

# ON THE WINE, OLIVE OIL AND FISH SUPPLY OF THE COUNTRYSIDE IN ROMAN DOBROUDJA (1<sup>st</sup>-3<sup>rd</sup> CENTURIES AD)\*

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**Keywords:** *vicus, villa, Roman countryside, amphorae, olive oil, wine, fish products, Moesia Inferior.*

**Abstract:** *The aim of this paper is to compare the amphora discoveries from the territory of Ibida with other similar finds from some vici partially excavated. Recent amphora discoveries from the villa of Niculițel were used as a case study. The mathematical calculation of the capacity of these vessels allowed the authors to get a better idea of the main trends of imported wine, olive oil, and fish existent in the rural economy of the Province of Moesia. It was possible to point out some peaks of these imports, as the Aegean olive oil, Pontic wine, and local wine dominate not only the pictures of the Ibida territory but also of the whole rural milieu of the province. However, a slightly different image is provided by the discoveries of the Niculițel villa with a better representation of the long-trade products, which support the idea that these imports suggest the presence of a certain social status and of some institutions that created certain structures. The large quantities of local wine in the area of Niculițel attest to the existence of a booming local wine industry that will reach its climax in the 4<sup>th</sup> century with the creation of a local amphora type designed for the export of a vintage wine. The authors stress the constant progress of the local economic forces, which was favoured by the inclusion of this area in the Roman Empire.*

The study of the Roman Dobrudja countryside continues to remain a desideratum from many points of view (*Pl.1-Map*). Firstly, there is an acute lack of extensive systematic excavations undertaken with the precise goal of defining the types of rural settlements, the architecture of the houses and their annexes, and the relationships among different rural settlement types and between them and the urban centres to which they belonged. In most cases, the pottery entered into “the catalogue of finds”, with only a brief description of fabrics, and, sometimes,

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an indication of the pottery dimensions. Nothing about the presence or absence of a local pottery production, of their functionality, and, in the amphora cases, nothing about their origin and the nature of their contents.<sup>1</sup> Other times, some amphora types are mentioned but without any illustration. Another deficiency of amphora studies is the lack of volume indication. In this paper we will illustrate with graphs both the numbers of amphorae and their volumes, and it will be possible to see how our perception on the imported goods is changed when we multiply the number vessels with their capacities. It will become obvious that vessels for olive oil have larger capacities, varying between 70-80 or even 100 litres. It goes without saying that omitting such useful information provided by amphorae has contributed to a lesser understanding of the rural milieu of the province of Moesia Inferior.

Our goal in this paper is to make a short presentation of amphorae discovered by us in the territory of Ibida: Slava Cercheză – Kurt Baiîr, Fântâna lui Bujor, Slava Rusă – Coșari, Mihai Bravu, Caugăgia<sup>2</sup> and Fântâna Seacă<sup>3</sup>. In the second part we will compare these finds with the amphorae discovered in other *vici* and *villae* of Moesia Inferior: Hârșova<sup>4</sup>, Histria β<sup>5</sup>, Fântânele<sup>6</sup>, Straja<sup>7</sup>, Baia – Stația de epurare<sup>8</sup>, Revărsarea – Cotul Tichilești<sup>9</sup>, Niculițel<sup>10</sup>, Telița-Amza<sup>11</sup>, Telița – La Pod<sup>12</sup>, Sarichioi – Sărătura<sup>13</sup>. These vessels will be divided, according to their content, into wine, olive oil and fish amphorae, and to their origin, into local (table amphorae and pitcher amphorae), Pontic and Aegean.

### The Ibida territory

**Olive oil amphorae.** These amphorae, although reduced from a numeric point of view, compensate by their large capacities.<sup>14</sup>

#### Zeest 80

This type has a constant presence in the rural settlements of Ibida: Kurt Baiir (2), Slava Rusă – Coșari (2) (*Fig. 1*). The capacity of this amphora varies between

<sup>1</sup> See for ex. TZONY 1979; BAUMANN 1995; ANGELESCU 1998.

<sup>2</sup> OPAIȚ, OPAIȚ, BĂNICĂ 1992.

<sup>3</sup> We are grateful to G. Nuțu and Ș. Honcu, for allowing us to use the material discovered at this site.

<sup>4</sup> BOUNEGRU, HAȘOTTI, MURAT 1989.

<sup>5</sup> LUNGU, BOUNEGRU, AVRAM 1984.

<sup>6</sup> ANGELESCU 1998.

<sup>7</sup> RĂDULESCU 1976; TZONI 1979.

<sup>8</sup> PARASCHIV 2004.

<sup>9</sup> BAUMANN 1995, p. 227-268.

<sup>10</sup> BAUMANN 1980.

<sup>11</sup> BAUMANN 1995, p. 13-173; BAUMANN 2003.

<sup>12</sup> BAUMANN 1984.

<sup>13</sup> BAUMANN 1995, p. 174-226.

<sup>14</sup> The amphora capacities discussed in this paper have been mathematically calculated by the authors; we are grateful to R. Ionașcu and M. Streinu for inking and processing our drawings.

60 litres<sup>15</sup>, 75 litres<sup>16</sup>, and 100 litres<sup>17</sup>, thus, for our statistics a mean of 80 litres is acceptable.

### **Types Dressel 24 and 24 similis**

Dressel 24 is represented only by one example discovered at Mihai Bravu (*Vicus Bad.*) (*Fig. 2*). The singularity of this find is not surprising as this type is not very common in Moesia Inferior. It will be presented in our histogram together with Dr 24 similis (*Fig. 3*). The latter type is very well represented in discoveries made not only in the rural areas but also in the urban centres. Five examples have been found at Kurt Baiir (2), Slava Rusă – Coșari (2), and Mihai Bravu (1). The largest majority comes from the Chios-Erythrai area; only one example has a micaceous fabric that suggests an unknown production centre. Their capacities vary between 56 and 94 litres<sup>18</sup>, thus we considered a mean of 75 litres.

### **Wine amphorae**

#### **North Pontic amphorae- type Zeest 72/73**

These amphorae are well-represented in the Ibida territory: Camena (1), Kurt Baiir (2), Fântâna lui Bujor (1), Slava Rusă – Coșari (1), and Fântâna Seacă (1) (*Fig. 4*). They are dated mainly to the 3rd century AD. Their capacity varies between 63 and 86 litres, but there also exist fractional amphorae with volumes varying between 23 and 38 litres, the smallest having only 8 litres, but these examples occur mainly in the Crimean sites and not in Moesia Inferior. We considered an average capacity of 75 litres.

#### **Heracleea Pontica**

This centre is represented by subtype Shelov B at Kurt Baiir and Caugagia (4) (*Fig. 5*) and Shelov C at Caugagia (2) (*Fig. 6*). Although they are relatively numerous, their capacities are reduced, with volumes varying between 3 and 7 litres, their capacities being mostly reduced in the 3<sup>rd</sup> century. A mean of 4.5 litres has been considered for our mathematical calculation.

#### **Aegean centre: type Kapitän 2**

This is an amphora type well-distributed in the entire Roman Empire, from Britain to Mesopotamia, and from Northern Romania to (*Fig. 7*)<sup>19</sup>. It occurs in the

<sup>15</sup> The calculus was made on two amphorae found in the Athenian Agora (P 25597 & P 25598).

<sup>16</sup> Tanais: ARSEN'EVA & NAUMENKO 1992, p. 142-43, fig.22: H=93 cm; RD=15 cm; MD=51cm.

<sup>17</sup> Agighiol: OPAIȚ 1980, p. 308-310, pl. X.4, XV.3: H=97 cm; RD 17 cm; MD=66 cm.

<sup>18</sup> We have calculated the completely preserved amphora at Angustia (Sfântu Gheorge Museum) 56 l; Gârla Mare (Museum of Iron Gates-Drobeta-Turnu Severin) 82 l; Noviodunum (Institute of Eco-Museale Research Tulcea), 94 l.

<sup>19</sup> See OPAIȚ 2013b.

territory of Ibida at Caugagia (2), and Kurt Baiir (1). The relatively modest presence of this type in this area might be explained also by the high quality of this wine, probably of a Chian origin, and by the difficult access to this relatively remote area that perhaps considerably increased its buying cost.

#### **Unknown Centre: type Aegyssus IB/Troesmis X**

This amphora is present both at Ibida and its territory (*Fig. 8*)<sup>20</sup>. The average capacity is c. 70 litres.

### **The local production**

#### **Table amphorae**

The seventeen examples discovered in the Ibida territory have been divided into types and variants and will be discussed at a later date (*Figs. 9-10*). These vessels have a capacity that varies between 18 and 26 litres, thus a mean of 20 litres has been considered as feasible for our calculations. The high quantity present suggests an abundance of the local wine, especially if we take into account that these vessels had been in use for many years.

#### **Table pitchers**

These are vessels especially used for wine during the early Roman period, some of them still preserving traces of resin inside the walls (*Fig. 11*). They seem to be more accustomed in a Greek milieu<sup>21</sup>. They have been found at Kurt Baiir (2), Slava Rusă-Coșari (3), and Caugagia (1). One of the examples uncovered at Slava Rusă-Coșari, due to its fabric, maybe suggest a south Pontic origin, perhaps Heracleea. Their capacity varies between 10 and 15 litres thus a mean of 12.5 litres has been used for our calculations.

### **North Pontic fish amphorae**

#### **Type Zeest 75**

Only two examples have been found in the Ibida territory at Kurt Baiir. The capacity of this amphora type is very large. The largest examples come from Greci (*Fig. 12*), in the territory of Troesmis<sup>22</sup>. However, many fractionary examples have capacities that vary between 30 and 60 litres.<sup>23</sup>The amphora discovered at Greci has a capacity of c. 190 litres, therefore an average capacity of 120 litres has been considered for our calculations.

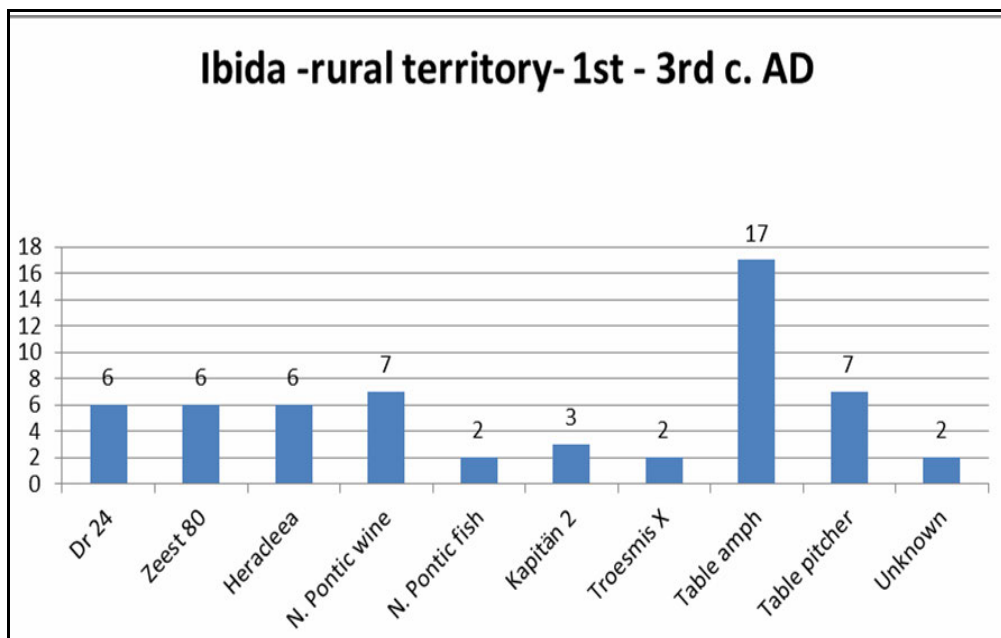
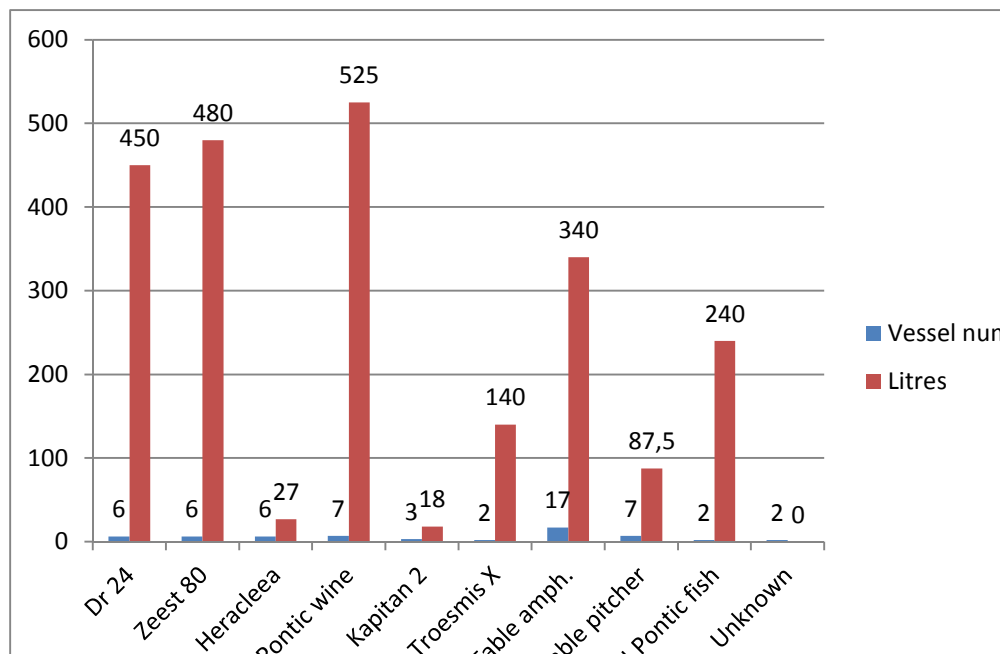
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<sup>20</sup> It is interesting that the dimensions of this type are unchanged from the 1<sup>st</sup> century AD at the *oppidum* of Răcătau until the third quarter of the 2<sup>nd</sup> century at Troesmis.

<sup>21</sup> See OPAIȚ 2003.

<sup>22</sup> OPAIȚ 1980, p. 308, type XI, pl. IX.1-3; XV.2.

<sup>23</sup> Personal observations in the Chersonesos Archaeological Museum storeroom.



Early Roman amphorae from other rural sites of Moesia Inferior

In spite of reduced excavations undertaken in the rural area of Moesia Inferior, and of the amphora sketchy presentation of many amphorae<sup>24</sup>, it is worth noting the presence of mostly the same amphora types as we mentioned in the Ibida territory. This is the case for the olive oil amphora types Dressel 24 and Zeest 80. Regarding the wine amphorae, it is remarkable that there are some large amphorae of Rădulescu 4c/Opaiț 1987 type III type (*Fig. 13*), which can have capacities of c. 50 litres<sup>25</sup>, while another large amphora, Aegyssus IB/Troesmis X, can reach capacities of c. 70 litres<sup>26</sup>. Another amphora with an almond-shape rim has an unknown shape. These large vessels were in use especially during the first century and the beginning of the second century, although the type Aegyssus I/Troesmis X continues until the third quarter of the second century. Their origin is unknown but we cannot rule out a Pontic origin. During the 2<sup>nd</sup> and the 3<sup>rd</sup> centuries AD the south Pontic amphorae of Heracleea and Sinope predominate. The latter, although reduced from a numeric point of view, compensate by their capacities. Their volumes are difficult to approximate as they were made in fractional shapes. Thus a Sinopean amphora discovered at Barboși has a volume of c. 72 litres while another example discovered at Drobeta has a capacity of c. 90 litres and represents double the capacity of the first amphora (*Fig. 14*). Therefore a mean of 80 litres has been taken into consideration. During the 3<sup>rd</sup> century AD the most predominant type is the Aegean amphora of type Kapitän 2, followed by some north Pontic Zeest 76 type<sup>27</sup>, and fish amphorae of Zeest 75 type. Worth stressing is the occurrence of some rare amphorae such as the Cnidian amphorae (*Fig. 15*), which has been found at Histria  $\beta$ <sup>28</sup> with a capacity of c. 13 litres. To this category we need to add the olive oil amphora of San Lorenzo 7 type (*Fig. 16*) discovered at Telița-Amza<sup>29</sup>, that has a capacity of c. 50 litres<sup>30</sup>.

If we compare the statistic of Ibida's territory with the statistic for the other territories of Moesia Inferior it is possible to observe the presence of the same peaks for the olive oil (Dressel 24 and Zeest 80), North Pontic wine (to which we need to add amphorae of Zeest 76 not included in our calculation), the local wine and the north Pontic fish.

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<sup>24</sup> See TZONI 1979, p. 195: "The amphorae usually have a cylindrical neck, thickened rim, and a conical base. The presence of such a large number of containers suggests the existence of an intense commercial exchange with the urban centres and possibilities of consumption".

<sup>25</sup> OPAIȚ 2011, p. 465.

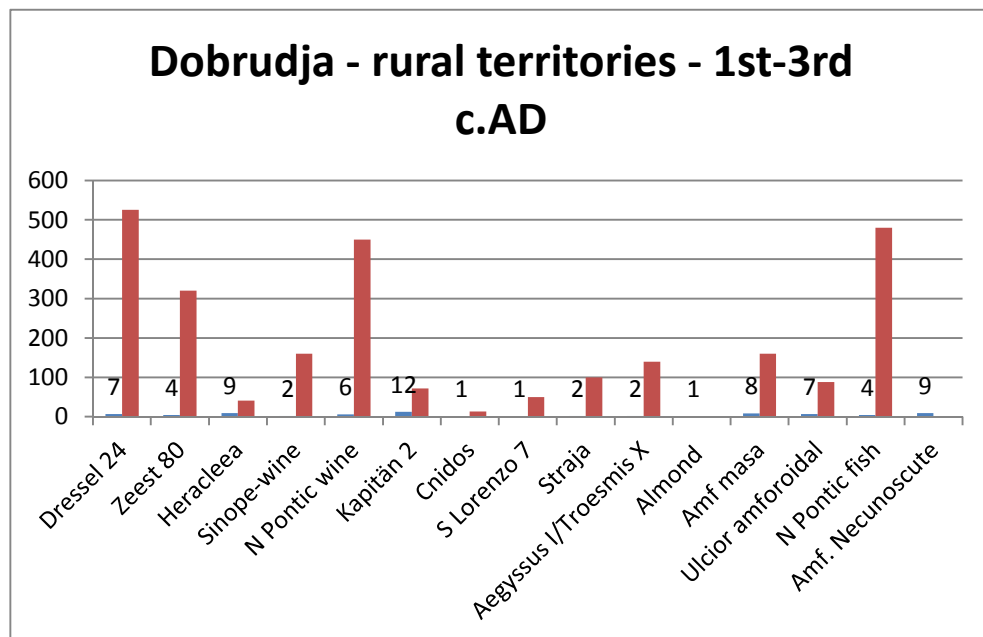
<sup>26</sup> The capacity was calculated according to an amphora discovered at Răcățău.

<sup>27</sup> The fragmentary preservation of these amphorae precluded us to calculate the capacity of this type.

<sup>28</sup> LUNGU, BOUNEGRU, AVRAM 1984, p. 99, fig. 1.11.

<sup>29</sup> BAUMANN 2003, p. 206, no.106, (but in plate is no.103).

<sup>30</sup> We have calculated the capacity of four amphorae: Chersonesos (40 l), Noviodunum (46.8 l), Tomis (56.5 l) and the Athenian Agora (66 l).



#### A case study: the Roman villa discovered at Niculișel

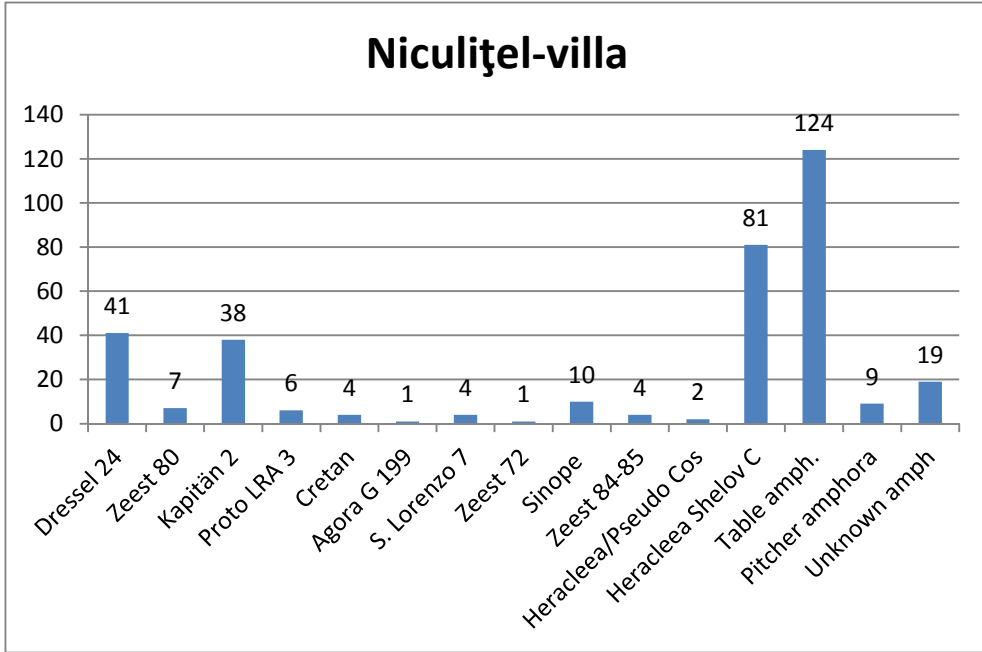
The recent rescue excavation undertaken in a villa at Niculișel, a site situated only 8 Km south of the important city and the naval base of the *Classis Flavia Moesica*, Noviodunum, recovered a large variety of amphorae<sup>31</sup>. The careful gathering of all the pottery sherds and the resulting statistics allowed us to have not only a better image of the wine and olive oil imported at that *villa*, but also of the booming local wine production. We can see the same pattern of imported olive oil and wine previously observed.

Included into the first category are amphorae of Dressel 24 and Zeest 80 types, to which can be added some Cilician amphorae of San Lorenzo 7 type.

In the second category we have the significant presence of the Aegean wine carried in amphorae of Kapitän 2 type (228 litres!), we should add other vintage wines: Cilician (Agora G 199 type) (Fig. 17), Cretan (Dressel 43 type) (Fig. 18), and western Asia Minor (proto LRA 3 type) (Fig. 19). However, the north and south Pontic wine, especially Sinope, also continue to dominate the imported wines also at this site. Nevertheless, from a quantitative point of view, the local production represented by table amphorae (2480 litres) and table pitchers (112,5 litres) dominates the wine consumption at this *villa*. It also underlines that wine-growing was a speciality of this region.

The Pontic fish import is represented only by a few table fish amphorae not included in the statistics. This *villa* is a typical case of a privileged rural settlement due to its proximity to a large urban centre. Most likely in a similar situation were many other settlements close to large urban areas of Moesia Inferior.

<sup>31</sup> The amphorae discovered in this *villa* will be published soon by D. Paraschiv (PARASCHIV 2014).



### Concluding remarks

As we can see from the brief presentation of the wine, olive oil and fish amphorae, starting with the middle of the 1<sup>st</sup> century AD, when the area between the Danube and the Black Sea was transformed in a Roman province, there was a constant access of the local market to the regional, Pontic, and Mediterranean centres of productions. However, it would be a mistake to consider that these contacts were initiated due to the inclusion of this area into the Roman Empire. These contacts had a long tradition that went back to the Archaic and Classical period with the Greek colonies of the Pontic shore playing the role of intermediary. The main advantage of the Roman Dobrudja was that these trade contacts were more increased, diversified and stable, with the logistics of the Roman army playing a determinant role. The trade network established with the arrival of the new masters was able to supply with foodstuffs the increased population of the new province, made mostly of the local Getic people, veterans<sup>32</sup> and many merchants.<sup>33</sup> Even though our amphora discoveries are reduced in

<sup>32</sup> So far we have attested military diplomas in the countryside at Mihai Bravu (PETOLESCU & POPESCU 2007, p. 147-49, no.1; CHIRIAC, MIHĂILESCU-BÎRLIBA, MATEI 2004); Cataloi (PETOLESCU, POPESCU 2004), Telița (HODER 2006, p. 344), and Oltina (CIL XVI 44); a recent diploma comes from Ibida itself (MIHĂILESCU-BÎRLIBA 2008), but we doubt that this site was a simple vicus and not one adjacent to a fortress.

<sup>33</sup> In this context it is important to underline those 28 out of 150 inscriptions that mention communities of *cives Romani consistentes* attested to in the Empire, found in Moesia Inferior: BOUNEGRU 2003a, p. 124; AVRAM 1984, p. 165, 167; AVRAM 2007; the situation seems to be similar to that described by Cicero, *Font. 5.11* (transl. Yonge), cited by SILVER 2012, note 37: "All Gaul is filled with traders - is full of Roman citizens. No Gaul does any

quantitative terms, many of them can be provenanced to a source region, and are important as they show the development of patterns of social and cultural preferences, and diet habits.

Olive oil, a product so important for the diet and hygiene is well-represented in the countryside; it must be rather considered as an imported staple than a luxury good. The main production centres are the Aegean, represented by amphorae of Dressel 24 type, followed by Zeest 80 type; Cilician amphorae of type San Lorenzo 7, although not very abundantly represented, make complete the picture of a diversified trade network. The abundance of olive oil in the rural milieu suggests that some parts of this state-supported product (perhaps transported by Dressel 24 amphorae so abundantly discovered in the military centres) found a way to be distributed into the countryside. In addition, the rural population obtained more olive oil from the private trade that was responsible perhaps for the presence of amphorae type Zeest 80 and San Lorenzo 7. Recent studies come to confirm the existence of a distributive network based on the relation of kinship, friendship and patronage<sup>34</sup>.

Imported wine, although it does not come from the multitude of centres attested to in the cities such as Ibida, Noviodunum, Troesmis, Histria or Tomis, is a relatively important presence. It had mostly a Pontic origin, followed, especially in the 3<sup>rd</sup> century AD, by the Aegean wine carried by amphorae of Kapitän 2 type. Its presence seems to contradict somehow the suggested monetary crisis. Although this wine occurs in reduced quantities in the many *vici* of the province, taken in aggregate these quantities are remarkable<sup>35</sup>. Of notable exception is the massive presence of these Kapitän 2 amphorae in the villa of Niculițel, which suggests the important role played by the villa's good location and the desire for high quality goods of the proprietor. It is hard sometimes not to connect the presence of these vintage wines with their therapeutic properties<sup>36</sup>. While we cannot extrapolate this situation to other settlements of the Roman Dobrudja, this site points to the existence of a stratum of well-to-do *villa*-owners that were a source of demand for luxury goods.

The importance of the local wine production can be inferred from the presence of table amphorae and table pitchers. To these containers we need to add the untraceable presence of skins and barrels, which due to their perishable nature were not preserved<sup>37</sup>. The concentration of these containers in some specific areas, such as the Niculițel *villa*, suggests the presence of certain specialization of some areas of this province in a mass wine production. They attest to the importance of the rural households for organising the economic activities in this province. The intensive demand for wine of the neighbouring market, the naval base of *Classis Flavia Moesica*, contributed to the development of

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business without the aid of a Roman citizen, not a single sesterce in Gaul ever changes hands without being entered in the account-books of Roman citizens".

<sup>34</sup> MORLEY 2007a, p. 571.

<sup>35</sup> HOPKINS 1980; DE LIGHT 1990, p. 54-55.

<sup>36</sup> Gallen, *Method of medicine*, XII.4 (831-839K), I., Johnston, and G.H.R. Horsley, (translation) 2011, Loeb Classical Library .

<sup>37</sup> On the use of barrels in the Roman Dobrudja see OPAIȚ 2013a.

a flourishing wine industry that can be seen with the occurrence of local transport amphorae, as the amphora workshop discovered at Telița, a site close by Niculițel *villa*, attests for the 4<sup>th</sup> century AD; in addition that workshop manufactured table amphora<sup>38</sup>. We witness the development of a division of labor that penetrated the local economy at a level unattained until that time. It is also worth mentioning that this development of the local wine industry took place in the context of a strong competition with the Pontic and Aegean wine centres. Here there is the existence of a double economic process. Firstly the satisfaction of a minimum economic rationalism as the rural population imported staples that were not possible to obtain locally, such as the olive oil, while the local wine was supplemented, mainly for social reasons, by the Pontic wine, probably much cheaper and easily accessible, both in financial and transport terms. However, the distributional network of the imported wine did not overlap with the network of the local wine. Somehow a surprising appearance is the presence of North Pontic fish amphorae that reach the countryside during the 3<sup>rd</sup> century AD.

We have the image of a balanced, thrifty and flourishing countryside that does not make excesses in procuring expensive imported goods. This milieu was well-connected to the Pontic and Mediterranean sources that provided, first of all the olive oil, non-existent in this geographic area, and vintage wines. Certainly, the differences in the quality and quantity of these products point to a set of changes in the economy of this province. It seems evident that a combination between expensive, luxury goods and an increased number of *vici* so far 36<sup>39</sup>, or 46<sup>40</sup> according to Bărbulescu<sup>41</sup> in Moesia Inferior attest to a certain economic growth and rationalization of the production of this province.

The presence of a constant demand for olive oil and vintage wines suggests also an intensive monetary circulation. It comes to support the monetary evidence of a consistent flow of a low-value currency during this period<sup>42</sup>.

The present paper is only a first attempt to understand some commercial trends and expenditure habits that existed in the Moesia Inferior countryside during the early Roman Empire. Of course we will never know the whole quantity of amphorae or coins that were in use in certain settlements<sup>43</sup>, but we can get an idea about the hierarchy of the main agricultural products acquired by the countrymen<sup>44</sup>. This goods hierarchy probably equates to the social hierarchy, as the demand for vintage wines should be understood in social and cultural terms and not as a simple category of luxury products. These vintage wines underline a certain social status, and these imports have behind them some institutions that

<sup>38</sup> BAUMANN 1995, p. 398-437.

<sup>39</sup> BOUNEGRU 2003b, p. 133-143; to those 34 de *vici* and 1 *civitas* we should add one more recent *vicus* identified by A. Opaîț at Mihai Bravu, *Vicus Bad...*(BĂRBULESCU 2001, p. 94).

<sup>40</sup> POULTER 1980, note 2.

<sup>41</sup> BĂRBULESCU 2001, p. 282.

<sup>42</sup> BĂRBULESCU & OCHEȘEANU 1990.

<sup>43</sup> We find in excavations only stray coins; see CRAWFORD 1970; RICE 1985, p. 86-88; COLLINS 1988, p. 192. The same situation for pottery fragments as they escaped from the regular cleaning of houses.

<sup>44</sup> DE LIGHT 1990, p. 54-55.

create certain structures<sup>45</sup>. Therefore the presence of these amphorae which arrived in Moesia Inferior through a long-range trade suggests a profound social stratification. Only in this way can we explain the vintage Aegean wines in the *villa* at Niculițel and their absence in many other rural settlements that are far inland of the province, settlements dominated mostly by the local and Pontic wine. There exists, therefore, a certain 'Pontic connectivity' between some centres of the provincial market with certain north and south Pontic centres, and a 'Mediterranean connectivity' with very specialised Aegean, Cretan, and Levantine vintage wine and olive oil micro-regions<sup>46</sup>. We can even suggest the existence of a dividing line of the olive oil supply that follows the Latin/Greek line, which comes somehow as an addition to the linguistic and monetary division.

In conclusion, by presenting these amphora discoveries we wanted to present a new quantified model of some economic, cultural and social aspects that exist in the rural milieu of the Moesia Inferior province. These discoveries emphasize the peculiarities of the market economy that existed in the Lower Danube during the early Roman period. The picture is inevitable composite. Most likely a good part of the economy was consumed within the rural households without entering the market<sup>47</sup>, another part was provided by state that intervened in the market by buying, at the beginning, sufficient olive oil at a fixed or subsidised price, and starting from the time of Severus by the *annona* mechanism, while another part was in the hands of private individuals. These parts varied according to the specific characteristics of each province. In our case, Moesia Inferior, as a border province perhaps saw in action all these three parts of the Roman economy<sup>48</sup>. The main problem is that our archaeological excavations are at a low scale and in many cases the recording and processing of data is not yet complete enough to provide historians with reliable data. We are convinced that only by a careful study of pottery can new contributions be made to the economic, cultural and social life of the antique world. To limit our study to only the written sources means to write a partial and to an extent biased history as „...the so-called study of the past from historical texts, which is in fact no more than the arrangement and re-arrangement of historical, that is written, sources, to form pleasing patterns”<sup>49</sup>. We must avoid obstinately trying to find confirmation in the ground of partial textual data.

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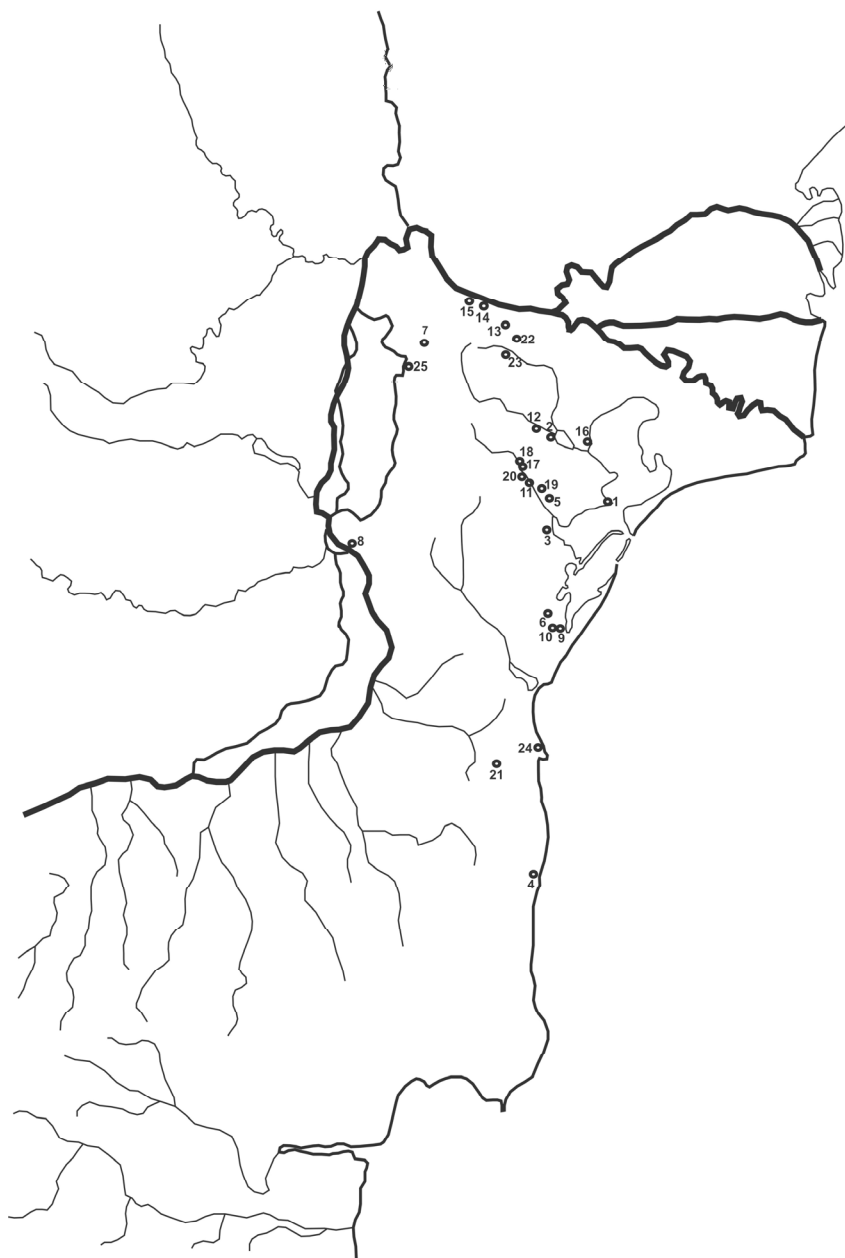
<sup>45</sup> MORLEY 2007b, p. 14.

<sup>46</sup> SILVER 2012, p. 292-93; see, for example, the specialization of some Aegean centres in olive oil production (OPAIȚ & TSARAVOPOULOS 2011); to this we can add the continuity in the production of vintage wines of some centres with a long tradition in this activity since the Archaic, Classic and Hellenistic period (OPAIȚ 2013a).

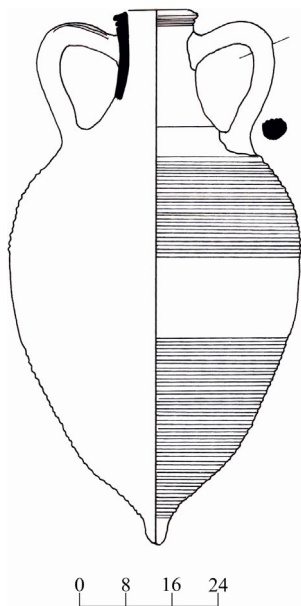
<sup>47</sup> GARNSEY 1988; MORLEY 2012.

<sup>48</sup> For a recent dispute of this lively debate see WILSON 2012, SILVER 2012, BANG 2012, ERDKAMP 2012, and MORLEY 2012.

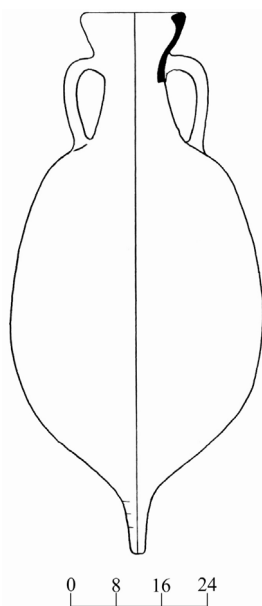
<sup>49</sup> RICE 1985, p. 85.



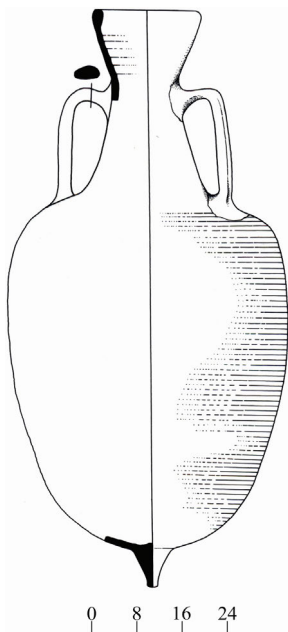
1. *Argamum*; 2. Babadag – Topraichioi; 3. Baia; 4. *Callatis*; 5. Caugagia; 6. Fântânele;  
 7. Greci; 8. Hârșova; 9. *Histria*; 10. *Histria B*; 11. (*L*)*Ibida*; 12. Mihai Bravu; 13. Niculițel;  
 14. *Noviodunum*; 15. Revărsarea – Cotul Tichilești; 16. Sarichioi – Sărătura;  
 17. Slava Cercheză – Fântâna lui Bujor; 18. Slava Cercheză – Kurt Baiir;  
 19. Slava Rusă – Coșari; 20. Slava Rusă – Fântâna Seacă; 21. Straja;  
 22. Telița – Amza; 23. Telița – La Pod; 24. *Tomis*; 25. *Troesmis*.



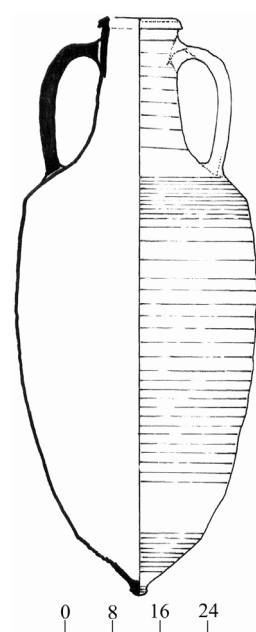
**Fig. 1**



**Fig. 2**



**Fig. 3**



**Fig. 4**

- Fig. 1 – Zeest 80 type. Tanais, after ARSEN'EVA & NAUMENKO 1992, fig. 22 (sc. 1:8);  
 Fig. 2 – Dressel 24 type. Kythera, courtesy Aris Tsaravopoulos (sc. 1:8);  
 Fig. 3 – Dressel 24 *similis* type. Tibiscum, courtesy A. Ardeț (sc. 1:8);  
 Fig. 4 – Zeest 72 type. Chersonesos, courtesy of the Archaeological  
 Museum of Chersonesos (sc. 1:8).

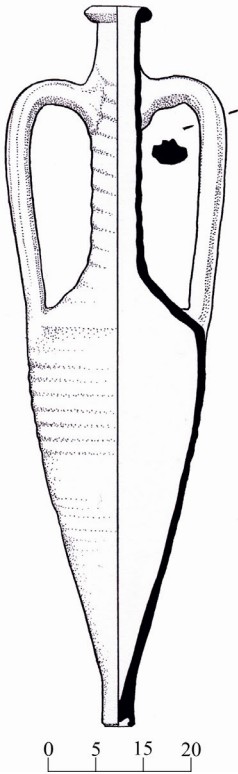


Fig. 5

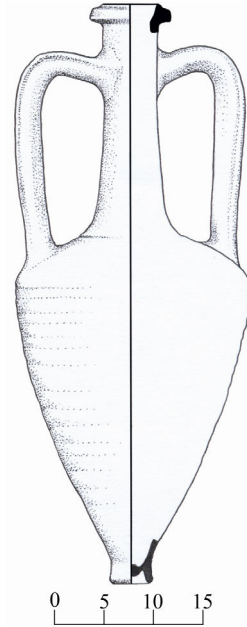


Fig. 6

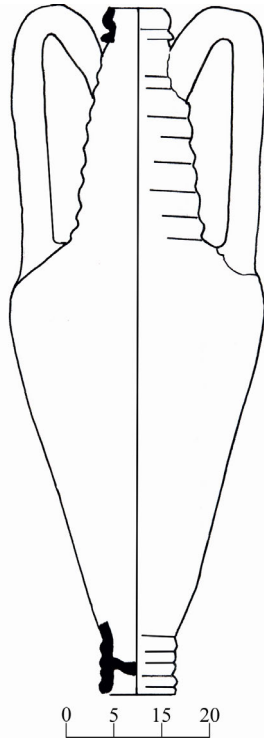


Fig. 7

Fig. 5 – Šelov B type. Noviodunum, courtesy of the Institute of Eco-Museale Studies, Tulcea (sc. 1:5); Fig. 6 – Šelov C type. Noviodunum, courtesy of the Institute of Eco-Museale Studies, Tulcea (sc. 1:5); Fig. 7 – Kapitän 2 type. Barboși, courtesy of the Archaeological Museum of Galați (sc. 1:5).

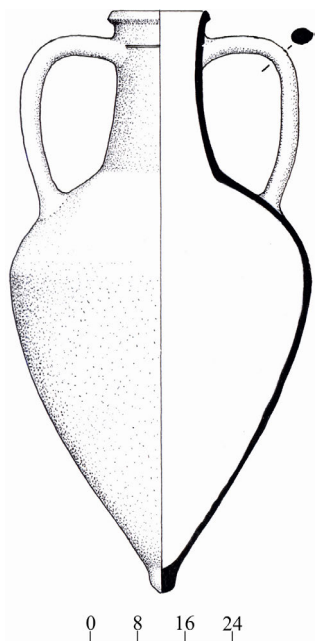


Fig. 8

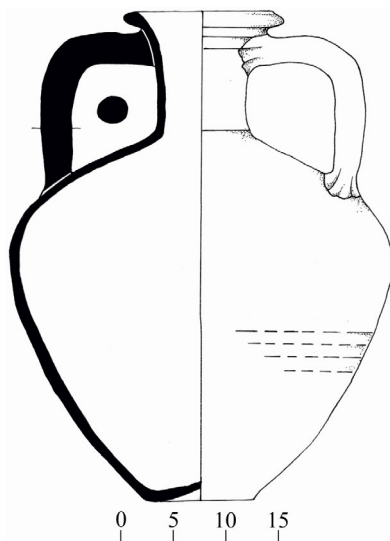


Fig. 9

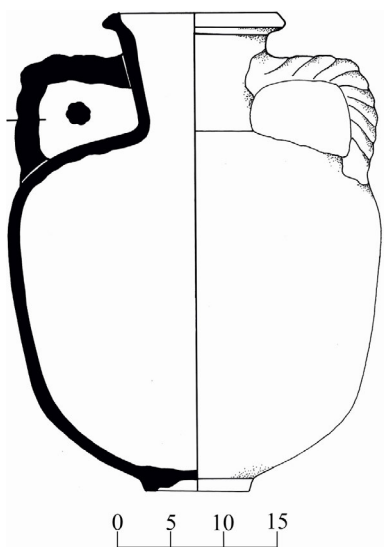


Fig. 10

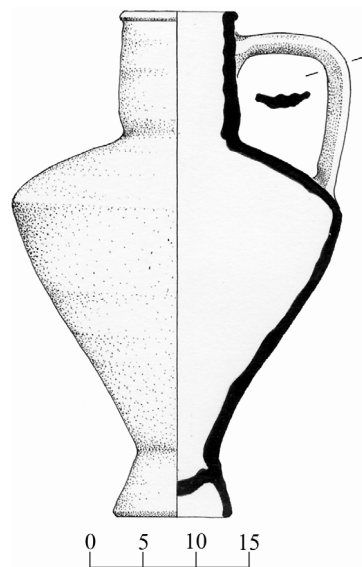


Fig. 11

Fig. 8 – Troesmis type X. Troesmis, after Opaïț 1980, pl.X.2 (sc. 1:8);  
 Fig. 9 – Table amphora type. Troesmis, after Opaïț 1980, pl.I.4 (sc. 1:5);  
 Fig. 10 – Table amphora type. Dinogetia, after Opaïț 1980, pl.I.4 (sc. 1:5);  
 Fig. 11 – Table pitcher type. Chersonesos, courtesy of the Archaeological  
 Museum of Chersonesos (sc. 1:5).

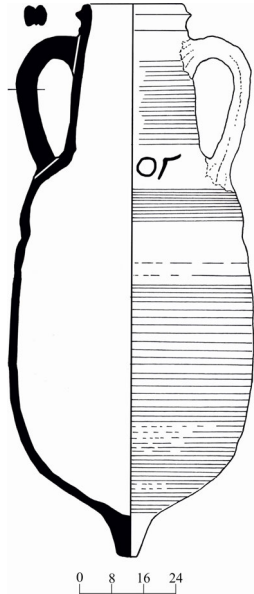


Fig. 12

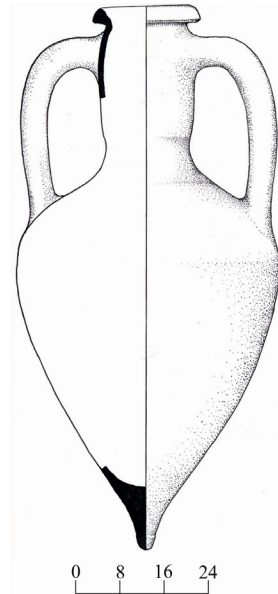


Fig. 13

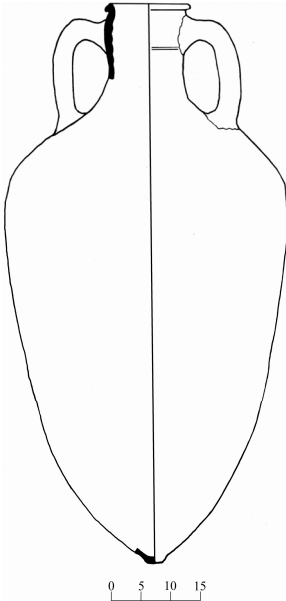


Fig. 14

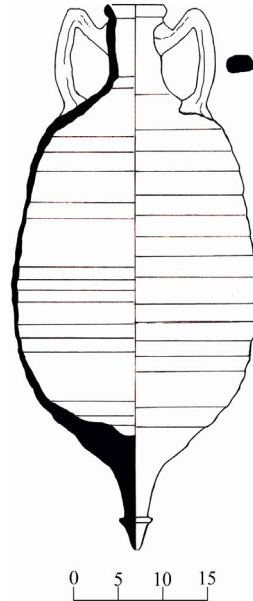
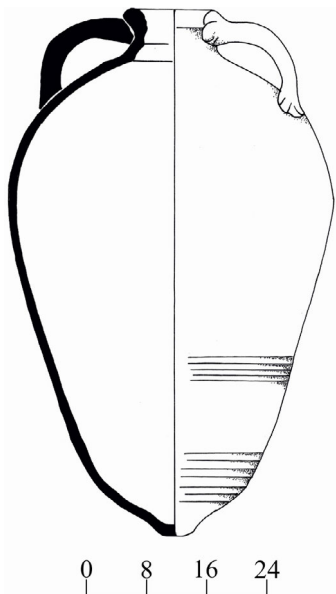
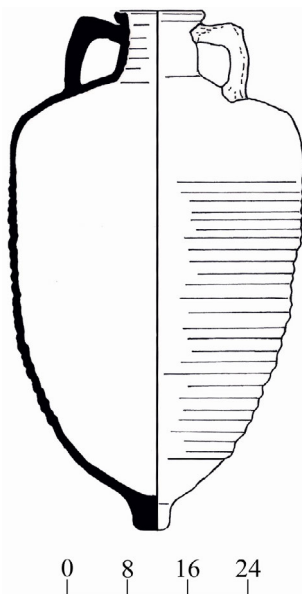


Fig. 15

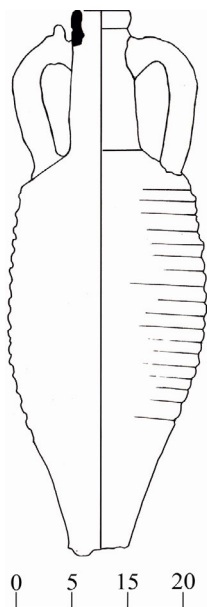
Fig. 12 – Zeest 75 type. Greci, after Opaïț 1980, pl.IX.3 (sc. 1:8);  
 Fig. 13 – Rădulescu 4c/Opaïț 1987b type III. Straja, courtesy of the Archeological  
 Museum of Constanța (sc.1:8); Fig. 14 – Sinopean type. Barboși, courtesy of the  
 Archeological Museum of Galați (sc. 1:8); Fig. 15 – Cnidian type. Di Grado,  
 after Auriemma 2000, fig.12b (sc. 1:5).



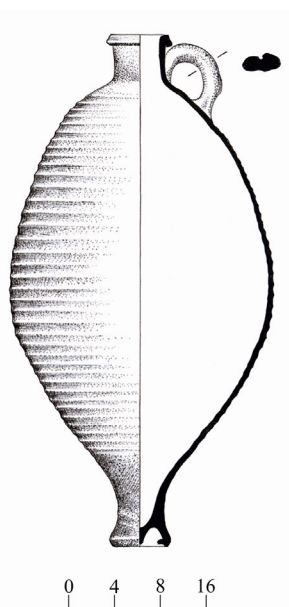
**Fig. 16**



**Fig. 17**



**Fig. 18**



**Fig. 19**

**Fig. 16** – San Lorenzo 7 type. Noviodunum, after Opaïț 1987b, fig.7.3 (sc. 1:8);  
**Fig. 17** – Agora G 199 type. Tomis, Opaïț 1987b, fig. 6.4a (sc. 1:8); **Fig. 18** – Cretan  
 type. Barboși, courtesy of the Archaeological Museum of Galați (sc.1:5);  
**Fig. 19** – Proto LRA 3 type. Chersonesos, courtesy of the Archaeological  
 Museum of Chersonesos (sc. 1:4).