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EVALUATIONS ON COLCHIAN AMPHORAE RETRIEVED FROM FATSA/CINGIRT KAYASI EXCAVATIONS

This study aims to present Colchian amphorae samples that were obtained during excavations conducted in Cıngırt Kayası Fatsa/Ordu. The amphorae fragments retrieved from the excavations are dated from Hellenistic up to the Early Byzantine Period. Colchian products constitute the primary group among these amphorae from that time frame. The Colchian amphorae samples from the excavations have been evaluated in terms of their possible production centers due to their fabric, morphology and periodisation with parallel materials. These are the first samples of their kind from the southeastern part of Black Sea region. Some publications already talk about the possible presence of these amphorae in Southern Black Sea settlements. Indeed this possibility has been substantiated by the Colchian amphorae samples found at Cıngırt Kayası. They also present evidence to a trade relationship between Turkey's northeastern coast and Colchis.

Southern Black Sea Region – Amphorae – Colchis – Cıngırt Kayası – Hellenistic to Early Byzantine Period

1. Introduction

Cıngırt Kayası is a settlement that was in the Pontic region in the Antiquity (**fig. 1**). It is currently in the Eastern Black Sea Region of Turkey, 5 km distant from Fatsa, in Yapraklı village. Cıngırt Kayası is located on a twin-peaked hill, approximately 200 m above sea level. Given that, it commands a dominant position over the sea and the valley (Erol 2013: 183-196).

The excavations started in 2012 and were carried out over three seasons at the summit and at the northern slopes of Cıngırt Kayası.[1] The data obtained from the excavations suggested that the earliest settlement in the aforementioned area was during the reign of the last Pontic King, Mithradates VI (120-63 BC). The archaeological data were provided to shed light on the continuity of the settlement in Roman and Byzantine periods. Because of the geological characteristics of the area, carved features in the main rock can be observed in abundance. In this regard, rock cut altars with niches and stairs are easily visible in the area. These archaeological data point to the possibility that this area was once used as an open-air sacred place, prior to the architectural development formed during the reign of Mithradates VI (Erol 2014: 383-400; Erol 2015: 453-461; Erol and Tamer 2018: 541-558).

The amphora sherds retrieved from the excavations at Cıngırt Kayası are dated from Hellenistic up to the Early Byzantine Period. Colchian products constitute the main group among these amphorae from that time frame.

Firstly, general information about Colchian amphorae will be given. Then, the amphorae samples obtained from the excavations are evaluated.

By presenting different types of Colchian amphorae retrieved from Cıngırt Kayası, this study aims to contribute to the literature on the regional archaeology and on Anatolian amphorae studies.

2. Colchian Amphorae

The Colchian amphorae, also known as 'Brown Clay Amphorae', were first produced in the 4th century BC (Vnukov 2003: 160) and quickly spread along the northern shores of Black Sea (Tsetskhladze and Vnukov 1992: 358). They were produced until the 7th century AD (Opaiţ 2015: 287, 288) and their presence in areas near Colchis points to the existence of trade relations between Colchis and these areas (Tsetskhladze and Vnukov 1992: 361 Fig. 2; Kvirkvelia 2009: 128).

Colchian amphorae are classified into a few groups in respect to their structural features throughout their production. The main category of Ch-I Amphorae, can be chronologically presented under four different groups: A - B - C - D and their sub-groups (Tsetskhladze and Vnukov 1992: 372; Vnukov 2003: 160-166; Vnukov 2011: 271; Opaiţ 2015: 283). In Colchian amphorae, the best distinctive features can be found on their body and neck parts. The main criterion that makes this distinction possible is whether the body consists of two parts and whether the neck is ribbed or not. Type A samples have an ovoid body; type B ones present a waist in the middle between the upper and lower body, type C samples do have the same waist on the body and they come with a ribbed neck (Vnukov 2003: 164, Fig. 66. 1-3). However, even though they are few in numbers, type B and C amphorae sometimes do not have

[1] Under the permission granted by the General Directorate for Cultural Heritage and Museums of the Ministry of Culture and Tourism of Turkey, the excavation at Cıngırt Kayası has been conducted under the auspices of the Museum of Ordu and under Assoc. Prof. Ayşe F. Erol's scientific supervision with a team.

Fig. 1. Map of Pontic Region during Mithradates's reign (Arslan 2007: map 7).

a waist on the body (Vnukov 2003: 165, Fig. 66. 2. 327; 3. 341), Type D amphorae, in turn, combine the characteristics of type B and C (Vnukov 2011: 276, 277).

The data obtained from petrologic studies put the Sinopean pottery masters in the most favourable position for the producers of amphorae in Colchis and a few Greek colonies (Brashinskij 1973: 187; Kakhidze 1971: 28-66). In 4th century BC in Phasis, Gyenos, Dioscuria, Pichvnari and Vani, colonies are known to be established as a result of trade relations with Greek tradesmen (Boer 2015: 76). We cannot decisively say which goods were exported in the Colchian amphorae, it is believed that they were honey, wax, linseed oil and wine (Kvirkvelia 2009: 128-129).

Petrologic analyses have shown that there were mainly two fabrics in the brown clay amphorae (Tsetskhladze and Vnukov 1992: 380; Vnukov 2006: 45, 77-85), which appear in all three types A-B-C (Vnukov 2009: 30). The clay composition of type D belongs to the second fabric group. In addition to the samples produced in various parts of Colchis,[2] some of those were produced in Sebastapolis (Vnukov 2011: 277).

The first fabric group had pyroxene and basalt sand in its clay. These inclusions appear as shiny black particles (Vnukov 2011: 271, Pl. XXIII. 1; Vnukov 2009: Pl. 6. 1; Vnukov 2013a: 23, 33, Fig. 2. 10; Opaiţ 2015: Figs. 19-22). These are very similar to the mineral profile of Sinopean ceramics. This first fabric type is prominent in the early samples of the brown-clay amphorae. Basaltic rock and black sand deposits are common in various places on southern Black Sea region, in Sinope, Trapezus, Amisos and in Adjara in modern Georgia. Trapezus or other settlements near southern Colchis are suggested to be production centres (Vnukov 2011: 271; Vnukov 2006: 82, 83; Kassab-Tezgör 2013: 155; Golofast 2010: 89).

The second fabric group displays various different varieties. It has plutonic inclusions such as granite and diorite, volcanic inclusions such as basalt and liparite, sedimentary rock minerals and particles such as schist and sandstone, and rare minerals (Vnukov 2006: 79, 89; Vnukov 2009: Pl. 6. 2; Vnukov 2013a: 23, 33, Fig. 2. 11; Opaiţ 2015: Figs. 23-25) for the Pontos region such as olivine (Vnukov 2011: 271, Pl. XXIII. 2). This variety exists because of the mixture of sea and river sands. So fabric does not present homogeneity. The nature of the additive composition can be divided into several small subgroups depending on the amount of minerals and rocks. These sub-groups reflected the geological characteristics of their production centres (Vnukov 2011: 271).

Colchian amphorae were imported to Northern Black Sea settlements by Sinopean tradesmen who were of Greek origin

[2] Brown clay amphorae retrieved from the excavations in North Colchis; Eshera, Gvandra, Dioskouria, Krasny Mayak, Gyenos, in South Colchis; Phasis, Zemo-Partskhma, Namcheduri, Pichvnari, Tsikhisdziri, Gonio, and inland Dablagomi, Dapnari, Sakanchia, Vani see: Tsetskhladze and Vnukov 1992: 360 Fig. 1.

(Lordkipanidze 1979: 169; Kvirkvelia 2009: 129-130). The most obvious evidence to Sinope's prominence in Northern Black Sea trade is the fact that Pitcvnari was established by Sinopeans, and that the economic development in the Kobuleti-Pitcvnari area was carried out by Sinope (Dundua 1997: 82).

The groups from Cıngırt Kayası will be presented in a chronological order, with each group's defining characteristics, and samples that belong to each of these groups.[3] Information on the dimensions such as diameter and height, their fabric groups and their production centers,[4] is presented in a cataloque after the main text relating to each of these groups.

2.1. A/Ch-Ia Type Amphorae

The earliest brown-clay amphorae date from the middle of the 4th century BC. The form is very similar to contemporaneous Sinopean amphorae (Gamkrelidze 2012: 75, 78, Fig. 1. 1-4). Their body is ovoid, with a smooth transition to the slightly sloping shoulders; the neck is short and has no offset; the small rim is cylindrical. The handles are flattened ovals in section; they begin directly under the rim, coming down vertically on to the shoulders. The toes of these amphorae were massive and conical, widening out slightly towards the base (Tsetskhladze and Vnukov 1992: 361-363, Fig. 3. 1-4).

Some samples of amphorae dating from the end of the 4th century BC and the 3rd century BC have similar toes as those of earlier amphorae. The toes of the amphorae appear to be smaller. Gradually their shape becomes simpler; the flaring of the toe towards the base disappears, as a result of which the lower part resembles like a cylinder. Another line of development is that, as the height of its toes decreases, the diameter of the base increases. As a result, the toe becomes 'button-shaped', with a wide round base and a rib at the transition to the short *corpus* with a waist. In general, the similarity between the brown-clay amphorae of the 3rd century BC and the prototypes from Sinope is retained (Tsetskhladze and Vnukov 1992: 362-365, Fig. 4. 1-4, Fig. 6. 1-7; Vnukov 2011: 272-273, 277, Fig. 8).

2.2. A/Ch-Ia Type Amphorae from Cıngırt Kayası

There is a clear protuberance, which forms a bump inside the toe and then a curl on the inner surface of the wall, inside the toe sample shown on **fig. 2, 1**. The toe of the amphora widening out slightly towards the bottom with a wide rounded base is massive, short and cylindrical. It is dated to the end of the 4th century and the 3rd century BC by analogy with parallel samples (Tsetskhladze and Vnukov 1992: 364, Fig. 6. 7).

Insignificant protuberance can be seen inside the toe shown on **fig. 2, 2**. The toe with a wide rounded base is massive, partially long and cylindrical. It is dated to the end of 4th century BC and 3rd century BC by analogy with parallel samples (Tsetskhladze and Vnukov 1992: 362, Fig. 4. 3).

2.3. B/Ch-Ib Type Amphorae

In the late 3rd and 2nd centuries BC, Colchian amphorae gradually lose their formal similarity to Sinopean amphorae and develop an original shape of their own. Despite some differences in details, all these amphorae are linked together as Variant B, dating from the end of the 3rd century BC to the end of the 1st century AD. These amphorae can be grouped under two chronological subtypes. The representatives of the earlier group are Ch-Ib1 amphorae that date from late 3rd century BC to mid 1st century BC. The later group are the amphorae Ch-Ib 2 that date from mid-1st century BC to the end of 1st century AD (Vnukov 2009: 29). The bodies of Variant B amphorae are typically short; the neck, too, is very short and slightly expanding towards the inclined shoulders; the short loop-shaped handles are flattened ovals in section; the toe is small and conical and has a protuberance inside. Virtually all the parameters for these amphorae are smaller than those of earlier samples.

There is a greater diversity in the profiles of Variant B amphorae (Tsetskhladze and Vnukov 1992: 366). Their rims have some morphological variations (Tsetskhladze and Vnukov 1992: 366, 367, Fig. 8, Fig. 9) and gradual changes are also observed on the toes of the amphorae described. A new variety of toe which is cylindrical in shape, is also present (Tsetskhladze and Vnukov 1992: 368, 364, Fig. 7. 1, 2, 5; 369, Fig. 10. 1, 2).

The general forms of the amphorae dating from the 1st century BC to the 1st century AD, grow narrower. Characteristic technological feature of this group amphorae are the separate molding of the upper (together with the throat) and lower parts of the amphorae. The body of the amphorae consists of two parts, the rounded top, and the elongated conical lower part (Vnukov 2013a: 35). The neck of these amphorae is a little elongated and sometimes slightly bulging. The handles are short and loop-shaped; they are attached below the rim and on the upper part of the shoulders. The whole diversity of rim shapes gradually becomes reduced to two very simple varieties. However, rim variety increases in late samples (Tsetskhladze and Vnukov 1992: 368, 370).

Toes are all short, and are either straight-sided or indented at the bottom. However, there are also samples which have a cylindrical toe as seen on early samples. The main difference is to be found in the shaping of the base: it can be round or flat. The last stage in this line of development is a relatively wide truncated cone toe, not set off distinctly from the body of the amphora (Tsetskhladze and Vnukov 1992: 370, 369, Fig. 11. 6-13).

2.4. B/Ch-Ib 1 Type Amphorae from Cıngırt Kayası

The earliest samples of the group B amphorae obtained from Cıngırt Kayası have the thickened rim and slightly bulging neck. However, the differentiation of rim forms indicates the necessity of evaluating two sub-groups.

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3 Ceramics of Cıngırt Kayası, including these material, are being studied by Deniz Tamer within the scope of his PhD dissertation.

4 We would like to express our gratitude to Prof. Dr. Sergey Yu. Vnukov for his invaluable evaluations on the material from a chronological, fabric and production origin point of view.

Fig. 2. Colchian Ch-Ia and Ch-Ib 1 Type amphorae sherds.

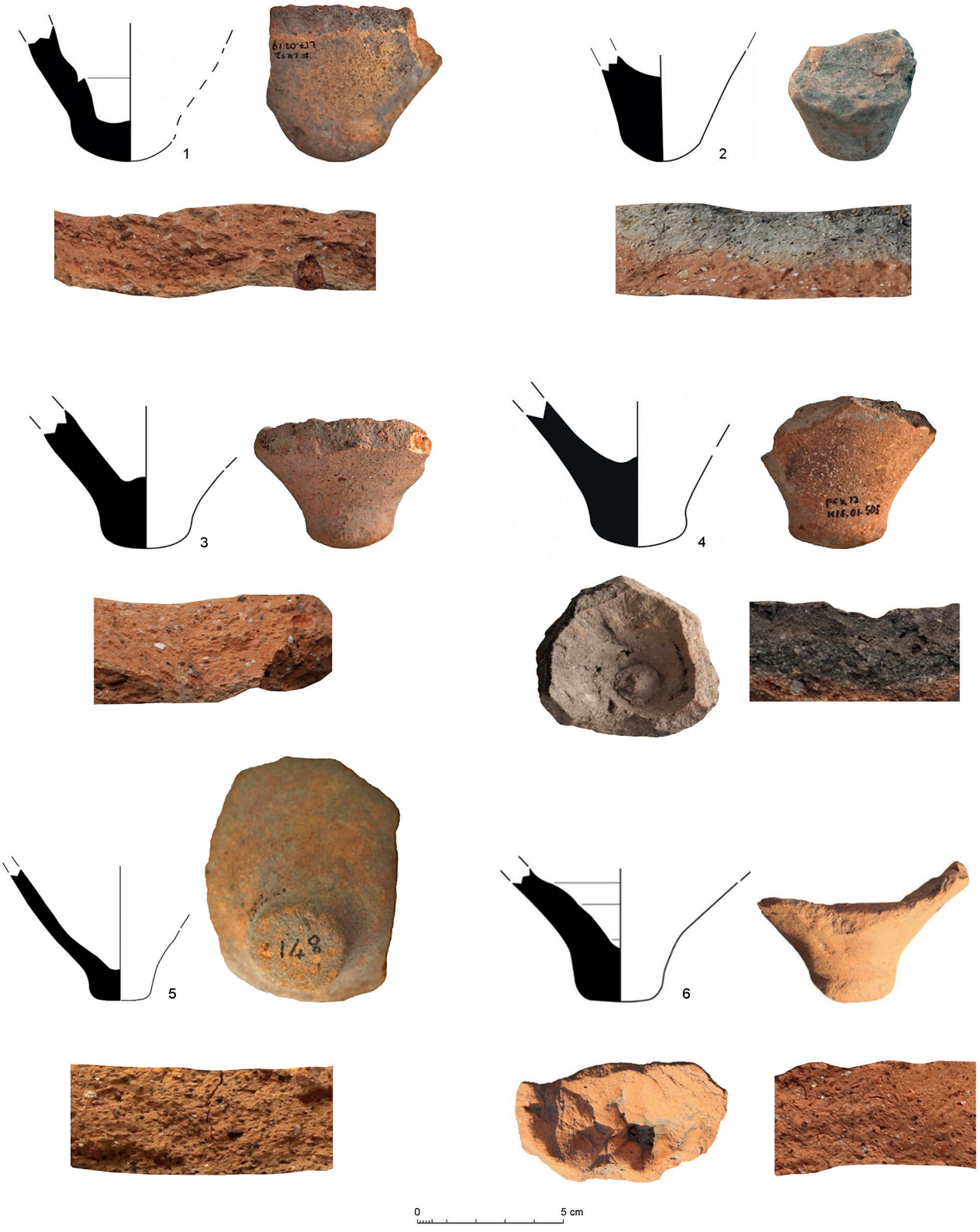

Fig. 3. Colchian Ch-Ib 2 Type amphorae sherds.

Two sherds shown on **fig. 2, 3** and **2, 4** constitute the 1st group. The common feature of them are the slightly bulging neck with thickened or banded rim. The handles are large, bulging, loop-shaped and rectangular in section. They are attached to the upper part of the shoulders below the rim. The rim sherd shown on **fig. 2, 3** is dated to the late 3rd century BC to the 1st century BC (Tsetskhladze and Vnukov 1992: 367, Fig. 9. 3) and the one shown on **fig. 2, 4** is dated to the 2nd century BC by analogy with parallel samples (Vnukov 2016: 103, Fig. 3. A-11/764, 772).

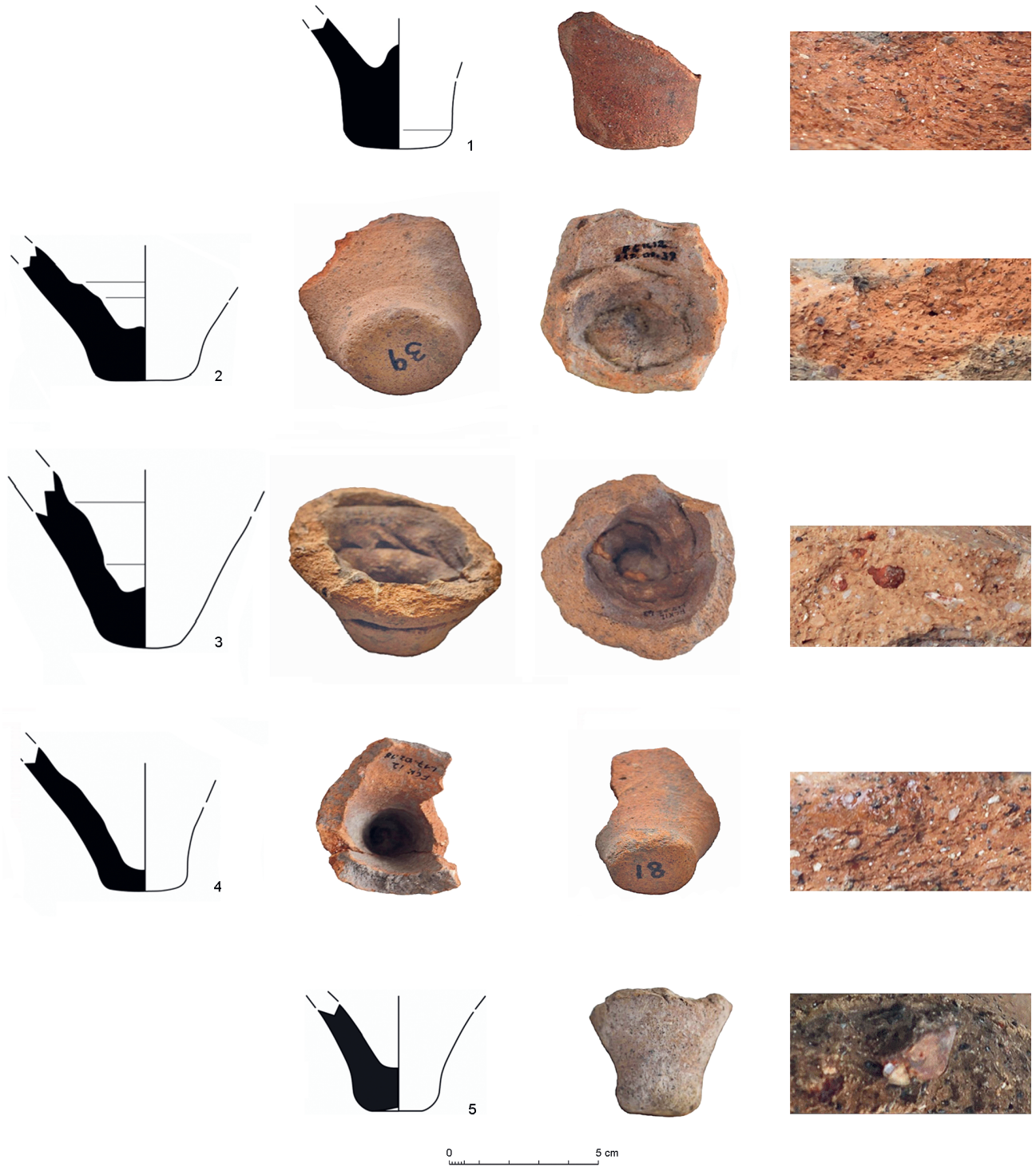

Fig. 4. Colchian Ch-Ib 2 Type amphorae sherds.

Sherds belonging to the 2nd group have a semi-triangular rim formed by thickening of the mouth and have a slightly bulging neck. The rim sherd shown on the **fig. 2, 5** is dated to the 2nd century BC (Tsetskhladze and Vnukov 1992: 367, Fig. 8. 3; Shaptsev 2016: 165, Fig.1. 3) and the one shown on **fig. 2, 6** is dated to the first half of the 1st century BC by analogy with parallel samples (Vnukov 2016:103, Fig.3. A – 11/762; Vnukov 2003: 176, Fig.70. 6 (5th example to the left).

2.5. B/Ch-Ib 2 Type Amphorae from Cıngırt Kayası

The toes of the B/Ch-Ib 2 type group amphorae obtained from Cıngırt Kayası, constitute four different groups depending on the variety of forms they display.

Two spike samples constitute the first group. There is a clear protuberance inside the bottom of the one shown on **fig. 3, 1.** Conical formed spike is the combination of the lowest part of

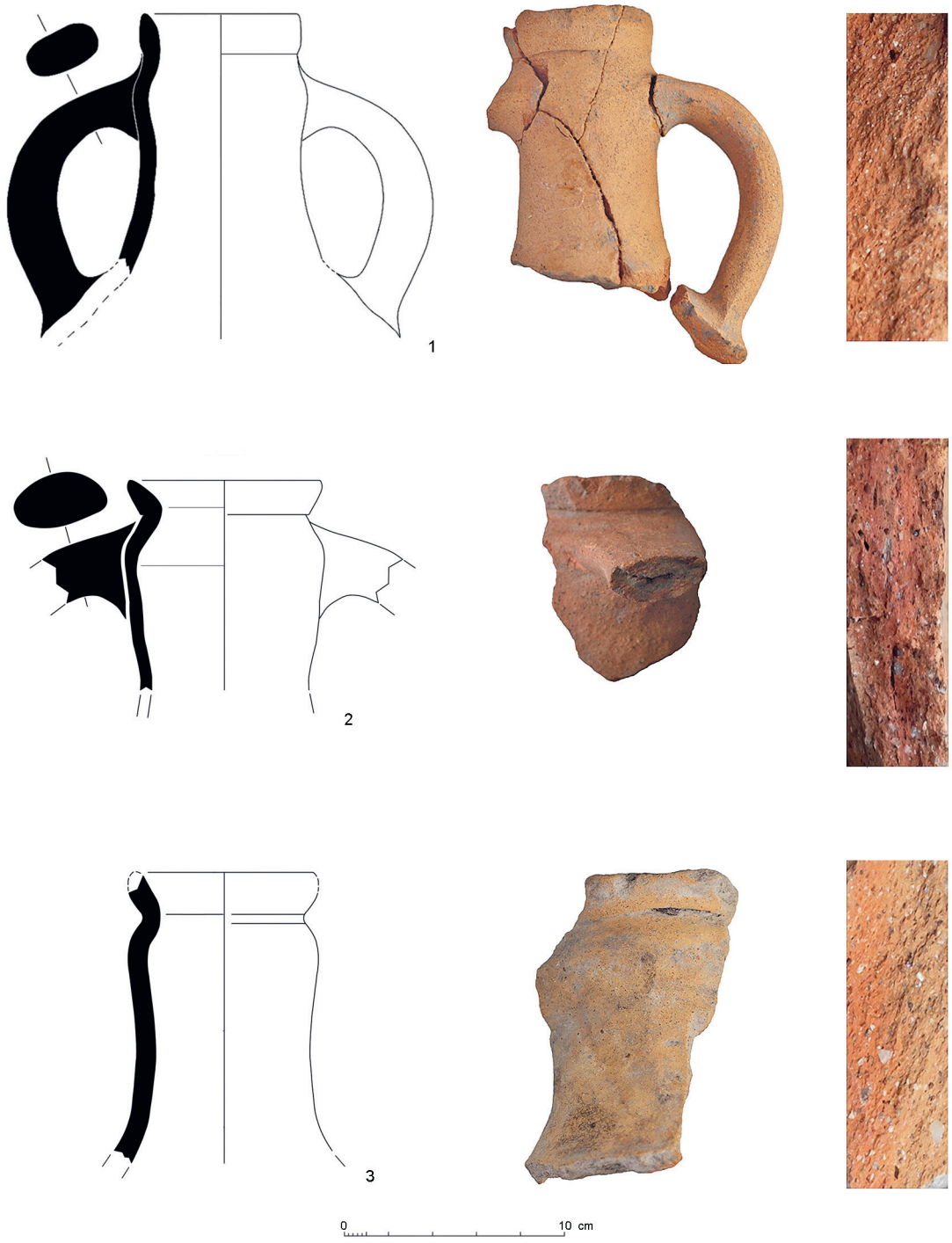

Fig. 5. Colchian Ch-Ib 2 Type amphorae sherds.

the body which ends slightly concave and a base which draws a convex line. It is dated to 1st century BC-1st century AD by analogy with parallel samples (Tsetskhladze and Vnukov 1992: 369, Fig. 11. 8; Vnukov 2003: 182, Fig. 73. 1 (4th example to the left, upper row).

There is no protuberance inside the bottom of the sample shown on **fig. 3, 2**. It is a simple spike with a smooth conical contour and a rounded base, which is properly attached to the end of the body. It is dated to the 1st century AD by analogy with parallel samples (Tsetskhladze and Vnukov 1992: 369, Fig. 11. 7).

Toes shown on **fig. 3, 3** and **3, 4** constitute the second group. They have a starting point of protuberance inside. They are massive, short and cylindrical with a convex base. It is dated to the 1st century BC-1st century AD by analogy with parallel samples (Tsetskhladze and Vnukov 1992: 369, Fig. 11. 6; Vnukov 2016: 103, Fig.3. A. 14/76).

The third group constitutes of three toes. Sherds shown on **fig. 3, 5** and **3, 6** are short and straight-sided. Shaping of the base is flattened. Because of its shortness and the absence of a protuberance on the inside, the sample shown on **fig. 3, 5** is dated to the late 1st century AD by analogy with parallel samples (Vnukov 2017: Fig. 5. 2. 14; Vnukov 2013b: 80, Fig.1. 9a; Tsetskhladze and Vnukov 1992: 366, Fig. 10. 3; Vnukov 2009: Pl. 15. 2 (4th example to the left, lower row); Vnukov 2006: 169, 15, Fig.1.17). Because of the relatively long toe and the presence of a protuberance on the inside, the sample shown on **fig. 3, 6** is dated to the early 1st century BC by analogy with parallel samples (Tsetskhladze and Vnukov 1992: 366, Fig. 10. 1; Golofast 2010: 120, Fig. 11. 1, 5). **Fig. 4, 1** has a starting point of protuberance on the center inside. Cylindrical toe is long and passing from straight-sided edge to bottom is chamfered. With these form properties, it is dated to the 1st century AD by analogy with parallel samples (Tsetskhladze and Vnukov 1992: 366, Fig. 10. 2; Vnukov 2003: 183, Fig.73. 7, 3rd sample to the left on the upper row).

Samples of the fourth group are truncated cone toes. Toes shown on **fig. 4, 2** (Tsetskhladze and Vnukov 1992: 364, Fig. 11. 10) and **fig. 4, 3** (Tsetskhladze and Vnukov 1992: 364, Fig. 11. 13) have a wide and flattened base. Due to the presence of a protuberance on the inside, they are dated to the early 1st century AD by analogy with parallel samples.

The toe samples shown on **fig. 4, 4** and **4, 5** are cylindrical and have a flat bottom. Due to the fact that their interior parts are hollowed towards the bottom, they are dated to the late 1st century AD by parallel samples (Tsetskhladze and Vnukov 1992: 369, Fig. 11. 12; Vnukov 2003: 182, Fig. 73. 5, 2nd sample to the left; Alekseeva 1997: Tab. 92. 16).

Because they have different form characteristics, the rim sherds require separate evaluation. The perpendicular and tapered rim shown on **fig. 5, 1** has a flattened cylinder banded mouth. The bulging of the neck is significant and is dated to the 1st century AD by parallel samples (Tsetskhladze and Vnukov 1992: 369, Fig. 11. 4)**.**

The rim sherd shown on **fig. 5, 2** is a late example of the Ch-Ib 2 subtype and draws a zig-zag profile formed by the slightly flaring outwards rim and bulge of the neck. Due to its form properties, it is dated to the second half of the 1st century AD (Vnukov 2009: Pl. 15. 2 (3rd example on the left, lower row).

Sample shown on **fig. 5, 3** is a transitional form between sub-variants Ch-Ib2 and Ch-Ic1. It is dated to late 1st century AD by analogy with parallel samples (Vnukov 2009: Pl. 16. 1 (1st example to the left, upper row);[5] Golofast 2010: 89, 120, Fig. 11. 1, 3). Narrow and elongated neck makes a bulge before passing the mouth and rim flares outward sharply. Thus, zig-zag profile occurs as seen in Type C amphorae and form properties of the amphorae get closer to the C group samples. The neck bulge, which is the characteristic feature of type C amphorae, was first made by a slight bump at the upper side of the neck (Tsetskhladze 1992: 99, 101, 103, Fig. 5, 4). In time it develops into a deliberately shaped bulge. In the mid 3rd century AD Ch-Ic 2 amphorae's mouth diameter surpasses the diameter of the bulge at the neck and forms a wider mouth (Alekseeva 1995: Fig. 12. 14, Fig. 14. 7; Alekseeva 2002: Fig. 13. 5).

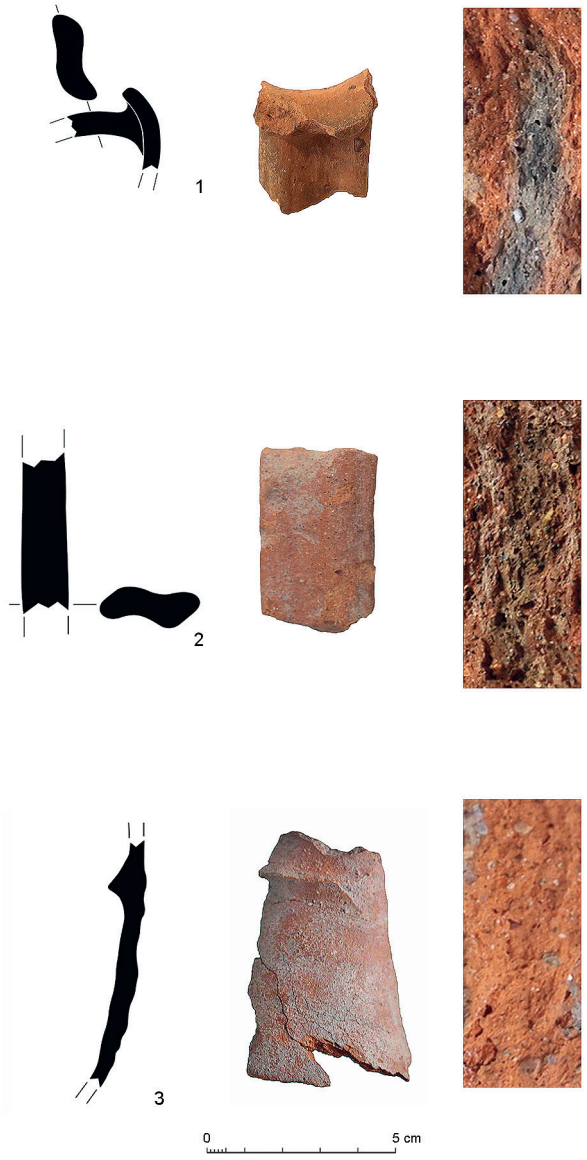

Fig. 6. Colchian Ch-Ib 3 Type amphorae sherds.

2.6. Ch-Ib 3, EP I-C Type Amphorae

This group is a specific variant of the Type B amphorae. They are called as Ch-Ib 3 by Vnukov (2011: 274) and as EP I-C by Opaiţ (2015: 284). A complete description of this subtype is not possible as no whole amphorae have yet been found. There is no structural distinction between the rim and the neck, and the end of the neck replaces the rim, although the top flares slightly. The upper part of the handle can either be simply attached to the neck or it embraces the whole neck. The loop handles are flat in cross section. The body appears to have ended in a conical toe (Opaiţ 2015: 284; Vnukov 2011: 274).

[5] The sample referenced here is relevant because of its similarities with the transitional and earliest form samples of Ch-Ic 1 group.

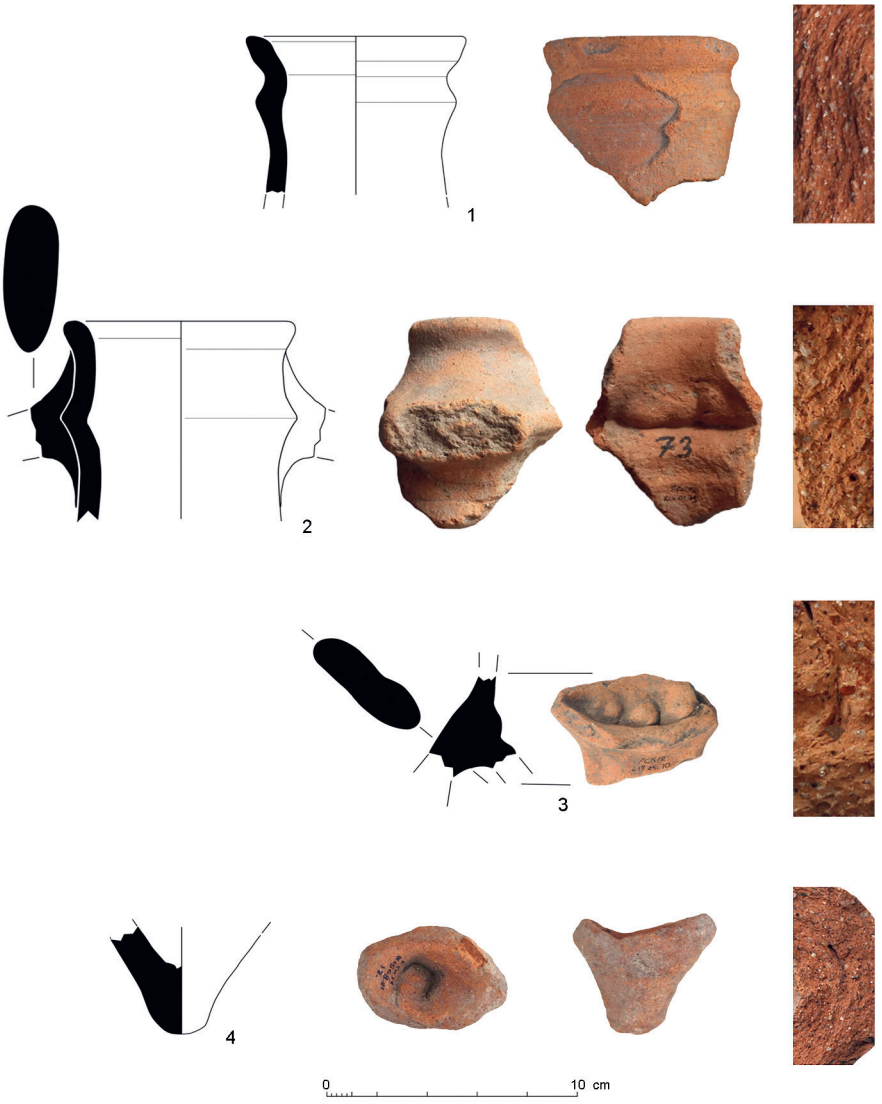

Fig. 7. Colchian Ch-Ic 1 Type amphorae sherds.

2.7. Ch-Ib 3, EP I-C Type Amphorae from Cıngırt Kayası

The sample shown on **fig. 6, 1** has an outward flaring simple rim formed by the outward extension of the neck, which is characteristic for this group.

The sample shown on **fig. 6, 2** shows a zig-zag form by pulling the corners of the handle up and down. The same feature is seen on the handle shown on **fig. 6, 1**. Therefore, it is thought to belong to the same group of amphorae.

Neck sherd shown on **fig. 6, 3** has a horizontal rib, formed by plastering the handle's clay to the neck at the handle level. Amphora fragments of this subgroup are dated to the second half of the 3rd century AD by analogy with parallel samples (Vnukov 2011: 275, Fig. 5. 1-4; Vnukov 2017: Fig. 5. 2. 15).

2.8. C/Ch-Ic, EP I-A/B Type Amphorae

Type C amphorae are thought to have evolved from the local type B amphorae towards the end of the 1st century AD or in the beginning of the 2nd century AD. Both of these amphorae are known to be used together (Tsetskhladze and Vnukov 1992: 372). They can be organised under two sub-categories chronologically. Group Ch-Ic 1 is smaller in size and is dated from late 1st century to late 2nd century AD. The other subcategory Ch-Ic 2 were bigger in size, and were first produced in late 2nd century AD (Vnukov 2009: 29-30; Vnukov 2003: 160, 164; Vnukov 2006: 83, 84). Opait calls Ch-Ic 2 amphorae as EP I-A, and Ch-Ic 1 amphorae as EP I-B (Opaiţ 2015: 283, 284). They were widespread especially between the end of the 1st century AD and the 4th century AD (Tsetskhladze and Vnukov 1992: 370).

Group Ch Ic1: This variant exhibits a strongly bent rim that creates a sharp angle with the swollen area of the neck. The profile appears zigzagged. On the exterior is a pronounced rib which is usually united with the upper part of the handle attachment. The handles, which are flattened in section, are attached to the neck's rib, and fall onto the shoulders at a perpendicular angle (Opait 2015: 284).

Group Ch Ic2: The cup-shaped rim of this variant is set almost vertically on the swollen area of the neck. The

handles are loop-shaped and are attached to the rim and to the neck-shoulder junction with a visible awkwardness. The neck is more cylindrical and narrow than the Ch-Ic1 (Opaiţ 2015: 283).

The Ch-Ic 2 amphorae obtained from the layers of the Sebastopolis excavations dated to the 3rd century AD are similar in form to the Type C Colchian amphorae retrieved from the aforementioned settlement. However their fabric and technical qualities are different (Vnukov 2011: 273, Fig. 3).

2.9. C/Ch-Ic, EP I-A/B Type Amphorae from Cıngırt Kayası

Sample shown on **fig. 7, 1** is an early type of subgroup Ch-Ic 1. Strongly bent rim creates a sharp angle with the rib part of the neck. The profile appears zigzagged. It is dated to the 1st century AD by parallel samples (Vnukov 2017: Fig. 5. 2. 16; Vnukov 2013b: 80, Fig.1. 9b; Tsetskhladze and Vnukov 1992: 371, Fig. 12. 2, 4; Opaiţ 2015: 284, Fig. 3, 4; Vnukov 2009: Pl. 16. 1 (2nd sample to the left, upper row); Vnukov 2006: 169, 15, Fig.1. 18; Vnukov 2013a: 34, Fig. 8. B .91/90; Alekseeva 1997: Tab. 96. 4; Tab. 136. 3; Tab. 152. 7; Tab. 220. 3; Tab. 223. 1; Golofast 2010: 89, 120, Fig. 11. 1, 4; 97, 131, Fig. 23. 16; Gabelia 2014: 476, Tab. XI. 1).

Rim sherd shown on **fig. 7, 2** is placed vertically on the rib part of the neck and flares out. Handles wide and flattened in section are attached to the neck. Finger pressure traces for joining the handle can be seen inside of the neck. On the sample shown on **fig. 7, 3** the traces of joining are more prominent. Although this application is not very common, it is seen on the amphorae belonging to this group. Cıngırt Kayası samples of this subgroup are dated to 2nd century AD by parallel samples (Vnukov 2009: Pl. 16. 1 (1st sample to the left, upper row); Vnukov 2013a: 34, Fig 8. B .88/1617; Golofast 2010: 97, 131, Fig. 23. 6).

The spike shown on **fig. 7, 4** is short, simple, conical and has a protuberance inside. It belongs to the Ch-Ic 1 subgroup. It is dated to 2nd century AD by parallel samples (Tsetskhladze and Vnukov 1992: 371, Fig. 12. 7).

The samples shown on **fig. 8, 1** (Vnukov 2017: 105, Fig. 5. 2. 17; Opaiţ 2015: 283, Fig. 1; Vnukov 2011: 273, Fig. 3; Vnukov 2009: Pl. 16. 2 (2nd sample to the left, lower row); Vnukov 2006: 169, 15, Fig.1. 19; Alekseeva 1997: Tab. 150. 5; Tab. 223. 2; Golofast 2010: 97, 131, Fig. 23. 17; Kassab-Tezgör 2002: 216, Fig. 22) and **fig. 8, 2** (Vnukov 2013a: 34, Fig. 8. B .10/139; Naumenko 2012: 72, 86, Fig. 13. 1; 88, Fig. 15. 16; Alekseeva 1997: Tab. 106. 1. Tab. 130. 7; Tab. 142. 7) belong to Ch-Ic 2 subgroup of group C amphorae. The cup-shaped rim of this variant is set almost vertically on the swollen area of the neck. As it can be seen, the diameter of the neck over the upper roots of the handles is noticeably larger than the diameter of the neck beneath them. Spike sherd shown on **fig. 8, 3** and the sample shown on **fig. 8, 1** have the same characteristics as fabric, additive and colour. So it suggests that both samples are produced in the same workshop. The simple conical formed spike has a protuberance inside. All samples of this subgroup are dated to the 3rd century AD by parallel samples.

2.10. Ch-Id, EP II, Type A-E Amphorae

Major changes in amphora production occured in the first half of the 4th century AD. The Late Roman period was the period of economic rise in the region, when Colchis exported goods in amphorae to northern and western Black Sea regions and even to eastern Aegean. In that time the number of new amphora workshops increased and new local varieties of the Colchian containers appeared (Vnukov 2006: 188; Vnukov 2011: 273). A new group called 'D' emerged, combining the characteristics of Ch-Ic 2 and Ch-Ib 3 amphorae. Pyroxene and quartz were added to the fabric of this new group. Gray, red and shiny particles (mica) are also observed (Kassab-Tezgör and Akkaya 2000: 127).

In these amphorae, the rim and spike characteristics were kept in the foreground, divided into various types by scientists according to their forms and examined under different nomenclatures.

Opaiţ states that the main production sites for these amphorae is Colchis (2015: 285) and the amphorae are called in different names: Kuzmanov IX (Kuzmanov 1985: 15, 16, Pl. 6), Zeest 103 or Tyritake type (Zeest 1960: 120, Pl. 40), Type C- E by Kassab-Tezgör and Akkaya (Kassab-Tezgör and Akkaya 2000: 128-130), Ch-Id by Vnukov (Vnukov 2011: 275-276). But Heraklia Pontica should not be ignored (Opaiţ 2004: 32, 140, Pl. 20. 4). It has been suggested that the main product carried within these amphorae can be Herakleian wine (Vinogradov and Onaiko 1975: 86-93).

Tezgör and Akkaya state that D group amphorae in Sinop museum should not be accepted as Colchian production because of fabric properties and can be compared to any place from the Black Sea region. Besides, D group amphorae can be compared with the results of analysis obtained from Colchian amphorae. But the exact results will be clarified by a survey to determine the location of the production workshop. Among the samples from Samsun, only one piece could have been made of Colchian clay (Kassab-Tezgör and Akkaya 2000: 134, 136, Fig 1. No. 5).

Amphore obtained from Cıngırt Kayası, which are called EP II-A by Opaiţ (Opaiţ 2015: 285), Type A (Kassab-Tezgör and Akkaya 2000: 129, 137, Fig. 5. No. 1-3) and B (Kassab-Tezgör and Akkaya 2000: 129, 130, 137, Fig. 5. No. 4, 5) by Kassab-Tezgör and Akkaya, came from two different but contemporary workshops. It continues to have a cup-shaped rim. A slender body with a pronounced 'waist' at the middle of the body, and a sharp conical base. This type of base does not have a protuberance inside, similar to a spiral-shaped scroll. These base types together with the cup-shaped rim are the most defining variables helping to differentiate one variant from another. The handles are carefully attached to neck and the middle of shoulders, and nearly parallel to the neck (Opaiţ 2015: 285). It is unclear whether the triangular-like bottoms with a short and conical shape are attached to the lower body (Kassab-Tezgör and Akkaya 2000: 127). Another technical distinctive feature of the Colchian amphorae is the fact that their upper (with the neck) and lower parts were moulded separately. These two separate pieces were united together at the middle of the body. This feature is present in all amphorae produced in the Hellenistic and

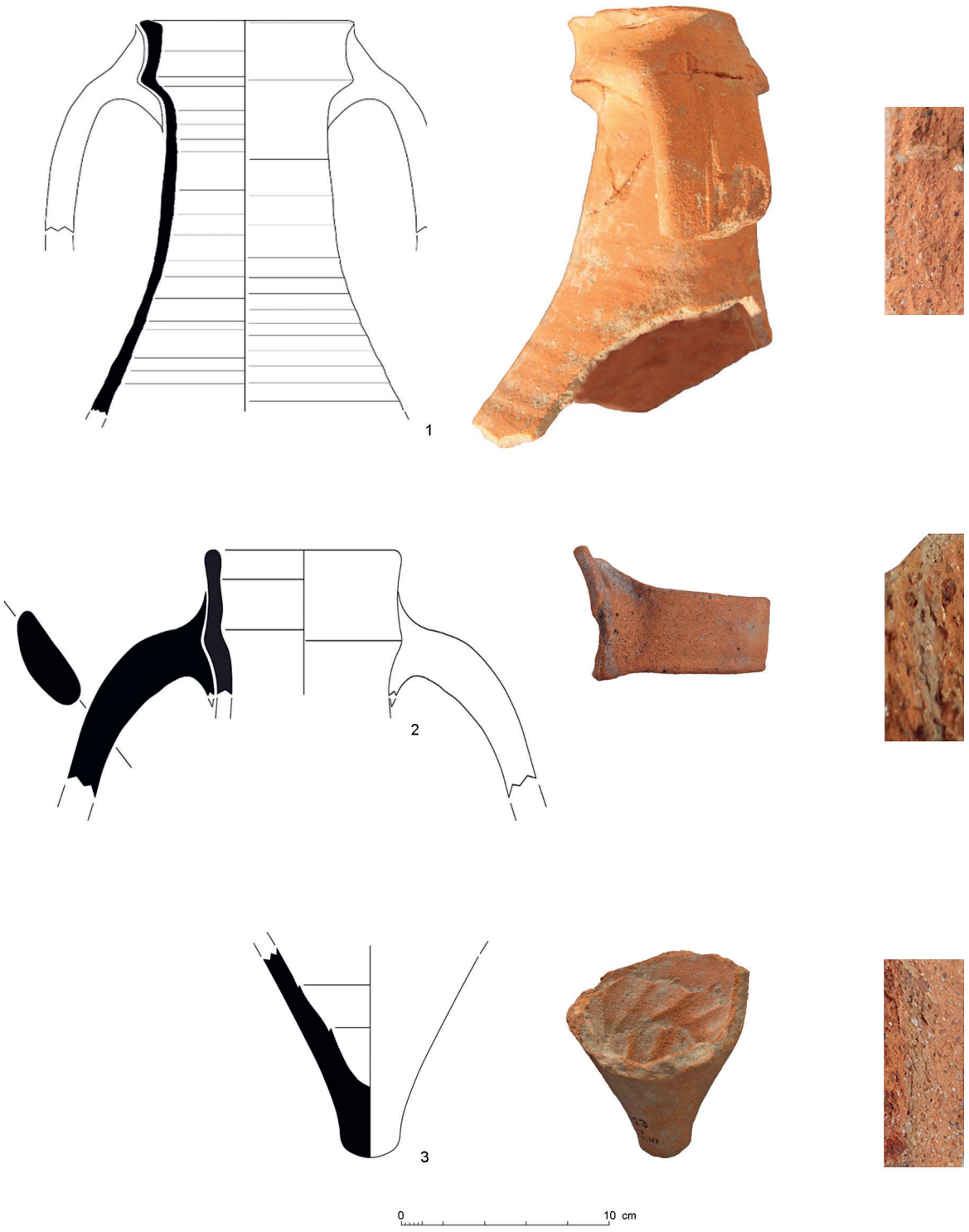

Fig. 8. Colchian Ch-Ic 2 Type amphorae sherds.

Roman periods. In some of the Ch-Ic 2 amphorae, there is a second joining point at the base of the neck. These bigger sized, long amphorae are composed of three parts (Vnukov 2003, 166). Another interesting feature of these amphorae are longitudinal traces on the fabric surface made by a tool used for flattenning (Kassab-Tezgör and Akkaya 2000: 128, 137, Fig 2, no. 1). Traces of tools are a distinctive feature of the Colchian amphorae and pithoi (Puturidze 1977: 69, Fig. 1).

The closest parallels of the samples seen in Cıngırt Kayası are known from Samsun (Kassab-Tezgör and Akkaya 2000: Fig. 5. No. 1-3), Tiritake (Zeest 1960: Pl. XL. 103), Varna (Lazarov 1975: 197, 56), Sacidava (Scorpan 1975: Pl. V. 6), Chersonesos (Romanchuk and Sazanov and Sedivoka 1995: Pl. 2. 2).

According to Vnukov, all of these changes were made in the first half of the 4th century AD. In the second half

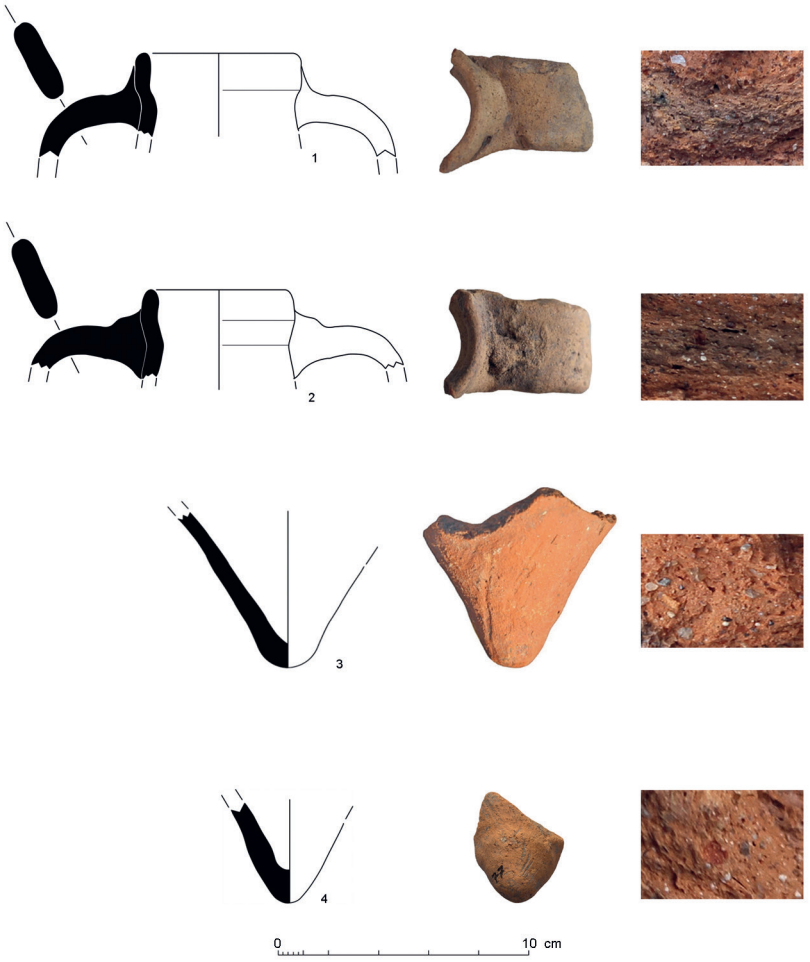

Fig. 9. Colchian EP-IIa Type Amphorae Sherds.

of the 4th century and in the 5th century AD, they were the varieties of Sebastopol Ch-Id amphorae. All these types are only local products made from the clay composition of the second Fabric Group. Similar amphorae are also produced in other parts of Colchis. But a small amount was imported to Sebastopolis. This increase in production is important in terms of showing the replacement of cheap local wine with imported wine and spreading it to the whole Black Sea Region (Vnukov 2011: 277).

2.11. EP II-A, A-B Type Amphorae from Cıngırt Kayası[6]

Samples shown on **fig. 9, 1-2** have a rim sitting perpendicularly to the neck. They show an extension at the point where the handles are connected to the neck. Therefore, it forms a throat by making the neck narrow. After this point, the neck expands towards the shoulder and creates concavity. Since the upper part of the body is not preserved, we cannot describe the whole specifications of this type amphorae. However, they still show the general characteristics of this type. They are dated to the 4-5th centuries AD by analogy with parallel samples (Opait 2015: 285, Fig. 6; Kassab-Tezgör and Akkaya 2000: Fig. 5. 1-3; Gabelia 2014: 483, Tab. XVIII. 8. (?); Kassab-Tezgör 2002: 218, Fig. 27).

Cıngırt Kayası samples shown on **fig. 9, 3** and **4** are downward tapering conical bottoms with pointed bases and hollowed inner sides. They are dated to the 4th-5th centuries AD by analogy with parallel samples (Opaiţ 2015: 285, Fig. 6-8; Kassab-Tezgör and Akkaya 2000: Fig. 5. 1-5).

3. Conclusion

Petrographic analyses have shown that two fabric groups were used in the production of Colchian types A, B and C. In all the examples of these types from Cıngırt Kayası, both fabric groups are present. These samples from Cıngırt Kayası reveal that the settlement established commercial relationships with northern and southern Colchian amphorae production centers starting from the 4th century BC to the end of the 3rd century AD. However, one should note that this relationship throughout a long historical process was also facilitated by the geographical proximity between these production centers and Cıngırt Kayası.

[6] We would like to express our gratitude to Prof. Dr. Dominique Kassab Tezgör and Dr. Andrei Opaiţ for their evaluations on the material.

Fabric analyses revealed that the C group amphorae had a sub-group consisting of the later dated samples of the 4th century AD, and that they differed from the other C group samples. This may suggest that these amphorae may have been produced outside Colchis (Tsetskhladze and Vnukov 1992: 381, 384; Vnukov 1993: 90, 92; Vnukov 1995: 189).

Some of the samples in the D group amphorae suggest that, in terms of their fabric characteristics, they may have been produced outside of Colchis, just like regarding the C group amphorae. The samples constituting this group were obtained from southern Black Sea region and have different fabric characteristics (Kassab-Tezgör and Akkaya 2000: Fig. 5, 1-7, Fig. 6, nos. 8-13.). The amphorae, produced in Colchis and also uncovered from the Colchian excavations, show similarities in their forms with those from the South Black Sea region (Lomitashvili and Colvin 2009: 37, 38, Pl. 21. 1, 2; Pl. 22. 1, 2; Inaishvili and Vashakidze 2009: 152, Pl. 86. 1-3). That is why we feel the need to ask the question whether there was an alternative production line outside of Colchis.

Although Sinope's connection with Colchis is well-known, it still could not be a production center for type D amphorae because of the fabric characteristics. Heracleia Pontica, in turn, was once suggested as a center for the production of Colchian amphorae (Vinogradov and Onaiko 1975: 86-93). Alternatively the fabric from the samples in the museum of Samsun, suggested Borçka (Batumi, Artvin province) as a production center to Kassab-Tezgör and Akkaya. Moreover, they add that Callatis, being an important production center, offers an alternative to Colchis as a production area in the west of the Black Sea where type D amphorae could be produced (Kassab-Tezgör and Akkaya 2000: 134).

Due to the close relationship between the production centers in the region, it has been suggested that type D amphorae, rather than being produced in Colchis and then exported to all coastal parts of the Black Sea region, were more probably produced in a workshop using the colony model.

As it can be observed in type D amphorae obtained from Cıngırt Kayası, some amphorae have fabric characteristics that do not fit with the inclusions of Colchis. That is why it is suggested that one or more production centers could have been located in the northeast Anatolian coast.

Considering the samples obtained from Cıngırt Kayası, all types of Colchian amphorae can be observed, all through a period of 800 years that starts with the mid-4th century BC and uninterruptedly extends all the way to latest the 5th century AD.

Based on the example of Cıngırt Kayası, it can be argued that Colchis and other production centers related to it had an uninterrupted and close trade relationship with the settlements located in nearby regions. The presence of roof tiles, *mortaria* and various coarse wares from Colchis, obtained in limited quantities at Cıngırt Kayası, support this argument.

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Catalogue

Nr., Fragment, TD: Toe Diameter, H: Height, RD: Rim Diameter, Type/Subtype, Fabric Group and color, production centre.

Figure 2

Colchian A type

1. Toe, TD: 3,6 cm, H: 8,6 cm, Ch-Ia, Fabric 2 (5 YR 5/6 yellowish red), North Colchis - Abkhazia?
2. Toe, TD: 3,2 cm, H: 7,1 cm, Ch-Ia, Fabric 1 (7.5 YR 4/4 brown), South Colchis - Trapezus?

Colchian B type

3. Rim-Neck-Handle, RD: 9,4 cm, H: 9,3 cm, Ch-Ib 1, Fabric 1 (5 YR 5/4 reddish brown), South Colchis - Trapezus?
4. Rim-Neck-Handle, RD: 9,4 cm H: 8,6 cm, Ch-Ib 1, Fabric 1 (2.5 YR 4/8 red), South Colchis - Trapezus?
5. Rim-Neck, RD: 8,6 cm H: 7,2 cm, Ch-Ib 1, Fabric1 (5 YR 5/6 yellowish red), South Colchis.
6. Rim-Neck-Handle, RD: - H: 8,6 cm, Ch-Ib 1, Fabric1 (5 YR 5/6 reddish yellow), South Colchis - Trapezus?

Figure 3

Colchian B type

1. Spike, SD: 3.1 cm. H: 5,9 cm, Ch-Ib 2, Fabric 2 (5 YR 5/6 yellowish red), North Colchis - Abkhazia?
2. Spike, SD: 2,6 cm H: 4,4 cm, Ch-Ib 2, Fabric 2 (5 YR 6/6 reddish yellow), North Colchis -Abkhazia?
3. Toe, TD: 3,1 cm H: 4,9 cm, Ch-Ib 2, Fabric 2 (5 YR 6/6 reddish yellow), North Colchis.
4. Toe, TD: 3,2 cm H: 5 cm, Ch-Ib 2, Fabric 2 (5 YR 6/6 reddish yellow), North Colchis.
5. Toe, TD: 3,2 cm H: 7,3 cm, Ch-Ib 2, Fabric 1 (5 YR 6/6 reddish yellow), South Colchis.
6. Toe, TD: 3 cm H: 4,7 cm, Ch-Ib 2, Fabric 1 (5 YR 6/6 reddish yellow), South Colchis.

Figure 4

Colchian B type

1. Toe, TD: 3,5 cm. H: 4,3 cm, Ch-Ib 2, Fabric 1 (5 YR 4/6 yellowish red), South Colchis.
2. Toe, TD: 3 cm. H: 4,4 cm, Ch-Ib 2, Fabric 1 (2.5 YR 6/8 light red), South Colchis.

3. Toe, TD: 2,5 cm H: 5,2 cm, Ch-Ib 2, Fabric 2 (2.5 YR 6/8 light red), North Colchis - Abkhazia?
4. Toe, TD: 2,8 cm H: 5,2 cm, Ch-Ib 2, Fabric 1 (2.5 YR 6/8 light red), South Colchis.
5. Toe, TD: 2,5 cm H: 3,3 cm, Ch-Ib 2, Fabric 1 (5 YR 5/4 reddish brown), South Colchis.

Figure 5

Colchian B type

1. Rim-Neck-Handle, RD: 7 cm H: 14,1 cm, Ch-Ib 2, Fabric 2(5 YR 6/8 reddish yellow), North Colchis.
2. Rim-Neck-Handle, RD: 9,4 cm H: 9,3 cm, Ch-Ib 2, Fabric 2 (2.5 YR 5/8 red), North Colchis -Abkhazia?
3. Rim-Neck, RD: 8 cm H: 13 cm, Transitional form between Ch-Ib 2 and Ch-Ic 1, Fabric 2 (7.5 YR 5/8 strong Brown), North Colchis.

Figure 6

Colchian B type

1. Rim-Handle, RD: 8,6 cm H: 4 cm, Ch-Ib 3, Fabric 2 (2.5 YR 5/6 red), North Colchis - Abkhazia?
2. Handle, H: 6,4 cm, Ch-Ib 3, Fabric 1 (2.5 YR 5/6 red), South Colchis-Trapezus?
3. Neck, RD: - H: 9,1 cm, Ch-Ib 3, Fabric 2 (2.5 YR 5/8 red), North Colchis.

Figure 7

Colchian C type

1. Rim-Neck, RD: 8,4 cm H: 6,4 cm, Ch-Ic 1, Fabric 2 (2.5 YR 5/6 red), North Colchis - Abkhazia?
2. Rim-Neck-Handle, RD: 7,8 cm H: 7,2 cm, Ch-Ic 1, Fabric 2 (2.5 YR 5/8 light red), North Colchis -Abkhazia?
3. Handle, H: 4,2 cm, Ch-Ic 1, Fabric 2 (2.5 YR 5/8 light red), North Colchis.
4. Spike, SD: - H: 5-2 cm, Ch-Ic 1, Fabric 2 (2.5 YR 4/8 red), North Colchis - Abkhazia?

Figure 8

Colchian C type

1. Rim-Neck-Handle, RD: 9,5 cm H: 19 cm, Ch-Ic 2, Fabric 2 (2.5 YR 6/8 light red), North Colchis -Abkhazia?
2. Rim-Neck-Handle, RD: 9,2 cm H: 4,9 cm, Ch-Ic 2, Fabric 2 (5 YR 5/6 yellowish red), North Colchis -Abkhazia?
3. Spike, SD: - cm H: 9,8 cm, Ch-Ic 2, Fabric 2 (2.5 YR 6/8 light red), North Colchis - Abkhazia?

Figure 9

Colchian D type

1. Rim-Neck-Handle, RD: 6 cm H: 3,3 cm, EP II-A, Fabric 3 (5 YR 5/6 yellowish red), South Coast of the Black Sea Basin.
2. Rim-Neck-Handle, RD: 5,4 cm H: 3,2 cm, EP II-A, Fabric 3 (5 YR 5/6 yellowish red), South Coast of the Black Sea Basin.
3. Spike, SD: - H: 7 cm, EP II-A, Fabric 3, (2.5 YR 5/8 red), South Coast of the Black Sea Basin.
4. Spike, SD: - H: 4,6 cm, EP II-A, Fabric 3 (5 YR 6/6 reddish yellow), South Coast of the Black Sea Basin.

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