

# ONE HUNDRED SHERDS. CHILIA-MILITARI CULTURE RELOADED. ALEXANDRIA POTTERY CASE

**Abstract:** Preparing themselves for field survey along *Limes Transalutanius*, the authors are looking for references – other than book descriptions and drawings – concerning the so-called Chilia-Militari culture, laying on the both sides of the Roman frontier, stretching from the second half of the second century up to the late third (or early fourth) century. After several attempts with pottery contained in exhibitions, they finally reached an unprocessed lot of pot sherds from a recent digging on the by-pass route north of Alexandria city.

Interested first of all in fabrication issues, in order to successfully deal with fragmentary pottery, they fill a database with notes, photos and drawings, and make a typology sustained by petrography. The distribution of artefacts on functional types – as uncertain as it is – shows a society thinking and living ‘big’, speaking either of tableware, liquid containers or storage vessels.

Beyond sherds, shapes, colours and sizes, there is a flagrant ambiguity of a ‘barbarian’ culture born at the fringes of the empire, part inside and part outside, cooking Roman but drinking as Dacians did, setting the table for the Gothic feast.

**Keywords:** pottery, fabrication, fine ware, coarse pottery, storage containers.

## THE FRAME

**T**he state of art of the so-called Chilia-Militari Culture lays today about where it was three decades earlier, when Gheorghe Bichir was publishing his monograph (1984). Most of the literature is in Romanian language, thus almost not known abroad, fact which enforces a larger introduction, in order to enable the reader to follow the debate<sup>1</sup>.

The reference geographic area is comprised between the outskirts of Bucharest city in east and Olt River in west (185 km), and between the Lower Danube and the crests of Meridional Carpathian Mountains (200 km), or an area of 37,000 square km. This territory is cut in unequal parts by the Roman frontier known as *Limes Transalutanius*, from the first half of the third century, delineated approximately south-north, between the harbour fort Flămânda and the fortlet from Drumu Carului, the last made at an altitude of 1200 m, in the pass Bran. The *limes* is located only 15 km afar from the mouth

<sup>1</sup> From the long list of Bichir’s publications one can pick only some titles in international languages; most of them deal with the culture at stake under the much larger umbrella of ‘Free Dacians’ (BICHIR 1971, 1975, 1976, 1977, 1982), only one being centred on our subject (BICHIR 1980), detailing yet more chronological issues and less about pottery. The monograph from 1984 (in Romanian) remains the only reliable source for the last.

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of Olt River, but the distance is progressively increasing northward, to 38 km at the latitude of Roşiorii de Vede city, 49 km at the latitude of Piteşti city, and 75 km at the peak of the mountains. The name of *Limes Transalutanus* – a modern concept – is linked by Olt River, named *Alutus* in antiquity, meaning ‘the frontier beyond the Olt River’. The northern end of *Limes Transalutanus* is made by its intersection with the upper middle-upper course of the same river, 45 km northeast of Drumu Carului, as the crow flies.

This territory had as neighbours, in the second century, the Roman provinces of *Moesia Inferior*, at the Danube, and *Dacia Inferior* along the Olt River, Sarmatian nomads east of the embouchure of Argeş River and the *Carpi* settlements in north-eastern Muntenia (see the map from the Figure 18).

The chronological frame of the Chilia-Militari culture, as stated by Gheorghe Bichir, stretches out from the middle of the second century<sup>2</sup> to the second decade of the fourth century. Based on his detailed diggings in Mătăsar – where both a settlement and a cemetery were thoroughly investigated – G. Bichir stated two phases, divided hypothetically by the *Carpi* invasion from 214<sup>3</sup>, when the settlements were burned down, then remade, in the same place (as Mătăsar) or near the former location, as in the cases Scorniceşti or Coloneşti. Therefore the diggings from Mătăsar are so far the most important, because the main traits of each phase were defined on the study of that site. The name of the culture was given anyway earlier, starting from the necropolis from Chilia<sup>4</sup> (in northwest) and the settlement from Militari (located near a neighbourhood of Bucharest, from which borrowed the name)<sup>5</sup>.

The population that nourished that culture is a bit problematic, at least in the first instance. The plain laying north of the Danube, known today as the Romanian Plain, was several times ‘sterilized’ by Romans, long before the conquest, turning it in a *terra deserta* at the half of the first century AD<sup>6</sup>; just some places, located more than 100 km of Danube, at the foothills line, remained shelter for some Getic communities, like Gruiu Dării, possibly also Târgşor, Drajna de Sus, Cetăţeni<sup>7</sup>. All these were located in war area, in the time of the wars raged by Trajan against Decebal’s allies (especially 101-102), the communities being disrupted and probably relocated; this is why the exact origin of the later ‘Chilia-Militari’ population is not that clear. It would be yet not unfair to suppose that their ancestors lived on the high lands<sup>8</sup> from the north, almost unexplored archaeologically.

<sup>2</sup> Lowering down the date to the rule of Hadrianus, as suggested by the author (BICHIR 1984, 91-92; see also BICHIR 1980) is not safe, due to the fact that ‘analogies’ and ‘typologies’ are not exactly a science, also because the silver coins minted by Trajan and Hadrian, of high quality, stayed in circulation up to the early third century (as we saw in our own digging in the fort Răcari (Dolj County). There are also some historical issues, because the Romanian Plain was in fact an empty territory at least to around the year 120.

<sup>3</sup> BICHIR 1984, 93.

<sup>4</sup> MORINTZ 1961, esp. 402-407. Diggings were made beginning with 1958 (MORINTZ 1962, 513), covering most of the cemetery, but just two test trenches in the settlement.

<sup>5</sup> ROSETTI 1932; ZIRRA/CAZIMIR 1963; ZGÎBEA 1963. See also TURCU 1992.

<sup>6</sup> BICHIR 1974, 28; BÂRCĂ 2015, 37-38, TEODOR 2015, 3-4,

<sup>7</sup> For Gruiu Dării see TEODOR 2014, 129; for the others – BICHIR 1974, 28.

<sup>8</sup> The mediaeval name of the region, Muntenia, is derived from Rom. ‘munte’ (mountain), meaning ‘The Highland’. The historical example of the formation of the mediaeval state of Walachia (or Muntenia), with highlanders

As the situation of this territory was, in the day after the wars, on short, a huge emptiness, but the network of Chilia-Militari settlements is pretty dense (see the map), one should conclude that the process of repopulation took some time, as a generation or two.

One needs here also some historical guidelines. When the wars against Dacians were over, in 106, Muntenia and southern Moldavia became part of the Roman province *Moesia Inferior*, as well as the most part of Oltenia (located between the Lower Olt River and the Iron Gates of the Danube). When the conqueror died, in 117, the eastern Sarmatians *Roxolani* upraised asking access to the green plains north of Lower Danube. The war was settled down by a peace treaty giving *Roxolani* what they wanted: a *foedus*, high titles for the king, and pasture rights in Muntenia, but with under the severe supervising of the Roman army<sup>9</sup>. The peace conditions drove also to a major administrative reestablishment: the Roman army left the permanent bases from Muntenia, leaving a huge territory in the hands of barbarians; *Moesia Inferior* lost also Oltenia, which became *Dacia Inferior*, attaching also the south-eastern corner of Transylvania, formerly under the authority of *Moesia Inferior*, including the key fortress *Angustia* (Breţcu), which was controlling the main pass over the Eastern Carpathians, Oituz. To this period, just after 120, have to be ascribed some isolated Sarmatian discoveries in central Muntenia, as the funerary *tumulus* from Vităneşti (8 km east of Alexandria city)<sup>10</sup>. The earliest Sarmatian presence in the plain north the Lower Danube, prior to the second century, is located in areas east of the longitude of Bucharest, as well as the bulk of the later discoveries<sup>11</sup>. The influence of Sarmatians on the Chilia-Militari culture, as well as the influence played by *Carpi*, can be revealed mostly in the eastern fringes of it.

The Marcomanic wars did not left relevant signs in Romanian Plain, but inflicted consequences with strategic meaning, affecting directly the situation south of the mountains. The main outcome of the war, in the Lower Danube area, was the completely – and final – destruction of *Piroboridava*<sup>12</sup>, a major hub of Roman communications, making troubles in logistics. Restraining us from a detailed argument, because it is already written<sup>13</sup>, we will just make the statement that the last effect of this alteration in the strategic state finally drove to the construction of *Limes Transalutanus*, as a mean not only to improve the early

colonizing the southern plains, has been frequently used by the Romanian historiography as a paradigm for other (less known) historical ages, although the lack of documentation is still embarrassing. In fact there is no clue that the folks from Chilia-Militari area would be far away migrants. They certainly did not come from Moldavia, because eastern communities are relatively easy to spot, as illustrated both by the necropolises within the province of Dacia (Obreja, Locusteni or Sopor de Câmpie; see PROTASE 1969, 1973, POPILIAN 1980) or *Carpi* culture influences observed in the eastern settlements from Chilia-Militari culture (most obvious in later settlements, as Căţelu, Străuleşti or Târgşor, see TEODOR 2001, chapter 8). They couldn’t come from Transylvania either, where the defeated Dacians fled northward, not southward.

<sup>9</sup> BÂRCĂ 2015, 37-39; TEODOR 2014.

<sup>10</sup> BÂRCĂ 2015, 36.

<sup>11</sup> BÂRCĂ 2015.

<sup>12</sup> Poiana, on the left Siret River, at the half way between the Roman bridgehead from Tirighina-Barboşi (near Galaţi city) and the eastern outpost of the Roman possessions in Transylvania, *Angustia*.

<sup>13</sup> TEODOR 2014.

alarm in front of *Romula*, the capital of *Dacia Inferior*, but to shorten the supply lines heading south-eastern Transylvania. Although the debate about the exact chronology of building up *Limes Transalutani* is not quite over<sup>14</sup>, in our advice this happened at the threshold of the second and the third century AD.

Another checkpoint in the history outline is the year 214, when a new *Carpi* invasion struck the Romanian Plain, event considered by G. Bichir<sup>15</sup> as decisive for the end of the first phase of Chilia-Militari culture, including for settlements west of the Roman frontier, as Colonești or Scornicești. Unfortunately, this circumstance cannot be equally established for the *limes* itself, at least at this stage of research<sup>16</sup>.

Another devastating happenstance occurred in 245 (and the next two years), when *Carpi* annihilated *Limes Transalutani*, the Roman troops being withdrawn west of Olt River<sup>17</sup>. Intriguing enough, this time the settlements of the Chilia-Militari type did not suffer damages. Of course, from such a pair of uneven events one could picture the drama of the local connivance with the raiders; from our point of view, this is a speculation difficult to prove, from reasons maybe easier to understand at the end of this study.

The last event – on a minimal list – is localised in the years 315-317, when Constantine the Great smashed *Carpi*, changing the balance of power at the Lower Danube. The real winners were the Goths, taking the opportunity and overflowing Prut River, down to the Romanian Plain. This is probably the moment when the Chilia-Militari culture concluded its existence, or at least G. Bichir was thinking so<sup>18</sup>. But a small mystery is hidden here: the Gothic federation, archaeologically identified with Chernyakhov<sup>19</sup> culture, spread out exactly to the limit of the former Roman *limes*, *Transalutani*, not further; a ghost frontier in glorious Constantine's days, ruined seven decades earlier. Isn't that odd?... What happened in the western Muntenia for the rest of the fourth century?... We cannot tell today.

A brief description of the civilization Chilia-Militari

<sup>14</sup> See PETOLESCU 2005 and BOGDAN-CĂTĂNICIU 2009, mentioning only the latest developments in a long 'war'.

<sup>15</sup> BICHIR 1984, 93. The exact significance of that year (214) for the history of the Romanian Plain, is not clear at all, at least for us.

<sup>16</sup> The only extensive archaeological research is at the large fort from Urlueni (BOGDAN-CĂTĂNICIU 1997, 96-104; see also TEODOR 2015, 60-63), located perfectly in this context, east of Scornicești and southeast of Colonești, pretty close of each (one day of march). Unfortunately, the results regarding the old phase – earth and timber – are rather poor.

<sup>17</sup> But did the invasion struck directly the forts of the *limes*? Or the troops were withdrawn from strategic reasons pertaining of the general situation from Balkans, for instance being needed somewhere else? There are yet some clues that the circumstances of the withdrawal were truly dramatic, as proved by the recovery of a hoard of over 20 aurei, minted between 242-244, in Pitești city (DIMA 2012). Although it is not documented a fort in the city, due of its position on Argeș River – the most important stream cutting *Limes Transalutani* – we can consider as granted a major garrison in that location.

<sup>18</sup> BICHIR 1984, 94.

<sup>19</sup> Known in Romanian archaeology as Sântana de Mureș (-Cerneahov, see MITREA/PREDA 1964, 1966) culture, after the name of a late necropolis from Sântana de Mureș (Mureș County, in central Transylvania), of early Hunnic Age. Using a distinctive name for the Gothic mixture, on the territory of Romania, is motivated by the absence of the early stages of Chernyakhov culture, as well as a better connected society to the Roman world, and reflected in the casual presence of Roman imports. For the sake of the foreign reader, we will use here the well-known name of the material culture of Gothic confederation.

recalls the relatively small and opened settlements, with half buried houses (on-surface huts are not missing), usually without a hitting device. A second trait is the contrast made between the humble housing and the considerable frequency of Roman 'imports', from fibulae, rushlights, weaponry, military equipment, to amphorae and tableware. A third fact is the occurrence – more often in the early phase – of 'iconic' handmade pottery, as the so-called 'Dacian cup', or tall pots with wide mouth and bag-like shape, adorned with fingerprints or cuts on middle diameter added clay strips, artefacts inherited from the darkness of the Iron Age, much beyond La Tène influence<sup>20</sup>.

An archaeologist collecting data in field walking is dealing mostly with pot sherds. The main categories one could encounter are the following (classification resuming a chapter from the book of G. Bichir)<sup>21</sup>:

(A) handmade pottery of archaic tradition, with coarse fabric, usually reddish, decorated with clay strips and buttons on the shoulders, summing up to around 40% of all pottery in settlements, but only ca. 15% in cemeteries (incineration, mostly in covered urns); the frequency in the first phase is greater; the most usual shapes are the (cooking) pots, adding some 'Dacian cups' – small conical recipients, with or without a handle<sup>22</sup>;

(B) wheel made pottery 'of local tradition', fine fabric, grey; pots<sup>23</sup>, storage vessels ('Krausengefäße'), amphorae, large jugs (or flagons, with a term frequently used lately) and relatively small beakers<sup>24</sup>, both with a handle, then bowls, lids, strainers (just a few), others (very rare);

(C) cooking pottery (Roman provincial ware, locally made), taking a share of 35% from all thrown pottery: cooking pots, dishes, conical lids, others; oxidant firing, giving yet dark shades of red, turning grey for dishes;

(D) Roman imports (amphorae, bowls, cups, *terra sigillata*, rushlights, others) usually brick-red, with a share up to 15% (from all pottery) in some major sites, but less in the others.

The classification above is pretty much a 'paradigm', good for teaching, probably, but well distracting an applied research. Most of the 'historical' encounter is half true, half a fake. Not being specialists on La Tène pottery, but shaping our professional life in museums and seeing plenty of Dacian ware, we couldn't miss some critical observations. Bringing here only the short list of troubles, let's see together the main preconceived facts, or at least as they appeared to us.

The class B of wares is considered 'traditional' mainly because the fabric is fine and the colour is grey. Well – it is not *the same grey*. The Dacian wheel thrown pottery from

<sup>20</sup> MOSCALU 1983, plates XIV-XXI, all from the Type III, with roots in the Late Bronze cultures Noua and Sabatinovka (or Noua-Sabatinovka, *idem*, 37-38).

<sup>21</sup> BICHIR 1984, 30-40.

<sup>22</sup> BICHIR (1984, 31) was using two different names, because the cups with handles are those coming directly from La Tène tradition, the other being 'new'. One has to consider if the absence of the handle could not mean a changed function.

<sup>23</sup> Labelled by BICHIR (1984, 34) 'urns', mostly being recovered from cemeteries, a wrong choice, because they can be encountered in settlements too. The generic shape is named, in Romanian archaeology, 'oală-borcan' (app. 'pot /-jar')

<sup>24</sup> Having distinctive names in Romanian: 'cană' (beaker of any capacity) and 'urcior' (also 'ulcior', which is a tall flagon, with a narrow neck, usually of larger capacity).



the 'classic age' (first century BC and AD) is grey indeed, but most of it is *light grey*<sup>25</sup>. Chilia-Militari fine ware is usually *middle and dark grey*, as we shall see.

The Roman imports (class D) are allocated only for red-brick colours, a fact relatively acceptable for the second century, but obviously problematic in the third century, which gives most of the artefacts analysed. As long as the research cannot provide a discriminant analysis, based on petrography or spectroscopy (XRF and diffractometry), nothing is really secured.

The cooking pottery, made on a Roman recipe (class C), is easily identified by the sandy paste, the S shaped rims (fitting the lid), the smoked margins, the traces of the flames on sides, the organic remains. Interesting to note, the class A is made from almost the same paste composition, and it is baked the same, in oxidant conditions and almost very well, turning out a sort of (dark) red. It is then 'traditional' only because it is shaped by hand? Of course not; for instance, much of this class is made of 'Dacian cups' (most of them without handle), perpetuated on that archaic manufacture from reasons beyond 'necessity'<sup>26</sup>. But truly 'traditional' handmade Dacian pottery was not sandy at all, but porous and with a slippery surface<sup>27</sup>.

Looking deeper into the descriptive texts wrote by G. Bichir, one can easily get that he was aware about the relativity of the employed definitions. We will bring here just some examples; for instance, some pots from the B class have concave bottoms, not flat, as in the 'classical age', or even in the contemporary culture of *Carpi*<sup>28</sup>, an innovation defying the concept of 'traditional', easy to be ascribed rather to a Roman influence. As concerns the so-called *Krausengefäße* (the most casual shape of storage container, in Chilia-Militari milieu), he was writing that '*due to their shorter proportion, as compared with Dacian dolia, they suggest the Roman influence*'<sup>29</sup>. Also, many bowls, although greyware, are indebted to Roman shapes, as well as one of the types of lids<sup>30</sup>.

<sup>25</sup> CRIȘAN 1969, 154-155, fig. 65 for 'classic' Dacian cup.

<sup>26</sup> There are some isolated examples of 'Dacian cups' made on the wheel (MATEI 2011, 98), but not in southern Romania.

<sup>27</sup> Unfortunately, we are handling here definitions made for a span time of two centuries before the conquest (as the 'classic Dacian Age' goes). A comparison with the latest layer of living on the Dacian fortresses would be much more helpful. A recent visit at Pietra Roșie (one of the six strongholds from Orăștiei Mountains, the 'Dacian Mountains', where the power was held) occasioned finding on the surface several hand-shaped sherds made from a quite sandy paste. The debate about the Romanization of Dacians prior to the conquest, interesting as it is (BOGDAN-CĂTĂNICIU 2007, 23-33), has never stopped here, in the matter of pottery making and fabrication. As the most expected collection of Dacian pottery, from Sarmizegetusa Regia, is not published (from many decades), we have little other choices, as for instance the artefacts published for Gruia Dării (DUPOI/SÎRBU 2001, MATEI 2011).

<sup>28</sup> BICHIR 1984, 34.

<sup>29</sup> BICHIR 1984, 35.

<sup>30</sup> BICHIR 1984, 36. We can look at the ceramic evidence the other way around. Many pottery types (as shape, function and fabrication) are casual all over the Roman world; nevertheless, at least as many fit better the concept of *Roman provincial pottery*, being created and distributed in one province or a small group of provinces, as a regional hub. The issue is worthing a stand-alone study for Dacia Inferior and the surroundings. From the old – and the only – monograph of pottery from Oltenia (the southern part of *Dacia Inferior*; see POPILIAN 1976), one can collect examples of types circulating only in closed areas, being candidates for local developments of the former cultural experiences. Such would be the pots type 7 (POPILIAN 1976, 88, cat. 351-355, rendered as certain Dacian legacy), type 11 (*idem*, 89, cat. 365-369,

The concept developed by G. Bichir about this archaeological culture, in the wider frame of the 'Free Dacians' (most of his studies are overviews at a national scale, including areas so distant as north-eastern, north-western and southern parts of modern Romania, located 500-600 km away each other) is not only struck nowadays by the rust of nationalism<sup>31</sup>, but developed also monstrous side effects. The worst of all is an absurd split of the research fields of research for southern Romania. Gheorghe Bichir – the specialist in 'Free Dacians' – and Ioana Bogdan Cătănicu – the only 'classicist' archaeologist from the retired generation really interested in *Limes Transalutani* – never worked together, being almost absent from the other's *opus*. Consequently, they created together the parallel worlds of Chilia-Militari culture and *Transalutani* frontier, although they existed in the same geography and chronology.

This is, more or less, the departure point of the current research. The progress recorded in the last three decades is rather poor. The systematic diggings in sites with Chilia-Militari remnants were stopped after 1990, except Militari<sup>32</sup>, near Bucharest, due to a chronic lack of funds and interest<sup>33</sup>. Furthermore, the old historiography was buried under harsh reviews<sup>34</sup>, mainly for its nationalism and lack of method, Romanian archaeology needing a time-out, for reflection.

## THE TRIGGER

The current study was initiated under the objectives undertaken within a research project about *Limes Transalutani*<sup>35</sup> – the Roman frontier crossing western Muntenia (or Great Walachia) in the first half of the third century<sup>36</sup>. Some early fieldwalking made along the line, in fall 2012<sup>37</sup>, showed that the pottery scattered along that border is not only 'Roman', but a mix with different, more archaic features, of La Tène<sup>38</sup> extraction, known as Chilia-Militari Culture. This is exactly why the research project comprises a study supposed to enhance our knowledge about the last, in

found only in rural area), pots with two handles type 4 (*idem*, 92, cat. 399-407), beakers type 2 (*idem*, 94, cat. 410-411), jugs type 1 (*idem*, 96, cat. 418-432, spread only in the Lower Danube provinces), and so on. Understanding that 'Romanization' is a two way process, including an *interpretatio romana* of the local culture, the process of ascribing 'cultural roots' for a particular feature becomes tricky. What we can fairly do, at this point, is to establish the differences between a 'barbarian' culture, as Chilia-Militari, and the material culture of the proximal Roman territory, as *Dacia Inferior* or *Moesia Inferior* in our case.

<sup>31</sup> Almost impossible to understand for a gifted and informed researcher without a good knowledge of the anthropology for the twentieth century, dominated by the 'besieged fortress' (or 'the isle of Romanity in a Slavic Sea').

<sup>32</sup> NEGRU 1999, 2006. Other contributions to the archaeology of the third century, mainly in southern Romania: NEGRU 2002, 2003.

<sup>33</sup> The same happened with the entire post-Roman and early Middle Age.

<sup>34</sup> As CURTA 1994 or NICULESCU 2005.

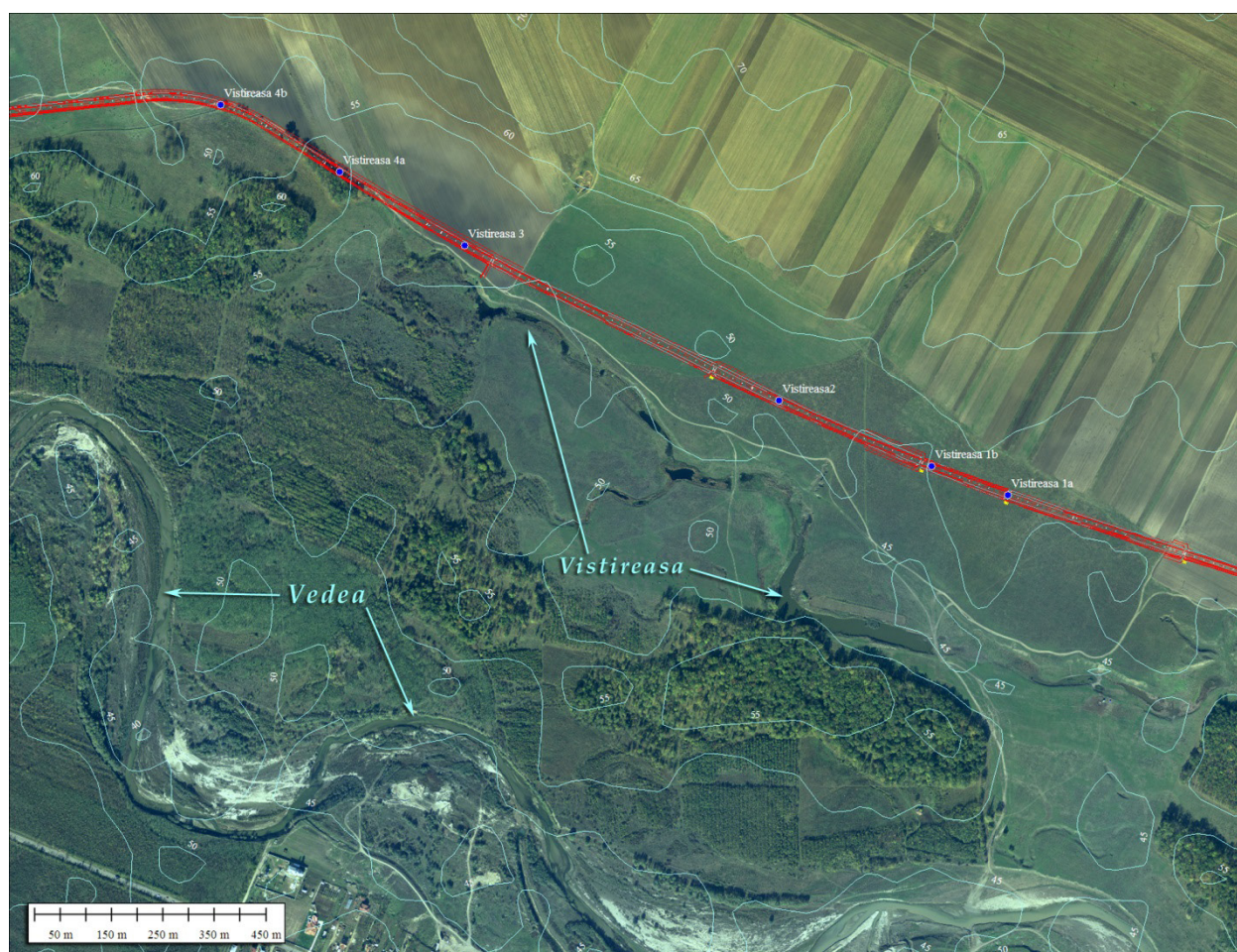
<sup>35</sup> Granted by the Ministry of Education and Science through UEFISCDI, project PN-II-PT-PCCA-2013-4-0759, 2014-2016, see [www.limes-transalutani.ro](http://www.limes-transalutani.ro).

<sup>36</sup> BOGDAN-CĂTĂNICIU 1977, 1997, 2009 (selection); TEODOR 2015; TEODOR/ȘTEFAN 2014 (selection).

<sup>37</sup> TEODOR 2015, see the seventh chapter (Fieldwalk, 125-167).

<sup>38</sup> Although not dealing with a proper La Tène culture, but a strong Celtic influence (especially in Transylvania), the Romanian archaeology usually ascribes the second Iron Age to the La Tène Culture. The final stage of it, covering the first century before and in the Christian era, is labelled as the 'Classic Dacian Culture', on good grounds, being an original and influential mix of western (Celtic) and southern (Thracian) and eastern (Iranian) traditions.





**Figure 1.** Localization of the investigated archaeological sites on the bypass route north of the city Alexandria Military orthophotos 2012 and the project of the route (see mainly the sites Vistireasa 1a and 4a).

order to enable us to make the difference, in the fieldwork or in the laboratory.

We have started collecting data from the museum repositories, taking pictures and making notes for ceramic artefacts from the area. Most of them were done at the County Museum Argeş (Piteşti), the others – at the National Museum from Bucharest. Almost all comes from the main site of this culture, Mătăsar, and from the cemetery from Chilia, and just a few others (as Vlăsineşti, but also some comparison items related to Chernyakhov culture or to the Sarmatic milieu). More interested in fabrication issues than in shapes (many published), we worked also clay based non-pottery items, like miniatures, spindle whorls, loom weights, and even two fragments of clay coating for the houses' walls. Soon enough we understood the fact that we were standing in a dead-end: the available pottery from the public display is just a small part of the digging inventory, the rest of it being lost somewhere in dark and unfriendly storerooms, deprived of any connection with the digging itself. All we could see were just some 'outstanding discoveries' of what happened to be restorable shapes, with rough completion and neglecting restitution. This is a fact: the restored recipients are not fitted for a detailed study.

That was the context in which we paid a visit to the County Museum Teleorman, from Alexandria city, where the manager – and our good friend, Pavel Mirea – took us in a repository of unprocessed artefacts. A huge amount of pottery – enough to load a small truck – was coming from a relatively recent preventive digging (2012) on the Alexandria city bypass

(Figure 1). The team of Limes Transalutani was dumbstruck not only of the mass of the remains, but also by the sizes of the recipients and the quality of manufacture. The next day we have started persuading the keepers of the intellectual rights – the archaeologists which have conducted the digging – to allow us to make a detailed study on a sampled lot of pottery; just a sample, because the whole bulk of matter would have ask much more time than existing, for our project. Finally, after seeing all the stuff, we picked up two bags<sup>39</sup> of pottery and took them to Bucharest (at the limit of transportation in a city car), for study.

They proved later to be exactly 100 sherds, mostly large, from two different archaeological sites from the bypass, those numbered 1 and 4. As we still hope – an acceptable and relevant sample from the entire archaeological inventory. Giving the fact that the time was ticking – too fast – we decided to make from this lot an introductory study on Chilia-Militari pottery.

## METHODOLOGY

Fortunately we were not forced to look much for a recording system; both researchers implied in the 'laboratory phase' had in their backgrounds PhD thesis dedicated to pottery, for close related areas of research<sup>40</sup>. It have been established four key criteria for evaluating the quality of the ceramic paste, on a fixed scale of 5, where 1 is 'bad' and 5 is 'excellent', as follows:

<sup>39</sup> We did not alter the selection of the artefacts, just taking two of the most interesting packs, as they were.

<sup>40</sup> TEODOR 2001, BĂDESCU 2011. The processing system is strongly indebted to the older handbook of ORTON/TYERS/VINCE 1993.

**Tabel 1.** Criteria for the ceramic paste evaluation

critereon	code	meaning	simple hints
hardness	D1	very friable	fragments can be detached by soft rubbing with the fingers
	D2	friable	fragments are detaching when rubbing with the nail
	D3	soft	the sherd can be scratched with the nail
	D4	hard	the sherd cannot be scratched with the nail
	D5	extremely hard	the sherd cannot be scratched with a knife (glass like)
roughness	R1	very high	the surface has obvious and systematic bumps, visible from distance; rough touch
	R2	high	the uneven surface is not very well visible, but extremely obvious to the touch
	R3	dusty	smooth surface, but handling the sherd leaves on the fingers a silty dust
	R4	smooth	flat, regular surface, no roughness
	R5	soap like	slippery surface
inclusions' size	M1	very coarse	> 6 mm; oversized but rare (less than 1 to 20 cm <sup>2</sup> ) are ignored
	M2	coarse	2-6 mm (same as above)
	M3	middle sized	0.5-2 mm
	M4	small	0.2-0.5 mm
	M5	very small	less than 0.2 mm
inclusions' frequency	F1	very high	> 30% (adapted after the chart from ORTON/TYERS/VINCE 1993, 238)
	F2	high	15-30% (or around 20%)
	F3	medium	5-15% (or around 10%)
	F4	small	<5% (certainly less than 10%)
	F5	almost invisible	less than 2%

The size and the frequency of the 'inclusions'<sup>41</sup> are followed by a list of identifiable inclusions, just with the naked eye or a magnifier, codified as follows (Table 2).

We used deliberately a very limited range of colour names. Although the Munsell code is so popular between archaeologists<sup>42</sup>, we believe that would be a wrong choice<sup>43</sup>, at least for our research. One can find five or ten different Munsell shades on every pot sherd; which one to be recorded and why? The object of study is not some new stuff, but seventeen centuries old ceramics, used for cooking – then smoked – and storage – sometimes for fats, leaving darker stains. Once broken, they filled garbage pits and burned several times along organic waste, following the complicated depositional alterations. Some of the fragments are so deteriorated that one could hardly guess the original basic colour.

The records of the database are made in Romanian language, of course, trying to find here the most appropriate

<sup>41</sup> The term is consecrated, although not fully acceptable in any circumstances, as an archaeologist rarely can determine, just by himself, if an 'inclusion' is natural (geological) or technological (a proper 'inclusion').

<sup>42</sup> As in the very detailed report for the Roman pottery from London (DAVIES/RICHARDSON/TOMBER 1994, 5).

<sup>43</sup> And we are not alone (see TALPERT 2010, 264, bringing basically the same arguments as above).

**Table 2.** Codifying inclusions

code	meaning	hints
N01	clay	unkneaded pellets
N02	crushed sherds	more compact, different shade of colour
N03	crushed shells	laminar, relatively soft, dissolved by acids
N04	Limestone	whitish as the quartz, but softer; usually dissolved by the hit, leaving small holes; possibly found in barely fired pottery
N05	Mica	usually silver-like, or even black, shiny, friable
N06	iron oxides	red or black, magnetic
N07	Sand	visible with the naked eye, but also on touch (the fine one)
N08	broken flint	yellowish, hard, opaque
N09	Quartz	not coloured or white, hard, glass like, do not react with an acid
N10	feldspar	laminar, usually of a light colour, easily making cleavage
N11	Vegetal	traces left in fired clay
NX	Unknown	not identifiable by the archaeologist
NY	Without	without visible inclusions



English correlatives. After completing the database, the terms used have been normalised, in order to get the simplest picture of the distribution of colours (Table 3).

Table 3. Basic colours describing the pottery from Alexandria

basic colours	shades	number in each class <sup>44</sup>
grey	(half black)	24
	light grey	8
	dark grey	13
	yellowish grey	2
	reddish grey	1
brown	(ice coffee)	9
	light brown	2
	dark brown	1
yellow	(pale yellow)	1
	reddish yellow	21
red	(brick-red)	9
	yellowish red	7

Indexed colours have been used only for describing the surface of the pot, or the slip cover. For a description of the inner part, visible on the broken section, we have avoided naming colours, for the very good reason that the section of a pot is – most usual than not – an array of shades; we used instead a conventional – and theoretical – sequence of firing, as follows:

Table 4. The theoretical sequence of firing

code	description	details
OO	oxidant	homogenous ‘warm’ colour, including the section
OR	reduced	homogenous grey (of any shade)
IN	incomplete	oxidant firing, but too short (the sherd is also relatively friable), with reddish faces and grey core
RS	reversed	as above, but the outer face is more red-dish than the inner face (firing upside down?)
IS	insufficient	as ‘incomplete’, but worst (shrinking cracks, exfoliation)
CO	complex	sequence of warm and cold shades suggesting an alternation of firing in oxidant and reduced atmosphere (in any combination), on a hard, well-cooked pottery
SE	secondary	extensive secondary firing (no parts of the sherd would allow a certain evaluation of the original colour)

Note that for the secondary firings which are not preventing the evaluation of the original colour, there are used the next notations (as the third sign in the code above):

1 = no secondary firing

<sup>44</sup> There are 98 sherds in the table; two were not allocated, having a severe secondary burning.

2 = functional firing (as those of the cooking pots, for instance)

3 = secondary firing after the breaking (as in a garbage pit)

4 = secondary firing of undetermined origin

As a consequence, the Code from the Table 3 will display an array of three signs, as OO1, OR1 or CO3.

We did not take into consideration the possibility that the shades of colour could be due not to a deliberate sequence of firing, but to the position taken by a recipient in the kiln, as described in the literature<sup>45</sup>; in the simplest way of understanding, the pottery located on the perforated grill would take a darker shade, like dark grey, but the pots located near the chimney, up, would turn lighter, as pale yellow. We don’t know in fact the exact type of the kiln (closed by a dome, or not?), so such presumptions are now irrelevant. Nevertheless, the hypothesis has to be considered, sometime in the future, because it would easily explain why sorts of pottery usually grey (as the tableware), can sometimes look reddish, or vice-versa, some ‘traditional’ handmade pottery, usually oxidized, turn darker or grey. What really do the codes from the Table 4 is something simple and handy: to describe a scheme of the colours beginning with the outer and the inner faces and the relationship between the faces and the core, no matter the technological reason.

The system of recording the fabrication issues, described above, was doubled, for Alexandria lot, by a general classification of the categories of fabrication, in a dedicated table. Because the available space in our laboratory is not enough to see all the one hundred sherds in the same time, to be grouped on apparent types<sup>46</sup> from the very beginning, we have proceeded to classify groups of 10-15 sherds at once. Every identified type received an interim name (code), and one sherd of each was collected in a reference fabrication set, the provisionally name being noted on it, with a marker. For the publication, the interim names were doubled by another column, containing a final classification, grouping them on classes of fabrication. Both ‘names’ (simply letters) are important, because the interim labels are used in the main record of the database<sup>47</sup>, as well as in some snapshots, and the final classification because it presents a (hopefully) meaningful set of sorted data; therefore, both are rendered in the next table (5). It is important to say that defining types of fabrications we looked merely to the quality of the clay, the inclusions (sort, size, frequency), and some of the outcomes of the firing, as the hardness and roughness, but not at the apparent colours of the sherd, as long as they could be the result of such a random fact as the position of the pot in the kiln, or a secondary burn. Similarly, the technique of shaping (wheel-thrown or handmade) did not affect the classification, being anyway recorded on a dedicated field.

<sup>45</sup> NIKOLSON 2010, 4.

<sup>46</sup> The procedure is the usual, making groups more or less alike, by visual evaluation (TALPERT 2010, 264). Working with a relatively limited set of samples, we tried to avoid producing a very detailed classification, intention half-fulfilled (the outcome is relatively branchy, as one can see in the Table 5)

<sup>47</sup> And this will be shortly available for the public, on the web-site of the project, [www.limes-transalutanus.ro](http://www.limes-transalutanus.ro), under ‘baze de date’ (databases) page.



**Table 5.** General classification of the fabrication types (Alexandria samples)

final sort	provisional	count	Description
A	F	2	Half-fine clay, relatively soft (class 3), homogenous, compact; inclusions of small dimensions (class 4) and relatively low frequency (class 3), sand and mica <sup>48</sup> . Reducing firing, or slightly oxidizing, but using a blackish coat (it is a 'greyware'). Similar with the type F, but better and covered by slip
A1	F1	3	As type A, but finer (frequency class 4). It has no slip and has the same firing colours as the previous (from brownish to middle grey) <sup>49</sup>
B	J	1	Half-fine clay, relatively hard (4), well kneaded, reddish yellow, middle quality sort, including middle size sand and rare but coarse limestone (both as small pinches and large but rare pebbles). It misses mica and it is a good candidate for an <b>import</b> .
C	G	1	Half-fine clay, hard (4) and compact, without visible inclusions, but with a relatively rough touch, thus having plenty of fine sand. Grey, possibly <b>import</b> .
D	H	2	Half-fine clay, similar to type C, but less rough, thus less sandy. All reduced and coated (grey on grey, lighter or darker). Possibly <b>import</b> .
D1	H1	14	Similar with the previous (type D), but the sand is visible with the naked eye. All local (contains mica), all coated, most often fired in oxidized atmosphere (from light brown to yellowish red), but some turn grey (4 out of 14). Best candidate for local replicas of the Roman shapes.
D2	H2	1	Half-fine, sandy but smooth, with lots of mica, sparsely and small quartz, adding yet some vegetal marks; complex firing, grey coating of good quality, darker as the main fabric.
E	I	6	Half-fine clay, relatively soft but homogenous, sandy touch, always grey and coated (almost always the slip is finer but also of a darker shade). All local (mica is present). The Type E is a close relative of the type A (and especially A1), but better, excellent sorted (inclusions almost invisible). It can be understood also as a local replica to the fabrication type D.
E1	I1	1	A variant of the type E, missing mica but having instead some small grains of quartz. Probably <b>import</b> . It is also similar to the type D (which is an import), but not identical, being softer, but having larger inclusions.
F	E	1	Half-fine clay, hard, rough touch, containing sand (not visible), mica and quartz of relatively small size (class 4) and middle frequency (class 3). Grey, no coat visible.
F1	E1	2	A variant of the type F, finer (inclusions of lower frequency, class 4), grey also, coated (darker).
G	L	1	Coarse sandy paste, rough, well burned, containing also smashed sherds, mica, quartz and vegetal parts. The frequency of the inclusions is high (class 1). Red. Used for a handmade pot.
H	K	3	Very coarse paste (M1, F1), but not very rough at the touch, having inclusions as sand, quartz, powder of mica, crushed sherds (from very small up to 6 mm) and limestone (? white, friable). Red, relatively well burned, mostly handmade pottery.
H1	K1	5	Similar with the basic type H, harder, more sandy, better sorted. No crushed sherds. Red, mostly handmade pottery.
I	B	3	Half-coarse paste, relatively hard and rough, inclusions of average size and frequency (sand, mica), light grey shades.
I1	B1	1	A rougher variant of the type I, with greater inclusions (size and frequency), incomplete firing, yellowish surface.
J	D	22	Half-coarse paste, relatively hard (4) and rough (2), middle size inclusions (sand, mica, quartz). Almost always well burned on both cases of the basic colours, red-brick and grey. All wheel turned. Usually not coated, but exceptions occurred. This is the most often case of fabrication type in Alexandria (22%)
J1	D1	12	Variant of the main kitchen ware type fabrication, coarser (F 1), also well represented statistically (11%).
K	A	11	Coarse paste, very rough, hard, well burned, most of the time oxidizing (8 cases out of 11); usual set of inclusions (sand, mica, quartz). All used for wheel thrown pottery.
K1	A1	2	Variant of the type K, still coarser, with quartz grains up to 3 mm and crushed sherds up to 6 mm.
L	C	3	Coarse paste, rough (2), hard (4), not always well burned, with the usual set of inclusions in the local clay (sand, mica, quartz) and frequencies below 30% (F2).
L1	C1	2	Same as the basic type, adding crushed sherds.

In the process of recording data about the pottery

<sup>48</sup> These two are almost ever present in the sherds from Alexandria, and seems included in the local source of clay. Mica is present on the regional scale, all over along Limes Transalutani (south of the Argeş River), but also east of Bucharest, speaking here only about soils very well known by the authors. The lack of mica is a strong indicator of imports.

<sup>49</sup> See yet the different resolution given by the petrographic analysis (infra). We cannot give up this 'archaeological' definition, as long as this is what a human can see with the naked eye, which is the most common situation in processing pottery. It turned out anyway that the fabrication type A1 has a slip.

from Alexandria, the detailed description of fabrication (Tables 1-4) and the integrated typology of fabrication (Table 5) were used in parallel. The two sets of data are redundant to each other and apparently one of them is parasitizing the system. In fact, they were useful as they were planned, being used at the end of the recording process and previous to the analysis of data, as a cross reference system able to spot the errors in evaluation or just in the transcription of data. The records identified as having errors were reprocessed and fixed.

PETROGRAPHY

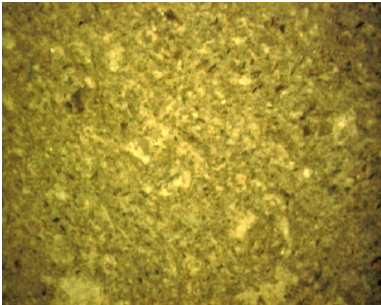

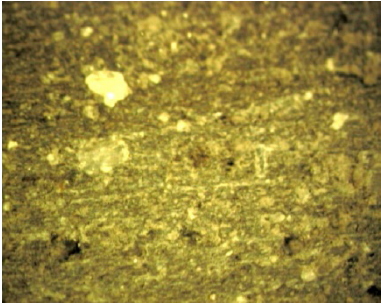

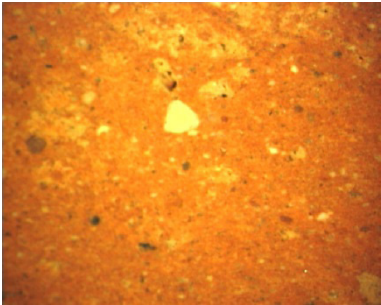

There has been selected one sherd from each type – as determined by archaeologists; all were sectioned with a diamond disc cutting machine and manually polished, then analysed at a stereomicroscope at x50 - x100 magnification.

The observations were made on the nature and texture of the matrix, homogeneity and nature, dimensions,

and frequency of inclusions. The sorting and variability of dimensions were considered in order to appreciate the degree of mixing of different sediments, or to argue the use of sediments in the natural state.



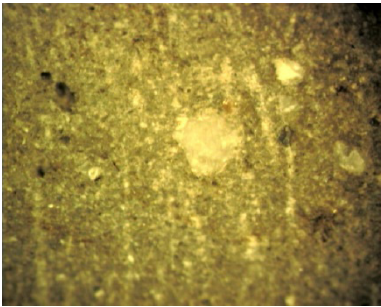



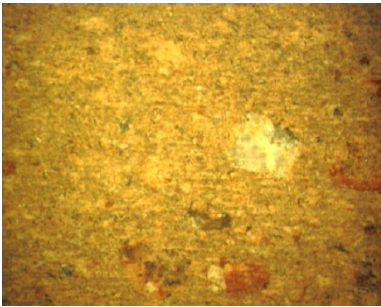

The photographs for each fabric type were done with the x5 objective at Olympus BX 60 microscope (named ‘microphotography’ at the Table 6).

Table 6. Description of the identified types of ceramic paste<sup>50</sup>


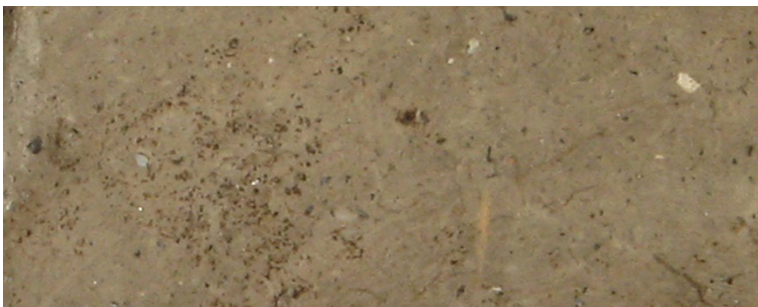






F	P	microphotography (scale 125:1) im- age width = 4 mm		detail photo (scale app. 2:1) image width = 5 cm	
A	F				
Semi-fine homogeneous paste. Paste semi-fine with clay and fine sand, with fine mica, including remobilized on the surfaces, with slightly larger sizes. Practically without inclusions, without mixing, from natural sediments.					
A1	F1				
Semi-fine heterogeneous paste. Paste coarser than provisional type F (see above), clay with frequent fine to medium sand, external surfaces frequent mica and rare inclusions of quartzite of 2 mm.					
B	J				
Very fine paste. Fine paste, silty clay, with rare grains of carbonate (5%), generally lamellar, 1-3 mm, probably fragments of shells. Grains of quartz are absent.					

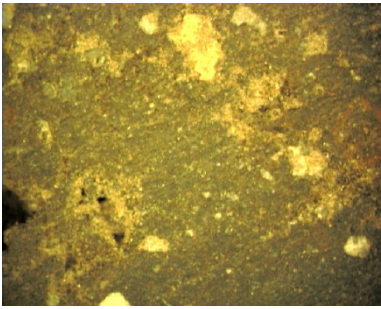

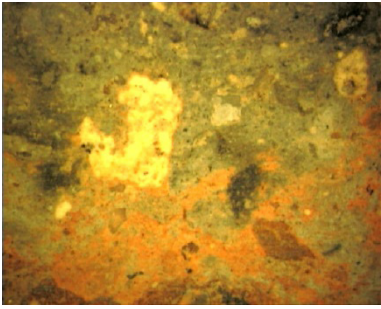

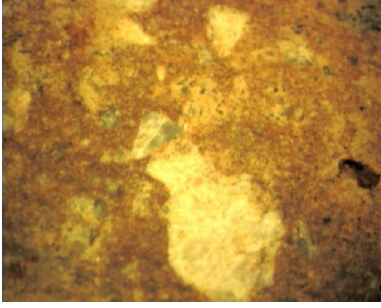

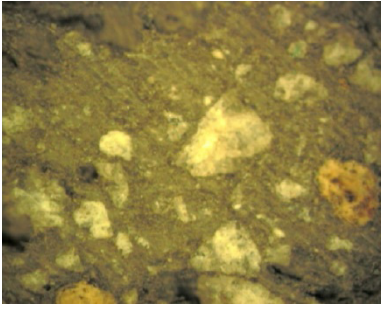

<sup>50</sup> On the header of the first column F means ‘Final sort’ (elected for publication), and P means ‘Provisional sort’ (working with the database, including that accessible online (<http://www.limes-transalutanus.ro/baze-de-date/ceramica.html>)).



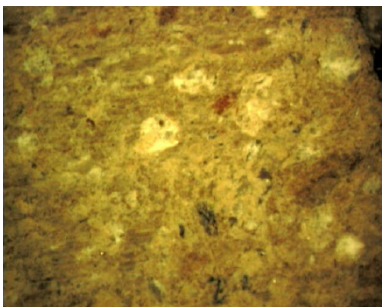

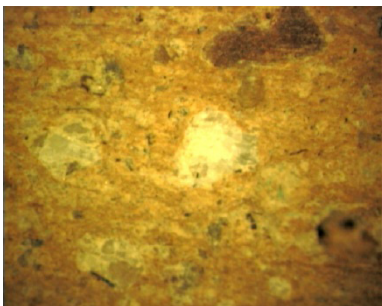

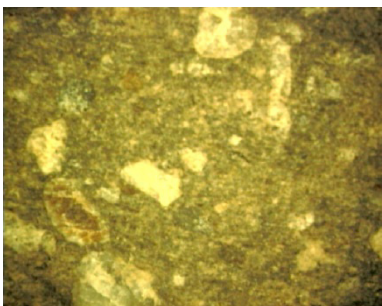

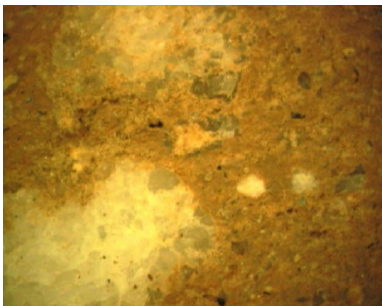

F	P	microphotography (scale 125:1) image width = 4 mm	detail photo (scale app. 2:1) image width = 5 cm
C	G		
		<p>Fine homogeneous paste.</p> <p>Fine paste, very homogenous, consisting of clay and silt, compact, with rare and fine muscovite.</p>	
D	H		
		<p>Semi-fine paste.</p> <p>Semi-fine paste, compact, clay and fine sand, with medium to coarse sand inclusions and small mica on the surfaces. It is probably a mixture of two sediments.</p>	
D1	H1		
		<p>Semi-fine paste.</p> <p>Similar to the previous, having clay and fine sand, but coarse to medium sand more frequently, generally quartzite, but mica is absent.</p>	
D2	H2		
		<p>Fine paste.</p> <p>Fine paste with clay and fine sand matrix, more frequent (5-10%) but fine mica, and very rare grains (up to 2 mm) of quartzite and limestone.</p>	



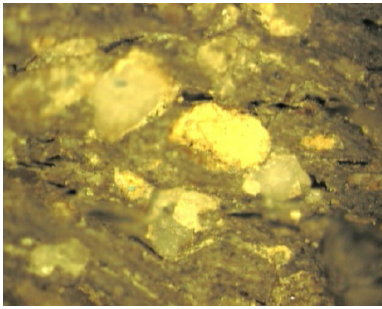
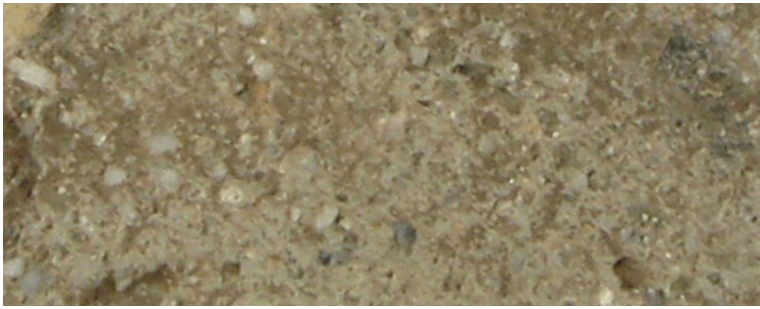
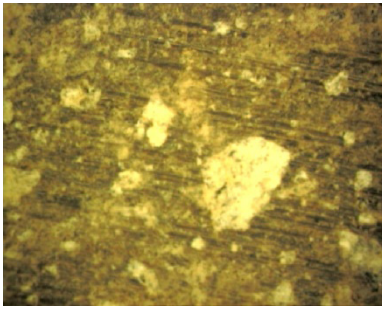

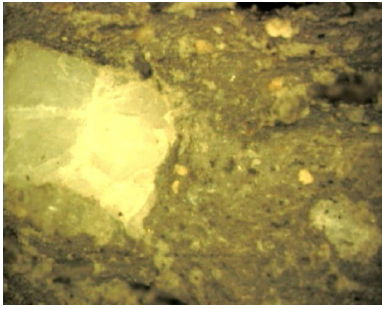

F	P	microphotography (scale 125:1) image width = 4 mm		detail photo (scale app. 2:1) image width = 5 cm	
E	I				
Semi-fine paste. Similar with the provisional types H (see D). Fine sandy clay, rarely medium to coarse sand, quartzite, but frequent fine muscovite on surfaces.					
E1	I1				
Very fine paste. Silty clay, very homogeneous, grey, with rare grains of fine sand and few of medium sand, quartzite, fine-grains of mica very rare. Frequently fine muscovite on the outer surface.					
F	E				
Semi-fine paste. Paste with fine sandy clay matrix and medium to coarse sand inclusions and rare very coarse, without fine gravel, quartzite and limestone in relatively equal proportions, but the grains of limestone are finer and rounded.					
F1	E1				
Semi-fine paste. Paste with fine sandy clay matrix and medium to coarse sand inclusions and rarely very coarse, without fine gravel, quartzite and limestone in relatively equal proportions, but the grains of limestone are finer and rounded.					

F	P	microphotography (scale 125:1) image width = 4 mm	detail photo (scale app. 2:1) image width = 5 cm
G	L		
		<p>Coarse paste.</p> <p>Coarse paste, similar with the provisional type K (see below), but has a finer matrix, fine to medium sand, rare coarse sand and rare pottery fragments. Rare very fine mica.</p>	
H	K		
		<p>Coarse heterogeneous paste ("with everything").</p> <p>Coarse paste, very heterogeneous, silty clay, coarse sand and rarely fine gravel (3-4 mm), generally quartzite but also limestone grains and crushed pottery. Rare fine mica.</p>	
H1	K1		
		<p>Coarse paste.</p> <p>Very coarse paste (seemingly rather to the provisional type A; see below, type K), with fine sand, coarse sand and fine gravel, visible on surface. The low sorting of the sediment most likely indicates that the gravel was added to the matrix of fine sand.</p>	
I	B		
		<p>Semi-coarse homogeneous paste.</p> <p>Fine to coarse sand, moderately sorted, with rare fine gravels (5-10%) of 2-3 mm and rare and fine mica (muscovite). It may be a natural sediment without mixing/preparation.</p>	



F	P	microphotography (scale 125:1) image width = 4 mm		detail photo (scale app. 2:1) image width = 5 cm	
I1	B1			<p>Semi-coarse heterogeneous paste.</p> <p>Fine to coarse sand, moderately sorted, inclusions of fine gravel more frequent (10-15%) and fine mica. We noted the clay covering the coarse grains.</p>	
J	D			<p>Coarse paste.</p> <p>Coarse paste with frequent inclusions of coarse sand, quartzite and limestone, in relatively equal proportions, angular, possibly intentionally crushed, and very rare fine gravel of 2-3 mm.</p>	
J1	D1			<p>Coarse paste.</p> <p>Coarse paste with frequent inclusions of coarse sand and very rare fine gravel, frequent quartzite and rarely limestone, fine mica present.</p>	
K	A			<p>Coarse paste with very small gravels.</p> <p>Very coarse paste composed of fine sand, coarse sand and fine gravel, including on surfaces, especially the outside one. The very low sorting of the sediment most likely indicates that the fine gravel (25-30%) is added to the matrix of fine sand.</p>	



F	P	microphotography (scale 125:1) im- age width = 4 mm		detail photo (scale app. 2:1) image width = 5 cm	
K1	A1				
		Coarse paste with very small gravels and crushed sherds. Coarse paste, matrix of fine to coarse sand, poorly sorted, with rare fine gravel and rare pottery fragments.			
L	C				
		Coarse paste with very small gravels. Very coarse paste, frequent coarse inclusions, very similar to provisional type C1 (see below), without grains of burned clay or crushed pottery, but with rare, rounded, carbonate granules, 1-3 mm.			
L1	C1				
		Coarse paste with very small gravels. Very coarse paste, like the provisional type A (see K), frequent coarse inclusions, including on the surface, approx. 30%, with frequent quartzite and limestone approx. 5% and very rare grains of burned clay. Matrix of fine sandy clay, very low sorting.			

We will close this large section of petrography with some comments of the archaeologists while looking at data. They were not very glad to see that the publication order proposed for the fabrication types<sup>51</sup> (see above, Table 5), following only what they could see with the naked eyes, was only partially confirmed by the petrographic analysis. The intention was to make a continuous sequence, leaving from very fine pottery and ending with the coarser types. What an archaeologist see is, first of all, the surface of the sherd, which is frequently covered with a slip, usually with a different – smoother – composition; one can see also the

broken section, of course, but if it is not perfectly clean and straight (and it is not), the ‘sort order’ will follow rather the appearance of the slip, if any.

We have to live with that, anyway, because the petrographic expertise is slow and expensive, and it is always performed on *sampled* artefacts, not on the whole body of discoveries. Today – and also in the predictable future – the archaeologist will do that dirty job of evaluating every sherd in the laboratory; all classifications of the fabrication being based on that.

This petrographic expertise is nonetheless relevant, as one can see, enlightening some crucial facts. So would be the ‘inclusions’, which are added matters to the native clay matrix. This is the case mainly with the so-called ‘coarse’ ceramic paste; ‘coarse’ because in some cases, as the type

<sup>51</sup> What one could get there is, *stricto sensu*, a classification of the paste composition, because other usual factors, as the colour and the technique of shaping (with or without the potter’s wheel) were excluded, in order to avoid dealing with too many types, making statistics useless.

K, the pebbles are added to a *fine* matrix of clay. Similarly, the type J was made with *broken* inclusions, which proves an elaborate technology, rarely suspected for the 'coarse' pottery. Most of the types from this class are in a similar situation (types I1, J1, L, L1). Even more interesting, such kind of additions can be encountered for semi-fin pottery, as illustrated by the types A1, D, E and E1.

The morale is that the clays available in the area are generally fine<sup>52</sup>, but in order to obtain a certain type of ceramic paste, for a certain utilitarian function, the potters added hard matters, as coarse sand, quartzite or crushed sherds. Those inclusions are not improving the pot's appearance, but most of the times improve the mechanical properties, as the resistance on sudden heating or the breaking stress<sup>53</sup>.

The petrography boldly highlights the importance of the slip, for which, in most of the cases was used a *different* natural resource, not just a diluted clay. The analysis confirmed that the presence of mica is almost general, with a very important amendment: the muscovite is very tiny and rare in the body of the pot, but larger and pretty frequent in the slip. It means that the potter had to search sediments reach in mica, and to use that especially to make its products 'shine', which is a deliberate 'trading' attitude.

A last very important fact is connected with the use of the crushed sherds in the composition of the prepared ceramic plastic matter. There is a long prejudice, at least in the Romanian archaeology, about the presence of this type of inclusion, which would be – no more or less – a sign of barbarism, thus a good reason to handle it as an 'ethnic' litmus<sup>54</sup>. In fact, as we can see, only the size matters... The potsherds can be very fine crushed, down to the point of invisibility (with the naked eye), but still playing a role in improving thermic behaviour of the artefact<sup>55</sup>.

## THE ANALYSIS OF DATA / CATALOGUE

The petrographic analysis brings a valuable insight of the matter. A statistical analysis could be run anyway only on archaeological observation, which is basically a naked eye rendition of the studied objects; the reason is plain: it can run on large numbers. We can see also a second strong reason: if the archaeologist can't tell a difference between two objects, then is very unlikely that the historical user ever made a stylistic difference, even when the fabrication details could be a bit different.

The detailed description of the fabrication types, as pictured in the Table 5, will be gathered further in three large classes of objects, as follows:

- imported pottery (as an archaeological presumption, types B-D, E1)
- fine paste pottery (all types between A and F2, excluding

the above mentioned)

- local kitchenware (all types from G to L1)

Each of the three is introduced by an illustrated catalogue, followed by some comments. The catalogue includes only some of the fields from the database, trying to compress data as much as possible, in order to save space. The order is sorted depending on (1) group, (2) function, (3) fabric, (4) context and (5) present part (first the upper, then the lower).

## GENERIC CLASS: IMPORT

**ID: 33** fabric: D ink notes: [VOA; sit 4A:] 1-124; .33 tip H context: site 1, cpl ? **group:** liquid containers **function:** flagon **present:** Shoulder ref. D: G % of D.: 30 estim. D. (mm): 76 size of section (mm): 4 relative size of section: C colour: grey slip<sup>56</sup>: dark grey

**morphology:** Upper body, just beneath the neck, down to the proximity of the middle diameter. For a proposal of restitution see the drawing (artefacts 33+96).

**free notes:** Polished outside. A fragment of a vessel bottom (ID 96), from the context 22, could also be originated from the same object.

**ID: 96** fabric: D ink notes: VOA; sit 1; km 6+700; cpl 22; .96 tip H context: site 1, cpl 22 **group:** liquid containers **function:** flagon? **present:** bottom to lower body ref. D: B % of D.: 30 estim. D. (mm): 70 size of section (mm): 4 relative size of section: B colour: grey slip: dark grey

**morphology:** Base standing on a short whorl (shaped from the same bulk of clay), wall rising at 125°, suggesting a developed, arched belly. Ascribing it as 'flagon' is just a hunch (could be also a deep bowl).

**free notes:** A harsh, horizontal polishing on the outer wall (thus more a 'flagon', than a 'bowl') made marks and irregular incisions. The artefact was exposed to flames after being broken (like in a waste pit). Very likely it comes from the same pot as ID 33.

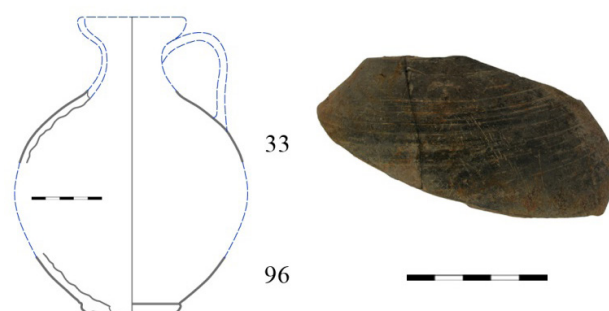


Figure 2. Reconstructed shape of a flagon, very likely not made on site.

<sup>52</sup> Which is not coming as a surprise, as long as both sites are standing on the banks of a slow, muddy river.

<sup>53</sup> BRONITSKI/HUMER 1986, FEATHERS 1989.

<sup>54</sup> As did TEODORESCU 1971 about Ipotești-Cândești culture, splitting it in a western, Romanized area, with ceramic paste without crushed sherds, and an eastern, more barbarous area, with very obvious crushed sherds in composition. This west-east opposition from the sixth century has to same roots as that from the third century.

<sup>55</sup> In a recent discussion, Agnieszka Tomas told us that much of the pottery made in *Novae* has very fine crushed sherds in the composition of the ceramic paste. As laboratory tests proved, this inclusion is meant to improve the pots qualities for thermic shock (BRONITSKY/HAMER 1986).

<sup>56</sup> Short directions for reading the catalogue: **ID:** number in database (Alexandria group) and ink mark on the sherd; **fabric:** see Table 5, column 1; **ink notes:** all inscriptions in ink; **context:** site and context; **group:** functional group; **function:** supposed function; **present:** conserved diameter; **ref. D:** size of the same diameter; **% of D.:** percent of the conserved diameter; **estim. D. (mm):** estimation of the same diameter (mm); **size of section (mm):** cross-section in mm; **relative size of section:** an intuitive evaluation, where A is 'thick', B is 'normal', C is 'thin'; **colour:** of the surface, under the slip (if present); **slip:** mentioned if present.



**Table 7.** Comparative data for flagons' capacity n Roman Oltenia and Chilia-Militari milieu

<b>sextarii</b>	<b>0.5</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
Roman Oltenia <sup>57</sup>	4	52	29	11	8	5	2	0	0	1	1
Chilia-Militari	0	0	1	2	3	0	0	1	1	0	0

**ID: 05** fabric: B ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .5 tip J context: site 4A, cpl 4 **group:** storage function: amphora present: Fragment of body ref. D: middle % of D.: 10 estim. D. (mm): 410 size of section (mm): 7.8 relative size of section: B-C colour: reddish yellow slip: reddish yellow

**morphology:** A relatively large amphora, with a developed and rounded belly.

**free notes:** Strong marks of spinning inside. The external wall is well finished, straight, undecorated, and finer than the core (the slip has the same colour). Sandy paste (over 15%), with larger but sparse fragments of limestone ( $\leq 3$  mm). Oxidizing firing in two stages, the first highly ventilated, the second less.

**ID: 20** fabric: D ink notes: VOA; sit 4A; cpl 4; .20 tip H context: site 4A, cpl 4 **group:** tableware function: dish ? present: rim ref. D: G % of D.: 5 estim. D. (mm): 300 size of section (mm): 3.6 relative size of section: C colour: dark grey slip: light grey

**morphology:** A simply rounded rim, heading 60° from the axis of symmetry (suggesting a flat and shallow recipient).

**free notes:** A stripe on the external face is apparently polished.

**ID: 21** fabric: E1 ink notes: VOA; sit 4A; cpl 4; .21 tip I context: site 4A, cpl 4 **group:** tableware function: beaker? present: rim to the neck ref. D: G % of D.: 5 estim. D. (mm): 120 size of section (mm): 4.2 relative size of section: B colour: dark grey slip: almost black

**morphology:** Almost vertical rim, simply rounded, slightly reverted, a neck suggesting a long descending line down to the shoulder (thus a morphology with a long neck, as a large beaker). A small collar is highlighting the neck.

**free notes:** No decoration. The fragment is too small to allow us finding a certain analogy. The fabrication seems not local, thus the artefact could be of Roman manufacture. Although the Roman beakers are plenty, configurations with relatively vertical rim and a long neck with a collar are very few, as Popilian 1976, cat. 576-580, from which only one is grey (cat. 579), having only half of the size from that fragmentary found in Alexandria. The allocation of the fragment (as 'import' and 'beaker') should stay in attention (not from Oltenia?...). Better resemblance with Bichir 1984, plate XXI/3 (large beaker from Mătăsar, including the size (but the pot did come from Mătăsar, for which mica is almost every time present).

The first observation is that the list is rather short (5 sherds from 100, of which two are belonging to the same object), much below the figures given by Bichir for imports

(10-15% from all thrown pottery). Nevertheless, this is only the list of the most obvious imports, due to the lack of mica. Saying 'imports' we will not understand automatically Roman manufacture, but any product made far away from the site. Speaking yet of settlements having their own production meanings (both have pottery ovens discovered), the imports from the neighbored Roman cities should be the most common way to provide social relevance to the owners. Due to the most likely chronology of the both sites from Alexandria, in the very late third century, the closest source of Roman goods is Novae, located only 40 km southward, as the crow flies. Looking now at the pottery made in Novae<sup>58</sup>, we are facing two major facts: all the pottery from Novae has mica in its fabric, and it is all oxidized. As a consequence, we cannot ascertain imports from Novae just looking at the ceramic paste, and those possible imports are anyway absent from our list above.

The most interesting object from this short list is the flagon reconstituted from the sherds ID 33 and 96. Following the drawing from the Fig. 2, the recipient would have a maximum diameter of 16.4 cm and a height around 21 cm, having a capacity of almost two litres<sup>59</sup>. The closest analogy – in terms of dimensions and colour – is to be found in Străulești<sup>60</sup>, a flagon determined as having a similar capacity (1.7 l.)<sup>61</sup>. Although the flagons made in the area Chilia-Militari are following closely the morphology of the Roman ones, there are two major distinctions: the former are grey and generally much larger. In order to prove that intuition, we made a comparative table containing the capacity of the flagons from the both sides of the Olt River, for the Centuries 2 and 3; the collected figures, in litres, of course, were translated to the closest Roman unit of measure for drinking: *sextarius*<sup>62</sup>.

The table above (no. 7) is unexpectedly interesting. Almost half of the flagons found in Oltenia have a capacity around one *sextarius*; the next statistic results are coming, naturally, for 2, 3 and 4 *sextarii*. This very basic class of capacity for drinking (one *sextarius*) is completely missing from Chilia-Militari milieu, which has a climax very far, in

<sup>58</sup> TOMAS 2003.

<sup>59</sup> Exactly 1.89 l, calculated in AutoCAD.

<sup>60</sup> BICHIR 1984, plate XXIV/5.

<sup>61</sup> Measurement made many years ago, while preparing PhD (TEODOR 2001), using the Compass System, which provides tools for morphology, but also capacity calculations (*idem*, see the third chapter). See also TEODOR 2000.

<sup>62</sup> The sixth part of a *congius* (3.275 l., acc. to Enciclopedia civilizației romane, București 1982, s.v. 'măsuri'), then 0.546 l. Expressing the capacity of the flagons of the Chilia-Militari culture in *sextarii* we do not mean that the "barbarians" from București or Alexandria were actually using the Roman norms (the lot of artefacts is too small to prove anything about); *sextarii* are here only a very comfortable grouping variable for the scattered data. As concern the native data, in litres, it comes, for Chilia-Militari, from the Compass application (see the previous note); as for the Roman stuff from Oltenia (see the next footnote), there were used figures provided by the author of the monography, for 113 complete shapes. Of course, this kind of 'calculation' is rather a loose estimation, anyway too complicated to be fully described in a footnote.

<sup>57</sup> POPILIAN 1976, 95-101, cat. 418-531.



the class of 4 *sextarii*. True enough, most of the discoveries from Oltenia are coming from the cemeteries, where some of the funerary could be a special, mortuary production, smaller in dimensions as the daily commodities, but the differences are too strong to be reversed by any possible conjecture. The meaning of this statistic is that in the Roman world the flagons were produced mainly for the individual consumption of wine, and that drinking wine was something usual, for all social classes. Although the lot of artefacts of Chilia-Militari type is still too small to jump on conclusions, the suggestion is, anyway, that the object was used mainly for short transportation (most of them are recovered from fountains!), not for (individual) drinking.

Another fact of interest here is that, from 113 Roman flagons from Oltenia, only four are grey<sup>63</sup>, all relatively large (2.1 to 3.5 l.), and at least of them two are also certainly late (mid third to early fourth century). They could be not 'imitations of *terra nigra*', as Popilian thought, but imports from the other bank of Olt River.

## GENERIC CLASS: POTTERY IN FINE CERAMIC PASTE

**ID: 26** fabric: E ink notes: VOA; sit 1; km 6+700; .26 tip I context: site 1, ? **group:** liquid containers **function:** cauldron? **present:** rim to the neck **ref. D:** mouth % of D.: 3 **estim. D. (mm):** 260 **size of section (mm):** 3.2 **relative size of section:** C **colour:** light grey **slip:** grey

**morphology:** Slightly thickened rim, turned out 40°. The shape is an opened one, with a body shrinking beneath the neck. Broken handle, caught on the rim, relatively small (width 45 mm, height 36 mm) and probably short (closing just below the neck).

**free notes:** The outer face is attentively finished (looking polished). The inner side is somehow sloppier, with coils of wet slip made by a spatula. The fine fabrication suggests a commodity outside the kitchen, but the opened shape leaves little choices, as a sort of 'krater' (for mixing wine and water). The morphology is similar with the number 27 (see the drawing), yet with a simpler rim.

**ID: 27** fabric: F1 ink notes: VOA; sit 1; km 6+700; cpl 27b; 1-065; umplutură cuptor .27 tip E1 context: site 1, cpl 27b **group:** liquid containers **function:** cauldron ? **present:** rim to shoulder **ref. D:** mouth % of D.: 7 **estim. D. (mm):** 450 **size of section (mm):** 8.9 **relative size of section:** A-B **colour:** grey **slip:** dark grey

**morphology:** Flat, wide rim (45 mm), everted outside; short neck, fragment of a body suggesting an opened shape; a small collar under the rim. The shape of the rim is not fitted for pouring liquids; it cannot be either a cooking pot (too large for that anyway). On the other hand, the opened shape would not be fitted for storage. The fine fabrication suggests a recipient for liquids, as, for instance, for mixing wine.

**free notes:** The object is deformed on firing, being more or less a reject of fabrication. No decoration has been observed.

<sup>63</sup> POPILIAN 1976, cat. 460, 529-531, all described as 'imitations of *terra nigra*' and all relatively large (in order: 2.7, 2.1, 3.5 and 3.1 litres, or 4 to 6 *sextarii*).

**ID: 28** fabric: F1 ink notes: VOA; sit 1; cpl 27b; umpl. cuptor; 1-065; .28 tip E1 context: site 1, cpl 27b **group:** liquid containers **function:** cauldron/storage **present:** base and lower body **ref. D:** bottom % of D.: 100 **estim. D. (mm):** 70 **size of section (mm):** 7.2 **relative size of section:** A-B **colour:** light grey **slip:** darker grey

**morphology:** Fragment of the lower body relatively splay; whorl on the underside of the base, made from one piece (not added).

**free notes:** Strong wheel marks inside, finishing marks outside. Polished decoration with vertical lines dragged from the very edge of the bottom. The bottom has a deformation due to the firing, of the same kind as the sample no. 27, but the two, although recovered from the same context, has too different shades to come from the same recipient, and the dimensions do not really fit.

**ID: 93** fabric: E ink notes: VOA; sit 1; km 6+700; cpl 22; 1-116; .93 tip I context: site 1, cpl 22 **group:** liquid containers **function:** pot/ beaker? **present:** rim to the neck **ref. D:** G % of D.: 15 **estim. D. (mm):** 140 **size of section (mm):** 4 **relative size of section:** A-B **colour:** dark grey **slip:** grey

**morphology:** Oblique rim (50°), short neck, rounded belly – all indicating rather a pot, than a beaker, although the fabrication type is usually associated with tableware or liquid containers.

**free notes:** On the inner side of the rim – one can see traces of polishing – a common issue for bowls and jugs (flagons). Similar traces – on the outer face, on the shoulder.

**ID: 97** fabric: E ink notes: VOA; sit 1; cpl 22; 1-123; .97 tip I context: site 1, cpl 22 **group:** liquid containers **function:** beaker **present:** bottom to lower body **ref. D:** bottom % of D.: 80 **estim. D. (mm):** 60 **size of section (mm):** 6 **relative size of section:** B **colour:** light brown **slip:** dark grey

**morphology:** Bottom with a whorl; on the inside the bottom is separated by the rounded body by a groove.

**free notes:** The paste of the main body is light brown, with a grey slip inside, but darker grey outside. The inner side is exfoliated for about 40% of the surface.

**ID: 91** fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-105; .91 tip H1 context: site 1, cpl 22 **group:** liquid containers **function:** carafe/table amphora **present:** rim, upper body and handle **ref. D:** mouth % of D.: 65 **estim. D. (mm):** 100 **size of section (mm):** 5 **relative size of section:** B **colour:** light brown **slip:** light brown

**morphology:** Rim slightly reverted. The handle is anchored just above to neck (and probably just above the middle diameter). The profile of the neck at the junction

Figure 3. Alexandria sherd ID 27, scale 1:5 (cauldron?).



has the wall slightly thickened, probably in order to better support the traction. The thickness of the section of the neck is a common feature with the artefact no. 31.

**free notes:** The slip is light brown, of the same colour as the main body of the vessel, but obvious enough due to its fineness. The jug (?) suffered damages from flames twice, once before breaking apart, and again afterwards. Nevertheless, large areas are not affected, displaying a fine vertical polishing, beginning immediately under the rim, down to the shoulder (and further).

**ID: 31 fabric:** D2 **ink notes:** VOA; sit 1; km 6+700; cpl 2; 1-012; .31 tip E2 **context:** site 1, cpl 2 **group:** liquid containers **function:** carafe/table amphora **present:** rim to the neck **ref. D:** mouth % of D.: 5 **estim. D. (mm):** 150 **size of section (mm):** 9.3 **relative size of section:** A-B **colour:** reddish grey **slip:** dark grey

**morphology:** Thickened vertical rim, with a long, enlarged neck (suggesting a cap, a lid for transportation). The shoulder is suggesting lengthy morphology.

**free notes:** Very fine sand, plenty of mica (the hallmark of the local production), scattered quartz. Complex firing: light grey core, reddish yellow in sides, dark grey slip added. The handle is missing, but the place where it was hung is well visible, on the enlarged segment of the neck; the mark is 63 mm wide and 56 mm in height. This was a recipient of at least 10 litres (but possibly double!).

**ID: 95 fabric:** E **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-126; .95 tip I **context:** site 1, cpl 22 **group:** liquid containers **function:** flagon? with handle **present:** handle (fragment) **ref. D:** % of D.: **estim. D. (mm):** **size of section (mm):** 12 **relative size of section:** B **colour:** grey **slip:** dark grey

**morphology:** Wide, massive handle with two longitudinal collars. It is 40 mm wide, suggesting an object of relatively large dimensions.

**free notes:** The cross section is very similar with no. 94, being probably sherds coming from the same object, very likely a large flagon. See Bichir XX/6 (it fits the lower body, but not the handle), XXI/8, XXIV/3 (flagon with a very resembling handle).

**ID: 94 fabric:** E **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-120; .94 tip I **context:** site 1, cpl 22 **group:** liquid containers **function:** flagon **present:** bottom to lower body **ref. D:** B % of D.: 75 **estim. D. (mm):** 90 **size of section (mm):** 8 **relative size of section:** B-C **colour:** grey **slip:** dark grey

**morphology:** The bottom with a whorl and the body raised at 125° recommends rather a bowl, but see further.

**free notes:** The core is grey (the inner 55%), the outer core is brown (40%), and the outer faces grey, with a slip still darker. Vertical polishing, using a spatula (sandstone?), on the lower body. This is not a proper 'decoration', but a finishing technique. Considering the striking similitude of fabrication (a complex one), it is most likely that sherds 94 and 95 (see above) are fragments from the same vessel, a large flagon (reconstructed at 31 cm in height, see the drawing).

**ID: 71 fabric:** A **ink notes:** VOA; sit 1; cpl 22; km 6+700; 1-173; .71 tip F **context:** site 1, cpl 22 **group:** liquid containers **function:** flagon **present:** bottom **ref. D:** B % of D.: 20 **estim. D. (mm):** 13 **size of section (mm):** 6 **relative size of section:** B-C **colour:** brown **slip:** dark grey

**morphology:** Base standing on a whorl, wall strongly tilt.

**free notes:** In the area of the whorl the firing is incomplete, the core of the paste being grey (40% from the mass), the proxies – brown (50% of the mass), and the faces – grey again (possibly being a distinctive slip, up to 10%). The suggestion is an early firing in pretty much oxidizing conditions, ended with closing the ventilation. The past is well compacted.

**ID: 92 fabric:** D1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-106; .92 tip H1 **context:** site 1, cpl 22 **group:** liquid containers **function:** flagon **present:** rim to the neck **ref. D:** G % of D.: 60 **estim. D. (mm):** 100 **size of section (mm):** 3 **relative size of section:** A **colour:** brown **slip:** light brown

**morphology:** Thickened rim outside, a second collar beneath the rim, shoulder clearly delineated by a second collar; probably a flagon, having at most one handle (we have

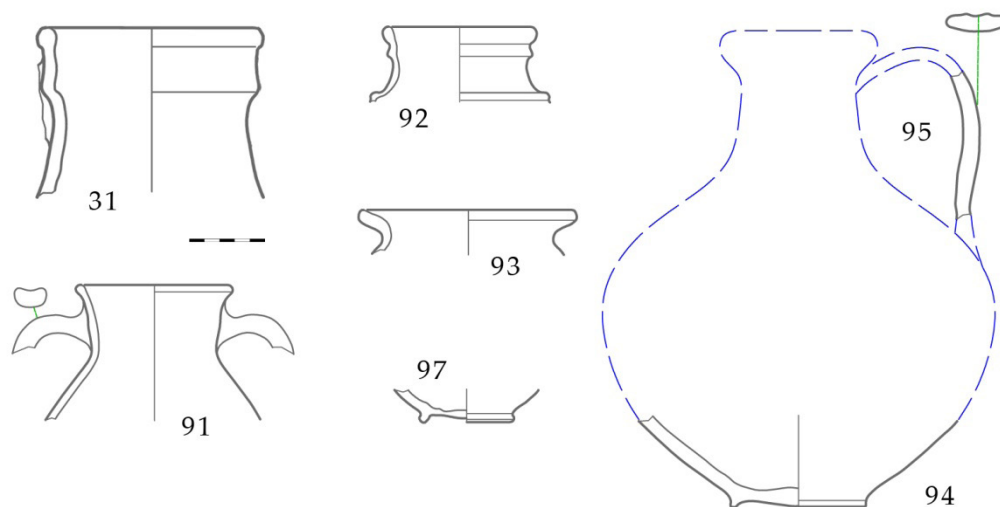


Figure 4. Alexandria – fine liquide recipients.

a 60% presence from the diameter, and no handle, but see the analogy, below, because the handle is to be found lower than the collar!).

**free notes:** Oxidized firing, light brown slip. The vessel has a secondary firing after breaking apart (two fitted sherds has different colours). Analogy Popilian 1976, 110 (jugs type 11, cat. 523-524), but no analogy within the known Chilia-Militari culture. Giving the fact that the fabrication is local, the jug is a local imitation of a Roman model.

**ID: 18 fabric:** A **ink notes:** VOA; sit 4A; cpl 4 **conturare** .18 tip F **context:** site 4A, cpl 4 **group:** storage **function:** storage containers **present:** rim **ref. D:** mouth % of D.: 15 **estim. D. (mm):** 280 **size of section (mm):** 3.8 **relative size of section:** C **colour:** light grey **slip:**

**morphology:** Thickened rim both inner and outer, triangular in section, flattened (22 mm wide).

**free notes:**

**ID: 17 fabric:** F **ink notes:** VOA; sit 4A; cpl 4 .17 tip E **context:** site 4A, cpl 4 **group:** storage **function:** storage containers **present:** bottom **ref. D:** bottom % of D.: 20 **estim. D. (mm):** 180 **size of section (mm):** ? **relative size of section:** ? **colour:** light grey **slip:**

**morphology:** Strongly profiled base, standing on a discreet whorl, detached by the body by a sharp edge.

**free notes:** The sherd is cleaved and does not allow an evaluation of the thickness.

**ID: 76 fabric:** A1 **ink notes:** VOA; sit 1; cpl 22; km 6+700; 1-152; .76 tip F1 **context:** site 1, cpl 22 **group:** storage **function:** storage containers **present:** rim to the middle diameter **ref. D:** G % of D.: 20 **estim. D. (mm):** 300 **size of section (mm):** 8 **relative size of section:** B **colour:** brown **slip:**

**morphology:** Flat horizontal rim (13 mm), collar on the body.

**free notes:** Spinning traces inside; good firing, but not

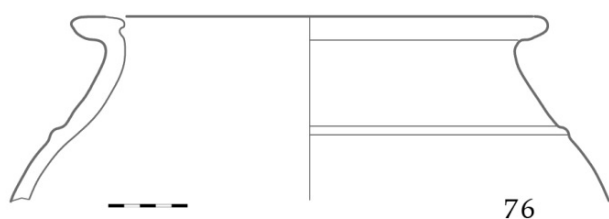


Figure 5. Brown fine storage recipient, scale 1:5.

enough.

**ID: 19 fabric:** C **ink notes:** VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .19 tip G **context:** site 4A, cpl 4 **group:** storage **function:** storage containers **present:** Shoulder to middle D **ref. D:** % of D.: **estim. D. (mm):** **size of section (mm):** 12 **relative size of section:** A-B **colour:** light grey **slip:** grey

**morphology:** Very massif fragment from in between the shoulder and the middle diameter.

**free notes:** Wheel marks inside. Incised decoration alternating bands of waved and horizontal lines, usually are standing on the shoulder, with an undecorated field below.

The wall is very thick (12 mm), suggesting a very large recipient. This kind of decoration usually occurs on storage vessels known as Krausengefäße for Chilia-Militari (Bichir 1984, XIV/4, XVI/ 6, 11, 12). The waved incision could be encountered on Late Roman storage vessels from *Moesia Secunda* (Böttger 1982, plate 50/96, 515, 519, 520; 51/601, 602), but never in this combination.

**ID: 32 fabric:** A1 **ink notes:** VOA; sit 1; km 6+700; cpl 23; 1-039; .32 tip F1 **context:** site 1, cpl 23 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 15 **estim. D. (mm):** 320 **size of section (mm):** 4.8 **relative size of section:** B-C **colour:** grey **slip:**

**morphology:** Flaring rim, thickened both way, mostly inner, flat top 11 mm wide; strong careen middle diameter, with a collar. The lower part is absent, but should be very thin and almost horizontal.

**free notes:** no decoration

**ID: 77 fabric:** A1 **ink notes:** VOA; sit 1; cpl 22; km 6+700; 1-122; .77 tip F1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl? **present:** bottom to the lower body **ref. D:** bottom % of D.: 15 **estim. D. (mm):** 90 **size of section (mm):** 7 **relative size of section:** B **colour:** grey **slip:**

**morphology:** Thick base standing on a whorl, the body is developed on 45° (which wouldn't recommend a storage vessel).

**free notes:** Spinning marks inside.

**ID: 89 fabric:** D1 **ink notes:** [VOA; sit 1; cpl 22]; 1-110; .89 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim **ref. D:** mouth % of D.: 5 **estim. D. (mm):** 330 **size of section (mm):** 4 **relative size of section:** B **colour:** yellowish red **slip:** yellowish red

**morphology:** Vertical rim, thickened outside.

**free notes:** Outer surface polished by spinning (visible on about 40% of the surface)

**ID: 81 fabric:** D1 **ink notes:** VOA; sit 1; cpl 22; .81 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the upper body **ref. D:** mouth % of D.: 5 **estim. D. (mm):** 280 **size of section (mm):** 3 **relative size of section:** B-C **colour:** light brown **slip:** dark grey

**morphology:** Vertical rim, thickened outside.

**free notes:** Outer surface polished by spinning (visible on about 35% of the surface). Possible polishing on the inner face also.

**ID: 86 fabric:** D1 **ink notes:** VOA; sit 1; cpl 22; 1-111; .86 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 5 **estim. D. (mm):** 290 **size of section (mm):** 5 **relative size of section:** B **colour:** grey **slip:** grey

**morphology:** Vertical rim, thickened outside.

**free notes:** Outer surface polished by spinning (visible on about 75% of the surface).

**ID: 85 fabric:** D1 **ink notes:** VOA; sit 1; cpl 22; 1-114; .85 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of



D.: 10 estim. D. (mm): 300 size of section (mm): 5 relative size of section: B colour: yellowish grey slip: grey morphology: Vertical rim, thickened outside. free notes: The inner side is darker (the slip is conserved better).

**ID: 88** fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-108; .88 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 15 estim. D. (mm): 290 size of section (mm): 5 relative size of section: B colour: yellowish red slip: brick-red

morphology: Vertical rim, thickened outside.

free notes: The slip is fallen from the external side (80%), which is polished (on 40% of it).

**ID: 90** fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-109; .90 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 5 estim. D. (mm): 290 size of section (mm): 4 relative size of section: B colour: yellowish red slip: same, darker

morphology: Vertical rim, thickened outside. The middle diameter is strongly careened.

free notes: Outer surface is polished (40%) by spinning the recipient. The slip is fallen (60%). This is one of the few bowls having the middle diameter, being very similar with previous items (the same rim, same polished surface).

**ID: 87** fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-110; .87 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 10 estim. D. (mm): 250 size of section (mm): 5 relative size of section: B colour: yellowish red slip: yellowish red

morphology: Incurving rim, but almost vertical, bilateral thickening; biconical body.

free notes: Outer face decorated by horizontal polishing in alternated stripes with unpolished surfaces.

**ID: 84** fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-112; .84 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 10 estim. D. (mm): 290 size of section (mm): 4 relative size of section: B colour: grey slip: grey

morphology: Vertical rim, thickening outside.

free notes: The slip is preserved, but the external face is rougher than items numbered 79-83. No decoration observed.

**ID: 83** fabric: D1 ink notes: VOA; sit 1; km 6+700; cpl 22; 1-113; .83 tip H1 context: site 1, cpl 22 group: tableware function: bowl present: rim to the middle diameter ref. D: mouth % of D.: 10 estim. D. (mm): 350 size of section (mm): 4 relative size of section: B colour: brown slip: grey

morphology: Incurving rim, but almost vertical,

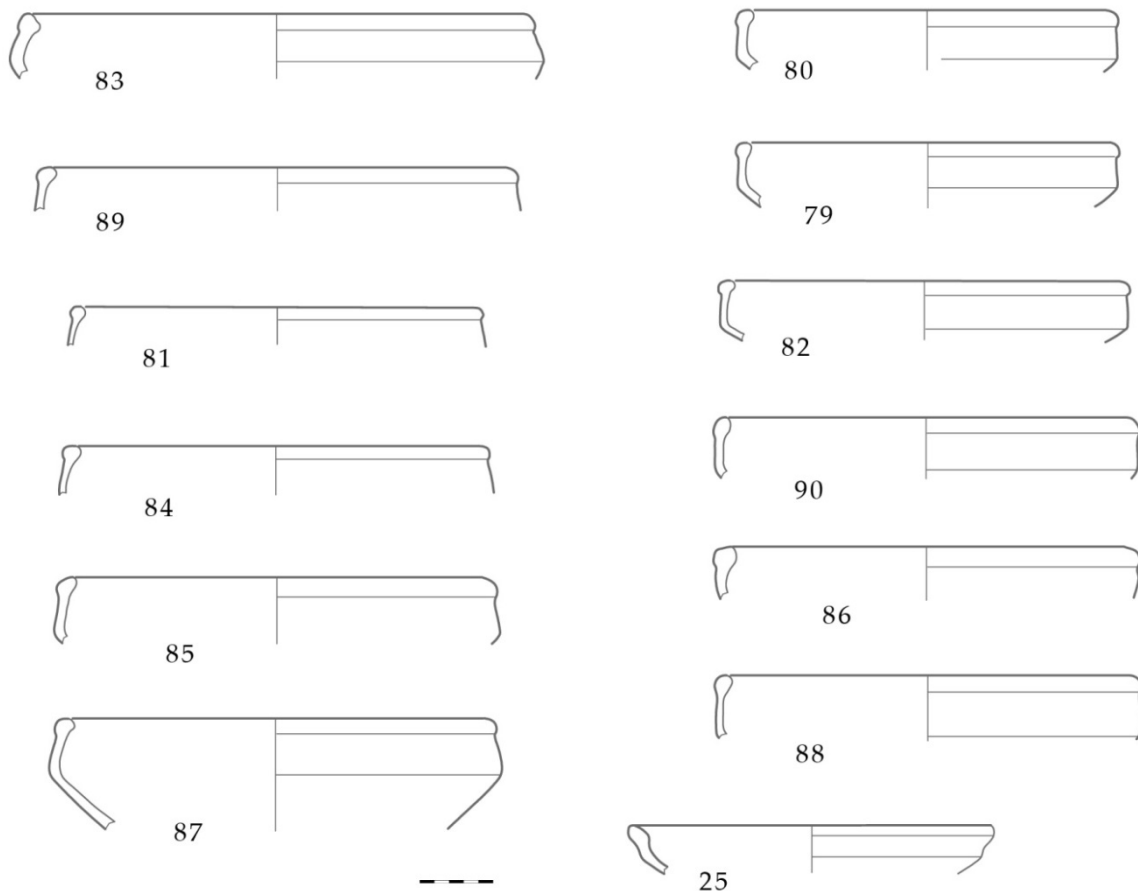


Figure 6. Bowls made of fine paste.

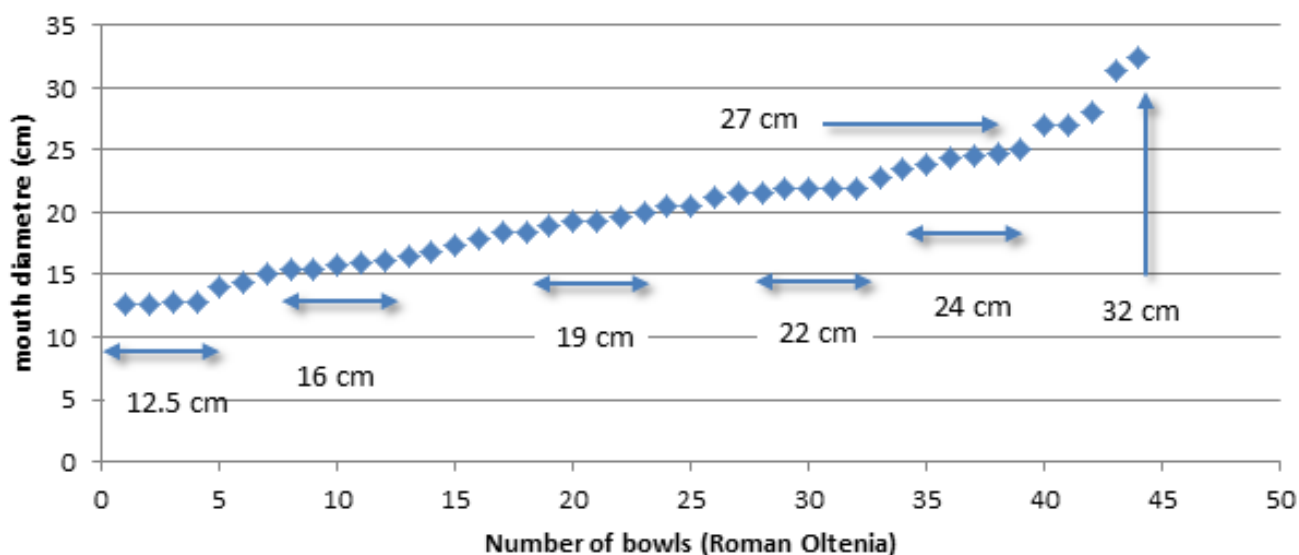


Figure 7. Diagram of the rim diameter for the Roman bowls from Oltenia.

thickened outside.

**free notes:** Almost all the slip is lost on the outer face.

**ID: 79 fabric:** D1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-115; .79 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 20 estim. D. (mm): 270 **size of section (mm):** 6 **relative size of section:** B **colour:** brown **slip:** dark grey

**morphology:** Vertical rim thicker outside; another thickening in the shoulder area.

**free notes:** Polished outer face, made by spinning the recipient.

**ID: 80 fabric:** D1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-115; .80 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 5 estim. D. (mm): 270 **size of section (mm):** 6 **relative size of section:** B **colour:** brown **slip:** dark grey

**morphology:** Vertical rim thicker outside

**free notes:** Polished outer face, made by spinning the recipient (655).

**ID: 82 fabric:** D1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-115; .82 tip H1 **context:** site 1, cpl 22 **group:** tableware **function:** bowl **present:** rim to the middle diameter **ref. D:** mouth % of D.: 20 estim. D. (mm): 290 **size of section (mm):** 4 **relative size of section:** B **colour:** grey **slip:** dark grey

**morphology:** Vertical rim thicker outside, middle diameter careen

**free notes:** Lost slip on the external face (40%), the rest polished around 60% of the surface by spinning the ware.

**ID: 25 fabric:** E **ink notes:** VOA; sit 1; km 6+700; cpl 27a; 1-086; gr. acces .25 tip I **context:** site 1, cpl 27a **group:** tableware **function:** bowl **present:** rim to the lower body **ref. D:** mouth % of D.: 15 estim. D. (mm): 250 **size of section (mm):** 4.2 **relative size of section:** B **colour:** light grey **slip:**

grey

**morphology:** Rim slightly thickened outside, short neck standing on the middle diameter.

**free notes:** Outer face visibly polished.

If we would have to pick one word picturing the pottery from Alexandria, it would be 'big'; that was our impression all along describing, measuring, taking pictures or making drawings. Finishing all those, the statistics confirmed the intuition. The average of the rim diameter for 14 bowls made of (semi-)fine paste is 29 cm. To get a better significance of that figure, we made – again – a comparison with the Roman bowls from Oltenia, published by Gheorghe Popilian, half a century ago<sup>64</sup>.

Figure 7 presents the increasing sequence of the rim diameter for bowls from Oltenia, showing the tendency of grouping on 7 classes of size, from very small (12.5 cm) to small (16 or 19 cm), large (22 and 24 cm) and very large (27 or 32 cm). This classification was necessary to have a common term of comparison with the bowls seen from Alexandria archaeological sites.

As we shall see below, in Alexandria one-hundred-sherds one can find other three fragmentary bowls made out of coarse paste, which would not change much the picture from above<sup>65</sup>.

Interesting to note, the comparison with Dacian bowls does not work better. Sebastian Matei<sup>66</sup> has gathered the bowls from north-eastern Muntenia, for the so-called 'classical age' (second c. BC – AD first century); he splits them in two categories (usual in Romanian language), 'străchini' (app. 'deep dishes') and 'castroane' (app. 'deep bowls')<sup>67</sup>. From the first category the catalogue counts 16

<sup>64</sup> POPILIAN 1976, cat. 761-805.

<sup>65</sup> One of them, no. 16, has a rim diameter of 'only' 18 cm. The other two – fragments from the bottom – are also very large ones.

<sup>66</sup> MATEI (2011, 208-214).

<sup>67</sup> There is a third category, bowls with half globular body, with no foot, which are drinking vessels.



artefacts, having an average diameter of 21.2 cm (measuring between 16.6 and 23.2 cm); from the second – there are only 3 artefacts, between 21.7 and 29.2 cm, and an average of 24.7. Obvious enough, the bowls from Chilia-Militari milieu are not following a ‘Dacian tradition’ in terms of size (see Table 8). In terms of morphology, less than half of the Dacian shapes have successors in the third century AD (including here those published by Bichir)<sup>68</sup>.

The shift of the capacity of the bowls does not mean that the people was eating double, but a shift in culture and habits. The issue was highlighted relatively long time ago for North Africa, where occurs such a spectacular change in dishes scale during the third century<sup>69</sup>, explained as an adaptation of the production for the communal – Christian – eating. Obviously, this shift is not equal and not synchronic all over the Empire. We do not have reliable proves that the Christianity was the reason for using much larger dishes, in Chilia-Militari culture; we have only to note that shift and to say that the feature is not due to the local tradition, nor to the influence played by Romans (at least not those from Oltenia), speaking here *only* about the unusual sizes of the

**Table 8.** Comparison set for Roman bowls from Oltenia and artefacts from Alexandria (fine types only). Rim diameter classes (following fig. 7)

class (cm)	12.7	16	19	22	24	27	32
Oltenia	4	<b>11</b>	8	<b>10</b>	6	3	2
Alexandria	0	0	0	0	1	<b>8</b>	4

bowls.

As for the Roman bowls morphology, it is practically identical with the morphologic set recorded for Chilia-Militari milieu. The similitude goes further, in the array of shades. In general terms it is true that the Roman bowls from Oltenia were ‘red’, and those from Alexandria are more frequently ‘grey’. In detail, 30% from the Roman bowls were grey, and 32% of them made by coarse paste; as about the ‘barbarian’ bowls from Alexandria, only 6 out of 15 recipients are grey (40%), and only 3 out of 18 are made of an inferior paste (17%); both are usually covered by a slip<sup>70</sup>, almost systematically darker<sup>71</sup> as the main body, with several situations in which although the body has an ‘oxidized’ colour (from yellowish-red to brown), the slip is grey (from light to dark), counting 3 cases for Alexandria lot.

We have insisted on the comparative analyse of the Roman and Chilia-Militari bowls because it is an interesting case of ‘border culture’. If the typical Roman tableware is ‘red’, and the traditional Dacian – ‘grey’, we can see here two mixed situations, a certain field of further debate. We have here similar shapes, but dissimilar scales of the artefacts, reflecting a complicated – and non-linear – process of asymmetrical but reciprocal adjusting.

<sup>68</sup> BICHIR 1984, pl. XIX/2-5, XXII/1-5, 7-8, XXV/6, 9, 12, XXVI/1-9, 11-12, XXVII/1. 2. 6. 8, 11-13, XXVIII/1-14, XXIX/1-17.

<sup>69</sup> See esp. HAWTHORN 2000, 23; see fig. 3.5 for the second century bowls and fig. 3.6 for the third century bowls.

<sup>70</sup> Named by Popilian systematically ‘paint’. Some real differences seem to be present, as the consistence and composition of the slip within the two groups: the Roman ‘paint’ seems finer, more diluted, thus slimmer, but such things need further deepening.

<sup>71</sup> With only one exception (POPILIAN 1976, cat. 799), probably a technological error.

**Table 9.** Distribution of Alexandria fine pottery on functional shapes

function	number of items	percent of all	apparent grey
bowl	15	51.7%	11
cauldron	3	10.3%	3
beaker	2	6.9%	2
carafe/ amphora	2	6.9%	1
flagon	3	10.3%	2
storage	4	13.8%	3
TOTAL	29	100%	22

Gheorghe Bichir did not provide statistics about the frequency of the main pottery shapes within the ‘grey’ pottery of Chilia-Militari type; he made anyway some estimation, like ‘the bowls are the most numerous in this group’, which proved true in Alexandria also (Table 9). For all others we have only approximations, as relative to the beakers, which are ‘less often’ as in Carpic culture or in La Tène Age<sup>72</sup>. Those shapes considered by Bichir very rare, as the pots with two or three handles, the lids, or the strainers, are missing from this very limited lot from Alexandria, which gathers artefacts from only a bunch of contexts. Surprising, then, is only the presence of two fragments of very large carafe/ amphora, Bichir illustrating only one<sup>73</sup>.

A comparison about the apparent colours of the fine pottery, respectively the colour of the slip, shows that 75.6% from the share of Alexandria pottery analysed is grey, but this is far away from the description left by G. Bichir, who was indicating that almost all the fine pottery is grey, except around 2%, which is yellowish-red (the described shade is identical!), adding that they occur only in the late stage of evolution<sup>74</sup>. A simple conclusion would be, then, that the ceramic ensemble from Alexandria is *very late*.

### GENERIC CLASS: COARSE POTTERY (KITCHENWARE)

**ID: 66** fabric: H1 ink notes: VOA; sit 1; cpl 22; 1-162; .66 tip K1 context: site 1, cpl 22 **group:** cooking pots? function: pot? present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 110 size of section (mm): 7 relative size of section: B colour: (brick-) red slip:

morphology: Flat bottom with a thin centre but the junction to the walls is thick. The lower body is close to vertical.

free notes: Spinning marks inside. The suggested shape is a tall one, the angle of the wall being very small (close to vertical). The outer edge has a struck, before firing. There are no signs of use (could be a refusal).

**ID: 68** fabric: J ink notes: VOA; sit 1; cpl 22; 1-165; .68 tip D context: site 1, cpl 22 **group:** cooking pots? function: pot? present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 90 size of section (mm): 5 relative

<sup>72</sup> BICHIR 1984, 35.

<sup>73</sup> Also very fragmentary, BICHIR 1984, pl. XV/2.

<sup>74</sup> BICHIR 1984, 34.

size of section: B-C colour: yellowish red slip:

morphology: Thin bottom, slightly concave outside, imitating shapes with a whorl. The lower body is suggesting a short shape (as a bowl, for instance).

free notes: The core of the bottom is dark grey (insufficient firing), for 90% of the mass, mostly were thicker. Spinning marks inside. Despite the fabric, the estimated function ('cooking pot') is debateable.

**ID: 63** fabric: K ink notes: VOA; sit 1; cpl 22; 1-155; .63 tip A context: site 1, cpl 22 group: cooking pots? function: pot? present: bottom ref. D: bottom % of D.: 100 estim. D. (mm): 110 size of section (mm): 13 relative size of section: B colour: yellowish red slip:

morphology: Flat bottom, with a short but well profile edge, suggesting a whorl (which is missing).

free notes: Spinning marks outside (meaning a very superficial finishing), but also marks made with a string (see photo 3455), on the outer part of the bottom, usually ascribed to the detaching of the pot from the wheel. This is not usual for Chilia-Militari milieu, but endemic afterwards, suggesting a late chronology, possibly in the fourth century.

**ID: 65** fabric: H1 ink notes: VOA; sit 1; cpl 22; 1-166; .65 tip K1 context: site 1, cpl 22 group: cooking pots function: pot present: bottom ref. D: bottom % of D.: 50 estim. D. (mm): 100 size of section (mm): 15 relative size of section: B colour: red slip:

morphology: Flat bottom, slightly concave, with a short foot.

free notes: Spinning marks inside.

**ID: 67** fabric: H1 ink notes: VOA; sit 1; cpl 22; 1-157; .67 tip K1 context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 100 estim. D. (mm): 70 size of section (mm): 7 relative size of section: B colour: red slip:

morphology: Flat bottom, arched lower body.

free notes: In the inner side there is more than simple 'spinning mark', there is a large groove at the junction between the bottom and the lower body, possibly shaped separately. No signs of use (possibly production refuse).

**ID: 70** fabric: H1 ink notes: VOA; sit 1; cpl 22; km 6+700; 1-163; .70 tip K1 context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 15 estim. D. (mm): 140 size of section (mm): 8 relative size of section: B-C colour: red slip:

morphology: Flat bottom, almost vertical body.

free notes: HANDMADE POTTERY. Paste with sand in excess. Cracks. Secondary firing, most likely not functional (in a trash pit?). The cracks could be also the result of overheating, but the excess of sand in composition is favouring the process.

**ID: 37** fabric: H1 ink notes: VOA; sit 1; km 6+700; S 76; cpl 18; 1-024; .37 tip K1 context: site 1, cpl 18 group: cooking pots function: pot present: Bottom ref. D: bottom % of D.: 35 estim. D. (mm): 70 size of section (mm): 8.8 relative size of section: A-B colour: (light grey) slip:

morphology: Flat bottom outside, ogival inside. The lower body consists from a long foot, turning outside.

free notes: HANDMADE POTTERY. Careful finished. The core is light grey, turning brownish. The faces are strongly altered by secondary firings, due cooking fats, as well as a post-disposal fire, touching the section.

**ID: 39** fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-129; .39 tip D context: site 1, cpl 22 group: cooking pots function: pot present: rim to the shoulder ref. D: rim % of D.: 10 estim. D. (mm): 220 size of section (mm): 6.1 relative size of section: B colour: reddish yellow slip:

morphology: Simply rounded rim, with a mild edge on top, a short neck and a low shoulder.

free notes: The sherd has a chalky thin (post-) deposition, making difficult the evaluation of the paste and colour.

**ID: 48** fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-130 a+b; .48 tip D context: site 1, cpl 22 group: cooking pots function: pot present: rim to the neck ref. D: rim % of D.: 25 estim. D. (mm): 170 size of section (mm): 5.8 relative size of section: B colour: reddish yellow slip:

morphology: Strongly everted rim (almost horizontally), thickened and flat outside, trapezoidal in section. Very short neck and an arched shoulder.

free notes: There are two sherds with an identical profile and fabrications (taken as one object in the database).

**ID: 50** fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-133; .50 tip D context: site 1, cpl 22 group: cooking pots function: pot present: rim to the neck ref. D: rim % of D.: 15 estim. D. (mm): 150 size of section (mm): 6.8 relative size of section: B colour: reddish yellow slip:

morphology: S type rim (accommodating a lid), slightly thickened outside, a short neck and a moderate lifted shoulder.

free notes: Three superficial incisions on the neck and the shoulder. The neck has a perforation, very unlikely as 'reparation' for such a modest ware, more likely for vegetal strips hanging the vessel (for storage, for instance)

**ID: 49AB** fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-137 B+a; 49A+49B tip D context: site 1, cpl 22 group: cooking pots function: pot present: rim to the upper body ref. D: rim % of D.: 30 estim. D. (mm): 160 size of section (mm): 4 relative size of section: B-C colour: reddish yellow slip:

morphology: S type rim (accommodating a lid), slightly thickened outside, a short neck and a moderate lifted shoulder.

free notes: There are two sherds with an identical profile and fabrications, of different shades due to some different conditions of deposition, coming yet from the same vessel.

**ID: 57** fabric: J ink notes: VOA, sit 1, 1-172, cpl. 22, .57 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom ref. D: bottom % of D.: 30 estim. D. (mm): 70 size of section (mm): 5 relative size of section: B-C



colour: grey slip:

morphology: Flat bottom, a short foot and an arched lower body.

free notes: The core is darker than the sides. The centre of the bottom is thinner. Fabrication with large pores, especially on the inner side. Tracks of vegetal matter in composition.

**ID: 51** fabric: J ink notes: VOA; sit 1; cpl 22; 1-156; .51 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 120 size of section (mm): 12 relative size of section: B colour: grey slip:

morphology: Flat bottom separated by the body, in the inner side, by an unusual groove, suggesting (possibly) that they were shaped separately and did not match very well.

free notes: Spinning marks inside. The core is slightly yellowish.

**ID: 53** fabric: J ink notes: VOA; sit 1; cpl 22; 1-167; .53 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 90 size of section (mm): 8 relative size of section: B-C colour: grey slip:

morphology: Flat bottom, splay wall.

free notes: Spinning marks inside.

**ID: 54** fabric: J ink notes: VOA; sit 1; cpl 22; 1-170; .54 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 15

estim. D. (mm): 120 size of section (mm): 9 relative size of section: B colour: grey slip:

morphology: Flat bottom.

free notes: Spinning marks inside.

**ID: 56** fabric: J ink notes: VOA; sit 1; cpl 22; 1-171; .56 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 90 size of section (mm): 7 relative size of section: B-C colour: grey slip: dark grey

morphology: Flat bottom, arched wall.

free notes: The core is grey also (and a bit yellowish), but lighter than the sides.

**ID: 55** fabric: J ink notes: VOA; sit 1; km 6+700; cpl 22; 1-168; .55 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 30 estim. D. (mm): 90 size of section (mm): 9 relative size of section: B colour: reddish yellow slip:

morphology: Flat bottom, splay lower body.

free notes: The inner side is almost black, due to (cooked?) fats. Possible flame marks on the preserved part of the bottom.

**ID: 69** fabric: J ink notes: VOA; sit 1; cpl 22; km 6+700; 1-169; .69 tip D context: site 1, cpl 22 group: cooking pots function: pot present: bottom to lower body ref. D: bottom % of D.: 25 estim. D. (mm): 110 size of section (mm): 10 relative size of section: B colour: yellowish red slip:

morphology: Flat bottom, splay body. Concentric string marks for detaching the pot from the wheel.

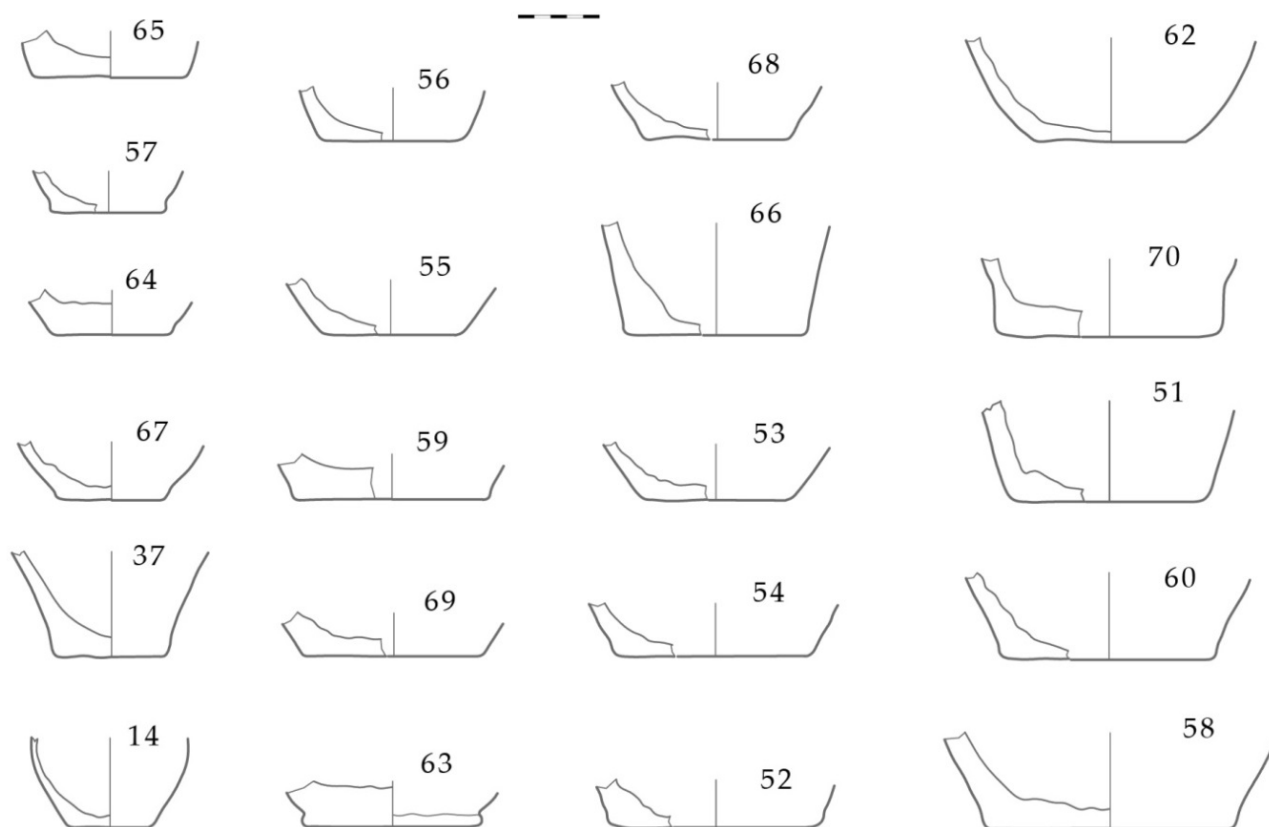


Figure 8. Cooking pots from Alexandria. Lower fragments.

**free notes:** The core (80 %) is grey. Spinning marks inside. Post-breaking secondary firing.

**ID: 52 fabric:** J **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-160; .52 tip D **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom **ref. D:** bottom % of D.: 20 **estim. D. (mm):** 130 **size of section (mm):** 13 **relative size of section:** B **colour:** grey **slip:**

**morphology:** Flat bottom (with a thicker part at the junction with the body).

**free notes:** Spinning marks inside. Grey paste, slightly turning yellowish. The section is discreetly fired, thus it was laying in a disposal area.

**ID: 46 fabric:** J **ink notes:** VOA; sit 1; km 6+700; cpl 22; .46 tip D **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the shoulder **ref. D:** rim % of D.: 15 **estim. D. (mm):** 230 **size of section (mm):** 6.7 **relative size of section:** B **colour:** reddish yellow **slip:**

**morphology:** Simply rounded rim, with a mild edge on top (see also no. 39).

**free notes:** Very tidy work; a very short (but certain) use, having smoke marks both inside and outside the rim.

**ID: 23AB fabric:** J **ink notes:** VOA; sit 1; km 6+700; cpl 27a; .23 A-B tip D **context:** site 1, cpl 27a **group:** cooking pots **function:** pot **present:** rim to the middle diameter **ref. D:** rim % of D.: 25 **estim. D. (mm):** 180 **size of section (mm):** 5.2 **relative size of section:** B-C **colour:** dark grey **slip:**

**morphology:** S type rim, short but strongly arched neck, profiled shoulder, large and rounded upper body.

**free notes:** Strong spinning marks on the shoulder (strongly raised on shaping). Secondary firing, mainly around the rim, due to the hot steam from boiling fats.

**ID: 24AD fabric:** J **ink notes:** VOA; sit 1; km 6+700; cpl 27a; .24 A-D tip D **context:** site 1, cpl 27a **group:** cooking pots **function:** pot **present:** rim to shoulder **ref. D:** rim % of D.: 40 **estim. D. (mm):** 160 **size of section (mm):** 4.2 **relative size of section:** B-C **colour:** dark grey **slip:**

**morphology:** S type rim, with a sharp edge beneath, short neck, medium developed shoulder.

**free notes:** Four sherds from the same pot. Simple incisions on the shoulder, separated by non-decorated fields. Darker shades inside, as well as for the pot no. 23. Both have obvious marks for cooking activities, therefore the kiln was surely used for cooking (and possibly for firing crude vessels).

**ID: 47 fabric:** J **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-132; .47 tip D **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the middle diameter **ref. D:** rim % of D.: 20 **estim. D. (mm):** 180 **size of section (mm):** 5.3 **relative size of section:** B **colour:** reddish yellow **slip:** reddish yellow

**morphology:** Thickened and flatted on top S type rim, short neck, developed shoulder, large middle diameter.

**free notes:** No decoration on the upper part of the vessel. Although the slip is not obvious, one can see than the coarse inclusions are less visible on faces than in the broken section. Less used, if ever, it has a blackish coloration on

some of the inner side, but not near the rim; most likely it is a secondary firing after the disposal of the artefact.

**ID: 45 fabric:** J **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-136; .45 tip D **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the shoulder **ref. D:** rim % of D.: 20 **estim. D. (mm):** 200 **size of section (mm):** 7.2 **relative size of section:** B **colour:** dark grey **slip:**

**morphology:** Thickened S type rim, with a sharp edge separating it by the neck, on the inner side; another small edge is located just beneath the neck, on the outer face. The shoulder has a normal development (for a pot of that age).

**free notes:** Decorated with a horizontal incision on shoulder. Tracks of smoke on the both sides of the rim (thus used in kitchen). The sherd was also exposed to open fire after the breaking of the pot.

**ID: 14 fabric:** J **ink notes:** VOA; sit 4A; cpl 4 .14 tip D **context:** site 4A, cpl 4 **group:** cooking pots **function:** small pot **present:** lower half **ref. D:** bottom % of D.: 100 **estim. D. (mm):** 50 **size of section (mm):** 3.2 **relative size of section:** B-C **colour:** light grey **slip:** dark grey

**morphology:** Flat bottom, slightly profiled foot, globular lower body, relatively short.

**free notes:** Deep marks from spinning the wheel. The core is a brownish grey, the faces are grey (mostly dark on the outer side). This is one of the few relatively small pots from the working lot Alexandria.

**ID: 44 fabric:** J1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-139b; .44 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the neck **ref. D:** rim % of D.: 10 **estim. D. (mm):** 230 **size of section (mm):** 6.2 **relative size of section:** B **colour:** reddish yellow **slip:**

**morphology:** Slightly thickened S type rim, a short neck and a developed body.

**free notes:** No decoration, unused.

**ID: 43 fabric:** J1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-139a; .43 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the middle diameter **ref. D:** rim % of D.: 30 **estim. D. (mm):** 160 **size of section (mm):** 6 **relative size of section:** B **colour:** reddish yellow **slip:** (the same)

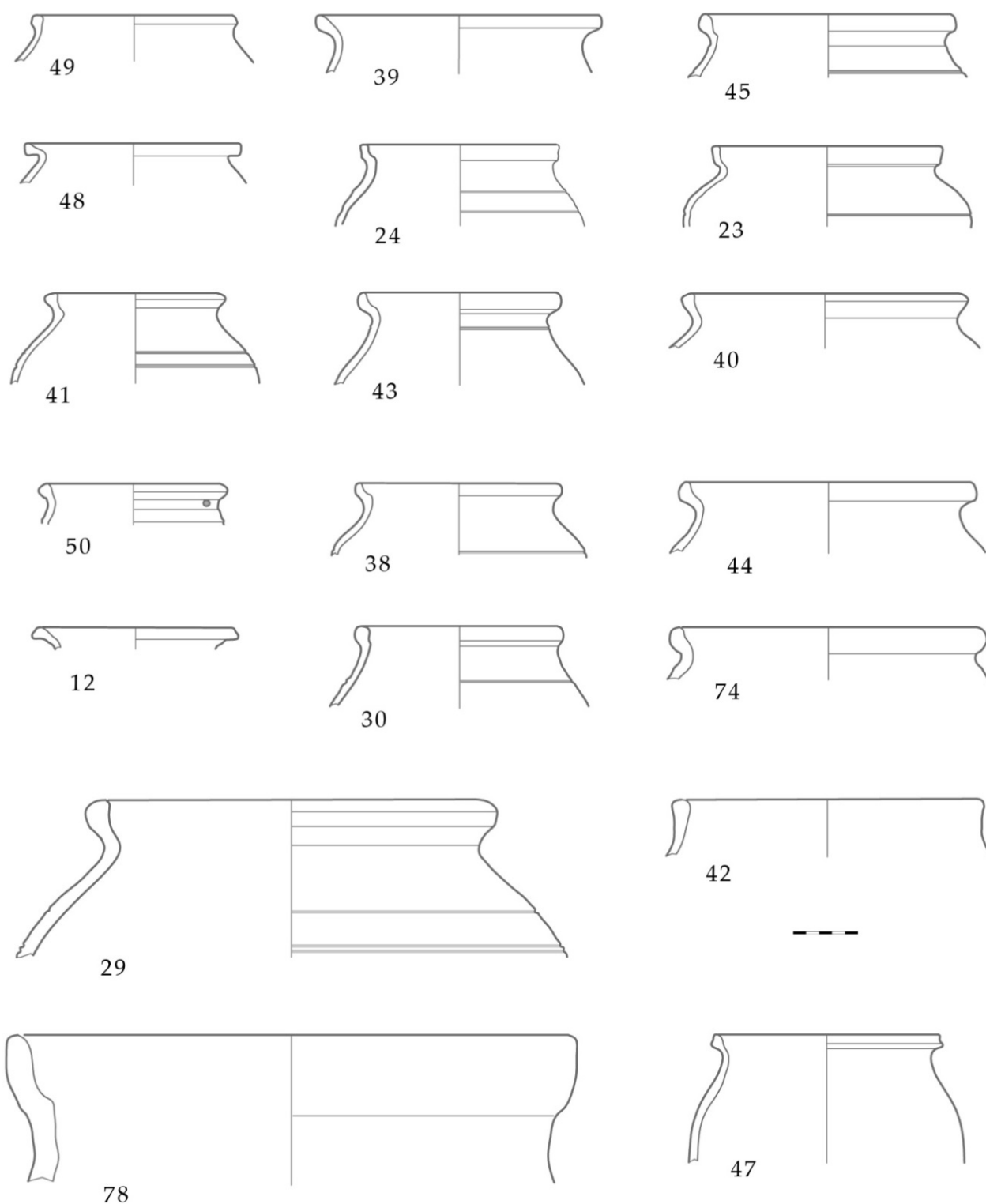
**morphology:** Slightly thickened S type rim, a short neck and a developed body.

**free notes:** Decorated with one shallow incision beneath the neck. Surely it is covered with a finer slip of the same colour. Brand new, not used. Chalk like spots on the outer face, maybe from the depositional layer (see also no. 39 and 47).

**ID: 41 fabric:** J1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-138; .41 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the middle diameter **ref. D:** rim % of D.: 20 **estim. D. (mm):** 140 **size of section (mm):** 5.1 **relative size of section:** B-C **colour:** dark grey **slip:** (darker)

**morphology:** Slightly thickened S type rim, a short neck and a developed body.





**Figure 9.** Cooking pots from Alexandria. Upper fragments.

**free notes:** Decorated with horizontal incisions separated by flat bands. Although the slip is not obvious, the body is covered by a finer and darker thin coating. The colour makes difficult an evaluation of the vessel's use in the kitchen.

**ID: 40 fabric:** J1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-138; .40 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the shoulder **ref.**

**D:** rim % of D.: 5 estim. **D. (mm):** 220 **size of section (mm):** 5.2 **relative size of section:** B-C **colour:** grey **slip:** dark grey **morphology:** Slightly thickened S type rim, a short neck and a relatively developed body, with a large middle diameter (almost 30 cm!)

**free notes:** No obvious traces of use.

**ID: 38 fabric:** J1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-135; .38 tip D1 **context:** site 1, cpl 22 **group:** cooking

pots **function:** cooking pot **present:** rim to the shoulder **ref. D:** rim % of D.: 30 **estim. D. (mm):** 160 **size of section (mm):** 6 **relative size of section:** B-C **colour:** reddish yellow **slip:**

**morphology:** S type rim ended with a mild edge, short neck, developed shoulder.

**free notes:** Horizontal incised between the shoulder and the middle diameter. There are no obvious marks of use in the kitchen, but the evaluation is difficult, the sherd being burned after breaking apart.

**ID: 30 fabric:** J1 **ink notes:** VOA; sit 1; km 6+700; cpl 5; .30 tip D1 **context:** site 1, cpl 5 **group:** cooking pots **function:** cooking pot **present:** rim to shoulder **ref. D:** rim % of D.: 10 **estim. D. (mm):** 160 **size of section (mm):** 3.6 **relative size of section:** B-C **colour:** dark grey **slip:**

**morphology:** Slightly thickened S type rim, a neck longer than usual (for the same class) and a moderated developed body.

**free notes:** Decorated with simple horizontal incisions separated by flat fields. Unusual thin wall for the pot's size. No signs of use. The outer side has a finer finishing.

**ID: 42 fabric:** J1 **ink notes:** VOA; sit 1; km 6+700; cpl 22; .42 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the neck **ref. D:** rim % of D.: 10 **estim. D. (mm):** 240 **size of section (mm):** 4 **relative size of section:** B-C **colour:** dark grey **slip:**

**morphology:** Thickened vertical rim and a short neck.

**free notes:** The shape is not typical for a cooking pot, but the suggestion giving by the fabric is this. No obvious traces of use.

**ID: 78 fabric:** J1 **ink notes:** VOA; sit 1; cpl 22; 1-153; .78 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim, neck **ref. D:** rim % of D.: 10 **estim. D. (mm):** 440 **size of section (mm):** relative size of section: B **colour:** brown **slip:** dark grey

**morphology:** S type rim shape, separated by the short neck by a sharp edge.

**free notes:** Compact and well finished pottery, Although usually the cooking pots have no slip, in the this case it very likely had a finer coat, of a distinct shade. Giving the estimated diameter (44 cm), this is a huge and rare cooking pot.

**ID: 74 fabric:** J1 **ink notes:** VOA; sit 1; cpl 22; km 6+700; 1-131; .74 tip D1 **context:** site 1, cpl 22 **group:** cooking pots **function:** cooking pot **present:** rim to the shoulder **ref. D:** rim % of D.: 10 **estim. D. (mm):** 260 **size of section (mm):** 6 **relative size of section:** B **colour:** brown **slip:**

**morphology:** Thickened S type rim, short neck, shoulder marked by an edge (see also no. 29, the next in this selection).

**free notes:** The core is grey, the sides are (dark-) brownish.

**ID: 29 fabric:** J1 **ink notes:** VOA; sit 1; cpl 27b; umpl. cuptor; .29 tip D1 **context:** site 1, cpl 27b **group:** cooking pots **function:** cooking pot **present:** rim to shoulder **ref. D:** rim % of D.: 10 **estim. D. (mm):** 290 **size of section (mm):** 7.2

**relative size of section:** B **colour:** dark grey **slip:**

**morphology:** Thickened S type rim, short neck, shoulder marked by an edge (see also no. 74, the previous in this selection), probably a well-developed body, with a large middle diameter.

**free notes:** Simple incision on the shoulder, followed downwards by an decorated band and another double incision. No traces of use.

**ID: 61 fabric:** K **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-174b; .61 tip A **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom to lower body **ref. D:** bottom % of D.: 25 **estim. D. (mm):** 130 **size of section (mm):** 6 **relative size of section:** B-C **colour:** reddish yellow **slip:**

**morphology:** Flat bottom, unusual thin towards the centre (4-5 mm). A discreet foot, normal lower body (for a 'pot').

**free notes:** Strong secondary firing both inside and outside, affecting also the broken section. See also no. 60, with a very similar shape and fabrication, coming yet from another vessel.

**ID: 60 fabric:** K **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-174a; .60 tip A **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom to lower body **ref. D:** bottom % of D.: 15 **estim. D. (mm):** 130 **size of section (mm):** 6 **relative size of section:** B **colour:** reddish yellow **slip:**

**morphology:** Flat bottom, unusual thin towards the centre (4-5 mm). A discreet foot, normal lower body (for a 'pot').

**free notes:** Strong secondary firing both inside and outside, affecting also the broken section. See also no. 61, with a very similar shape and fabrication, coming yet from another vessel.

**ID: 62 fabric:** K **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-164; .62 tip A **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom to lower body **ref. D:** bottom % of D.: 75 **estim. D. (mm):** 100 **size of section (mm):** 7 **relative size of section:** B-C **colour:** reddish yellow **slip:**

**morphology:** Flat bottom, unusual thin, slightly concave outside. Rounded lower body.

**free notes:** Spinning marks inside. Possibly used in household. The bottom is far more blackish as the body, on the both sides, but this does not mean exposure to flames, but rather a deposit of fats (penetrating the wall of the vessel). On the outer face, supplementary whitish spots of undetermined origin.

**ID: 64 fabric:** K **ink notes:** VOA; sit 1; km 6+700; cpl 22; 1-158; .64 tip A **context:** site 1, cpl 22 **group:** cooking pots **function:** pot **present:** bottom **ref. D:** bottom % of D.: 100 **estim. D. (mm):** 70 **size of section (mm):** 10 **relative size of section:** B **colour:** red **slip:**

**morphology:** Flat bottom.

**free notes:** Spinning marks inside. On the inner side there are no signs of use (in the kitchen). On the outer side there is a whitish thin deposition (like a white powder supposed to help removing the pot from the wheel. Being not used, it could be a refusal (from no obvious reason on



the **bottom** area).

**ID: 12** fabric: K ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .12 tip A context: site 4A, cpl 4 **group**: cooking pots function: pot present: rim ref. D: rim % of D.: 10 estim. D. (mm): 200 size of section (mm): 4 relative size of section: C colour: dark grey slip:

morphology: Everted rim at 45°, thickened and flatten on top, with sharp edges.

free notes: Although it is not a S type rim, the angle of the internal rim could fit a lid (or something else playing the lid function). The dark shade prevents observations connected with shades' alterations due to the hot and fatty steam.

**ID: 58** fabric: K1 ink notes: VOA; sit 1; cpl 22; 1-159; .58 tip A1 context: site 1, cpl 22 **group**: cooking pots function: pot present: **bottom** to lower body ref. D: **bottom** % of D.: 25 estim. D. (mm): 150 size of section (mm): 15 relative size of section: B colour: grey slip:

morphology: Flat **bottom**, a short and discrete foot.

free notes: Concentric string marks for detaching the pot from the wheel. The outer side has a secondary firing, most likely when the vessel was already broken.

**ID: 59** fabric: K1 ink notes: VOA; sit 1; cpl 22; 1-173; .59 tip A1 context: site 1, cpl 22 **group**: cooking pots function: pot present: **bottom** to lower body ref. D: **bottom** % of D.: 15 estim. D. (mm): 120 size of section (mm): 15 relative size of section: B colour: grey slip:

morphology: Flat **bottom**

free notes: Vegetal marks outside (more likely coming from the wheel, than from the mixed paste)

**ID: 10** fabric: L1 ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .10 tip C1 context: site 4A, cpl 4 **group**: cooking pots function: pot present: **Bottom**, short wall ref. D: **bottom** % of D.: 15 estim. D. (mm): 170 size of section (mm): 9 relative size of section: B colour: red slip:

morphology: Flat **bottom**, ogival inner side, short foot.

free notes: The inner side is plain red, with no obvious signs of use. The outer side turns grey have lots of deep cracks. Could be a manufacture refusal.

**ID: 08** fabric: L1 ink notes: VOA; sit 4A; cpl 4; gr. Acces/cuptor .8 tip C1 context: site 4A, cpl 4 **group**: cooking pots function: pot present: **Bottom**, lower body ref. D: **bottom** % of D.: 30 estim. D. (mm): 130 size of section (mm): 9.5 relative size of section: B colour: light grey slip:

morphology: Flat **bottom**, a small foot, developing an almost straight lower body, suggesting a tall shape.

free notes: Strong spinning marks inside. There are two matching sherds, one found in the oven (kiln??), the other outside, in the access pit. One of them has a long and deep crack in the section of the lower body, developed longitudinally, as a cleavage. There are no signs of use and most likely this is a manufacture refuse.

**ID: 07** fabric: L ink notes: VOA; sit 4A; cpl 4; gr.

Acces (cuptor-n.n.) .7 tip C context: site 4A, cpl 4 **group**: lids function: lid present: handle, partly body ref. D: handle % of D.: 80 estim. D. (mm): 73 size of section (mm): 6.8 relative size of section: B colour: grey slip:

morphology: Strongly deformed (in the kiln). The estimated diameter is that of the button (handle).

free notes: Firing reject. Most likely the context is a fabrication area.

**ID: 09** fabric: L ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .9 tip C context: site 4A, cpl 4 **group**: lids function: lid / bowl present: **bottom**, fragm. body ref. D: B % of D.: 15 estim. D. (mm): 80 size of section (mm): 9.4 relative size of section: B colour: reddish yellow slip:

morphology: Short 'foot' (if bowl), but well profiled ('handy', if lid), imitating a whorl (which does not exist). The inner is concave.

free notes: More likely a lid, due to the coarse fabrication. Not decorated.

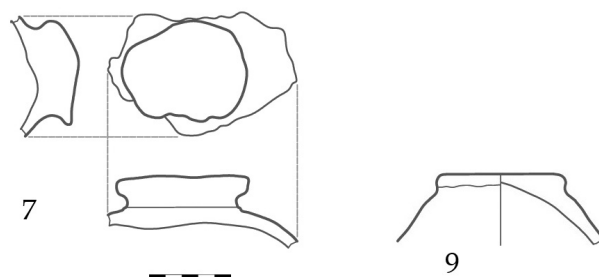


Figure 10. Lids made of coarse paste.

**ID: 11** fabric: L ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .11 tip C context: site 4A, cpl 4 **group**: lids function: lid? present: **bottom** ref. D: **bottom** % of D.: 5 estim. D. (mm): 90 size of section (mm): 9.5 relative size of section: B colour: reddish yellow slip:

morphology: A short handle with a whorl. Flat outside, concave inside.

free notes: No decoration. The morphology of the fragment is similar with the **bottom** of a bowl, but the fabrication recommends a lid.

**ID: 22** fabric: J1 ink notes: VOA; sit 1; km 6+700; cpl 27a; 1-084; .22 tip D1 context: site 1, cpl 27a **group**: liquid containers function: pot (with handle?) present: rim to the middle diameter ref. D: rim % of D.: 25 estim. D. (mm): 230 size of section (mm): 10 relative size of section: A-B colour: dark grey slip:

morphology: Simple rounded and reverted rim, long neck, almost cylindrical, a short, biconical body with sharp careen middle diameter. Such a nice and careful shape should be completed by a profiled foot and at least one handle (better two).

free notes: The upper half, from the rim to the middle diameter, has been polished, but with a soft matter, like some skin. There is no peremptory slip on it, yet the outer surface is darker than in the inner one. The fabric type is not the best

between the 'coarse' pastes, being a coarser variant of the best (J, which is also the most presented); there are a lot of quartz pebbles, many greater than 2 mm; some vegetal traces are also visible! Nevertheless, the finishing of that vessel is unusual careful and finally nice, although many pebbles popped up in the process. There is any straight analogy in all known Chilia-Military pottery. Beyond polishing, there is only one decoration – a pair of horizontal grooves stressing the passage from neck to upper body.

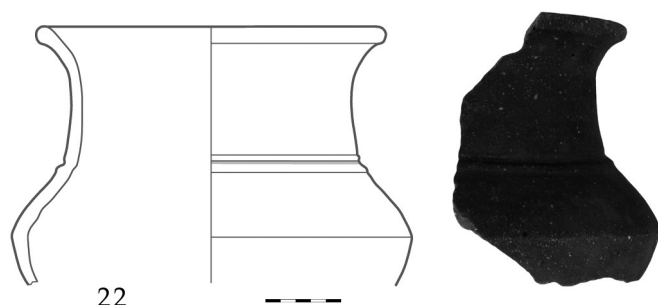


Figure 11. Pot (with handle?) made of coarse paste.

**ID: 75** fabric: J1 ink notes: VOA; sit 1; cpl 22; km 6+700; 1-154; .75 tip D1 context: site 1, cpl 22 group: liquid containers function: flagon? present: handle ref. D: % of D.: 0 estim. D. (mm): size of section (mm): 18 relative size of section: B colour: brown slip:

**morphology:** A big, strong handle from a large recipient, 110 mm in length and 38 mm in width, with two large, longitudinal grooves.

**free notes:** The core is grey, but the faces – light brown. Due to the size, it doesn't match a beaker, but a large flagon like Bichir 1984, pl. XX/1, XXI/1-3, 13, XXIV/3, 5, 8 (with two grooves), LIX/3, 5, 8, 9.

**ID: 36** fabric: G ink notes: VOA; sit 1; km 6+700; cpl 17; 1-020; .36 tip L context: site 1, cpl 17 group: storage? function: storage? cooking? present: rim to shoulder ref. D: rim % of D.: 5 estim. D. (mm): 380 size of section (mm): 12.5 relative size of section: B colour: reddish yellow slip:

**morphology:** A bag-like shape, with an almost vertical rim, slightly thickened and reverted, an almost straight neck driving to an upper body almost vertical.

**free notes:** HANDMADE POTTERY, carefully shaped and finished; collated strip of clay decorated with fingerprints, almost horizontal, in a typical position on the vessel, for the third century – above the middle diameter. Both sides of the rim are smoked, and this could drive to another function as firstly suspected.

**ID: 34** fabric: H ink notes: VOA; sit 1; km 6+660; S 73; 1-180; -0,25-0,30 .34 tip K context: site 1, S 73 group: storage containers function: Cauldron? present: rim to middle diameter ref. D: rim % of D.: 15 estim. D. (mm): 380 size of section (mm): 9.3 relative size of section: B colour: reddish yellow slip:

**morphology:** Bevelled rim, slightly thickened, everted 45°, short neck, long and straight upper body, like a cauldron. This is a half-open shape.

**free notes:** HAND MADE POTTERY, but very careful. No trace of smoke or fats. Due to its size, it could be used for storage (as grains or fruits). The shape reminds some 'kraters', but the fabric is not that good for mixing wines.

**ID: 02** fabric: I ink notes: VOA; sit 4A; cpl 4; cuptor .2 tip B context: site 4A, cpl 4 group: storage function: storage containers present: rim to the shoulder ref. D: rim % of D.: 20 estim. D. (mm): 390 size of section (mm): 9.3 relative size of section: B colour: light grey slip:

**morphology:** Bilateral developed rim, with a triangular section inside and a trapezoidal section outside. The flat top of the rim has 53 mm in width, with a small circular depression in the middle. The connection with the short neck is marked by a small collar. The shoulder is well developed, suggesting a very large middle diameter.

**free notes:** Brownish core, suggesting a good firing. Secondary firing on the rim, without connection with its main function. This storage type container is known as Krausengefäß, frequently decorated on the shoulder (not this one).

**ID: 03AB** fabric: I ink notes: VOA; sit 4A; cpl 4; cuptor .3+3B tip B context: site 4A, cpl 4 group: storage function: storage containers present: rim to the shoulder ref. D: G % of D.: 7 estim. D. (mm): 450 size of section (mm): 10 relative size of section: B colour: yellowish grey slip:

**morphology:** Bilateral developed rim, longer inside, of a triangular scheme, with flat top, underlined above the neck by two horizontal incisions A second sherd (noted B), from the upper body, above the middle diameter, is almost completing the upper half of the shape.

**free notes:** The sherd A is secondary burned. The sherd B has incised ornaments, made by alternating flat areas with waved or straight lines, aligned horizontally. The type is known as Krausengefäß and it is usually decorated with kindred themes and means.

**ID: 04** fabric: I ink notes: VOA; sit 4A; cpl 4; cuptor .4 tip B context: site 4A, cpl 4 group: storage function: storage containers present: rim to the shoulder ref. D: rim % of D.: 6 estim. D. (mm): 330 size of section (mm): 9 relative size of section: B colour: grey slip:

**morphology:** Flat rim, extended outside, having a width of 25 mm, a short neck and a relatively well developed shoulder.

**free notes:** Type known as Krausengefäß, not decorated. See also no. 2

**ID: 99** fabric: K ink notes: VOA; sit 1; cpl 22; .99 tip A context: site 1, cpl 22 group: storage function: storage containers present: rim (incomplete) to neck ref. D: rim % of D.: 5 estim. D. (mm): 450 size of section (mm): 19 relative size of section: B colour: dark grey slip:

**morphology:** Odd conformation, with large rim developed straight in an angle of 45°, with the end enlarged and flattened. At the inner side of the junction with the body, it is developed a large holder (a lid's holder?), leaving for the inner diameter of the neck only 14 cm (compare with the outer diameter of the rim, which is estimated to 45 cm).

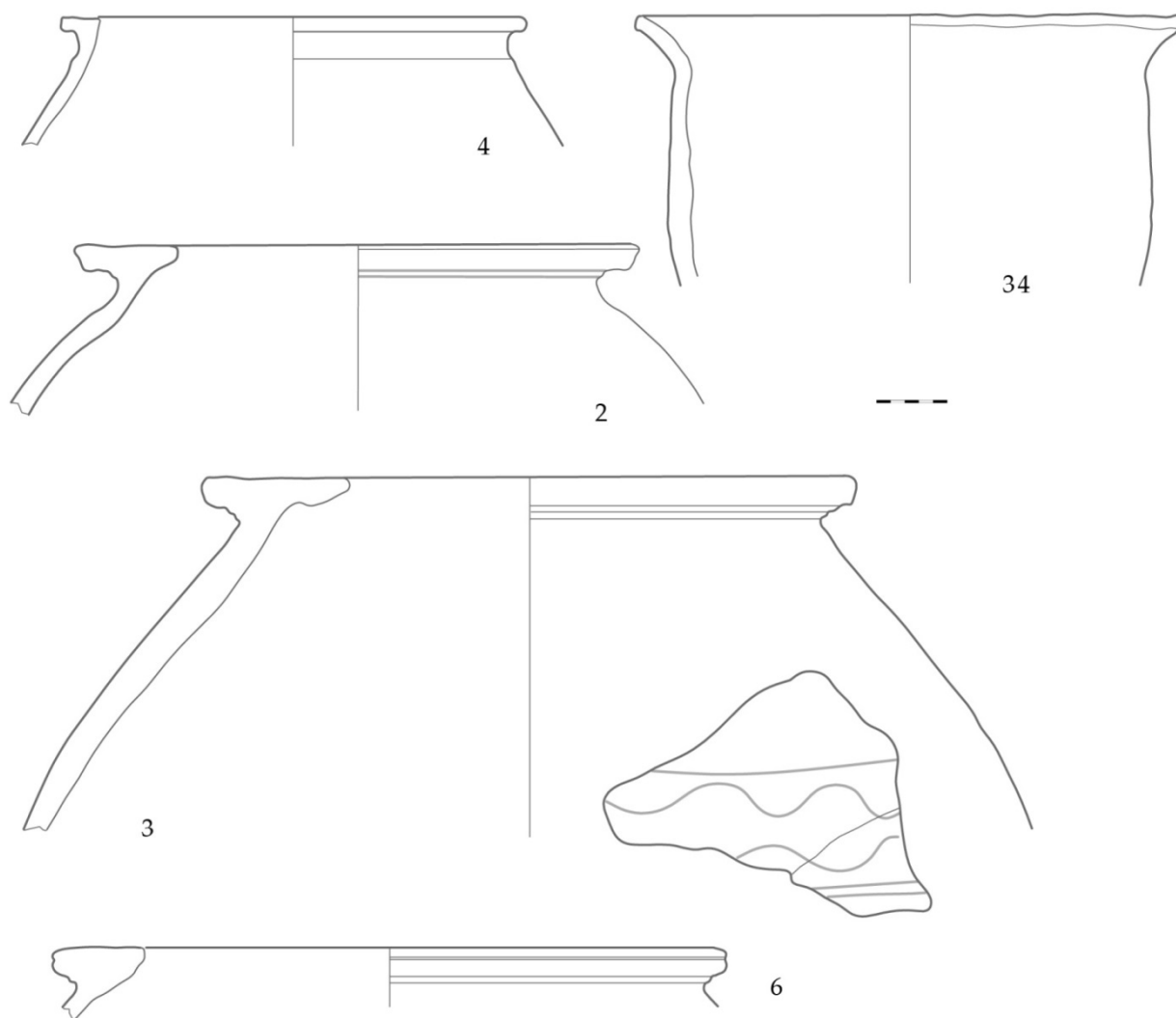


Figure 12. Storage recipients made of coarse paste. No. 34 is handmade.

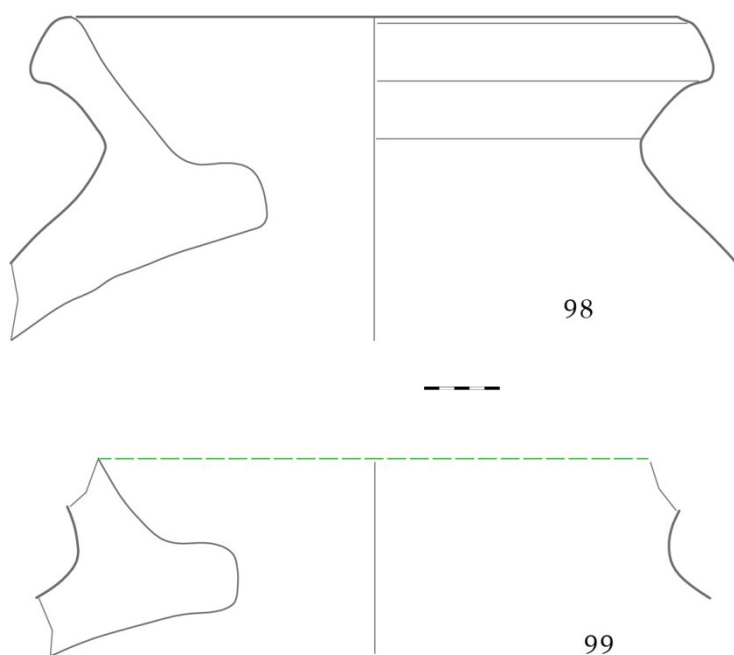


Figure 13. Very large storage recipients.

The body is developed symmetrical with the rim, in a diagonal.

**free notes:** Although similar with no. 98, they seem to be different objects.

**ID: 98** fabric: K ink notes: VOA; sit 1; km 6+700; cpl 22; 1-151; .98 tip A **context:** site 1, cpl 22 **group:** storage **function:** storage containers **present:** rim to the neck **ref. D:** rim % of D.: 15 **estim. D. (mm):** 450 **size of section (mm):** 19 **relative size of section:** B **colour:** dark grey **slip:**

**morphology:** The same shape as no. 98 (see there the full description). The end of the rim is broken here.

**free notes:** Although similar with no. 99, they seem to be different objects.

**ID: 35** fabric: K ink notes: VOA; sit 1; km 6+680; S 74; 1-100; cpl 1 .35 tip /A/ **context:** site 1, cpl 1 **group:** storage **function:** storage containers **present:** Fragment of upper body **ref. D:** middle % of D.: 3 **estim. D. (mm):** 500 **size of section (mm):** 14.8 **relative size of section:** B



colour: red slip:

morphology: (very large body)

free notes: 'Combed' decoration, with wave-like incisions, pretty sloppy, with angular strokes. The core of the sherd turns grey, being not burned enough, being thick, as expected (almost 15 mm). The wave-like decoration is typical for storage containers of the age (coming from La Tène).

**ID: 01CD** fabric: K ink notes: VOA; sit 4A; cpl 4; cuptor .1C+1D tip A context: site 4A, cpl 4 **group:** storage function: storage containers present: Bottom ref. D: bottom % of D.: 15 estim. D. (mm): 200 size of section (mm): 9.2 relative size of section: B-C colour: reddish yellow slip:

morphology: Flat bottom, a lower body with a low profile foot. The common fabric of 01CD and 01AB (the upper part) suggested to try ensemble the parts, and apparently it works (see the drawing).

free notes: The sherd noted D (the lower body) has many cracks and it could be a manufacture refusal..

**ID: 01AB** fabric: K ink notes: VOA; sit 4A; cpl 4; cuptor; cenustae(?) .1A+1B tip A context: site 4A, cpl 4 **group:** storage function: storage containers present: rim to the middle diameter ref. D: rim % of D.: 30 estim. D. (mm): 350 size of section (mm): 7 relative size of section: B-C colour: reddish yellow slip:

morphology: Bilateral developed rim, in triangular scheme, with flat top, 37 mm in width. Very short neck, followed by a large upper body.

free notes: Spinning marks inside. Combed decoration alternating horizontal and waved lines (the execution lacks perfect symmetries). The firing is good, although not complete. The type is known as Krausengefäß and is the only sherd matching the fabrication type from the bottom numbered 01CD.

**ID: 06** fabric: I1 ink notes: VOA; sit 4A; cpl 4; gr. Acces (cuptor-n.n.) .6 tip B1 context: site 4A, cpl 4 **group:** storage function: storage containers present: rim to neck ref. D: rim % of D.: 5 estim. D. (mm): 460 size of section (mm): 9.5 relative size of section: B colour: reddish yellow slip:

morphology: Triangular shape rim, prolonged outside, with a flat top of 48 mm in width, with an incision on its maximum diameter, adding a collar beneath the rim, and a very short neck.

free notes: Note that the Krausengefäß are always done from coarse fabrics, at least on the site Alexandria 4A (see Bichir 1984, 34-35, where they figure out as being made from 'fine fabric').

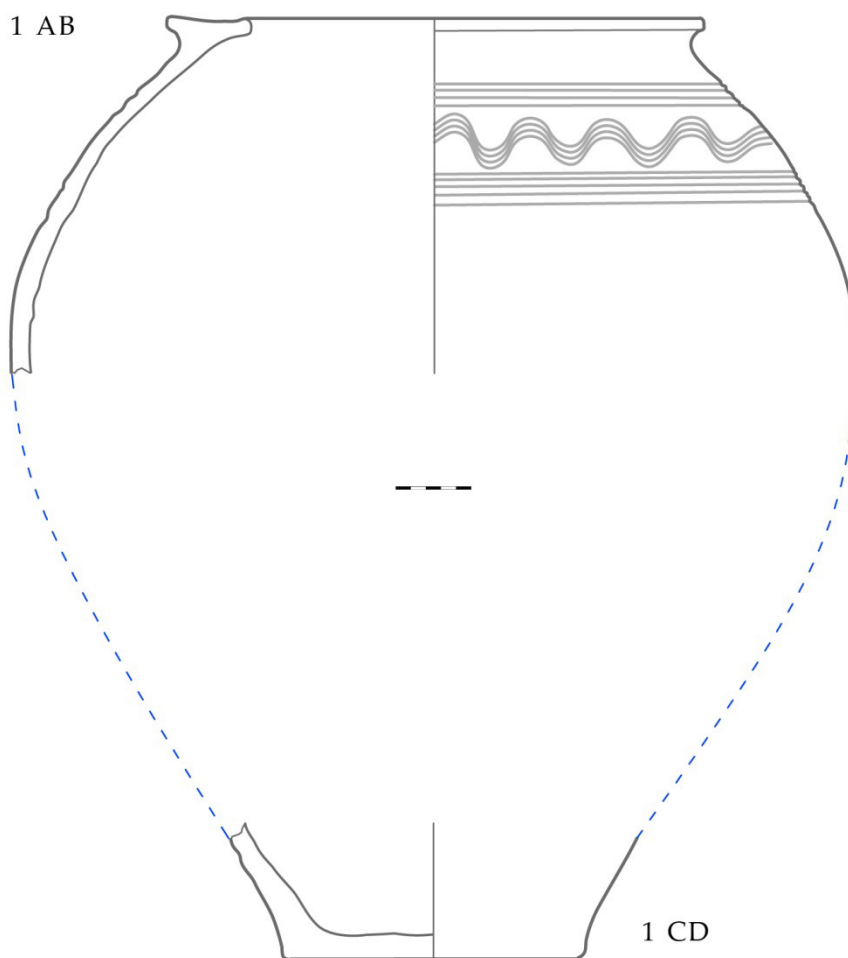
**ID: 73** fabric: H ink notes: VOA; sit 1; cpl 22; km 6+700; 1-176; .73 tip K context: site 1, cpl 22 **group:** tableware function: bowl? present: bottom ref. D: bottom % of D.: 20 estim. D. (mm): 110 size of section (mm): 10 relative size of section: B colour: yellowish red slip: yellowish red

morphology: A very typical bottom with a whorl, a fact not recommending a cooking pot. The whorl seems modelled from the same bunch of clay as the bottom.

free notes: Although the fabric is a 'sandy' one, there is no sign of degraded fats, the surface being a nice and clean light red. The faces have a smooth touch, very likely due to a treatment with a slip. This is definitely not a cooking pot.

**ID: 72** fabric: H ink notes: VOA; sit 1; cpl 22; km 6+700; 1-177; .72 tip K context: site 1, cpl 22 **group:**

1 AB



**Figure 14.** Possible reconstruction of the sherds with ID 01A+B (top) and 01 C+B (bottom). The restitution has the next dimensions:

- height = 50.6 cm
- upper d = 35 cm
- middle d = 54.9 cm
- lower d = 25 cm
- capacity = 49 l

tableware **function**: bowl? **present**: bottom **ref. D**: bottom % of D.: 10 **estim. D. (mm)**: 140 **size of section (mm)**: 14 **relative size of section**: A-B **colour**: red **slip**: red

**morphology**: The whorled bottom raises the question if this is bowl (or flagon). The sherd is quite thick for its size.

**free notes**: HANDMADE POTTERY. The faces are fine and smooth, although the fabrication is sandy, being treated with a solution of clay and carefully finished. The inner side is almost black, due to a kind of residual organic matter, although no secondary firing was noticed. This is why there is more likely a bowl than a flagon (to add here the technic of shaping, for which a 'bowl' is something we saw, but the flagon – not).

**ID: 13 fabric**: J **ink notes**: VOA; sit 4A; cpl 4 .13 **tip D context**: site 4A, cpl 4 **group**: tableware **function**: bowl **present**: Bottom **ref. D**: bottom % of D.: 45 **estim. D. (mm)**: 70 **size of section (mm)**: relative **size of section**: B **colour**: yellowish **slip**:

**morphology**: Very nice, tall whorl added to a bottom having its inner side made as a 'umbo'.

**free notes**: There is a striking contrast between the careful shaping of the bottom and the very coarse paste used. There are no traces of fire, but some organic deposits (which might be depositional or post-depositional. In fact – the object looks new.

**ID: 16 fabric**: J **ink notes**: VOA; sit 4A; cpl 4 .16 **tip D context**: site 4A, cpl 4 **group**: tableware **function**: bowl **present**: rim to lower body **ref. D**: rim % of D.: 15 **estim. D. (mm)**: 180 **size of section (mm)**: 6.2 **relative size of section**: B **colour**: (grey) **slip**:

**morphology**: Rounded rim, very short neck, a short but definite upper body, discreet careen middle diameter. One can see (but mostly feel) a small groove under the rim, on the outer face.

**free notes**: The morphology is undoubtedly pointing out a bowl, although the fabrication is typical for kitchenware. One cannot tell if the recipient was used for cooking, because the artefact was strongly burned, after being broken (therefore indicating either a burning trash pit, either a strong fire consuming a facility). See also no. 15, which is probably the bottom of the same dish.

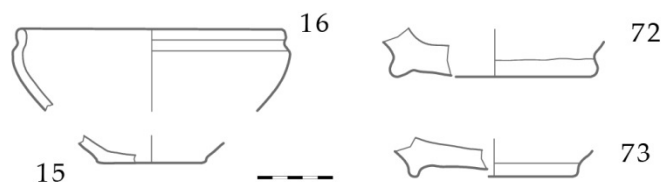


Figure 15. Tableware made of coarse paste.

**ID: 15 fabric**: J **ink notes**: VOA; sit 4A; cpl 4 .15 **tip D context**: site 4A, cpl 4 **group**: tableware **function**: bowl **present**: Bottom **ref. D**: B % of D.: 20 **estim. D. (mm)**: 90 **size of section (mm)**: 5.5 **relative size of section**: B-C **colour**: grey **slip**:

**morphology**: Flat bottom, with the inner side concave. The lower body is relatively tilt (see the drawing), making difficult to imagine it as a cooking pot. Anyway, the function of the recipient giving this sherd is very difficult.

**free notes**: The inner side is blackish, due to an organic matter.

As expected, the most frequent shape within the coarse type of ceramic paste is the cooking pot. Those 44 recovered fragments are happily split in 22 upper parts, and 22 lower parts<sup>75</sup>, allowing us a comparison of their sizes (Figure 16). Although working only with fragments, the arrays of the two sets of data are matching perfectly, suggesting 'pairs' of data<sup>76</sup> having a proportion between the bottom diameter and the rim diameter between 50% and 63%, and the average at 57%. We can now compare these data with other known references, like the pots published by G. Bichir for Chilia-Militari culture, but also other sets of data, for the proximal historical age.

In the Table 10 (see below) we gathered comparative data for the size of the pots, from southern Romania, for the third and the fourth century. The most obvious comparative lot is, of course, that published by G. Bichir (1984), for all known sites of the Chilia-Militari culture. Not all of the 27 pots are cooking pots, but they have similar morphology and we used them all, in order to have a relevant amount of data, aiming to finally understand how specifically the pots from

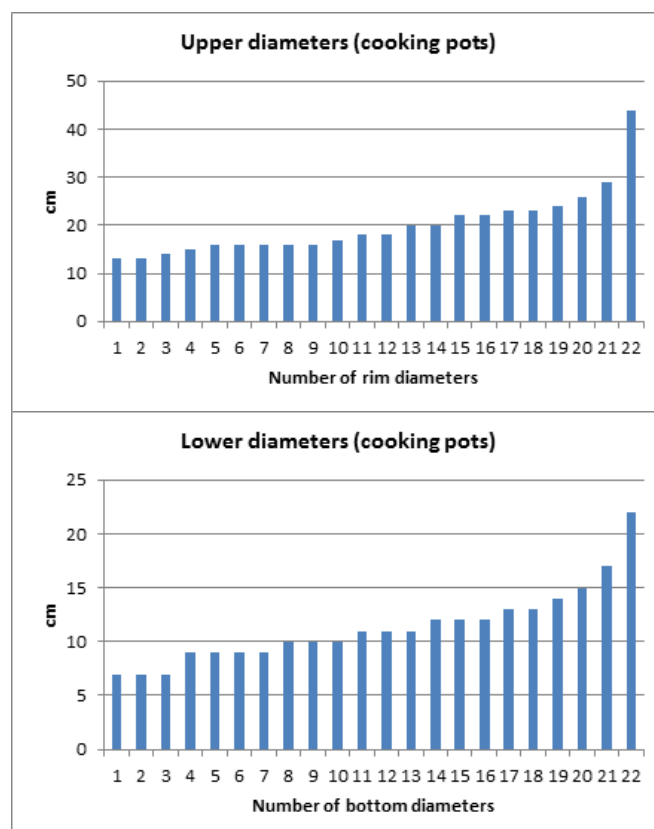


Figure 16. Comparative diagrams for upper and lower diameters of the cooking pots.

<sup>75</sup> Only by chance, because an analysis profiled on each context composition would show uneven situations.

<sup>76</sup> Pay attention! They are 'fictional', the apparent 'pairs' not fitting together (the type of paste, the colour or the context).

**Table 10.** Comparative data about the size of the pots in the third and fourth century, in Southern Romania

lot	count	Upper D. max. (cm)	Upper D. min. (cm)	Upper D. aver. (cm)	Lower D. max. (cm)	Lower D. min. (cm)	Lower D. aver. (cm)	Ratio LD/ UD max.	Ratio LD/ UD min.	Ratio LD/UD aver.
Chilia-Militari	27	49.5	11.3	22.8	16.2	5.7	10.1	67%	26%	47%
Alexandria	(22)	44	13	20.0	22.0	7.0	11.4	63%	50%	57%
Mogoşani	30	15.2	7.3	11.3	10.5	2.7	7.0	77%	37%	62%

Alexandria fit in the picture. Of course, all 27 shapes are complete ones, allowing a pertinent study of the proportions between the upper and the lower parts.

The second comparison lot, concerning the Chernyakhov culture, from the same geographical area, is coming from the cemetery from Mogoşani (the closest large cemetery, located in the north-eastern area of the former Chilia-Militari milieu); the fact is important in order to understand the obvious differences of the sizes. Most of the tombs' inventories from the Chernyakhov culture<sup>77</sup> could be 'funerary artefacts', recalling the 'real-life' objects, but smaller. Our interest here, anyway, is targeting the proportions, not the size<sup>78</sup>.

The analysis of the data from the Table 10 provides two relevant facts. The first is that the sizes of the pot sherds from Alexandria, although 'big', are fitted in the general picture of the culture Chilia-Militari. The second is a major shift in the general morphology of the pots, evidenced on the last column: the ratio between the lower and upper diameter changes from 47% to 57%, which is a considerable difference between the *averages* for more than 20 items. Of course, we don't have *real* cooking pots for Alexandria, to compare directly that ratio, but only a statistic report, pictured in the figure 16. Although the real differences could be lower, a conclusion is still very obvious: the statistic ratio between the bottom diameters and the rim diameters, in Alexandria case, is closer to the Mogoşani cemetery<sup>79</sup> case than to the pottery published by Gheorghe Bichir. It should be, also, *later*.

There are plenty of reasons to consider the analysed pottery from Alexandria as very late in the chronology of the Chilia-Militari culture, maybe at the threshold of the third and fourth centuries. One of them is the scarcity of the handmade pottery. Following the handbook of Bichir<sup>80</sup>, it should be around 40% in settlements; for Alexandria the figure is 5%. Symbolically, the most iconic – but also endemic<sup>81</sup> – pottery object of Chilia-Militari milieu, the so-

<sup>77</sup> Or 'Sântana de Mureş-Cerneahov' culture, in Romanian archaeology.

<sup>78</sup> There is no real better choice than that, because in southern Romania there is no relevant settlement for the fourth century. Or, regarding local cultural evolutions, we need a term of comparison from Muntenia.

<sup>79</sup> DIACONU 1969. All data used in this comparison is taken from Compass Database, made many years ago, while working to PhD dissertation (TEODOR 2001). Due to the differences in the system of measurement, between the laboratory standard measurement (at the external side of the shape, for the rim, for instance), and the approach of the Compass System (working on drawings already made, the diameter is measured at the end of the straight line!), all figures from the Compass System regarding the upper and the lower diameters were increased with 10%, which is not strictly true, in each case, but fair enough.

<sup>80</sup> BICHIR 1984, 30.

<sup>81</sup> It occurs in almost any trash-pit in the settlement from Mătăsar (BICHIR 1984, *passim*). It misses from the test-lot, by not from the sites Vistireasa. The archaeological report of discharge (not published) mentions such an artefact in the context no. 18 from the site 1a.

called 'Dacian cup', is absent from our test-lot.

From many other points of view, the test-lot from Alexandria goes well with the 'definitions' coined by Bichir for the handmade pots, as would be, for instance, the fabrication tips: a coarse ceramic paste containing sand, pebbles, rarely also crushed sherds, but not chaff, more frequently burned oxidised. Another common clue is the decoration: usually absent, less habitual than in the contemporary culture of Carpi; when still occurs, it is mainly an applied waistband decorated with fingerprints or cuts (as in the figure 17)<sup>82</sup>. As a general feature, the handmade pottery is of good quality, from well prepared paste (even 'coarse'), skilfully modelled and carefully finished<sup>83</sup>, well burned and consistent.

The handmade pottery from Alexandria is made out from the same types of paste used for all the other kitchenware. For instance, the cooking pots no. 37 and 70 are made from the type H1, as well as the pots wheel-made with no. 65 and 67; the storage container no. 34 has the same paste as the bowls (?) no. 72 (handmade) and 73 (wheel thrown); the large pot no. 36 is the only handmade artefact without paste reference within the wheel thrown pottery.

The real advantage of processing pottery using a detailed description of each fabrication type is that we can avoid prejudice. The most obvious case is the so-called *Krausengefässe*, a storage pot with wide and flat rim<sup>84</sup>. For Gheorghe Bichir they had to be 'grey' and 'fine', being of 'Dacian tradition'<sup>85</sup>. We found in the Alexandria test lot storage containers of both conditions, 'fine' or 'coarse'; but all 5 *Krausengefässe* fall in the last group. This does not make them 'Roman' either.

'Coarse' paste does not mean 'bad' at any price; most of the time, it means a well-adjusted technology of fabrication for certain needs, like boiling edibles. Some of such products, made of coarse paste, could be very well done and quite good looking, as the pot from the fig. 11.

Two thirds of the pottery considered here as made of coarse paste is made of cooking pots (44 out of 66), from which half are upper parts. Most of them have the most typical traits, as recorded also by Bichir<sup>86</sup>, as it is the 'S' shaped rim, adjusted for supporting a lid; 15 out of 22 upper parts have this feature. Only four of them have traces of use,

<sup>82</sup> See also BICHIR 1984, plate XI/3, 6, 7, 9.

<sup>83</sup> As, for instance, at the fig. 17, where one can see, under the rim, traces of a wooden palette. The sherd was considered as coming from a storage container due to its size, but a second attentive look at the photography has drawn attention to the smocked rim (it is similar to the inside face); it could be, very likely, a large cooking pot.

<sup>84</sup> See fig. 12 (without no. 34) and 14, in this paper; see also BICHIR 1984, plates XV/4, XVI/11, 12, XIX/11, 12, XXVII/2.

<sup>85</sup> BICHIR 1984, 35.

<sup>86</sup> BICHIR 1984, 37, pots type 1a, which would be rather rare in the early stage of the culture (before year 220), but did not provide numbers or percent. The problem is – both in Bichir's monograph and in our test lot from Alexandria – the large number of pots with S shaped rim and the scarcity of the lids.





**Figure 17.** Large handmade pot (storage container? kitchenware?), Alexandria, ID 36, estimated rim diameter at 38 cm.

respectively smoked rims or side burning due to heating the meal; there is a good reason for that: some of them were discovered in an access pit to a potter's kiln, a place where technological refuse usually stands; 11 sherds were brand new, and – although the reason is not always obvious – could well be manufacturing scrap.

Regarding the bottoms of the cooking pots, they are usually flat, or slightly concave (no. 62, 65, 68, see fig. 8). Some of them show a shorter (no. 57, 63, 67) or higher foot (no. 37, 70), imitating recipients standing on a collar. This is a morphological trait which could be eventually ascribed to the Dacian tradition<sup>87</sup>, although it worth mention that the frequency of foot-like lower bodies, in Chilia-Militari and Roman Oltenia, seems very similar.

Following the inherited concept about the cooking pots from Chilia-Militari milieu, as a 'Roman provincial' tradition, they should be more or less 'red', which is only about half true (see Table 11). We were not able to reveal any connection between the types of ceramic paste and the shades of colour. For instance, the most frequent shade, which is the reddish yellow (13 results), it is distributed within the type J (8 out of 18), J1 (3 out of 10) and K (3 out

of 5), but it is absent in less frequent types (H1 = 5, K1 = 2, L1 = 2). Such matters cannot be cleared without a consistent help from the chemists.

## THE ARCHAEOLOGICAL SITES AND THE REGIONAL SETTINGS

The two bags of pottery taken from the repository of the museum from Alexandria were collected in a preventive digging made in 2012 for the bypass route of the city, near the large meadow of Vedea River. Looking back, at the figure 1, there are pointed out six sites, from Vistireasa 1a to Vistireasa 4b, after the name of a tributary of Vedea, flowing lazy in the same meadow. Those pair names (1a-1b, 4a-4b) have been chosen from pure administrative reasons, related to the contracts; there are, in fact, six different archaeological sites.

For instance, the site 1a was uncovered on a width of 23 m (which is the width of the project) and on a length of 40 m, containing contexts from the third century (Chilia-Militari) and only a few ascribed to Hallstatt. For the next 140 m westward, on the route of the bypass, no other traces of human living were detected; at the end of this distance, it were crossed the remains of a house dated in the ninth of tenth century, noted as the site Vistireasa 1b<sup>88</sup>.

Having the general plan of the site Vistireasa 1a, although not giving here details – for which all of us have to wait a proper publication – we have to mention the contexts connected to the presented pottery. One of them – context 22 – is a pretty large house for that age, measuring 8 x 5 m<sup>89</sup>, oriented east-west. At only three meters to south-east – there is a network of pillar holes, organized in three rows and three (possible four) columns, closing a space of 3.6 x 4.4 (or 6.1) m and having almost the same orientation as the house. The group of pillars is at least unusual, recalling one single thing: a Roman *horreum* in miniature<sup>90</sup>.

On the opposite part of the large house, westward, there is a potter's kiln (noted context 27B) and the service pit (noted 27A). Due to the distance between the house and the kiln (less than one meter), they couldn't function together; due to the fact that from the ruined house have been collected many new, unused pots (refusal), we know that the kiln functioned after the house (and the granary). These are the contexts from which our artefacts are originated: the house (context 22, 62 sherds<sup>91</sup>), the service pit (context 27A, 4 sherds) and the kiln (context 27B, 3 sherds), other 9 sherds

**Table 11.** The distribution of colour shades on cooking pots from Alexandria.

group	'oxidized'				'reduced'		
	reddish yellow	yellowish red	(brick) red	brown	light grey	grey	dark grey
recorded	13	3	6	2	3	9	8
totals	24				20		

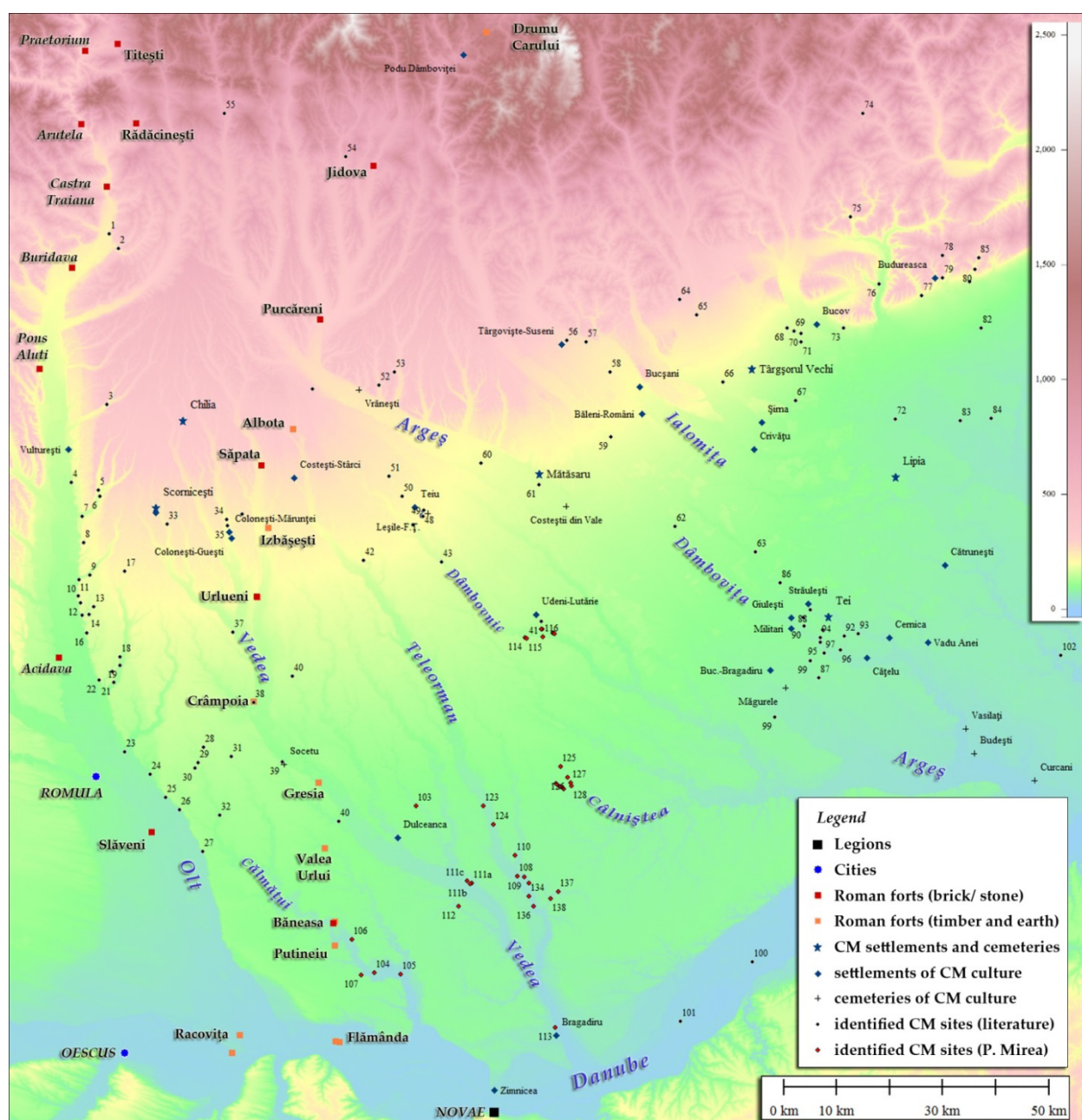
<sup>87</sup> Although they are not completely missing from the Roman cooking pots (POPILIAN 1976, cat. 330-332, 334, 350, 358, 362, 366, 369), all on shapes difficult to be ascribed to the Dacian tradition. For pots standing on a collar in 'classical' Dacian pottery (so having a foot) see CRIȘAN 1969, plates XCIX/1, 2, 5-7, C/1. 2, CI/2-5; for pots without a collar, still presenting a morphological foot, see CRIȘAN 1969, plates XCIX/4, C/3, CI/1, 6; all are wheel made and just examples (being endemic).

<sup>88</sup> Data following the technical report for the site Vistireasa 1 (not published).

<sup>89</sup> Or 40 square meters. The largest Chilia-Militari house known have 7.75 x 6 m, or 46 sq. m (BICIR 1984, 9).

<sup>90</sup> We do not know anything similar, in *barbaricum*, but we saw a modern replica, in the late 1990s, in the village Copăceanca (Teleorman County), located only 15 km north northwest of Vistireasa 1, having the same function (a suspended granary) and almost the same size.

<sup>91</sup> Most of them being refusal from the adjoining kiln.



**Figure 18.** Distribution map for archaeological sites regarding Chilia-Militari culture.

coming from divers other contexts.

Amazingly, on the site Vistireasa 4a was discovered a second potter's kiln<sup>92</sup>, noted as context 4, from which our share counts 22 sherds. We do not know details about that facility, except the fact that is the only context from the site 4 which can be connected to the culture Chilia-Militari, the rest of the discoveries regarding the fourth century (Chernyakhov culture).

Also we do not have information about the sites Vistireasa 2 and 3, except for the critical fact of being very rich in discoveries related to the third century.

Consequently, we have now a relatively good idea about a settlement running along the third century (only the second half?), possibly the same community researched in the site Vistireasa 4<sup>93</sup> for the fourth century. At its both

<sup>92</sup> In his synthesis from 1984 Gh. Bichir did not mentioned any potter's kiln.

<sup>93</sup> We do not know, so far, any settlement of the age Chilia-Militari to continue its existence throughout the fourth century (see Bichir 1984, 93-94),

ends – western and eastern – we have a pottery kiln, a feature strongly signalling the edges of that community, at least in its final stage of Chilia-Militari culture. In between, on 700-800 metres along the low terrace of Vistireasa, there was a large village, possibly made out of small hamlets, as suggested by the contexts within Vistireasa 1a, but also by the gaps between the archaeological sites, along the bypass route.

Is this distribution of the remains of the settlements of Chilia-Militari culture – small hamlets gathered in larger villages – a usual pattern? At least apparently it is almost the rule (see the Figure 18). Clusters of close related archaeological sites of the (later) second and the third centuries can be observed everywhere; so would be the cluster around Drăgănești (sites 23-31), Ipotești (sites 18-22), Slatina (sites 9-16), all along the Olt River. Such therefore the chronology of the entire body of discoveries from Vistireasa needs a careful evaluation.



clusters could be found all over the territory, as those around Scornicești and Colonești (on upper Vedea basin), on lower Călmățui Valley, at the mouth of the Teleorman Valley, and so on, detaching as the largest of them all, that from the lower Dâmbovița Valley, which is also the place of the modern Bucharest. This last example raises the question about how much of our knowledge is dependent on the quality of the archaeological research. Of course, a capital of a modern country, counting today around 2 million of inhabitants, cannot be but a good place to live; still, over 20 sites for around 140 km<sup>2</sup> is very much, a score impossible to accomplish without lots of rescue diggings.

The question standing here cannot be answered by just plotting the location of the known sites; it would also be a very interesting fact to know the map of researched (or unsearched) areas. But nobody is publishing the negative evidence... Till now. Our colleague and friend from the Museum of Alexandria, Pavel Mirea, sent us not only his unpublished catalogue of the identified Chilia-Militari sites (red dots at the figs. 18 and 19), but also the map of the territories he have checked carefully on the field, but no Chilia-Militari pottery was discovered (see Figure 19, in hatches). More than that, he allowed us to publish here his results<sup>94</sup>.

The map from the figure 19 makes a big step forward explaining the distribution of the Chilia-Militari sites. One can see there dense clusters of settlements in north of the county, around Udeni, in eastern part of the territory, on Călâniștea basin, on the lower Teleorman Valley, or on the lower Călmățui Valley. This is precisely because it highlights the areas with negative results. One can see, for instance, the cluster from the middle course of Călâniștea (9 points inside a 9 km<sup>2</sup> area), but also a much larger territory, southwards, of around 200 km<sup>2</sup>, which is 'empty'. Similarly, the clusters of archaeological sites from the lower Teleorman and lower Vedea are bordered by large territories without discoveries for the third century.

We can assume now, more confidently, that the clustered look of the main map (fig. 18) is reflecting, more or less, a certain reality, and it is not due (only) to the lack of research<sup>95</sup>. The extensive diggings from Vistireasa sites, on Alexandria bypass, explains clearly that such clusters are in fact the result of the developing of the same community, extending and shifting nearby, in search of new resources. This social mechanism, known from many decades and named 'swarming', was explained by the needs of the extensive agriculture, and partially it could be right<sup>96</sup>. One

<sup>94</sup> Most of the reported field work is connected with tasks required by Urbanistic Plans and Regulations (in Rom: PUG, or Planuri de Urbanism General). This activity is undertaken at the level of a territory administrated by a town hall. Pavel Mirea gave us two complementary things: the catalogue of the sites containing Chilia-Military pottery, and the list of the mayoralties for which the result was negative. As one can see, only about half of the communities from the Teleorman County have completed their 'PUG's. This is exactly why Pavel Mirea is postponing the publication of the catalogue of the archaeological sites from the county.

<sup>95</sup> The same kind of distribution came out from mapping the sixth century settlements (TEODOR 2001, third volume, plate XII, Map 2), where the gaps are still more larger, as for instance the complete lack of data between Teleorman River and Argeș River (around 70 km for the lower courses).

<sup>96</sup> DOLINESCU-FERCHE 1984, which is the most complete synthesis for Ipotești-Cândești culture, developed for the fifth to seventh centuries, in basically the same area as Chilia-Militari culture. See Map 1 (p. 123)

could also count other needs, like the wood, necessary for buildings, heating or technological processes, as the case with the potter's kiln; the forests are regenerating themselves indeed, but much slower than the ploughing land.

Another fact illustrated by the maps is that the communities of the third century were separated by distances likely to be made in one day of travel. So would be the distance between Udeni and the middle course of Călâniștea Valley (28 km), going further to the lower Teleorman (24 km), to Dulceanca (28 km) or to the middle course of Călmățui (30 km, all as the crow flies). Similarly, we can now predict where would be the missing evidence, as, for instance, at the half way from Călâniștea to Măgurele, near Bucharest (42 km), or at the lower Olt, near its mouth<sup>97</sup>.

Turning back to the settlements from Alexandria, the suggested chronology is in the second half of the third century, and cannot have connection with the life time of *Limes Transalutanus* (deserted around 245 AD). Obviously, they have to be connected rather to the legionary base from Novae, located only 43 km southward, in straight line. A better knowledge about the archaeological works undertaken there by the Polish team led by Tadeusz Sarnowski<sup>98</sup> could improve our understanding about the main body of discoveries from Alexandria. The cluster of settlements from Vistireasa Valley was probably connected to the Danube through the relay from Bragadiru (near the mouth of Vedea River)<sup>99</sup>, the river being, very likely, a navigable stream on its lower course.

#### THOUGHTS AT THE END OF A PAPER

We do not try to 'conclude' now anything; we are just expressing here some thoughts, at the current state of art. The main question is what, in fact, would be the 'Chilia-Militari culture'? We have to pass as quickly as possible beyond the stereotypes of the 70s and 80s, submitted to the Romanian Communist Party's official propaganda about the 'independence' and 'the fight for... peace', turning into 'Free Dacians' anything not looking exquisite Roman. We know – as well as Bichir knew – that the funding of research is always connected to some 'priorities' drawn by the political authority; we don't really need anger to break up with that 'tradition', we just have to look at the evidence with a fresh eye.

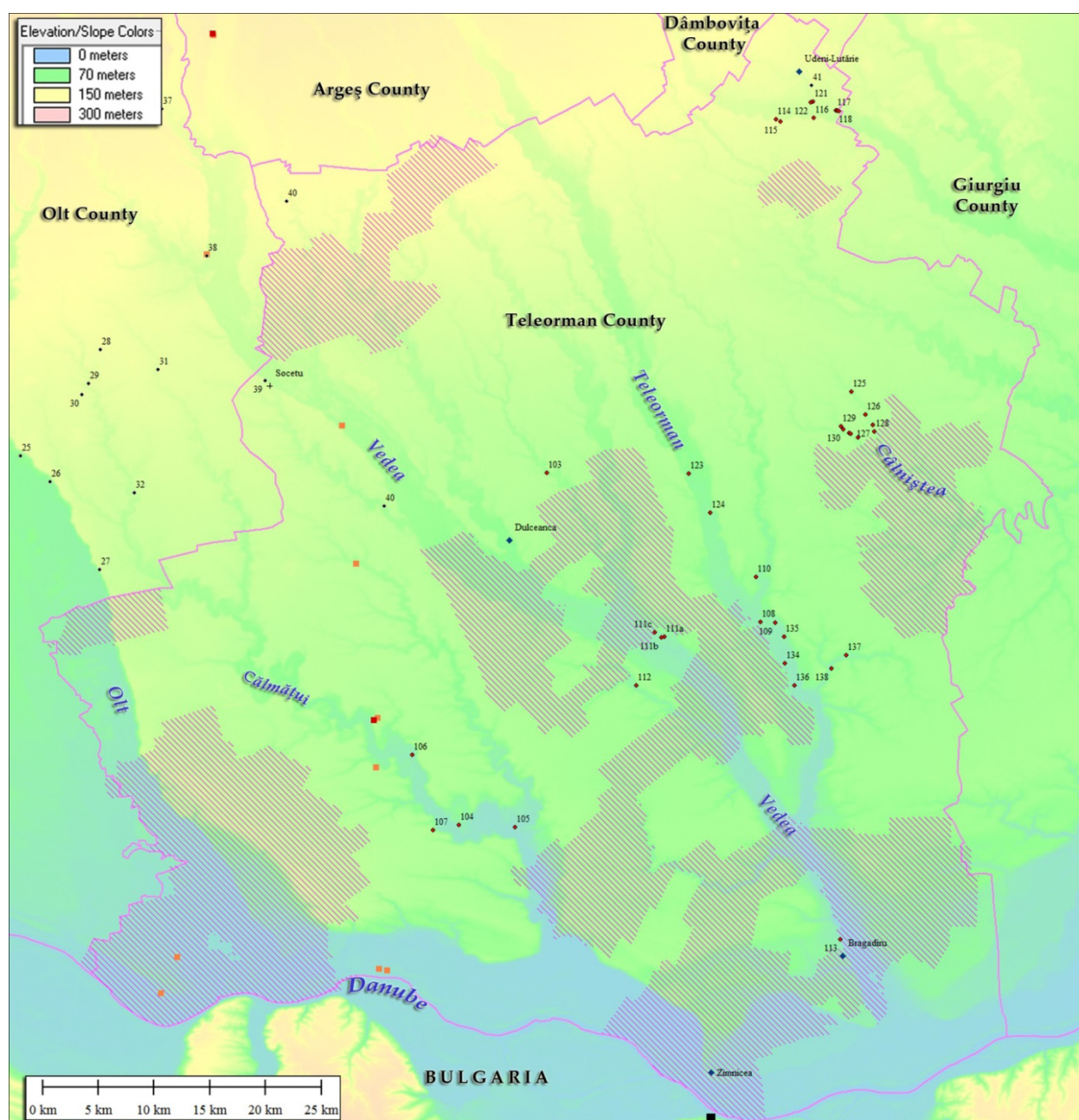
showing the same clustered distribution of sites, but with even larger gaps. See pages 124 and 126 for the distances between the sequence of settlements from Dulceanca (the mentioned settlement 'Vedea' was later published as 'Dulceanca IV'). In a more recent study (named just 'un update') it is stressed the short time of living for most of the known settlements (TEODOR 2004, 405), the very small distances between some of them, as well as the existence of two (if not more) phases, in relatively many cases, implying a temporary desolation of the site (idem, 406), suggesting the conservation of the style of life from the third century. See also TEODOR 2004, 406.

<sup>97</sup> The field research made by Pavel Mirea on the left bank of Olt River, in the area of the mayoralties Uda-Clocociov, Saelele, Lunca, Segarcea Vale, Lița, Turnu Măgurele, did not reveal any archaeological site ascribed to Chilia-Militari culture, very likely due to the very simple fact that the remnants of Roman age were considered just 'Roman'. Our own research in the area (October 2014) revealed a large settlement at Dăneasa (no. 26 on the maps), with pottery from the third century (possibly the early fourth century), which is partially synchronous with the discoveries from Alexandria.

<sup>98</sup> In a recent personal communication, Agnieszka Tomas told us that the team is preparing important ceramic monographs about the research in the camp.

<sup>99</sup> The field research led by Pavel Mirea, for the Urbanistic Plans and Regulations, reported things literally found on the field, not archaeological sites reported in former decades, as Bragadiru (rescue diggings made by G. Bichir, back in 1962).





**Figure 19.** The map of the Chilia-Militari sites versus the coverage of the archaeological research. Hatched – territories investigated, with no Chilia-Militari discoveries. For the legend – see fig. 18.

Within the research project *Limes Transalutanus* our job is to collect archaeological remains along the former Roman border of the third century AD and to determine its cultural roots. In order to prepare ourselves for this task – expected for 2016 – we tried to improve our knowledge about the pottery made in Chilia-Militari milieu. The very first thing was to fix some criteria and procedures needed in pottery processing and to build a database. The second move was to see what is preserved in the museums from the area, taking photos and making measurements and notes. Soon enough we realized that the ‘restored’ pots from the exhibitions are ‘nice’, but not really helpful in describing ‘fabrication’.

In this point we paid a visit at the museum from Alexandria, in which were stored the artefacts collected in 2012, on a preventive digging for the city bypass. We were really impressed by the quantity and quality of the pottery

recovered and soon after that we found out that at least at some of the information connected with the digging we might have access to.

We picked up those two bags of pottery and processed them, the result being this paper. Of course, they make just about a tenth of the archaeological material collected in digging, and real conclusions will be possible only after the publication of all those six archaeological sites, including the digging and the artefacts. Nevertheless, our knowledge about Chilia-Militari culture is much improved, at the end of several months of work (between many other institutional and project tasks...), and we feel ready for the next job, in the field.

Preparing ourselves to deal with small sherds broken by the ploughs, the main concern was to make a reference collection of pottery fragments (the content of the Table 6), anytime at the hand for comparisons. The fabrication

typology excluded the technique of shaping (recorded in a separate field of the database) and the colour (*idem*), in order to avoid a catastrophic multiplication of the types. The analysis of the types drove to their grouping in three larger classes: (1) the so-called 'import' (while missing mica from composition), (2) the fine ware and (3) coarse pottery, or kitchenware.

The separation of the 'imports' was empirical, isolating the pots which very likely were not made on the site. Unfortunately we did not manage to make a chemical analysis of the composition of the ceramic pastes, in the given span of time<sup>100</sup>, and we need a comeback at least for this reason, in a later paper. The list of 'imports' is unnaturally short, for such a wealthy community, due to the fact that mica is endemic in the clays and silts from the region (including Novae!).

A ceramic set including only 100 sherds cannot express all functional set of a culture like Chilia-Militari. The missing items – like the 'Dacian cup' or the Roman rushlights – will not be considered as 'missing', but having a very low representation. Due to the same low representativeness we couldn't make useful considerations except for the functional shapes well represented, as the bowls, the flagons or the cooking pots, for which the comparisons with Roman pottery or the published Chilia-Militari pottery was possible.

There are no 'news' in our paper, but some relevant shades. In general terms, the studied pottery is 'big', well done, compact and carefully finished. The distinction 'fine' versus 'coarse' pottery is not about quality, but about functionality. We don't understand each time the potter's choice; for instance, although much of the tableware is falling in the finer category, there are also bowls made out of coarse paste (fig. 15). Surprising or not, the storage recipients known as Krausengefäße are falling, entirely, in the 'coarse' category (fig. 12, 14), although very well done; do they not need to be resistant on mechanical stress, preventing the breaking? Isn't the coarse paste proper for that purpose? Of course it is...

These large vessels known as Krausengefäße, although not the only used for storage (see fig. 12/34 and fig. 13), are the most representative for what the legacy of Chilia-Militari culture is, the easier to be seen in the field, a 'badge' frequently encountered in field survey and mentioned in archaeological repertoires<sup>101</sup>. The origin of this storage shape is controversial. Most of the specialists gave it a Dacian provenance<sup>102</sup>, relying on examples from the 'Classical Age'<sup>103</sup>, but also on its very early occurrence in Roman Dacia, in Trajan's time<sup>104</sup>. Its presence in the Roman provinces

<sup>100</sup> Latest December 2015, due to the deadline from the 'List of Activities' watched by the sponsor...

<sup>101</sup> As the recent book for Argeş County (see MĂNDESCU/DUMITRESCU/PĂDURARU 2014, 48). In the archaeological notes sent to us by Pavel Mirea, about Chilia-Militari sites from Teleorman County, this type of pottery is mentioned for the village Moşteni, site no. 132 on our maps from figs. 18 and 19.

<sup>102</sup> The idea is not new and not... Romanian ((B. v. Richthofen – Germanische Krausengefäße des 4. Jahrhunderts n. Chr. aus der Provinz Oberschlesien..., *Mannus*, 6, 1928, 73-95, *apud* POPILIAN 1976, 115, note 690).

<sup>103</sup> As (newer) CRIŞAN 1969, plate LXXXIV/1 (Blidaru), a shape similar with our drawing from the fig. 14, but longer, with a very narrow base (thus to be kept only in a pit). Ion Horaţiu Crişan had in fact another explanation: Roman and Dacian *pithoi* are so similar because they have a common parent: the Hellenistic one (CRIŞAN 1969, 245, note 523).

<sup>104</sup> RUSU-BOLINDEŢ 2007, 427.

from the middle and lower Danube area is rather discreet, better in Dacia Porolissensis<sup>105</sup> but – surprisingly – a poor one in Dacia Inferior<sup>106</sup>. On the right bank of the Danube – its popularity seems even lower<sup>107</sup>. This kind of storage recipient had much more success in *barbaricum*, far in the north, where was spread out in the area of Przeworsk culture, in its later phase, sometime in the early fourth century, being also made of coarse paste (clay mixed with smashed granite grains), having a brick-red outer face, but with a 'multicoloured cross-section'<sup>108</sup>, or what we have named 'a complex burning'. For the Krausengefäße found in Polish contexts there is a clear consensus about its 'Dacian' origin<sup>109</sup>, although nobody seems to be worried about the discrepancy between the ethnonym and the chronology. The vehicles of spreading Dacian knowledge in pottery making could be two: the Gothic conglomerate known as the Chernyakhov culture, in east, or the mixt-barbarian group from the lower Someş basin, in which very good wheel thrown pottery was made as early as the second century, after the Marcomanic wars, a region having such an outstanding pottery centre as Medieşu Aurit. Although having a great deal of differences at the ensemble of the pottery set, in north-western Romania one can see the same kind of leaning for 'big', for dark grey pottery and lots of profiles of Krausengefäße type, with flat, large rim, developed both inside and outside, even if some of them could not fulfil the condition of being a 'storage' pot (there is no precise 'limit', so far)<sup>110</sup>. It is impossible to tell how possibly could the communities from Muntenia interact with those from the lower Someş milieu, keeping in mind that we have in between 400 km as the crow flies and two massive range of mountains, the Southern and Western Carpathians...

Beyond the complicated discussion about the formation and distribution of the so-called Krausengefäße, there is another matter, at least as interesting: why, in fact, needs a relatively small community, as that from Vistireasa, so many storage vessels? Did those people give up the old inhabit of preserving the grains into the pits? If yes<sup>111</sup> – why? This feature of the local communities – pits with food reserves – is well known both for previous<sup>112</sup> and

<sup>105</sup> Taking 9 positions in the catalogue made by Viorica RUSU-BOLINDEŢ (2007, 426-427).

<sup>106</sup> POPILIAN 1976, only catalogue no. 746, because no. 747 is 'just a larger pot', with different morphology, and this in a corpus of Roman pottery made of 960 items!

<sup>107</sup> We were not able to find any supply recipients, others than *amphora*, for Iatrus (BÖTTGER 1982), Halmyris (although *dolia* pits are mentioned in the description of the layers 4, 5, and 9, TOPOLEANU 2000, 278). For Novae is published a large storage recipient (DOMŹALSKI 1998, 151, cat. no. 35, plate IV), which is a pretty far analogy. Our colleague Agnieszka Tomas, from the archaeological team digging the legionary camp, sent us unpublished drawings of some large pots from the area, which have definitely a different morphology.

<sup>108</sup> STASIAK-CYRAN 2008, 319-321.

<sup>109</sup> STASIAK-CYRAN 2008, 321, following older work of GODŁOWSKI/SZADKOWSKA 1972 (157); ANDRZEJOWSKI 2010 (21) is dating the skill of thrown pottery at the beginning of the Late Roman Period, as an 'influence from the Dacians', but an extensive spread of Krausengefäße is to be dated no earlier than the phase C3 (Central European Chronology, meaning the middle of the fourth century, following HARHOIU 1998, plates CXXXVI and CXXXVII), or something earlier following BURSCHE 1996, 31.

<sup>110</sup> GINDELE 2010, fig. 2/9, 10, 4/ 8, 9, 14/2-6 (Apa), 32/6, 14, 34/6, 35/4, 37/5, 6, 43/5 (Berveni), 51/9, 52/6, 53/10, 11, 54/12, 13 (Culciu Mare), etc.

<sup>111</sup> For an answer we have to wait for the complete report of the digging.

<sup>112</sup> Ioan Horaţiu Crişan made an interesting observation about the correlation between the storage pits and storage vessels: the storage pots are



later ages<sup>113</sup>, not only from archaeology, but also from the historical literature<sup>114</sup>.

This – at least apparently – new storage procedure, in large pots, is well illustrated, for Vistireasa 1a, by the remains of that small – but unusual – granary. Another question is if the surplus of edibles was used by locals, or exported? The proximity of a relatively large stream, as Vedea River, on its lower course, almost sure navigable, makes the idea possible, although not proved<sup>115</sup>.

Speaking of Chilia-Militari pottery is always a delicate problem of balance: how much it is indebted to the 'tradition', and how much to the Roman influence? The analyses made for flagons (table 7) and (table 8) proved that although the morphological similitudes are great, the distribution of the classes of size is completely different: the inhabitants of Chilia-Militari milieu had a certain taste for 'big' things, probably as a consequence of a form of 'commensality'. This behaviour – still not explored for earlier times in the local communities – could be new, but certainly not unique for Chilia-Militari; an analysis performed for the German *foederati* from the northern Balkans, for the late fourth to the sixth century, proved a very similar distribution of tableware and drinking recipients. The origin of those *foederati* – making, in fact, the main part of the Roman army from northern Balkans – is obviously northern<sup>116</sup>, the former warriors of the Gothic empire. Their pottery – near-black, with burnished decoration – was relatively difficult to copy, due to the high-firing kilns and to the complicated procedures of a long 'shut-down', was the result of an old manufacturing tradition, inherited in family, by potters originated north of the Danube<sup>117</sup>. The analysis performed by Vivienne Swan showed a strong emphasis on flagons, jugs and beakers, but also deep bowls<sup>118</sup>, a set relatively common with Chilia-Militari culture. We have therefore to answer not only to the question about how much 'Roman' is Chilia-Militari culture, but also to the question about how much the later influenced Chernyakhov culture<sup>119</sup>.

generally just a few, in a settlement, but only because that the pits are casual (and large...). The obvious exceptions are almost all in the mountains, like in Orăştie Mountains, where the rocky soil makes hard to dig a hole, but there one can find lots of very large *pythoi* (up to two meters height). Crişan found also an interesting twist at his rule, at *dava* from Popeşti (near Bucharest), made in a field with a very thick layer of clay (at least 50 m), but where 5 large *pythoi* have also been found in only one campaign, 1957 (CRIŞAN 1969, 185).

<sup>113</sup> We don't know a study quantifying them for the sixth century (for which there are known relatively many settlements dug for more than 20% of the surface), for instance in relationship with the number of houses, because certain differences are clear, as for instance, a relation 1:5 (houses to pits) for settlements located some hundred kilometers north of the Danube, but probably 5:1 – in settlements located under 100 km of the river.

<sup>114</sup> There are accounts related to storage pits both from the early (as Varro, *Re.rust.*, I, 57,2, mentioned by CRIŞAN 1969, 185) and very late Antiquity (as Strategikon, XI, 4-5 and 8, cited in CURTA 2001, 295 with the note 74, and 316-317 with the note 10); the unknown author of the handbook of the military strategy was saying two different things about storing foods: first that they were kept in heaps (something impossible to be ever proved archeologically, but we think it is only a great misunderstanding, because that way of storage cannot be anything else than a provisional one), but next that the *Sklaveni* were burring the edibles in secret places, which are simply covered pits.

<sup>115</sup> We have to recall here the fact that such Krausengefäße were not found in Novae, the most eligible importer.

<sup>116</sup> See VAGALINSKI 2002, *apud* SWAN 2007, 273.

<sup>117</sup> SWAN 2007, 273.

<sup>118</sup> SWAN 2007, 275.

<sup>119</sup> The influence played by Romans on the Gothic society is a well-known

On the other hand, Gheorghe Bichir was speaking about the kitchenware of Chilia-Militari culture as about a 'provincial pottery'. And he was right! The paste recipe, the shapes (the S shape rims are dominant), most of its shades (see table 11), and even the kilns (not published) are Roman. Chilia-Militari milieu could be pictured as a society cooking as Romans did but eating in a barbarian (lavish) style, as a border culture at the dawn of the Middle Age. If some of its legacy can be found on the opposite bank of the Danube, as the military table set of the sixth century, the other side – paradoxically, the Roman one – could be retrieved in S shaped rims from the pots made in Ipoteşti-Cândeşti milieu<sup>120</sup>, north of the Danube, in the same 'long century'<sup>121</sup>. Do you remember *Sklaveni*? They were doing wheel-thrown pots with S shaped rims, but only here, in Muntenia...

A final detail: Gheorghe Bichir used systematically the collocation 'Militari-Chilia', not 'Chilia-Militari', as we did<sup>122</sup>. This is *almost* the same thing, the difference being only at a symbolic level, which is true in both cases.

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We are adding on this (long) list Agnieszka Tomas, fact. Here there are some 'structural' features of a kinship between local society from the lower Danube (Chilia-Militari) and the 'foreign' culture Chernyakhov. Although looking homogenous on its very large territory, the Chernyakhov culture was a mix of barbaric cultures and local traditions, all strongly influenced by the Roman culture (SHCHUKIN/KAZANSKI/SHAROV 2006, 38), the western areas being considered of 'Dacian' tradition, even in Russian historiography (*idem*, 39). In what concerns the cemeteries from southern Romania, the main arguments for a Roman influence stands on some obvious imports, like amphorae, flagons and beakers made of fine red paste, of covered with olive glaze (MITREA/PREDA 1966, 133-135), adding others, like glass artefacts. It is also interesting to note that many of the most relevant cemeteries in the area are located on the terrace of the Danube (Spanţov, Independenţa, Izvoru, Gogoşari, Curcani, see MITREA/PREDA 1966, fig. 252).

<sup>120</sup> Teodor 2001, chapter 13, 185-186. The site with the best occurrence of S type rims, for the sixth century, is Dulceanca IV, located about 15 km away from Vistireasa.

<sup>121</sup> On the personal page of Florin Curta (<http://users.clas.ufl.edu/fcurta/opus.html>) there is an inspired title of a book (in progress): 'The Long Sixth Century in Eastern Europe'.

<sup>122</sup> Yet we are not alone (for instance PETOLESCU 2010, 306).



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**APPENDIX.**

List of the sites numbered at the Figs. 18 and 19.

site	name	municipality	county	data from
1	Goranu-Sticlărie	Râmnicu Vâlcea	Vâlcea	Bichir 1984
2	Budești-Sticlăria	Budești	Vâlcea	Bichir 1984
3	Sâmburești	Sâmburești	Olt	Bichir 1984
4	Dumitrești	Verguleasa	Olt	Bichir 1984
5	Cungrea	Cungrea	Olt	Bichir 1984
6	Ibănești	Cungrea	Olt	Bogdan Cătănicu 1997
7	Cucueți	Verguleasa	Olt	Bichir 1984
8	Comănița	Teslui	Olt	Bichir 1984
9	Teslui	Teslui	Olt	Bichir 1984
10	Curțisoara	Curțisoara	Olt	Bichir 1984
11	Dobrotineț	Curțisoara	Olt	Bichir 1984
12	Linia din Vale	Curțisoara	Olt	Bichir 1984
13	Cireășov-Leasă	Slatina	Olt	Bichir 1984
14	Cireășov-Siliște	Slatina	Olt	Bichir 1984
15	Slatina-Cărmidărie	Slatina	Olt	Bichir 1984
16	Slatina-Crișan	Slatina	Olt	Bichir 1984
17	Priseaca	Priseaca	Olt	Bogdan Cătănicu 1997
18	Brebeni-Români	Brebeni	Olt	Bichir 1984
19	Brebeni-Sârbi	Brebeni	Olt	Bichir 1984
20	Brebeni-Ordorești	Brebeni	Olt	Bichir 1984
21	Brebeni-Puturoasa	Brebeni	Olt	Bichir 1984
22	Ipotești	Ipotești	Olt	Bichir 1984
23	Comani-Mărunței	Mărunței	Olt	Negru 2002
24	Drăgănești-Olt	Drăgănești-Olt	Olt	Bichir 1984
25	Dăneasa	Dăneasa	Olt	Negru 2002
26	Zănoaga	Dăneasa	Olt	Limes T. unpub.
27	Sprâncenata-Viespești	Sprâncenata	Olt	Negru 2002
28	Drăgănești-Boian	Stoicânești	Olt	Negru 2002
29	Stoicânești-Coandă	Stoicânești	Olt	Negru 2002
30	Stoicânești-Puierniță	Stoicânești	Olt	Negru 2002
31	Văleni-Călmățui Mic	Văleni	Olt	Negru 2002
32	Radomirești	Radomirești	Olt	Negru 2002
33	Scornicești-Tătărai	Scornicești	Olt	Bichir 1984
34	Colonești-Bărăști	Colonești	Olt	Bichir 1984
35	Colonești-Bătăreni	Colonești	Olt	Bichir 1984
36	Colonești-Drumu Vechi	Colonești	Olt	Bichir 1984
37	Ursoaia	Icoana	Olt	Limes T. unpub.
38	Crâmpoia	Crâmpoia	Olt	Bichir 1984
39	Socetu	Stejaru	Teleorman	Limes T. unpub.
40	Roșiori-Măldăeni	Măldăeni	Teleorman	Limes T. unpub.
41	Udeni-Est	Sârbeni	Teleorman	Bichir 1984
42	Deagu	Recea	Argeș	Bichir 1984
43	Mozăceni-SE	Mozăceni	Argeș	Măndescu et al. 2014

site	name	municipality	county	data from
44	Negrași-Fântâna Ilinii	Negrași	Argeș	Măndescu et al. 2014
45	Leșile-Minculescu	Teiu	Argeș	Măndescu et al. 2014
46	Leșile-Nania	Teiu	Argeș	Măndescu et al. 2014
47	Leșile-Stâncani	Teiu	Argeș	Măndescu et al. 2014
48	Leșile-Lotul Bisericii	Teiu	Argeș	Măndescu et al. 2014
49	Leșile-Capătul Pomoaștelor	Teiu	Argeș	Măndescu et al. 2014
50	Teiu din Deal	Teiu	Argeș	Măndescu et al. 2014
51	Rocianca	Rociu	Argeș	Măndescu et al. 2014
52	Râncăcirov	Călinești	Argeș	Măndescu et al. 2014
53	Valea Mare	Priboieni	Argeș	Măndescu et al. 2014
54	Berevoiești-Pământeni	Berevoiești	Argeș	Măndescu et al. 2014
55	Corbeni	Corbeni	Argeș	Măndescu et al. 2014
56	Valea Voievozilor	Răzvad	Dâmbovița	Bichir 1984
57	Răzvad	Răzvad	Dâmbovița	Bichir 1984
58	Comișani	Comișani	Dâmbovița	Bichir 1984
59	Mircea Vodă	Sălcioara	Dâmbovița	Bichir 1984
60	Găești	Găești	Dâmbovița	Bichir 1984
61	Pănești	Mogoșani	Dâmbovița	Bichir 1984
62	Răcari	Răcari	Dâmbovița	Bichir 1984
63	Bufta	Bufta	Ilfov	Bichir 1984
64	Filipeștii de Pădure	Filipeștii de Pădure	Prahova	Bichir 1984
65	Filipeștii de Târg	Filipeștii de Târg	Prahova	Bichir 1984
66	Mănești	Mănești	Prahova	Bichir 1984
67	Bătești	Puchenii Mari	Prahova	Bichir 1984
68	Ploiești-Nord	Ploiești	Prahova	Bichir 1984
69	Ploiești-Gara de Nord	Ploiești	Prahova	Bichir 1984
70	Ploiești-Bereasca	Ploiești	Prahova	Bichir 1984
71	Ploiești-Alexandru cel Bun	Ploiești	Prahova	Bichir 1984
72	Gherghița	Gherghița	Prahova	Bichir 1984
73	Valea Călungărească	Valea Călungărească	Prahova	Bichir 1984
74	Starchiojd	Starchiojd	Prahova	Bichir 1984
75	Matița	Păcureți	Prahova	Bichir 1984
76	Străoști	Iordăchianu	Prahova	Bichir 1984
77	Ceptura de Jos	Ceptura	Prahova	Bichir 1984
78	Călugăreni	Călugăreni	Prahova	Bichir 1984
79	Deal Brâncoveanu	Vadu Săpat	Prahova	Bichir 1984
80	Perșinari	Gura Vadului	Prahova	Bichir 1984
81	Gura Vadului	Gura Vadului	Prahova	Bichir 1984
82	Baba Ana	Baba Ana	Prahova	Bichir 1984
83	Cioranii de Jos	Ciorani	Prahova	Bichir 1984
84	Sălciile	Sălciile	Prahova	Bichir 1984
85	Fințești	Năeni	Buzău	Bichir 1984
86	Mogoșoaia	Mogoșoaia	Ilfov	Bichir 1984
87	Progresu	Jilava	Ilfov	Bichir 1984
88	Casa Scânteii	Sector 1	București	Bichir 1984
89	Str. Florilor	Sector 1	București	Bichir 1984

site	name	municipality	county	data from
90	Piața Grant	Sector 6	București	Bichir 1984
91	Precupeții Noi	Sector 1	București	Bichir 1984
92	Stadion 23 August (Național)	Sector 2	București	Bichir 1984
93	Pantelimon	Sector 2	București	Bichir 1984
94	Palatul Justiției	Sector 5	București	Bichir 1984
95	Schitu Maicilor	Sector 4	București	Bichir 1984
96	Dudești-Ciolea	Sector 3	București	Bichir 1984
97	Parcul Tineretului	Sector 4	București	Bichir 1984
98	Str. Gl. Ștefănescu	Sector 5	București	Bichir 1984
99	Novaci	Mihăilești	Giurgiu	Bichir 1984
100	Giurgiu	Giurgiu	Giurgiu	Bichir 1984
101	Arsachi	Vedea	Giurgiu	Bichir 1984
102	Sărulești	Sărulești	Călărași	Bichir 1984
103	Rădoiești Deal (Rad-D 005)	Rădoiești	Teleorman	Mirea mss
104	Dracea (DRA 002)	Dracea	Teleorman	Mirea mss
105	Dracea (DRA 003)	Dracea	Teleorman	Mirea mss
106	Florica	Dracea	Teleorman	Mirea mss
107	Dracea (DRA 015)	Dracea	Teleorman	Mirea mss
108	Măgura (MAG-TR003 sat)	Măgura	Teleorman	Mirea mss
109	Buduiasca (TR003)	Măgura	Teleorman	Mirea mss
110	Guruieni (GUR-CL 006)	Măgura	Teleorman	Mirea mss
111	Vistireasa	Nanov	Teleorman	Mirea mss
111a	Vistireasa 1	Nanov	Teleorman	Mirea mss
111b	Vistireasa 2	Nanov	Teleorman	Mirea mss
111c	Vistireasa 3	Mavrodin	Teleorman	Mirea mss
111d	Vistireasa 4	Mavrodin	Teleorman	Mirea mss
	missing from the maps (see Fig. 1)			
112	Nanov (NAN 014)	Nanov	Teleorman	Mirea mss
113	Frumoasa (FRU 006)	Frumoasa	Teleorman	Mirea mss
114	Drăghinești (GRT 004)	Gratia	Teleorman	Mirea mss
115	Drăghinești (GRT 007)	Gratia	Teleorman	Mirea mss
116	Ciurari-Deal (GRT 014)	Gratia	Teleorman	Mirea mss
117	Gratia (GRT 017)	Gratia	Teleorman	Mirea mss
118	Gratia (GRT 018)	Gratia	Teleorman	Mirea mss
119	Schitu-Poienari (SCH 009)	Vitănești	Teleorman	Mirea mss
120	Gratia (GRT 026)	Gratia	Teleorman	Mirea mss
121	Gratia (GRT 027)	Gratia	Teleorman	Mirea mss
122	Gratia (GRT 028)	Gratia	Teleorman	Mirea mss
123	Orbeasca de Sus (ORB 017)	Orbeasca	Teleorman	Mirea mss
124	Orbeasca de Jos (ORB 034)	Orbeasca	Teleorman	Mirea mss
125	Moșteni (MOS 003)	Moșteni	Teleorman	Mirea mss
126	Moșteni (MOS 006)	Moșteni	Teleorman	Mirea mss
127	Moșteni (MOS 008)	Moșteni	Teleorman	Mirea mss
128	Moșteni (MOS 009)	Moșteni	Teleorman	Mirea mss
129	Moșteni (MOS 031)	Moșteni	Teleorman	Mirea mss
130	Moșteni (MOS 032)	Moșteni	Teleorman	Mirea mss



site	name	municipality	county	data from
131	Moșteni (MOS 035)	Moșteni	Teleorman	Mirea mss
132	Moșteni (MOS 036)	Moșteni	Teleorman	Mirea mss
133	Moșteni (MOS 038)	Moșteni	Teleorman	Mirea mss
134	Vitânești (VIT 007)	Vitânești	Teleorman	Mirea mss
135	Vitânești (VIT IV)	Vitânești	Teleorman	Mirea mss
136	Purani (PUR-V 006)	Vitânești	Teleorman	Mirea mss
137	Siliștea (SIL-V 012)	Vitânești	Teleorman	Mirea mss
138	Pitești-Observator	Pitești	Argeș	Măndescu et al. 2014