COARSE WARE JUGS IN FUNERARY CONTEXT: TECHNICAL AND FUNCTIONAL OBSERVATIONS ON THE POTTERY FROM THE CEMETERIES AT ALBURNUS MAIOR¹

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ABSTRACT:

This study analyses a specific category of Roman ceramic vessels identified in the funerary inventories from Alburnus Maior: 26 coarse ware jugs present in the graves from the cemeteries at Tăul Corna, Tăul Găuri – Hop, Tăul Secuilor/Pârâul Porcului and in the area of the circular funerary monument. They all share specific morphological and technological characteristics, and at least a part of them are imitations in ceramic of bronze vessels. From a functional point of view they can be framed in the category of cooking ware and were produced from coarse fabrics. The vessels were produced locally, during the $4^{th} - 6^{th}/7^{th}$? decades of the 2^{nd} century AD and all of them were used for boiling water. Their presence in the graves might be regarded as an identity marker of a group who used them in everyday life and, as part of the funerary ritual, could show a predilection for consuming hot drinks during the funerary banquet.

Rezumat: Ceramică grosieră în context funerar: aspecte tehnice și funcționale asupra ceramicii din necropolele de la Alburnus Maior

Articolul analizează o categorie specifică de vase ceramice descoperite în inventarele funerare de la Alburnus Maior, anume 26 de ulcioare produse din pastă grosieră prezente în morminte din cimitirele identificate în punctele Tăul Corna, Tăul Găuri – Hop, Tăul Secuilor/Pârâul Porcului, precum și în zona monumentului funerar circular. Vasele prezintă caracteristici morfologice și tehnice comune și cel puțin o parte dintre ele sunt imitații ale unor forme metalice. Din punct de vedere funcțional fac parte din categoria ceramicii de gătit. Vasele au fost produse local, pe parcursul deceniilor patru-șase ale secolului al II-lea p. Chr. și toate au fost folosite pentru fiertul apei. Prezența lor în morminte poate fi văzută drept o expresie identitară a unui grup care le-a folosit în viața cotidiană și poate indica o predilecție pentru consumul de băuturi calde în cadrul banchetului funerar.

KEYWORDS: Alburnus Maior, funerary pottery, local production, imitations, boiled water.

CUVINTE CHEIE: Alburnus Maior, ceramic funerară, producție locală, imitații, apă fiartă.

Imitating the shape of Roman metal vessels in other types of materials (glass, pottery, different types of stones etc.) has been a long-debated topic among specialists, usually with a strong emphasis on the morphological features or on various decorative elements which were borrowed from one type of material to the other. Nevertheless, very little has been discussed about the functionality of the imitated vessels, or to which extent the adaptation of several morphologic characteristics also implies a similar use, or in which manner the new material has conditioned or determined the perpetuation of a certain functionality.

The archaeological excavations undertaken at Roşia Montană between 2001 and 2006, as part of the "Alburnus Maior" National Research Programme, revealed an impressive quantity of archaeological information, of paramount importance for understanding the communities which inhabited the mining district from the Apuseni

The topic of this article was first discussed in 2016, in a conference paper given in Cluj-Napoca, organized by dr. Viorica Rusu-Bolindeţ from the National Museum of Transylvanian History (*Artă și meşteşug. Atelierele ceramice din provinciile Dacia și Moesia Inferior*, 23th-25th of July, 2016). A publication was not possible then, because the finds from Alburnus Maior were not available for study, since they were still stored at Roșia Montană. Following the work and effort of the specialists from the National Museum of Romanian History, Bucharest (MNIR), the finds have been moved in a proper storage in Bucharest and I was able to study them at the beginning of this year. I would like to express my gratitude towards my colleagues from MNIR, dr. Ionuţ Bocan, dr. Cătălina Mihaela Neagu and dr. Ovidiu Ţentea for the possibility of analysing the finds and the information they offered. The same thoughts go towards my colleagues, dr. Viorica Rusu-Bolindeţ, dr. Dávid Petruţ (Babeş-Bolyai University, Cluj-Napoca) and Katalin Sido (Mureş County Museum, Târgu Mureş) for the useful discussions regarding this category of ceramic vessels. The author holds full responsibility for the content of this article.

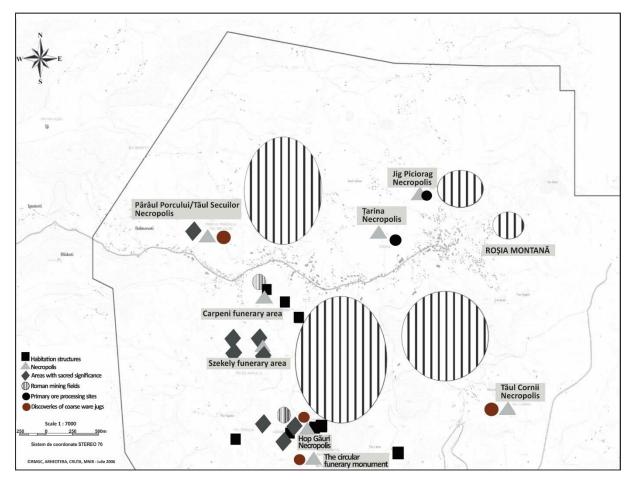


Fig. 1. The areas with discoveries of coarse ware jugs at Alburnus Maior (processed after Damian, Simion 2007, 149, Pl. 2).

Mountains during the 2nd century AD. Part of the primary archaeological information has already been published², being followed by studies on the status, origins and religious beliefs of the different groups which were attested epigraphically³, as well as by studies on the habitation structures revealed during the archaeological excavations⁴.

The ceramic vessels

This study aims at analysing a specific category of Roman ceramic vessels identified in the funerary inventories from Alburnus Maior: 26 coarse ware jugs present in 23 graves from the cemeteries at Tăul Corna (16), Tăul Găuri – Hop (5), Tăul Secuilor/Pârâul Porcului (1) and in the area of the circular funerary monument (1) (Annex 1 and. Fig. 1). The jugs have been framed into 12 types and one variant (U 2, U 7, U 8, U 9, U 10, U 11, U 12 with variant U 12.1, U 14, U 15, U 18, U19 and U 20) according to the typology of the pottery vessels discovered in the necropolis at Tăul Corna⁵. They all share specific morphological and technological characteristics and, as it will be shown further, at least part of them are imitations in ceramic of bronze vessels. From a functional point of view, they can be framed in the category of cooking ware and were used, very probably, for boiling water⁶.

² For the results of the archaeological excavations see especially: Alburnus Maior I; Alburnus Maior II; Alburnus Maior III; Neagu and Bocan 2007-2008; Bocan et al. 2010; Țentea and Voisian 2015 (all with the relevant bibliography and the archaeological reports published in CCA).

³ Ardevan 2004; Piso 2004; Tentea 2015a.

⁴ Țentea, Voișian 2015.

⁵ Alburnus Maior III, 35-41; Bocan and Neagu 2018, 103-104, Fig. 11-12.

⁶ Because the archaeological discoveries and the finds from Alburnus Maior have only been partially published, most of the observations from this study are based on the analysis of the jugs from the necropolis at Tăul Corna. Annex 1 lists discoveries from other points as well, but it was not always possible to indentify the type or the fabric, since this information was not indicated in the moment of the publication. Only the complete vessels or the ones which could be reconstructed have been taken into consideration. The inventory of the graves contains a significant number of flat and wide bases made of course

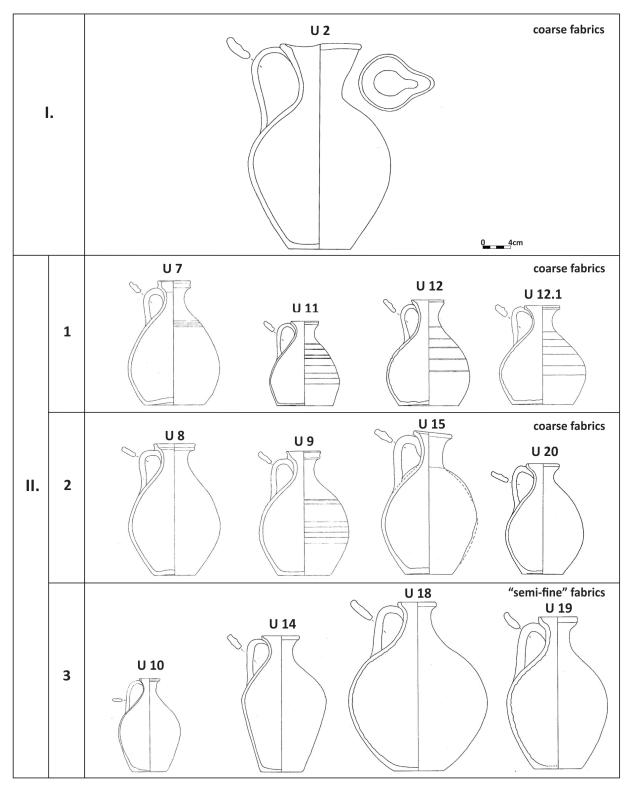


Fig. 2. Types of coarse ware jugs discovered in the necropolis at Tăul Corna (individual images after Alburnus Maior III, 35, 37-41).

a. Typology. From a formal point of view, the 12 types from Tăul Corna can be grouped into two main categories (Fig. 2): one jug has a trefoil mouth and spout (**I.**), while 25 display a narrow mouth and rounded rim (**II.**). Inside

fabrics, but they could have also belonged to jars and for this reason were excluded from the analysis. An interesting case is the inventory of grave M 278 which contains the upper part of a coarse ware jug, fabric RM 1 (mouth, neck, upper part of the body and handle preserved) (Alburnus Maior III, 216, Pl. 268/1). Since a complete example of the type is not attested at Alburnus Maior, it was not included in this analysis, because the characteristics of the base are not known.

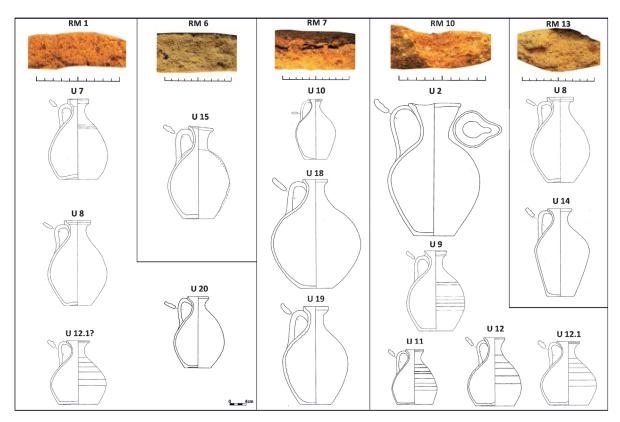


Fig. 3. Corespondance between the types of fabrics and jugs in the necropolis at Tăul Corna (individual images after Alburnus Maior III, 35, 37-41, Pl. 336).

the second category three main groups can be isolated. The first group (II.1), corresponding to types U 7, U11 and U 12 (together with variant U 12.1) comprises jugs with one handle, provided with narrow mouth and rounded rim, piriform body, with the maximum diameter located in the lower half and a flat, wide base. Most of the examples included in this group are decorated on the body with parallel grooves. The jugs included in the second group (II. 2) differentiate themselves from the first one by the shape of the body (types U 8, U 9, U 15 and U 20). The maximum diameter is positioned towards the middle of the body and the vessels are no longer piriform, but globular. Type U 7 might represent a transitional form between the two groups. These first two groups include vessels which were all produced from coarse fabrics. The third group (II. 3), represented by Types U 10, U 14, U 18 and U 19 displays similar characteristics with the second one, but the jugs were all produced from different types of semi-fine fabrics. For this reason, they were framed in a different group. Of course, there are variations in each group with respect to the capacity of the vessels; some of the initially defined types, like U 14, U 15 and U 20 are definitely production wasters and the deformation and/or the over firing determined their shape.

b. Fabrics. All the jugs were produced from two main categories of fabrics, which were defined in the initial publication as coarse (RM 1, RM 6 and RM 10) and semi-fine (RM 7 and RM 13)⁷ (Fig. 3). From the coarse fabrics, RM 6 is characteristic for only one jug, a production waster from M 199 (Annex 1/2b9). The rest of the coarse ware jugs were produced from RM 1 and its variant, RM 10. The RM 7 and RM 13 have been defined as "semi-fine", but they also contain a high quantity of inclusions: quartz, calcite and iron oxides, ranging from 1 to 2 mm. For this reason, from a functional point of view, both categories of fabrics are characteristic for Roman cooking ware. In terms of statistics, which at this point can only be made on the jugs from Tăul Corna, the situation is as follow: from the 19 identified jugs, 5 were made from RM 1, 1 from RM 6, 4 from RM 7, 7 from RM 10 and 2 from RM 13⁸ (Fig. 4).

Alburnus Maior III, 69, Pl. 336: **RM 1** (**coarse** fabric with the following inclusions: abundant white and grey quartz and occasional red quartz (up to 3 mm), calcite (up to 2mm), iron oxides (up to 3 mm), ocassional pyrite and very rare fine mica); **RM 6** (**coarse** fabric with the following inclusions: abundant grey quartz (up to 2.5 mm), rare white quartz (up to 2 mm, abundant calcite and iron oxides (up to 1 mm); **RM 7** (**semi-fine** fabric rare white quartz (up to 1.5 mm), abundant iron oxides (up to 1.5 mm), moderate calcite and mica (up to 1 mm); **RM 10** (**coarse** fabric, a version of RM 1 but with a higher quantity of white quartz, iron oxides and calcite (the last two of smaller dimensions); **RM 13** (**semi-fine** fabric, abundant inclusions of calcite, iron oxides, and white quartz (1-2 mm).

One of the two jugs made of RM 13 fabric (from M 195 – Annex 1/2b8) was characterised in the initial publication by a

Analogies, prototypes and functionality

Category I. The coarse ware jugs with trefoil mouth from the first category (Fig. 2/I, Annex 1/1) are well known in the archaeological literature. The shape with morphological variations has been documented in different contexts and on pottery production sites, dated during the 2nd – 3rd centuries AD, from the Roman Empire⁹, as well as the province of Dacia¹⁰. Besides the jug from grave M 297 at Tăul Corna, two more are known from Alburnus Maior. One of them was discovered in grave M 143 from the cemetery at Tăul Găuri – Hop (Annex 1/1b1), while the second one comes from a non-funerary context. It was identified in one of the few researched residential areas of the site, in house 2 (L2) from Carpeni Hill¹¹ (Fig. 5). The best parallels for this shape can be found at Apulum, in

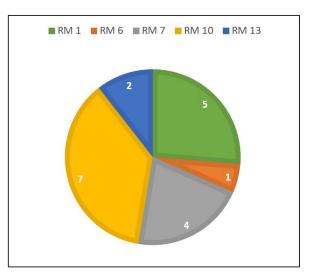


Fig. 4. Types of fabrics characteristic for coarse ware jugs in the cemetery at Tăul Corna.



Fig. 5. Coarse ware jug with trefoil mouth from house 2 (L 2) on Carpeni Hill (drawing after Rusu-Bolindet et al. 2010, 417, Fig. 27/68; photo George Nica, The Collection of the National History Museum of Romania; © MNIR 2023).

the group of coarse wares produced in workshop B (Partoş – The Sanctuary of Liber Pater) around the middle of the 2nd century AD¹². It was not possible to examine the jug from Tăul Găuri – Hop, but the other two were produced from the same fabric RM 10 and attest a local production of this shape at Alburnus Maior.

Category II. The jugs belonging to the second category (Fig. 2/II, Annex 1/2) are not uniform with respect to their morphological characteristics. The ones framed in the first group (Fig. 2/II.1), except for type U 7, have been regarded as imitations of metal vessels ever since their initial publication¹³. Though it is hard to establish the chronology of these three groups, as I will show further on, the evolution of the second group (Fig. 2/II.1) from the first one is plausible, even at this stage of the research.

The Collection of the National History Museum of Romania; © MNIR 2023). This type of jug does not have clear parallels in the ceramic vessels discovered in Roman Dacia or in other parts of the Roman Empire. The closest

RM 14 fine fabric (Alburnus Maior III, 177). The examination of the vessel in the storages of MNIR revealed the existence of a dense coarse fabric, corresponding, very probably with RM 13.

Batigne and Desbat 1996 with the definition of the type and the evolution of the production in Gaul; see also: Warner Slane 1990, 100, 102-104, nos. 214-218, Fig. 25 (Corinth: The Sanctuary of Demeter and Kore; nos. 215-216 dated during the 2nd – 3rd centuries AD, with analogies in the Athenian Agora and at Ostia); Joly 1994, 70, Fig. 5; Joly 1996, 125, 130, Fig. 17/15-17 (Saint-Ambreuil-La Ferté: dating: 150-270 AD).

See Nedelea 2022 with the analogies and bibliography for this shape of vessel form Dacia and Lower Moesia. The author excludes the jugs from Alburnus Maior, considering that they were made of semi-fine fabrics.

Rusu-Bolindeţ et al. 2010, 392 (no. 68), 417, Fig. 27/68. The vessel presents on the exterior surface traces of burning and organic matter. However, it is not soot, which could be related to its direct use on the fire, but rather traces of burning from its context of discovery.

¹² Ciaușescu 2005, 322-324, Fig. 4; Egri 2018, 123, Fig. 10.

Alburnus Maior II, 55-56, note 4; Alburnus Maior III, 38.

analogies for types U 11 and U12 (with variant U 12.1) are a well-known series of Roman bronze vessels, namely the bronze spouted jugs known in the German archaeological literature as "Blechkannen". The shape has its origins in Italy, very probably in Campania, were it was produced beginning with the Claudian period. The production went on during the second half of the 1st century AD, as proven by the significant number of vessels discovered at Pompeii. Starting with the end of the 1st century AD, from this Italic prototype a new provincial shape was developed which was framed in two main groups by M. Bolla (Fig. 6). The main point of difference between these two groups is the manner in which the handle was executed. The first group includes jugs with the handle

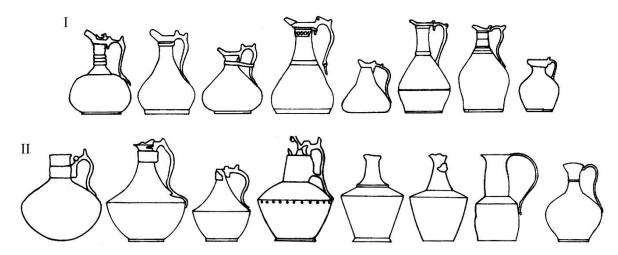


Fig. 6. The two categories of provincial bronze spouted jugs established by M. Bolla (after Bolla 1979, Tav. V).

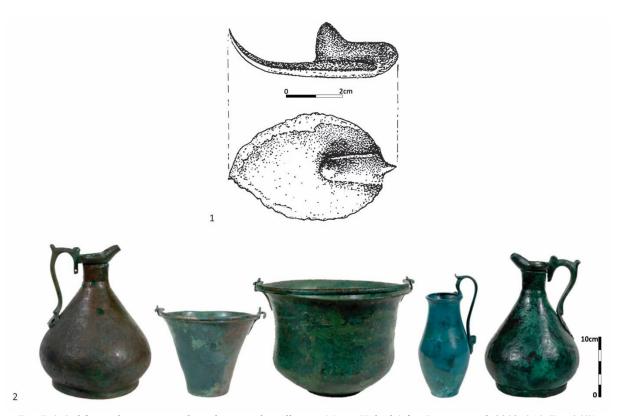


Fig. 7. 1. Lid from a bronze spouted jug discovered at Alburnus Maior, Hăbad (after Pescaru et al. 2010, 146, Fig. 16/5);
2. The bronze vessels from the drinking assemblage for the preparation of calda discovered at Ampelum (photos S. Odenie,
The Collection of the National Museum of Transylvanian History; © MNIT 2023).

¹⁴ Mustață 2017, 109-111.

¹⁵ Bolla 1979; Bolla 1989.

cast in one with the rim, while the second group incorporates the ones with a separately cast handle. The variants from both groups can be differentiated according to the shape of the body¹⁶.

The Bolla I jugs started to be produced at the end of the 1st century AD and the production continued throughout the 2nd and 3rd centuries, with local developments during the 4th century as well. Starting with the mid 2nd century AD, type Bolla 1b, popular in Gallia Belgica and along the Rhone Valley, was imported to Pannonia where a local production would develop. At the beginning of the 3rd century AD, their distribution was generalized within the Roman provincial environment, being also present in *Barbaricum*¹⁷. These jugs are the most common category of Roman metal vessels from Roman Dacia, especially in the military environment, but not exclusively though. Most of the discoveries can be framed as different variants of Bolla I; however, Bolla II examples are also attested¹⁸.

The bronze spouted jugs were used for boiling the water. Their contexts of discovery and their technical characteristics indicate such a functionality: the body was made from a thin sheet of metal which ensured a fast heating of the liquid content, the massive cast handle allowed for the vessel to be taken off the fire without overheating, the lids contributed to the quick heating as well, while the wide bases offered a large surface which was in direct contact with the source of heat. Moreover, traces of limescale have been identified inside the vessels as well as soot on the external, lower part of their bodies. Warm water was used for many purposes: the preparation of wine (*calda*), in everyday body care and for the preparation of food. For this reason a single, specific use can only be taken into account if it is indicated so by the context of the discovery¹⁹.

The bronze spouted jugs were used at Alburnus Maior. Their presence is attested by the discovery of a lid belonging to a Bolla I jug in the point Hăbad, in the area of the structures L1-4, with no clear indication of the context of the discovery²⁰ (Fig. 7/1). From Ampelum, in the vicinity of Alburnus Maior, comes the only drinking assemblage of bronze vessels used for preparing *calda* that is known from the province of Dacia, which also contains two Bolla Ib jugs²¹ (Fig. 7/2). Thus, it can be assumed that the bronze spouted jugs were common to the region in the second half of the 2nd century AD.

The discussed metal shapes were imitated during the 2nd and 3rd centuries in both iron and ceramic. The iron jugs perpetuated the functionality of the original objects. They were also used for boiling the water, part of them being discovered with the same traces of limescale inside²². Regarding the ceramic vessels, the complete analysis made by C. Batigne and A. Desbat on the ceramic jugs from Gaul revealed that, starting from the 1st century AD, all the analysed vessels share three main characteristic: they were constantly produced from fabrics which are typical for cooking wares, traces of limescale were found inside the vessels and they often present soot traces on the external lower part of the body. All these aspects fully argue for their use as vessels for boiling the water²³. Moreover, besides the adapted shapes, similar to the jugs with trefoil mouth included in group I from Alburnus Maior (Fig. 2/I), the workshops from Gaul also produced ceramic vessels which are identical with the bronze ones in every detail, including the hinge of the lid; some of these vessels even have a ceramic lid attached to the rim²⁴.

Coming back to the jugs from Alburnus Maior, both categories (I and II) share the same characteristics presented above. They were produced from coarse fabrics which made them suitable for a direct contact with a source of heat, they have a flat, wide base and in most of the cases a narrow neck which allowed the liquid content to heat very quickly. They imitate the shape of the metal prototypes, as well as the decoration with parallel grooves on the body, which is typical for the bronze spouted jugs. The examination of the vessels in the storages of MNIR revealed the fact that among the 19 jugs identified in the cemetery at Tăul Corna, only 4 present clear traces of soot, namely the ones from graves M 195 (Annex 1/2b8), M 233 (Annex 1/2b11) and M 260 (two of the jugs from the grave: Annex 1/2b13, 2b15). No traces of limescale have been identified inside the vessels, but one should consider that we deal with funerary pottery, most of the vessels are production wasters, and even if they were used during the funerary ritual, it is not an intense use which would have determined the presence of limescale. In the present stage of the research, their function as vessels used for boiling the water seems the most likely²⁵.

¹⁶ Bolla 1979, 25–39, Tav. V/Gruppo I-II; Mustață 2017, 112.

¹⁷ See Mustață 2017 with the bibliography.

¹⁸ Mustață 2017, 111-116.

¹⁹ See the discussion with bibliography in Mustață 2017, 111, 114. For an overview of the use of warm water in the Roman world, based on the information offered by the Latin authors, see Batigne and Desbat 1996, 390.

²⁰ Pescaru et al. 2010, 129, 146, Fig. 16/5.

²¹ See Mustață 2018.

²² Baratte 1993, 224–227; Koster 1997, 30–41.

²³ Batigne and Desbat 1996, 389-390.

²⁴ Batigne and Desbat 1996, 383-384, 388, Fig. 6.

A case of pasteurization "avant la lettre" as argued in Nedelea 2022 (161) should be excluded because we have no evidence for the existence of this process in Antiquity, or in other historical periods, before the 19th century.

Chronology and interpretation

An exact chronological framing of the coarse ware jugs from Alburnus Maior can hardly be determined, since there is little evidence that would provide solid dating criteria. At a general level, the main habitation of the site has been placed between the first part of the 2nd century AD and the 6th/7th decade of the same century. The site was not abandoned at this point, but traces of human activities which can be assigned to the end of the 2nd and first part of the 3rd century are limited. The most solid piece of the evidence is offered by coins together with the inscriptions on stone and the inscriptions from the wax tablets²⁶. Of particular interest is the content of a wax tablet, dated to the 9th of February 167 AD²⁷. The text contains a decree for the self-dissolution of a funerary *collegium* of Jupiter Cernenus, because from among the 54 men who were initially part of it, only 17 remained and the fees they paid were not enough for funerals. This moment in time was related to the crisis from the period of the Marcomannic wars which affected the area of the Apuseni Mountains²⁸. But even if the habitation continued afterwards, the number of coins from the funerary inventories, dated after 170 AD is scarce²⁹.

From the 23 graves containing coarse ware jugs analysed here, only two had coins in the funerary inventory. The first is M 144 from the cemetery at Tăul Corna³⁰, which contained a coin from Hadrian (125-138 AD) and the second is M 1, a later grave excavated in the exterior of the circular funerary monument. According to the initial publication, an imperial bronze coin, minted for Faustina II or Lucilla, was identified near the edge of the grave, on a level corresponding to the excavation/construction of the grave pit³¹ (see also Annex 2). The other objects associated in the inventory of the graves do not offer a more precise dating. No thorough analysis of the pottery from Alburnus Maior has been published yet, the knee brooch from grave M 293 at Tăul Corna has a chronology parallel to the general chronology of the site³², situation also valid for the Loeschcke X lamps³³.

The jug from M 144 corresponds to type U 7, framed in the first group of the second category, while the one from M 1 can be identified as U 9, from the second group of the same category (see Fig. 2). The coin from Hadrian represents only a *terminus post quem*, but the presence of the U 9 jug from the second group associated with a coin dated during the 7th decade of the second century indicates a later production or use and, as stated above, an evolution of the second group from the first one.

The analysis of the distribution of coarse ware jugs inside the cemetery at Tăul Corna seems to suggest the same scenario (Fig. 8). Though at this stage of the research it is not clear how the cemetery evolved, some observations have been made in the initial publication. It is considered that the funerary space developed along the main road (Fig. 8: the empty area between the eastern and western group of graves), partially identified during the archaeological excavations. It was oriented NNE – SSV and divided the cemetery into two parts. Moreover, the graves from the first phase, among which M 144 (part of a circular funerary precinct), seem to follow the orientation of the road. 28 coins were recovered from the inventory of the graves and from them only eight could be identified. It was observed that the ones minted during the reign of Hadrian come from graves positioned near the road, while the coins from the time of Antoninus Pius and Marcus Aurelius are further away. All these observations determined the authors of the publication to consider that the circular funerary precinct and M 144 are one of the earliest funerary structures from Tăul Corna³⁴.

A close examination of the distribution of the coarse ware jugs inside the cemetery shows that the graves containing coarse ware jugs from the first group of the second category (types U 7, U 11, U 12-12.1: Fig. 2/II.1), with the exception of M 32, are indeed positioned on one of the sides of the road (M 142, M 144 and M 260). The jugs made of coarse fabrics RM 1 and RM 10 are present in the southern and, especially, the western and north-western part of the cemetery, while the ones made of "semi-fine" fabrics (RM 7 and RM 13) in the eastern and especially the north-eastern area. With few exceptions (M 46, M 142), most of the graves containing coarse ware jugs follow the orientation of the road. Thus, the hypothesis that the first group of jugs is earlier than the second seems to be suggested by the distribution of the vessels as well. At this state of the research, no chronological observations can be made about the vessels belonging to group three (Fig. 2/II.3). As mentioned above, they seem to cluster in the eastern and north-eastern part of the cemetery, but the funerary inventory did not contain any objects that could offer a more precise dating.

²⁶ Piso 2004, 301-304; Alburnus Maior III, 14-15; Dima and Tentea 2015.

²⁷ IDR I, no. 31.

²⁸ Piso 2004, 302; Alburnus Maior III, 14-15.

²⁹ Alburnus Maior III, 15; Dima and Țentea 2015, 64-65.

³⁰ Alburnus Maior III, 19, 148-149.

³¹ Alburnus Maior II, 33-34, 67, no. 60; Dima and Ţentea 2015, 64.

³² See Cociş 2004, 88-105.

Bocan, Ursuțiu and Cociș 2008.

³⁴ Alburnus Maior III, 18-20.

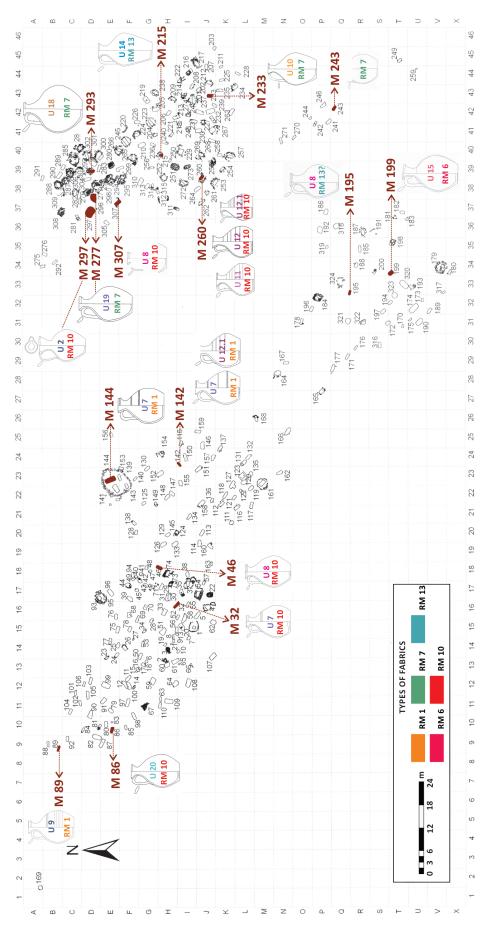


Fig. 8. The distribution of coarse ware jugs in the cemetery at Taul Corna (processed after Alburnus Maior III, Pl. IV).

Another interesting aspect which can be observed from the distribution of the jugs is their apparent grouping on the plan. They are not scattered across the whole necropolis, but seem to cluster in groups of two or three graves in different areas of the cemetery. This situation could indicate that these graves belong to members of the community from Alburnus Maior who had a preference for this type of vessels. Moreover, it is consistent with the initial observation that the evolution of the necropolis was not a linear one. The existence of a division of the funerary space in plots and a parallel development of different *nuclei* were argued³⁵.

At this stage of the research it is difficult to establish the role that the course ware jugs played at Alburnus Maior. We deal with locally produced pottery, with shapes that evolved from metal prototypes and were discovered in a funerary context. While the presence of the trefoil mouth jugs is also attested in the residential areas of the settlement, the examples from the second category come exclusively from graves. Their distribution on the site seems to suggest a predilection for the shape in the southern half of the settlement (Fig. 1). However, we know an example from the cemetery at Tăul Secuilor/Pârâul Porcului and the funerary inventories from the find spots Tarina and Jig Piciorag have only been partially published³⁶.

The vessels are present in the funerary inventories of 16 graves from the total number of 295 excavated at Tăul Corna. It is a small number if we take into consideration the apparent uniformity of the funerary pottery discovered here. The small number of vessels, the fact that they were produced from coarse and semi-fine fabrics typical for cooking ware, the observation that part of them are definitely production wasters all suggest that the vessels were not produced for a funerary use, but rather taken out of the everyday activities and deposited in the graves. Many of the jugs are more or less deformed (see Annex 1/2) and they were probably offered to the dead because they were not proper for an intense everyday use, situation valid for many of the pottery vessels from the graves at Alburnus Maior. A production of the type exclusively for funerary practices, as noticed in other cases³⁷, cannot be totally excluded, but there is no evidence for it. On the other hand four of the jugs present clear traces of soot on the bases from the direct contact with a source of heat, which cannot be interpreted as a result of contamination from the context of the discovery or of their presence on the funerary pyre.

The analysis of the associations with other types of vessels and objects in the funerary inventory (see Annex 2) does not seem to indicate a clear pattern. In most of the cases at least one lamp is present in the grave, in four cases at least one fine ware jug and a jar were deposited inside the graves (3 at Tăul Corna and one at Tăul Secuilor/Pârâul Porcului). M 46 from Tăul Corna and M 268 from Tăul Secuilor/Pârâul Porcului (if indeed the jug comes from this grave: see Annex 1/2d1) are the only ones where the coarse ware jugs are associated with at least two fine ware jugs, one or two jars and one beaker. Since no proper seriation has been done yet on the inventories from Tăul Corna, it is impossible to say if these associations could reflect aspects of funerary ritual and a use during the funerary banquet or their presence was determined by other choices of the community. It is interesting that the two graves which contained more than one coarse ware jug (M 142 (2 jugs) and M 260 (3 jugs) from Tăul Corna) do not have any other pottery vessels in the funerary inventory.

It is tempting to interpret the inventories of M 46 from Tăul Corna and M 268 from Tăul Secuilor/Pârâul Porcului as drinking assemblages for the preparation of *calda* or other hot drinks. In this sense the coarse ware jugs could have been used for the boiling the water, the fine ware jugs for the wine, the jars for mixing and the beakers for drinking. Such a scenario cannot be totally excluded, but it will have to be confirmed by other similar situations observed on the site. However, it is very probable that the coarse ware jugs were used for everyday activities by a group of the inhabitants from Alburnus Maior. The shape and its variants were developed locally, during the 4th – 6th/7th? decades of the 2nd century AD and the vessels were used for boiling the water. The formal similarity of the jugs could indicate a shorter production period, but there is no direct archaeological evidence in this sense. Their presence in the graves might be regarded as an identity marker of a group who used them in everyday life and, as part of the funerary ritual, could show a predilection for consuming hot drinks during the funerary banquet. This habit is all the more understandable if one considers the cold climate at Alburnus Maior (specific for a mountain region). Although there is no evidence to support this, it cannot be excluded that we deal with individuals who were buried during the cold months of winter, when the consumption of hot drinks can bring thermal comfort.

³⁵ Alburnus Maior III, 19-20.

³⁶ For the discoveries at Jig Piciorag, see Simion et al. 2008.

³⁷ See Rusu-Bolindet 2014, 252, note 46.

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- Fig. 1. Zonele cu descoperiri de ulcioare realizate din pastă grosieră de la Alburnus Maior (prelucrat după Damian, Simion 2007, 149, Pl. 2).
- Fig. 2. Tipurile de ulcioare realizate din pastă grosieră descoperite în necropola de la Tăul Corna (imagini individuale după Alburnus Maior III, 35, 37-41).
- Fig. 3. Corespondența între tipurile de paste și ulcioarele de la necropola de la Tăul Corna (imagini individuale după Alburnus Maior III, 35, 37-41, Pl. 336).
- Fig. 4. Tipurile de paste caracteristice pentru ulcioarele realizate din pastă grosieră din cimitirul de la Tăul Corna.
- Fig. 5. Ulcior realizat din pastă grosieră, cu buză trilobată, descoperit în locuința 2 (L 2) de pe Dealul Carpeni (desen după Rusu-Bolindeț et al. 2010, 417, Fig. 27/68; fotografie George Nica, Colecția Muzeului Național de Istorie a României; © MNIR 2023).
- Fig. 6. Cele două categorii de ulcioare provinciale cu deversor, realizate din tablă de bronz stabilite de M. Bolla (după Bolla 1979, Tav. V).
- Fig. 7. 1. Capac de la un ulcior de bronz descoperit la Alburnus Maior, Hăbad (după Pescaru et al. 2010, 146, Fig. 16/5);
- Fig 7.2. Vasele de bronz din serviciul pentru preparat *calda* descoperit la Ampelum (fotografii S. Odenie, Colecția Muzeului Național de Istorie a Transilvaniei; © MNIT 2023).
- Fig. 8. Distribuția ulciorelor realizate din pastă grosieră în cimitirul de la Tăul Corna (prelucrat după Alburnus Maior III, Pl. IV).8.

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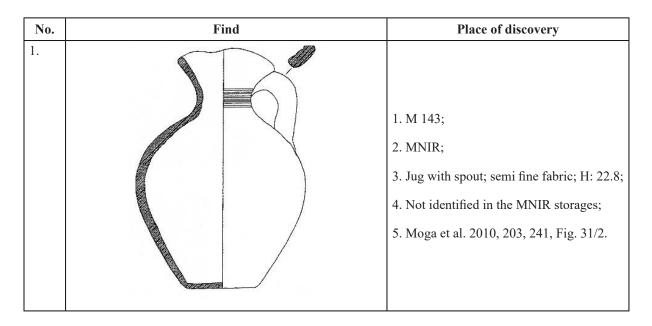
Annex 1. Discoveries of coarse ware jugs from Alburnus Maior³⁸

1. CORSE WARE JUGS WITH FLAT BASE AND TREFOIL MOUTH

a. Alburnus Maior: Tăul Corna

No.	Find	Place of discovery
1.		 M 297; MNIR; p. inv. no.: TC 1796; Jug U 2 type; fabric RM 10; H (estimated): 33.6 cm; Traces of organic matter on the body and inside the vessel; Alburnus Maior III 2008, 224-225, Pl. 291-292.

b. Alburnus Maior: Tăul Găuri - Hop



The vessels included here have all been published in monographs and studies dedicated to the archaeological discoveries from Alburnus Maior. The drawings of the finds were reproduced after the initial publication, while the photos are the property of the National History Museum of Romania, Bucharest (**Photographer: George Nica; the Collection of the National History Museum of Romania;** © MNIR 2023). The column "Information" from the table comprises five points: 1. Place of discovery; 2. Storage; 3. Description; 4. Observations; 5. Bibliography. The following abbreviations have been used: H (height); p. inv. no. (provisional inventory number).

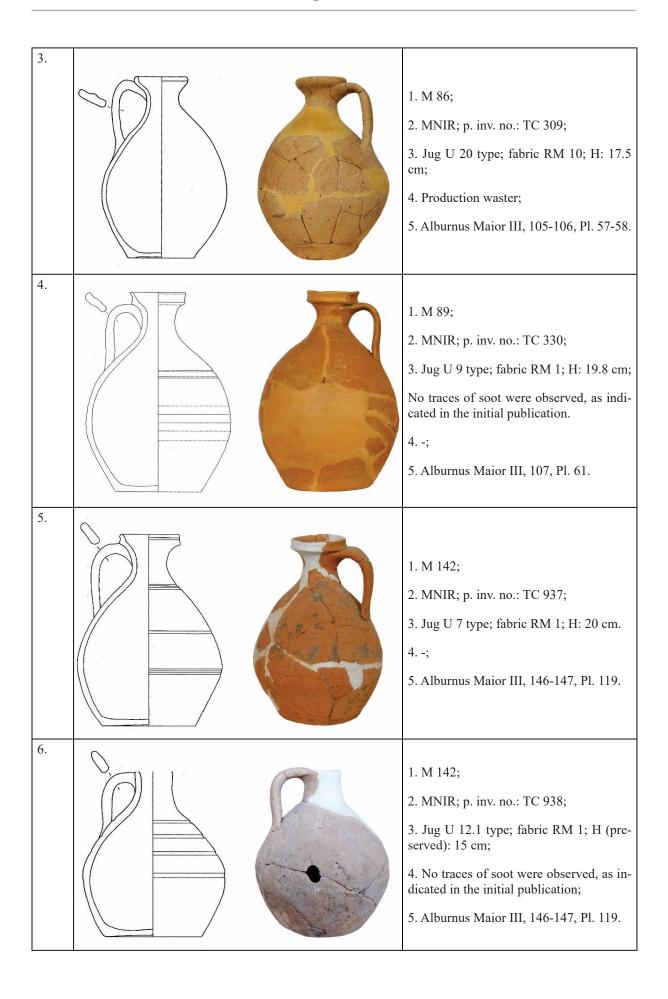
2. CORSE WARE JUGS WITH FLAT BASE AND ROUND MOUTH

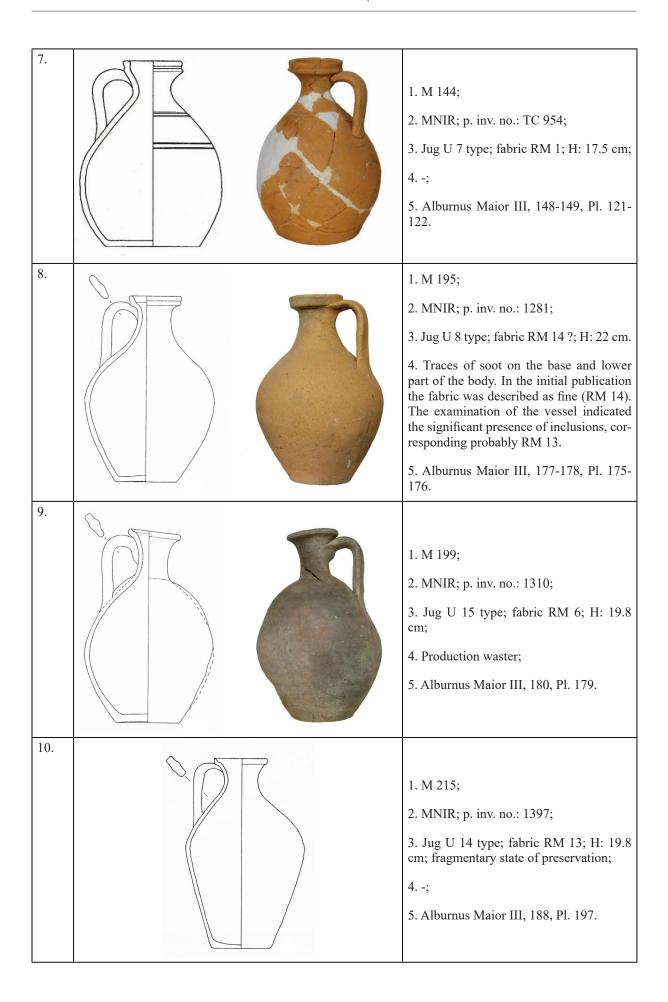
a. Alburnus Maior: The circular funerary monument

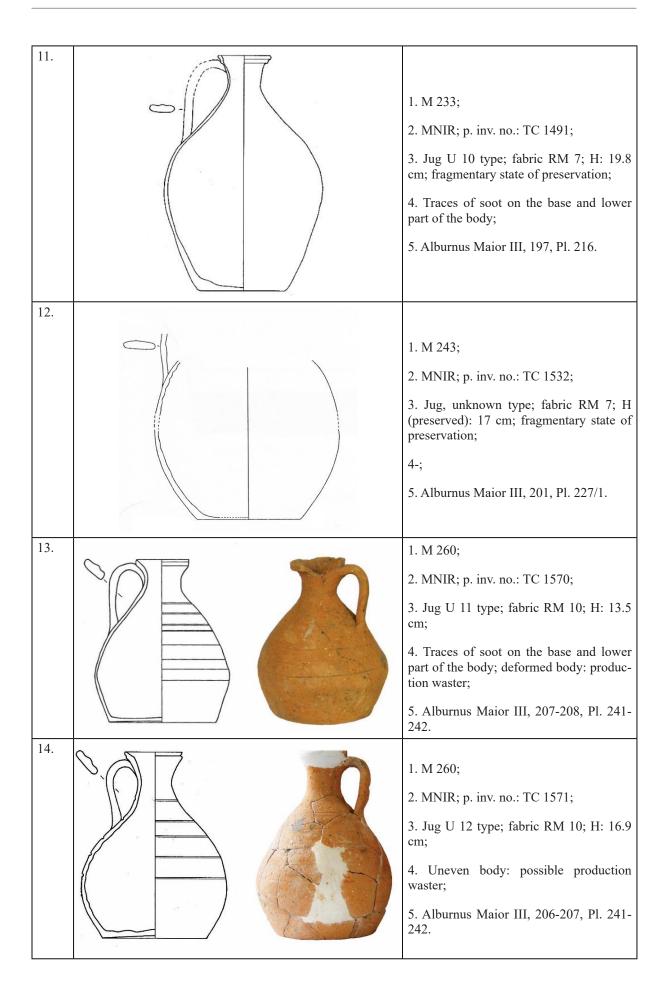
No.	Find	Information
1.		 M 1; MNIR; p. inv. no.: BC1; Jug; semi fine fabric with inclusions of lime, mica and iron oxides; H: 17.7 cm.; -; Alburnus Maior II, 33-34, 55-56, 61, Pl. 6, 39/1.

b. Alburnus Maior: Tăul Corna

No.	Find	Place of discovery
1.		 M 32; MNIR; p inv. no.: TC 46; Jug U 7 type; fabric RM 10; H: 19.8 cm; -; Alburnus Maior III, 81-82, Pl. 18.
2.		1. M 46; 2. MNIR; p. inv. no.: TC 76; 3. Jug U 8 type; fabric RM 10; H: 21 cm; 4; 5. Alburnus Maior III, 86-87, Pl. 28-29.







15.	 M 260; MNIR; p. inv. no.: TC 1572; Jug U 12.1 type; fabric RM 10; H: 16.5 cm; Traces of soot on the base and lower part of the body; Alburnus Maior III, 206-207, Pl. 241-242.
16.	 M 277; MNIR; p. inv. no.: TC 1660; Jug U 19 type; fabric RM 7; H: 24 cm; Grave M 277 also contains a flat base which could come from the lower part of a course ware jug. Alburnus Maior III, 216, Pl. 266.
17.	 M 293; MNIR; p. inv. no.: TC 1717; Jug U 18 type; fabric RM 7; H (estimated): 33.6 cm; fragmentary state of preservation; Traces of organic matter on the inside; Alburnus Maior III, 223, Pl. 286-287.
18.	 M 307; MNIR; p. inv. no.: TC 1761; Jug U 8 type; fabric RM 10; H -; fragmentary state of preservation; Traces of organic matter on the surface; Alburnus Maior III, 229, Pl. 305/3.

c. Alburnus Maior: Tăul Găuri – Hop

No.	Find	Place of discovery
1.		 M 88; MNIR; no inv. no.; Jug with globular body; semi fine fabric; H: 13.1 cm; Not identified in the MNIR storages; Moga et al. 2010, 198-199, 234-235, Fig. 24-25.
2.		 M 108; MNIR; no inv. no.; Jug with ovoid body; semi fine fabric; H: 19.6 cm. Not identified in the MNIR storages. Moga et al. 2010, 200, 237, Fig. 27/16.
3.		 M 118?; the jug is illustrated and the list of figures indicates that it was part of M 118, but it is not mentioned in the description of the grave; MNIR; no inv. no.; Jug with flat base; H: 19.6 cm (after the drawing). Not identified in the MNIR storages. Moga et al. 2010, 201, 237, Fig. 28/9.
4.		 M 142; MNIR; no inv. no.; Jug made of semi fine fabric; H: 13.2 cm. Very poor state of preservation (only a few fragments); Moga et al. 2010, 203, 241, Fig. 31/1.

d. Alburnus Maior: Tăul Secuilor/Pârâul Porcului

No.	Find	Place of discovery
1.		1. G1 (modern intervention which truncated M 268); probably from the inventory of M 268;
		2. MNIR; inv. no.: 363550;
		3. Jug with flat base; fabric RM 7 (most likely RM 1 or RM 10); H: 18.5 cm.
		4. No drawing of the vessel has been published.
		5. Neagu, Bocan 2007-2008, 104, Pl. 1-2; Rusu-Bolindeţ, Botiş 2018, 64, no. 153 (s. v. C. M. Neagu);

Annex 2. Associations of the jugs in the funerary inventory³⁹

1. Alburnus Maior - The circular funerary monument

Other			Other		_		_													
Key			Key																	
Brooch Mirror			Mirror																	
Brooch			Brooch															1		
Knife			Knife							-					1					
Buckle Knife			Buckle								1									
Nail	31		Nail				9			6	3	-								
Hob Nail			Hob					9		2	-	9								
Coin	-		Coin							_										
Glass unguentarium			Glass	индаснанаш																
Lamp			Lamp			7	7	1	1	7	7					2				
Bowl Beaker Turibulum			Beaker Turibulum			4														
Beaker			Beaker			1										1	1	1		
Bowl			Bowl														1			
Jar		Corna	Jar		_	1					2				1				1	
Fine ware jug		– Tăul (Fine	jug	-	2	33				-									•
Corse ware jug	-	ıs Maior	Corse	jug	-	1	-	1	2	1	1	1	1	1	1	3	1+1 base	1	1	
Grave no.	+M 1	2. Alburnus Maior – Tăul Corna	Grave		+M 32	*M 46	98 W*	68 W*	+M 142	*M 144	*M 195	*M 199	+M215	*M 233	*M243	*M 260	+M 277	*M 293	+M 297	1000

The column "Other" includes pottery fragments of unknown shape or type, different fragments of iron and stone objects with no precise identification. The different types of funerary rite is indicated with symbols: * for in situ cremation (bustum) and + for ustrinum cremation.

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Grave	Corse	Fine	Jar	Bowl	Beaker	Turibulum	Lamp	Grave Corse Fine Jar Bowl Beaker Turibulum Lamp Glass Coin Hob Nail Buckle Knife Brooch Mirror Key Other	Coin	Hob	Nail	Buckle	Knife	Brooch	Mirror	Key	Other
no.	ware jug	ware jug						unguentarium		nail							
+W 88	1					9	5								1		1
*M 108			1														
+M 118 1?	1?							Unknown inventory	n inven	tory							
*M 142																	
*M 143	1																

4. Alburnus Maior: Tăul Secuilor/Pârâul Porcului

Key Other		1 2
Mirror		
Knife Brooch		
Knife		
Nail Buckle		
Nail		16
	nail	1
Coin		
Glass	unguentarium	1
Lamp		7
Turibulum		2
Corse Fine Jar Bowl Beaker		1
Bowl		
Jar		2
Fine	ware jug	2
Corse	ware jug	1?
Grave	no.	*M 268