

## UNDER LOCK AND KEY. RECENT ARCHAEOLOGICAL EXCAVATIONS ON THE JIJILA VALLEY (NW DOBRUJA)

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**Abstract:** This study presents the results of an archaeological excavation conducted in the Jijila Valley, where a series of features belonging to the Early Roman period (2<sup>nd</sup>-3<sup>rd</sup> centuries AD), one pit-house and several domestic pits, have been found. The discovered materials include pottery (transport amphorae, storage vessels, fine ware, cooking and drinking ware, and a lamp), iron tools and nails, ceramic building materials, and a fragmentary quern stone. This discovery adds to the already rich repertoire of Roman rural settlements on the banks of the Lower Danube.

**Rezumat:** Acest studiu prezintă rezultatele cercetării arheologice preventive de pe valea Jijilei, unde au fost descoperite o locuință de tip bordei și o serie de gropi menajere, databile în perioada romană timpurie (sec. II-III p. Chr.). Dintre materialele recuperate și cercetate se numără fragmentele ceramice (de amfore, vase de depozitat, veselă de gătit, băut și servit și un opaiț), cuie și fragmente de unelte din fier, material ceramic de construcție și o râșniță fragmentară din piatră. Aceste descoperiri aduc noi informații despre așezările rurale de epocă romană de pe malurile Dunării de Jos.

**Keywords:** Early Roman period, rural settlement, Roman pottery, pit-house.

**Cuvinte cheie:** Perioadă romană timpurie, așezare rurală, ceramică romană, bordei.

### INTRODUCTION

The archaeological excavations performed in northwestern Dobruja ever since the second half of the 19<sup>th</sup> century have revealed numerous sites, the oldest discoveries belonging to the Late Neolithic period.<sup>1</sup> Special attention was given to ancient testimonials regarding the Danube limes of the Roman Empire. Favorable conditions for the development of human and natural resources were met outside the fortified urban centers (*Troesmis*, *Arrubium*, *Dinogetia* or *Noviodunum*). Farms, workshops and various other constructions within the rural settlements reached sometimes impressive proportions. Field research conducted in the rural environment, especially by Victor Henrich Baumann, has shown the complexity of the human communities in the Roman period.<sup>2</sup>

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<sup>1</sup> Micu 2006.

<sup>2</sup> Baumann 1983; Baumann 1995.

The present paper is based on our research conducted in the summer of 2020 on the Jijila Valley, as a result of excavation works needed for the expansion of high-speed internet network in the region.

This area is known for its archaeological potential due to several surveys done in the past (1990, 2001, 2012). Moreover, in the proximity of the Jijila Valley (known as either *Cetățuia* = ‘the Fort’ or ‘Movila Popei Isac’ = ‘the mound of Father Isaac’) archaeological excavations were conducted in a fortified settlement dating to the Early Iron Age.<sup>3</sup> Nearby, to the north, a medieval-era settlement had been identified, as well as an early Roman settlement (the ‘Jijila–Izvor’ point) to the northeast (Fig. 1).

The archaeological site at Jijila–Izvor is known since 2005, when research conducted at Jijila–*Cetățuia* required a trial trench (2×4 m) at the northeastern extremity. This excavation revealed a waste pit containing ceramic material belonging to a period between 1<sup>st</sup> century BC and 1<sup>st</sup> century AD.<sup>4</sup>

In the following sections of this study, we will be discussing the archaeological contexts and the material found therein, observing the relationship between different artifact categories and their use. Furthermore, we will attempt to correlate all the data for a better understanding of the uncovered features and finds.

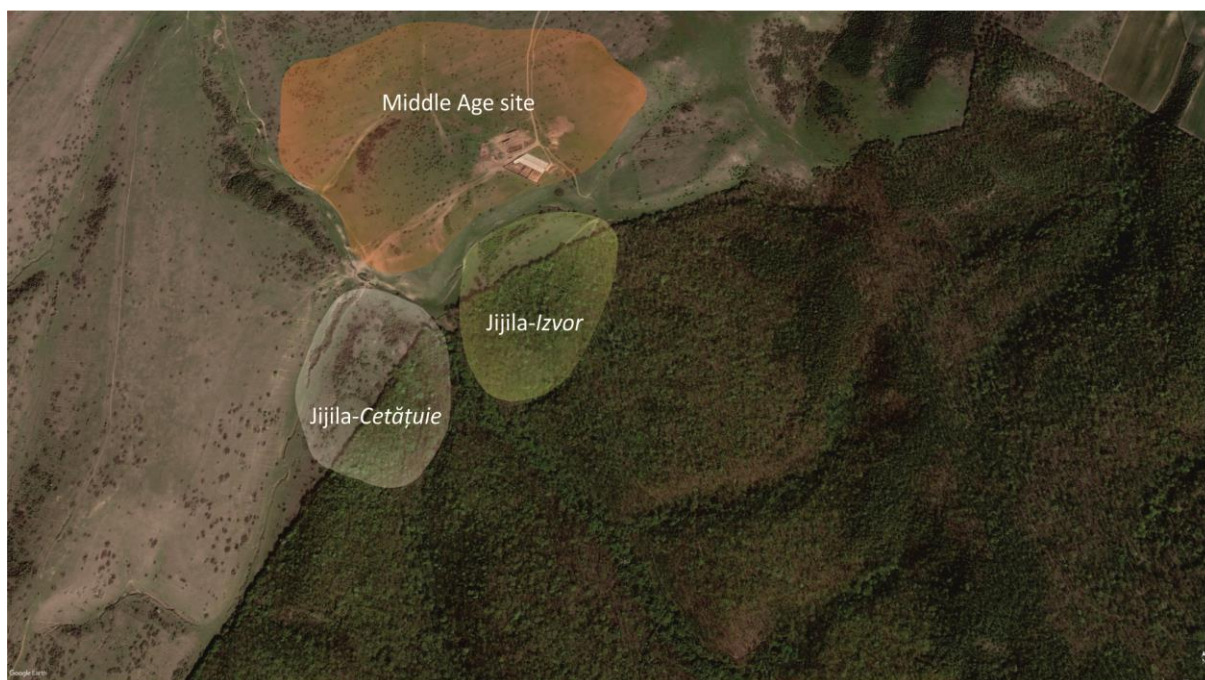


Fig. 1. Aerial view of sites identified on the Jijila Valley.

## EXCAVATION DETAILS<sup>5</sup>

The preventive archaeological expedition of 2020 was required due to the high-speed internet network expansion that was about to intersect the north end of the *Cetățuia* promontory, as well as the Jijila–Izvor site, from the southwest to the northeast. Thus, in

<sup>3</sup> Sîrbu *et alii* 2008.

<sup>4</sup> Sîrbu *et alii* 2008, 36-37, Fig. 19/4; 69/1-4.

<sup>5</sup> Responsible for the excavation, discovery of objects and recording of the archaeological data was Sorin-Cristian Ailincăi.

order to identify and protect possible archaeological remains, we chose to excavate a trench 2.60 m wide and 175 m long, which followed the forest line (Fig. 2).

The stratigraphy is composed of two layers: an upper, brown, rather loose soil (humus layer), which had a thickness between 0.10 and 0.50 m, and a lower layer, composed of reddish-yellow clay (loess).

The excavated perimeter revealed the following archaeological features:

- Cx. 1 – pit dug into a reddish-yellow soil. It was shaped like a cone open from the top, with a depth of 1 m, and the diameter of the opening of 1.75 m (Fig. 3). It contained a roman lamp, as well as a few Roman pottery fragments.
- Cx. 2 – pit with an oval shape, slightly sloped walls, with a depth of 1 m, and the diameter of the opening of 1.75 m, similar to Cx. 1 (Fig. 3). It contained Roman pottery and few ceramic building material fragments.
- Cx. 3 – large pit that could have been a part of a pit-house (other than Cx. 4, see below). Partially visible on the eastern trench wall (Fig. 3). It contained several Roman ceramic building material fragments.

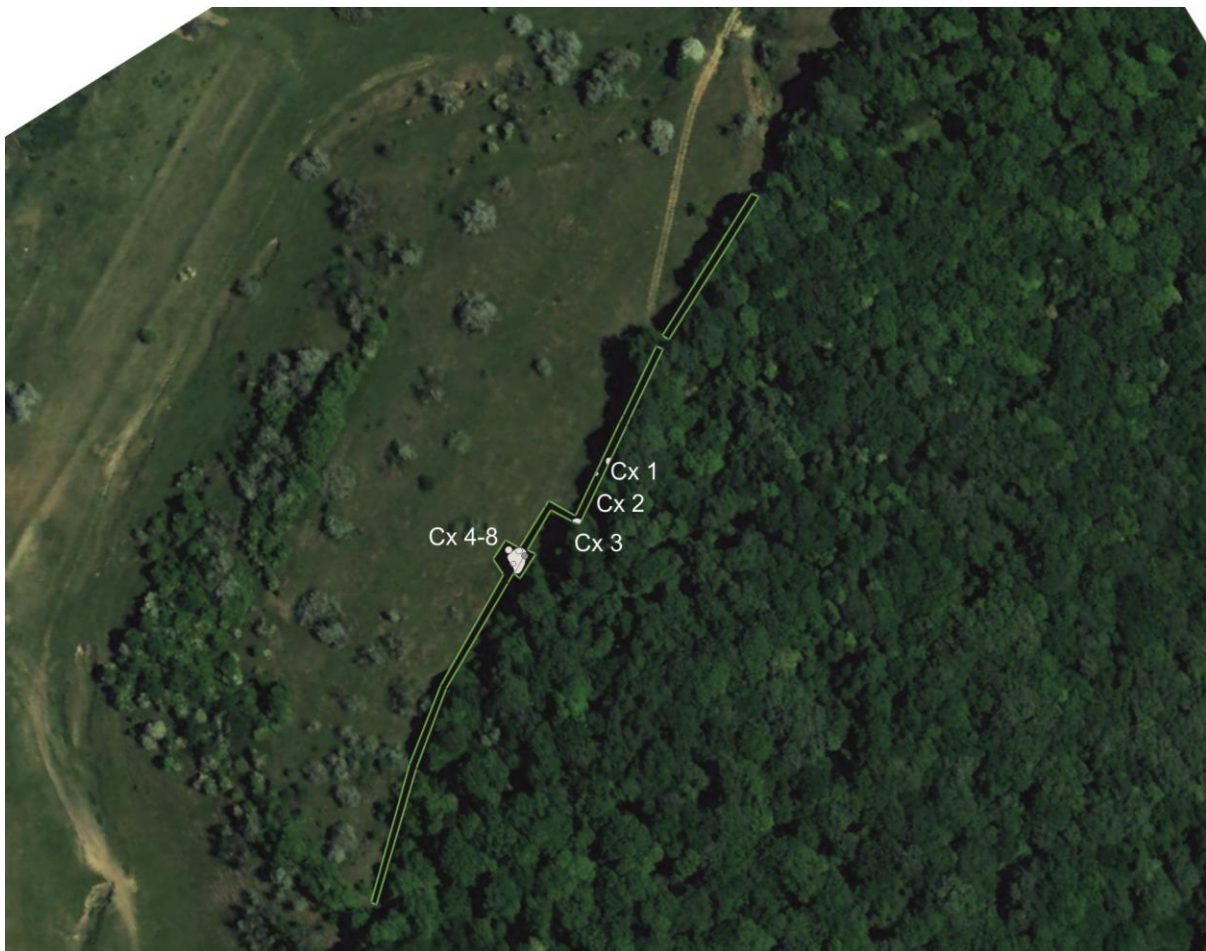


Fig. 2. Excavation plan of Jijila–Izvor, summer of 2020.

- Cx. 4 – pit-house with generous proportions (Fig. 2; 5). It had an irregular, oblong shape, oriented S-SW–N-NE. It had a ramp access from the south. It had a maximum length of 10 m and width of 5 m, reaching 1.25 m in depth.

The soil that filled the northern part of this pit-house contained a significant quantity of Roman ceramic building material (*tegulae et imbrices*) and iron nails, most likely from the collapsed roof and furniture items. On the floor of the pit-house we identified and excavated two pits (Cx. 6 and Cx. 9), which contained pottery fragments and a large quantity of animal bone remains.<sup>6</sup> The pits must have had the initial role of storing and protecting foodstuffs, but eventually became waste pits.

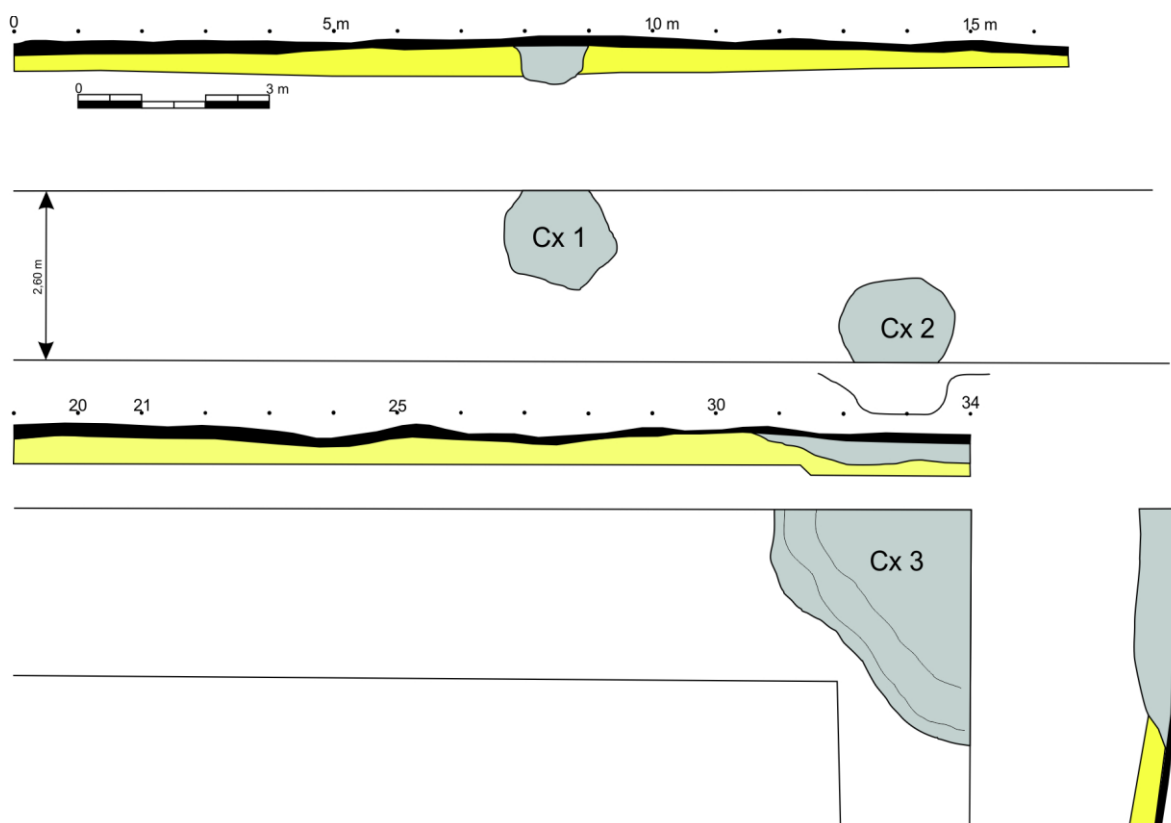


Fig. 3. Cx. 1-3 from Jijila-Izvor.

Cx. 5 and Cx. 8 – domestic pits that postdate the pit-house. Cx. 5 was observed on the southern side of the pit-house as having a circular shape, with 1.5 m in diameter. The walls have been dug vertically down to 1.25 m. It contained numerous Roman pottery and few ceramic building material fragments. Meanwhile, Cx. 8 was identified on the northern side of the pit-house, having a circular shape, similar to Cx. 5, slightly larger in diameter (1.75 m), with its walls dug vertically down to 1.30 m. On the bottom, we found a well-preserved iron sickle and Middle Ages pottery fragments.

Cx. 7 – pit that seems to predate the pit-house, partially overlapped by the dwelling (Fig. 5; 6). It had an oval shape, with the maximum diameter of 2.25 m and depth of 0.35 m. It contained several Roman pottery fragments.

<sup>6</sup> The zooarchaeological material is currently under study and it will be published at a later date.

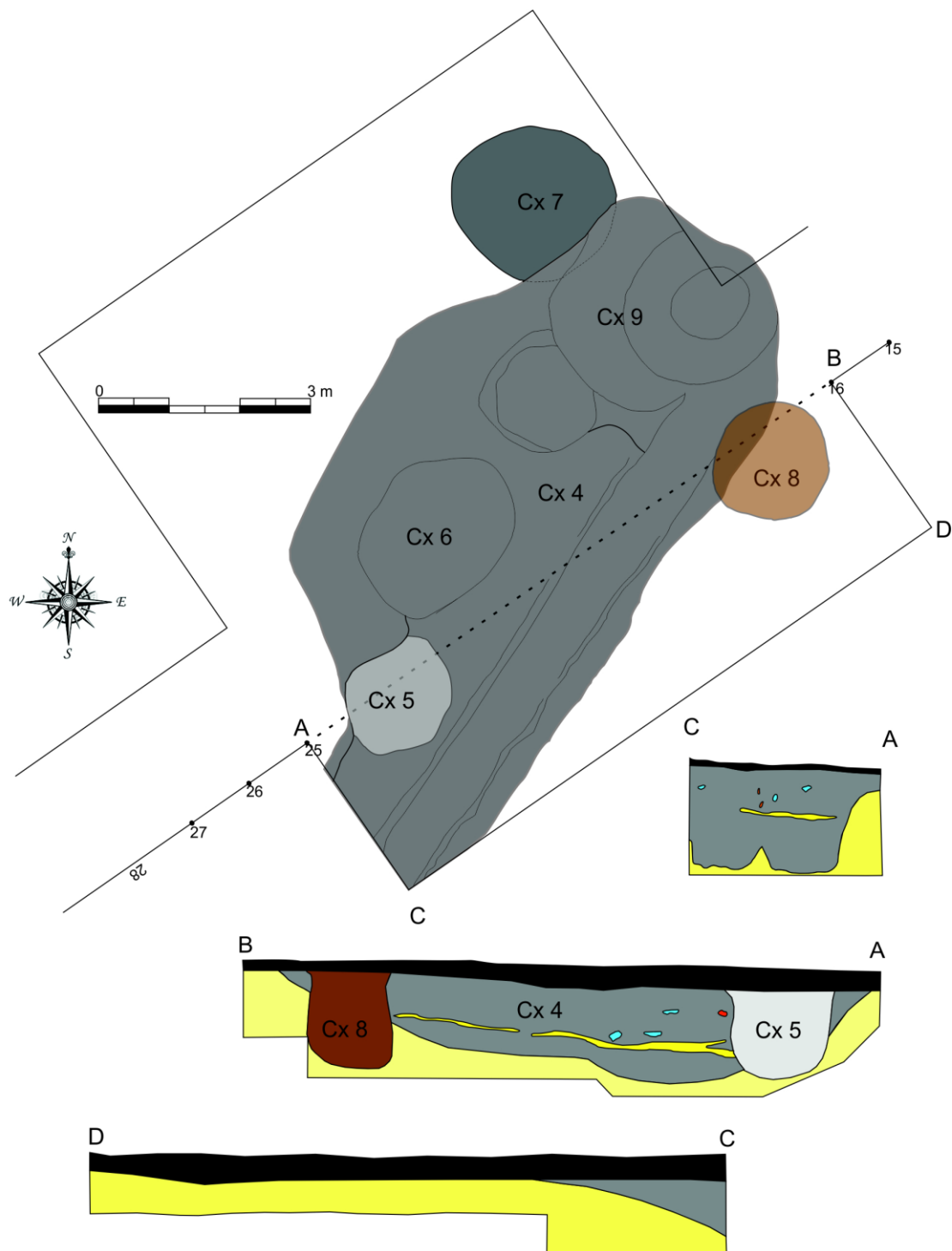


Fig. 4. Cx. 4-9 from Jijila-Izvor.

## ARCHAEOLOGICAL FINDS<sup>7</sup>

### 1. Amphorae

From the total number of pottery fragments recovered (971), the ones attributed to *amphorae* are 338, representing 34.8%. We were able to identify, based on a number of only

<sup>7</sup> The material was studied as follows: chapters 1-4 by Radu-Octavian Stănescu, 5-8 by Marian Mocanu, and 9-11 by Alexandra Dolea.

22 typical, representative items, several olive oil and wine transport *amphorae* dated roughly between the 1<sup>st</sup> and 3<sup>rd</sup> centuries AD. For determining the colors and granular structure density, we used the Munsell Soil-Color Charts<sup>8</sup>, while also consulting a glossary of geological terminology used in the study of archaeological ceramic objects written by C. Ionescu and L. Ghergari.<sup>9</sup> Using analogies and literature, we were able to identify and divide the *amphorae* into two groups: a Mediterranean and a Pontic origin group.

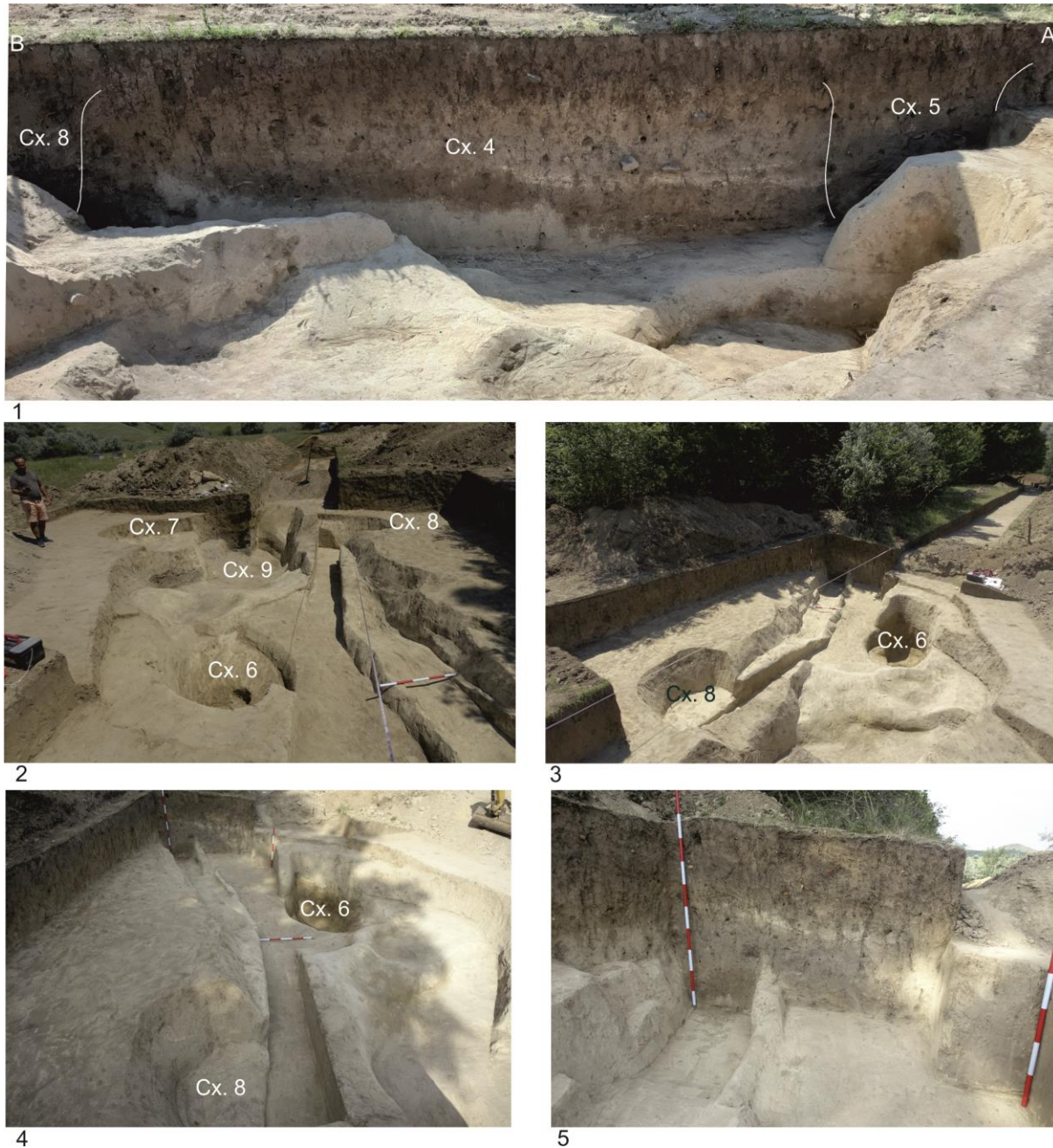


Fig. 5. Cx. 4-9 from Jijila-Izvor: 1. Median profile (A-B); 2-4. Overview of Cx. 4-9; 5. Entrance of the pit-house (Cx. 4).

<sup>8</sup> Munsell 2009.

<sup>9</sup> Ionescu, Ghergari 2006, 451-460.

## 1A. Eastern Mediterranean origin

### Dressel 24/Similis<sup>10</sup>

The only amphora for oil transport identified on site, it played an important part in the supply of the Eastern provinces of the Roman Empire. Starting in the Hellenistic period, production of this type continues until the beginning of the 3<sup>rd</sup> century AD, as shown by research conducted around Kios-Erythrai-Kyme.<sup>11</sup> Furthermore, the diversity of fabrics indicate several productions centers around the Eastern Mediterranean. Documented discoveries of these types at the Lower Danube are: *Halmyris*, *Aegyssus*, *Noviodunum*, *Dinogetia*, *Troesmis*, *Tropaeum Traiani*, *Durostorum*, *Novae*.<sup>12</sup>

General form characteristics include a wide, incurved (funnel-shaped) rim connected to a conical neck and pear-shaped body that ends in a conical base with a small foot.<sup>13</sup> The volume of this type varies from 56 to 94 liters<sup>14</sup>, with an average of 66.4 (±13.7) liters.<sup>15</sup> This volume can be translated to 20 attic *choes* or roughly 121 *sextarii*.<sup>16</sup> The recovered rim fragment is most likely to come from a Dressel 24 *Similis* variant.<sup>17</sup>

#### Catalog:

1. JIJ-IZV2020/012-016: Rim fragment (approx. 33% complete from two distinct pieces) with an uneven firing, very fine granular structure, zonal structure (exterior half – Munsell 10YR 7/4 very pale brown; interior half – 2.5YR 6/6 light red), slip wash – 7.5YR 7/4 pink. Muscovite particles observed. The outer surface is flat and smooth, while on the inside there are some grooves. Has a short, deep *ante cocturam* (before firing) cut at about half length.

Context: one piece in Cx 4, the other in Cx 7. Size18: L=6.5 cm, w=0.6 cm, md=14 cm, rd=16.4 cm.

Analogy: Opaïț, Ionescu 2016, plate XIV/82; Bruno 2002, 296, fig. 31; Bezeczky 2013, plate 10/111 and 113; Riley 1985, fig. 87/288; Bondoc 2016, p. IV/2.

### Cretan 1<sup>19</sup>

Best described in the work of Marangou-Lerat on the *amphorae* produced on island of Crete, the type Cretan 1 circulates under several names: Agora G197, Agora K112, Pompéi X, Berenice MRA 2, Ostia III/373, Ostia IV, Knossos 2, Peacock-Williams Class 41<sup>20</sup> or even Dyczek Type 20.<sup>21</sup> This type has not been documented so far at the Lower Danube.

<sup>10</sup> Dressel 1879, 36-112, 143-196.

<sup>11</sup> Opaïț, Tsaravopoulos 2011, 275-323.

<sup>12</sup> Paraschiv 2006, 18.

<sup>13</sup> Stănescu 2018, 211.

<sup>14</sup> Opaïț, Paraschiv 2013, 319; Paraschiv 2006, 17-19;

<sup>15</sup> Vidal, Corredor 2018, 304, table 1.

<sup>16</sup> 1 attic *chous* = 3.282 liters, and 1 *sextarius* = 0.545 liters. 1 Roman *amphora* (the measuring unit for volume, not the ceramic category) was equivalent to 8 *choes* = 26.26 liters. For more details see Landels 1978, 169, table 3.

<sup>17</sup> Opaïț, Ionescu 2016, 67-68.

<sup>18</sup> The legend used for the description of the ceramic fragments is as follows: L=length, l=height, w=wall thickness, r=rim thickness, d=diameter of handle, md=diameter of the mouth(opening), rd=diameter of the rim(exterior), nd=diameter of the interior of the neck, fd=diameter of the foot/flat base, bd=maximum diameter of the body (if round).

<sup>19</sup> Marangou-Lerat 1995, 67-77; Bertoldi 2017, 127.

<sup>20</sup> Marangou-Lerat 1995, 67. For more details, see note (79).

<sup>21</sup> Dyczek 2001, 149-153.

The rim fragment we found matches the AC1 c variant. It was produced at *Keratokambos-Est* in the 3<sup>rd</sup> century AD.<sup>22</sup> Its ridged body had an ovoid shape, handles oval in cross-section and a short, cylindrical neck ending in a rounded rim. These body characteristics are common in AC2, AC3 and AC4 as well, but what makes the AC1 c variant stand out is the more profound ridges, an “umbilicus” shaped base and last but not least, a rolled, outturned rim, oval in cross-section, which has a 1-2 mm deep groove. The average approximate volume is 25.7(±4.5) liters,<sup>23</sup> although Marangou-Lerat found AC1 c vessels to be slightly smaller with a slightly wider rim.<sup>24</sup> This volume corresponds to almost 8 *choes*/47 *sextarii* or almost 1 *amphora*, respectively. Cretan *amphorae* were famous for transporting different types of wine, which had various uses, from medicinal to plain consumption.<sup>25</sup>

Catalog:

2. JIJ-IZV2020/005: Rim fragment characterized by an even firing, very fine granular structure, matrix color Munsell 5YR 6/6 reddish yellow. No slip wash preserved or it is the same color as the fabric. The surface of the rim and neck is smooth.

Context: Cx 4. Size: L=6 cm, w=1 cm, md=14 cm, rd=16.3 cm.

Analogy: Marangou-Lerat 1995, pl. VIII, fig. 42/ A 58.

#### Cretan 4<sup>26</sup>

The same aforementioned author finds this type of *amphorae* under several names such as Dressel 43, Mau XXXVI, Knossos 4-5, Hayes type VII, Berenice ERA 3, Ostia II/525, Vindonissa 591, Zeest 67b<sup>27</sup> or Dyczek Type 19.<sup>28</sup> Documented discoveries of these types at the Lower Danube are: *Aegyssus*<sup>29</sup>, *Troesmis*, *Novae*.<sup>30</sup>

It resembles a form imitation of Rhodian “horned” *amphorae*<sup>31</sup> (at least in the upper part) made in the Roman Imperial Period, albeit smaller, with an average capacity of 10.9(±2.9) liters.<sup>32</sup> This volume is equivalent to about 3 *choes* or 20 *sextarii*. Smaller vessels can only reach 5 liters.<sup>33</sup> The amphora has a fusiform body that ends in a small, conical base, high swung “horned” (spur) handles almost round in cross-section, a short, cylindrical neck, and a discreet, rolled rim. Three production centers were identified so far, leading to three variants of this amphora<sup>34</sup>, but the fragment found seems to belong to the AC4 a made at *Heraklion* in the 1<sup>st</sup> and 2<sup>nd</sup> centuries AD.

Catalog:

3. JIJ-IZV2020/018: Handle fragment (upper part) characterized by an even firing, very fine granular structure, matrix color Munsell 7.5YR 7/4 pink, slip wash – 2.5Y 8/2 brown. Muscovite particles can rarely be seen.

<sup>22</sup> Marangou-Lerat 1995, 73.

<sup>23</sup> Vidal, Corredor 2018, 303, table 1.

<sup>24</sup> Marangou-Lerat 1995, 73.

<sup>25</sup> Marangou-Lerat 1995, 2-3.

<sup>26</sup> Marangou-Lerat 1995, 84-89; Bertoldi 2017, 130.

<sup>27</sup> Marangou-Lerat 1995, 84. For more details, see note (128); Paraschiv 2006, 81.

<sup>28</sup> Dyczek 2001, 144-149.

<sup>29</sup> Stănescu 2018, 210.

<sup>30</sup> Paraschiv 2006, 81.

<sup>31</sup> *Camulodunum 184* found in Bertoldi 2017, 133.

<sup>32</sup> Vidal, Corredor 2018, 305, table 1.

<sup>33</sup> Marangou-Lerat 1995, 84.

<sup>34</sup> Marangou-Lerat 1995, 85-87.



Context: Cx 4. Size: L=4.6 cm, l=4.3 cm, d=2.1x1.8 cm.

Analogy: Marangou-Lerat 1995, pl. XIX, fig. 70/ A 126; Stănescu 2018, 210, cat. no. 1, fig. 4/1.

#### Kapitän II<sup>35</sup>

This Mediterranean amphora without a certain origin point (albeit an Aegean one has been frequently proposed<sup>36</sup>, most notably *Chios*<sup>37</sup>) is also known as Agora K 113<sup>38</sup>, Berenice MRA 7<sup>39</sup> and Zeest 79.<sup>40</sup> This amphora was used to carry wine from the 2<sup>nd</sup> to the 4<sup>th</sup> centuries AD to almost every corner of the Roman Empire.

Documented discoveries of these types at the Lower Danube are: *Halmyris*, *Aegyssus*, *Noviodunum* (in its territory at Telița–Amza), Barboși, *Troesmis*, *Sacidava*, *Novae*.<sup>41</sup>

General characteristics include a conical body, the base of the vessel in the form of a rather wide, hollow, tubular foot, high swung, grooved handles, slightly oval in cross-section and a conical neck ending with a molded rim that has a deep ridge and a very sharp flange, at least in later variants.<sup>42</sup> Average capacity is known to be 11(±2.1) liters<sup>43</sup>, corresponding to approximately 3 *choes* or 20 *sextarii*.

#### Catalog:

4. JIJ-IZV2020/002-003: Handle fragment (from 2 pieces) characterized by an even firing, very fine granular structure, matrix color Munsell 5YR 6/6 reddish yellow. Muscovite and quartzite particles are present. Same-color slip wash seems applied.

Context: Cx 4. Size: L=23.3 cm, l=3.6 cm, d=3.8x2.2 cm.

Analogy: Opaïț, Ionescu 2016, plate IV/21 (for handle cross-section), 23 (for fabric); Riley 1985, fig. 84/273; Зеест 1960, plate XXXIII/79 б.

#### Bezeczky 17<sup>44</sup>

Also known as a “Broad Chalice Rim Amphora” or Ephesus 29, it seems to be a rather rare occurrence not only in Ephesus<sup>45</sup>, where we found a good analogy for our fragment, but in other places of the eastern parts of the Roman Empire as well. This type has not been documented so far at the Lower Danube.

We have found only a widely beveled rim, which narrows down where the rim should have met the neck of the amphora. It slightly resembles the *Dressel 24* type of rim, albeit shorter, as far as we can tell. Dating is roughly in the 2<sup>nd</sup> to 3<sup>rd</sup> centuries AD. The contents of these *amphorae* are unknown, for the time being, although there is equal probability that it could have transported oil, wine as well anything else. No information about capacity, so far.

<sup>35</sup> Kapitän 1972, 248; Bertoldi 2017, 135;

<sup>36</sup> Riley 1979, 192.

<sup>37</sup> Opaïț, Ionescu 2016, 68.

<sup>38</sup> Robinson 1959, 69.

<sup>39</sup> Riley 1979, 189-193.

<sup>40</sup> Зеест 1960, 113 and plate XXXII/79.

<sup>41</sup> Paraschiv 2006, 88.

<sup>42</sup> Stănescu 2018, 213; Opaïț 2004, 26; Paraschiv 2006, 87; Riley 1979, 189.

<sup>43</sup> Vidal, Corredor 2018, 305, table 1.

<sup>44</sup> Bezeczky 2013, 84-85.

<sup>45</sup> Bezeczky 2013, 84.

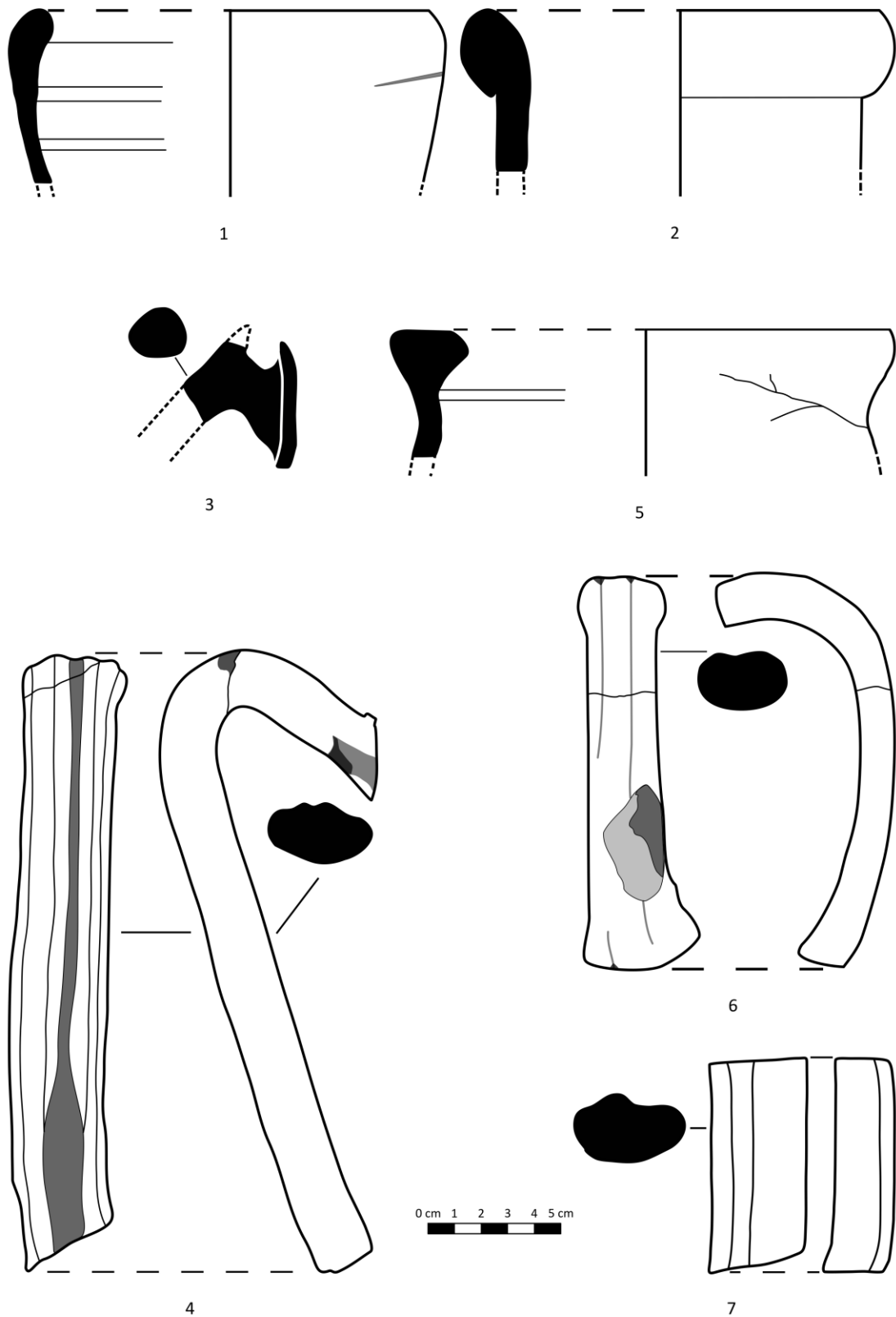


Fig. 6. Oriental (1-5) and Pontic Amphorae (6-7).

## Catalog:

5. JIJ-IZV2020/011: Rim fragment with an even firing, very fine granular structure, matrix color Munsell 7.5YR 6/4 light brown. There are many quartzite particles present. No slip wash present, and both inner and outer surfaces are porous.

Context: Cx 4. Size: L=4.7 cm, w=0.7 cm, md=14.7 cm, rd=19 cm.

Analogy: Bezeczky 2013, 85, cat. no. 148, plate 13/148.

**1B. Pontic origin**Šelov B, C and D<sup>46</sup>

The “Heracleean light-clay narrow-necked amphora”<sup>47</sup> type was rather widespread in the Pontic basin from the 1<sup>st</sup> century to the end of the 3<sup>rd</sup> century AD. So far, based on the color and composition of the used clay, these *amphorae* are known to have been produced at both *Heraclea Pontica* and *Sinope*.<sup>48</sup> They have been identified and described at Knossos (Knossos 14<sup>49</sup>), Crimea (Zeest 64,<sup>50</sup> 91-94,<sup>51</sup> 104,<sup>52</sup> 105<sup>53</sup>) and the Lower Danube (Dyczek Type 28<sup>54</sup>, Paraschiv Type 3<sup>55</sup>).

Documented discoveries of these types at the Lower Danube are: *Halmyris*, *Salsovia*, *Aegyssus*, *Noviodunum* (also within its *territorium* – Capaclia, Telița–Amza), *Dinogetia*, *Arrubium*, *Troesmis*, *Beroe*, *Carsium*, *Novae*.<sup>56</sup> They have been known to contain wine.

Morphological characteristics include a conical body (a more slender *B* variant, a bulkier *C* and *D* variants), a long, narrow neck ending with a short, either rolled (*B* variant) or molded (*B*, *C* and *D* variants) rim. The handles have a distinct ridge along the middle (for *B* and *C* variants), being rather oval in cross-section, ending in a conical ring foot (thinner for *B* and *C* variants, larger for *D* variant). Later variants<sup>57</sup> tend to shorten and become more rounded, with a ridged body and having less capacity<sup>58</sup> (from about 10 liters/20 *sextarii* to as little as 3<sup>59</sup> to 2<sup>60</sup> liters, less than 1 *chous*, as reported for *D* variant). The fabric is mostly identical throughout the samples, except for slight differences in color caused by different firing temperatures or other variations in the production processes throughout time. The *B* variant (cat. nos. 8, 10, possibly 11) is known to be dated between the second half of the 1<sup>st</sup> century – first half of the 2<sup>nd</sup> century AD,<sup>61</sup> The *C* variant (cat. nos.

<sup>46</sup> Šelov 1986, 396, fig. 1; Šelov 1986, 397-398.

<sup>47</sup> Šelov 1986, 395.

<sup>48</sup> Kassab Tezgör 2009, 134-135.

<sup>49</sup> Hayes 1983, 146.

<sup>50</sup> Зеест 1960, 110.

<sup>51</sup> Зеест 1960, 117-118.

<sup>52</sup> Зеест 1960, 121.

<sup>53</sup> Зеест 1960, 122.

<sup>54</sup> Dyczek 2001, 202-220.

<sup>55</sup> Paraschiv 2006, 19-24.

<sup>56</sup> Paraschiv 2006, 20-23.

<sup>57</sup> Внук 2016, 36-47.

<sup>58</sup> Opař 2004, 31-32, Paraschiv 2006, 20-24.

<sup>59</sup> Šelov 1986, 397; Vidal, Corredor 2018, 307, table 1.

<sup>60</sup> Opař 2004, 31-32, Paraschiv 2006, 19-24, Stănescu 2018, 212.

<sup>61</sup> Šelov 1986, 397; Внук 2016, 40, fig. 3/9-12.

7, 9, possibly 11) in the 2<sup>nd</sup> century AD<sup>62</sup>, while the *D* variant (cat. no. 6) has been found in contexts between the end of the 2<sup>nd</sup> century and first half of the 3<sup>rd</sup> century AD.<sup>63</sup>

#### Catalog:

6. JIJ-IZV2020/001: Handle fragment (almost complete, from 2 pieces) characterized by an even firing, very fine granular structure, matrix color Munsell 7.5YR 7/3 pink. Pyroxene and quartzite particles are abundant. No slip wash observed.  
Context: Cx 4. Size: L=14.8 cm, l=2.7 cm, d=3.2×2 cm.  
Analogy: Šelov 1986, 396, fig. 1/d; Внукoв 2016, fig. 3/16;
7. JIJ-IZV2020/004: Handle fragment (middle part) characterized by an even firing, very fine granular structure, matrix color Munsell 2.5YR 7/6 light red. Pyroxene and quartzite particles present. No slip wash observed.  
Context: Cx 4. Size: L=8 cm, l=3.6 cm, d=4.1×2.5 cm.  
Analogy: Внукoв 2016, fig. 4/12.
8. JIJ-IZV2020/006: Handle fragment (middle part) with an even firing, very fine granular structure, matrix color Munsell 5YR 7/4 pink. Plenty of pyroxene and quartzite particles are observable. No slip wash can be observed.  
Context: Cx 4. Size: L=7 cm, l=3.8 cm, d=3.7×2.2 cm.  
Analogy: Внукoв 2016, fig. 3/12.
9. JIJ-IZV2020/007: Handle fragment (lower part) with an even firing, very fine granular structure, matrix color 2.5Y 8/2 pale brown. Plenty of pyroxene and rare quartzite particles can be seen. There are holes in the matrix. No slip wash observed.  
Context: Cx 4. Size: L=6 cm, l=3.7 cm, d=3.6×2.1 cm.  
Analogy: Внукoв 2016, fig. 4/10.
10. JIJ-IZV2020/009: Rim fragment with an uneven firing, very fine granular structure, zonal “sandwich”<sup>64</sup> structure (outside – Munsell 2.5YR 6/4 light reddish brown; inside – 2.5YR 8/3 pink). Rare quartzite particles can be observed. No slip wash observed.  
Context: Cx 4. Size: L=1.8 cm, md=4.2 cm, rd=6.2 cm.  
Analogy: Зеест 1960, plate XXVIII/64 a; Внукoв 2016, fig. 3/6.
11. JIJ-IZV2020/013: Rim fragment (approx. 75% complete, from 3 distinct pieces) with an even firing, very fine granular structure, matrix color Munsell 2.5YR 7/6 light red. Pyroxene and quartzite particles are present. No slip wash observed.  
Context: Cx 4. Size: L=3.7 cm, w=0.7 cm, md=4.6 cm, rd=6.6 cm.  
Analogy: Opaïț, Ionescu 2016, plate II/7; Внукoв 2016, fig. 3/12; Внукoв 2016, fig. 4/10-13; Stănescu 2018, 213, cat. no. 10, fig. 5/5.

#### Troesmis X<sup>65</sup>

Also known as Knossos 39<sup>66</sup> or Paraschiv Type 4<sup>67</sup>. Possible later development of the Aegyssus 1<sup>68</sup> late Hellenistic – early Roman *amphorae* discovered at *Aegyssus*, present day

<sup>62</sup> Šelov 1986, 397; Внукoв 2016, 42, fig. 4/6-15.

<sup>63</sup> Šelov 1986, 398; Внукoв 2016, 40, fig. 3/16.

<sup>64</sup> The “sandwich” structure refers to the situation where you have an outer layer of the ceramic wall fired in the same manner, hence same color on both the exterior and the interior of the vessel, but the inner layer of the wall is fired differently, caused by changing firing conditions while in the kiln.

<sup>65</sup> Opaïț 1980, 308.

<sup>66</sup> Hayes 1983, 155.

<sup>67</sup> Paraschiv 2006, 25-26.

Tulcea.<sup>69</sup> It is important to mention that at least two fabric variants were observed, leading to more than one origin points<sup>70</sup>, an aspect that we have observed in our ceramic findings as well. For the moment, it is uncertain if these *amphorae* are to be considered Aegean<sup>71</sup>, north Pontic<sup>72</sup>, west Pontic<sup>73</sup> or all of the above. Several morphological variants have also been noted<sup>74</sup>, but this goes beyond the purpose of the present paper.

Documented discoveries of these types at the Lower Danube are: *Aegyssus*, *Noviodunum* (and its territory at Revărsarea and Telița–Valea Morilor), *Arrubium*, *Troesmis*<sup>75</sup> and *Dinogetia*.<sup>76</sup>

*Amphorae* of this type had been dated between the 1<sup>st</sup> and 3<sup>rd</sup> centuries AD. They have a wide, conical body ending in a short, solid conical foot, a somewhat massive neck in the shape of a truncated cone, a round, downturned rim and thick handles either round or oval in cross-section. Average volume is 69 liters.<sup>77</sup> In ancient times, this represents 21 *choes* or almost 126 *sextarii*.

#### Catalog:

12. JIJ-IZV2020/008: Handle fragment with an even firing, very fine granular structure, matrix color Munsell 2.5YR 5/8 red. There are many quartzite and some iron oxide particles present. No slip wash observed.

Context: Cx 4. Size: L=5.5 cm, l=4.6 cm, d=4.4×3.3 cm.

Analogy: Opaïț 2015, 331, pl. 2.

13. JIJ-IZV2020/014-017: Handle fragment characterized by an uneven firing, very fine granular structure, zonal “sandwich” structure (outside – Munsell 5YR 5/6 yellowish red; inside – 7.5YR 6/3 light brown), slip wash – 5YR 5/4 reddish brown.

Context: Cx 4. Size: L=17.5 cm, l=12 cm, w=1.1 cm, d=3.9 cm.

Analogy: Opaïț, Ionescu 2016, plate VII/34.

#### Zeest 76<sup>78</sup>

This “red ware amphora” described by I. B. Zeest is made from orange-red Bosporan clay and is ubiquitous in the territory of the former Bosporan Kingdom. This type has been dated between the 2<sup>nd</sup> and the half of the 3<sup>rd</sup> centuries AD in *Olbia*<sup>79</sup> and the Bosporus. This type has not been documented so far at the Lower Danube.

Unfortunately, the shape of the amphora is only partially known, having been recovered only the upper parts (rim, neck, handles) which leads us to believe it had a similar shape with

<sup>68</sup> Opaïț 1987a, 146.

<sup>69</sup> Opaïț 1987b, 245.

<sup>70</sup> Hypothesis also expressed in Paraschiv 2006, 26.

<sup>71</sup> Opaïț 2015, 330.

<sup>72</sup> Kassab-Tezgör 2020, 65-66.

<sup>73</sup> Paraschiv 2006, 26: It refers to a chapter in the book Baumann 1995, 398-437, but it seems the fragments discussed were not published by the author on the grounds that they were not “local products”. We hope they will be published at a later date.

<sup>74</sup> Kassab-Tezgör 2020, 62-65. The Zeest 75 Similis 1 variant has fabric and some morphological characteristics common to the Troesmis X type, which the author has very well represented in plate XLII/2,4 and 5.

<sup>75</sup> Paraschiv 2006, 25.

<sup>76</sup> Opaïț *et alii* 2020, 160, fig. 2/5.

<sup>77</sup> Vidal, Corredor 2018, 307, table 1.

<sup>78</sup> Зеест 1960, 113.

<sup>79</sup> Krapivina 2010, 70.

other northern Pontic vessels, thus being hard to discern between fragments. Its neck is wide, about 16-22 cm in diameter, with a ribbed shoulder, a round, outturned rim, “massive” handles with an oval or triangular cross-section due to a deep ridge, centrally located and longitudinally positioned on the inside (a distinct feature of this type), while the outside of the handle being flat or slightly ridged.<sup>80</sup> The content was most certainly wine, but the capacity is not known.

Catalog:

14. JIJ-IZV2020/010: Handle fragment with an even firing, very fine granular structure, matrix color Munsell 7.5YR 6/6 reddish yellow, slip wash – 10R 6/5 red. Quartzite and iron oxide particles are present. One can scarcely observe the brush strokes from when the slip wash was applied, and that the slip wash used was more consistent/thicker than usual.

Context: Cx 4. Size: L=8.5 cm, l=3.7 cm, d=4×2.5 cm.

Analogy: Зеест 1960, plate XXXII/76 B.

#### Unidentifiable Pontic type

A very worn out handle fragment was recovered, but could not be attributed to a certain type due to its condition. All that we can observe is the type of clay characteristic to the southern Pontic region (*Heraklea Pontica* or *Sinope*) and that the surviving handle has an oval cross-section.

Catalog:

15. JIJ-IZV2020/015: Handle fragment with an even firing, very fine granular structure, matrix color Munsell 2.5YR 7/6 light red. Pyroxene and quartzite particles can be seen. No slip wash present. The fragment presents severe signs of weathering as well. Similar to cat. no. 7.

Context: Cx 5. Size: L=6 cm, l=6.5 cm, w=1.1 cm, d=4×2.3 cm.

Analogy: none so far.

### 1C. Observations regarding discovered *amphorae*

As was stated in the beginning, the *amphorae* identified belong to either Pontic or Eastern Mediterranean production centers. Because the Troesmis X type, represented by two fragments with different fabric, could belong to either a north Pontic or Mediterranean center, or even one for each, we chose not to attribute it randomly to one or the other. Thus, the remaining *amphorae* types are evenly distributed (5-5) between the Pontus and the Eastern Mediterranean. Known centers are at *Heraklea Pontica* (for the Šelov group), the Bosphorus (for Zeest 76), Crete (for Cretan 1 and 4) and Chios (for Dressel 24 Similis and possibly even Kapitän II). The fabric characteristics of the unidentified amphora at cat. no. 15 seem to point to *Heraklea Pontica*. We could not find fragments of amphora lids (neither original lids, nor repurposed ceramic fragments) in either of the pits.

The common chronological interval of these *amphorae* is between the 2<sup>nd</sup> and 3<sup>rd</sup> centuries AD. The Bezczky Type 17 fragment seems to have come from an Eastern Mediterranean production center, and it is also the earliest, dated to the 1<sup>st</sup> century AD. The Cretan 1c, Šelov D and Troesmis X amphora fragments are the latest, dated to the 3<sup>rd</sup> century AD.

<sup>80</sup> Зеест 1960, 113.

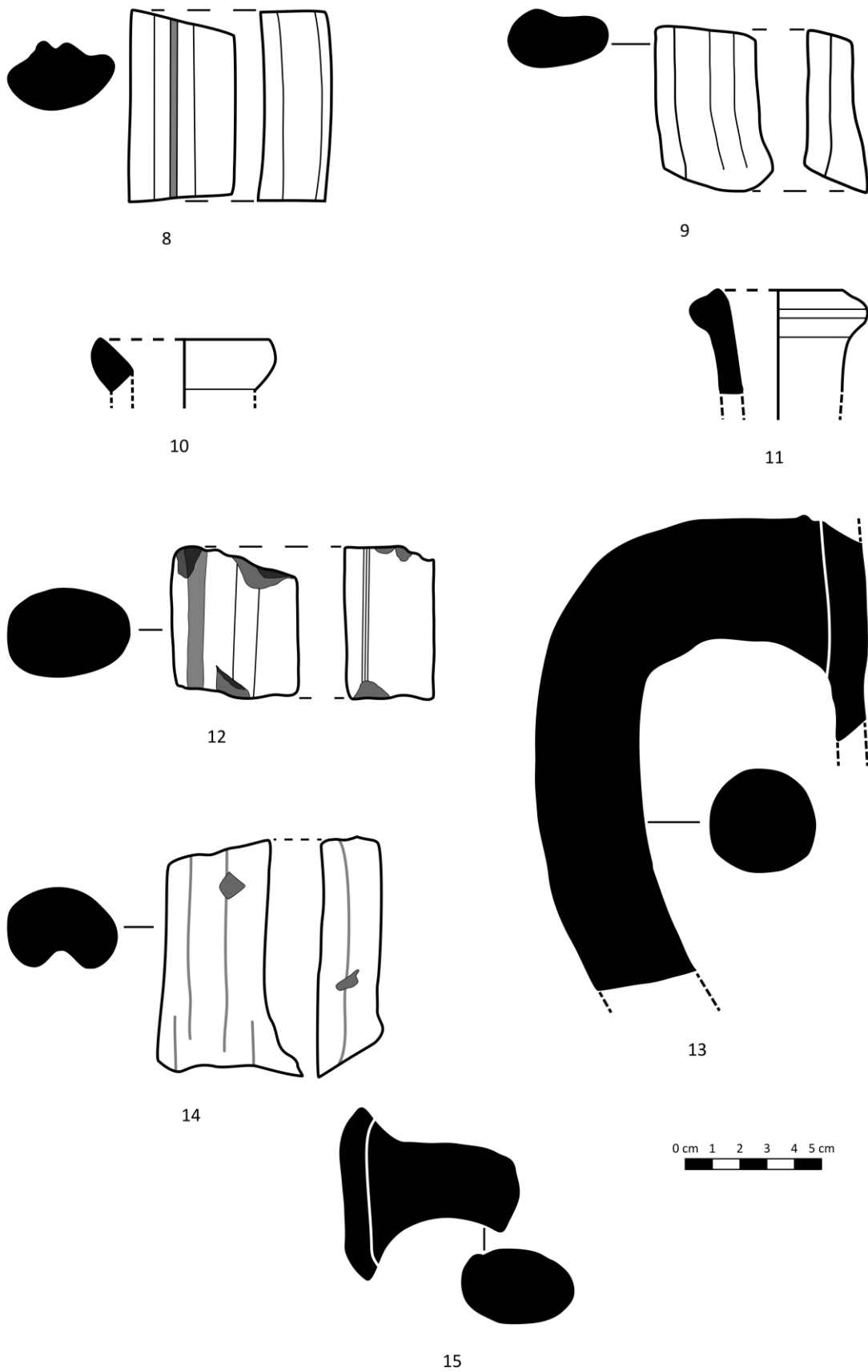


Fig. 7. Pontic amphorae.

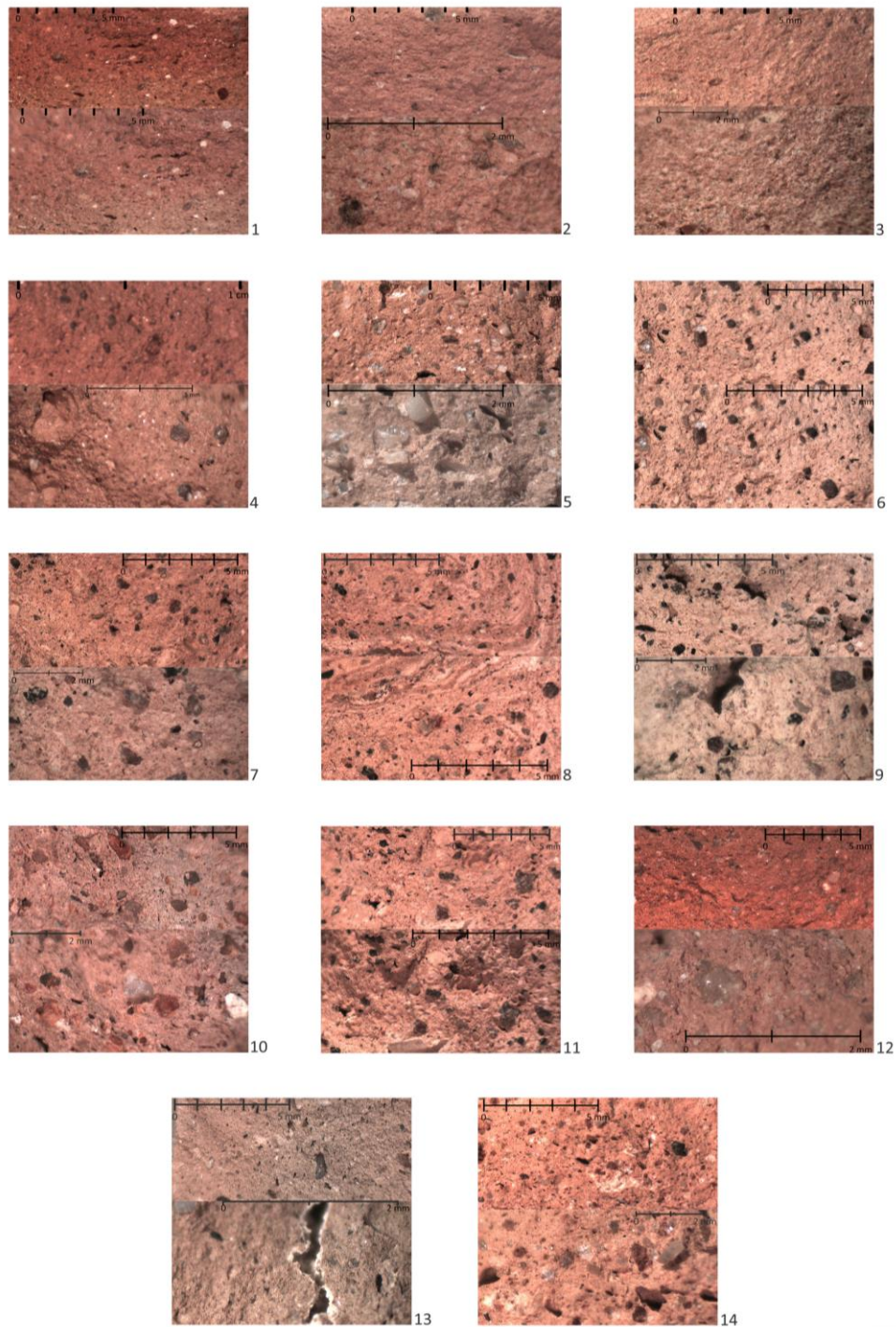


Fig. 8. Macroscopic details of amphorae fabric: 1) cat. no. 1 – 7× magnification (up) and 10× (down); 2) cat. no. 2 – 8× magnification (up) and 30× (down); 3) cat. no. 3 – 7× magnification (up) and 20× (down); 4) cat. no. 4 – 7× magnification (up) and 20× (down); 5) cat. no. 5 – 8× magnification (up) and 30× (down); 6) cat. no. 6 – 7× magnification (up) and 10× (down); 7) cat. no. 7 – 8× magnification (up) and 20× (down); 8) cat. no. 8 – 8× magnification (up) and 10× (down); 9) cat. no. 9 – 10× magnification (up) and 20× (down); 10) cat. no. 10 – 8× magnification (up) and 20× (down); 11) cat. no. 11 – 7× magnification (up) and 10× (down); 12) cat. no. 12 – 7× magnification (up) and 30× (down); 13) cat. no. 13 – 8× magnification (up) and 30× (down); 14) cat. no. 14 – 8× magnification (up) and 20× (down).



## 2. *Vasa conquinatoria*

The cooking ware category amounts to 29.5% (286 fragments) of the total number of pottery recovered. The majority of the cooking ware fragments have been wheelthrown and belong to what is known as Lower Danube Kaolinitic Ware (LDKW). The variety of proportions in temper and that of firing, alongside the wide distribution range in mainly the Lower Danube area (Pannonia Inferior, southern Dacia, Moesia Superior and Inferior) if not with a higher concentration in Dobruja<sup>81</sup> (*Durostorum*, *Sacidava*, *Callatis*, *Tomis*, *Histria*, *Troesmis*, *Dinogetia*, *Halmyris*<sup>82</sup>), clearly suggest several production centers.

In the area between the Danube and the Black Sea, the nearest known deposit of suitable clay containing kaolinite is attested on the Carasu valley, in close proximity to *Axiopolis* (Hinog, Cernavodă).<sup>83</sup> This knowledge<sup>84</sup> was expanded by C. Băjenaru's study<sup>85</sup> on the "Late Roman kaolinitic pottery" found in the province of *Scythia*, where a more detailed geological map can be seen, albeit still too far south for our fragments' place of discovery, allowing for more sources to be determined.<sup>86</sup> Nevertheless, the only certain/researched ceramic workshops that produced such vessels and are close enough, in terms of provincial trade proximity, are those found at *Castelu*, on the *Tomis – Axiopolis* road<sup>87</sup> and *Durostorum*.<sup>88</sup>

The fact that different types of such vessels are found together (pots, jugs, bowls, drinking cups, sometimes even table amphorae) leads to the assumption that they were part of a group or "package", appearing as a practical, functional and even affordable set, fitting for army detachments.<sup>89</sup> Their discovery in a civilian context implies a connection with the military units who mostly used them, if we were to follow the "legionary pottery" hypothesis, or with the same ceramic supply chain.

Apart from the LDKW vessels – one jar/one-handled pot, two two-handled pots, one casserole and several frying pans (fig. 17-24) – we recognized only a single two-handled pot/jar (Fig. 16), made from a different type of clay, similar to one of Popilian's Type 4 two-handled pot, discovered in the necropolis of *Romula*.<sup>90</sup>

Catalog:

16. JIJ-IZV2020/040: Rim, body and handle fragment (50% complete) of a two-handled pot with uneven firing, zonal "sandwich" structure (outside – Munsell 7.5YR 5/4 brown, inside – 7.5YR 3/3 dark brown), slip wash – 7.5YR 5/3 brown. The vessel has a straight projecting rim. The handle has two longitudinal grooves and it is cleanly attached on the rim and on the middle of the vessel's body. The body has two areas, separated by a small groove: an upper part with a slightly inclined wall, and a lower part with a rounded wall.  
Context: Cx 5. Size: l=12.5 cm, w=0.4 cm, rd=18 cm, md=14.6 cm, d=3.5×1.6 cm.

<sup>81</sup> Dyczek 2016, 246-247. Also Nuțu 2019, 165.

<sup>82</sup> Topoleanu 2000, 90/III C, IV, V; Topoleanu 2000, 91/II.

<sup>83</sup> Rădulescu 1975, 343. The author mentions smaller trefoil-mouthed jugs used in funerary contexts.

<sup>84</sup> The map found in Dyczek 2016, 253/fig. 7 summarizes this well enough.

<sup>85</sup> Băjenaru 2018, 239-257.

<sup>86</sup> Băjenaru 2018, 240/fig. 1.

<sup>87</sup> Băjenaru 2018, 239.

<sup>88</sup> Mușețeanu 2003.

<sup>89</sup> Dyczek 2016, 249.

<sup>90</sup> Popilian 1976, 184.

Analogy: Popilian 1976, 184, Type 4 two-handled pot, cat. no. 403, pl. XXXIX/403; Opaiț 1980, 354, krater, cat. no. 28, pl. VI/2 (our fragment has both the fabric and the slip wash of a darker color); Hamat 2018, two-handled jar, fig. 12/5.

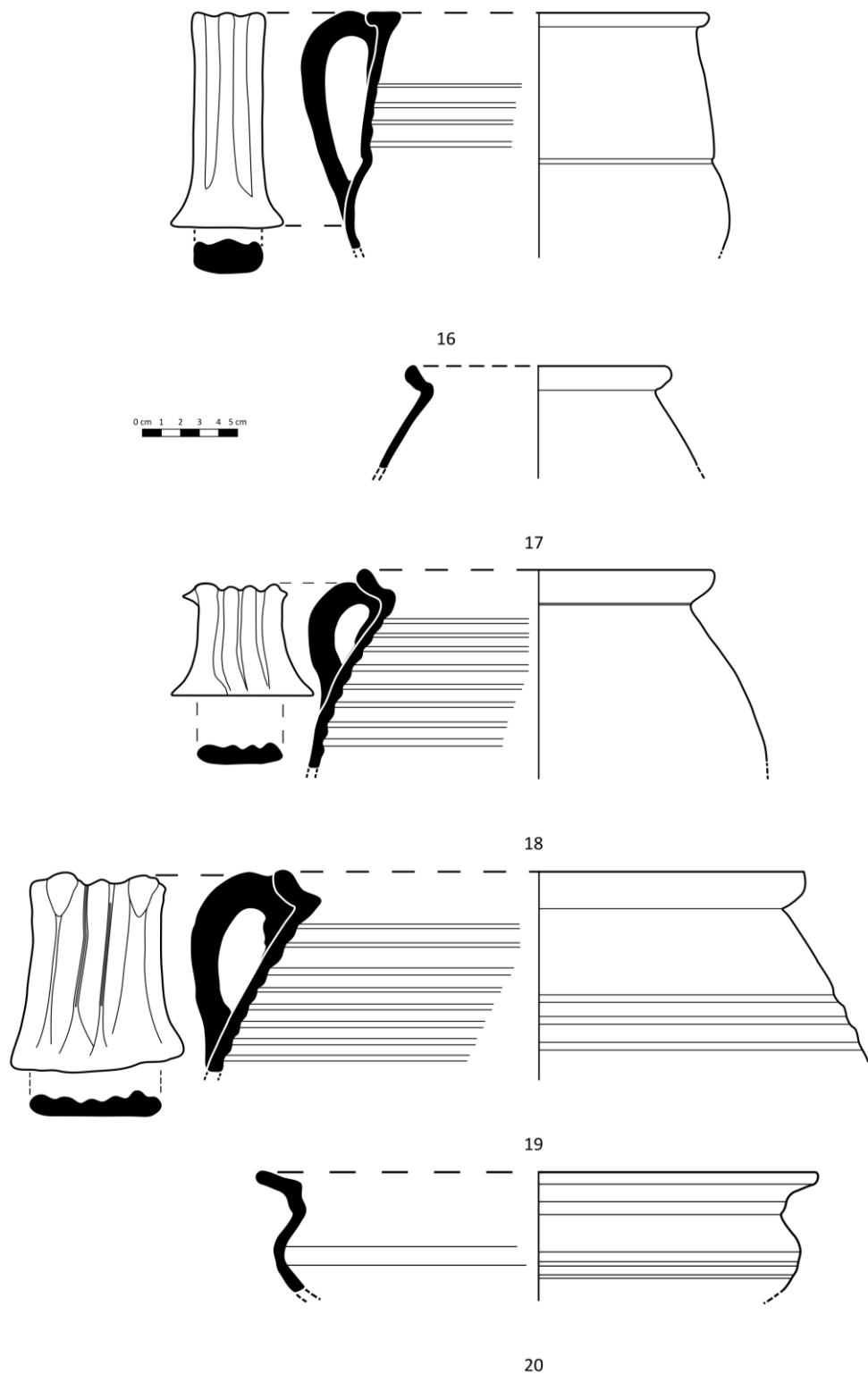


Fig. 9. Cooking vessels: Pots (16-19) and casserole (20).

17. JIJ-IZV2020/035: Rim fragment (10% complete) from a jar or one-handed pot. On one half of the fragment the firing is even, but on the other the firing is uneven, in a zonal “sandwich” structure (outside – Munsell 2.5YR 8.5/1 white, inside – 2.5YR 2.5/1 black). Sand and small pebbles/quartzite can be seen being used as temper. The fragment has an offset, rolled rim to accommodate a lid, and flat, inclined walls.  
Context: Cx 4. Size: l=5.5 cm, w=0.4 cm, rd=14 cm, md=11 cm.  
Analogy: either Popilian 1976, 182, Type 11 jar, cat. no. 369, pl. XXXVI/369 (if it did not have a handle, belonging to the “jar” category) or Popilian 1976, 182, one-handed pot, cat. no. 370, pl. XXXVII/370 (if it had one handle, thus belonging to the “one-handed pot” category); Petre 1987, pl. 11/14b; Suceveanu 2000, 112, Type XXXIV pot moyen au rebord légèrement évasé, cat. no. 1, pl. 47/1 (our fragment has a larger mouth diameter); Honcu 2017, 47, Type I *olla*, cat. no. 15, pl. II/14 (our fragment has a smaller rim diameter).
18. JIJ-IZV2020/033: Rim and handle fragment (50% complete) from a two-handed pot with even firing, matrix color Munsell 2.5YR 8.5/1 white. Sand and small pebbles/quartzite used as temper. Soot traces are present on the rim and body's exterior. The fragment has an offset, rolled rim to accommodate a lid, and flat, inclined walls. On the interior of the walls we can observe shallow grooves. The handle has 3 grooves.  
Context: Cx 4. Size: l=10.4 cm, w=0.5 cm, rd=19 cm, md=15.2 cm, d=4.2×1 cm.  
Analogy: Popilian 1976, 185, cat. no. 408, pl. XL/408 (our fragment has more protruding handles and a slightly larger rim diameter); Opaiț 1980, 348, Type I pot, cat. no. 2, pl. I/2; Topoleanu 2000, p. 101, Type I Oriental pot, cat. no. 217, pl. XXV/217 (for the shape, but different fabric and handles); Topoleanu 2000, 109, Type III provincial Western-Pontic pot, cat. no. 247, pl. XXVIII/247 (for the handle, but different fabric and rim shape); Mușețeanu 2003, 109, Type I pot, cat. no. 16, pl. 36/16.
19. JIJ-IZV2020/029: Rim and handle fragment (70% complete) from a two-handed pot with even firing, matrix color Munsell 10YR 8/2 very pale brown. Sand, muscovite and small pebbles/quartzite can be seen. Both handles recovered from the same vessel have 3 grooves. Soot traces are present on the rim and body's exterior. The fragment has an offset, rolled rim to accommodate a lid. The handle has 4 grooves. The inclined walls are flat until the lower part of the handle, where they become grooved and more rounded.  
Context: Cx 5. Size: l=11 cm, w=0.6 cm, rd=27.7 cm, md=23 cm, d=7×1 cm.  
Analogy: Opaiț 1980, 348, Type I pot, cat. no. 2, pl. I/2; Topoleanu 2000, 101, Type I Oriental pot, cat. no. 217, pl. XXV/217 (for the shape, but different fabric and handles); Topoleanu 2000, 109, Type III provincial Western-Pontic pot, cat. no. 247, pl. XXVIII/247 (for the handle, but different fabric and rim shape); Mușețeanu 2003, 109, Type I pot, cat. no. 15, pl. 36/15 (our fragment has a much larger rim diameter and wider handles with more grooves); Rusu-Bolindeț 2007, 421, Type CC 10 I1 pot, cat. no. 587, pl. XCVII/587 (our rim fragment does not have grooves and it is made from a different fabric)
20. JIJ-IZV2020/030: Rim fragment (30% complete) from a casserole with even firing, matrix color 10YR 8/2 very pale brown. Sand, muscovite and small pebbles/quartzite can be seen. Soot traces are present on the body's exterior. The fragment has an offset rim and a rounded body, with shallow grooves at the point of the maximum diameter.  
Context: Cx 4. Size: l=5.5 cm, w=0.4 cm, rd=26 cm, md=21.8 cm.

Analogy: Popilian 1976, 210, Type 5 bowl, cat. no. 785, pl. LXIV/785 (our fragment is made from a different fabric); Opaiț 1980, 351, bowl, cat. nos. 8, 12, pl. II/1, 5; Mușețeanu 2003, 112, Type I saucepan, cat. no. 15, pl. 38/50 (our fragment has a slightly larger mouth diameter); Rusu-Bolindeț 2007, 419, Type CC 8 G bowl, cat. no. 557, pl. XCIII/ 557 (our fragment has thinner walls and a slight upward inclination to the rim);

21. JIJ-IZV2020/038: Rim, body and base fragment (20% complete) from a frying pan with even firing, matrix color Munsell 10YR 7/2 light gray. Sand, muscovite and small pebbles/quartzite can be seen. Soot traces are present on the rim and body's both exterior and interior. The rim is downturned and rilled, having 3 shallow grooves. The walls are slightly rounded and declined, while the base is flat.

Context: Cx 5. Size: l=4 cm, w=0.5 cm, rd=21 cm, md=16 cm, fd=14 cm.

Analogy: Popilian 1976, 214, Type 3 plate, cat. no. 845, pl. LXIX/845 (our fragment is made from a different fabric and has a significantly smaller rim diameter); Sultov 1985, 84, Type 1 a-variant dish, table XLII/2; Angelescu 1998, 223, plate, cat. no. 37, pl. XX/37 (our fragment is made from a different fabric and has a slightly smaller diameter); Mușețeanu 2003, 113, Type I tray, cat. no. 62, pl. 39/62; Hamat 2018, p. dish, fig. 9/11 (our fragment has a different wall angle).

22. JIJ-IZV2020/036: Rim fragment (10% complete) from a frying pan with even firing, matrix color Munsell 10YR 6/3 pale brown. Sand, small pebbles/quartzite and muscovite can be seen. Soot traces are present on the rim and body's exterior. The downturned rim is slightly offset and rilled, having 3 shallow grooves.

Context: Cx4. Size: l=4 cm, w=0.4 cm, rd=27 cm, md=22.8 cm.

Analogy: Popilian 1976, 214, Type 3 plate, cat. no. 845, pl. LXIX/845 (our fragment is made from a different fabric and has a smaller rim diameter); Opaiț 1980, 351, bowl, cat. no. 16, pl. III/3.

23. JIJ-IZV2020/037: Rim, body and base fragment (30% complete) from a frying pan with even firing, matrix color Munsell 10YR 5/1 gray. Sand and muscovite can be seen. Soot traces are present on the body's exterior. The fragment has an incurved, rolled rim, with a single groove under it. The base has a false ring foot.

Context: Cx 4. Size: l=3.7 cm, w=0.5 cm, rd=22 cm, md= 20 cm, fd= 15.2 cm.

Analogy: Popilian 1976, 214, Type 3 plate, cat. no. 850, pl. LXIX/850 (our fragment has a groove under the rim and is made from a different fabric); Opaiț 1980, 351, pan, cat. no. 19, pl. IV/1; Angelescu 1998, 222, cat. no. 22, pl. XX/22 (our fragment is made from a different fabric and has a larger diameter); Mușețeanu 2003, 113, Type II tray, cat. no. 67, pl. 39/67 (our fragment has a smaller rim diameter); Honcu 2017, 99, Type IV frying pan, cat. no. 198, pl. XIX/ 187 (our fragment has a smaller diameter); Hamat 2018, p. dish, fig. 9/1 (our fragment has a groove under the rim).

24. JIJ-IZV2020/039: Rim and body fragment (20% complete) from a frying pan with uneven firing, zonal "sandwich" structure (outside – Munsell 5YR 7/4 pink, inside – 10YR 7/2 light gray). Sand and muscovite can be seen. Soot traces are present on the body's exterior. The fragment has an incurved rim and the lower body has 4 shallow grooves.

Context: Cx 5. Size: l=4.9 cm, w=0.8 cm, rd=27 cm, md=25 cm.

Analogy: Mușețeanu 2003, 113, Type II tray, cat. no. 66, pl. 39/66 (our fragment has a significantly smaller rim diameter); Honcu 2017, 98, Type IV frying pan, cat. no. 197, pl. XIX/ 186 (our fragment has a smaller diameter and a more rounded body).

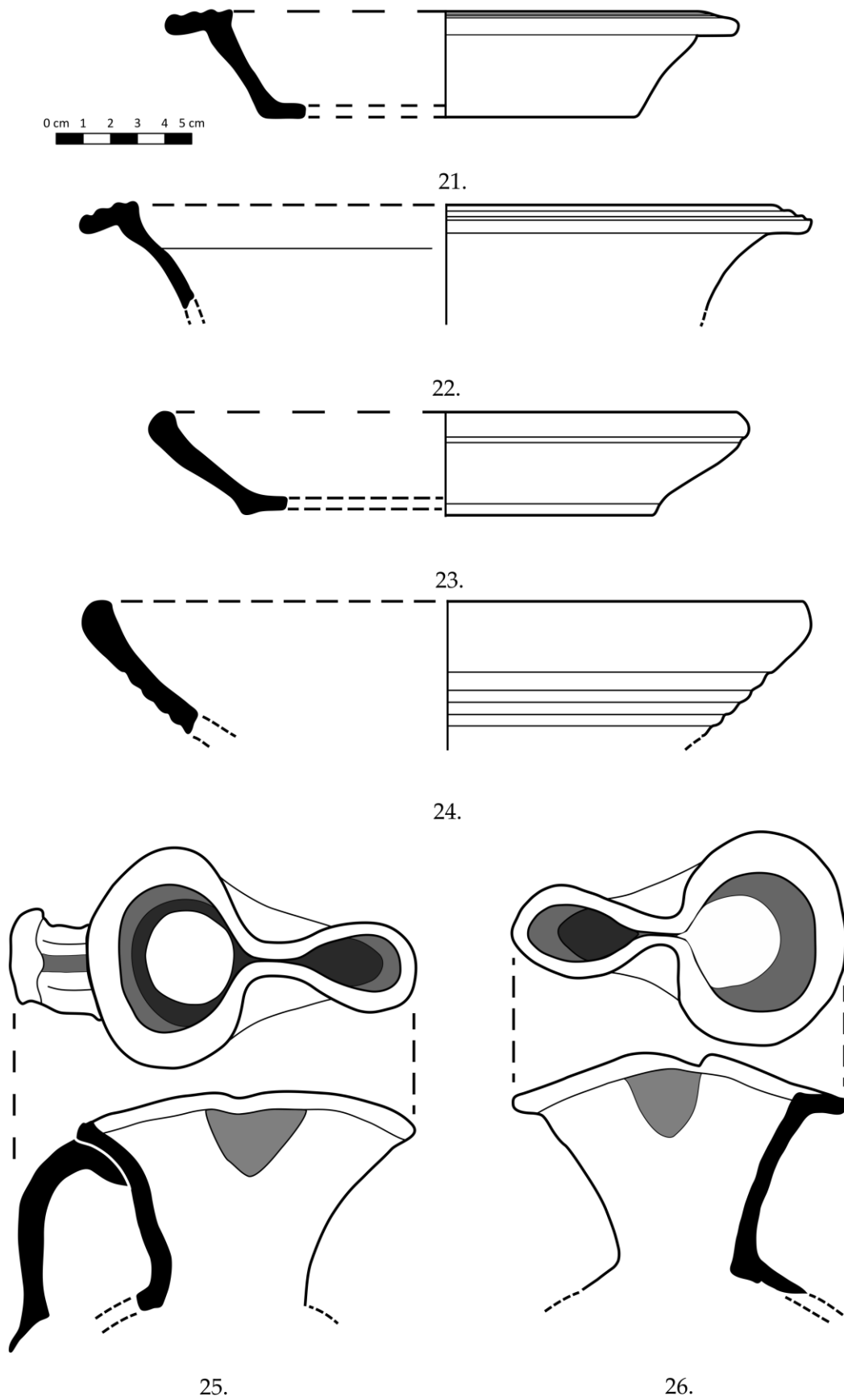


Fig. 10. Cooking vessels (21-24) and pouring vessels (25-26).

## 2A. Observations regarding cooking ware

It is important to note that almost all cooking and food storage wheel-thrown ceramic vessels present in the dwelling contain kaolinitic clay, enhanced with sand and muscovite. Most of the fragments present soot traces, which indicate past usage. Morphological and/or fabric analogies are found at *Durostorum*<sup>91</sup>, *Histria*<sup>92</sup>, *Noviodunum*<sup>93</sup>, Fântânele<sup>94</sup>, *Halmyris*<sup>95</sup>, *Troesmis*<sup>96</sup>, *Nicopolis Ad Istrum*<sup>97</sup>, *Beroe*<sup>98</sup> (in *Moesia Inferior*), *Napoca*<sup>99</sup>, *Drobeta*<sup>100</sup>, Gârla Mare<sup>101</sup> and *Romula*<sup>102</sup> (in *Dacia*). Another notable aspect is the absence of lids/lid fragments within the proximity of the pots.

The overall dating of these pottery fragments point to the second half of the 2<sup>nd</sup> century, at most the beginning of the 3<sup>rd</sup> century AD.

## 3. *Vasa po(ta)toria*

The ceramic wares used for drinking, transporting and pouring liquids represent 5.35% (52 fragments) of total pottery fragments recovered.

The only identifiable vessel for pouring liquids belongs to the “trefoil-mouthed” jug or *oenochoe* category, one that includes quite a number of varieties, both in form and fabric. Similar to what we discussed earlier regarding cooking LDKW, the recovered fragments have similar fabric characteristics, if not less porous walls, due to the different sand content and/or firing temperature. P. Dyczek assumes that this amount of sand was by reason of effective firing and even thermal conductivity<sup>103</sup>, which raises the question whether these jugs could be also used to heat up liquids/carry hot water.

Apart from the three lobed, pinched-in-the-middle mouth shape (most certainly to facilitate frequent liquid pouring), the general morphological characteristics are as follows: one grooved (either one-bipartite or two-tripartite grooves), slim handle attached under the outturned rim (sometimes having deep grooves in between) or on the neck, a conical or rounded body (sometimes having a ribbed or scaled appearance) ending in a flat or broad base. All fragments described have traces of so-called “gray break”<sup>104</sup> on the exteriors of the base and the front (beak-side) of the rim fragments, but not the handle. We cannot determine if this is a result of daily use.

We know from Gh. Popilian that these jugs were used for carrying liquids, mainly water, based on a discovery in the Roman auxiliary camp at Slăveni, on the right bank of the *Alutus* (Olt) river, on the road connecting *Romula* to the Danube.<sup>105</sup> This discovery was made in a

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<sup>91</sup> Mușeteanu 2003.

<sup>92</sup> Suceveanu 2000.

<sup>93</sup> Honcu 2017.

<sup>94</sup> Angelescu 1998.

<sup>95</sup> Topoleanu 2000.

<sup>96</sup> Opaț 1980.

<sup>97</sup> Sultov 1985.

<sup>98</sup> Petre 1987.

<sup>99</sup> Rusu-Bolindeț 2007.

<sup>100</sup> Iliescu 2018.

<sup>101</sup> Hamat 2018.

<sup>102</sup> Popilian 1976.

<sup>103</sup> Dyczek 2016, 246.

<sup>104</sup> Dyczek 2016, 246.

<sup>105</sup> Bondoc 2016, 215.

cistern/well, alongside two coins from Severus Alexander<sup>106</sup>, corresponding to the second phase of the military camp (first half of the 3<sup>rd</sup> century AD).<sup>107</sup>

From the same fabric group we have identified several beaker/drinking cup fragments, either with one handle (similar to Popilian's types 2, 3 and 4<sup>108</sup>) or without handles (similar to Popilian's type 7 cup<sup>109</sup>).

#### Catalog:

25. JIJ-IZV2020/019: Complete neck with rim and handle (attached under the rim, single central groove) of a trefoil-mouthed jug with even firing and matrix color Munsell 10YR 8/3 very pale brown. Sand, muscovite and tiny pebbles/quartzite are present. Soot traces can be seen on the neck.  
Context: Cx 4. Size: L=7.5 cm, w=0.65cm, rd=12×8 cm, d=3.3×0.9 cm, nd=3.5 cm.  
Analogies: Popilian 1976, 193, cat. no. 529, pl. XLIX/529 (for the handle); Popilian 1976, 193, cat. no. 530, pl. XLIX/530 (for the shape and fabric); Suceveanu 2000, 154, Type XLVII cruche à embouchure trilobée, cat. no. 11, pl. 73/11 (our fragment is made of a different fabric); Mușețeanu 2003, 106, cat. no. 72, pl. 39/72; Hamat 2018, p. jug, fig. 10/1 (our fragment's handle has only one central groove); Mocanu 2018a, 262, cat. no. 731.
26. JIJ-IZV2020/020: Complete neck with rim of a trefoil-mouthed jug (although the handle had been cleanly removed, intentional or not, the place where it was attached under the rim can be seen), with even firing and matrix color Munsell 10YR 8/2 very pale brown. Sand, muscovite and tiny pebbles/quartzite can be seen. Soot traces present on the rim and underneath it.  
Context: Cx 4. Size: l=9 cm, w=0.36 cm, rd=12×8 cm, nd=3.5 cm.  
Analogies: Popilian 1976, 193, Type 12 one handled jug – e subtype, cat. no. 530, pl. XLIX/530; Suceveanu 2000, 154, Type XLVII cruche à embouchure trilobée, cat. no. 11, pl. 73/11 (our fragment is made of a different fabric); Dyczek 2016, 245, fig. 4; Mocanu 2018a, 262, cat. no. 731.
27. JIJ-IZV2020/026: Lower body and base fragment (approx. 30%) of a trefoil-mouthed jug with straight walls, flat base, shallow grooves on the interior wall, uneven firing (3-zone structure: inside – Munsell 5YR 6/4 light reddish brown, middle – 5YR 8/2 pinkish white, outside – 5YR 4/1 dark gray). One can observe traces of a slip wash of the same color as the outside layer – 5YR 4/1 dark gray. Sand and muscovite can be seen. Soot traces are present on both the body's interior and exterior.  
Context: Cx 4. Size: l=6.6 cm, w=0.56 cm, d=17.4 cm, fd=7.9 cm.  
Analogies: Popilian 1976, 193, Type 12 one handled jug – e subtype, cat. no. 530, pl. XLIX/530; Topoleanu 2000, 91, Type IV trefoil-mouthed jug, cat. no. 195, pl. XXII/195.
28. JIJ-IZV2020/028: Base fragment (complete diameter) of a cup, with even firing, matrix color Munsell 10YR 6/3 pale brown. Sand and muscovite can be observed. Soot traces are present on the walls, where we can observe three grooves as well. The base is flat, with traces of removal from the potter's wheel.  
Context: Cx 7. Size: l=3.5 cm, w=0.5 cm, fd=3.8 cm.

<sup>106</sup> Popilian 1976, 101 and pl. XLIX/530.

<sup>107</sup> Bondoc 2016, 215-216.

<sup>108</sup> Popilian 1976, 107 and pl. LVII/665-679.

<sup>109</sup> Popilian 1976, 112.

Analogies: Popilian 1976, 203, Type 4 one-handled cup, cat. no. 674, pl. LVII/674; Opaïț 1980, 355, cup, cat. no. 39, pl. VIII/3; Mocanu 2018b, 260, cat. no. 722; Mocanu 2018c, 237, cat. no. 655.

29. JIJ-IZV2020/027: Drinking cup (80% complete) with a complete profile, even firing and matrix color Munsell 10R 8/4 pink. The pinkish hue implies a presence of iron oxide in the clay. Sand and muscovite can be seen. Soot traces are present on the straight, rounded rim. The base is flat, with traces of removal from the potter's wheel.  
Context: Cx 4. Size: l=8 cm, w=0.4 cm, rd=6.5 cm, fd=3.5 cm, bd=7.4 cm.  
Analogies: Popilian 1976, 207, Type 7 cup, cat. no. 739, pl. LX/739 (our fragment is made of a different fabric).
30. JIJ-IZV2020/031: Rim and body fragment of a one-handled cup (20% complete) with even firing, matrix color Munsell 10YR 8/4 very pale brown. Sand and muscovite present. The rim is oblique and everted. There are 6 concentric, shallow grooves on the globular body, in the area of the maximum diameter. Traces of where the handle would have been can be seen under the rim.  
Context: Cx 4. Size: l=9.5 cm, w=0.3 cm, rd=8 cm, md=6.6 cm, bd=10.6 cm.  
Analogies: Popilian 1976, 201, Type 3 one-handled cup, cat. no. 643, pl. LVI/643 (our fragment is made of a different fabric); Opaïț 1980, 355, cup, cat. no. 39, pl. VIII/3; Mușețeanu 2003, 69, type 3 cup, cat. no. 368, pl. 34/368; Hamat 2018, p. beaker, fig. 10/4; Iliescu 2018, 165, beaker, fig. 8/4; Neagu 2018, 269, cat. no. 749; Mocanu 2018c, 237, cat. no. 655.
31. JIJ-IZV2020/032: Rim and handle fragment of a one or two-handled cup (20% complete) with even firing, matrix color Munsell 10YR 8/4 very pale brown. Sand and muscovite can be seen. The rim is oblique and everted. The globular body does not seem to have any grooves, but the handle has a central, longitudinal groove. On the inside of the handle we can see excess material.  
Context: Cx 4. Size: l=5.6 cm, w=0.4 cm, rd=10 cm, md= 7.6 cm, d=1.8x0.5 cm.  
Analogies: Popilian 1976, p. 198, Type 2 one-handled cup, cat. no. 611, pl. LIV/611 (our fragment is made of a different fabric); Opaïț 1980, 355, cup, cat. no. 39, pl. VIII/3 (our fragment has a different handle shape); Mocanu 2018b, 260, cat. no. 722.
32. JIJ-IZV2020/034: Rim and handle fragment of a one or two-handled cup (20% complete) with even firing, matrix color Munsell 10YR 8/4 very pale brown. Sand and muscovite can be observed. Soot traces are present on the exterior of the wall. The rim is oblique and everted. Three grooves can be seen on the globular body, while the handle has a central, shallow, incomplete, longitudinal groove.  
Context: Cx 4. Size: l=10.5 cm, w=0.3 cm, rd=12 cm, md=8 cm, d=1.9x0.8 cm.  
Analogies: Popilian 1976, 203, Type 4 one-handled cup, cat. no. 674, pl. LVII/674 (our fragment has a slightly larger rim diameter); Iliescu 2018, 165, beaker, fig. 8/4; Mocanu 2018b, 260, cat. no. 722; Mocanu 2018c, 237, cat. no. 655.



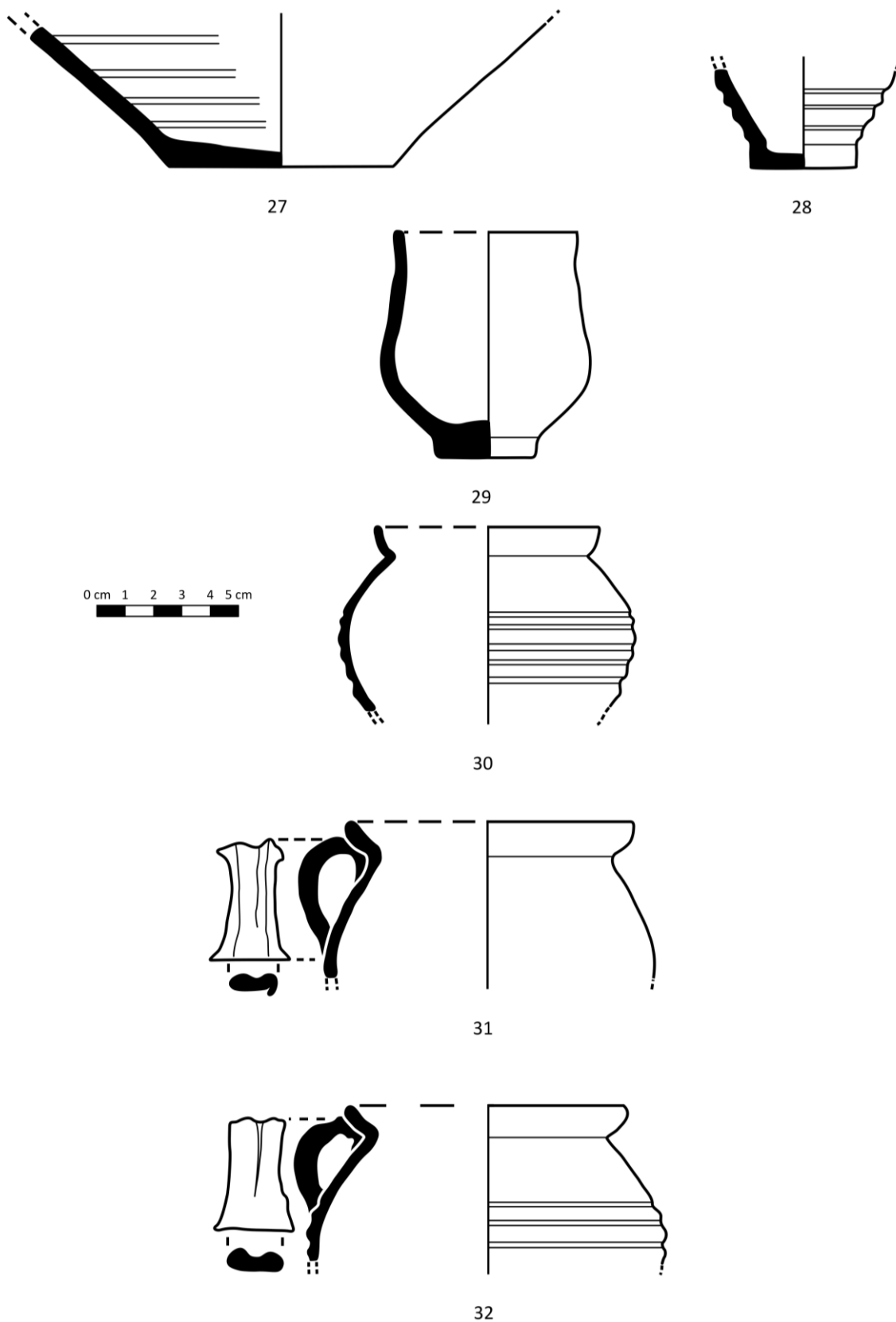


Fig. 11. Drinking vessels: jug (27) and cups (28-32).

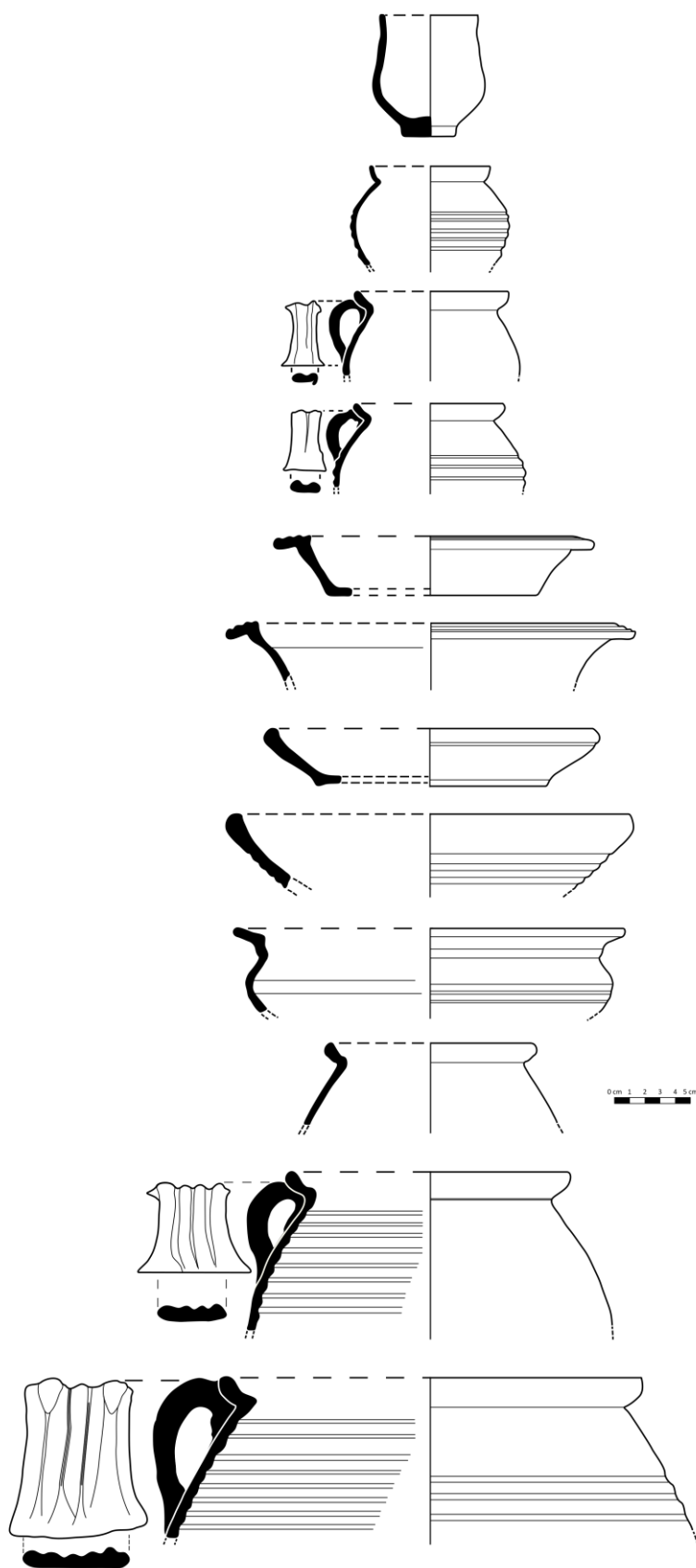


Fig. 12. Diameter comparison of LDKW vessels.

### 3A. Observations regarding drinking vessels

Similar to the previous ceramic group, the tableware used for liquids is made of recognizable kaolinitic clay, enhanced with sand and muscovite, having an overall color of pale/very pale brown. The one-handled cup fragments (cat. nos. 28, 30, 31, 32) appear to have been made rather crudely. The presence of soot on some fragments pose difficulties in interpreting the context, since there was no sign of a hearth inside the pit-house. Analogies for all these pottery vessels are found in Roman-era Dobruja from the 2<sup>nd</sup> to the 4<sup>th</sup> centuries AD at *Beroe*<sup>110</sup>, *Durostorum*<sup>111</sup>, *Halmyris*<sup>112</sup>, *Histria*<sup>113</sup>, *Novae*<sup>114</sup>, *Troesmis*<sup>115</sup>, and in Roman *Dacia* between the 2<sup>nd</sup> and 3<sup>rd</sup> centuries AD at *Drobeta*<sup>116</sup>, *Gârla Mare*<sup>117</sup> and *Romula*.

### 4. *Turibula*

We have recovered several fragments from three distinct (based on morphological characteristics) *turibula*, while the fabric characteristics suggest two different sources (on one side, cat. no. 33, and cat. nos. 34-35, on the other). Muscovite is present in all fragments. Analogies for these fragments can be found in the 2<sup>nd</sup> century AD at *Noviodunum*<sup>118</sup>, *Troesmis*, *Romula*. No soot traces can be seen on the interior or exterior of these fragments, which indicates that they had not been used as censers.

Catalog:

33. JIJ-IZV2020/041: Rim fragment (less than 10%) with uneven firing, zonal “sandwich” structure (outside – Munsell 5YR 7/8 reddish yellow, inside – 5YR 3/1 very dark gray). Muscovite is present in the fabric. The rim is decorated with a band of alveoli.  
Context: Cx 4. Size: l=3.4 cm, w=0.6 cm, r=1.45 cm, rd= indeterminable.  
Analogies: Popilian 1976, 208, Type 2 censer, cat. no. 752, pl. LXI/752 (our fragment has a different fabric); Radu 2014, 108, cat. no. 15, pl. 2/15 and pl. 4/15;
34. JIJ-IZV2020/042: Rim fragment (2 pieces, approx. 20%) with even firing, matrix color Munsell 5YR 6/6 reddish yellow. Traces of a slip wash can be seen – color Munsell 5YR 8/2 pinkish white. Muscovite is present in the fabric. Band of alveoli on the rim.  
Context: Cx 4. Size: l=4.4 cm, w=0.8 cm, r=1.4 cm, rd= indeterminable.  
Analogies: Popilian 1976, 208, Type 2 censer, cat. no. 752, pl. LXI/752; Radu 2014, 108, cat. no. 15, pl. 2/15 and pl. 4/15;
35. JIJ-IZV2020/043: Rim fragment (4 pieces, approx. 40%) with even firing, matrix color Munsell 5YR 6/6 reddish yellow. Traces of a slip wash – color Munsell 5YR 8/2 pinkish white. Muscovite is present in the fabric. The decorated band has smaller alveoli than cat.nos. 33 and 34.  
Context: Cx 4. Size: l=4 cm, w=0.7 cm, r=1.4 cm, rd= indeterminable.

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<sup>110</sup> Petre 1987.

<sup>111</sup> Mușeteanu 2003.

<sup>112</sup> Topoleanu 2000.

<sup>113</sup> Suceveanu 2000.

<sup>114</sup> Dyczek 2016.

<sup>115</sup> Opaît 1980.

<sup>116</sup> Iliescu 2018.

<sup>117</sup> Hamat 2018.

<sup>118</sup> Radu 2014.

Analogies: Opaiț 1980, 359, cat. no. 93, pl. XX/1; Radu 2014, 108, cat. no. 12, p. 2/12 (our fragment has a different fabric color).

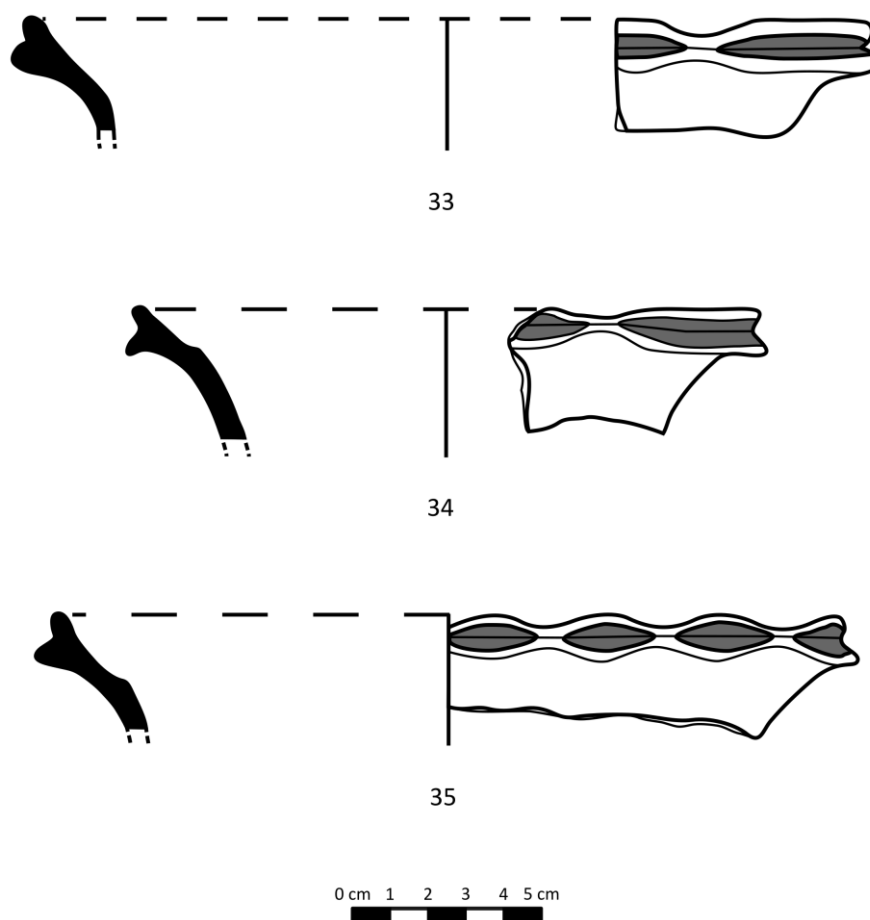


Fig. 13. Turibula.

### 5. Hand-made pottery

Alongside wheel-thrown pottery, there were also hand-made ceramic vessels, used in storage and cooking of foodstuff. The fragments of this type of pottery represent 15.5% (151 fragments) of the total. All the hand-made vessels discovered at Jijila-Izvor have an oval body shape with a short neck, the rim facing outwards, and the floor of these pots is often flat. In addition, all pots have fabric and similar slip of grey-brown shades, and lots of muscovite and limestone. Almost all specimens have soot traces present on the walls, which indicate that they were used for food preparation and/or other processes involving fire use. Some pots were decorated with a horizontal stripe, applied either in the area of maximum diameter or on the rim outer surface.

The hand-made pottery from rural settlements in NW Dobruja was recently analyzed in a paper published in 2018.<sup>119</sup> This type of pottery is present in all rural settlements in the West Pontic region in deposits dating from the 1<sup>st</sup> century BC to the end of the 3<sup>rd</sup> century AD.<sup>120</sup> Undoubtedly, hand-made pottery is the marker of the local Getae population, in contact with the Romans at that time.

<sup>119</sup> Nuțu, Mihăilescu-Bîrliba 2018, 95-99.

<sup>120</sup> Baumann 1995, *passim*; Angelescu 1998, 217-234; Honcu 2014, 99-100; Șova 2015, 130.

Catalog<sup>121</sup>:

36. JIJ-IZV2020/050: Rim and upper wall fragment with uneven firing, matrix color Munsell 5Y 4/2 grayish olive. Rough slip with muscovite – color Munsell 5Y 3/2 olive black. Limestone particles and other impurities in the fabric. Decoration made by horizontal relief stripe on the exterior rim surface.  
Context: Cx 4. Size: Hp=3.9 cm, Rd=11.8 cm.  
Analogy: Nuțu, Mihăilescu-Bîrlița 2018, cat. no. 16, fig. 11/6.
37. JIJ-IZV2020/051: Rim and upper half wall fragment, insufficiently fired, matrix color Munsell 10Y 5/2 olive gray. Rough slip with plenty of muscovite – color Munsell 7.5Y 4/3 dark olive. Same decoration as cat. no. 36.  
Context: Cx. 4. Size: Hp=7.2 cm; Rd=16 cm.  
Analogy: Same as no. 36.
38. JIJ-IZV2020/051: Rim and upper wall fragment with uneven and insufficient firing, matrix color Munsell 10Y 6/1 gray. Rough slip with muscovite – color Munsell 5Y 4/3 dark olive. Large limestone particles and other impurities in the fabric. Decoration made by horizontal relief stripe on the exterior rim surface.  
Context: Cx 4. Size: Hp=4.5 cm, Rd=14.3 cm.  
Analogy: Same as no. 36.
39. JIJ-IZV2020/052: Fragmentary rim with relief stripe on the outer surface. Fabric with uneven firing and impurities, matrix color Munsell 7.5 Y 5/3 grayish olive. Rough and uneven sparse slip with muscovite – color Munsell 10Y 5/1 gray.  
Context: Cx 4. Size: Hp=3.75 cm, Rd=22.3 cm.  
Analogy: Same as no. 36.
40. JIJ-IZV2020/053: Fragmentary rim and the upper-half wall, including the maximum diameter, which is decorated with a horizontal relief stripe. Rough fabric with limestone and other impurities – color Munsell 7.5Y 5/2 olive gray. Rough and unevenly spread slip with muscovite – color Munsell 5Y 3/2 olive black.  
Context: Cx. 4. Size: Hp: 12.7 cm, Md=16.2 cm, Rd=10.1 cm.  
Analogies: Baumann 1995, pl. XII/14-15; Honcu 2017, cat. no.303-304, pl. XXXIII/303-304.
41. JIJ-IZV2020/054: Rim and the upper-half wall, including the maximum diameter, decorated with a horizontal relief stripe. Rough fabric with large limestone particles and other impurities – color Munsell 5Y 7/2 light gray. Uneven and rough slip with muscovite – color Munsell 5Y 6/4 olive yellow.  
Context: Cx. 4. Size: Hp=13.6 cm, Md=18.8 cm, Rd=15.9 cm.  
Analogy: Baumann 1995, pl. XXI/14.
42. JIJ-IZV2020/055: Fragmentary rim with uneven firing, matrix color – Munsell 7.5Y 7/3 light yellow. Rough slip with impurities – color Munsell 7.5Y 5/2 grayish olive. Limestone particles are present in the fabric.  
Context: Cx. 4. Size: Hp=3.9 cm, Rd=14.85 cm.  
Analogies: Suceveanu 2000, 140 pl. 67/2; Honcu 2017, cat. no. 301, pl. XXXIII/301.
43. JIJ-IZV2020/056: Fragmentary rim and the upper wall with uneven firing, matrix color – Munsell 5Y 4/1 gray. Rough and unevenly spread slip – color Munsell 5Y 7/6 yellow. Limestone and muscovite in the fabric.

<sup>121</sup> The legend used for the description of the hand-made pottery and the tableware as follows: Hp=height preserved, Rd=rim diameter, Md=maximum diameter, Bd=base diameter.

Context: Cx. 4. Size: Hp=6.5 cm, Rd=14.75 cm.

Analogies: Same as no. 42.

44. JIJ-IZV2020/057: Fragmentary rim and the upper wall with uneven firing, matrix color – Munsell 5Y 6/6 olive. Rough and uneven spread slip – color Munsell 7.5 Y 4/3 dark olive. Limestone particles and muscovite in the fabric.

Context: Cx. 4. Size: Hp=6 cm, Rd=12.5 cm.

Analogies: Same as no. 42.

45. JIJ-IZV2020/058: Fragmentary rim and the upper half body part with uneven firing, matrix color – Munsell 7.5Y 5/2 olive gray. Rough slip – color Munsell 7.5Y 4/2 olive gray. Limestone and muscovite in the fabric.

Context: Cx. 4. Size: Hp=8.4 cm, Rd=15.3 cm.

Analogies: Same as no. 42.

46. JIJ-IZV2020/059: Fragmentary rim and the upper wall with uneven firing, matrix color – Munsell 7.5Y 6/1 gray. Rough and uneven slip – color Munsell 7.5Y 6/3 olive yellow. Limestone and muscovite in the fabric.

Context: Cx. 4. Size: Hp=4.6 cm, Rd=11.8 cm.

Analogies: Same as no. 42.

47. JIJ-IZV2020/060: Large fragmentary rim and upper wall with uneven/insufficient firing, matrix color – Munsell 5Y 5/3 grayish olive. Rough and unevenly spread slip – color Munsell 5Y 6/4 olive yellow. Large limestone particles and muscovite in the fabric.

Context: Cx. 4. Size: Hp=8.45 cm, Rd=20.4 cm.

Analogies: Same as no. 42.

48. JIJ-IZV2020/061: Large fragmentary rim and upper wall with uneven/insufficient firing, matrix color – Munsell 7.5Y 5/2 grayish olive. Rough slip – color Munsell 5Y 6/2 grayish olive. Small limestone particles and muscovite present in the fabric.

Context: Cx. 4. Size: Hp=8.3 cm, Rd=20.4 cm.

Analogies: Same as no. 42.

49. JIJ-IZV2020/062: Fragmentary rim and upper wall with uneven firing, matrix color – Munsell 5Y 6/4 olive yellow. Rough slip with muscovite – color Munsell 7.5 Y 7/2 light gray. On the outer surface, there are two incised horizontal lines.

Context: Cx. 4. Size: Hp=5.9 cm, Rd=19.7 cm.

Analogy: Baumann 1995, pl. LV/5.

## 6. Pots with inscription and stamped decoration

Following the excavation at Jijila-Izvor, several fragments of medium-sized storage vessels, wheel-thrown and covered with red slip, were discovered in deposit no. 4 (Cx 4). Unlike the rest of the storage and coarse wares, which are locally produced, these two pots are imports from the Middle Danube region (*Pannonia* or *Moesia Superior*). We came to this conclusion based on the characteristics of the fabric and the slip, specific to the Middle Danube region. The decoration made by stamping and incision next to the inscription, incised as well, with Latin characters (*SATV...*) is also evidence of the western origins of these storage pots. For the shape and decoration of these kind of storage pots we found fitting analogies in Upper *Moesia*<sup>122</sup>, *Pannonia*<sup>123</sup> and *Dacia*.<sup>124</sup>

<sup>122</sup> Nicolich-Dordevič 2005, 85, Tip II/52. Among the pots from *Singidunum* there are two specimens with Latin inscriptions dated between the 2<sup>nd</sup> and the first half of the 4<sup>th</sup> centuries AD.

<sup>123</sup> Brukner 1981, 77, T. 52/25.

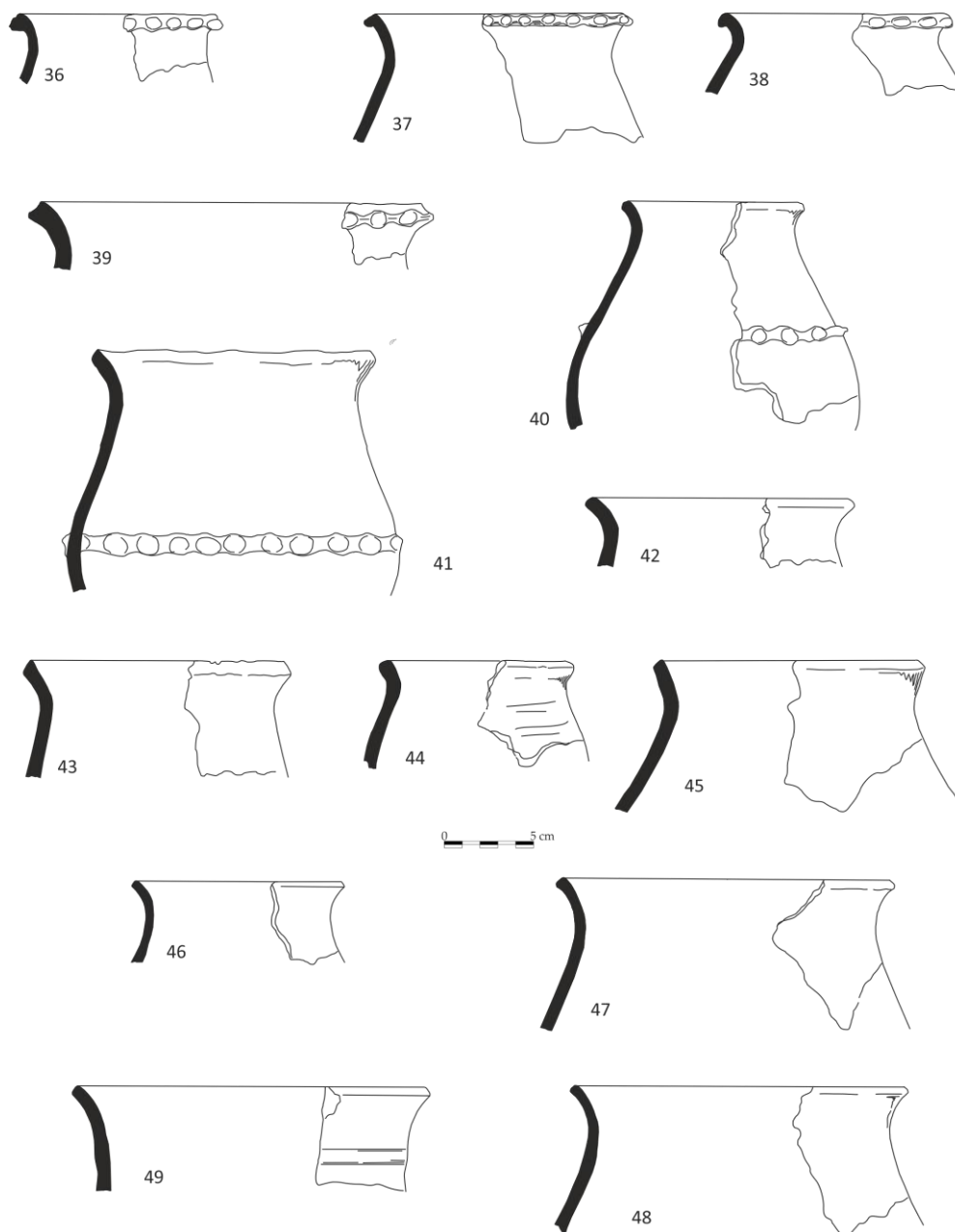


Fig. 14. Hand-made pots.

Catalog:

50. JIJ-IZV2020/063: Fragmentary pot, rim and the upper wall, thick wall with even firing and small limestone particles, matrix color – Munsell 5YR 6/8 orange. Rough slip – color Munsell 2.5 YR 4/6 dark reddish brown. On the outer surface, under the rim, there is a large, incompletely preserved inscription (letter size: H=3.9 cm, W=2.2 cm) made by incision: SATV... The decoration of the upper body consists of incised plant motifs – vine tendrils.

Context: Cx. 4. Size: Hp=15.9 cm, Rd=26.6 cm.

Analogy: Nicolič-Dordevič 2005, 85, Tip II/52.

<sup>124</sup> Popilian 1976, pl. XXXI/tipul 4.

51. JIJ-IZV2020/064: Fragmentary pot – middle body part, thick wall with even firing and small limestone particles, matrix color – Munsell 5YR 5/8 bright reddish brown. Rough slip – color Munsell 2.5 YR 4/6 dark reddish brown. On the outer surface, above the maximum diameter and on the neck there are stamped geometrical decorative motifs.  
Context: Cx. 4. Size: Hp=21.6 cm, Md=23.7 cm.  
Analogy: Same as no. 50.

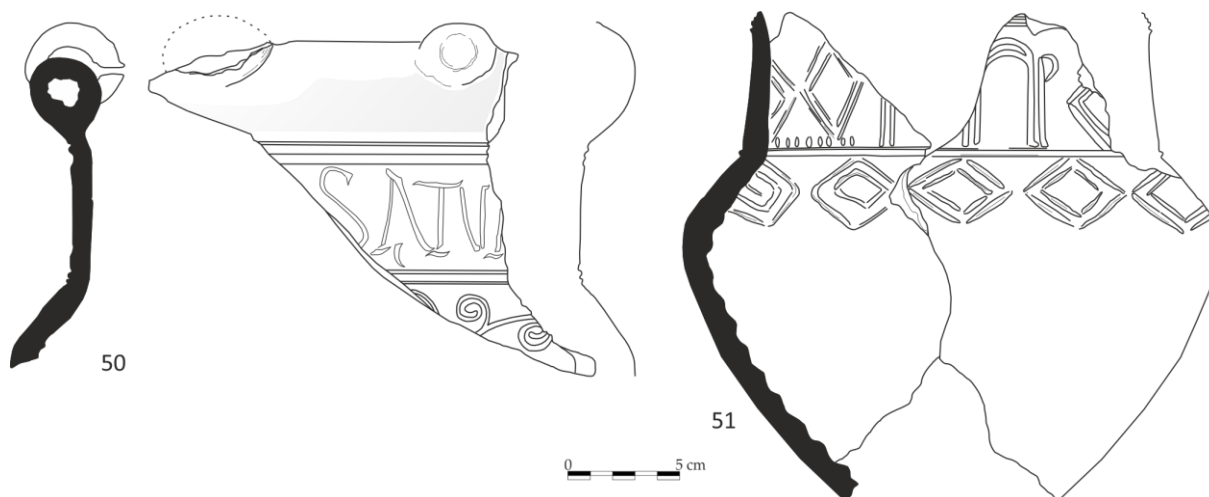


Fig. 15. Stamp-decorated and inscribed vessels.

## 7. Fine ware

Fine ware fragments represent 10.3% (100 fragments) of total pottery recovered. They can be divided into two categories: imported tableware and locally (Pontic) produced wares. The imported ones, fewer in number, were brought from the Aegean region (the Eastern Sigillata C from *Pergamon*) alongside the *amphorae* for olive oil and wine. The provincially-made tableware, which represents the vast majority of this category, came from the *officinae* in *Moesia Inferior*.

### 7A. Aegean tableware

The Aegean tableware from the pottery group discovered at Jijila–Izvor is represented by only one form – Atlante H2. This type of bowls were made in the later phases of the Çandarlı workshops, being dated from late 2<sup>nd</sup> century to late 3<sup>rd</sup> century.<sup>125</sup> The later forms from Çandarlı are widespread in the West-Pontic area, large quantities of ESC being recorded in settlements such as: *Troesmis*<sup>126</sup>, *Tomis*<sup>127</sup>, *Ulmetum*.<sup>128</sup>

Catalog:

52. JIJ-IZV2020/065: Base and lower wall made of fine fabric, evenly fired, matrix color – Munsell 5YR 5/8 bright reddish brown. The smooth slip is unevenly spread, especially on the outer surface – color Munsell 2.5YR 4/8 reddish brown.  
Context: Cx. 4. Size: Hp=4.4 cm, Bd=14.9 cm.

<sup>125</sup> Hayes 1985, 77-78.

<sup>126</sup> Opaïț 1980, 358, fig. 14/4-5.

<sup>127</sup> Băjenaru 2013, 45, fig. 2/3-4.

<sup>128</sup> Gamureac 2017, 250, pl. 6/31.



Analogies : Opaïț 1980, 358, fig. 14/4-5; Băjenaru 2013, 45, fig. 2/3-4; Mocanu 2014, 69, pl. 17/127-130; Gamureac 2017, 250, pl. 6/31.

53. JIJ-IZV2020/066: Fragmentary rim and upper wall made of fine fabric, evenly fired, matrix color – Munsell 5YR 4/8 reddish brown. Smooth slip – color Munsell 2.5YR 4/6 reddish brown.

Context: Cx. 5. Size: Hp=4.5 cm, Rd=31.7 cm.

Analogies: Same as no. 52.

54. JIJ-IZV2020/067: Fragmentary rim and upper wall made of fine fabric, even firing, matrix color – Munsell 5YR 5/4 dull reddish brown. Smooth slip – color Munsell 2.5YR 4/8 reddish brown.

Context: Cx. 4. Size: Hp=3.5 cm, Rd=20.7 cm.

Analogies: Same as no. 52.

55. JIJ-IZV2020/068: Fragmentary rim and upper wall made of fine fabric with even firing and rare muscovite, matrix color – Munsell 5 YR 4/6 reddish brown. Smooth slip – color Munsell 2.5YR 4/8 reddish brown.

Context: Cx. 4. Size: Hp=6.45 cm, Rd=25.7 cm.

Analogies: Same as no. 52.

## 7B. Pontic tableware

The Pontic tableware discovered after the archaeological excavations at Jijila–Izvor can be further divided into two subcategories: Pontic Sigillata and Early Pontic Red Slip Ware. Regarding Pontic Sigillata, we identified three forms: bowl with vertical rim; bowl with the arched wall inwards and bowl with a horizontal rim. All these forms appear in settlements in the West-Pontic area, such as: *Histria*<sup>129</sup>, *Tomis*<sup>130</sup>, or *Troesmis*<sup>131</sup>, and in the northern Black Sea.<sup>132</sup> The Pontic Sigillata discovered at Jijila–Izvor can be dated between the 2<sup>nd</sup> and 3<sup>rd</sup> centuries AD.

The Early Pontic Red Slip ware is more numerous compared to Pontic Sigillata; however, we have identified only two forms: the first is a bowl with the wall arched inwards, and plates with an oblique wall, narrowed at the end, represent the second. This last form can be considered a local imitation of the Atlante H2 plate from Çandarlı. The Early Pontic Red Slip tableware is widespread in all Roman settlements from the Lower Danube starting with the 2<sup>nd</sup> century, until the early 4<sup>th</sup> century AD.<sup>133</sup>

### Catalog:

56. JIJ-IZV2020/069: Fragmentary rim and upper-half wall (missing floor), fine fabric, intense firing, muscovite in composition, matrix color – Munsell 5YR 6/8 orange. Smooth slip, unevenly spread, especially on the lower wall – color Munsell 7.5YR 4/6 brown.

Context: Cx. 4. Size: Hp=5 cm, Rd=26.1 cm.

Analogy: Suceveanu 2000, 63, cat. no. 23, pl. 23/2.

57. JIJ-IZV2020/070: Fragmentary rim and upper wall, fine fabric with even firing, matrix color – Munsell 2.5YR 4/6 reddish brown. Smooth slip – color Munsell 2.5YT 6/8 orange.

Context: Cx. 4. Size: Hp=3.6 cm, Rd=26.1 cm.

Analogy: Suceveanu 2000, 45, cat. no. 3, pl. 13/3.

<sup>129</sup> Suceveanu 2000, 62-65, pl. 32/10-15.

<sup>130</sup> Băjenaru 2013, 50, pl. 3/12-15.

<sup>131</sup> Mocanu 2020, 210, pl. 2/1-4.

<sup>132</sup> Журавлев, 2010, 41-43, pl. 11-13.

<sup>133</sup> Mocanu 2021, 122.

58. JIJ-IZV2020/071: Fragmentary rim and upper-half wall, fine fabric, intense firing and very small limestone particles in composition, matrix color – Munsell 2.5YR 4/4 dull reddish brown. Smooth slip – color Munsell 5YR 7/6 orange.  
Context: Cx 4. Size: Hp=3.5 cm, Rd=18.8 cm.  
Analogy: Same as no. 57.
59. JIJ-IZV2020/072: Fragmentary rim and upper wall, fine fabric, even firing, matrix color – Munsell 5YR 6/8 orange. Smooth slip – color Munsell 2.5YR 6/6 orange.  
Context: Cx 4. Size: Hp=3.7 cm, Rd=12.8 cm.  
Analogy: Suceveanu 2000, 29, cat. no. 2, pl. 6/2.
60. JIJ-IZV2020/073: Small fragmentary bowl (base is missing), fine fabric, even firing, matrix color – Munsell 2.5YR 4/8 reddish brown. Smooth slip – color Munsell 2.5YR 4/8 reddish brown.  
Context: Cx. 4. Size: Hp=2.4 cm, Rd=8 cm.  
Analogy: Suceveanu 2000, 56, cat. no. 22, pl. 19/22.
61. JIJ-IZV2020/074: Fragmentary rim and upper wall, fine fabric, uneven firing, muscovite in composition, matrix color – Munsell 2.5YR 4/8 reddish brown. Smooth slip – color Munsell 5YR 6/6 orange.  
Context: Cx. 4. Size: Hp=2.5 cm, Rd=27.5 cm.  
Analogy: Băjenaru 2013, 46, cat. no. 10, pl. 2/10.
62. JIJ-IZV2020/075: Small fragmentary bowl, floor and lower wall, fine fabric, even firing, matrix color – Munsell 2.5 YR 6/8 orange. Smooth slip, unevenly spread on the outer surface – color Munsell 5YR 7/6 orange.  
Context: Cx. 4. Size: Hp=1.9 cm, Bd=4.7 cm.  
Analogies: Because the rim is missing we cannot establish any analogies.
63. JIJ-IZV2020/076: Fragmentary bowl (base is missing), rough fabric with limestone and muscovite, insufficient firing, matrix color – 5YR 6/8 orange. Rough slip, unevenly spread – color Munsell 2.5YR 4/6 reddish brown.  
Context: Cx 4: Size: Hp=6.1 cm, Rd=19.6 cm.  
Analogy: Suceveanu 2000, 35, cat. no. 2, pl. 10/2.
64. JIJ-IZV2020/077: Fragmentary rim and upper wall, rough fabric, uneven and insufficient firing, limestone and muscovite in composition, matrix color – Munsell 5YR 6/8 orange. Rough slip – color Munsell 2.5YR 4/6 reddish brown.  
Context: Cx 7. Size: Hp=4.1 cm, Rd=25.6 cm.  
Analogy: Suceveanu 2000, 52-53, pl. 18 (type XIV).
65. JIJ-IZV2020/078: Fragmentary rim and upper wall, rough fabric, uneven and insufficient firing, large limestone particles and muscovite in composition, matrix color – 5YR 5/8 bright reddish brown. Rough slip – color Munsell 5YR 6/8 orange.  
Context: Cx. 4. Size: Hp=5.5 cm, Rd=34.6 cm.  
Analogy: Same as no. 64.
66. JIJ-IZV2020/079: Fragmentary rim and upper wall, rough fabric, insufficient and uneven firing, limestone and other impurities in composition, matrix color Munsell 5YR 7/8 orange. Rough slip – same color as fabric.  
Context: Cx. 4. Size: Hp=3.5 cm, Rd=25.7 cm.  
Analogy: Same as no. 64.

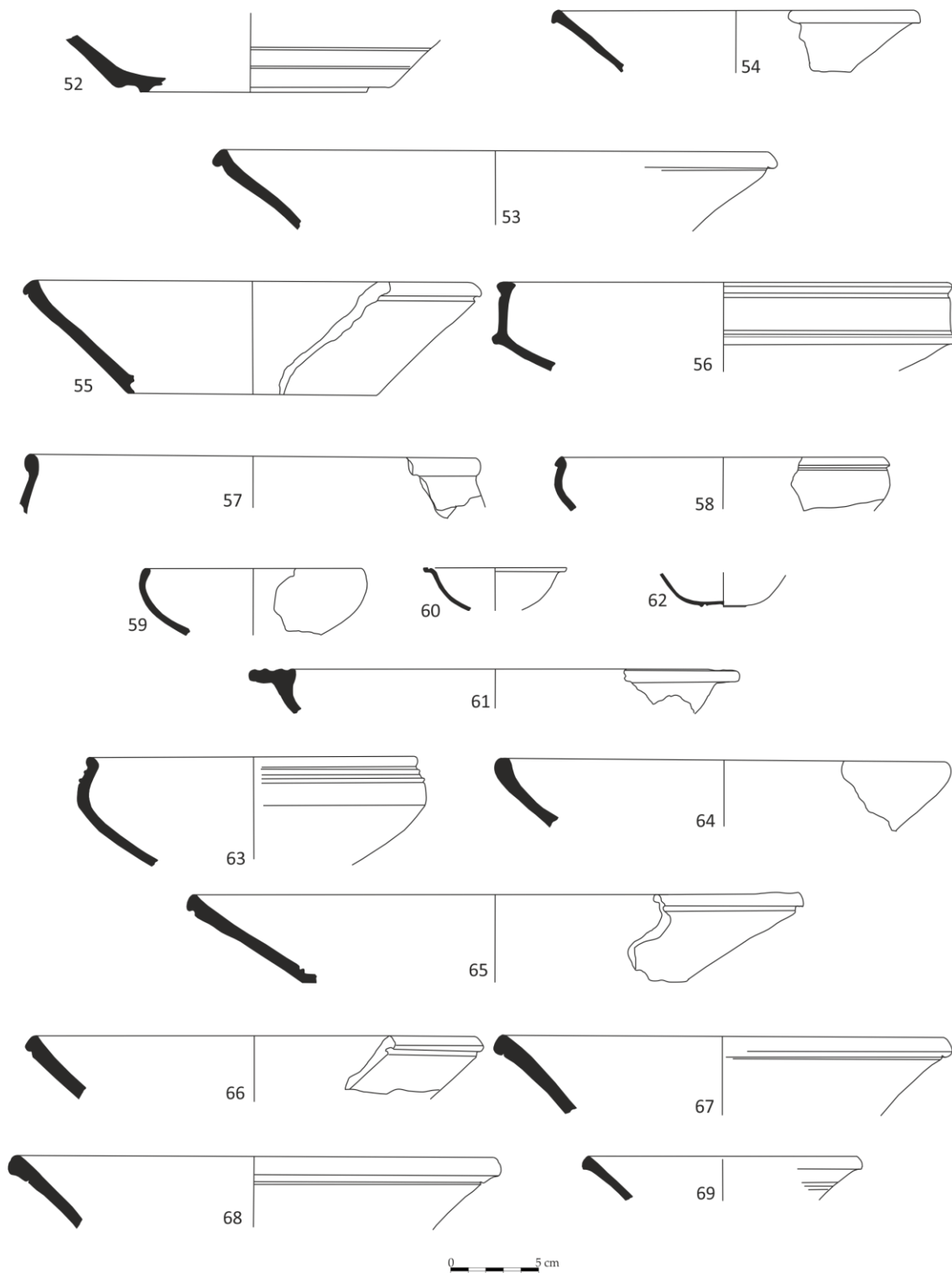


Fig. 16. Fine ware: Aegean bowls (52-55) and Pontic bowls (56-69).

67. JIJ-IZV2020/080: Fragmentary rim and upper wall, rough fabric, uneven firing, muscovite and other impurities in composition, matrix color – Munsell 5YR 6/8 orange. Rough slip – color Munsell 2.5YR 4/8 reddish brown.  
Context: Cx. 4. Size: Hp=4.5 cm, Rd=25.7 cm.  
Analogy: Same as no. 64.

68. JIJ-IZV2020/081: Fragmentary rim and upper wall, rough fabric, insufficient and uneven firing, limestone particles and muscovite in composition, matrix color – Munsell 5YR 6/6 orange. Rough slip – color Munsell 5YR 7/8 orange.  
Context: Cx. 4. Size: Hp: 4.2 cm, Rd=27.6 cm.  
Analogy: Same as no. 64.
69. JIJ-IZV2020/082: Fragmentary rim and upper wall, rough fabric, uneven firing, limestone and other impurities in composition, matrix color – Munsell 5YR 7/8 orange. Rough slip – color Munsell 2.5 YR 4/6 reddish brown.  
Context: Cx. 4. Size: Hp=2.5 cm, Rd=15.7 cm.  
Analogy: Same as no. 64.

### 8. *Lucerna*

A single lamp was recovered from Cx. 1 – a cone-shaped pit which might have been part of a dwelling (other than Cx. 4, considering the distance of approximately 25 meters between Cx. 4 and Cx. 1). Taking into account the shape of the lamp and the characteristics of the fabric, we can say that it is a local product of the Loeschcke VIII type, dated between 2<sup>nd</sup>-3<sup>rd</sup> centuries AD.<sup>134</sup>

Catalog:

70. JIJ-IZV2020/083: Small round-shaped lamp, fine fabric, even firing, matrix color Munsell 7.5YR 6/6 reddish yellow. Slip wash color Munsell 7.5YR 3/2 dark brown with white mica. Round and flat base, concave discus, handle not preserved, shoulder decoration hardly visible, bull on discus.  
Context: Cx. 1. Size: length=7.3 cm, width=5.65 cm, discus diameter=3.56 cm, base diameter=2.86 cm.  
Analogy: Topoleanu 2012, 128, cat. no. 70.

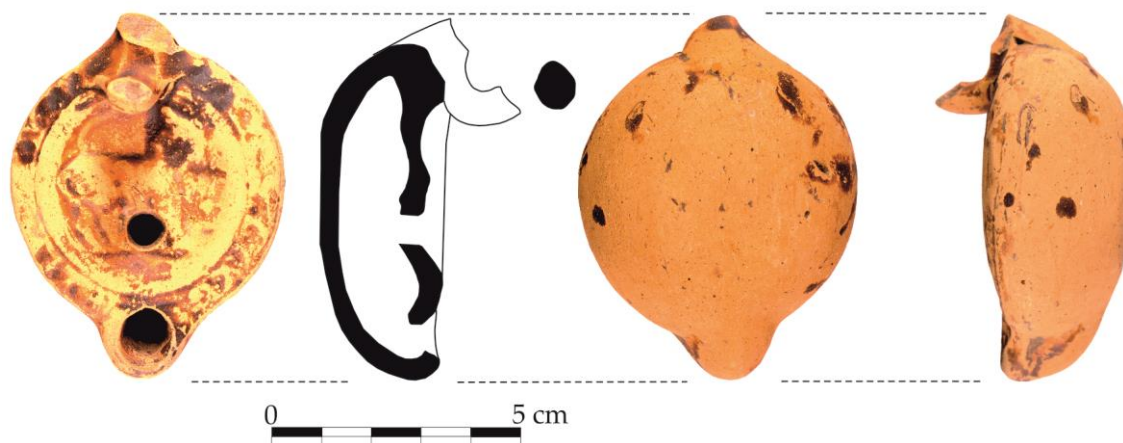


Fig. 17. Loeschcke VIII lamp.

<sup>134</sup> Topoleanu 2012, 128.

## 9. Iron objects

Several artifacts made from iron (Fig. 18-19) had been found during the excavations from Jijila–Izvor, including a key, several nails, a vessel fragment, a full sickle, and possible fragments of tools and bands. All of these objects and fragments were most probably forged.<sup>135</sup>

The catalog for this category of objects is prioritizing the context of finds, due to the relevance for chronology and function. Moreover, Cx. 8 contains a pottery fragment used as a reference for the general dating of the other materials within the context.

### 9A. Objects from Cx. 4

Catalog:

71. JIJ-IZV2020/101: Tumbler lock slide key with three teeth. The handle ends in a suspension loop.  
Context: Cx. 4. Size<sup>136</sup>: l=7.7 cm, w. handle=0.4-1.5 cm, d. loop= 1.6 cm (int) 2.2 cm (ext), t=0.5-0.8 cm.  
Analogy: Poulter, Beech 2007, 80, 2.176-2.177, 82-83.  
Dating: Early Roman period.
72. JIJ-IZV2020/102: Rod with tapering end and partly preserved loop. The loop has a rounded profile; the rod and the taper end have rectangular with rounded edges profiles. Due to the preservation state of the object and no characteristic features, a specific functionality (e. g. suspension hook) cannot be assigned.  
Context: Cx. 4. Size: l=12.8 cm, w. loop=0.7 cm, w. rod=0.4 cm, w. taper=0.3 cm, t. loop=0.7 cm, t. rod=0.55 cm, t. taper=0.4 cm.  
Dating: Early Roman period, based on context.
73. JIJ-IZV2020/103: T-shape nail, square profile of the shaft, square with rounded edges profile of the taper end, rounded conical head.  
Context: Cx. 4. Size: l=9.2 cm (head=0.5 cm, shaft=8.7 cm), w. head=1.9 cm, w. shaft=0.6 cm, w. taper=0.3 cm, t. shaft=0.6 cm, t. taper=0.3 cm, d. head=1.6 cm.  
Analogy: Gaitzsch 2005, p. 193, Taf. 37 N10.  
Dating: Early Roman period, based on context.
74. JIJ-IZV2020/104: T-shape nail, square profile of the shaft, slightly curved shaft, rounded conical head.  
Context: Cx. 4. Size: l=9.7 cm (head=0.5 cm, shaft=9.2 cm), w. head=2.6 cm, w. shaft=0.7 cm, w. taper=0.3 cm, t. shaft=0.7 cm, t. taper=0.3 cm, d. head=2.3 cm.  
Analogy: Gaitzsch 2005, p. 193, Taf. 37 N12.  
Dating: Early Roman period, based on context.
75. JIJ-IZV2020/105: T-shape nail, square profile of the shaft, slightly curved shaft, rounded and deformed head.  
Context: Cx. 4. Size: l=7.8 cm (head=0.5 cm, shaft=7.3 cm), w. head=2.3 cm, w. shaft=0.7 cm, w. taper=0.4 cm, t. shaft=0.6 cm, t. taper=0.4 cm, d. head=2 cm.  
Analogy: Gaitzsch 2005, p. 193, Taf. 37 N12.  
Dating: Early Roman period, based on context.

<sup>135</sup> We would like to thank David Zs. Schwarcz (Austrian Academy of Sciences – Austrian Archaeological Institute) for his scientific support.

<sup>136</sup> All the abbreviations used are as follows: l=length, w=width; t=thickness, d=diameter.

76. JIJ-IZV2020/106: T-shape nail with twisted shaft, square profile of the shaft, rounded flat head, probably used for screwing wood (furniture, carpentry).  
Context: Cx. 4. Size: l=7.8 cm (head=0.2 cm, shaft=7.6 cm), w. head=1.6 cm, w. shaft=0.5 cm, w. taper=0.25 cm, t. shaft=0.5 cm, t. taper=0.3 cm, d. head=1.5 cm.  
Dating: Early Roman period, based on context.
77. JIJ-IZV2020/107: T-shape nail, square profile of the shaft, slightly curved shaft, rounded flat head.  
Context: Cx. 4. Size: l=8.4 cm (head=0.6 cm, shaft=7.8 cm), w. head=2.2 cm, w. shaft=0.5 cm, w. taper=0.25 cm, t. shaft=0.45 cm, t. taper=0.3 cm, d. head=1.8 cm.  
Analogy: Gaitzsch 2005, 193, Taf. 37 N12.  
Dating: Early Roman period, based on context.
78. JIJ-IZV2020/108: T-shape nail fragment, square profile of the shaft, slightly curved shaft, rounded conical head.  
Context: Cx. 4. Size: l=5.4 cm (head=0.7 cm, shaft=4.7 cm), w. head=2.6 cm, w. shaft=1.1 cm, t. shaft=0.5 cm, d. head=2.5 cm.  
Dating: Early Roman period, based on context.  
Analogy: Gaitzsch 2005, 193, Taf. 37 N10.
79. JIJ-IZV2020/109: T-shape nail head and shaft fragment (possibly belonging together), square profile and slightly curved shaft, rounded conical head.  
Context: Cx. 4. Size: l=8.5 cm (head=0.5 cm, shaft=8 cm [1.4+6.6]), w. head=2.5 cm, w. shaft=0.6 cm, w. taper=0.5 cm, t. shaft=0.5 cm, t. taper=0.3 cm, d. head=2.3 cm.  
Analogy: Gaitzsch 2005, 193, Taf. 37 N12  
Dating: Early Roman period, based on context.
80. JIJ-IZV2020/110: Fragmented object (fitting or frame?) consisting of two parts: a long triangular sheet with triangular profile adjoining a perpendicular fin-like sheet with a semi-circular hole (probably a nail socket).  
Context: Cx. 4. Size: l=7.3 cm, w. triangular sheet=0.7-1.4 cm, w. fin-like sheet=0.2 cm, t. triangular sheet=0.2-0.5 cm, t. fin-like sheet=1-1.55 cm, d. hole=0.4 cm.  
Analogies: none so far.  
Dating: Early Roman period, based on context.
81. JIJ-IZV2020/111: Possible fragment of a *falx* (*vinaria*?) with arched back, blade missing.  
Context: Cx. 4. Size: l=6.2 cm, w=0.9-2.1 cm, t=0.3-0.6 cm.  
Analogy: Müller 1982, Cat. No. 1629, 240, 555.  
Dating: Early Roman period, based on context.
82. JIJ-IZV2020/112: Bent sheet, probably covering a former wooden object.  
Context: Cx. 4. Size: l=8.9 cm, w=11.8 cm, t=0.1-0.2 cm.  
Analogies: none so far.  
Dating: Early Roman period, based on context.
83. JIJ-IZV2020/113: Broad iron band with unknown function.  
Context: Cx. 4. Size: l=3 cm, w=3.1 cm, t=0.1-0.2 cm.  
Analogies: none so far.  
Dating: Early Roman period, based on context.
84. JIJ-IZV2020/114: Stripe, eventually bracelet, due to its slightly curved profile.  
Context: Cx. 4. Size: l=6 cm, w=1-1.4 cm, t=0.2-0.4 cm.  
Analogies: none so far.  
Dating: Early Roman period, based on context.

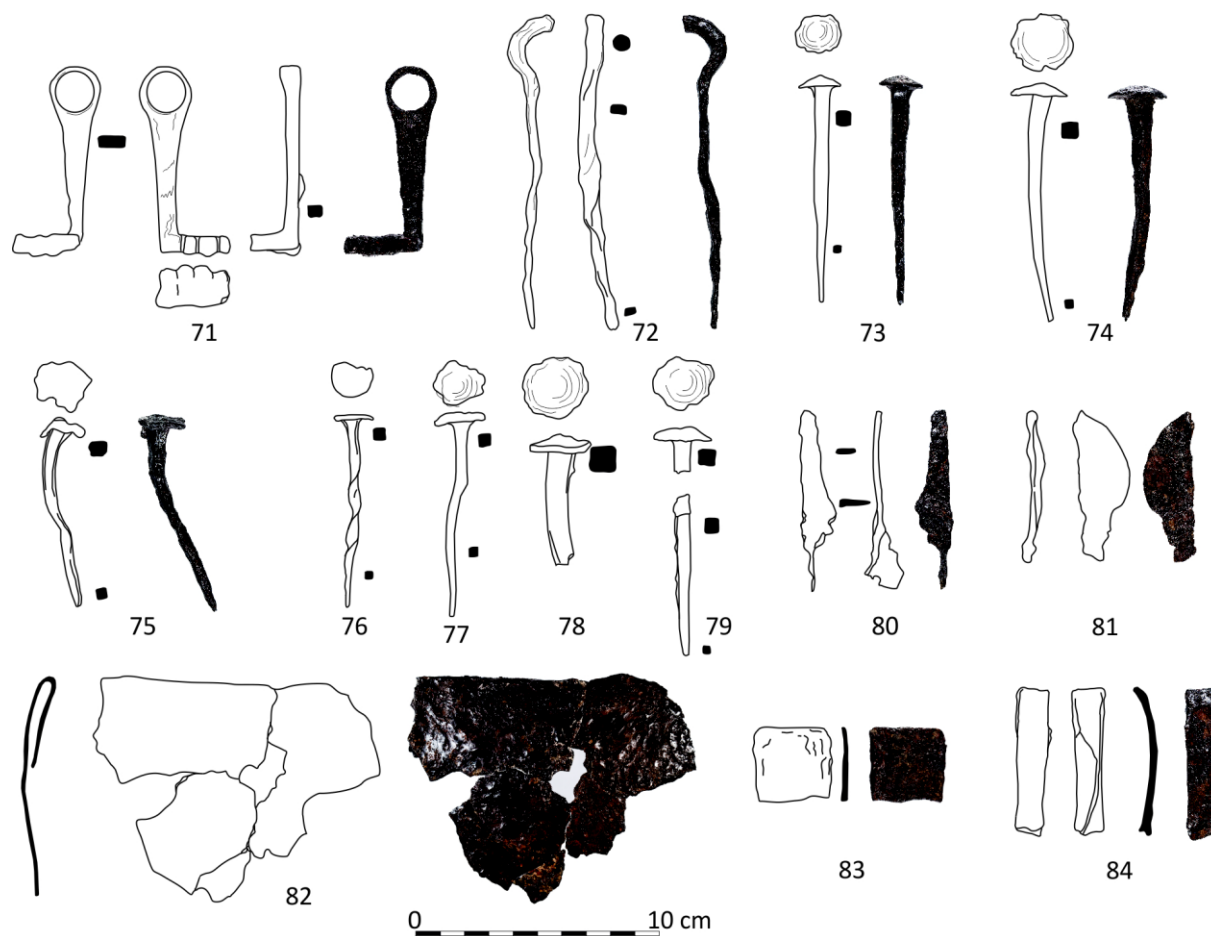


Fig. 18. Iron objects from Cx. 4: key (71), rod (72), nails (73-79), fitting/frame (80), falx (?) (81), bent sheet (82), broad band (83) and stripe/bracelet (84).

## 9B. Objects from Cx. 8

### Catalog:

85. JIJ-IZV2020/115: Tanged iron sickle with iron fixing band for handle; C-shaped tapering blade with no distinctive serrated cutting edge due to the level of preservation. The handle band was found on the sickle's tang and it has a row of parallel lines perpendicular to the edges as decoration.  
Context: Cx. 8. Size: l=39.8 cm; blade: w=0.6-2.1 cm, t=0.1-0.5 cm; tang: l=6.7 cm, w=0.5 cm, t=0.2 cm; band: l=3.7 cm, w=4.3 cm, t=0.1 cm.  
Analogies: Müller 1982, Cat. No. 1885, 263, 569; Ottaway, Rogers 2002, 2746, Fig. 1351. 12980; 2747 and 3075.  
Dating: Middle Ages, possibly 11<sup>th</sup>-13<sup>th</sup> c., see the medieval pottery fragment below.
86. JIJ-IZV2020/116: Medieval pottery rim and handle fragment of pot with olive-green glaze applied only on the rim, on both surfaces. Wheel-thrown, made from a compact semi-fine fabric and fired in oxidizing atmosphere. The handle was applied on top of the rim, having a flat ribbon shape. It may have had one or two handles.  
Context: Cx. 8. Size: l=3.2 cm, t=0.5 cm, d=16.4 cm.  
Dating: 11<sup>th</sup>-13<sup>th</sup> c.  
Analogy: Ștefan *et alii* 1967, 269 Fig. 163. 5, 7-9, 272, 274.

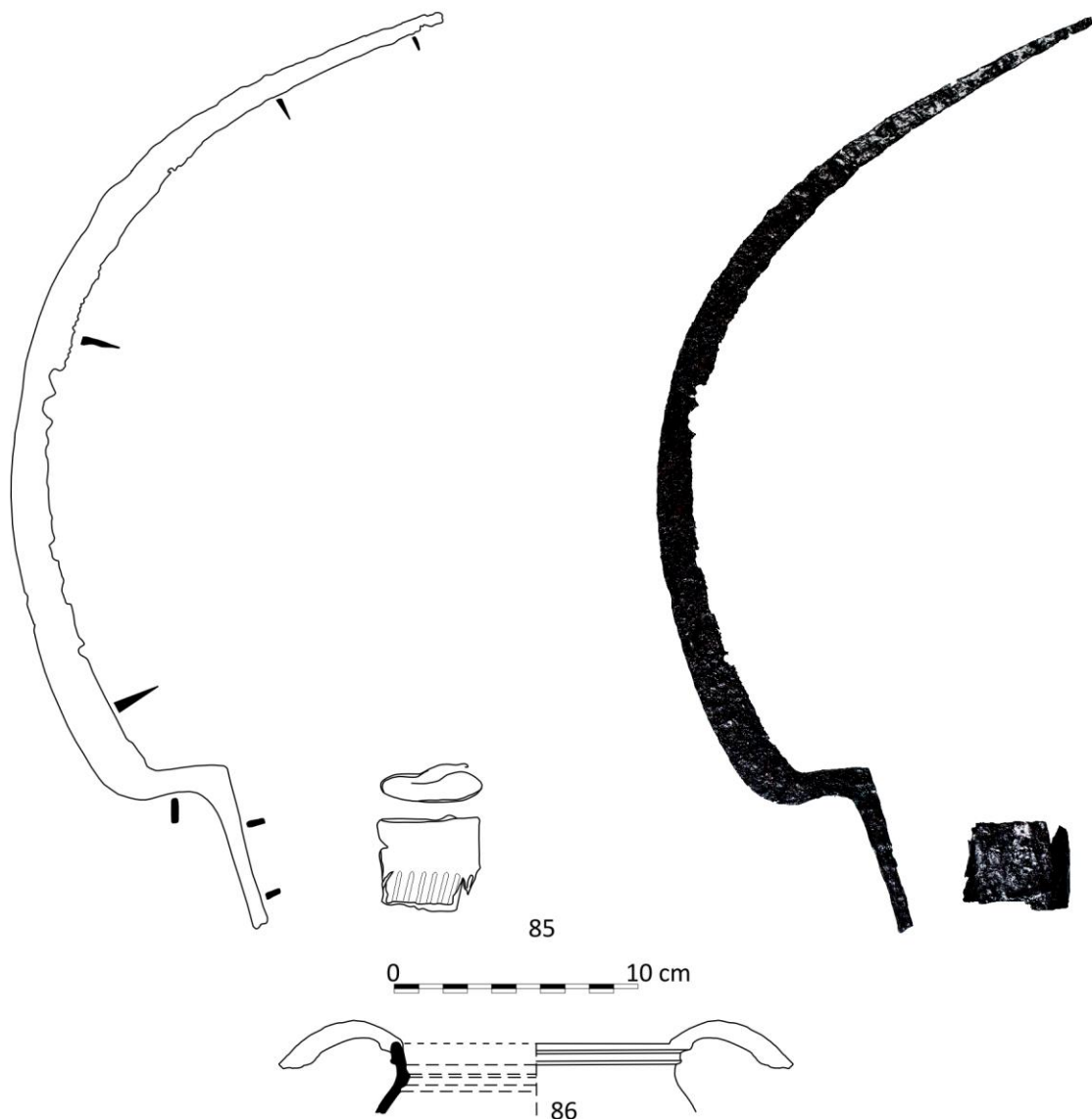


Fig. 19. Iron sickle (85) and medieval ceramic vessel (86) from Cx. 8.

### 10. Ceramic building material

The ceramic building material (CBM further on) discovered during the rescue excavation at Jijila-Izvor (Fig. 20) completes the general overview of the uncovered situation, offering supplementary data regarding the construction methods and material (re)use.

Most of the CBM fragments were uncovered in the northern part of the so-called pit-house (Table 1), which covered a surface of approximately 50 sq. m. The material was most probably already in a fragmentary state when it was re-used for roofing. The construction itself might have been not strong enough to support a complete roofing with CBM and the finds confirm that the material was not enough to cover the roof completely. As there were no post holes or other features discovered indicating a supporting construction, one could suppose any retaining structures were fixed on the surface or very superficially dug in the mud floor. Most probably, the roof was made of thatch and timber. A minimal timber substructure was necessary for both thatch and CBM. Moreover, the roof was only partly covered with tiles, especially on the northern side (confirmed by the concentration of the CBM finds), which was



more exposed to the bad weather. Therefore, these fragments were gathered with the purpose of repairing and/or reinforcing the most vulnerable side of the roof.<sup>137</sup>

The presence of some *tegulae* fragments in pits that predate and postdate the pit-house (Cx. 4) could bring useful information, too. Cx. 7 contained seven fragments suggesting the presence of this material before Cx. 4 (pit-house) was constructed. Cx. 8 had eight *tegulae* fragments and based on the archaeological context was dated to the Middle Ages. It was identified in the northern side of the Cx. 4, therefore it is not a surprise it contained CBM. By that time, the roof of the pit-house must have collapsed, becoming part of the debris.

The fragments have various fabrics and can be dated as Roman, fitting very well with the proposed chronology of the uncovered pottery (1<sup>st</sup> – 3<sup>rd</sup> centuries AD). The CBM fragments contain so-called Corinthian type *tegulae*<sup>138</sup> and Laconian type *imbrices*<sup>139</sup>, a very common combination for roofing called “hybrid”.<sup>140</sup> Part of the *imbrices* could have very well been used for the ridge of the thatched roof, which also endures the most of the weather changes and requires extra attention and maintenance.

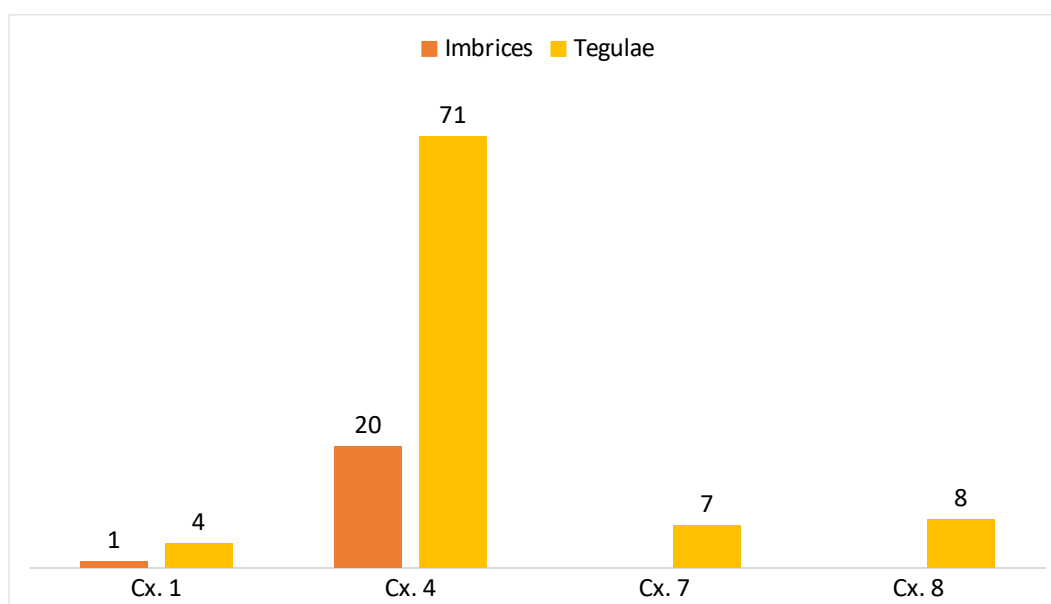


Table 1. Overview of the ceramic building material discovered in various contexts.

<sup>137</sup> A properly constructed and maintained thatched roof is durable for several decades, depending on climate and the type of used material. The advantages of this type of roof are insulation, flexibility of the material, and accessible resource. The disadvantages are the fire risk, animal nesting, leaks, moss, mould, rotting etc. Nevertheless, these materials are still wide spread and used in the region of North Dobruja. There are several types of roofs ethnographically documented for this region 1. The thatched gable or hipped roof; 2. The tiled gable or hipped roof; 3. The mixed thatched and tiled gable or hipped roof; 4. The thatched or tiled shed roof. It is highly probable that these types were in use since ancient times, especially in the rural areas. For more details of traditional construction of roofs in the region, see *Ghid de arhitectură pentru încadrarea în specificul local din mediul rural. Zona Delta Dunării*, 2016, 25-27, Figs. 1-2 of each page; *Ghid de arhitectură pentru încadrarea în specificul local din mediul rural. Zona Dobrogea Centrală și Munții Măcin*, 2016, 10, Figs. 1-3, 5. <https://www.oar.archi/despre-oar/ghidurile-de-arhitectura-pentru-incadrarea-in-specificul-local-din-mediul-rural>, accessed on 15.09.2021.

<sup>138</sup> Wikander 1988, 208-210, Fig. 3. C4.

<sup>139</sup> Wikander 1988, 210-211, Fig. 4. L1.

<sup>140</sup> Åkerström 1966, 194, Abb. 64; Wikander 1988, 214, Fig. 6.

CBM is not a typical material for pit-houses and there are no similar published situations within the region of Northern Dobruja. The presence of these CBM fragments in the above-mentioned context might indicate the interest in protecting the construction and could be a result of an experience that proved the necessity of investment in the roof of this construction. An interesting feature is that most of the fragments are not properly smoothed and finished. This could indicate that the pieces were not of high quality and, even more, that the artisan was not very skilled or an apprentice. In general, the high request can also justify the hurry in producing the CBM and the lack of time in finishing (all of) them properly. One of the indicators for this is the insufficiently fired fabric marked through a darker core (invisible on the surface of the piece, identifiable only when the piece is broken). All of the analyzed fragments were sufficiently fired, therefore the aforementioned aspect seems not to apply in this case. The variation and the fragmentation of the material suggests it was gathered from a context that was not in active use (anymore). One can hardly assume the pieces were complete when (re)used for the roof of the pit-house. Moreover, the gathering and the installation of the CBM fragments suggest an existent knowledge and the presence of various skills related to this material and its function. Therefore, a fragmentary hybrid partially covering roof might have fulfilled the necessities: protecting the northern and more exposed side of the roof and building from bad weather; preventing the water infiltrations by draining the rain; securing and strengthening the resistance of the roof. The following catalog includes a selection of the relevant typical fragments and illustrates the main categories with their variants.

### 10A. *Imbrices*

#### Catalog:

87. JIJ-IZV2020/117: Fragment with one margin preserved; semi coarse, evenly fired fabric with muscovite, limestone, and quartzite inclusions; small and medium sized holes which indicate the presence of organic elements mixed with the clay before firing. Smoothing traces along the fragment before applying the slip wash. Fabric color: 5YR 6/3 light reddish brown; slip wash: 5YR 7/1 light gray.  
Context: Cx. 4. Size<sup>141</sup>: l=9.1 cm; b=11.4 cm; t=2 cm.
88. JIJ-IZV2020/118: Fragment of the upper left or the lower right corner; semi coarse evenly fired fabric with muscovite, limestone, chamotte, and quartzite inclusions; small and medium sized holes which indicate the presence of organic elements mixed with the clay before firing. Smoothing traces along the fragment before applying the slip wash. Fabric color: 2.5YR 6/6 light red; slip wash: 2.5YR 7/2 pale red.  
Context: Cx. 4. Size: l=12.8 cm; b=10.2 cm; t=1.8 cm.
89. JIJ-IZV2020/119: Fragment of the upper left or the lower right corner; semi coarse, evenly fired fabric with muscovite and limestone inclusions; small and medium sized holes which indicate the presence of organic elements mixed with the clay before firing. Smoothing traces along the fragment before applying the slip wash. The width end has extra clay that probably exceeded the margins of the frame and was not removed when smoothed. Fabric color: 2.5YR 6/6 light red; slip wash: 2.5YR 6/2 pale red.  
Context: Cx. 4. Size: l=12.1 cm; b=7.6 cm; t=1.8 cm.

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<sup>141</sup> All the abbreviations used are as follows: l=length, b=breadth, t=thickness, w=width.

**10B. Tegulae**

## Catalog:

90. JIJ-IZV2020/120: Flange fragment of one of the vertical sides; semi coarse, evenly fired fabric with limestone inclusions; small and medium sized holes which indicate the presence of organic elements mixed with the clay before firing. Smoothing traces along the fragment before applying the slip wash. A feature of this fragment is the presence of a thick layer of small pebbles on the underside, indicating that this was the bed on which it was laid when left to dry. Fabric color: 2.5YR 5/8 red; slip wash: 2.5YR 7/2 pale red.  
Context: Cx. 4. Size: l=11.7 cm; b=13.5 cm; flange t.=2.8 cm; t.=2.6 cm; flange w.=3.7 cm.
91. JIJ-IZV2020/121: Fragment of the upper left corner with upper cutaway; semi coarse, evenly fired fabric with muscovite, limestone, chamotte, and quartzite inclusions; small and medium sized holes which indicate the presence of organic elements mixed with the clay before firing. Smoothing traces along the fragment before applying the slip wash. Neither the upper cutaway, nor the rest of the surface had been sufficiently smoothed. The underside has a big irregularity, probably from the bed on which was laid for drying before firing, impossible to distinguish in the current state of preservation. Fabric color: 5YR 6/6 reddish yellow; slip wash: 5YR 7/2 pinkish gray.  
Context: Cx. 4. Size: l=15.1 cm; b=14.5 cm; flange t.=2.2 cm; t.=2.4 cm; flange w.=3 cm.
92. JIJ-IZV2020/122: Fragment of the upper left corner with upper cutaway; semi coarse, evenly fired fabric with muscovite, limestone, chamotte, and quartzite inclusions; small and medium sized holes which indicate the presence of organic elements mixed with the clay before firing. Smoothing traces along the fragment before applying the slip wash. Neither the upper cutaway, nor the rest of the surface had been sufficiently smoothed. A feature of this fragment is the presence of a thick layer of sand and very small pebbles on the underside, indicating that this was the bed on which it was laid when left to dry. Fabric color: 5YR 5/6 yellowish red; slip wash: 5YR 6/2 pinkish gray.  
Context: Cx. 4. Size: l=15.6 cm; b=12.4 cm; flange t.=2.9 cm; t.=2.4 cm; flange w.=3.2 cm.
93. JIJ-IZV2020/123: Fragment of the upper right corner with upper cutaway; semi coarse, evenly fired fabric with muscovite and limestone inclusions; small and medium sized holes which indicate the presence of organic elements mixed with the clay before firing. Smoothing traces along the fragment before applying the slip wash. Neither the upper cutaway, nor the rest of the surface had been sufficiently smoothed. Fabric color: 5YR 6/8 reddish yellow; slip wash: 10YR 8/2 very pale brown.  
Context: Cx. 4. Size: l=19 cm; b=14.9 cm; flange t.=1.6 cm; t.=2.1 cm; flange w.=2.6 cm.
94. JIJ-IZV2020/124: Fragment of lower end with central "signature" made of four semi-circular finger (?) marks; semi coarse, evenly fired fabric with muscovite and limestone inclusions; small and medium sized holes which indicate the presence of organic elements mixed with the clay before firing. Smoothing traces along the fragment before applying the slip wash. Various sizes of deformations on the underside, indicating the irregular surface on which the tile was left to dry. Fabric color: 5YR 5/8 yellowish red; slip wash: 5YR 7/2 pinkish gray.  
Context: Cx. 4. Size: l=16 cm; b=14.4 cm; t.=1.9 cm.

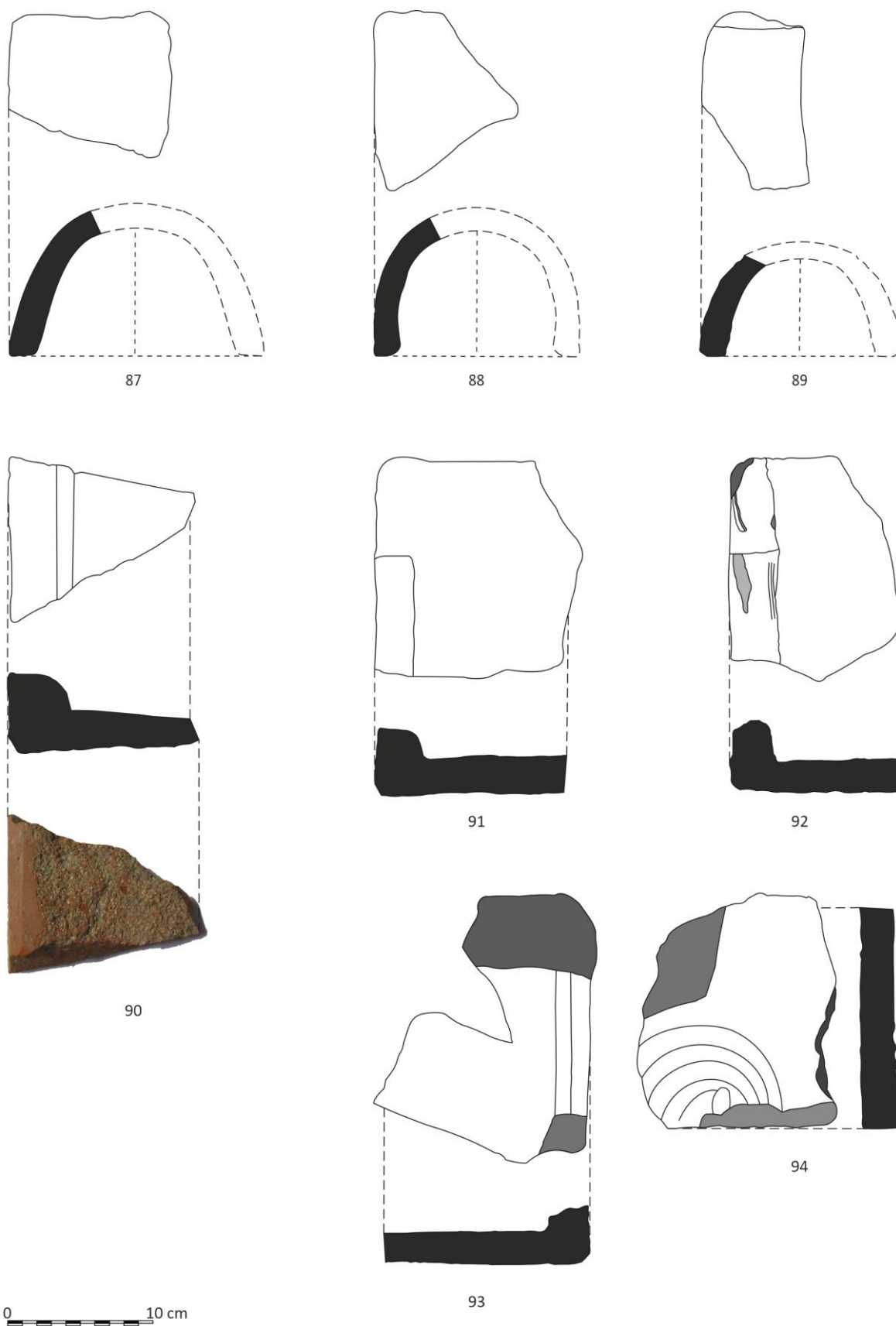


Fig. 20. Ceramic building material from Cx. 4: *imbrices* (87-89) and *tegulae* (90-94).

## 11. Stone objects

The discovery of the two fragments of a hand stone quern (Fig. 21) highlights the crop processing activity in the researched area. The fragments were discovered in the humus layer, therefore we cannot assign them with certainty to the Roman or Medieval period. A hand stone quern could perfectly fit to either of the mentioned periods, due to its continuous use in both domestic and rural contexts.

Catalog:

95. JIJ-IZV2020/125: Fragments of an upper stone rotary quern (handmill) with a slightly concave grinding surface, lowering towards the (eventual) spindle hole. The margins are marked through an elevation and the central spindle hole is not preserved. It is made of granite with quartz and feldspar inclusions. Jijila–Izvor is in the proximity of Măcin Mountains, an important source of granite.<sup>142</sup>

Context: Cx. 9, humus layer. Size: diameter≈44 cm, height max.=10.1 cm, height min.=2.2 cm, weight=6.4 kg.

Dating: since the object was discovered in the humus layer, we cannot be certain regarding the chronology of it. The variation of typology is not very much changing along the centuries; therefore, it can belong to either Roman or Medieval period.

Analogy: Baumann 1983, 272, fig. XL.1.

## 12. Final considerations

Following an introduction to the site of Jijila–Izvor and the most recent rescue excavations results, this article focused on presenting the uncovered contexts and their finds, datable to the 2<sup>nd</sup>-3<sup>rd</sup> century AD. Moreover, the presence of some medieval contexts and finds, highlights the use of the area during a larger timespan.

The unusually large proportions of the discovered “pit-house” raise a few questions regarding the actual use of such a dugout. Compared to other documented dwellings in the vicinity constructed in the same manner and belonging to the same chronological interval, the Jijila–Izvor pit-house is significantly larger (10 x 5 m) than those found at Telița–Amza<sup>143</sup> (4.10 x 2.60 m and 3 x 4 m), Sarichioi–Sărătura-Nord<sup>144</sup> (3 x 3.35 m, 3 x 3.55 m and 3 x 3.25 m) and Sărătura-Sud<sup>145</sup> (4 x 5 m), Revărsarea–Cotul Tichilești<sup>146</sup> (4x3 m and approx. 5 x 5 m). Furthermore, the lack of a hearth inside the dwelling, the presence of a slightly sloped entrance (ramp-like), the absence of post holes for the support of the roof, the key discovered in close proximity to the entrance make us believe that this structure was used as a storage facility, or maybe even as temporary shelter. Moreover, the reinforcement of the roof through ceramic building material shows interest for investing in the protection of the construction, while the need for a lock and key suggests the presence of objects and/or products worth protecting (Aegean and Micro-Asian imports – Cretan wine, fine ware etc.).

The archaeological finds cover a wide range of categories; consisting mainly of pottery fragments, followed by zooarchaeological remains, ceramic building materials, metal and

<sup>142</sup> We would like to thank Oliver Livanov (Danube Delta National Institute for Research and Development-Tulcea) for the geological identification.

<sup>143</sup> Baumann 1995, 22.

<sup>144</sup> Baumann 1995, 179.

<sup>145</sup> Baumann 1995, 187.

<sup>146</sup> Baumann 1995, 235.

stone objects. The pottery groups cover all the functional criteria, from storage vessels, to fine ware and lighting objects (Table 2). Observing the pottery assemblage, we can infer several considerations.

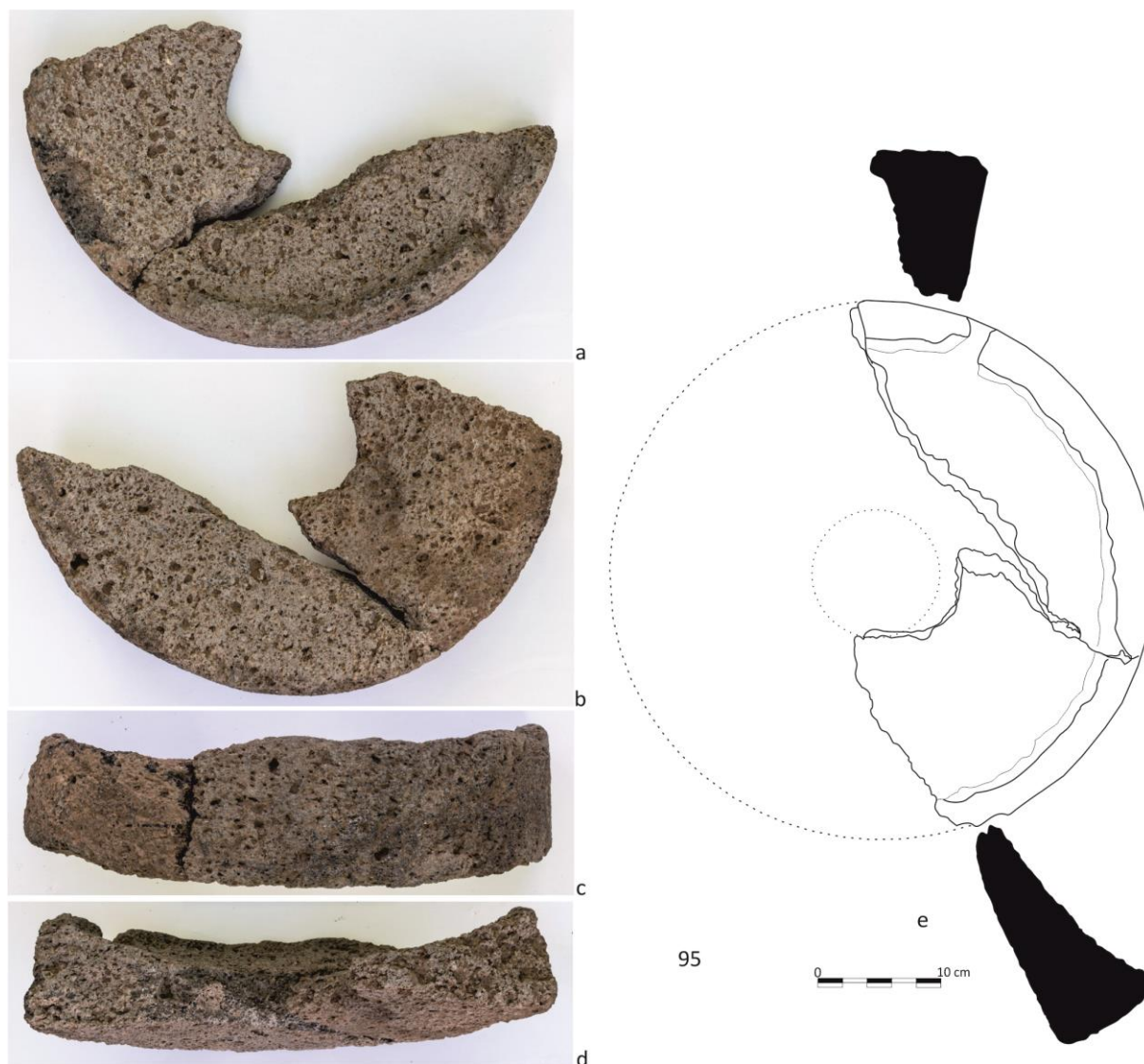


Fig. 21. Fragment of rotary quern (95): a. view from above; b. view from below; c. side view of elevated margins; d. view from the central part towards the margins; e. drawing of the upper stone quern from above.

Firstly, the percentage (15.5%) of hand-made pottery, a high percentage compared to other studies for the period<sup>147</sup>, discovered alongside Roman coarse ware (70%) imply an intense contact of the population at Jijila-Izvor (living in the territorium of *Arrubium*) with the Romans, as well as the continuity of ceramic production in La Tène tradition. The presence of only one oil vessel alongside several wine amphorae might indicate the alternative use of animal fat for cooking and illuminating. In addition, the wine consumption would in general be higher compared to the oil. Secondly, the large proportion of pottery made of kaolinitic clay among cooking, storing, pouring and drinking vessels indicates a functional preference for this type, being more porous and better suited for variations in temperature (e.g. during

<sup>147</sup> Honcu 2017, 178; 189. The author determines a mean of 4-5% of hand-made pottery relative to the total number of cooking and storage pottery identified between the 1<sup>st</sup> and 3<sup>rd</sup> centuries AD, in Roman Dobruja.

the cooking process).<sup>148</sup> Furthermore, the diversity of ceramic forms made of the same clay might indicate a proximity of the settlement to a production center, or even a role in the distribution of pottery.

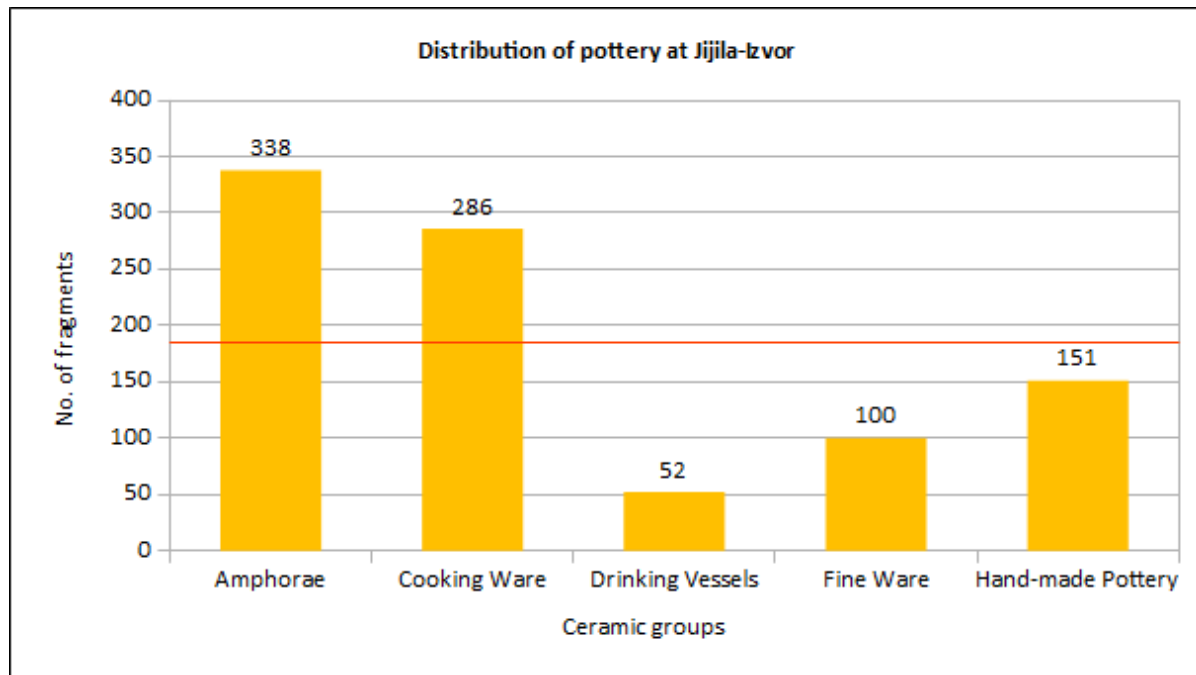


Table 2. Pottery fragments distribution.

From an economic perspective, we found imported products (both extra-provincial and intra-provincial) and local manufactured goods (hand-made pottery, ceramic building material). The imports are represented by long-distance trade products (wine and olive oil in amphorae, fine wares etc.) from various workshops of the Roman Empire: Southern Black Sea (*Herakleia Pontica*, *Sinope* – for amphorae), Eastern Mediterranean (Chios, Crete – for amphorae; Çandarlı – for fine wares), Middle Danube (decorated storage vessels). Intra-provincial products include amphorae from the Northern Black Sea, Pontic tableware<sup>149</sup> and the lamp. Furthermore, the vessels made of kaolinitic clay can be considered intra-provincial as well, since known clay deposits/workshops are further to the south of *Moesia Inferior* (*Durostorum*, Castelu). Regarding the trade network, these products were most likely to travel by sea/river up to *Arrubium*, and then distributed in the rural territory.

The ceramic material was the basis for establishing the chronology of the excavated features, the main indicators being the amphorae, fine ware and the lamp. Thus, for the Roman period the chronological interval has been narrowed down to mid-2<sup>nd</sup> and 3<sup>rd</sup> century AD. Previous excavations in the Roman necropolis of *Arrubium*, which led to the discovery of pottery dated between the mid-2<sup>nd</sup>-3<sup>rd</sup> centuries AD, support this timespan.<sup>150</sup>

Rural settlements on the *limes*, such as the one at Jijila-Izvor, had a significant economic role in supplying military units – in our case it was the *Ala I Vespasiana Dardanorum*

<sup>148</sup> Daszkiewicz *et alii* 2010, 42-43.

<sup>149</sup> Mocanu 2021, 122. The author takes into consideration the possibility that some of the Early Pontic Red Slip Ware were initially produced in the South Pontic region, and afterwards widely imitated and developed in the West Pontic area.

<sup>150</sup> Paraschiv 1997, 317-330.

(receiving the title *Antoniniana* in the 3<sup>rd</sup> century)<sup>151</sup> stationed at *Arrubium*. It is possible that the settlement at Jijila–Izvor contributed in this manner; nevertheless, we have no certain evidence to assess this hypothesis. Considering the fact that only a small portion of this settlement has been researched, it can be safely said that more relevant information about Early Roman settlements on the Danube banks awaits to be uncovered.

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<sup>151</sup> Bărbulescu 2001, 83.



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