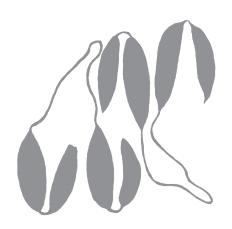
ZIRIDAVA STUDIA ARCHAEOLOGICA

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The content of the papers totally involve the responsibility of the authors.

Layout: Francisc Baja, Florin Mărginean, Victor Sava

ISSN 2392-8786



EDITURA MEGA | www.edituramega.ro e-mail: mega@edituramega.ro

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Roman Sites and Discoveries Around Potaissa (V). New Data and Clarifications Regarding the Cheia Settlement and the Stone Quarries of Roman Dacia*

Andrei-Cătălin Dîscă

Abstract: In AD 106, Dacia was transformed into a Roman province. One of the first settlements recorded within the new province as early as its first years of existence was Potaissa (Turda, Cluj County). Over the following decades, this settlement would become one of the most important urban and military centres of Dacia, the encamping there around AD 169 of Legio V Macedonica representing a powerful catalyst for its development. After this date, Potaissa grows at such an accelerated rate that by late 2nd century AD, it accedes to the status of municipium. The raw building material that facilitated both the civil settlement's development and the construction of the legionary fortress was mainly ensured by the quarries of Cheia, Săndulești and Copăceni, their traces enduring until the modern age. By late 19th century, respective quarries were ones of the best preserved in Dacia, reason for which the Roman age remains in the area were extensively investigated at the time. Unfortunately, over the course of the last century, such approaches were not furthered with the same intensity. In the current state of research, the academic literature reports on the territory of Cheia village a settlement and several points where stone was quarried, however all are lacking accurate topographic data. A series of field investigations have been recently carried out in order to obtain such information, which resulted in the identification of the settlement on the Parde Valley and of a few stone quarrying points. A more detailed picture of the Cheia village territory during the Roman age was outlined by corroborating these results with those obtained by late 19th and early 20th century, which the study here aims to present.

Keywords: Roman Dacia; Potaissa; Cheia; settlement; quarries; archaeological mapping.

General framework

At 6 km south-west of Roman Potaissa (the current municipality of Turda, Cluj County), on the left bank of the Arieş river, in the contact area between the Western Carpathians and the Transylvanian Basin, lies the village of Cheia (*Mészkő* in Hungarian), currently known especially owing to its important limestone quarry located just north-west the village, not far from the Turda Gorge (Fig. 1/1–2). In this respect, circumstances did not alter very much from the Roman period, when the quarries of Cheia, together with those of Săndulești and Copăceni, were known in the area as the main sources of building materials for both the fortress of the Legio V Macedonica and the civil settlement of Potaissa¹.

First mentions regarding the use of the Cheia quarries during the Roman period appear in Ferdinand Neigebaur's work on Dacia, published by mid-19th century². In the second half of the same century, the area is repeatedly investigated by a series of historians and archaeologists among whom count Balázs Orbán, Károly Torma, Gábor Téglás and István Téglás³, their interest being kindled by both the large quantity of archaeological materials there and the preservation degree of the ancient quarries (Pl. 1/1). Because of their input, the quarries of Cheia, Săndulești and Copăceni currently count among the best documented in Roman Dacia.

^{*} English translation: Gabriela Safta.

This study is part of a series aimed at publishing certain field research carried out in the context of a large-scale project encompassing all Roman date sites in the vicinity of Potaissa. The project is part of a PhD thesis titled *Perioada romană în bazinul hidrografic al Arieșului (The Roman Period in the Drainage Basin of the Arieș River)*, coordinated by: Associate Professor PhD Habil. Florin Fodorean, "Babeș-Bolyai" University of Cluj-Napoca.

² Neigebaur 1851, 195–200.

³ Torma 1879, 102; Téglás 1889, 289–295; Téglás 1893, 13–19; Téglás 1907, 9–11; Bajusz 2005a, 229–235; 348–359; Bajusz 2005b, 490–495.

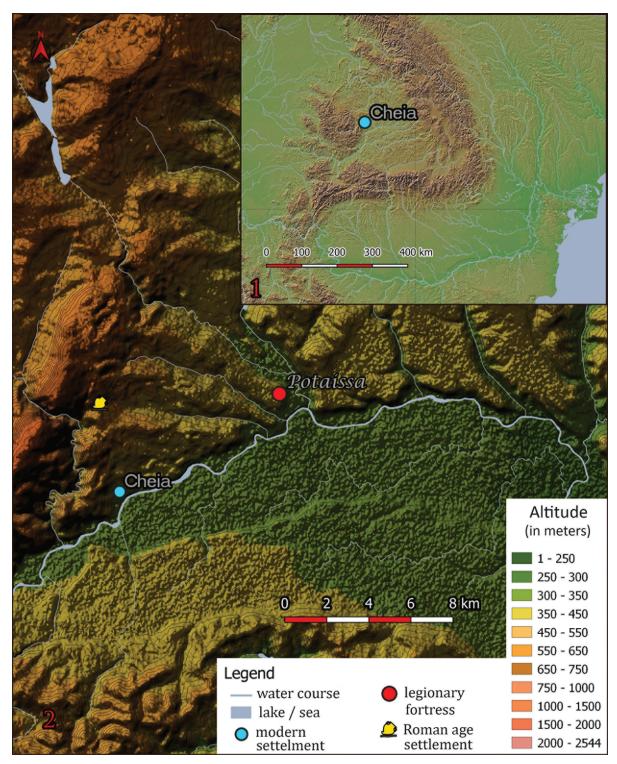


Fig. 1. Location of the Cheia village and the Parde Valley site (Digital Elevation Model).

The stone quarrying points, the scale at which these operations took place and the working technique were most consistently documented in the studies and drawings published by Gábor Téglás. These studies were not yet accompanied by a map that would chart the identified points, hence, if with regards to the quarrying methods, archaeological inventory and general appearance of the quarries we are rather well informed, in terms of their topography the image is approximate. Over the course of the 20th century and early this century, few approaches have been tackling this aspect despite the fact that two large quarries still operate in the area, the idea that a large part of the ancient quarries was destroyed by the new exploitations of Cheia and Săndulești being generally accepted.

In order to determine to what extent this hypothesis is accurate and locate the possible Roman

age sites still existing in the area, a series of field investigations were initiated since only part of the area where the limestone crops out between the Tureni Gorge and the Turda Gorge was impacted by the last century quarrying and the current exploitations of Cheia and Săndulești. Subsequently, a Roman settlement was identified in the field on Parde Valley as well as several stone quarrying points dated to the pre-modern period, very likely even of Roman age, based on their location, specificities and quarrying technique.

Starting from above mentioned field research, the goal of this study is three-fold: I) to present the data and materials resulted from field investigations; II) to correlate new data with those previously existing in the academic literature on Roman age finds from the area; and III) to evidence the role of the Roman settlement on Parde Valley and the Cheia – Săndulești – Copăceni quarries by reference with other similar finds from Dacia and the Roman empire.

I. The results of the field investigations

a) The settlement on the Parde Valley – it was identified at 2.5 km north of Cheia and 1 km east of the Turda Gorge, on both sides of county road DJ 103G Săndulești - Cheia on the eastern and western slopes of Alb Hill, in a point with elevations varying between 500 and 545 m. This point is protected against air masses movement from the north and west by the Sand and Petrid Hills, being though entirely exposed from the south and east (Fig. 1/2; Fig. 2).

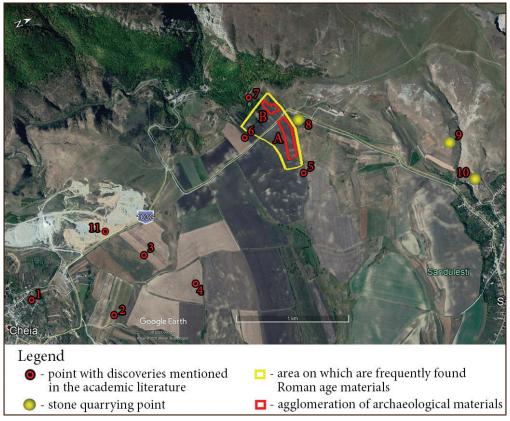


Fig. 2. Spots with Roman finds around Cheia village (1 – village residential area; 2 – Şoşcut; 3 – Atolba; 4 - Imezeu; 5 - Valea Parde; 6 - Dealul Alb; 7 - Piatra Tăiată; 8-10 - ancient quarrying points still visible on the ground; 11 - Cheia stone quarry under exploitation).

As it also may be seen in a study discussing the Cheia village toponymy published by Jenő Janitsek by early 2000⁴, the Parde stream (or Parde Valley; in Hungarian Pardé pataka) designates a watercourse situated north of the village. This watercourse, alongside which lay most of the Cheia and Săndulești village boundaries, is commonly labelled on surveys as Valea Lungă⁵ or the Hungarian equivalent

Janitsek 2007, 149-152.

Planurile directoare de tragere (Topographic military map, scale 1:20.000), http://geo-spatial.org/harti/#/viewer/

Hosszú völgy⁶. The valley's headwater, oriented west-east, lies nearby the Turda Gorge, east of Alb Hill (Szőkedomb in Hungarian), while the location of its flow into the Arieş river lies precisely to the southwest of Turda town, across the entry into the municipality from national road DN1.

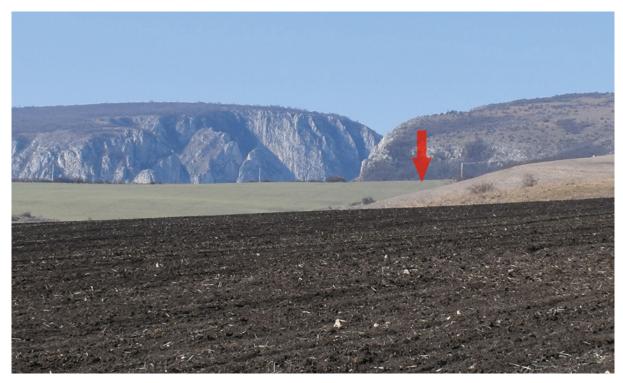


Fig. 3. The Roman age site and the Turda Gorge seen from the east, from the medieval settlement.

The eastern limit of the Roman age settlement was identified west of one of the Parde stream sources, delimited in the field by two assemblages of archaeological materials. The first extended from at ca. 500 m west said source to east of county road DJ 103G (Fig. 2/A). The second started at ca. 50 m west of DJ 103G and could be traced on mentioned direction to the farming land limits (Fig. 2/B).

The first assemblage of archaeological materials, that east of DJ 103G, stretches on a 2.60 ha area 7 (Fig. 2/A; Fig. 3). There were noticed important quantities of stone, roof tiles, bricks and Roman tradition pottery (Fig. 4/1–2; Pl. 4/21–24). Beside Roman materials there also emerge sporadic prehistoric and medieval potshards. The latter may be found in much more significant quantities east of this location, on the banks of the Parde stream, where Pardéfalva village is recorded in the medieval period 8 (Pl. 5). Beside pottery, in respective place are also frequent brick pieces and masonry remains.

The second assemblage of archaeological materials, located west of DJ 103G (Fig. 2/B), extends on a 0.80 ha area⁹ and comprises the same material classes as the first, with the difference that prehistoric materials emerge in much more significant quantities (Pl. 5). In the vicinity of the two assemblages, on a 16.50 ha area, archaeological materials continue to frequently emerge¹⁰ (Fig. 2).

The repertory of Roman tradition pottery from assemblages A and B includes amphorae, amphorettes, bowls, cups, *dolia*, plates, pots, beakers and jugs (Pl. 2, 3, 4; Catalogue, no. 1–25). Overall, the

openlayers/10.

The second Austrian military survey, https://maps.arcanum.com/en/map/europe-19century-secondsurvey/?layers=15 8%2C164&bbox=2639551.9429987827%2C5869969.239096602%2C2645585.6909190435%2C5872152.471716998; The third Austrian military survey, https://maps.arcanum.com/en/map/thirdsurvey25000/?bbox=2640526.51510941 7%2C5869937.390237625%2C2646560.263029678%2C5872120.6228580205&map-list=1&layers=129.

Geographical coordinates: 46°34′5.40″N, 23°42′8.60″E; 46°34′2.93″N, 23°42′8.42″E; 46°34′3.77″N, 23°41′52.87″E; 46°34′5.85″N, 23°41′51.43″E.

⁸ Orbán 1871, 159–161.

⁹ Geographical coordinates: 46°34′5.37″N, 23°41′48.32″E; 46°34′2.72″N, 23°41′48.52″E; 46°34′1.24″N, 23°41′42.83″E; 46°34′4.07″N, 23°41′44.44″E.

Geographical coordinates: 46°34′5.73″N, 23°42′12.89″E; 46°34′1.24″N, 23°42′12.42″E; 46°33′53.63″N, 23°41′49.00″E; 46°34′3.86″N, 23°41′39.44″E.

pottery identified in the Cheia settlement is of good quality, represented by wares made of semi-fine fabric, oxidised and covered on both the interior and exterior by a good quality colour-coating. Among the discovered wares, there may be distinguished 3 bowls of type Dragendorff 37 (Pl. 2/3, 7, 9; Pl. 4/11, 8, 10; Catalogue, no. 3, 7, 9), 2 bowls of type Dragendorff 44 (Pl. 2/1, 5; Pl. 4/13, 9; Catalogue, no. 1, 5), a plate of type Curle 15 (Pl. 2/15; Catalogue, no. 15) and two amphora fragments, which, inasmuch as it may be inferred from the surviving pieces, are of types Almagro 50 (Pl. 3/9; Pl. 4/2; Catalogue, no. 24), respectively Dressel - 14b (Pl. 3/10; Pl. 4/3; Catalogue, no. 25). Lastly, it is also worth mentioning a fragment of a vaulting tube (Pl. 2/14; Pl. 4/4; Catalogue, no. 14) used for, as evidenced by its name, in the building vaulting system.



Fig. 4. Masonry remains and archaeological materials on the Parde Valley site.

Chronologically, above mentioned pottery types date overall between the 1st – 4th century AD. More specifically, type Dragendorf 44, one of the most frequent forms in Napoca and Potaissa, starts to be produced as early as the 1st century AD, with a production peak over the 2nd-3rd century AD, being though still manufactured until the 4th century AD. Derived from type Dragendorff 44, type Dragendorff 37 circulated from the Flavian period until the 4th century AD, representing one of the most spread pottery forms throughout the empire. Nevertheless, in the legionary fortress of Potaissa, this form is rather infrequent¹¹. Comparatively, plates Curle 15, disseminating in the 2nd–3rd century AD, emerge more frequently within the fortress¹². Regarding the two amphorae, type Almagro 50 is diffused especially by late 2nd century AD and during the 3rd century AD¹³, while type Dressel 14b is mainly distributed over the course of the 1^{st} – 2^{nd} century AD and to a certain extent even by early 3^{rd} century AD14.

b) Stone quarrying points - these were noted on several locations from the settlement on the Parde Valley to the entry into the Săndulești village boundary, most obvious being those marked on Fig. 2 by numbers 8–10¹⁵. These lie in areas where the limestone rock crops out, usually by the edges of small valleys or gushes where over the course of time, by erosion, a strongly sloping plan was naturally

Rusu-Bolindet 2007, 207, 383-386; Nedelea 2017, 95, 107; Andone-Rotaru, Nedelea 2018, 82-83, Fig. 11.

Rusu-Bolindeț 2007, 207; Nedelea 2017, 107; Andone-Rotaru, Nedelea 2018, 83, Fig. 11.

Ardet 2006, 84-85.

Ardet 2006, 83-84.

Geographic coordinates: 8) 46°34'9.59"N, 23°41'54.57"E; 9) 46°34'47.42"N, 23°42'24.51"E; 10) 46°34'51.29"N, 23°42'42.36"E.

created, from where the rock could be detached with minimum effort. Cavities created subsequent to anthropic activities are different by alignment and verticality from those naturally created over the time by erosion.

Currently, most part of the surface of these points is covered by vegetation, however, in certain areas are still visible the places from where stone blocks were detached (Fig. 5) and even the vertical and horizontal grooves made by the picks and chisels of the quarry workers for this purpose. The techniques and work methods documented in these points are concordant with the data from the academic literature published by late 19th century and early 20th century¹⁶.

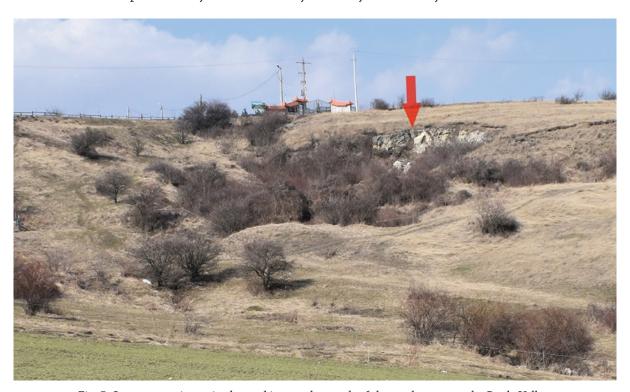


Fig. 5. Stone quarrying point located just to the north of the settlement on the Parde Valley.

II. Data from the academic literature

a) The settlement on the Parde Valley – it is known, similarly to stone quarries, especially owing to the research performed until around WWI by Balázs Orbán, Gábor Téglás and István Téglás.

In his monumental work dedicated to the Székely Land, Balázs Orbán, mentioned that in points Atolba and Parde ($\acute{A}tol$, respectively $Pard\acute{e}$ in Hungarian) are found masonry remains and archaeological materials of medieval date coming most likely from the former villages of Átalteluk and Pardéfalva, out of which, according to the tradition, later formed the village of Cheia. In this context Orbán also reported that in the two points may also be found important quantities of Roman bricks, roof tiles and pottery. According to his description, the Roman materials from the Parde point stretch from the namesake stream mouths to the Alb Hill, across the Turda Gorge¹⁷ (Fig. 2/5–6).

Gábor Téglás explained that the site measured around 3 hectares, likely representing a small settlement inhabited by the stone quarry workers, as indicated by the masonry remains, bricks, roof tiles and pottery identified there¹⁸.

István Téglás, who investigated the site on several occasions, mentioned the walls of Roman buildings discovered on the farming lands located on the border between the Cheia and Săndulești villages, nearby the place called Piatra Tăiată, literally meaning *The Cut Stone* (in Hungarian *Vágottkő*;), one of the best-known stone quarrying points¹⁹ (Fig. 2/7; Pl. 1/1).

¹⁶ Téglás 1889, 289–295; Téglás 1893, 13–19.

¹⁷ Orbán 1871, 159–161.

¹⁸ Téglás 1893, 13–19.

¹⁹ Bajusz 2005a, 350.

b) Stone quarrying points – these were identified by late 19th century and early 20th century on the entire area stretching from the territory of the Cheia village, east of Turda Gorge, across the territory of the Săndulești village up to the territory of the Copăceni village, at Izvoarele Copăcenilor²⁰.

The investigations carried out by Gábor Téglás indicated that stone sources in this area were also used in the periods following that Roman, one specific case dating to early 17th century, when prince Gabriel Bethlen rebuilds in stone carried from Turda, the church and palace from Alba Iulia destroyed by the Ottomans. Nevertheless, Roman age quarrying from Cheia was still well preserved by late 19th century since the Săndulești and Copăceni points were most often chosen, as roads running there were far more accessible, or even the walls of the Roman fortress, which represented the main "quarry" of the Turda town for centuries²¹.

The points identified in above area covered relatively small surfaces, where a number up to 10 labourers could work. Commonly, their sizes varied between 3-5 m wide, 4-12 length and 4-7 m height. On the walls and surfaces created by the stone blocks quarrying could be easily distinguished the grooves made by the chisels, picks and wedges used by the workers. In one of these points was identified a cavity excavated in the rock interpreted as the place where likely the workers deposited their tools²².

As already mentioned, one of the best preserved and documented ancient stone quarrying points was at Piatra Tăiată (Fig. 2/7; Pl. 1/1). From available data in the I. and G. Téglás works it results that point Piatra Tăiată lay in the vicinity of Turda Gorge, on the boundary between the Cheia and Săndulești villages²³ and not only on the territory of the latter, as frequently indicated²⁴. The place was situated more exactly by the end of the Parde Valley, west the former Pardéfalva village, being partially held at that date, by a resident of Săndulești²⁵. Except the stone quarrying traces there were also identified roof tiles, pottery, a grinder, a fragment of a possible pick (Pl. 1/4), the head of an anthropomorphic statuette (Pl. 1/3), a silver ring, a trilychnis lamp with circular reservoir and several $coins^{26}$.

The lamp discovered at Cheia (Pl. 1/2), an item decorated on the disc with an aquila with the head turned right and half-open wings, had two filling holes set by the base of the bird's wings. In front each nozzle, in the contact area with the reservoir, the piece was decorated with a fan of elongated ovolos each, and on the leaf-shaped handle a series of spirals were set²⁷. The piece might have been possibly produced precisely in the workshops of Potaissa, known for the trilychnis lamps in the Firmalampe class of type X Loeschcke²⁸. An almost identical parallel, however in fragmentary state, comes from Cășei²⁹.

The coins retrieved from the point Piatra Tăiată are four in number, of which one "Barbarian" and three Roman. The "Barbarian" coin, a beautiful and rare silver tetradrachm, 23 mm in diameter, displays on the obverse a laurelled head, wavy hair, beard and helmet, and on the reverse, a horseman, young, with legend $\Phi I\Lambda I\Pi$ nearby, and in front of it $\Box \Lambda \coprod^{30}$. The three Roman coins are exclusively represented by silver denarii, of which one with a 19 mm diameter (issued under Domitianus, on the reverse with a standing soldier)31 and two 18 mm in diameter (one on the obverse with legend --- AVR A---INOS--- and reverse a standing soldier³², while on the other a standing figure on the reverse) ³³.

Neigebaur 1851, 195-200; Torma 1879, 102; Téglás 1889, 289-295; Téglás 1893, 13-19; Téglás 1907, 9-11; Bajusz 2005a, 229-235, 348-359; Bajusz 2005b, 490-495.

Téglás 1893, 18-19.

²² Téglás 1889, 289–295; Téglás 1893, 13–19.

²³ Téglás 1889, 289–295; Téglás 1893, 13–19; Bajusz 2005a, 229–235, 348–359; Bajusz 2005b, 490–495.

²⁴ Wollmann 1973, 108; Bărbulescu 1987, 86; *RepCj.*, 95, Cheia, no. 4; 338, Săndulești, no. 1; Wollmann 1996, 262, 270– 271; LMI CJ-I-s-A-07164; RAN 55320.01 - http://ran.cimec.ro/sel.asp?descript=sandulesti-sandulesti-cluj-cariera-depiatra-de-la-sandulesti-piatra-taiata-cod-sit-ran-55320.01&Lang=EN.

Bajusz 2005a, 349.

Téglás 1889, 289-295; Téglás 1893, 13-19; Bajusz 2005a, 229-235, 348-359.

Bajusz 2005a, 348-349, Fig. 32/5-6.

Roman 2005, 251-252, no. 147-150, Fig. 27-30.

Roman 2005, 308, no. 398, Fig. 63, Pl. 28.

Winkler, Hopârtean 1973, 126, no. 6/1

Winkler, Hopârtean 1973, 126, no. 6/2

Winkler, Hopârtean 1973, 126, no. 6/3.

³³ Winkler, Hopârtean 1973, 126, no. 6/4.

Unfortunately, most part of the Roman quarrying in the Piatra Tăiată point was "erased" after 1889 by a few inhabitants of Cheia and Săndulești who started to quarry again stone from there³⁴.

c) Other points with finds – except the stone quarries and the settlement on the Parde Valley, on the territory of Cheia village are also mentioned a series of Roman age finds within the village residential area, on the territory of the current stone quarry and at Atolba and Imezeu.

Within the village residential area were reported several epigraphic monuments and fragments of architectonic decorations³⁵, however not bricks, tile or pottery (Fig. 2/1). This was interpreted as an indication that Roman materials there lay in secondary position, carried from other sites. In this context it is important to specify that although the reasoning is likely accurate, the place of origin of these materials must be rather sought on the sites of Atolba and Parde³⁶, rather than Potaissa, as maintained in the past³⁷. Arguments supporting this statement rely both on the distance to these sites as well as the quantity and nature of the finds there.

North-west the village residential area, within the perimeter of the current stone quarry, a denarius of Macrinus, 19 mm in diameter⁴², was discovered in 1966 (Fig. 2/11).

Nearby the stone quarry, at point Atolba, from the Şoşcut spring (in Hungarian *Sóskút*) towards Hășdate stream, near the old road towards the Turda Gorge are reported much more consistent finds (Fig. 2/2–3). There, where Orbán Balázs argued it also likely lay the former village of Átalteluk were identified masonry remains, roof tiles, bricks, sculptural fragments, pottery and coins⁴³. The latter were discovered in various preservation states, so that not all could be determined. Of those determined, two are silver pieces (one denarius of Trajan, on the reverse with an enthroned figure⁴⁴ and another coin, with a diameter of 19 mm, had on the obverse legend IVLIA MAMMAEA AVG and on the reverse --- ALTE PVBLICA⁴⁵), and one in copper (a very worn piece, likely of Marcus Aurelius, 25 mm in diameter and a figure on the reverse⁴⁶). Those undetermined are represented by three silver worn and torn pieces⁴⁷.

North-east of the point at Atolba, in the place called Imezeu⁴⁸ (in Hungarian $\not Emez \~o$), were discovered other two coins (Fig. 2/4). One of the coins retrieved from Imezeu is a bronze piece, Roman in date, with a diameter of 25 mm, on the obverse with Trajan's image and the reverse with the figure of the standing soldier⁴⁹. The other is a Greek origin silver piece, 18 mm in diameter, on with a bust on the obverse and a biga on the reverse⁵⁰.

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<sup>34</sup> Téglás 1907, 9–11; Bajusz 2005b, 492;
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³⁵ Orbán 1871, 161; Torma 1879, 102, no. 40, 41; CIL III, 7707, 7673; Téglás 1908, 361; ILD 476.

This view is also shared by S. Nemeti, I. Nemeti and F. Fodorean in Nemeti et al. 2003, 71.

³⁷ *RepCj.*, 94–95, Cheia, no. 1.

³⁸ Orbán 1871, 161.

³⁹ Torma 1879, 102, no. 41; CIL III, 7707.

⁴⁰ Torma 1879, 102, no. 40; CIL III, 7673.

⁴¹ Téglás 1908, 361; ILD 476.

⁴² Winkler, Hopârtean 1973, 125, no. 4/5.

 $^{^{\}rm 43}$ Orbán 1871, 159–161; Téglás 1889, 295; Bajusz 2005a, 229–235; Janitsek 2007, 149–152.

 $^{^{44}}$ $\,$ Winkler, Hopârtean 1973, 125, no. 4/1;

⁴⁵ Bajusz 2005a, 234.

⁴⁶ Winkler, Hopârtean 1973, 125, no. 4/3; Bajusz 2005a, 234.

 $^{^{\}rm 47}~$ Winkler, Hopârtean 1973, 125, no. 4/8–9; Bajusz 2005a, 234.

From the available data in Jenő Janitsek's study and Hǎrṭile Topografice Militare la scara 1:25.000 (The Military Survey Maps at scale 1:25.000), it results that this point lies at ca. 1.2 km north-east the village limits and a few hundred meters of point Atolba. In the Romanian archaeological literature, the point is currently termed "Plain at an angle", however in Janitsek's list (Janitsek 2007, 149–152) the Romanian equivalent for Émező is Imezeu, the term "Plain at an angle" not being found.

 $^{^{49}}$ Winkler, Hopârtean 1973, 125, no. 4/2

⁵⁰ Winkler, Hopârtean 1973, 125, no. 4/7.

Lastly, another bronze coin with a diameter of 18 mm, bears on the obverse the text ---TIMV[---] C[---], and on the reverse a standing deity, holding the cornucopia and legend FELICITAS ---, was discovered on the territory of the Cheia village, however there is inaccurate information on its place of origin⁵¹.

III. Observations and interpretations regarding the finds of Cheia

The development of the stone quarries east of the Turda Gorge was determined by several factors, of which the most important were the following: the local stone demand, the general regulations on stone quarrying in the Roman empire and lastly, the area's topography and geological structure.

The local stone demand may be presumed to have been high as early as the first years of existence of the province of Dacia. Already around AD 108 are recorded, by the Aiton milestone, the settlement of Potaissa and the road linking it to Napoca⁵². Over the following decades, several rural settlements emerge in the area, while on the Zânelor Hill an auxiliary unit fort53 is supposed to have been functioning. Once with the displacement to Potaissa of legion V Macedonica, the stone demand increased exponentially, limestone being the main building material used for the construction of enclosure walls and legionary fortress's buildings.

Given the military presence and the infrastructure projects that the Roman state developed in the area, as well as the fact that a significant part of the large quarries within the empire were under the army's or imperial administration's control, many scholars believed that the stone quarries of Cheia - Săndulești - Copăceni area were under direct state control, similarly to many of the quarries in Dacia⁵⁴. It was even argued that the Roman empire put in place a sort of "nationalising" program for mines and quarries, the supporting arguments relying on Suetonius's statement according to which Tiberius confiscated from many cities and private individuals the right to use mines and quarries⁵⁵. Nevertheless, as accurately noted, on one hand, Suetonius does not speak of generalised policy, but of punctual cases, while on the other, quarry transactions are recorded until the end period of the Roman empire⁵⁶. Additionally, a number of studies have shown that the state was interested to control quar- ${\rm ries}^{57}$ in only certain cases, its target being essentially the large, economically profitable quarries where marble was mainly quarried, designed for markets that had no comparable own resources available. There were though large marble quarries which were not under imperial administration control. An example to this effect, from the province of Asia, is Ephesus, while in Dacia, Bucova was believed such a case⁵⁸. There were even cases, like that of Luna, where imperial and private exploitations operated side by side⁵⁹.

Although it is important, to a certain degree, to differentiate between quarries exploited directly by the army, those under the imperial administration's control and those operated privately, one must keep in mind that not a few times, quarries opened by the army passed into the use of the imperial administration or even of private individuals when the legions no longer required them. This is for instance the case of the Brohl Valley, where quarries opened and originally worked by soldiers continued to operate under private control after Hadrian. Also, imperial quarries were often worked by private entrepreneurs, who likely sold at least part of the material they produced, so that a very strict delimiting between state and private controlled activity in stone trade may be deceiving⁶⁰.

Unless directly exploited by the army, through the soldiers, labour force in the quarries was ensured by employees with a very diverse social status, which could vary from slaves and forced labour, to freedmen and free individuals, the latter usually native to the settlements in the quarry vicinity⁶¹.

Winkler, Hopârtean 1973, 125, no. 4/6.

CIL III, 1627; Bărbulescu 1994, 33.

⁵³ Nemeti 1999, 194–204; Nemeti et al. 2003, 69–75.

 $^{^{54}~}$ Király 1894, 399–404; Christescu 1929, 47; Bărbulescu 1987, 52; Wollmann 1996, 276–277.

Suetonius, Tiberius XLIX.

Digest., XVIII, 1, 77; Király 1894, 399; Russell 2013, 53.

Ward-Perkins 1980, 326–327; Russell 2013, 57; Smith et al. 2017, 207–208.

Király 1894, 399; Ward-Perkins 1980, 326-327.

Ward-Perkins 1980, 326-327; Russell 2013, 57.

Russell 2013, 44-45, 354.

Rorison 2001, 52, 162, 167; Russell 2013, 41–42.

In the case of the quarries east of the Turda Gorge, one may assume that most workers came from the settlements identified on the territory of the current villages of Cheia, Săndulești and Copăceni.

The finds of Cheia, presented above, were generally interpreted as originating from a rural settlement⁶². It is possible there were even two settlements, one at Atolba and the other in the Parde Valley. Alternately, in the latter could also operate a group of administrative buildings and their appendices, necessary in case of larger exploitations to accommodate the workers and equipment, especially in the event that the state was involved.

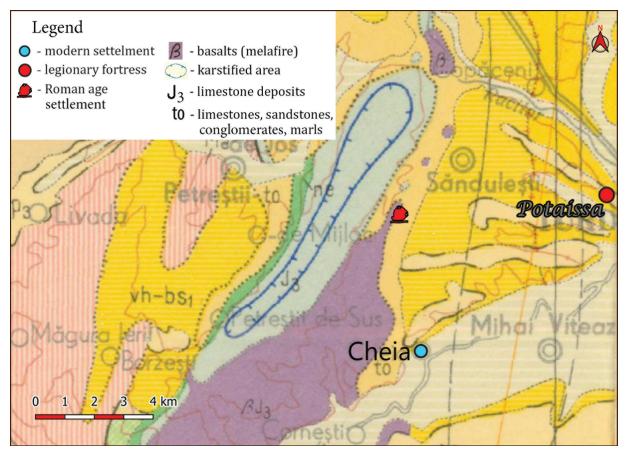


Fig. 6. Frequently found rock types in the Cheia – Săndulești – Copăceni quarries⁶³.

Obviously, the development of the site on the Parde Valley is closely connected to the stone quarrying activity given its location just nearby the quarries, in an area otherwise not quite suitable for settling⁶⁴. Locating settlements in more "hostile" areas in order to render more efficient the quarrying of raw materials was a frequent practice in the Roman world. In the Weald area in Britain, for instance, there were discovered several settlements that mainly developed in connection with a series of non-farming activities, like iron working, stone quarrying and tile making, which illustrates both the importance of the natural resources as well as the Romans' availability to adapt to local environmental conditions⁶⁵.

Nearby the quarries east of the Turda Gorge, inhabitancy traces were also identified at Săndulești, in the context of rescue archaeological excavations conducted in 2005 on the route of the Brașov-Borş motorway. During such investigations, on a site lying south-east the village, to the left of the county

Orbán 1871, 159–161; Téglás 1889, 289–295; Téglás 1893, 13–19; Király 1894, 399–404; TIR 1968, 46; Tudor 1968, 217–218; Ferenzi 1972, 397; RepCj., 94–95, Cheia, no. 1; Bărbulescu 1994, 123; Nemeti et al. 2003, 70–73; Bajusz 2005a, 229–235, 348–359; Cod RAN: 55295.01; Cod LMI: CJ-I-s-A-07002.

⁶³ After: Geological Map of Romania scale 1:200.000, 1964–1968.

⁶⁴ The place lies at a rather high altitude, being entirely exposed to air masses movement from south and east, while the surrounding lands are not suitable for agriculture, most being covered by rocks or rendzina; Florea *et al.* 1983, 508–509; Soil Map Romania scale 1:200.000, 1963–1993.

⁶⁵ Allen 2016, 78.

road running from Turda to the current quarry of Săndulești, were discovered especially Roman age pottery fragments⁶⁶.

Much more consistent inhabitancy traces coming most definitely from an important Roman settlement with masonry remains, architectonical fragments, pottery and many coin finds were identified at Copăceni⁶⁷, at a distance of approximately 1.2 km from the eastern limit of the quarries. This settlement, located on a left side terrace of the Racilor Valley, by its exit from the Tureni Gorge, was excellently positioned on one of the valleys on which stone could be easily transported towards the settlement and fortress of Potaissa.

The other valleys that might have been used for the carriage of stone to Potaissa are Sând and Parde Valleys. In the area marked westwards by the Parde Valley, to the east by the Racilor Valley, to the north by the Sândului and Petridului Hills and to the south by the Săndulești village are found the majority of Roman quarries mentioned in the specialty literature in the Cheia - Săndulești - Copăceni area. In this area, at a 6-7 km distance north-west of Turda, crop out on considerable stretches Tortonian limestones, sandstones, marlstones and conglomerates⁶⁸ (Fig. 6). Beside the proximity and abundance of the rocks, another great advantage of the quarries in this area is represented by their accessibility, the quarried stone there being easily transported along above-mentioned valleys. Such positioning was even the more advantageous as in certain cases, large stone blocks were carried with the aid of systems composed of sledges and cylinders, as wheeled vehicles available in the period were unable to support their mass⁶⁹. Precisely owing to difficulties related to transportation, many of the quarries in the Roman world were located nearby important arterial roads, by road junctions, nearby the coastline or navigable riverways, while distances up to which stone was carried did not commonly exceed 20-30 km⁷⁰.

Catalogue⁷¹

- 1. Bowl Drag. 44 (Pl. 1/1) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 8/4⁷²); on both the internal and external surfaces survive the prints of a poor quality colour-coating (Munssel 10R 7/8); semifine, spongy fabric, with many fissures and cavities emerging; W. t. = 0.65 cm; R. t. = 1.15 cm; R. ext. d. = 21 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindet 2007, Pl. XLII/194.
- 2. Ringbase vessel (Pl. 1/2) fast wheel-thrown; bi-zone oxidised firing (interior Munssel 7.5YR 8/4; exterior -Munssel 5YR 7/8); both on the exterior and interior surfaces of the pot are still visible sporadic traces of a poor quality colour-coating (Munssel 2.5YR 7/8); smooth surface; semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 0.55 cm; B. t. = 1.2 cm; B. ext. d. = 7.5 cm; findspot: Parde Valley, west of the county road DJ 103G, in the plow layer.
- 3. Bowl Drag. 37 (Pl. 1/3) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 8/3); semi-fine fabric, compact structure, with many cavities and fissures in the vessel wall; W. t. = 0.70 cm; R. t. = 1.35 cm; R. ext. d. = 23 cm; find spot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindet 2007, Pl. XXXIX/178.
- 4. Ringbase vessel (Pl. 1/4) fast wheel-thrown; homogenous reduced firing (Munssel 5YR 7/2); semi-fine fabric, compact structure; W. t. = 0.50 cm; B. t. = 1.1 cm; B. ext. d. = 9.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer.
- 5. Bowl Drag. 44 (Pl. 1/5) fast wheel-thrown; sandwich type firing (oxidising on surfaces Munssel 5YR 8/4, reducing in the core - Munssel 7.5YR 8/1); covered with good quality colour-coating both on the exterior (Munssel 5YR 3/4) and interior (Munssel 7.5YR 6/8); smooth surface; semi-fine fabric, compact structure, with many cavities and fissures in the vessel wall; W. t. = 0.60 cm; R. t. = 1.45 cm; R. ext. d. = 24.2 cm; find spot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindet 2007, Pl. XLIII/198.

Code RAN: 55320.09; http://ran.cimec.ro/sel.asp?descript=sandulesti-sandulesti-cluj-situl-arheolofic-de-la-sandulestiautostrada-brasov-bors-tronson-2b-km-18+600-15+000-cod-sit-ran-55320.09.

Nemeti et al. 2003, 69-75.

Lupu et al. 1968, 16-17, 26-27; Wollmann 1973, 108-114; Bărbulescu 1994, 105; Wollmann 1996, 262-263.

Király 1894, 407–408; Wollmann 1996, 271–272; Russell 2013, 98–103.

Rorison 2001, 52, 162, 167; Russell 2013, 65, 95.

Abbreviations used in pottery description: R. ext. d. = rim exterior diameter; B. ext. d. = base exterior diameter; M. ext. d. = maximum exterior diameter; R. t.= rim thickness; B. t. = base thickness; W. t. = wall thickness.

⁷² Munsell 1994.

- 6. Ringbase vessel (Pl. 1/6) fast wheel-thrown; homogenous oxidised firing (Munssel 2.5YR 7/6); both on the exterior surface as well as on that interior are still visible sporadic traces of poor quality colour-coating (Munssel 5YR 7/8); smooth surface; semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 0.45 cm; B. t. = 1.1 cm; B. ext. d. = 7.5 cm; findspot: Parde Valley, west of the county road DJ 103G, in the plow layer.
- 7. Bowl Drag. 37 (Pl. 1/7) fast wheel-thrown; homogenous oxidised firing (Munssel 5YR 7/6); covered with a good quality colour-coating on all surfaces (Munssel 2.5YR 5/8); smooth surface; semi-fine fabric, compact structure; W. t. = 0.85 cm; R. t. = 1.1 cm; R. ext. d. = 19.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindet 2007, Pl. XXXIX/178.
- 8. Cup (Pl. 1/8) fast wheel-thrown; homogenous oxidised firing (Munssel 5YR 8/4); semi-fine fabric, compact structure, with cavities and fissures sporadically emerging in the vessel wall; W. t. = 0.50 cm; R. t. = 1.15 cm; R. ext. d. = 11.50 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer.
- 9. Bowl Drag. 37 (Pl. 1/9) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 8/3); covered with a good quality colour-coating on all surfaces (Munssel 5YR 7/8); smooth surface; semi-fine fabric, compact structure with cavities and fissures sporadically emerging in the vessel wall; W. t. = 0.70 cm; R. t. = 1.05 cm; R. ext. d. = 21.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindeţ 2007, Pl. XXXIX/179.
- 10. Beaker (Pl. 1/10) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 8/4); covered with good quality colour-coating, partially surviving on the exterior surface (Munssel 2.5YR 4/4); semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 1.1 cm; R. ext. d. = 8.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer.
- 11. Bowl similar to form Drag. 37 (Pl. 1/11) fast wheel-thrown; homogenous oxidised firing (Munssel 5YR 7/6); covered with good quality colour-coating on all surfaces (Munssel 2.5YR 5/8); smooth surface; semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 0.60 cm; R. t. = 1.1 cm; R. ext. d. = 19.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindeț 2007, Pl. XLI/183.
- 12. Beaker (Pl. 1/12) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 8/4); covered with good quality colour-coating both on the exterior (Munssel 5YR 5/6) and interior (Munssel 10R 6/8); smooth surface; semi-fine fabric, compact structure with cavities and fissures sporadically emerging on the vessel wall; W. t. = 0.45 cm; R. t. = 0.60 cm; R. ext. d. = 9.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer.
- 13. Bowl (Pl. 1/13) fast wheel-thrown; homogenous reducing firing (Munssel 2.5Y 7/1); coarse fabric with many small pebbles in composition; compact structure with many cavities and fissures in the vessel wall; W. t. = 0.70 cm; R. t. = 1.25 cm; R. ext. d. = 21.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindet 2007, Pl. XCII/549.
- 14. Vaulting tube (Pl. 1/14) fast wheel-thrown; homogenous oxidised firing (Munssel 5YR 7/8); semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 1.25 cm; D. ext. = 11 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer.
- 15. Plate Curle 15 (Pl. 1/15) fast wheel-thrown; homogenous oxidised firing (Munssel 5YR 8/3); covered with good quality colour-coating, partially surviving, on all surfaces (Munssel 2.5YR 7/8); smooth surface; semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 0.55 cm; R. t. = 0.85 cm; R. ext. d. = 21.5 cm; findspot: Parde Valley, west of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindet 2007, Pl. XXXII/145.
- 16. Bowl (Pl. 2/1) fast wheel-thrown; homogenous oxidised firing (Munssel 2.5YR 7/8); on the exterior surface sporadically emerge the traces of poor quality colour-coating (Munssel 10YR 7/8); semi-fine fabric, with significant quantities of sand and mica in composition; compact structure, with many cavities and fissures in the vessel wall; W. t. = 1.50 cm; R. t. = 1.35 cm; R. ext. d. = 40 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer.
- 17. Dolium (Pl. 2/2) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 7/8); smooth surface; semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; on the interior wall are noticeable several prints resulted from the fast-wheel modelling; W. t. = 1.15 cm; R. t. = 2.2 cm; R. ext. d. = 24 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindeţ 2007, Pl. CV/638).
- 18. Pot (Pl. 2/3) fast wheel-thrown; homogenous reduced firing (Munssel 7.5YR 8/1); semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 0.90 cm; R. t. = 1.1 cm; R. ext. d. = 22.5 cm; findspot: Parde Valley, west of the county road DJ 103G, in the plow layer.
- 19. Jug (Pl. 2/4) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 8/4); semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 0.40 cm; R. t. = 0.65 cm; R. ext. d.

- = 8.5 cm; findpsot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindet 2007, Pl. C/614.
- 20. Pot (Pl. 2/5) fast wheel-thrown; homogenous reducing firing (Munssel 5Y 8/1); covered with good quality colour-coating both on the exterior (Munssel 10YR 6/8) and the interior (Munssel 5YR 4/1); semi-fine fabric, in which emerge frequently small sized pebbles; compact structure; W. t. = 0.75 cm; R. t. = 1.35 cm; R. ext. d. = 21 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer.
- 21. Pot (Pl. 2/6) fast wheel-thrown; homogenous reduced firing of sandwich type (surfaces Munssel 5YR 7/1, core - Munssel 5YR 6/3); coarse fabric, with many small pebbles in composition; compact structure with many cavities and fissures in the vessel wall; W. t. = 0.65 cm; R. t. = 1.35 cm; R. ext. d. = 17.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer.
- 22. Amphorette (Pl. 27) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 8/4); on the exterior surface are also noticeable sporadic traces of poor quality colour-coating (Munssel 2.5YR 3/2); smooth surface; semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 0.60 cm; R. t. = 2.50 cm; R. ext. d. = 14 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Rusu-Bolindet 2007, Pl. CIII/632.
- 23. Pot (Pl. 2/8) fast wheel-thrown; sandwich type firing (oxidising on surfaces Munssel 7.5YR 8/3, reduced with the core – Munssel 5YR 6/2); smooth surface; semi-fine fabric, compact structure with cavities and fissures sporadically emerging in the vessel wall; W. t. = 0.45 cm; B. t. = 0.85 cm; B. ext. d. = 8.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer.
- 24. Amphora, likely of type Almagro 50 (Pl. 2/9) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 7/6); smooth surface; semi-fine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 0.70 cm; R. t. = 1.60 cm; R. ext. d. = 12.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Ardet 2006, Pl. IX/88.
- 25. Amphora, likely of type Dressel 14b (Pl. 2/10) fast wheel-thrown; homogenous oxidised firing (Munssel 7.5YR 8/3); on the handle sporadically emerge traces of poor quality colour-coating (Munssel 2.5YR 4/6); semifine fabric, compact structure with many cavities and fissures in the vessel wall; W. t. = 1 cm; M. ext. d. = 12.5 cm; findspot: Parde Valley, east of the county road DJ 103G, in the plow layer; analogies: Ardet 2006, Pl. IX/86.

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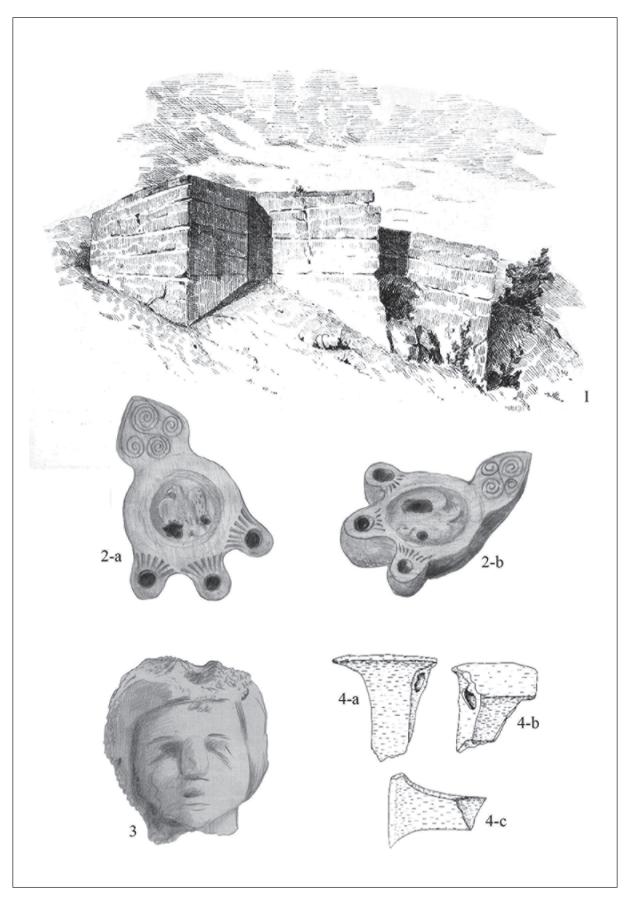


Plate 1. Roman age finds from Piatra Tăiată (1 – after: Téglás 1893, Fig. 2; 2-a – 2-b – after: Bajusz 2005a, Fig. 32/5–6; 3 – after: Bajusz 2005a, Fig. 49/31; 4 – after: Wollmann 1996, Pl. CXI/7).

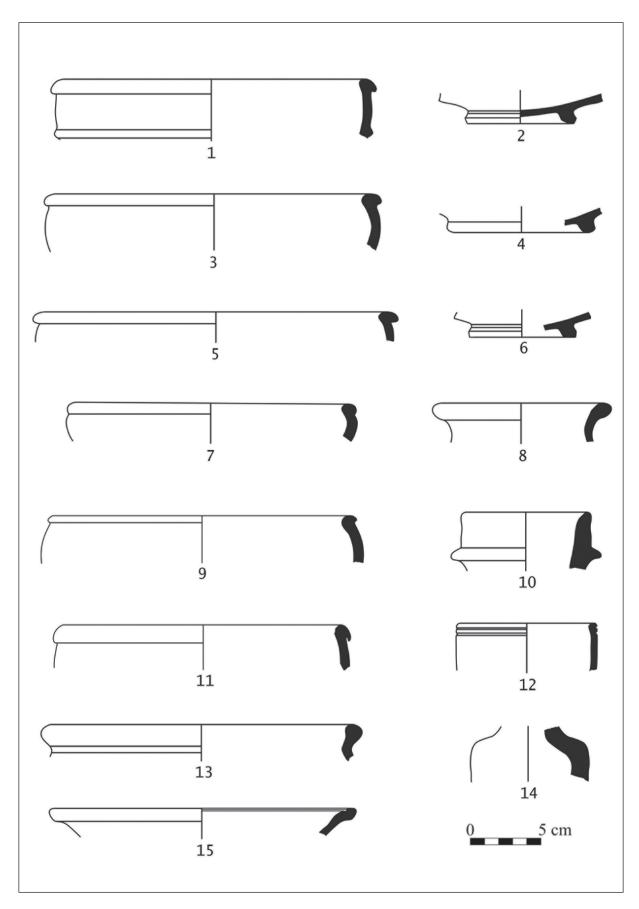


Plate 2. Roman pottery discovered at Parde Valley.

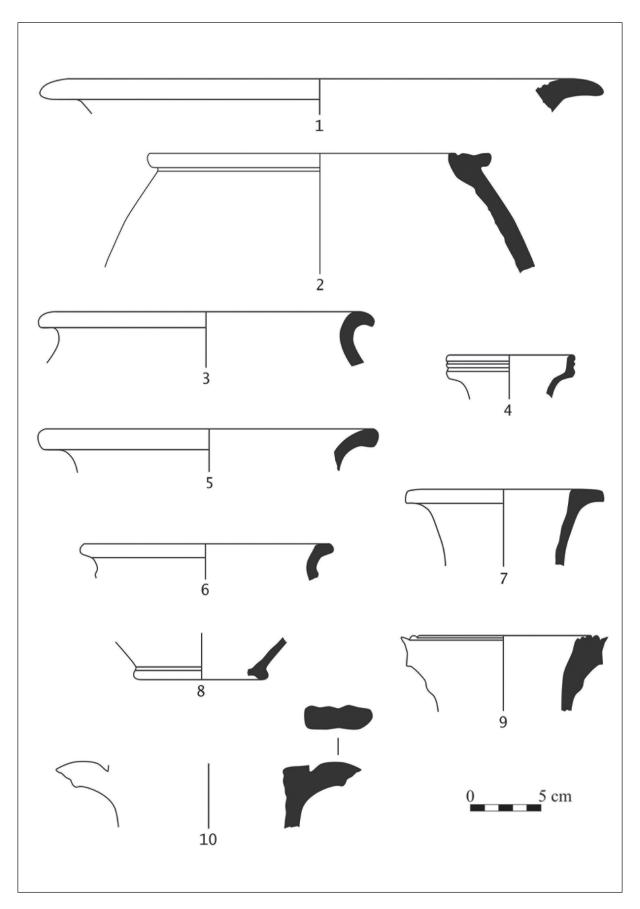


Plate 3. Roman pottery discovered at Parde Valley.

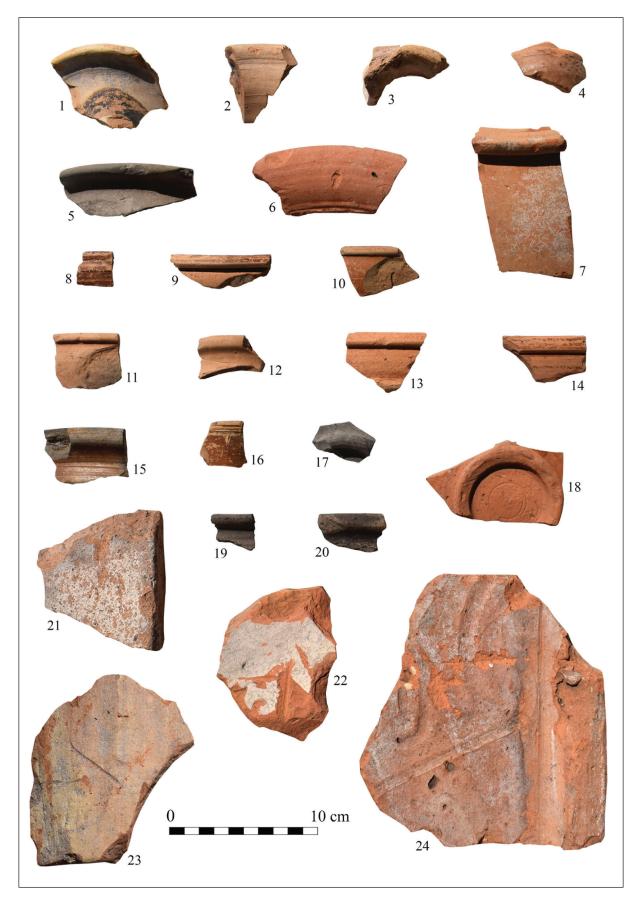


Plate 4. Roman pottery, bricks and roof tiles discovered at Parde Valley.



 $Plate\ 5.\ Prehistoric,\ medieval\ and\ modern\ pottery\ discovered\ at\ Parde\ Valley.$

Abbreaviations

AEM Archäologisch-epigraphische Mitteilungen aus Österreich-Ungarn, Vienna.

AM Arheologia Moldovei, Iași.

AMN Acta Musei Napocensis, Cluj-Napoca.
AMP Acta Musei Porolissensis, Zalău.
AMV Acta Musei Varnaensis, Varna.

Angustia Angustia. Revista Muzeului Național al Carpaților Răsăriteni, Sf. Gheorghe. Anuarul MJIAP (S.N.) Anuarul Muzeului de Istorie și Arheologie Prahova, Serie Nouă, Ploiești.

Antiquity Antiquity. A review of world archaeology, Durham.

Archaeological Journal Archaeological Journal. New Series. Chişinău.

Archért Archaeologiai Értesitő, Budapest.
ArchPol Archaeologia Polona, Warsaw.
ArchRozhledy Archeologické Rozhledy, Praha.

ASM Archaeologica Slovaca Monographiae, Bratislava.

BAR (Int. S.) British Archaeological Reports (International Series), Oxford.

Biharea Biharea. Culegere de studii și materiale de etnografie și artă, Oradea.

BMG Bibliotheca Musei Giurgiuvensis, Giurgiu.

BMJT Buletinul Muzeului Județean Teleorman. Seria Arheologie, Alexandria.

BMM Bibliotheca Musei Marisiensis, Târgu Mureș.

Budapest Régiségei Budapest Régiségei Régészeti és Történeti Évkönyv. Budapest.

CA București Cercetări arheologice în București, București.
CCA Cronica Cercetărilor Arheologice, București.
CIL Corpus Inscriptionum Latinarum, Berlin.
CsSzMÉ A Csíki Székely Múzeum Évkönyve. Csíkszereda.

Dacia (N.S.) Dacia. Revue d'archéologie et d'histoire ancienne. Nouvelle serie. București.

Dolgozatok a Magyar Királyi Ferencz József Tudományegyetem Archaeológiai

Intézetéből. Szeged.

EphNap Ephemeris Napocensis, Cluj-Napoca.

Erdély. Turistai, fürdőügyi és néprajzi folyóirat, Cluj-Napoca.

FontArchPrag Fontes Archaeologici Pragenses, Prague.

Földtközl. Földtani közlöny, Budapest.

HOMÉ A Herman Ottó Muzeum Ėvkönyve, Miskolc.

ILD C. C. Petolescu, *Inscripții latine din Dacia*, Bucharest 2005.JAHA Journal of Ancient History and Archaeology, Cluj-Napoca.

Jahrb. RGZM Jahrbuch des Römisch Germanischen Zentralmuseums zu Mainz, Mainz.

JAMÉ Jósa András Múzeum Évkönyve, Nyiregyháza.

Karpatika Karpatika, Uzhorod.

LMI List of Historic Monuments, updated 2015.

Marisia Marisia. Studies and Materials. Archeology. Târgu-Mureș. MCA (S.N.) Materiale și Cercetări Arheologice Serie Nouă. București

MemAntiq Memoria Antiquitatis, Piatra Neamţ.

NNA Nordisk Numismatisk Årsskrift, Stockholm.

PAS Prähistorische Archäologie in Südosteuropa, Rahden/Westf.
PAT Patrimonium Archaeologicum Transylvanicum, Cluj-Napoca.

Paléo PALEO – Revue d'archéologie préhistorique, Les Eyzies-de-Tayac-Sireuil.

Pallas Pallas. Revue d'études antiques, Toulouse.

PNAS Proceedings of the National Academy of Sciences of the United States of America,

Washington.

PZ Prähistorische Zeitschrift. Berlin. RAN National Archaeological Repertory.

RM Revista Muzeelor, București.

Sargetia Sargetia. Acta Musei Devensis, Deva.
SatuMareSC Satu Mare Studii și Comunicări, Satu Mare.

SCIV(A) Studii și Cercetări de Istorie Veche și Arheologie, București.

SCȘMI Studii și Comunicări Științifice ale Muzeelor de Istorie, București.

SIB Studii de Istorie a Banatului, Timișoara.

SlovArch Slovenská archeológia, Nitra. SP Studii de Preiostorie, București.

St. Cerc. Antropol. Studii și Cercetări de Antropologie, București.

StudUBB-G Studia Universitatis Babeș-Bolyai. Seria Geologia, Cluj-Napoca. ZborníkSlovNMA Zborník Slovenského Národného Múzea. Archeológia, Bratislava.

ZSA Ziridava. Studia Archaeologica, Arad.

ИАИ Известия на Археолигическия Институт при БАН, София.