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## AMPHORAE FROM THE BARRACKS OF *LEGIO VIII AUGUSTA* AND *LEGIO I ITALICA* IN *NOVAE*<sup>1</sup>

The Lower Danubian fortress of *Novae* is known foremost as the seat of the *Legio I Italica*,<sup>2</sup> but its history was somewhat more complicated. First, the *Legio VIII Augusta* arrived from *Poetovio* in AD 44 and built the first timber-and-earth fort. Excavations, despite continuing for more than half a century, had yielded little palpable evidence of the presence of this legion: only some traces of the timber-and-earth fortifications and remains of wooden architecture.<sup>3</sup> In 2011, a new sector was opened (XII), encompassing the part of the fort where the barracks of the first cohort were to be expected. The results provided a more inclusive picture of the military presence of Roman legions in the fortress of *Novae* (fig. 1). Extensive later rebuilding, various conflagrations, earthquakes and large-scale earthworks wrought havoc with structures raised by legionaries from the *VIII Augusta*, hence the discovery of a large army barrack in the new sector came as somewhat of a surprise. It had the characteristic layout and size of an army barrack and hence should be interpreted as the living quarters of the first cohort. The full width of the barrack turned out to be 16 m. Six full *contubernia* were also cleared, as well as porticoes lining the barrack on two sides. It is clear now that the barrack was rebuilt at some point, but the work was limited to a different arrangement of interior partition walls. In AD 69 the *VIII Augusta* was replaced with the *I Italica* brought from Gaul. The new legionaries rebuilt the fortress in stone, including the army barracks. Extensive later construction works in the area have obliterated to some degree the plan of this building and more excavations are necessary before there is clarity as to its layout.

Several pits filled with earth, charcoal, fragments of the clay-plastered wooden barrack walls, as well as glass vessels, terra sigillata of various types and amphoras were discovered during the explorations. The nature of the deposits in the pits does not permit a clear interpretation of the stratigraphy, but the finds are sufficient to set a date framework, namely, about 30 years, sometime between the first and third quarters of the 1<sup>st</sup> century. It means that the finds came from the time of the occupation of the wooden barracks of the *VIII Augusta*, their dismantling and the construction of the stone barracks of the *I Italica*. This gives an incomparable opportunity to study

imports and the legionary supply system in the middle of the 1<sup>st</sup> century AD by simply comparing the material, in our case amphora types. The excavated area covers only about 500 m<sup>2</sup>, hence the results cannot be treated as anything but a general indication from a statistical point of view. Nevertheless, they show certain general trends that can find verification in the data obtained earlier for the *I Italica* from excavations of the legionary baths of the Flavian age and the *valetudinarium* in another sector of the fort.<sup>4</sup>

A total number of 20 different types of amphoras of Italic, Spanish and Aegean provenience was distinguished among the sherds recovered from the pits. The biggest group among the Italic vessels was made up of amphoras of the following types: Dr 6A, Dr 1/Lamboglia 2, Dr 2–4 and Forlimpopoli/K114 (fig 2). Among containers from the Aegean there were Dyczek 25, Dr 43 and Knossos 19 vessels (fig 3), whereas Spanish amphoras were represented by Haltern 70, Dr 7–11 and Dr 38 (fig. 4).

Two other groups were recorded in lesser quantities: amphoras from Gaul and from the production centers in the Pontic Region. The pits produced sherds from three types of Gaulish amphoras: Gauloise 1, 3 and 5, compared to the one type discovered so far in the area of the army hospital. As for the broadly understood Pontic workshops, there were two types represented: Zeest 80/Dyczek 21 and Zeest 64/94/104/105/Dyczek 28<sup>5</sup> (fig. 5).

Before discussing the significance of the typological distribution of amphoras from the pit deposits in the army barracks for the issue of *Novae* imports in the middle of the 1<sup>st</sup> century AD, let me first concentrate in greater detail on some of the types in question, as they bring light to bear on the question of legionary supply patterns, especially with regard to the kinds of products that were delivered to the fort.

Among the amphoras from Italy the ones that deserve particular attention are Dr 1/Lamboglia 2 and Dr 6 A, both of which are late Republican types. They occur in different archaeological contexts from the end of the 2<sup>nd</sup> century BC to the 1<sup>st</sup> century AD and are commonly believed to have held wine.<sup>6</sup> These types have been recorded in *Novae* for the first time and, taking into account their early dating, should be linked to the *VIII Augusta*. The same is to be

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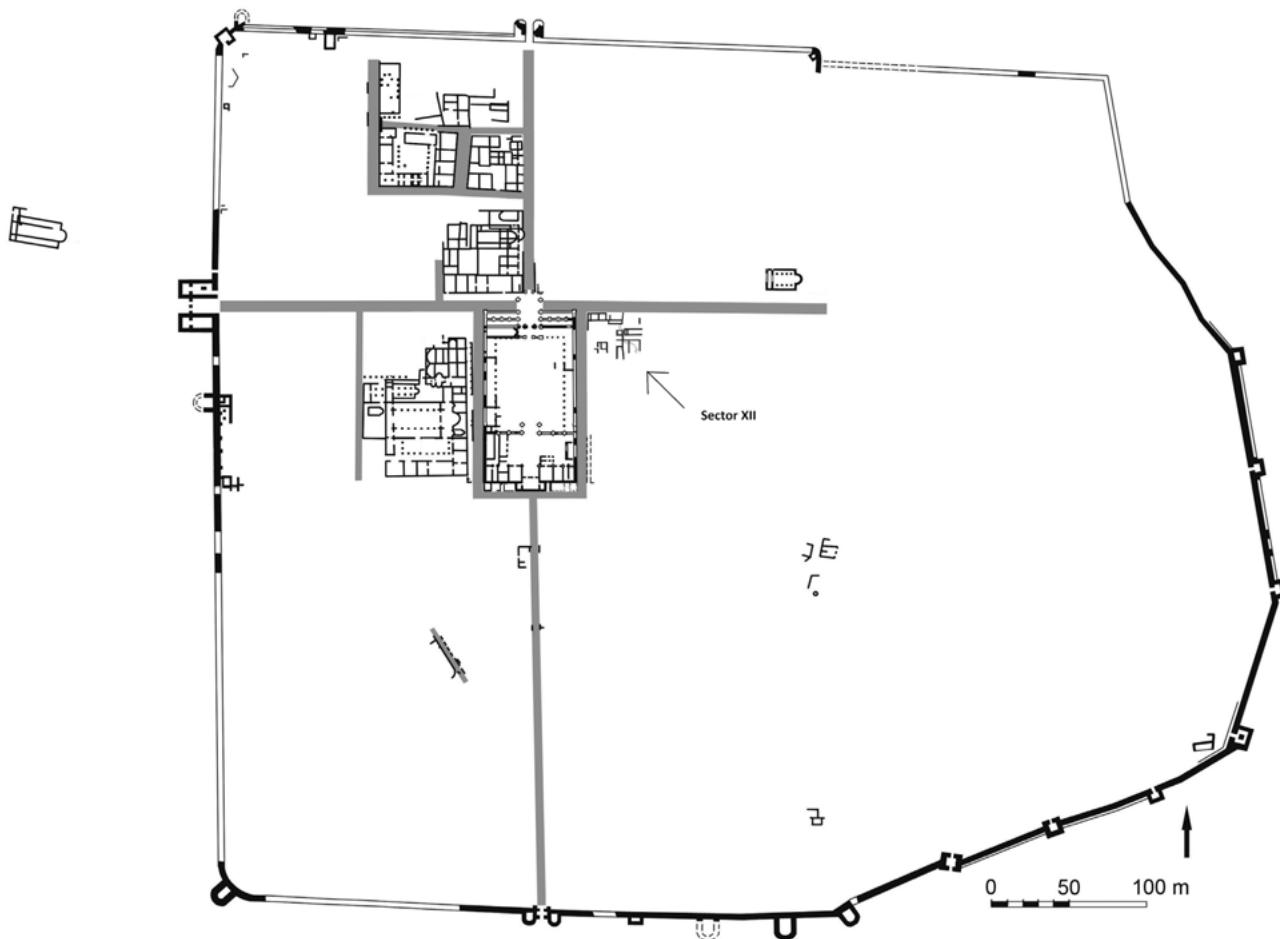
<sup>2</sup> Cf. DERDA ET AL. 2008, 301–375 (Bibliography).

<sup>3</sup> SARNOWSKI 1980, 146–150; ID. 1983, 153–160; GENČEVA 2002, 13–23.

<sup>4</sup> CIOLEK/DYCZEK 2011.11–24.

<sup>5</sup> DYCZEK 2001, 102–153; 159; 202–220.

<sup>6</sup> PESAVENTO MATTIOLI/CIPRIANO/PASTORE 1992, 40–43.



**Fig. 1.** Plan of *Novae* in the 3<sup>rd</sup>–4<sup>th</sup> century AD  
(J. Kaniszewski, A. Biernacki, P. Dyczek, L. Kovalevskaja, M. Lemke, T. Sarnowski, P. Zakrzewski).

said of the equally early “carrot shaped” containers, that is, Camulodunum 189, which are seldom encountered on archaeological sites.<sup>7</sup> They are known from, among others, *Emona*,<sup>8</sup> *Carnuntum*, *Sirmium*,<sup>9</sup> but also from sites in Germany, such as Hofheim and Rödgen.<sup>10</sup> Their place of production remains contested,<sup>11</sup> but they are known to have been used as containers for figs, dates, raisins and olives.<sup>12</sup> A pendant for these amphoras are Italic types Dr 21–22/Dyczek 9 from the 1<sup>st</sup> century AD (produced through the early 2<sup>nd</sup> century AD).<sup>13</sup> A *titulus pictus* on one vessel of this kind, bearing the name of L. Volusius Saturninus, a contemporary of Augustus,<sup>14</sup> indicates that vessels of this kind could have already been in more or less widespread use at the turn of the era. The inscriptions on these amphoras leave no doubt that they were used to transport cherries, apples and plums.<sup>15</sup> One theory

has them being produced in Spain,<sup>16</sup> and another recently has suggested the ceramic workshops of *Sinope* as the production center,<sup>17</sup> but the generally accepted notion is that they are a Campanian product.<sup>18</sup> These types should also be associated with the *legio VIII Augusta* stationed in *Novae*.

Excavations in the rubble of the wooden barrack also revealed evidence of rare fruit, a nectarine (sic!),<sup>19</sup> which, despite being of Chinese origin, appears to have been cultivated in Campania in the 1<sup>st</sup> century AD. It will never be known whether the fruit reached *Novae* as a gift from relatives, was brought in Dr 21–22 amphoras or was cultivated in the region, but it is still an archeobotanical detail of scientific interest.

The provenience of Dr 2–4 amphoras discovered in the pits is difficult to establish with certainty. They are generally dated to an early period, that is, the end of the 1<sup>st</sup> century BC (although the earliest containers of the type came from the 2<sup>nd</sup> century BC), but they must have reached *Novae* at a later time, most probably with the arrival of the *I Italica*. Assuming the validity of this assumption, we find that these finds subscribe to a general observation concerning early

<sup>7</sup> REUSCH 1970, 54–62; HAWKES/HULL 1947, 253.

<sup>8</sup> BEZECZKY 1994, 84.

<sup>9</sup> GRÜNEWALD 1983 Taf 44,1; BRUKNER 1981, 55 T. 161,55.

<sup>10</sup> DYCEK 2011, 89–93.

<sup>11</sup> PEACOCK/WILLIAMS 1986, 109; SHACKLEY 1975, 58–59; ZEMER 1977, 49; EMPEREUR/PICON 1989, 232.

<sup>12</sup> TOMLIN 1992, 308; REUSCH 1970, 54–62 Abb. 1,5; 3.

<sup>13</sup> CARANDINI/PANELLA 1973, 496.

<sup>14</sup> CIL XV, 4784.

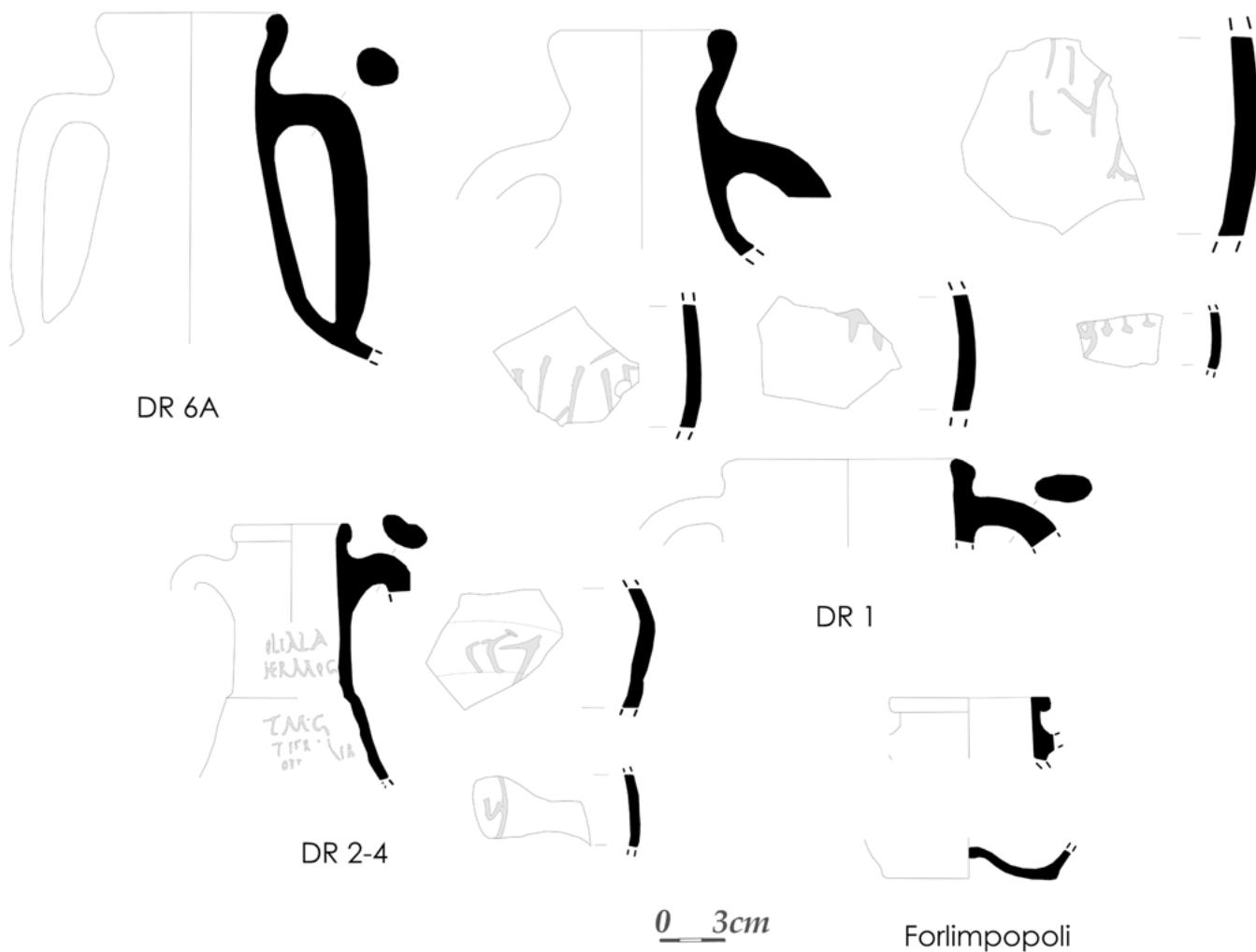
<sup>15</sup> DYCEK 2001, 100–105.

<sup>16</sup> BELTRÁN LLORIS 1980, 213–215.

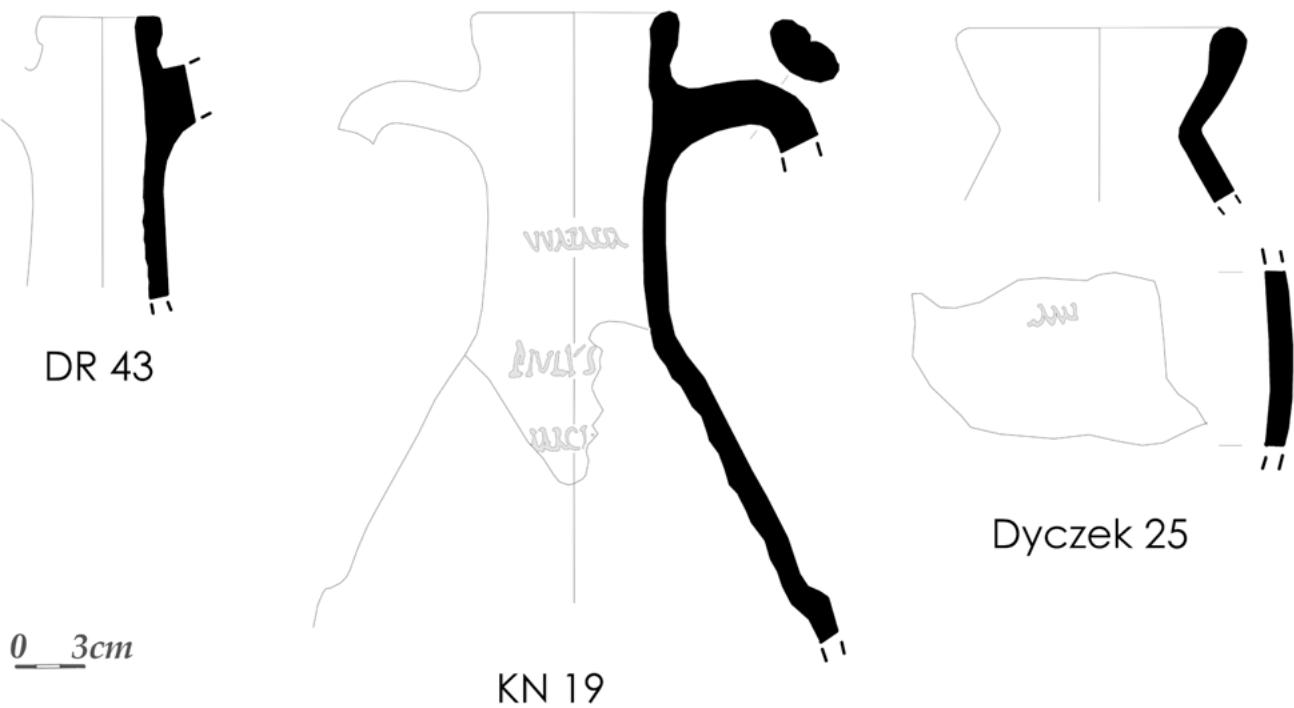
<sup>17</sup> HASAN ERTEM ET AL. 2004 105.

<sup>18</sup> PESAVENTO MATTIOLI/CIPRIANO/PASTORE 1992, 46.

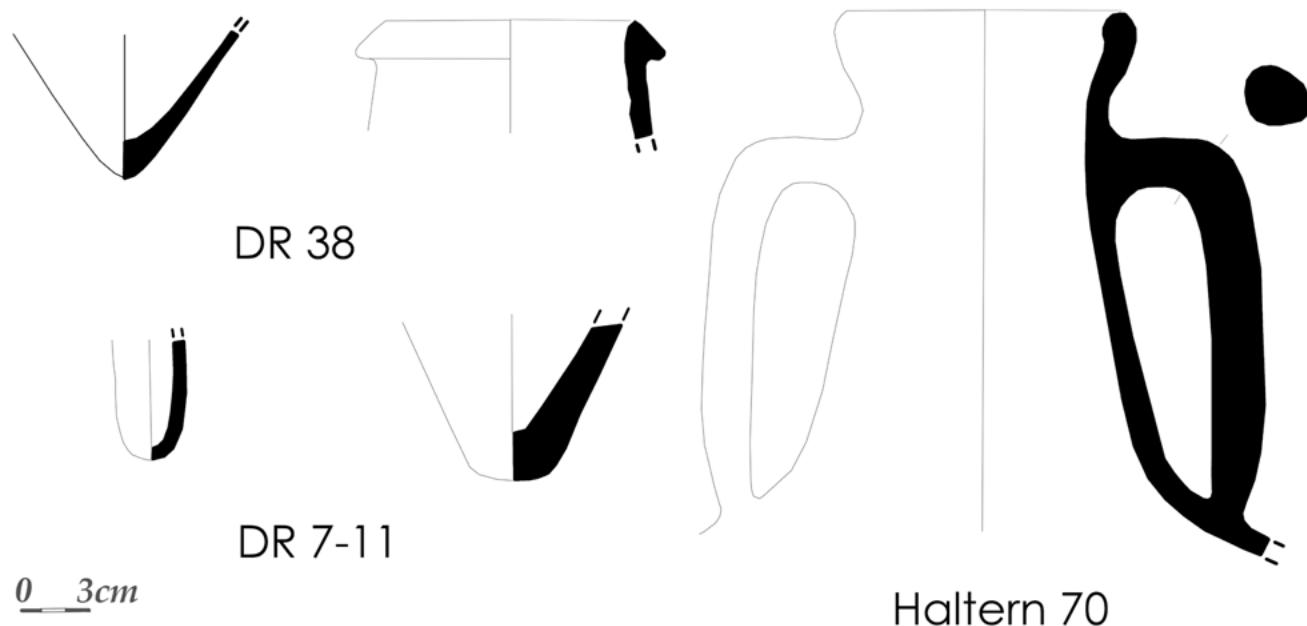
<sup>19</sup> JANKOWSKA/KOZAKIEWICZ 2013, 93–108.



**Fig. 2.** Sector XII, Italic amphoras: Dr 6A, Dr 1/Lamboglia 2, Dr 2–4, Forlimpopoli/K114 (drawn by M. Różycka).



**Fig. 3.** Sector XII, Aegean amphoras: Dyczek 25, Dr 43, Knossos 19 (drawn by M. Różycka).



**Fig. 4.** Sector XII, Spanish amphoras: Haltern 70, Dr 7-11, Dr 38 (drawn by M. Różycka).

Roman sites in *Moesia* (one province undivided until 86) and *Pannonia*, where they appeared for the first time in the Flavian age.<sup>20</sup> Amphoras of this type are characterized by a considerable variability with regard to clay matrix color and the forming of various parts, which favors the idea of their production in different pottery workshops. The vessels discovered in *Novae* also demonstrate considerable diversity, hence they could have been brought from different centers in Italy as well as Gaul, for example, which is where the *I Italica* was stationed before coming to *Novae*.<sup>21</sup>

Among the Aegean amphoras note should be made of three types: Kn 19 (A 53) Dyczek 25 and Dr 43 (Rhodian type). Amphoras of the first type, close in form to Dr 5,<sup>22</sup> are seldom found on ancient sites. They are known from Knossos, Ostia,<sup>23</sup> Grado,<sup>24</sup> Pompeii(?),<sup>25</sup> the Adriatic coast, as well as *Pannonia*.<sup>26</sup> This type of container is believed to have been developed from Coan amphoras, hence their occasional designation as “sub-coan”. They are dated overall to the first half of the 1<sup>st</sup> century AD,<sup>27</sup> although they remained in use until the middle of the 2<sup>nd</sup> century AD. Their content has yet to be determined beyond doubt, but they seem to have been intended for wine (formal similarity to Dr 2–4) or *salsamenta* (Grado).<sup>28</sup> The *dipinti* on necks of amphoras from the army barracks have contributed new data, still provisional as the inscriptions are still being studied,<sup>29</sup> to this issue. Of the two

*dipinti* on amphoras Kn 19 one mentions raisins as the content, but the other one is less obvious. It contains the Greek name of Hermogenes written in Latin, while the contents of the vessel was “*oliala*”, which is the abbreviated recording of two words, *oleum* (olive oil) and *allium* (garlic) – olive oil garnished with garlic, garlic oil or garlic in olive oil. The inscriptions from *Novae* are yet more arguments in favor of exercising caution with regard to the issue of amphora content. From the earliest periods the containers were considered as fairly universal, the type not necessarily and not always associated with a specific product. The form of some of these vessels was adapted to the transport of wine or olive oil, or *salsamenta*. But the approach to this issue was hardly exclusive and was dependent on needs. If only the form of the container allowed, it could be filled with all kinds of goods.

Taking into consideration the context of the finds, the amphoras in question can be dated to the Flavian period and linked to the First Italic legion. Another type, Dyczek 25, confirms this suggestion. There has been a lengthy discussion of the origins and content of these containers, which was all the more significant as some researchers have sought, correctly to my mind, to see in this amphora a predecessor of the LR 2 amphoras. Archaeological research in the army hospital and the material from the current explorations have resolved these questions.<sup>30</sup> The Dyczek 25 containers are among the most frequent types of containers represented in layers from the 2<sup>nd</sup> and 3<sup>rd</sup> centuries AD, but single examples occurred already in the end of the 1<sup>st</sup> century AD and were evidently associated with the supply system of the *legio I Italica*. They usually carried olive oil, but were also used – as the finds from *Novae* demonstrate – for other products, such as oyster *garum* (*garum* made of oysters! unique!) or nuts.

Other Aegean (or Asia Minor) amphora sherds discovered

<sup>20</sup> KELEMEN 1972, 116; BEZECZKY 1987, 4; BRUKNER 1981, 19–21; 23–25; 122 T. 157; PLESNI AR-GEC 1972 T 141.

<sup>21</sup> BEKER ET AL. 1986, 69–74.

<sup>22</sup> Cf. MARTIN-KILCHER 1994, 344; 346 fig. 131

<sup>23</sup> HAYES 1983, 149 type «sub-coan»; CARANDINI/PANELLA 1973, 609.

<sup>24</sup> AURIEMMA 2000, 31–33.

<sup>25</sup> TIMBY 2004, 386 fig. 6,1; 391.

<sup>26</sup> KELEMEN 1972, 129 typ 7 (?).

<sup>27</sup> RAYNAUD 1993 A-Ori Kno 19.

<sup>28</sup> AURIEMMA 2004, 48.

<sup>29</sup> I am indebted to A. Łajtar and T. Pluciennik for a provisional reading of the texts.

<sup>30</sup> DYCEK 2002, 7–23, ID. 2008, 515–521.

in the pits included Dr 43,<sup>31</sup> which seem to have been produced in Rhodos,<sup>32</sup> as well as Asia Minor<sup>33</sup> and contained a popular kind of wine. They are found with considerable frequency in 1<sup>st</sup> century AD legionary contexts. The finds from *Pannonia* are dated to the second half of the 1<sup>st</sup> century AD.<sup>34</sup>

Spanish Haltern 70 amphoras for wine should be linked to the presence of the *legio VIII Augusta* and they are also frequent in legionary fortresses, in contexts dated primarily to the first half of the 1<sup>st</sup> century AD.

The identification of three different types of Gaulish amphoras – Gauloise 1, 3 and 5 – came as somewhat of a surprise.<sup>35</sup> Vessels of this kind are known mainly from the western part of the Empire, from Normandy and Brittany. A single sherd of a Gauloise 12 amphora had been discovered previously at *Novae*,<sup>36</sup> but it was a vessel from the end of the 2<sup>nd</sup> century AD.<sup>37</sup> The present finds are well dated to the middle of the 1<sup>st</sup> century AD (despite the fact that the types remained long in use<sup>38</sup>) and are as such absolutely unique in *Moesia*. They have been linked with the *I Italica*.

As for the Pontic amphoras, the first of the types that were recognized in the material from the barrack pits, Zeest 68/Dyczek 27, is characterized by massive handles of round section.<sup>39</sup> Their range is restricted to the Crimea and the Lower Danube in principle, where they appear already in the 1<sup>st</sup> century AD. It is not known where they were produced nor what kind of product was carried in them.

The other characteristic vessels occurring in two variants are amphoras from the Zeest 64, 94, 104 and 105 group,<sup>40</sup> referred to in unison as Dyczek 28.<sup>41</sup> The debate on their origins and typological evolution has been lengthy and heated,<sup>42</sup> but to my mind, all the different types that have been distinguished to date are actually only variants of a single type which evolved over time. In the 1<sup>st</sup> century AD there were two forms differing by the shape of the neck, one long, slender and cylindrical, and the other shorter and conical. These vessels had a capacity from 2.5 to 5 l of wine. *Dipinti* on the neck were fairly rare, but such an exception was discovered in *Novae*. The current research into vessels of this type has demonstrated the possibility, confirmed by ceramic laboratory analyses,<sup>43</sup> that they were produced in *Sinope*<sup>44</sup> and Pontic *Heraclea*. In *Novae* they appear in the earliest layers connected with the *legio I Italica*, in the Flavian baths, for instance.<sup>45</sup> It now appears that containers of this kind started to be produced around the middle of the 1<sup>st</sup> century AD.<sup>46</sup>

<sup>31</sup> PEACOCK/WILLIAMS 1986, 102–105.

<sup>32</sup> PANELLA 1986, 615.

<sup>33</sup> EMPEREUR/PICON 1989, 225.

<sup>34</sup> BEZECZKY 1994, 83.

<sup>35</sup> LAUBENHEIMER 1985, 327.

<sup>36</sup> EAD. 1990, 167.

<sup>37</sup> DYCEK 2001, 103–105.

<sup>38</sup> RAYNAUD 1993 Amphores gauloises.

<sup>39</sup> ZEEST 1960, 111 pl 68, DYCEK 2001, 199–202.

<sup>40</sup> ZEEST 1960, 103; 110; 118; 121–122.

<sup>41</sup> DYCEK 2001, 194–199.

<sup>42</sup> KAMIENIECKIJ 1963, 29–36; DEOPIK/KRUG 1972, 111–115; ŠELOV 1978, 16–12.

<sup>43</sup> HASAN ERTEM ET AL. 2004, 103–105.

<sup>44</sup> ARSEN'eva ET AL. 1997, 188–190 Amfory ja.

<sup>45</sup> DYCEK 2011, 112.

<sup>46</sup> VNUKOV 2004, 415.



Dyczek 28

Dyczek 21

**Fig. 5.** Sector XII, Pontic amphoras: Dyczek 21, Dyczek 28 (drawn by M. Różyczka).

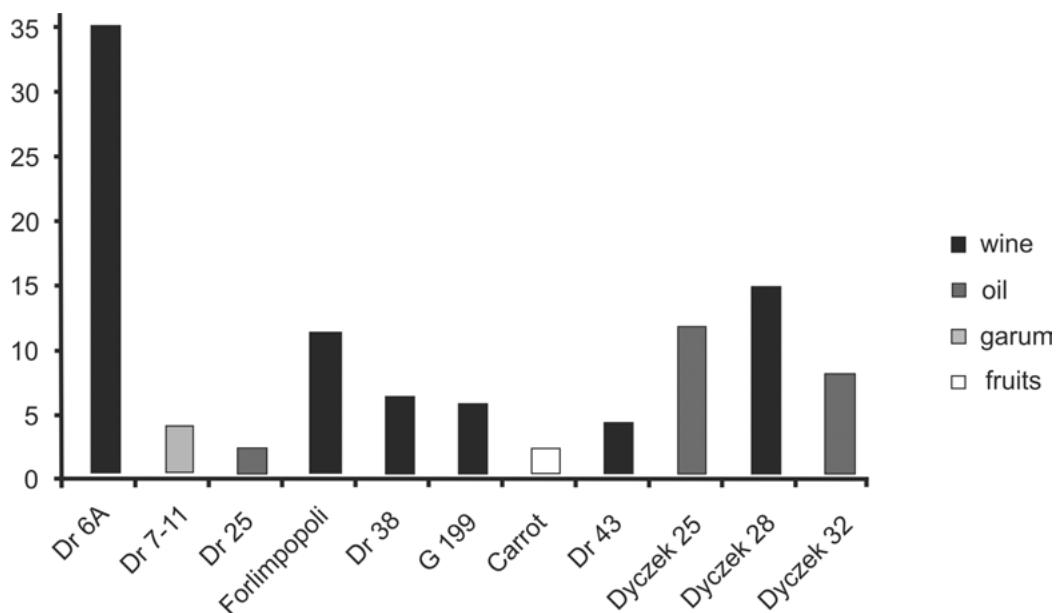
This short review of some types of amphoras discovered in the army barracks in *Novae* provides an excellent opportunity to consider the regions from which goods were imported to *Novae* and to search for differences in the supply patterns characterizing the two legions successively stationed in the Danubian fortress. Indeed, the deployment of the legions before they arrived in *Novae* seems to be an important factor in this equation. Before coming to *Dacia* the *VIII Augusta* was stationed at *Poetovio*,<sup>47</sup> an important fort on the route from Italy to *Aquincum* (on the Danube). Therefore, there can be no doubt that the legion was supplied mainly from Italy and these ties remained unbroken even after the unit was transferred to *Novae*. Early Italic amphoras in the barrack pits appear to confirm these economic relations. From Italy the legion apparently imported a great deal of wine and fruit.

Things changed significantly with the arrival of the *I Italica* from Gaul. Supply sources in Gaul were surely kept up for a while, as demonstrated by the presence of Gauloise amphora sherds, but commercial relations with Italy were maintained as well. It cannot be excluded that the new legion took over the Italic economic contacts, whereas the *VIII Augusta*, which was transferred to Gaul, may have adopted the contacts of the *I Italica*. Other products, which started to appear in the fortress with the arrival of the new legion, may be a reflection of army unit movements. The *I Italica* is known to have operated in the Crimea, and the Roman fleet sailed the Black Sea.<sup>48</sup> Hence, it is not surprising that amphoras from *Sinope* and Pontic *Heraclea* put in an appearance in *Novae*. Rich Greek city states, like *Histria*, *Tomis*, *Callatis*, *Apollonia Pontica* etc., on the western shores of the Black Sea would also have offered the legionaries their products, coming mainly from the Aegean area. Proof of this comes with amphoras of the Dyczek 25, 27, 28, Kn 19 and Dr 43 types.

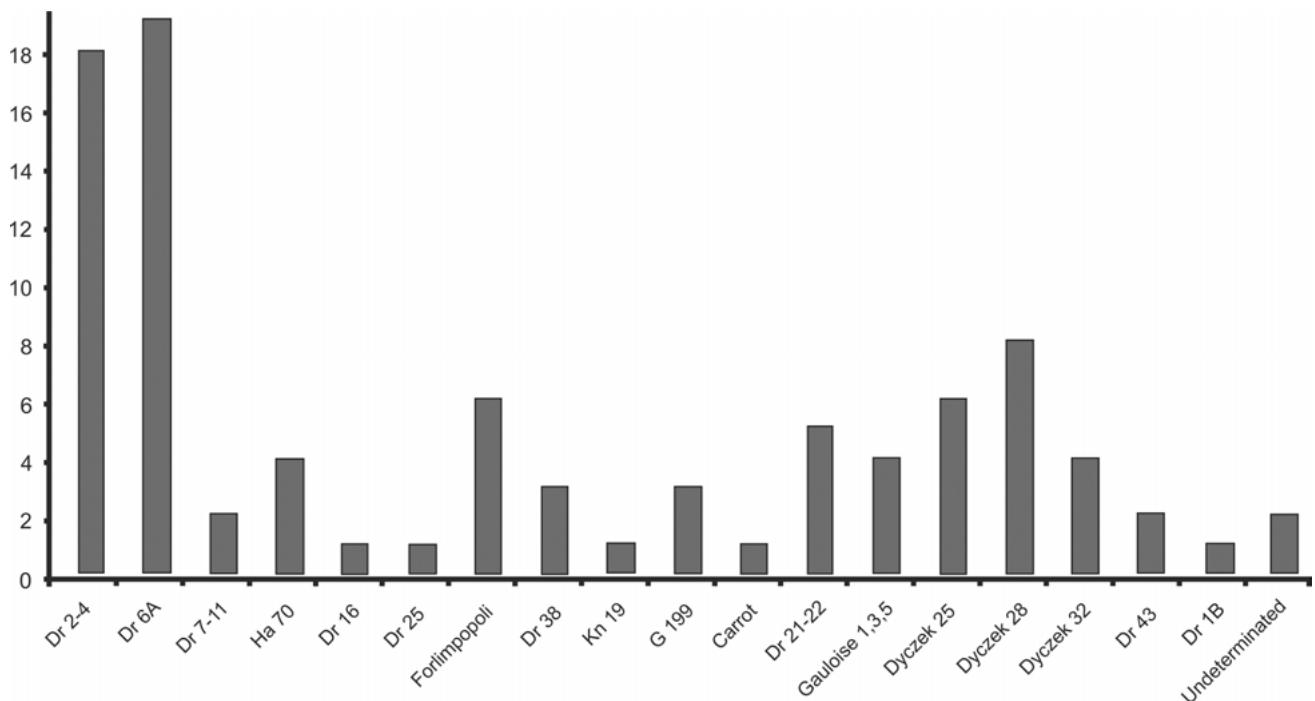
In recapitulation, Italic wine and fruit dominate the imports until the Flavian age, being connected with the presence in *Novae* of the *VIII Augusta* (fig. 6). From the beginning of this period, that is, with the arrival of the *I Italica*, wine continues to be imported from Italy, but the supply sources become richly diversified. Olive oil and *salsamenta* from

<sup>47</sup> KOLENDO/BOŽILOVA 1997, 117–118.

<sup>48</sup> SARNOWSKI 1980 *passim*.



**Fig. 6.** Types of amphoras and products transported in the relevant containers – *legio VIII Augusta* (M. Bura).



**Fig. 7.** Types of amphoras and products transported in the relevant containers – *legio I Italica* in the Flavian period (M. Bura).

Spain and wine and olive oil from the Pontic region, as well as wine from the Aegean begin to play an important role (fig. 7). The data for this period, both the kinds of products and the regions from which they were imported, are in accordance with the extensive data already collected on the *I Italica* in *Nova* from other legionary buildings excavated in earlier years.<sup>49</sup>

The quantity and typological diversity alone of amphoras recovered from the excavations are hardly sufficient for conclusions concerning the volume of imports. Calculations need to take into account not only the number of containers, but also the considerable differences of capacity. Suffice it to compare Dyczek 28 amphoras, which contained up to 5 l of wine, and Dr 2–4 (Dyczek 1) vessels with a capacity of 27–30 l of wine, almost six times as much. If we consider

<sup>49</sup> DYCEK 2001, 307–337.

these differences,<sup>50</sup> then it will turn out that wine was the main product imported to *Novae*. Large quantities of Campanian wine were ordered (Dr 2–4), but also lesser quantities of different kinds of Gaulish, Spanish and Greek wines. Clearly, this was an order meant to meet the demands of a smaller group of presumably wealthier individuals, accustomed to more sophisticated wines. Olive oil came in second place, but curiously it was olive oil mainly from the Aegean, considering that Dyczek 25 containers produced in the Aegean were the predominant form discovered on site. Some vessels of the Dr 6 B type (Istrian olive oil) and Dr 20 and 33 (Spanish olive oil) appeared in the 2<sup>nd</sup> and 3<sup>rd</sup> centuries AD, but this was hardly import on a large scale.

Few of the amphoras, which were brought to *Novae* in the 1<sup>st</sup> century AD, carried *garum*. On the other hand, since

we do not know what the contents was of some of the amphoras produced in the Black Sea littoral, we cannot exclude that *salsamenta* produced in some of the cities on the Black Sea coast or, as said earlier, in the Aegean, were brought in these vessels.

The results of three seasons of recent excavations, despite their provisional character, have already contributed significantly to a study of the supply sources for the legions stationed on the Lower Danube in the 1<sup>st</sup> century AD. Some of the new observations have confirmed previous findings, others are entirely new, helping to understand not only the functioning of the legions, but also the economic phenomena involved. In a sentence, they give us better insight into the everyday life of the Roman legionary.

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<sup>50</sup> Ibid. 269–276.

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