520s might have triggered the migration of certain high ranking personalities from the territory. Ostrogotho, wife of the Burgundian king Sigismund and daughter of Theoderic the Great, tried to secure the throne for their son Sigeric instead of Sigismund, but the latter had

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*Passiones vitaeque sanctorum aevi Merovingici et antiquiorum aliquot*, Berlin 1896, 32–39 (Cf. Tokodi 2018, 353–358 – Hungarian translation of the legend). See also Woods 1994, 385–395 (=Woods 2018, 229–240) with the topic of the Mauricius legend. Cf. also Carrié 2005, 9–35 (=Carrié 2018, 197–228) with the war history aspects of the Mauricius legend.

<sup>48</sup> Cf. Sécretan 1868; Drew 1972.

<sup>49</sup> Cf. Suckale-Redlesfen 1987. Occurrences in the Carpathian Basin and elsewhere cf. Bálint 2006, 281–289. For general outlook and the afterlife of the Mauricius cult cf. Sággy 2014, 337–346. See generally e.g. *Világtörténet* 8 (40) year 2018/2, each study written on Saint Mauricius.

<sup>50</sup> In the 395–527 CE collection of PLRE II there is no Mauricius, as opposed to the 527–641 CE collection of PLRE II, which presents 10 known high ranking persons named Mauricius.

<sup>51</sup> Cf. Whitby 1988; PLRE II, 3, 855–860.

<sup>52</sup> See Schmauder 1998; Quast 2015. Cf. also Opreanu 2005, 7–10.

<sup>53</sup> Cf. also e.g. Rummel 2005, 376–379. For details on Onachar see Szabó 2020a, 283–284 and Szabó 2020b, 208, 212–214.

<sup>54</sup> Cf. Klaniczay 2000, 67–68.

<sup>55</sup> RIC 10: Gundobad no. 1. Cf. Drew 1972.

<sup>56</sup> Cf. Sécretan 1868; Drew 1972; Périn, Kazanski 1996.

the pretender killed in 522.<sup>57</sup> Outstandingly enough, the name of the contemporary or even compatriot Sigeric shows a specific structural similarity to the name form of Mauric, signalling perhaps a naming trend that cannot be here and now reinforced.

16. In the form of a strong supposition one might consequently formulate more or less the same as was formulated in the case of the contemporary and “neighbourly” Onachar, backing the statement with Western type Apahida objects and names of Western origin. Mauricius or ‘Mauric’, owner of the monogram ring, must have fled his land due to inner political tensions or an attack from the Franks, settling among the Gepids<sup>58</sup> by the first quarter of the 6<sup>th</sup> century, latest. Through his wife Ostrogotho, the circles of the Burgundian Sigismund must have had stronger connections with the Italian Ostrogoth state, and through this, with the Gepidic Kingdom based in Sirmium, as well as with the Gepidic people living in the area of Transylvania and the region of the river Tisza in a political-administrative organisation of a yet unknown type,<sup>59</sup> the medium must have thus been not entirely foreign for the refugee. Irrespective of all this, connections between Gepidic and Burgundian people reaching back to mid-5<sup>th</sup> century have already been demonstrated.<sup>60</sup> Apahida was situated in the Northern, North-Western region of the Gepidic world, high ranking personalities fled from the West might have settled here in greater safety. These “*reguli*” constituted a sort of political centre in the region,<sup>61</sup> while the monogram ring might reflect a practice of chancellery there. Lacking the title *rex*, based on the rings and finds, the supposed centre cannot be considered a royal one. Along with their companies, the *reguli* of Apahida might have been the earliest bearers of the “Eastern Merovingian culture” on Transylvanian territory, more specifically along the river Someşul Mic,<sup>62</sup> *Onaharus* – ‘*Onachar*’ and *Mauricius* – *Mauric* among them.

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<sup>57</sup> Cf. Dailey 2015, 87–88.

<sup>58</sup> Cf. wide context e.g. von Welck, Wiczorek, Hermann 1996 and studies in RPMK 2006.

<sup>59</sup> Cf. general context e.g. Wolfram 1997; Arnold 2014; Vida 2018, 9–23 with earlier literature.

<sup>60</sup> Cf. e.g. Martin 2007, 313–319; Kiss P. 2015, 89–101; Kovács 2021, 89–90.

<sup>61</sup> On the topic of various Gepidic centres compare Bóna, Nagy 2002–2005; B. Tóth 2006.

<sup>62</sup> Dobos 2019, 111–142. A chronological analysis of Gepidic sites along the river Someşul Mic and a map of their positions: Gáll et alii 2017, 136–142, map 3. For Merovingian cultural influences in the Carpathian Basin cf. also Bóna 1987, 149–151; Vida 2018, 9–23.

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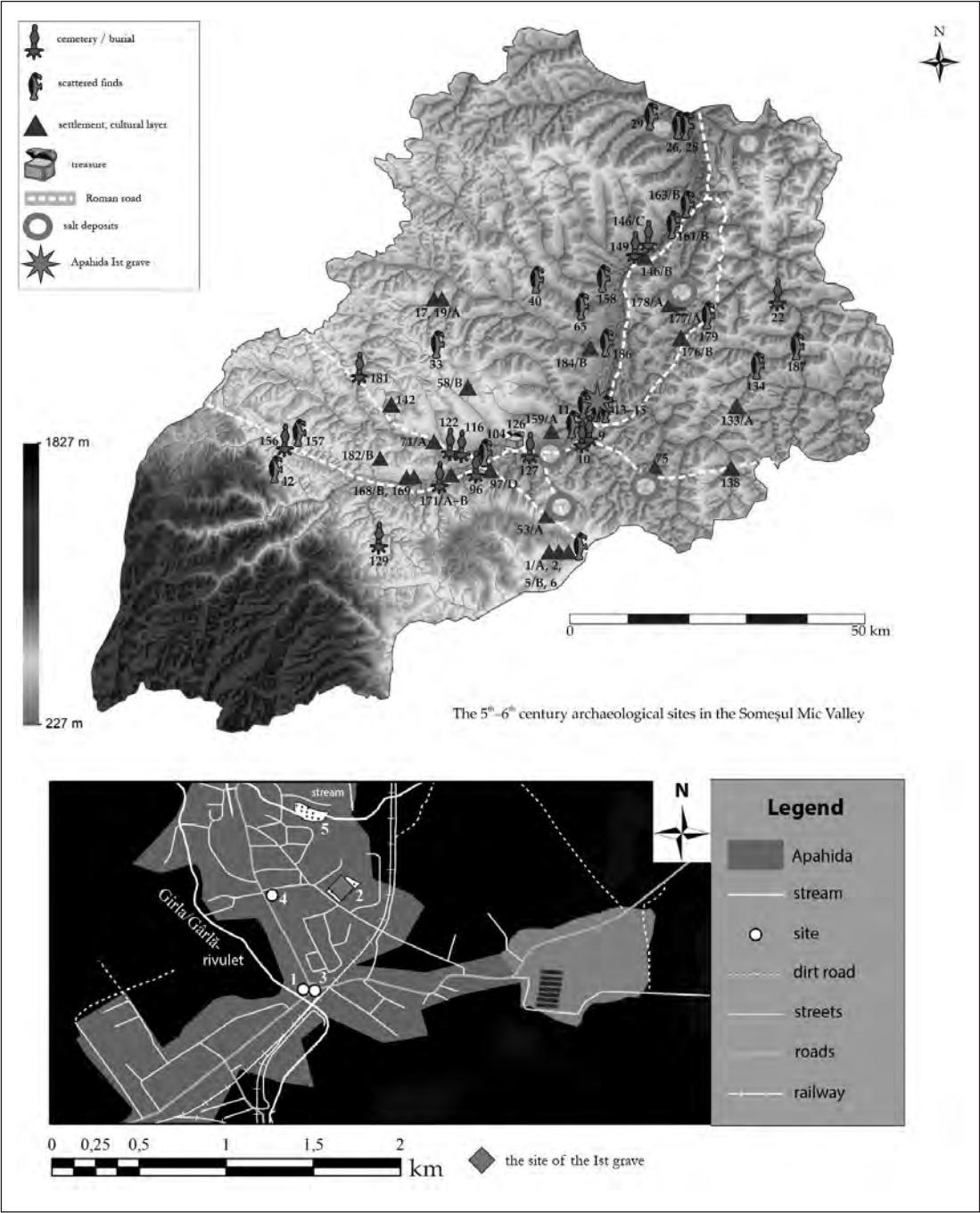
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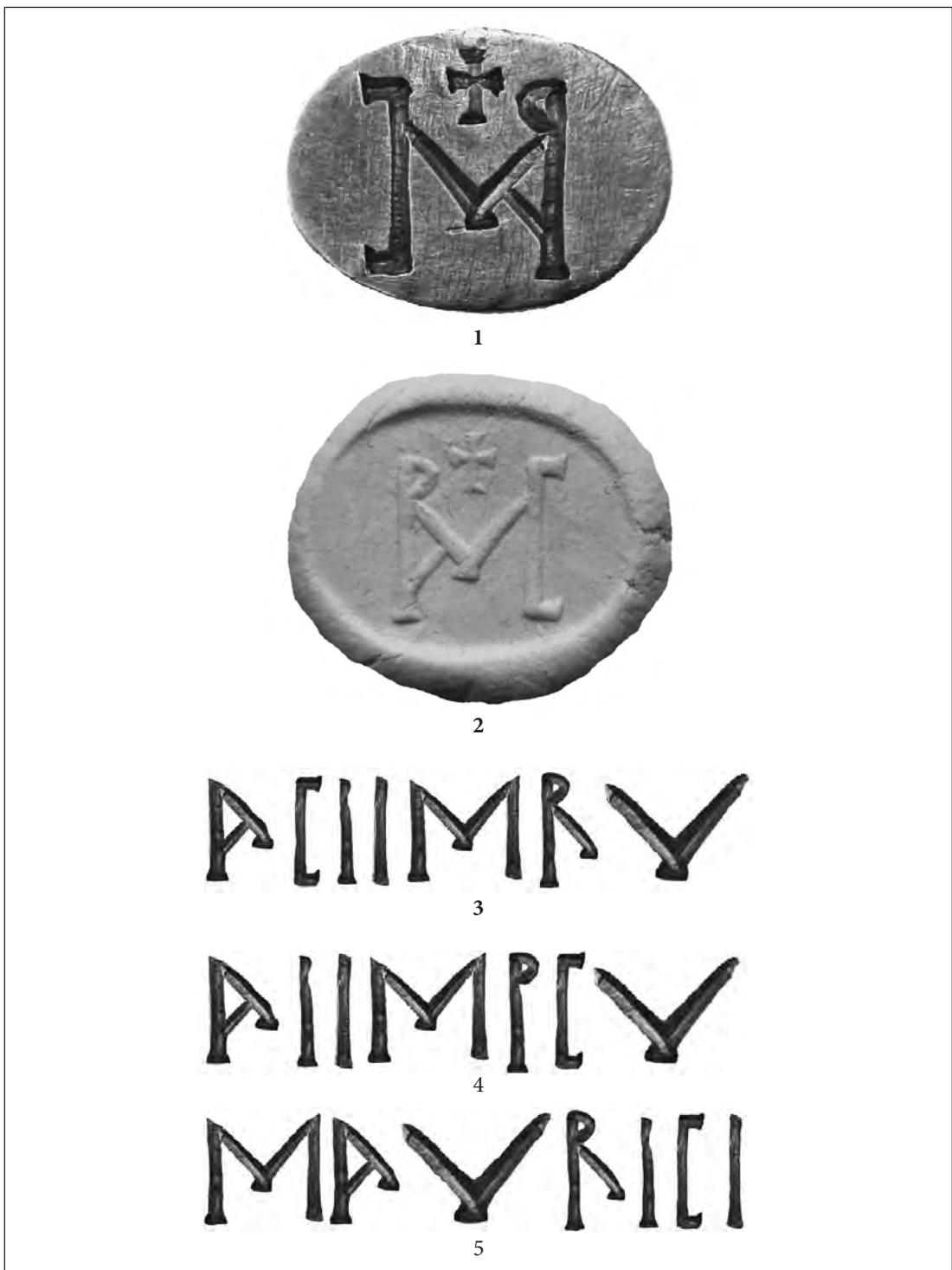




Pl. I. Gepidic age sites along the river Someșul Mic and Apahida (Erwin Gáll).



**Pl. II. 1.** The Apahida monogram sealring, top view (Zsuzsa Hajnal); **2.** The Apahida monogram sealring, side view (Zsuzsa Hajnal); **3.** The Apahida monogram sealring, ground view (Zsuzsa Hajnal).



**Pl. II. 1.** The retrograde monogram of the Apahida monogram sealring (Zsuzsa Hajnal); **2.** The print image of the monogram on the Apahida monogram sealring (Zsuzsa Hajnal); **3.** The Latin letters of the Apahida monogram sealring (Ádám Szabó); **4.** The possibly Greek letters of the Apahida monogram sealring (Ádám Szabó); **5.** The letters of the Apahida monogram sealring forming the word MAVRICI (Ádám Szabó).

# REVIEW





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**George Nuțu, *Meșteșugurile în provincia Moesia Inferior*, Editura Universității „Alexandru Ioan Cuza”, Iași, 2019, 494 p., ISBN 978–606–714–547–2**

Economic history is an important piece in the jigsaw puzzle that allows us to comprehend past societies, especially complex ones such as the Early Roman Empire. Written accounts, monuments, recovered artifacts and visual representations have to be brought together and interpreted by the researchers who focus on the crafts and craftsmen that made life as it was experienced by the Romans. Given the nature and the sheer number of surviving evidence, spanning across thousands of miles of ancient Roman borders, there has been a need of regional/provincial (in a Roman administrative sense) scientific endeavors. An example of such a region that needs a regional approach is that of the Lower Danube, a territory shared by the modern countries of Romania and Bulgaria.

The presented book on the topic of economic history was written by Dr. George Nuțu, author of several books (“Niculițel. A Roman Rural Settlement in North-East Moesia Inferior: Archaeological & Archaeozoological Research”, “Carved Bone and Antler from Northern Dobruja in Archaeological and Archaeozoological Context”) as well as numerous studies on the subjects of Roman-era archaeology of the Lower Danube. It is an expanded and updated version of his PhD thesis defended in 2011 at the “Alexandru Ioan Cuza” University of Iași. This study is focused on local production of goods, although in a much broader sense, in the Roman province of Moesia Inferior. In the author’s own words this means the analysis of “the sum of all aspects of crafting centers, internal organization of workshops, elements of the units of production, planimetry and topography, their distribution throughout the province and the variety and spread of the objects made in them” (p. 293).

Written almost exclusively in Romanian, the study does have a generous abstract in English, covering the main aspects presented in the Romanian text, aiming to reach a larger audience. The book is split into seven chapters, each one covering a particular aspect of production in local Roman *officinae* (p. 295): metalwork, glasswork, ceramics, stonework, glyptic, bone, horn, textile and leather processing. All of these apart from the first and last chapters, which introduce the reader to the history, geography and state of research, on one side and offer the writer’s conclusions, on the other.

Chapter II encompasses a wide range of problems regarding where and how were different metals used in the production of objects throughout Moesia Inferior. The author has concentrated his efforts on documented workshops and kilns, alongside *instrumenta* discovered to be used in the production processes. Furthermore, deposits of tools and metal objects, either in a hoarding context or destined for later recasting, were examined alongside epigraphic evidence which mention both the artisans who had such activities and also merchants dealing with metal objects in the province.

The subject of Chapter III is the manufacture of glassware by comparison with other, better known regions of the Roman Empire such as Gaul, the Rhine provinces or the Pontus. The author considered this a priority in order to better understand similar and different aspects when it comes to layout, expansion and so on. Furthermore, this chapter addresses the transport of prime materials into the province, such as the “cœur du verre” (p. 101).

Having considerable extent, Chapter IV is all about the breakdown of ceramic production in Moesia Inferior. Because Roman ceramics have received both the attention from researchers and are in an abundant quantity, it is of no surprise that it represents a large part of this economic study. Thus, it was necessary to present separately specific ceramic products: table *amphorae*, fine pottery (*terra sigillata*, sprigged decorated (barbotine) pottery, stamped pottery, glazed wares, *unguentaria* and *thuribula*), coarse pottery, lamps, clay statuettes and construction materials.

Chapter V addresses stone-working, focusing on the sources of stone and marble in Antiquity and also on the commerce of such products. Considering that the number of stone quarries known for certain to be used in ancient times is low, the author brought in interdisciplinary studies (p. 231) to shed more light on the subject. Furthermore, epigraphic sources allowed the identification of 11 *lapicides* and 5 *sculptores* throughout the province (p. 238–239).

Over the last chapter (Chapter VI) that deals in material culture, the author grouped information regarding the processing of bone and antler, woodworking, glyptic, textile production and tanning, even though the perishable nature of the objects (in the climatic conditions of the Lower Danube) severely impeded the research (p. 297). As such, the focus had been on bone and antler handcraft.

There is also a *Supplementum epigraphicum* which aims to offer the reader a general overview of the diversity of people intertwined in the production activity, a welcomed addition to the data expanded and explained in the main body of the text.

Lastly, the Illustration segment of the book includes the bulk of the drawings, maps and photos mentioned in the text, printed on a good quality paper, with both English and Romanian explanations, spanning over more than 120 pages in total and covering all the object categories presented.

Striving to be as complete as the state of research in both Romania and Bulgaria permitted, this book encompasses the author's perspective on the economic life of the Roman province of Moesia Inferior, from its creation to Diocletian's reign. One can easily observe the diligence put in gathering different sources and presenting them in a manner most elegant, ultimately trying to answer three simple questions: “What was produced? Who produced the material? When was it produced?” (p. 297).

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**IN MEMORIAM**





**DORIN URSUȚ**  
**(1942–2020)**



By early the grim year of 2020, museologist and researcher Dorin Ursuț, friend and collaborator of archaeologists for over 40 years has departed. Friends are not given to us, like family, we choose our friends. Dorin Ursuț himself had this gift of friendship, and, first and foremost, he was a good man.

His life had ups and downs, like we all do, yet sometimes his downs were somewhat harsher. Nonetheless, he did not despair and knew how to move forward.

He attended a good school, Geography with the Cluj-based University (1960–1965). First, he was a teacher in his native Berchieș and in other neighbouring villages. I saw how at Berchieș and Frata, he remembered some of his students of half a century ago and how they remembered their teacher. Dorin Ursuț has done for his village of origin what few do after moving to a city: he held meetings between the local inhabitants and historians, alike in a revived “Astra” of old days.

In 1977 he was employed by the Cluj museum, with the Office for National Cultural Heritage of Cluj County, where he began doing what he liked most. He started to work together with the archaeologists of Cluj and of other Romanian university and academic centres. He helped many with surveys, explaining the geography and geomorphology of these places to them. He commenced, in 1978, to survey the legionary fortress of Potaissa. He had the opportunity to visit archaeological sites in Switzerland. He investigated stretches of the Roman road between Potaissa and Porolissum, made surveys at Ulpia Traiana Sarmizegetusa, Sighișoara, Cășei, Gilău, Geoagiu, studied the Roman bridge at Dej. Gradually, he outlined his research topic of choice, Roman roads. He walked the tracks, mapped, wrote a book – *Drumurile romane din județul Cluj (The Roman roads of Cluj County)* (Napoca Star press, 2008). And he never ceased to tackle this subject after his retirement in 2004.

Approximately 40 years ago, he was one of the first scholars interested in modern, non-invasive methods in archaeology (Dorin Ursuț, *Prospecțiunea seismometrică în arheologie (Seismometric surveys in archaeology)*, in the journal of the Turda Museum *Potaissa. Studii și comunicări*, 2, 1980). Dorin thought himself and thought others, either as supporting teacher or as professor with the History Faculty of the Cluj University, the special course of *Topografie arheologică (Archaeological Surveying)*. He knew how to connect with children, when dressed as Santa (in an outfit borrowed from the National Theatre of Cluj – he had friends there too since his youth – carolled friends with children. He also knew how to engage with his students and some mention him fondly after many years.

I still remember the friendly drinks we had, our hassles and small talk, human weaknesses... But, of all things, I still remember how his eyes sparkled when he proved that mere stones for others were in fact part of a Roman road.

At one time, in Dorin's office there was a piece of paper on which he wrote *our life is just one. If you live it right just once, that is enough*. It is not for us to judge Dorin Ursuț's life, but we may mention him in our thoughts and ask The One Who Judges It All to bring comfort to his better life to which he has departed for.

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## EUGEN IAROSLAVSCHI (1948–2020)



La nouvelle de la disparition d'Eugen Iaroslavschi est tombée vers la fin de l'année, dans les jours de la pandémie, en absence de tout pressentiment, et on a eu du mal à comprendre et à l'assimiler. Même maintenant, les proches ne peuvent pas encore s'habituer avec la certitude de l'impossibilité de le revoir...

\*

Lors de sa retraite il a maintenu le contact avec les collègues du musée, les gens avec qui il a partagé pendant des années le café matinal et beaucoup de ses pensées – les joyeux et les tristes aussi. Il revenait souvent et avec un grand plaisir dans son ancien bureau et cherchait – ou était recherché par – les gens du bâtiment. On l'attendait avec la même joie chaque fois qu'il revenait dans l'institution qu'il servait pendant plusieurs décennies. On a gardé sa place du bureau jusqu'à la fin, comme pour un bon ami ou un membre de la famille. Ses histoires partagées avec tout le monde, toujours très drôles, ont éclairé beaucoup des journées tristes ou grises, minimisant les ennuis quotidiens. Les gens avaient une dépendance à ses histoires rigolos, à son bon humeur contagieux, et lui cherchait toujours la compagnie.

En tant que chef de département pour plusieurs années il a rendu beaucoup de services aux gens, il a trouvé toujours les meilleures solutions pour les problèmes de chacun et a pris des positions fermes quand il devrait défendre les intérêts des membres de son équipe.

Son empathie naturelle a toujours rassemblé les gens autour de lui, et ses subordonnés savent qu'il prenait ses décisions avec compassion par rapport aux problèmes de chaque personne; parfois, si nécessaire, il oubliait pour le moment les règles bureaucratiques, de plus en plus pesantes aujourd'hui.



Il s'est penché constamment dans ses études sur la civilisation des Daces de la région des Monts d'Orăștie, pendant ses fouilles ou dans ses analyses des mobiliers. Pendant plusieurs décennies (1969–2012) il a fouillé dans les sites Daces, dans une période difficile et héroïque quand un archéologue devrait résister dans des conditions précaires et, en même temps, faire son métier. Dans ces années des sentiments d'amitié et de solidarité ont soudée l'équipe de fouille grâce à lui aussi. Des générations d'étudiants, dont quelque uns sont aujourd'hui des archéologues, ont travaillé avec lui et lui gardent le souvenir vivant.

Les habitants de la vallée de Grădiște, qui l'ont reçu souvent dans leurs demeures avec amitié, se souviennent chaleureusement d'Eugen Iaroslavschi qui connaissait toutes leurs histoires et trouvait toujours quelques mots de réconfort.

Spécialiste des techniques anciennes il a publié des ouvrages importantes concernant le mobilier métallique, le verre et d'autres matériaux découvertes pendant les fouilles; la plupart de ses travaux se retrouvent dans les notes de bas de pages des archéologues qui se penchent aujourd'hui sur le deuxième âge du Fer de Dacie. Certains thèmes initiés ou fréquentés par Eugen Iaroslavschi sont aujourd'hui suivis par des jeunes chercheurs qui prennent comme point de départ ses ouvrages. Son discours scientifique, expression d'une solide formation, a toujours été équilibré et systématique.

Sa condition de chercheur et de muséographe par excellence est illustrée par la longue liste de catalogues d'expositions qu'il a organisé ou auxquelles a contribué, en Roumanie ou bien à l'étranger, la plupart concentrés sur la civilisation des Daces des Monts d'Orăștie.

Eugen Iaroslavschi appartenait au Musée où il a travaillé toute sa vie, même quand il enseignait dans les salles de cours, sur les chantiers des fouilles ou quand offrait des explications aux visiteurs dans une salle d'exposition. Sa vie prouve une vraie *vocation*, si rare aujourd'hui dans les musées. Il aimait son métier et il a été chanceux de travailler pour plaisir.

Tous ceux qui l'ont connu et aimé gardent un souvenir vivant de sa sagesse, son bon humeur et de sa présence si chaleureuse. Il y a peu de temps, Eugen Iaroslavschi a trouvé sa place dans la constellation des classiques.

S. T. T. L.

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## ISTVÁN BAJUSZ (1954–2021)



Each life on this Earth is unique and unrepeatable in its own way. I was wondering the other day what made the life of István Bajusz incomparable: what made him so unique for those close to him? Could his different academic positions, his scientific achievements, or the awards he received be the most important characteristics of his personality? He had all of these as well, but it was something else that made him stand out. All his students and colleagues shared a clear, unspoken feeling that for some reason, it was very good to be with “The Professor”, ask for his help, to work with him. I think it was his humanity that set him apart: his respect for Man above all else. For us, young students of archaeology and history, he was a role model in many ways. István Bajusz treated his colleagues and students gently, and he always approached his research with humility, which is no small thing. In professional circles, weighed down by performance pressure and rivalry, he applied a humane approach to issues, a life-long legacy for an entire generation.

So, who was István Bajusz? He was a gentle, friendly, short-spoken and kind person, who didn’t talk much, but when he spoke, everyone was paying attention. He was known as a reserved, soft-spoken man, yet he was highly regarded in professional circles, and his awe-inspiring gentleness was one of his greatest virtues.

“The Professor” – that’s what we used to call him – was the first to address us, first-year students, on a first-name basis, thus encouraging and strengthening the personal side in the relationship between students and their teacher. Though he never praised us directly, the way he looked after us made us feel that he was watching over us, appreciating our efforts. He was happy to answer all our questions, and was never ashamed to admit if he didn’t know something. In his apartment in Zalău he and his entire family always made every visitor feel welcome. If they ran out of beds, he made a comfortable sleeping place on the floor. We became part of his family, just like that huge piano in the living room. His

lively and sweet children grew up with us in Porolissum. It is certainly not a coincidence that his younger son carries on the torch, passed down through the generations, nurturing the family passion for the memories of the past, for archaeological research.

He didn't just preach about the sanctity and cohesive force of the family: he lived his life based on this. He and his wife raised four children during the difficult times of communism and regime change. He never interfered, but he took care of his children and of his students like a lenient father. He was never a person of long talks, but he always listened. He never humiliated anyone, but showed respect to everyone. In Porolissum, we not only took part in an exciting excavation, but also went on a lot of trips with The Professor. We picked mushrooms for lunch, herbs for tea, or simply just took a stroll along the Roman *limes*. We all keep many beautiful memories of the excavations in Porolissum, like the one written by Vass: "Walking along the *limes*, I expressed my astonishment at the fact how labour-intensive and time-consuming constructing it must have been at the time. He looked at me surprised, wagged his head, then said: Lóri, think about it! If you have 500 soldiers, and you line them up two meters apart, and the job is that everyone digs up the two meters in front of them, a larger section is done in no time. I was amazed. Then he looked at me and said, Lóri, no need to complicate things. The Romans weren't stupid." He never overcomplicated things. As a practical person, he was able to treat everything rationally and humanely at the same time, always staying in the background, silently paying attention to everything.

István Bajusz was born on March 17, 1954 in Turda (Cluj County). As a descendant of the famous Téglás family, he grew up with a love for archaeology, the past and antiquity. The memory of his maternal great-grandfather, István Téglás – the founder of the famous Archaeological Museum in Turda – was well alive in the family. The ruins of the V<sup>th</sup> Macedonian legionary fortress in Turda were certainly still visible in the 1960s. The heritage of the Roman city of Potaissa had a decisive influence not only on the life of the modern city, but also on István Bajusz himself. The remains of walls, graves and everyday objects popping up everywhere in the city probably had a huge impact on his imagination as a child. His interest on the Romans was undoubtedly born from this personal experience, nourished by the legacy of Téglás family as well. Over the years, his childhood passion became a lifelong vocation.

He graduated from the Faculty of History and Philosophy of Babeş-Bolyai University in Cluj-Napoca in 1978, specialising in archaeology. Between 1978 and 1995, he worked as a museologist, archaeologist and chief researcher at the Sălaj County Museum of History and Art. He obtained his PhD from the University of Cluj-Napoca in 2000, the topic of his dissertation was *The Amphitheater of Porolissum and the Roman amphitheaters of the Roman provinces in the Middle Danube Valley*, his supervisor being Professor Nicolae Gudea. In 1995, in addition to his work in Zalău, he became a lecturer at the Department of Ancient History and Archaeology of Babeş-Bolyai University.

The Roman fortress and city of Porolissum (today Moigrad), a site extremely rich in archaeological remains, made him a genuine field archaeologist, becoming one of the important researchers of the Northern Transylvanian *limes*. The excavations of the museum in Zalău were led for decades by Professor Nicolae Gudea, and his team included István

Bajusz as well. In addition to smaller excavations, his life's great work was the excavation of the amphitheatre of Porolissum, its reconstruction and the publication in a monograph.

After the change of regime in 1989, archaeological education in Hungarian language was re-established at the University of Cluj-Napoca. In 1995, István Bajusz was invited to teach ancient history and archaeology for Hungarian students, replacing historian András Bodor. Year after year, he was hoping in vain that the university would provide an apartment for him, so he commuted for twenty years (mostly by hitchhiking) between Zalău and Cluj-Napoca. What did it mean for us, first-year students, to attend the courses of The Professor? We truly experienced history, the past became alive, and antiquity was all around us. We understood that history is not a string of fairy tales, the great personalities of antiquity – like Hammurabi, the author of the first legal text, or Ramesses II, the powerful conqueror – all became flesh-and-blood human beings, forming part of a rational, causal system that constitutes the human civilisation.

One of the most important legacies of István Bajusz is re-launching the Hungarian-speaking archaeological school in Transylvania. In 1999, with the active participation of Zsolt Molnár Kovács, he founded the Béla Pósta Association, which has officially become the forum of the Hungarian-speaking archaeologists in Transylvania. Together with hundreds of colleagues, we also were raised in this system: during the unforgettable conferences organised by the Béla Pósta Association, we had the opportunity as students to present our scientific research, which encouraged us later to make our mark in international scientific circles. We became researchers within the framework of the archaeological school established by István Bajusz and his colleagues, wrote our first projects, and later started working at museums and universities in Romania and Hungary as well.

From 2001, he supervised several research projects through the Sapientia Foundation, involving young colleagues from master's or doctoral schools. The results had been published in several volumes: *Everyday life in Roman Dacia*, Cluj-Napoca 2003; *The history of settlements in the Csík Basin from the Neolithic to the 17<sup>th</sup> century until the end of the 20<sup>th</sup> century in light of archaeological data*, Cluj-Napoca 2004.

In the family of István Bajusz, the notes written by István Téglás were treated as relics. The 56 booklets, written in small handwriting, containing drawings and notes about archaeology, ethnography and cultural history, were compiled by István Téglás between 1872 and 1915 while he was visiting different sites, collecting information. On the initiative of István Bajusz, these notes were prepared for publishing by a group of students and young researchers. The books entitled *Notes by István Téglás. I. Archaeological records*; are an almost inexhaustible source of information not only for researchers of Roman Dacia, but for all archaeologists who try to reconstruct the past from remains that have been lost meantime.

His commitment to science and culture is evidenced by all the institutions and organisations of which he was a member. He was the director of the Béla Pósta Archaeological Association and the president of the Zalău and Region branch of the Transylvanian Museum Society. He was a member of the Society of Classical Studies of Romania, as well as the Society of “*Instrumentum*” in France, external member of the Hungarian Academy of



Sciences, member of the Hungarian Cultural Society of Transylvania, and a corresponding member of the Hungarian Society of Archaeology and Art History in Hungary.

He has received numerous awards from both Romanian and Hungarian institutions for his dedication. The Office of the President of Romania awarded him the “Order of Cultural Merit” in 2004, and he was awarded the István Schönvisner Prize for archaeological heritage in 2006 by the Hungarian Ministry of National Cultural Heritage. In 2010, he received a professional recognition from the Romanian Ministry of Culture and National Heritage for his work done to protect the cultural heritage in the Sălaj region. In recognition of his research and teaching activities carried out in the field of Hungarian archaeology in Romania, as well as his active involvement in cultural and scientific management, he received the Knight’s Cross Hungarian Order of Merit (Civil Division).

His work enriched the Transylvanian scientific community with over a hundred publications, mainly in the field of archaeology (books, textbooks, edited publications, university notes), but he also published studies in the field of cultural history, ethnography and applied arts. His most significant archaeological works are: *Castrul roman de la Romita-Certiae. Das Römergrenzkastell von Romita Certiae*, Zaláu 1997 (co-author: Al. V. Matei); *Porolissum. Ausschnitte aus dem Leben einer dakisch-römischen Grenzsiedlung aus dem Nordwesten der Provinz Dacia Porolissensis*, Amsterdam 1998 (co-authors: N. Gudea, E. Chirilă, Al. V. Matei, D. Tamba); *Amfiteatrul de la Porolissum și amfiteatrele din provinciile romane de la Dunărea de Mijloc*, Cluj-Napoca 2011.

*Sit tibi terra levis*, beloved Professor!

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## ALEXANDRU DIACONESCU (1955–2021)



He was born almost sixty-six years ago in Cluj, a place of which he was always very proud, and he pursued all his studies here. He started his career as a history teacher at the Industrial Highschool No 3 in Cluj and, after a short stint at the Institute of History and Archaeology, he was called to the Department of Ancient History and Archaeology of the Babeş-Bolyai University. He pursued here a complete university career, crowned with the professorship, which he achieved in 2014. He taught for undergraduate and graduate students introductory courses such as Ancient history, as well as highly specialised ones such as History of ancient art, Roman classical and provincial archaeology or Late Roman and early Christian archaeology. He is the author of a large number of works in all these fields, among them the handbook *Great Civilizations of the Ancient Orient*, his PhD thesis on *Major Statuary in Roman Dacia*, which also includes the repertory of the statues and statue bases of Roman Dacia, deep-reaching studies such as *Ornamenta dignitatis. Rank insignia and symbols of social status of the autochthonous elites in post-Aurelian Dacia*, or *A Statue of Liber Pater from Apulum (Alba Iulia)*, as well as popular science writings such as *The fora of Sarmizegetusa. An Imaginary Walk through the Political-Administrative Centre of Little Rome at the Foot of the Retezat Mountains*. As an undergraduate, a member or a leader of research teams, he took part in numerous archaeological research projects, but his name remains connected mainly with the excavations at Ulpia Traiana Sarmizegetusa.

This recital of data and facts is far from being able to convey the impression which Alexandru Diaconescu made on everybody who knew him. He was an inspired and creative researcher. Imagination may be a bad master, but it was for him a very good servant. His was, to an extent rare even among archaeologists, the gift of reconstructing with his eyes and mind the realities of the past, starting from the scarce vestiges which have reached us. His artist's mind brought him closest to the art and architecture of antiquity, but he was

able to animate also drier topics, ceramics or the famous cross-bow brooches. In his hands, the art and architecture of the Roman province of Dacia came alive as part of the society of a border province of the Roman Empire, which he was familiar with as few people are and which he had the ability to connect with and integrate into the broader phenomena of the neighbouring provinces and of the whole Empire.

But, even more than his written work, what keeps Alexandru Diaconescu most vividly in our minds is his talent as a teacher and orator. He would cover equally knowledgeably and easily the various periods in the vast extent of the history of antiquity, in their most diverse facets. The gift of recreating the past, vividly and appealingly, without trivialising it, is a rare and precious one, and he had it in abundance. Many generations of students, such as chose archaeology for their occupation and such as never had to deal with antiquity since, were captivated, stimulated, inspired by his lectures. And the life on an archaeological excavation, attractive by definition, was rendered memorable by his passion, his vivacity and his brilliant personality.

I do not think it possible, even were we to try, to forget Sandu. The world is a little poorer and a little sadder for his loss.

Χαῖρε παροδείτα.

**Ligia Ruscu**

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**ALEXANDRU AVRAM**  
**(1956–2021)**



My professor, Alexandru Avram, passed away, tragically and unexpectedly, on the 4<sup>th</sup> of August this year, while he was conducting the archaeological excavations at Histria/Istros, his very much beloved Greek and Roman site on the western shore of the Black Sea. There he even had begun his archaeological career as Petre Alexandrescu's student more than forty years ago (1977–1978), being active without interruption and taking part and, later, conducting the excavations in the Greek Sacred area on the acropolis.

Alexandru Avram was born in Tulcea on the 16<sup>th</sup> of September, 1956, as one of the three sons of the Romanian famous philologists Mioara and Andrei Avram, moving thereafter together with his family to Bucharest.

After finishing the elementary school and high-school in Bucharest, he joined the Faculty of History of the University of Bucharest in 1976, where he was the most brilliant student of his generation, training himself in the field on ancient history and epigraphy and joining from the first year the excavation team at Histria/Istros. He graduated as valedictorian in 1980. Thereafter, he became high-school teacher at the German High-School in Bucharest, where he plenty used his deep knowledge of the German language, teaching history in that language. He joined the Institute of Archaeology, the nowadays Vasile Pârvan Institute of Archaeology of the Romanian Academy in 1983, becoming senior researcher first grade in 1999 and being the head of the Greco-Roman Archaeology department from 1995 to 2001. He defended his PhD thesis at the same institute in 1992 on the Thasian amphora stamps from Histria under Petre Alexandrescu's coordination, published four years later in the series of Histria Monographs (*Histria VIII. Les timbres amphoriques. 1. Thasos*, Bucharest – Paris 1996). He was member of that institute with a short interruption between 2002 and 2006 until his very end.

But one important event forever changed his scientific career, as Dionisie M. Pippidi, the famous Romanian ancient historian and epigraphist, one of the initial coordinator, together with Ioan I. Russu, of the Romanian project *Inscriptiones Daciae et Scythiae*



*Minoris Antiquae*, asked him in 1989 to prepare a corpus of the Greek and Latin inscriptions of the Pontic city of Callatis (*Inscriptiones Scythiae Minoris III*), nowadays Mangalia. He accomplished the task ten years later, publishing the very first volume from the series in French (*Inscriptions grecques et latines de Scythie Mineure, vol. III. Callatis et son territoire*, Bucharest – Paris 1999). The papers published in advance (e.g. *Untersuchungen zur Geschichte des Territoriums von Kallatis in griechischer Zeit*, *Dacia* N. S. 35, 1991, 103–137), especially the book on the inscription preserving the Latin text of the alliance treaty between the Roman Republic and Callatis, signed round 100 BC and renewed under Augustus (*Der Vertrag zwischen Rom und Kallatis. Ein Beitrag zum römischen Völkerrecht*, Amsterdam 1999), and the corpus itself definitely established Alexandru Avram as one of the best scholars in the field. His profound, and outstanding knowledge of both Greek and Latin inscriptions from the Pontic area and even beyond, being worldwide praised and recognised. He became the advisory editor for Pontic area of the *Supplementum Epigraphicum Graecum* (2002–2020, vols. 48–66) and for Thrace, Dacia and Pontus of *Bulletin Épigraphique* (2006–2020, REG 119–133), the main repertoires of the newly published Greek inscriptions.

In 1997, he joined the Faculty of History, University of Bucharest, teaching Greek history, Greek epigraphy and Pontic history, epigraphy and archaeology and creating a veritable school to which I also belong since he supervised my licence paper in 2001 and also my MA thesis defended in 2003. He continued and spread this school as member of the Doctoral School of the Faculty of History, University of Bucharest, by supervising ten PhD theses there defended. Meanwhile he also taught Greek Epigraphy to the students at Classics at the Faculty of Foreign Languages and Literatures of the same university. Some of these students joined the field of Greek Epigraphy and are now respected scholars, especially abroad.

Few years after, in 2002, he gained the position of professor of ancient Greek history at the University of Le Mans in France (Université du Maine), which he held it until his tragic dead from this summer. There he taught also, beside ancient Greek history, epigraphy and archaeology, focusing also on the wider Black Sea and he continued his scientific work on the Western Pontic area, but also on the Asia Minor, Thasian amphora stamps and even Phrygian epigraphy (*Phrygian Personal Names in Phrygian Inscriptions*, in Gocha R. Tsatskheladze (ed.), *Phrygia in Antiquity: From the Bronze Age to the Byzantine Period, Proceedings of an International Conference 'The Phrygian Land over Time: From Prehistory to the Middle of the 1<sup>st</sup> Millenium AD', held at Anadolu University, Eskişehir, Turkey, 2<sup>nd</sup>-8<sup>th</sup> November, 2015*, *Colloquia Antiqua* 24, Leuven 2019, 305–349; *Ein Altar aus Nakoleia und seine griechisch-phrygischen Inschriften*, *Gephyra*, 12, 2015, 199–229) and Achaemenid inscriptions (*Remarques sur l'inscription achéménide de Phanagoria*, in Renata Tatomir (ed.), *East-West Dialogue. Individual and Society through Ages, Proceedings of the First International Interdisciplinary Conference of the History Specialization, Department of Social and Natural Sciences, Hyperion University of Bucharest, June 1<sup>st</sup>-2<sup>nd</sup>, 2018 Bucharest 2019*, 15–24). Moreover, he supervised eight PhD theses, defended there, and he guaranteed a habilitation thesis.

During these almost two decades he published an impressive number of scientific papers, more than 200, and eight books. First, he was part of the team, together with other colleagues, who published a monograph on the excavations in the sacred area from

the acropolis of Istros, conducted by his professor, Petre Alexandrescu (*Histria VII. La Zone Sacrée d'époque grecque*, Bucharest – Paris 2005). Thereafter, he continued more his epigraphic studies, publishing a gazetteer in Latin of the Pontic persons attested abroad (*Prosopographia Ponti Euxini externa*, Colloquia Antiqua 8, Leuven – Paris – Walpole, MA 2013) and monograph on the amphora stamps coming from Heracleea Pontica discovered within a settlement from Bulgaria, together with Petar Balabanov, Yvon Garlan (*Les timbres amphoriques grecs d'Héraclée Pontique et de quelques autres centres de production recueillis dans l'établissement de Kostadin Tchechma près de Debelt (Bulgarie) (première moitié du IV<sup>e</sup> siècle av. J.-C., Pontica, 48–49, Supplementum IV, Constanța 2016)*. But his finest achievements were, without any doubts, the last published volume from *Inscriptiones Scythiae Minoris* series, gathering the inscription from Tomis, together with the late Maria Bărbulescu and Livia Buzoianu (*Inscriptions grecques et latines de Scythie Mineure*, vol. VI. Suppléments, fasc. 2: *Tomis et son territoire*, Bucharest – Paris 2018) and a volume from the series *Inscriptiones Graecae*, gathering the inscriptions from Callatis, Tropaeum Traiani, Durostorum and Tomis, which will be posthumously published next year through the care of Klaus Hallof and Dragoș Hălmagi (*volumen X, pars III: inscriptiones Thraciae, fasciculus III: inscriptiones Scythiae minoris, sectio I: Callatis et ager Callatinus, Tropaeum, Durostorum, Tomi et ager Tomitanus*). I had the chance to read through prior to its publication and I can state that it is a wonderful achievement, full of linguistic, epigraphical, and historical comments, render into a splendid contemporary Latin, a model for other epigraphic corpora in the Lower Danube and Pontic areas.

He was also very active in the field of Greek archaeology, taking part, as director or member of the team, at the archaeological excavations at Istros, Greek Sacred Area (see above the *Histria VII* volume) and the Greek and Hellenistic Histria Pod settlement (*Archäologische Ausgrabungen in Histria Pod, SR Rumänien*, *Klio*, 69, 1987, 1, 6–27, together with Konrad Zimmermann), Callatis, Pessinus (see the papers gathered by Gocha R. Tsetskhladze (ed.), *Pessinus and Its Regional Setting*, volume II: *Work in 2009–2013*, *Colloquia Antiqua*, 22, Leuven – Paris – Bristol, CT 2019), also publishing an extraordinary epigraphic document (*A New Attalid Letter from Pessinus*, *ZPE*, 191, 2014, 151–181, together with Gocha R. Tsetskhladze) and Sotiras, in Thasos island (*Un nouvel atelier producteur d'amphores à Thasos? Étude préliminaire et projet de fouilles sur le site de Sotiras*, *SCIVA*, 64, 2013, 3–4, 331–346, together with Nathan Badoud, Alexandru Morintz, Emilian Alexandrescu, Antal Lukács, Vlad Nistor and Gilles Sintès). A volume on the Rhodian amphora stamps was finished by Alexandru Avram few days before his unexpected death and will be published in the *Histria* series as *Histria VIII. 3*.

The field of Greek Epigraphy and Greek Ancient History unfortunately lost one of its most capable and gifted scholars, while the Pontic archaeology lost one of its most brilliant specialists. His published books and papers are important legacy and they will be for generations to come important milestones, which will help future scholars to move forward into the field.

*Requiescas in pace, carissime magister!*

**Florian Matei-Popescu**

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**CHRISTOF SEBASTIAN SOMMER**  
**(1956–2021)**



*Sapere aude*

C. Sebastian Sommer, born in Stuttgart on 14 January 1956, died on 12 October 2021. He spent his childhood near the *limes* of Germania Superior, at Hofheim, close to Frankfurt am Main. Maybe this is what sparked his special attraction to this subject, as later in life he became the Chairman of the German Limes Commission. As a young man, he worked at the Landesdenkmalamt Baden-Württemberg in Stuttgart, he was then Chief Archaeologist of Bavaria and at the same time honorary professor at the Otto-Friedrich University of Bamberg, Fellow of the Society of Antiquaries in London, member of the Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts and president of the Association of Regional Archaeologists in Germany. He furthered his studies in Germany (München, Freiburg) and England (Oxford).

Sebastian dedicated his life to the conservation of monuments and of the *limes*, he has been always eager to know anything. He contributed decisively to the inscription of the Roman frontiers in Germany on the UNESCO World Heritage List and supported all the representatives of the other countries that worked or are still working on similar dossiers.



One of his last great joys was the inscription of the western segment of the Roman frontier on the Danube, the former province of *Raetia*, this very summer.

In 2015 he organized, together with Suzana Matešić, one of the most successful Roman Frontier Congresses, in Ingolstadt.

He coordinated numerous archaeological excavations and took part in many more. The most important in Germany were those at Ladenburg (*Lopodunum*), Rottweil and Oberndorf-Bochingen. It was in 1997 that I met him, when he took me in, both on the last two of the mentioned sites and in his own home. The generosity of Sebastian and of his family would be impossible to match. Since then, he has been my friend and mentor, always lenient with my mistakes. He gave us all that he knew, without reservations or pretensions. It is only too bad that we did not know how to ask all the questions that he would have been willing to answer, no matter how little spare time he had. He would 'adopt' whoever needed support. If you were in doubt, he would convince you in a matter of seconds that what you do is important. He helped anyone with advice and bibliography. David Breeze recently reminded us how Rob Collins described Sebastian as a 'social bridge'. He loved archaeology, heritage and, not lastly, people. He dedicated his life to all these.

He held numerous courses and communications, many also in Romania, where he gladly returned. In 2015, in Cluj-Napoca, he held many lectures at Babeş-Bolyai University, for nearly two weeks. He was passionate about everything, even small things. He loved everyone's traditions and customs. Living in Bavaria in the last years, he adopted the Bavarian way of life, even if it was not his birthplace. Romanian traditions were dear to him as well. I remember him recently writing to me that he is very fond of listening to an autographed CD he was given by Grigore Leşe. It was his latest album, '...of love, war, death, being alone'. Sebastian went through every single one, except for war. Without understanding the words, with his extraordinary empathy he was able to feel the sorrow and yearning of Romanians in the folk songs (*doina*) which are specific only to our people.

No one could have foreseen this ending. The legacy that he leaves behind, however, is significant. We will try to keep practicing what he had taught us, without ever being able to match him. It is an enormous loss. 'Sebastian's spirit will always be with us' and we will always 'remember his warmth, his openness, his energy and the wholehearted "Yes!" with which he led his life', as Mary, his loving wife, has put it.

*Aeternum vale!*

**Felix Marcu**

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## ABBREVIATIONS

The following list contains abbreviations which are not included in the list at [http://www.archeo.ens.fr/IMG/pdf/annee\\_philologique\\_abrev\\_revues.pdf](http://www.archeo.ens.fr/IMG/pdf/annee_philologique_abrev_revues.pdf)

<b>AAA</b>	Αρχαιολογικά Ανάλεκτα εξ Αθηνών, Αθήνα.
<b>AB (S. N.)</b>	Analele Banatului, Timișoara; Serie Nouă (S. N.): Analele Banatului, Timișoara.
<b>ACD</b>	<i>Acta classica Universitatis scientiarum Debreceniensis</i> , Debrecen 1968-.
<b>ACMIT</b>	Anuarul Comisiunii Monumentelor Istorice, Secțiunea pentru Transilvania, Cluj.
<b>Acta Carnuntina</b>	<i>Acta Carnuntina</i> . Mitteilungen der Gesellschaft der Freunde Carnuntums, Carnuntum.
<b>ActaMN</b>	<i>Acta Musei Napocensis</i> , Cluj-Napoca.
<b>ActaMP</b>	<i>Acta Musei Porolissensis</i> , Zalău.
<b>ActaTS</b>	<i>Acta Terrae Septemcastrensis</i> , Sibiu.
<b>ActMuz</b>	Din activitatea muzeelor, Cluj-Napoca.
<b>ACSS</b>	Ancient Civilizations from Scythia to Siberia. An International Journal of Comparative Studies in History and Archaeology, Bordeaux – Moscow.
<b>Acta Siculica</b>	<i>Acta siculica</i> . Muzeul Național Secuiesc, Sf. Gheorghe.
<b>AE</b>	L'Année Épigraphique, Paris 1888-.
<b>Aegaeum</b>	<i>Aegaeum</i> . Annales d'archéologie égéenne de l'Université de Liège et UT-PASP, Liège.
<b>AEM</b>	Archäologisch-epigraphische Mitteilungen aus Österreich-Ungarn, Wien.
<b>Aetas</b>	<i>Aetas</i> . Journal of history and related disciplines, Budapest.
<b>Agora 32</b>	The Athenian Agora. Results of Excavations Conducted by the American School of Classical Studies at Athens, 32: J. W. Hayes, Roman Pottery: Fine-Ware Imports, Princeton 2008.
<b>AIIA Cluj</b>	Anuarul Institutului de Istorie și Arheologie, Cluj-Napoca.
<b>AIIA Iași</b>	Anuarul Institutului de Istorie și Arheologie, Iași.
<b>AIJ</b>	V. Hoffiller, B. Saria, Antike Inschriften aus Jugoslawien, Heft 1: Noricum und Pannonia Superior, Zagreb 1938.
<b>AISC</b>	Anuarul Institutului de Studii Clasice, Cluj-Napoca.
<b>Alba Regia</b>	<i>Alba Regia. Annales Musei Stephani Regis – Alba Regia</i> . A Szent István Király Múzeum Évkönyve, Székesfehérvár.
<b>Aluta</b>	<i>Aluta</i> . Revista Muzeului Național Secuiesc, Sfântu Gheorghe.

<b>American Anthropologist</b>	American Anthropologist. Journal of the American Anthropological Association.
<b>AMS</b>	Asia Minor Studien. Forschungsstelle Asia Minor im Seminar für Alte Geschichte der Westfälischen Wilhelms-Universität Münster.
<b>Angustia</b>	<i>Angustia</i> . Revista Muzeului Carpaților Răsăriteni, Sfântu Gheorghe.
<b>Annales HSS</b>	<i>Annales</i> . Histoire, Sciences Sociales, Paris.
<b>ANRW</b>	H. Temporini, W. Haase (Hrsgg.), Aufstieg und Niedergang der römischen Welt, Berlin – New York.
<b>AO</b>	Arhivele Olteniei, Craiova.
<b>AOAT</b>	Alter Orient und Altes Testament. Veröffentlichungen zur Kultur und Geschichte des Altens Orients und des Alten Testament, Kevelar/Neurkirchen-Vluyn, Münster.
<b>Apulum</b>	<i>Apulum</i> . Anuarul Muzeului Național al Unirii din Alba Iulia, Alba Iulia.
<b>Aquila Legionis</b>	<i>Aquila legionis</i> . Cuadernos de estudios sobre el Ejército Romano, Universidad de la Rioja.
<b>Arrabona</b>	<i>Arrabona</i> . A Győri Múzeum évkönyve. Győr.
<b>Αρχ</b>	Αρχαιολογία, Αθήνα.
<b>Археологія</b>	Археологія. Спілка археологів України, Kiev.
<b>ArchAnz</b>	Archäologischer Anzeiger, Berlin.
<b>Archaeologia Bulgarica</b>	<i>Archaeologia Bulgarica</i> , Sofia.
<b>Archeologia</b>	Państwowe Muzeum Archeologiczne, Warszawa.
<b>ΑρχΔελτ</b>	Αρχαιολογικόν Δελτίον, Αθήνα.
<b>ArchHung</b>	<i>Archaeologia Hungarica. Dissertationes Archaeologicae Musei Nationalis Hungarici a Consilio Arcaeologorum Academiae Scientiarum Hungaricae redactae</i> , Budapest.
<b>ArchKözl</b>	Archeológiai Közlemények, Budapest.
<b>Argesis</b>	Studii și comunicări, Muzeul Județean Argeș.
<b>ArhMold</b>	Arheologia Moldovei, Iași.
<b>Arheologia (Sofia)</b>	Arheologija. Organ na Archeologičeskija Institut i Muzej, Sofia.
<b>Arheologie și Studii Clasice</b>	Arheologie și Studii Clasice, București.
<b>ArhVest</b>	Arheološki Vestnik, Ljubljana.
<b>ARYS</b>	ARYS. Antigüedad, Religiones y Sociedades, Instituto de Historiografía “Julio Caro Baroja”, (UC3M), Madrid.
<b>Ausgrabungen und Funde</b>	Ausgrabungen und Funde: Nachrichtenblatt der Landesarchäologie, Berlin 1956–1995.
<b>Avram, PPEE</b>	A. Avram, <i>Prosopographia Ponti Euxini Externa</i> , Colloquia Antiqua 8, Louvain – Paris – Walpole (MA) 2013.
<b>Balcanica</b>	Annual of the Institute for the Balkan Studies, Belgrad.
<b>Banatica</b>	<i>Banatica</i> , Reșița.

<b>BAR</b>	British Archaeological Reports, Oxford.
<b>BCEN</b>	Bulletin du Cercle d'Études Numismatiques.
<b>BCMI</b>	Buletinul Comisiei Monumentelor Istorice, București.
<b>BE</b>	Bulletin épigraphique, Paris 1888 sqq.
<b>BHAUT</b>	<i>Bibliotheca Historica et Archaeologica Universitatis Timisiensis</i> , Timișoara.
<b>BMC</b>	H. Mattingly, R. Carson (eds.), <i>Coins of the British Museum</i> , London 1923.
<b>BSAF</b>	Bulletin de la Société nationale des antiquaires de France.
<b>BSNR</b>	Buletinul Societății Numismatice Române, București.
<b>Bulgaria</b>	I. Jordanov, <i>Corpus of Byzantine seals from Bulgaria</i> . 1: Geographical names, Agato, Sofia 2003; <i>Corpus of Byzantine seals from Bulgaria</i> . 2: Family names, Agato, Sofia 2006; <i>Corpus of Byzantine seals from Bulgaria</i> . 3: SOCASTO, Sofia 2009.
<b>CA</b>	Cercetări Arheologice. Muzeul Național de Istorie, București.
<b>Caiete ARA</b>	Revistă de Arhitectură, Restaurare și Arheologie, București.
<b>Carpica</b>	Revista anuală a Complexului Muzeal „Iulian Antonescu”, Bacău.
<b>CAB</b>	Cercetări Arheologice în București. Muzeul de Istorie și Artă al Municipiului București.
<b>CAG</b>	Carte archéologique de la Gaule 10, L'Aube, Paris 2005; Carte archéologique de la Gaule 6, Les Alpes-Maritimes, Paris 2010.
<b>CAH</b>	Cambridge Ancient History, Cambridge.
<b>CBI</b>	E. Schallmayer et alii (eds.), <i>Corpus der griechischen und lateinischen Beneficiärer-Inschriften des Römischen Reiches</i> , Stuttgart 1990.
<b>CBC</b>	<i>Conversio Bagoariorum et Carantanorum</i> , W. Herwig (ed.), Vienna 1979.
<b>CCA</b>	Cronica Cercetărilor Arheologice din România, București.
<b>CCCA</b>	M. J. Vermaseren, <i>Corpus cultus Cybelae Attidisque VI</i> , Leyden 1989.
<b>CCDJ</b>	Cultură și civilizație la Dunărea de Jos, Călărași.
<b>CCID</b>	M. Hörig, E. Schwertheim (eds.), <i>Corpus cultus Iovis Dolicheni</i> , EPRO 106, Leiden 1987.
<b>CCIS</b>	E. N. Lane, <i>Corpus cultus Iovis Sabazii</i> , Leyden 1985.
<b>Ch&amp;K</b>	Chaos e Kosmos. Per Tommaso Marciano, Roma, <a href="http://www.chaosekosmos.it/pdf/2009_01.pdf">http://www.chaosekosmos.it/pdf/2009_01.pdf</a> .
<b>CIA</b>	Kircchoff et alii (eds.), <i>Corpus Inscriptionum Atticarum</i> , Berlin 1873 sqq.
<b>CIG</b>	<i>Corpus Inscriptionum Graecarum</i> , I–IV, Berlin 1828–1877.
<b>CIGD</b>	L. Ruscu, <i>Corpus Inscriptionum Graecarum Dacicarum</i> , HPS 10, Debrecen 2003.
<b>CIL</b>	<i>Corpus Inscriptionum Latinarum</i> , Berlin 1863 sqq.
<b>CILA</b>	J. González (ed.), <i>Corpus de inscripciones latinas de Andalucía</i> , Sevilla 1989–1991, I–III.



<b>CIMRM</b>	M. J. Vermaseren, <i>Corpus Inscriptionum et Monumentorum Religionis Mithriacae</i> , I-II, The Hague 1956, 1960.
<b>Civiltà</b>	Civiltà romana in Romania, Roma 1970.
<b>ChLA</b>	<i>Chartae Latinae Antiquiores</i> .
<b>Classica et Christiana</b>	<i>Classica et Christiana</i> . Revista Centrului de Studii Clasice și Creștine, Iași.
<b>CMG</b>	<i>Corpus Medicorum Graecorum</i> .
<b>CMRDM</b>	E. N. Lane, <i>Corpus monumentorum religionis Dei Menis</i> , Leiden 1976.
<b>CMRED</b>	D. Tudor, <i>Corpus monumentorum religionis equitum Danuviorum</i> , I-II, Leiden 1969–1976.
<b>CN</b>	Cercetări Numismatice, București.
<b>CNT</b>	<i>Corpus Nummorum Thracorum</i> : <a href="https://www.corpus-nummorum.eu/">https://www.corpus-nummorum.eu/</a>
<b>Coll. Antropol.</b>	<i>Collegium antropologicum</i> , School Of Biological Anthropology, Zagreb.
<b>CommArchHung</b>	<i>Communicationes Archaeologicae Hungaricae</i> , Budapest.
<b>Comunicări de geologie</b>	Comunicări de geologie. Societatea de Științe Naturale și Geografie a Republicii Populare Române, București.
<b>CPL</b>	<i>Corpus Papyrorum Latinarum</i> .
<b>Crisia</b>	<i>Crisia</i> . Muzeul Țării Crișurilor, Oradea.
<b>CSIR</b>	<i>Corpus Signorum Imperii Romani</i> .
<b>A Csíki Székely Múzeum Évkönyve</b>	A Csíki Székely Múzeum Évkönyve, Miercurea Ciuc.
<b>Cumidava</b>	<i>Cumidava</i> . Muzeul Județean de Istorie, Brașov.
<b>CVA</b>	<i>Corpus Vasorum Antiquorum</i> .
<b>DA</b>	Ch. V. Daremberg, Ed. Saglio, Dictionnaire des antiquités grecques et romaines, d'après les textes et les monuments, Paris 1877–1919.
<b>Dacia (N. S.)</b>	<i>Dacia</i> – Recherches et découvertes archéologiques en Roumanie; Nouvelle Série (N. S.): <i>Dacia</i> – Revue d'archéologie et d'histoire ancienne, București.
<b>Diacronia</b>	Diacronia. <a href="http://www.diacronia.ro/ro/journal/about">http://www.diacronia.ro/ro/journal/about</a>
<b>A Debreceni Déri Múzeum Évkönyve</b>	A Debreceni Déri Múzeum Évkönyve. <i>Annales Musei Debreceniensis de Frederico Déri nominate</i> , Debrecen.
<b>DissPann</b>	<i>Dissertationes Pannonicae</i> , Budapest.
<b>Dizionario Epigrafico</b>	E. di Ruggiero (ed.), Dizionario epigrafico di antichità romane, I-III, Roma 1895–1922.
<b>DO</b>	Ph. Grierson et alii, Catalogue of the Byzantine coins in the Dumbarton Oaks Collection and in the Wittemore Collection, I-V, DO Research Library, Washington D.C. 1966–1999.
<b>Documenta Praehistorica</b>	<i>Documenta Praehistorica</i> , Ljubljana.

<b>Dolgozatok/Travaux</b>	Dolgozatok az Erdélyi Nemzeti Múzeum Érem és Régiségtárából, Kolozsvár (Cluj) / Travaux de la section numismatique et archéologique du Musée National de Transylvanie à Kolozsvár (Cluj).
<b>Drobeta</b>	<i>Drobeta</i> , Drobeta-Turnu Severin.
<b>EAIVR</b>	Enciclopedia arheologiei și istoriei vechi a României, București 1994-.
<b>EDCS</b>	Epigraphik-Datenbank Clauss/ Slaby ( <a href="http://www.manfredclauss.de/">http://www.manfredclauss.de/</a> ).
<b>EDR</b>	<i>Ephemeris Dacoromana</i> . Annuario della Scuola Romana di Roma, Roma.
<b>EJA</b>	European Journal of Archaeology, Cambridge.
<b>EME</b>	Erdélyi Múzeum-Egylet Évkönyvei, Kolozsvár [Cluj] 1859 sqq.
<b>EN</b>	<i>Ephemeris Napocensis</i> , Cluj-Napoca.
<b>EphEp</b>	<i>Ephemeris Epigraphica: Corporis inscriptionum Latinarum supplementum</i> , Roma 1872 sqq.
<b>Epigraphische Studien</b>	Epigraphische Studien, Bonn.
<b>EPRO</b>	Études préliminaires aux religions orientales dans l'Empire romain, Leiden.
<b>Erdély</b>	Erdély Honismertető Folyóirat. Az Erdély Kárpát-Egyesületnek és Múzeumának értesítője, Kolozsvár.
<b>ErdMuz</b>	Erdélyi Múzeum. Kiadja az Erdélyi Múzeum Egyesület, Kolozsvár.
<b>Έργον</b>	Έργον της εν Αθήναις Αρχαιολογικής Εταιρείας, Αθήνα.
<b>Études et Travaux</b>	Études et Travaux. Annual of the Institute of Mediterranean and Oriental Cultures of the Polish Academy of Sciences, Warsaw.
<b>FolArch</b>	<i>Folia Archaeologica. Annales Musei Nationalis Hungarici</i> , Budapest.
<b>FPA 1–7</b>	P. Kovács (and B. Fehér 1–2) (ed.), <i>Fontes Pannoniae Antiquae</i> , 1–7, Budapest 2003–2013.
<b>Fundberichte aus Baden-Württemberg</b>	Fundberichte aus Baden-Württemberg, Stuttgart.
<b>GED</b>	W. Ph. Lehmann, Gothic Etymological Dictionary, Leiden 1986.
<b>Gephyra</b>	<i>Gephyra</i> : Journal for the Ancient History and Cultures of the Eastern Mediterranean, Akdeniz University, Antalya.
<b>Glasnik</b>	Glasnik Srpskog Arheološkog Društva (Journal of the Serbian Archaeological Society), Belgrade.
<b>GLIA</b>	S. Mitchell, D. French, The Greek and Latin inscriptions of Ankara (Ancyra), I. From Augustus to the end of the third century AD, München 2012.
<b>HD</b>	Epigraphische Datenbank Heidelberg, <a href="http://www.adw.uni-heidelberg.de">edh-www.adw.uni-heidelberg.de</a> .
<b>A Herman Ottó Múzeum Évkönyve</b>	A Herman Ottó Múzeum Évkönyve. <i>Annales Musei Miskolciensis de Herman Ottó Nominati</i> , Miskolc.
<b>Hierá</b>	<i>Hierá</i> . Collana di studi storico-religiosi, Cosenza.

<b>HPS</b>	Hungarian Polis Studies, Debrecen.
<b>HSCPh</b>	Harvard Studies in Classical Philology, Cambridge.
<b>HTRTÉ</b>	A Hunyadmegyei Történelmi és régészeti Társulat Évkönyve, I–XXII, Deva 1880–1913.
<b>IAA Reports</b>	Israel Antiquities Authority, Jerusalem.
<b>IDR</b>	<i>Inscriptiones Daciae Romanae</i> , București – Paris 1975 sqq.
<b>IDRE</b>	C. C. Petolescu, <i>Inscriptions externes concernant l'histoire de la Dacie</i> , I–II, București 1996, 2000.
<b>IEW</b>	J. Pokorny, <i>Indogermanisches etymologisches Wörterbuch</i> , 1–2, Bern – Munich 1959, 1969, 20055.
<b>IG</b>	<i>Inscriptiones Graecae</i> , Berlin 1873 sqq.
<b>IGBulg</b>	G. Mihailov, <i>Inscriptiones Graecae in Bulgaria repertae</i> , I–V, Serdicae (Sofia), 1956–1997.
<b>IGLNovae</b>	J. Kolendo, V. Božilova, <i>Inscriptions grecques et latines de Novae (Mésie Inférieure)</i> , Bordeaux – Paris 1997.
<b>IGLR</b>	Em. Popescu, <i>Inscripțiile grecești și latine din secolele IV–XIII descoperite în România: culese, traduse în românește, însoțite de indici și comentate</i> , București 1976.
<b>IGLS</b>	<i>Inscriptions grecques et latines de la Syrie</i> , Paris 1929 sqq.
<b>ILAf</b>	R. Cagnat, A. Merlin, L. Châtelain, <i>Inscriptions latines d'Afrique</i> , Paris 1923.
<b>ILBulg</b>	B. Gerov, <i>Inscriptiones Latinae in Bulgaria repertae</i> , I, Sofia 1989.
<b>ILCV</b>	E. Diehl, <i>Inscriptiones Latinae Christianae Veteres</i> , Berlin 1925–1967.
<b>ILD</b>	C. Petolescu, <i>Inscripții latine din Dacia</i> , București I, 2005; II, 2016.
<b>ILJug</b>	A. Šašel, J. Šašel, <i>Inscriptiones Latinae quae in Iugoslavia inter annos MCMXL et MCMLX repertae et editae sunt</i> , Ljubljana 1963.
<b>ILLPRON</b>	M. Hainzmann, P. Schubert, <i>Inscriptionum lapidariarum Latinarum provinciae Norici usque ad annum MCMLXXXIV repertarum indices</i> , Berlin – New York 1986.
<b>ILS</b>	H. Dessau, <i>Inscriptiones Latinae Selectae</i> , I–IV, Berlin 1882–1916.
<b>IMS</b>	<i>Inscriptions de la Mésie Supérieure</i> , I–VI, Beograd 1976–1982.
<b>InscrItal</b>	<i>Inscriptiones Italiae</i> , Roma 1937.
<b>ISM</b>	<i>Inscripțiile din Scythia Minor grecești și latine</i> , București 1980 sqq.
<b>Istros</b>	<i>Istros</i> . Buletinul Muzeului Brăilei, Brăila.
<b>JAHA</b>	<i>Journal of Ancient History and Archaeology</i> . The journal of the Institute of Archaeology and Art History of Romanian Academy, Cluj-Napoca.
<b>Journal of Democracy</b>	<i>Journal of Democracy</i> , Washington DC.
<b>JSA</b>	<i>Journal of Social Archaeology</i> , <a href="http://jsa.sagepub.com/">http://jsa.sagepub.com/</a> .
<b>Journal of Military History</b>	<i>Journal of Military History</i> , Lexington (VA).

<b>Journal of Religion and Health</b>	Journal of Religion and Health, Blanton-Peale Institute.
<b>Közlemények</b>	Közlemények az Erdélyi Nemzeti Múzeum Érem- és Régiségtárából, Budapest.
<b>ΚρΧρον</b>	Κρητικά Χρονικά, Ηράκλειο.
<b>krisis/crisi</b>	<i>krisis/crisi</i> , Roma 2012.
<b>KSK RBS</b>	Kleine Schriften zur Kenntnis der römischen Besetzungsgeschichte Südwestdeutschlands, Stuttgart.
<b>KunArchiv</b>	Kün Archiv: Arbeiten aus dem Landwirtschaftlichen Institut der Universität Halle, Berlin.
<b>KVHAA</b>	Kungl. Vitterhets Historie och Antikvitets Akademien, Stockholm.
<b>LANX</b>	LANX. Rivista della Scuola di specializzazione in Beni archeologici dell' Università degli Studi di Milano, Milano.
<b>LGPN</b>	Lexicon of Greek Personal Names, Oxford, <a href="http://www.lgpn.ox.ac.uk/">http://www.lgpn.ox.ac.uk/</a> .
<b>Libelli Archaeologici</b>	<i>Libelli Archaeologici</i> , Budapest.
<b>Libyca</b>	<i>Libyca</i> . Bulletin du Service des Antiquités. Archéologie, Épigraphie, Alger.
<b>LIMC</b>	<i>Lexicon Iconographicum Mythologiae Classicae</i> , 1981 sqq.
<b>LIMES</b>	Buletin Limes. Frontierele Imperiului Roman în România. Publicație susținută de Comisia Limes România.
<b>L&amp;S</b>	C. T. Lewis, C. Short, A new Latin Dictionary, New York – Oxford 1891.
<b>Lupa</b>	<i>Ubi erat lupa</i> , <a href="http://www.ubi-erat-lupa.org">www.ubi-erat-lupa.org</a> .
<b>MAL</b>	Atti dell'Accademia Nazionale dei Lincei. Memorie. Classe di Scienze morali storiche e filologiche, Roma.
<b>Madrider Mitteilungen</b>	Madrider Mitteilungen. Deutsches Archäologisches Institut, Madrid.
<b>Marisia</b>	<i>Marisia</i> . Studii și materiale. Arheologie, istorie, etnografie, Muzeul Județean Mureș, Târgu Mureș.
<b>Marmatia</b>	<i>Marmatia</i> , Baia Mare.
<b>Masson, OGS</b>	Masson, OGS = O. Masson, <i>Onomaslica Graeca Selecta I–II</i> , Paris 1990.
<b>MCA</b>	Materiale și cercetări arheologice, București.
<b>Medicina nei secoli</b>	Medicina nei Secoli, Roma.
<b>MelBidez</b>	Mélanges Joseph Bidez, Bruxelles 1934 (= Annuaire de l'Institut de Philologie et d'Histoire Orientales et Slaves 2, Bruxelles 1933–1934).
<b>Memoria Antiquitatis</b>	<i>Memoria Antiquitatis. Acta Musei Petrodavensis</i> , Piatra Neamț.
<b>MGAH</b>	<i>Monumenta Germanorum Archaeologica Hungariae</i> , Magyar Nemzeti Múzeum, Budapest.
<b>MGH AA</b>	<i>Monumenta Germaniae Historica, Auctores Antiquissimi</i> , Hannover – Berlin 1826 sqq.
<b>MGH SRG</b>	<i>Monumenta Germaniae Historica. Scriptores rerum Germanicarum in usum scholarum</i> .



<b>MGH. SRM</b>	<i>Monumenta Germaniae Historica, Scriptores rerum Merovingicarum</i> , Hannover 1896.
<b>MGH SS</b>	<i>Monumenta Germaniae Historica. Scriptores (in Folio)</i> .
<b>Michmanim</b>	Michmanim. The Bulletin of the Reuben and Edith Hecht Museum. Haifa University.
<b>MMM</b>	Fr. Cumont, <i>Textes et monuments figurés relatifs aux mystères de Mithra</i> , II, Bruxelles 1896.
<b>Musaios</b>	<i>Musaios</i> , Muzeul Județean Buzău.
<b>Neohelicon</b>	Neohelicon. <i>Acta Comparitionis Litterarum Universalis</i> , Budapest.
<b>Novensia</b>	<i>Novensia</i> : badania Ekspedycji Archeologicznej Uniwersytetu Warszawskiego w Novae, Warszawa.
<b>OLD</b>	Oxford Latin Dictionary, Oxford 1968.
<b>OnomThrac</b>	D. Dana, <i>Onomasticon Thracicum. Répertoire des noms indigènes de Thrace, Macédoine Orientale, Mésies, Dacie et Bithynie</i> , Μελετήματα 70, Athens 2014.
<b>OpArch</b>	Opvscvla Archaeologica Radovi Arheološkog zavoda – Opuscula Archaeologica Papers of the Department of Archaeology, Zagreb.
<b>OPEL</b>	B. Lőrincz, F. Redő et alii, <i>Onomasticon Provinciarum Europae Latinarum</i> , I–IV, Budapest 1994–2005.
<b>ORA</b>	Orientalische Religionen in der Antike.
<b>Orghidan</b>	V. Laurent, <i>La collection Orghidan</i> , Paris 1952.
<b>Oriens et Occidens</b>	<i>Oriens et Occidens</i> . Studien zu antiken Kulturkontakten und ihrem Nachleben, Stuttgart.
<b>ORL</b>	ORL. Der obergermanisch-raetische Limes des Roemerreiches.
<b>Ősrégészeti Levelek</b>	Ősrégészeti Levelek. Prehistoric newsletter, Budapest.
<b>PamátkyArch</b>	Památky Archeologické, Praga.
<b>PAS</b>	Prähistorische Archäologie in Südosteuropa, Berlin.
<b>PAT</b>	<i>Patrimonium Archaeologicum Transylvanicum</i> , Cluj-Napoca.
<b>PAwB</b>	Potsdamer Altertumswissenschaftliche Beiträge.
<b>PBF</b>	Prähistorische Bronzefunde, Berlin.
<b>PECS</b>	R. Stillwell, W. L. MacDonald, M. Holland McAllister (eds.), <i>The Princeton Encyclopedia of Classical Sites</i> , Princeton University Press 1976.
<b>Peuce</b>	<i>Peuce</i> . Institutul de Cercetări Eco-Muzeale “Gavrilă Simion”, Tulcea.
<b>PF 5</b>	U. Mandel, <i>Kleinasiatische Reliefkeramik der mittleren Kaiserzeit. Die “Oinophorengruppe” und Verwandtes</i> , Pergamenische Forschungen 5, Berlin – New York 1980.
<b>Phil.-Hist. Klasse</b>	Preussischen Akademie der Wissenschaften, Phil.-Hist. Klasse, Berlin.
<b>Phoenix</b>	<i>Phoenix</i> . Classical Association of Canada, Toronto.
<b>PIR</b>	<i>Prosopographia Imperii Romani</i> , Berlin 1897–1898.

<b>PIR2</b>	E. Groag, A. Stein et alii, <i>Prosopographia Imperii Romani</i> <sup>2</sup> , Berlin 1933 sqq.
<b>P. Lond</b>	F. G. Kenyon, H. I. Bell (eds.), <i>Greek Papyri in the British Museum</i> , London 1893–1917.
<b>PLRE</b>	A. H. M. Jones, J. R. Martindale, J. Morris (eds.), <i>Prosopography of the Later Roman Empire</i> , I–III, Cambridge 1971–1992.
<b>P. Mich.</b>	<i>Papyri in the University of Michigan Collection</i> .
<b>Pontica</b>	<i>Pontica</i> . Studii și materiale de istorie, arheologie și muzeografie, Constanța.
<b>Potaissa</b>	<i>Potaissa</i> . Studii și Comunicări, Turda.
<b>P. Oxy.</b>	<i>Oxyrhynchus Papyri</i> .
<b>Probleme de Muzeologie</b>	<i>Probleme de Muzeologie</i> , București.
<b>PZ</b>	<i>Prähistorische Zeitschrift</i> , Berlin.
<b>RCRF Acta</b>	<i>Rei Cretariae Romanae Fautorum Acta</i> .
<b>RD</b>	F. Rómer, E. Desjardins, A Magyar Nemzeti Múzeum római feliratos emlékei – <i>Inscriptiones monumentorum Romanorum Musei Nationalis, Acta Nova Musei Nationalis</i> , 1, Budapest 1873.
<b>RE</b>	A. Pauly, G. Wissowa, W. Kroll, K. Ziegler (eds.), <i>Realencyclopädie der classischen altertumswissenschaft</i> , Stuttgart 1893 sqq.
<b>Religion</b>	<i>Religion</i> , <a href="http://www.tandfonline.com/">http://www.tandfonline.com/</a> .
<b>Religious Studies</b>	<i>Religious Studies</i> . An International Journal for the Philosophy of Religion, Cambridge.
<b>Rheinisches Museum</b>	<i>Rheinisches Museum für Philologie</i> , Köln.
<b>RepCluj</b>	I. H. Crișan, M. Bărbulescu, E. Chirilă, V. Vasiliev, I. Winkler, <i>Repertoriul arheologic al județului Cluj</i> , Cluj-Napoca 1992.
<b>RepHargita</b>	V. Cavruc (ed.), <i>Repertoriul arheologic al județului Harghita</i> , Sfântu Gheorghe 2000.
<b>Revista Arheologică</b>	<i>Revista Arheologică</i> , Chișinău.
<b>RB</b>	<i>Revista Bistriței</i> , Bistrița.
<b>Revista Fundațiilor Regale</b>	<i>Revista Fundațiilor Regale</i> : revistă lunară de literatură, artă și cultură generală, București.
<b>Revista de Istorie</b>	<i>Revista de istorie</i> . Academia de Științe Sociale și Politice a Republicii Socialiste România. Secția de Istorie și Arheologie, București.
<b>RevMuz</b>	<i>Revista Muzeelor</i> , București.
<b>Revue Roumaine d'Histoire</b>	<i>Revue Roumaine d'Histoire</i> , Bucarest.
<b>RGZM</b>	B. Pferdehirt, <i>Römische Militärdiplome und Entlassungsurkunden in der Sammlung des Römisch-Germanischen Zentralmuseums</i> , I–II, Mainz – Bonn 2004.
<b>RIB</b>	<i>The Roman Inscriptions of Britain</i> , Oxford 1965 sqq.
<b>RIC</b>	<i>Roman Imperial Coinage</i> , London 1923–

<b>RIT</b>	G. Alföldi, Die römischen Inschriften von Tarraco, Berlin 1975.
<b>RIU</b>	Die römischen Inschriften Ungarns, I–VI, Budapest – Bonn 1972–2001.
<b>Rivista storica dell'antichità</b>	Rivista storica dell'antichità, Roma.
<b>Rivista di storia della chiesa in Italia</b>	Rivista di storia della chiesa in Italia, Milano.
<b>RMD</b>	M. M. Roxan, P. Holder, Roman Military Diplomas, I–V, London 1978–2006.
<b>RMI</b>	Revista Monumentelor Istorice, București.
<b>Romanian Journal of Archaeology</b>	Romanian Journal of Archaeology, <a href="http://apar.archaeology.ro/rja.htm">http://apar.archaeology.ro/rja.htm</a> .
<b>RMR</b>	R. O. Fink, Roman Military Records on Papyrus, Cleveland, Ohio 1971.
<b>RPC I</b>	A. Burnett et alii, Roman Provincial Coinage I: From the Death of Caesar to the Death of Vitellius (44 BC – AD 69), London, Paris 1992.
<b>RPMK</b>	Th. F. X. Noble (ed.), From Roman provinces to Medieval kingdoms. Rewriting Histories, New York – Abingdon, Oxon 2006.
<b>RR</b>	Römer in Rumänien. Ausstellung des Römisch-Germanischen Museums Köln und des Historischen Museums Cluj, 12. Februar – 18 Mai 1969, Köln 1969.
<b>RRE</b>	Religion in the Roman Empire, Erfurt.
<b>RSS</b>	A. Mócsy, T. Szentlélek, Die römischen Steindenkmäler von Savaria, Budapest 1971.
<b>SA</b>	<i>Studia Archaeologica</i> , Roma.
<b>SAA</b>	<i>Studia Antiqua et Archaeologica</i> , Iași.
<b>Saggi</b>	I Saggi, Roma.
<b>Saldvie</b>	Saldvie: Estudios de prehistoria y arqueología. Open Access Journal.
<b>Sargetia</b>	<i>Sargetia</i> . Buletinul Muzeului Județean Hunedoara, Deva.
<b>Savaria</b>	<i>Savaria</i> . A Vas Megyei Múzeumok Értésítője, Szombathely.
<b>SAWW</b>	Sitzungsberichte der Österreichischen Akademie der Wissenschaften in Wien, Philosophisch-historische Klasse, Wien.
<b>SBA</b>	Schweizerische Beiträge zur Altertumswissenschaft.
<b>SCIV(A)</b>	Studii și cercetări de istorie veche (și arheologie – since 1975), București.
<b>SCN</b>	Studii și cercetări de numismatică, București.
<b>SEG</b>	<i>Supplementum Epigraphicum Graecum</i> , Leiden 1923 sqq.
<b>Silber und Salz</b>	R. Slotta, V. Wollmann, I. Dordea, Silber und Salz in Siebenbürgen. Katalog zur Ausstellung im Deutschen Bergbau-Museum Bochum « Das Gold der Karpaten – Bergbau in Roșia Montană » vom 27. Oktober 2002 bis zum 05. August 2003, IV (Einleitende Aufsätze, Reiseberichte sowie geologische und mineralogische Literatur), Bochum 2002.
<b>Situla</b>	<i>Situla</i> . Razprave Narodnega Muzeja v Ljubljani – <i>Dissertationes Musei Nationales Labacensis</i> , Ljubljana.

<b>SlovArch</b>	Slovenská Archeológia, Nitra.
<b>SMMIM</b>	Studii și materiale de muzeografie și istorie militară, București.
<b>MSMR</b>	Studi e Materiali di Storia delle Religioni.
<b>Social History of Medicine</b>	Social History of Medicine, Oxford.
<b>Somogyi Múzeumok Közleményei</b>	Somogyi Múzeumok Közleményei. Mitteilungen der Museen des Komitates Somogy, Kaposvár.
<b>SpecNov</b>	<i>Specimina Nova Dissertationum ex Institutis Historiae Antiquae et Archaeologiae Universitatis Quinqueecclesiensis</i> , Pécs.
<b>StComBrukenthal</b>	Studii și comunicări, Muzeul Brukenthal, Sibiu.
<b>StComSatuMare</b>	Studii și comunicări, Satu Mare.
<b>Studii de Preistorie</b>	Studii de Preistorie, <a href="http://arheologie.ro">http://arheologie.ro</a> .
<b>SympThrac</b>	<i>Symposia Thracologica</i> . Lucrările Simpozionului Anual de Tracologie, Institutul Român de Tracologie, București.
<b>TabCerDac</b>	I. I. Russu, <i>Tabulae Ceratae Dacicae</i> . In: IDR, I, 1975, 165–256.
<b>TED'A</b>	Taller Escola d'Arqueologia de Tarragona.
<b>Terra Sebus</b>	<i>Terra Sebus. Acta Musei Sabesiensis</i> , Sebeș.
<b>ThesCRA</b>	M. Greenberg (ed.), <i>Thesaurus Cultus et Rituum Antiquorum</i> , Los Angeles 2004.
<b>Thraco-Dacica</b>	<i>Thraco-Dacica</i> . Institutul de Tracologie, București.
<b>TIR</b>	<i>Tabula Imperii Romani</i> .
<b>Tisicum</b>	<i>Tisicum</i> . A Szolnok megyei múzeumi évkönyv, Szolnok.
<b>TitAq</b>	P. Kovács, Á. Szabó, <i>Tituli Aquincenses</i> , Budapest 2009 sqq.
<b>Transactions Philadelphia</b>	University of Pennsylvania. Transactions of the Department of Archaeology, Free Museum of Science and Art, Philadelphia.
<b>Transylvanian Review</b>	Transylvanian Review. Revue de Transylvanie, Cluj-Napoca.
<b>TRHR</b>	P. Kovács, <i>Tituli Romani in Hungaria reperti. Supplementum</i> , Budapest – Bonn 2005.
<b>Tyragetia</b>	<i>Tyragetia</i> . Muzeul Național de Istorie a Moldovei, Chișinău.
<b>UPA</b>	Universitätsforschungen zur Prähistorischen Archäologie, Bonn.
<b>Zentraleuropäische Archäologie</b>	Zentraleuropäische Archäologie. Österreichischen Akademie der Wissenschaften, Wien.
<b>Ziridava</b>	<i>Ziridava</i> . Complexul Muzeal Arad.

#### Institutions:

<b>CEROR</b>	Centre d'Études et de Recherches sur l'Occident Romain, Lyon.
<b>ICEM</b>	Institutul de Cercetări Eco-Muzeale „Gavrilă Simion” Tulcea.
<b>MAVORS</b>	MAVORS – Institute for Ancient Military History.
<b>MCDR</b>	Muzeul Civilizației Dacice și Romane Deva.
<b>MIR</b>	Muzeul de Istorie Roman.



<b>MIT</b>	Muzeul de Istorie Turda.
<b>MJIAZ</b>	Muzeul Județean de Istorie și Artă Zalău.
<b>MNIR</b>	Muzeul Național de Istorie a României, București.
<b>MNIT</b>	Muzeul Național de Istorie a Transilvaniei, Cluj-Napoca.
<b>MNM = HNM</b>	Magyar Nemzeti Múzeum = Hungarian National Museum, Budapest.
<b>MNUAI</b>	Muzeul Național al Unirii Alba-Iulia.
<b>MȚC</b>	Muzeul Țării Crișurilor, Oradea.
<b>NMB</b>	The Nationam Bardo Museum, Tunis.