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LATE ROMAN AMPHORAE FROM *TYRITAKE*

In the Late Roman period *Tyritake* was one of the main city centers of the Bosporan Kingdom (Crimea). As a result of recent archaeological research in *Tyritake*[1] more than a hundred new complexes with the remains of building, household activities and ceramics of the Late Roman period in fills have been revealed. The analysis of amphorae material from these excavations enabled us to obtain more complete and detailed information on the collection and correlation of local and imported amphorae on the site from the 4th up to the mid-6th centuries AD.

The Late Roman complexes of *Tyritake* can be conventionally subdivided into several chronological periods. In the 4th and 5th centuries, amphorae of Bosporan manufacture dominated; they had mainly regional distribution and served for the transportation and storage of fish and fish products, and, probably, of water, grain and other household supplies[2]. Since the late 4th century amphorae of Zeest 96–97[3] (**fig. 1; 7,1**) were used in such capacity. According to the morphology of the neck, the vessels found in *Tyritake* may be subdivided into two main variants: with funnel-shaped neck with beak rim (**fig. 1,1**) or S-curved neck with elongated rim (**fig. 1,2**). Finds of such amphorae in the layers of *Tyritake* dating to the second half of the 4th and 5th centuries doesn't give an opportunity to determine the chronology of these variants more definitely. Most probably, they were produced simultaneously and morphological distinctions can be explained by their possible manufacturing in several production centers in the territory of the Bosporan Kingdom.

The most popular article of trade among imported products was wine. In the 4th and 5th centuries it was brought to Bosporus mainly from Southern Pontic centers in Sinopean and Heraclean amphorae. Heraclean amphorae Shelov F[4] are well presented in *Tyritake* (**fig. 2,1–3**). Red painted dipinti are extant on the neck of many fragments. At the turn of the 4th and 5th centuries Heraclean amphorae evolve into round-bottom vessels of Shelov E[5] type which in quantity are present in the complexes of *Tyritake* of the first half of the 5th century (**fig. 2,4–7**).

Since the 4th century Sinopean wine was imported to *Tyritake* in amphorae more known as type Zeest 100[6] or "Delacau"[7] (**fig. 2,8.9; 7,2**). In a recent publication of workshops for their production in Demirci, in Sinop district, they were given a new name, C Snp I[8]. The peak of Sinopean import to the Cimmerian Bosporus was in the first half – the middle of the 5th century. Zeest 100 amphorae dominate in the complexes of this period where they reach around 20–30 % on average. At the same time different types of amphorae (C Snp II[9]) from the same workshops begin to be brought to *Tyritake* (**fig. 2,10.11; 7,3–4**). However, by the beginning of the 6th century the share of Sinopean import began to decrease substantially and in *Tyritake* complexes of the first half of the 6th century it was present only in small quantities, yielding to products from other centers.

Brown-clay amphorae with a slight 'waist' in the lower part of the body continue the line of the development of the Roman Colchis amphorae (**fig. 3; 7,5**). Vessels found in Late Roman *Tyritake* were used most probably to transport wine. They were produced in the period from the second half of the 4th century[10]. However, a more detailed evolutionary typology of such vessels has not yet been developed. A large fragment (**fig. 3,2**) and an amphora with a volume of about 20,4 liters (**fig. 3,1; 7,5**) were found in the fill of household pit 87 of the second quarter – the middle of the 6th century. Such vessels were manufactured from clay of the second variant of Colchis amphorae without pyroxene but with a complex of various mineral inclusions, typical for manufacture in the Abkhazia region[11].

All the above mentioned amphorae with the exception of the local Bosporan ones, were used to transport wine to *Tyritake* from different Pontic centers. Occasional deliveries of olive oil are known due to the finds of just a few fragments of the North African amphorae Keay 8B[12] (**fig. 4,1–2**). They were produced

1 I'm most grateful to V. N. Zin'ko for permission to publish amphorae from his excavations in Section 26, *Tyritake* in 2002–2009.

2 A. V. Kulikov/N. F. Fedoseev, Keramičeskaja tara dlja rybnych promyslov Bospora. In: V. N. Zin'ko (ed.), Bospor Kimmerijskij i varvarskij mir v period antičnosti i srednevekov'ja: Remesla i promysly. Bosporskie čtenija 11 (Kerč 2010) 270–278.

3 Zeest 1960, 119–120 tab. 38,96.97.

4 Šelov 1978, 19 fig. 10.

5 Ibid. 19 fig. 9.

6 Zeest 1960, 120 tab. 39,100.

7 È. A. Rikman, Černjachovskoe selišče Delakeu (Moldavija). Mat. i Issled. Arch. SSSR 139, 1967, 194 fig. 18,1.

8 Kassab Tezgör 2010, 128–129 pl. 18,1–5.

9 Ibid, 129–130 pl. 18,6–7; 19,1,2.

10 S. Y. Vnukov, "Colchean" Amphorae from Abkhazia. In: Ch. Tzochev (ed.), PATABS II. Production and trade of amphorae in the Black Sea. acts of the international round table held in Kiten, Nessebar and Sredetz, September 26–30, 2007 (Sofia 2011) 277 fig. 7.

11 Ibid. 271.

12 S. J. Keay, Late Roman Amphorae in the Western Mediterranean. A Typology and Economic Study: the Catalan Evidence. BAR Internat. Ser. 196 (Oxford 1984) 126–129 fig. 47,3–4; 48,1–3.

in some workshops in central Tunisia beginning in the second quarter of the 5th century and were the most widely distributed type of Tunisian amphorae in the whole Pontic region[13].

Amphorae LR 4 manufactured in the region of Gaza Strip and beyond are occasional in *Tyritake* (**fig. 4,3–4**). They were assigned mainly for transporting wine; but in some cases such vessels were probably used also a second time for the transportation or storage of other goods: olive and sesame oil, grain and even fish products[14]. Amphorae LR 4B1 found in *Tyritake* were produced in the last third of the 5th century up to the middle of the 6th century[15].

Some products, most probably wine, but not for sure and maybe olive oil, were delivered to Bosporus in amphorae with a funnel-shaped neck (MR 18/LR 2) from the region of the Aegean Sea. Fragmentation and few vessels found in *Tyritake* don't enable to determine their precise chronology. However, a large part of such amphorae most likely belong to variants of LR 2 produced in the period from the end of the 4th century till the end of the 6th century[16] (**fig. 4,5–6**).

In a relatively small amount, wine in LR 3 amphorae was delivered into Bosporus from the Ephesus region in western Asia Minor[17] (**fig. 4,7–15**). These vessels were notable for their fine proportions, micaceous fabric and relatively small volumes of transported products. A *Tyritake* amphora excavated in the fill of pit 147 had the volume of approximately 5,5 liters (**fig. 4,15**). Amphorae LR 3A2 (**fig. 4,7**) with an everted rim of the first half of the 5th century were substituted by LR 3A3 (**fig. 4,8**) amphorae with a triangular rim in the second half of the 5th century[18]. In *Tyritake*, the amphora with hollow toes appears from the first half of the 5th century and is widely spread in the second half of the century (**fig. 4,9–11**). At the late 5th–early 6th centuries it is replaced by the variant with a solid toe (**fig. 4,12–14**). One of the fragments of such a bottom in *Tyritake* originates just from the complex of this time (**fig. 4,12**).

Since the turn of the 4th–5th centuries to the Black Sea region they began to deliver wine in amphorae of LR 1 type produced in Cilicia, Cyprus and some other centers[19]. In the 5th century such finds in *Tyritake* complexes are very rare; they are represented by scarce fragments of an earlier narrow-necked LR 1A variant with a rim in the form of a band (**fig. 5,1–2**). The whole import of such amphorae to Bosporus in this period doesn't exceed around 1–3 % of all amphorae finds. By the turn of the 5th–6th centuries the morphology of LR 1 amphorae is changing gradually: the band on the rim transforms into a rib, rim diameter increases, the body extends in the lower part[20]. In the second quarter of the 6th century importation of LR 1B to Bosporus increased strongly and reached from 12–13 before 25 %[21] (**fig. 5,3–4; 7,6).** They became the third in number after new Cretan and Pontic amphorae which appeared and began to dominate since the second quarter of the 6th century.

The place of manufacture of the Pontic amphorae Antonova 5[22] (**fig. 5,5–6; 7,7–8**) and Antonova 5 var. with sandy fabric (**fig. 6,1; 7,9**) has not been localized yet. These amphorae have a predominantly regional Pontic distribution and were produced, obviously, within the Black Sea area (northern coast of Asia Minor?). They continue to develop the line of Pontic amphorae of the Roman period. Actually, it is an evolutionary type of amphorae which were manufactured probably in one or several centers close together since the end of the 2nd until the end of the 7th centuries[23]. The typology of these vessels has not been developed sufficiently yet. In publications fragmentary amphorae of Antonova 5 type are often determined incorrectly. It should be noted that due to the analysis of the materials from Bosporus and *Tyritake* one of their important features has been revealed. Beginning with the 4th century there is a tendency for the diameter of the rim to decrease gradually; it doesn't depend on the size and volume of the vessels. By the second quarter of the 6th century this index in Antonova 5 amphorae is not more than around 6–8 cm on average.

Nearly at the same time with the appearance of Antonova 5 amphorae, Cretan production mainly in Zeest 99/TRC 4[24] amphorae began to be delivered to Bosporus region in large quantities (**fig. 6,2; 7,10**). Sometimes they preserved a resin lining on the interior and probably were used for wine transportation. Two reconstructed TRC 4 amphorae were found in the *Tyritake* pit 87 of the second quarter – the middle of the 6th century (**fig. 6,2; 7,10**). By the middle of the 6th century their share in Bosporus region is up to approximately 30 % and together with Pontic amphorae they dominate in *Tyritake* complexes of that period. Moreover Cretan products are brought in more rare amphorae types; some of them (TRC 6, TRC 9)[25] have also been found in *Tyritake* complexes (**fig. 6,3–4; 7,11**).

The latest amphorae found during the excavations in *Tyritake* most probably were produced around the middle of the 6th century or a bit later. Despite the fact that some of them are dated rather broadly I still have not managed to detect vessels of a definitely later period; and it is in agreement with the information obtained on the red slip pottery from the same complexes[26].

The analysis of the Late Roman amphorae from *Tyritake* excavations has made it possible to ascertain chronological and quantitative changes in the delivery of imported products in amphorae. During the 4th and 5th centuries local Bosporan

13 A. V. Smokotina, The North African red slip ware and amphorae imported into Early Byzantine Bosporus. RCRF Acta 43. 2014, 78.

14 Pieri 2005. 110–114.

15 Ibid. 105–106 fig. 66,B1.

16 Ibid. 86–88 fig. 45, pl. 23–26.

17 J. W. Hayes, Excavations at Saraçhane in Istanbul 2. The Pottery (Princeton 1992) 63; Pieri 2005, 100.

18 Pieri 2005, 96 pl. 28,29.

19 J.-Y. Empereur/M. Picon, Les régions de production d'amphores impériales en Méditerranee orientale. In: Amphores romaines et histoire économique: dix ans de recherche. Actes du colloque de Sienne, 22–24 mai 1986. Collect. École Française Rome 114 (Rome 1989) 236–243 fig. 18,19; Pieri 2005, 80; S. Demesticha/D. Michaelides, The Excavation of a Late Roman 1 Amphora Kiln in Paphos. In: E. Villeneuve et al. (ed.), La céramique Byzantine et proto-islamique en Syrie-Jordanie (IVe–VIIIe siècles apr. J.-C.). Actes du colloque tenu à Amman, 3–5 décembre 1994. Bibl. Arch. et Hist. 159 (Beyrouth 2001) 291–293.

20 Pieri 2005, 75–76.

21 A. V. Smokotina, Amfory LR 1 na Bospore. Materialy Arch. Istor. Etnogr. Tavrii 19, 2014, 72.

22 I. A. Antonova et al., Srednevekovye amfory Chersonesa. Ant. Drevnost' Srednie Veka 7, 1971, 85 fig. 6.

23 A. Opaiț, Local and Imported Ceramics in the Roman Province of Scythia (4th–6th centuries AD): aspects of economic life in the province of Scythia. BAR Internat. Ser. 1274 (Oxford 2004) 27–28.

24 Zeest 1960, 120 tab. 39,99; Portale/Romeo 2001, 306–307 tav. 45,d–e; 53,d–e.

25 Portale/Romeo 2001, 308, 310–311 tav. 45,b–c; 47,b–c; 54,a–f.

26 Information from K. Domzalski.

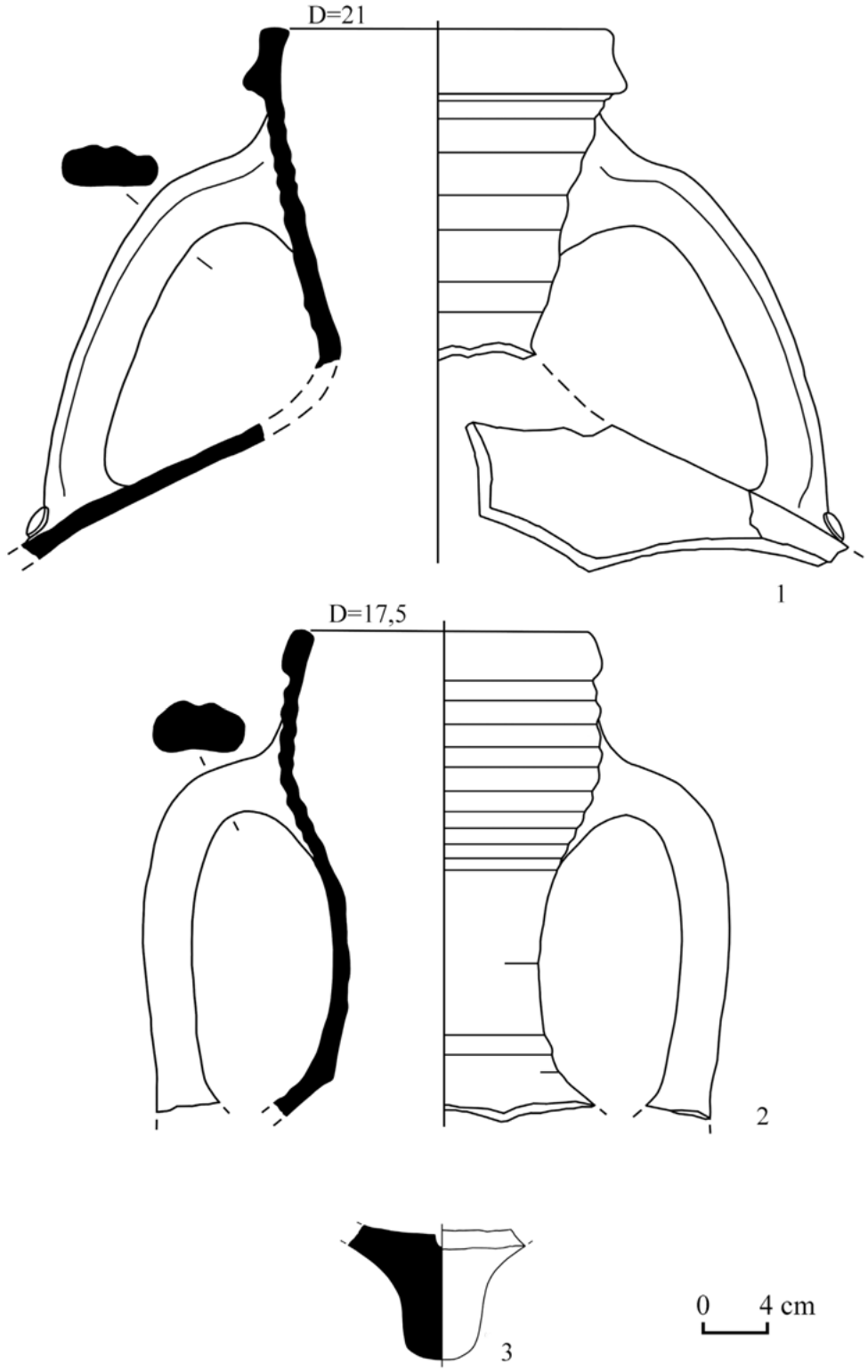

Fig. 1. Amphorae. **1–3** Zeest 96–97.

amphorae prevailed in *Tyritake* ceramic complexes, though there was a considerable share of imports from South Pontic centers such as Sinop and Heraclea. From the second half of the 5th century the situation changed gradually. In the first third of the 6th century Bosporus came under the control of Byzantine Empire. By this time the production of the local Bosporan amphorae had come to an end and the import of Sinopean and Heraclean amphorae stopped or reduced dramatically. Instead of them, deliveries of Antonova 5 Pontic amphorae increased as well as imports from the Eastern Mediterranean, particularly from Crete, Cilicia and Cyprus .

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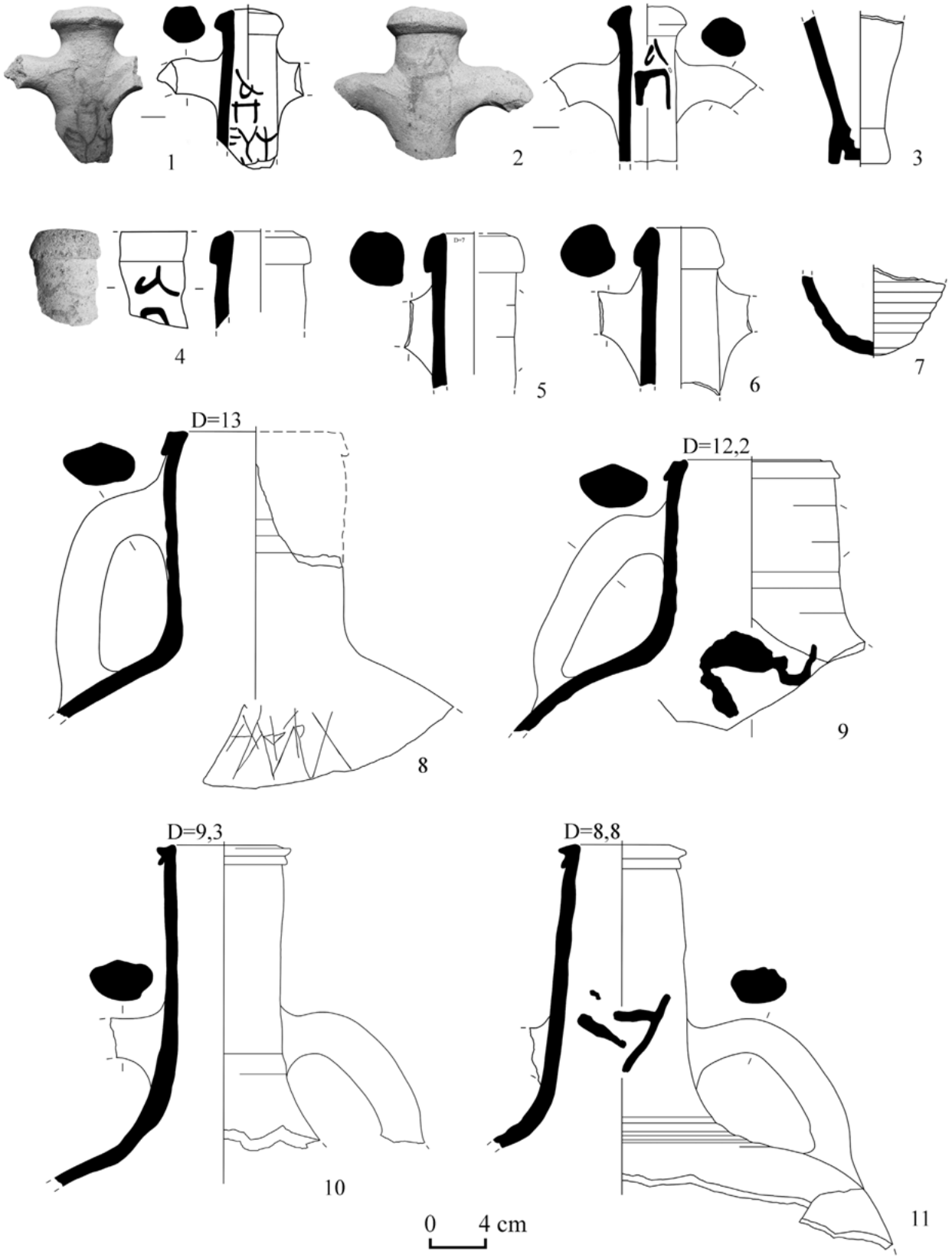

Fig. 2. Amphorae. **1–3** Shelov F; **4–7** Shelov E; **8–9** Zeest 100/C Snp I; **10–11** C Snp II-3b.

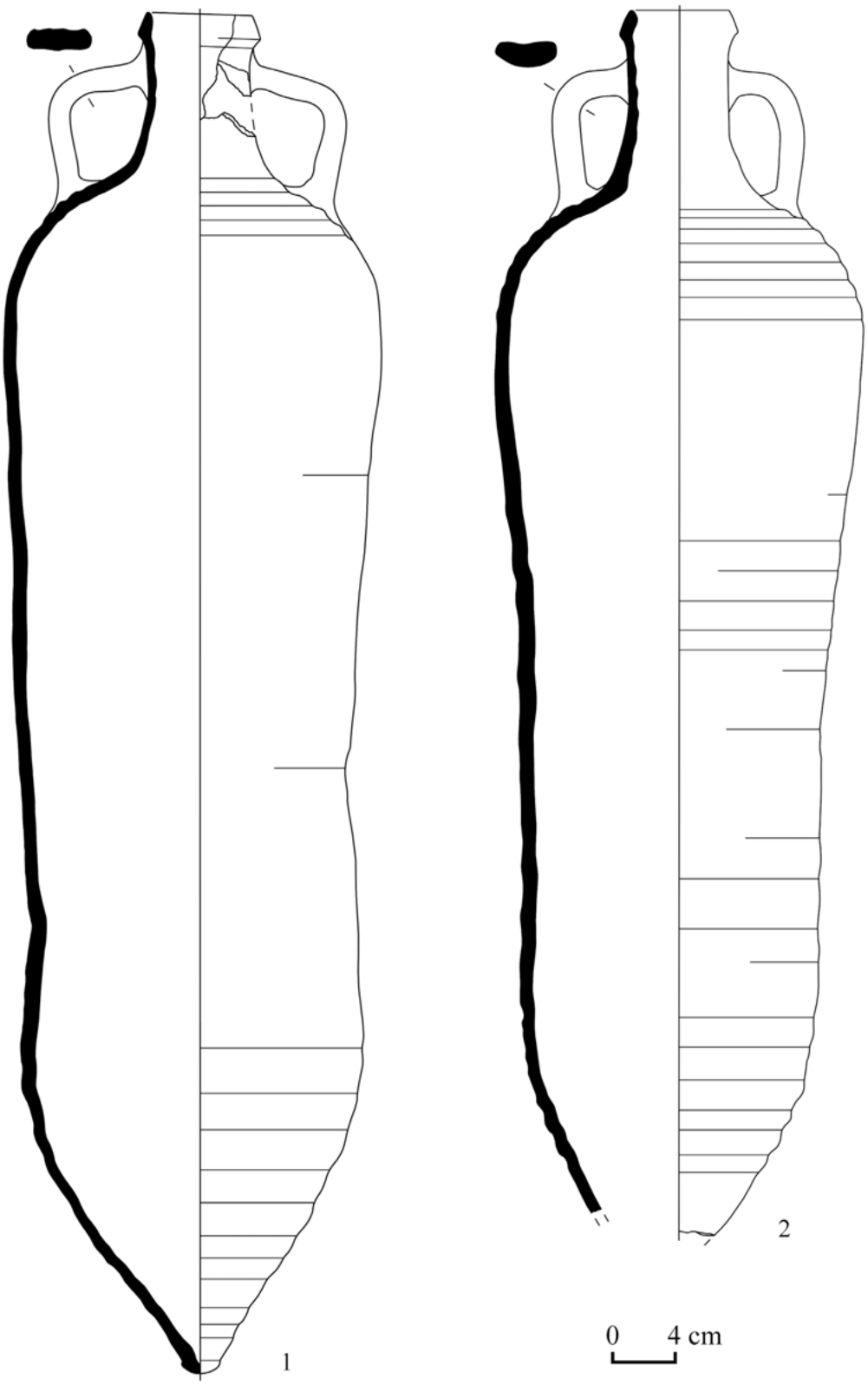

Fig. 3. Amphorae. **1**–**2** Zeest 103/Vnukov Ch ID2.

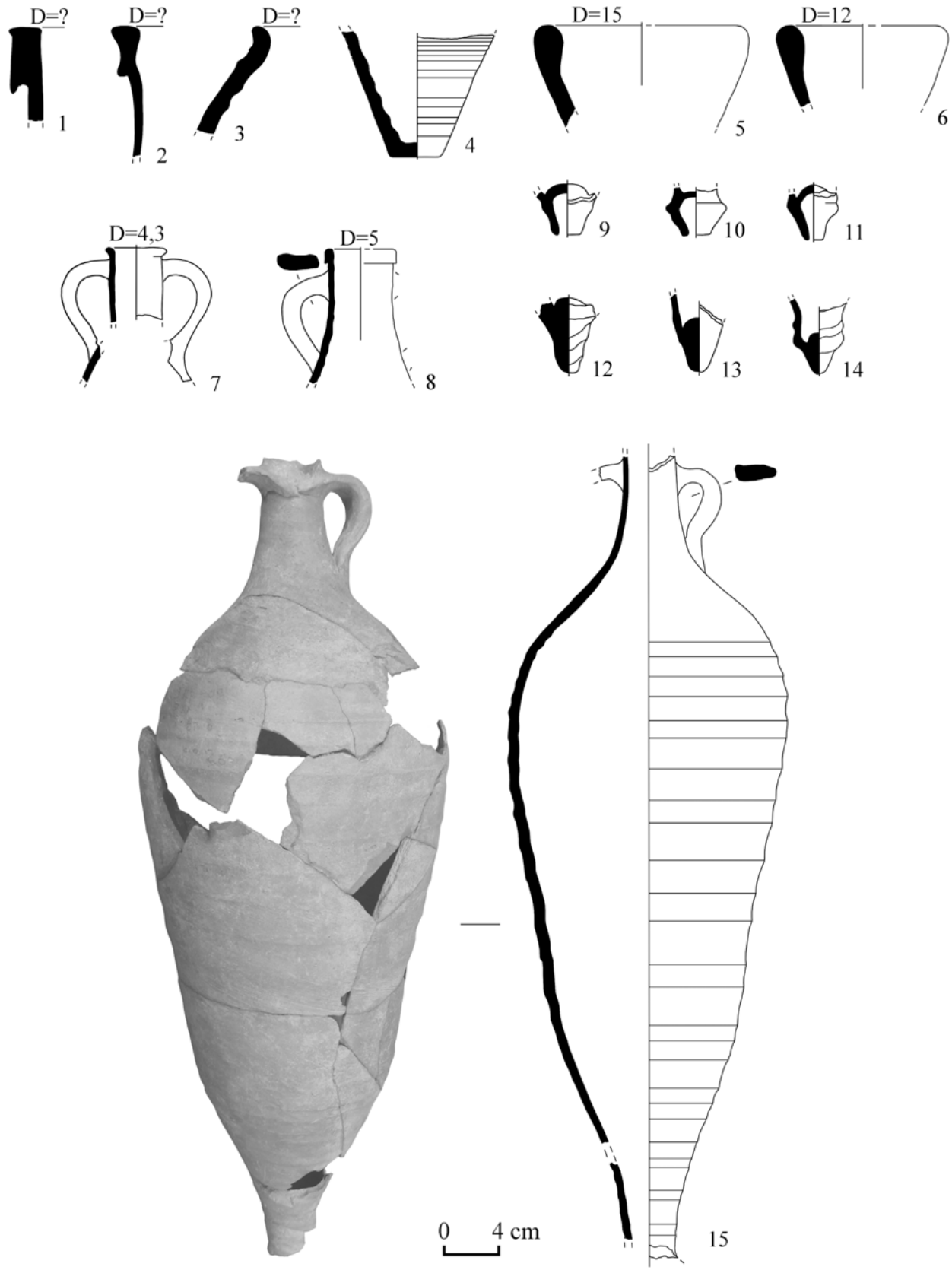

Fig. 4. Amphorae. **1–2** Keay 8B; **3–4** LR 4B1; **5**–**6** LR 2; **7–15** LR 3.

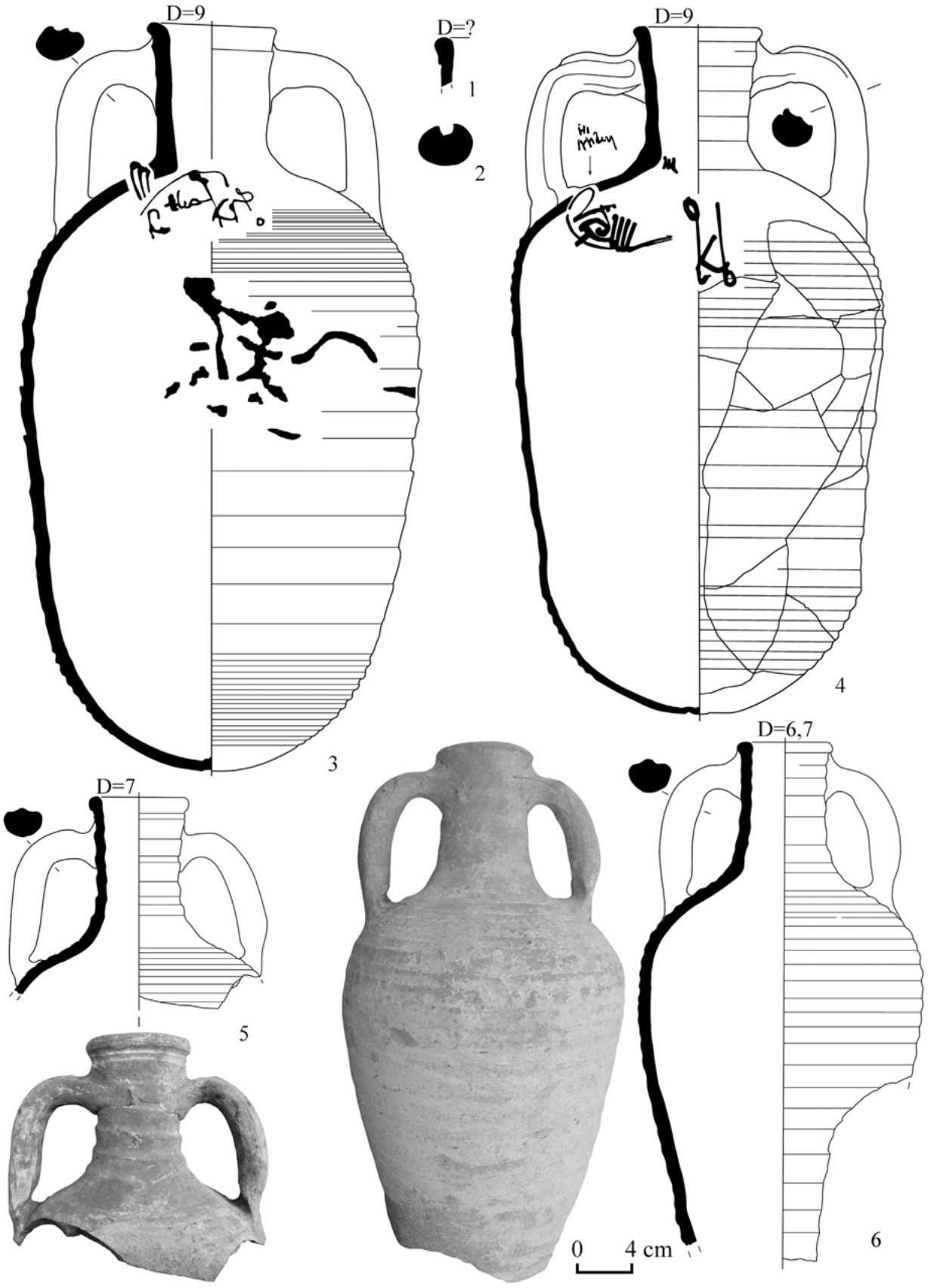

Fig. 5. Amphorae. of LR 1 (**1–2**), Antonova 5 (**3–4**).

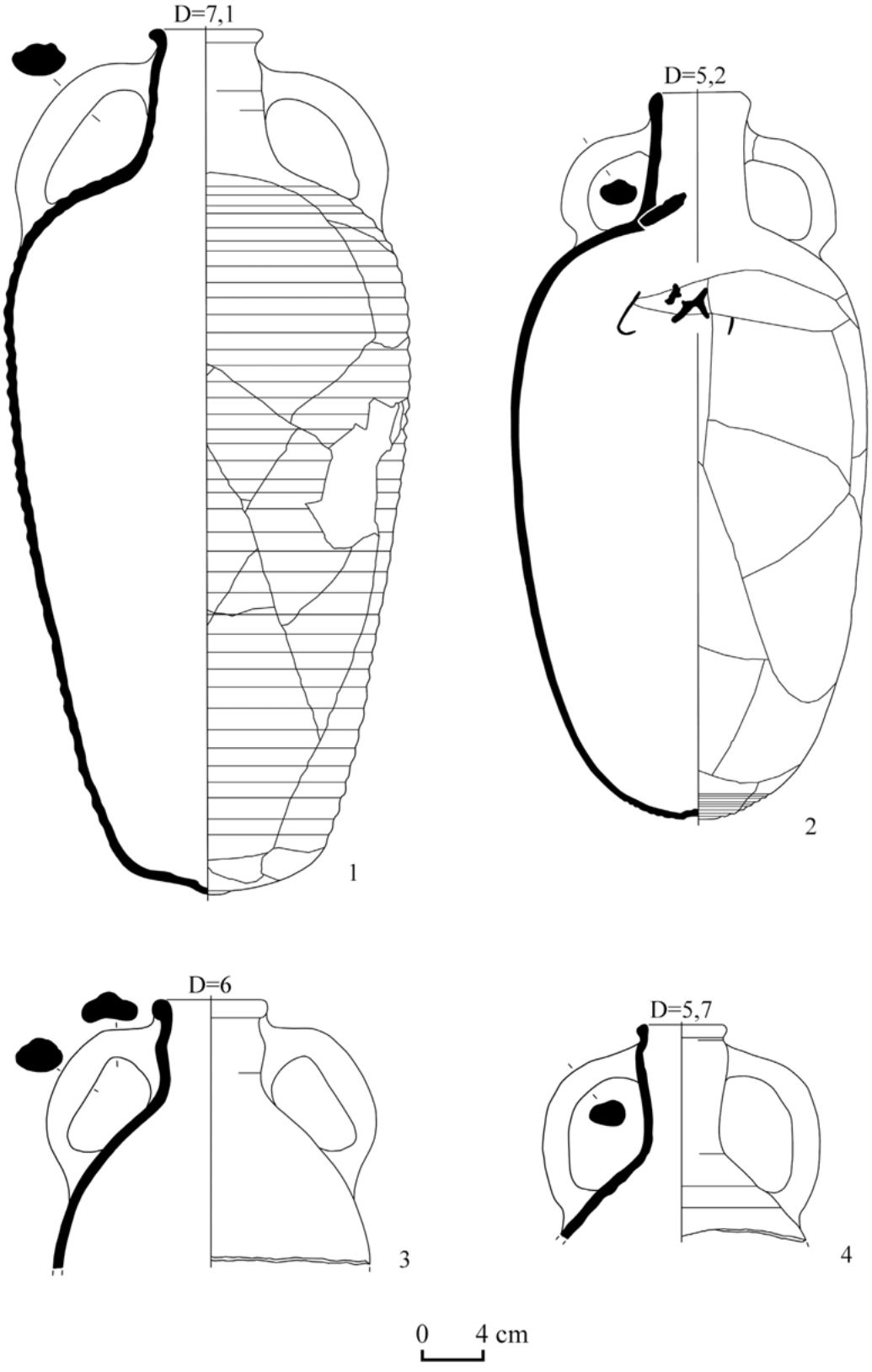

Fig. 6. Amphorae. **1** Antonova 5 var.; **2** Zeest 99/TRC 4; **3** TRC 6; **4** TRC 9.

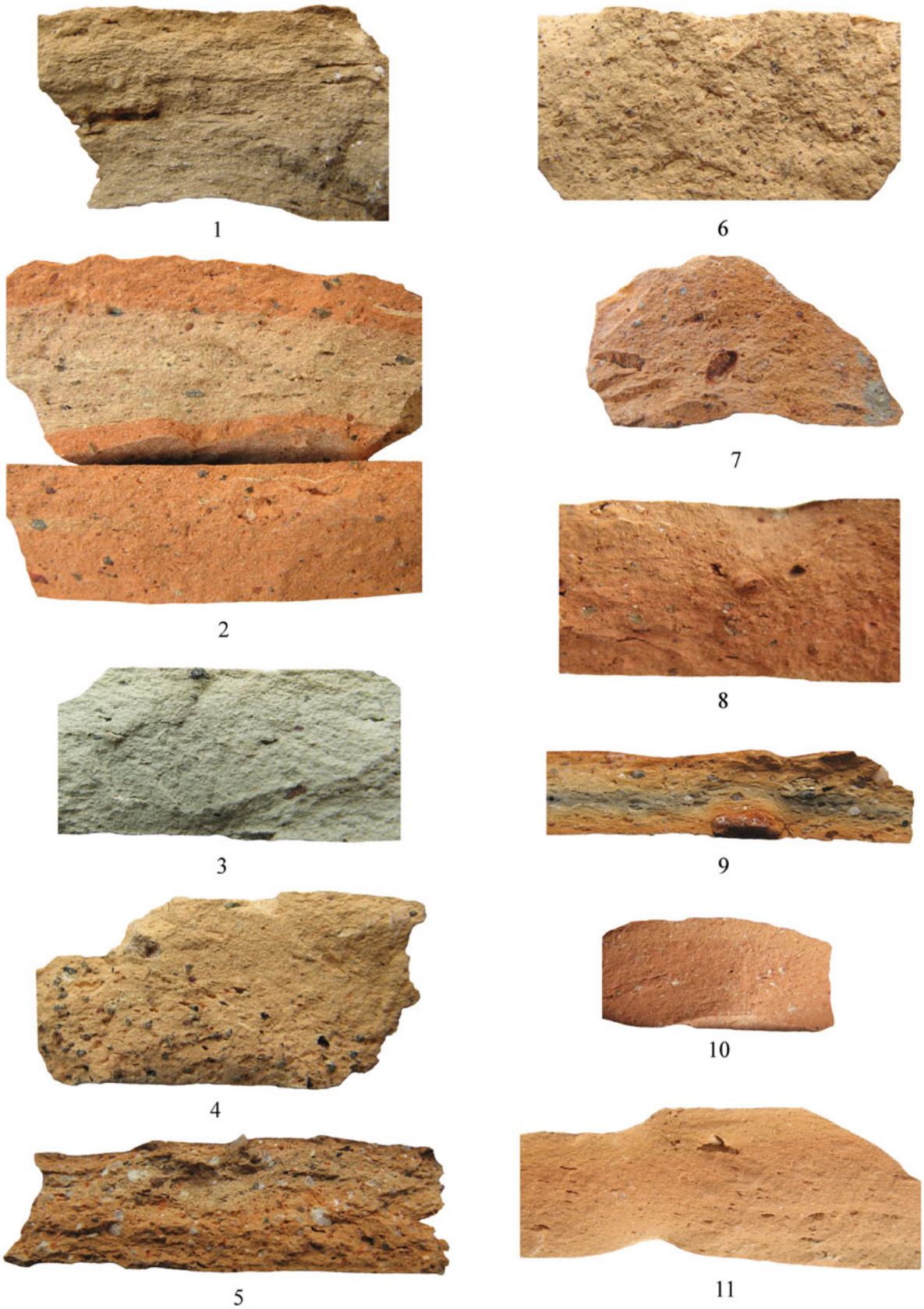

Fig. 7. **1** Zeest 96–97; **2** Zeest 100/C Snp I (= **fig. 2,9**); **3–4** C Snp II-3b (= **fig. 2,10–11**); 5 Zeest 103/Vnukov Ch ID2 (= **fig. 3,1**); **6** LR 1 (= f**ig. 5,4**); **7–8** Antonova 5 (= **fig. 5,5–6**); **9** Antonova 5 var. (= f**ig. 6,1**); **10** Zeest 99/TRC 4 (= **fig. 6,2**); **11** TRC 6 (= **fig. 6,3**).

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