

Certain amphora groups from the Roman Baths and the Olive Market of Tarsus : Sinope, Shelov Type D and Zeest 80

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Abstract

Archaeological excavations in Tarsus, a historically significant port city in the Cilicia region, yielded numerous fragments of amphorae produced in the Mediterranean, Aegean, and Black Sea regions. These finds, spanning various centuries, attest to the city's extensive commercial activities. Excavations conducted at the Roman Baths and the olive market provided valuable insights into the maritime trade of Tarsus. Among the amphorae recovered from these two excavation sites, certain amphorae groups were identified that were likely produced around the Black Sea and its surrounding areas. These include examples classified as Sinope, Shelov Type D and Zeest 80 amphorae, all unearthed from mixed ceramic fill layers at both excavation sites. Therefore, the amphorae discussed in this paper are dated by analogy. Among the amphorae, those of Shelov Type D and Zeest 80 are dated to the first half of the 3rd century AD, while the Sinopean specimens are attributed to the 5th and 6th centuries AD. This is the first publication on amphorae from Tarsus that feature the amphora groups of Shelov Type D and Zeest 80. It is noteworthy that these forms have not been previously documented in any publications concerning Cilician amphorae. The presence of these two amphora groups in this part of the Eastern Mediterranean region sheds new light onto the geographical distribution of these forms.

Săpăturile arheologice de la Tarsus, un oraș-port semnificativ din punct de vedere istoric din regiunea Cilicia, au scos la iveală numeroase fragmente de amfore produse în regiunile Mediteranei, Egeei și Mării Negre. Aceste descoperiri, care acoperă diverse secole, atestă activitățile comerciale extinse ale orașului. Săpăturile efectuate la Băile Romane și la piața de măslină au oferit informații valoroase despre comerțul maritim din Tarsus. Printre amforele recuperate din aceste două situri au fost identificate anumite grupuri de amfore care probabil au fost produse în zona Mării Negre și teritoriile înconjurătoare. Acestea includ amfore de tip Sinope, Shelov Type D și Zeest 80, toate descoperite din straturi amestecate de umplutură. Prin urmare, amforele discutate în această lucrare sunt datate prin analogie. Dintre acestea, cele de tip Shelov D și Zeest 80 sunt datate în prima jumătate a secolului al III-lea d.Hr., în timp ce exemplarele sinopeane sunt atribuite secolelor al V-lea și al VI-lea d.Hr. Aceasta este prima publicație despre amforele din Tarsus care prezintă grupurile de amfore de tip Shelov D și Zeest 80. Este de remarcat faptul că aceste forme nu au fost documentate anterior în nicio publicație referitoare la amforele ciliciene. Prezența acestor două grupuri de amfore în această parte a regiunii Mediteranei de est aruncă o lumină nouă asupra distribuției geografice a acestor forme.

CERTAIN AMPHORA GROUPS FROM THE ROMAN BATHS AND THE OLIVE MARKET OF TARSUS: SINOPE, SHELOV TYPE D, AND ZEEST 80

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Keywords: Tarsus, Amphora, Sinope Type C Snp III-2, Shelov Type D, Zeest 80, trade relations

Abstract: Archaeological excavations in Tarsus, a historically significant port city in the Cilicia region, yielded numerous fragments of amphorae produced in the Mediterranean, Aegean, and Black Sea regions. These finds, spanning various centuries, attest to the city's extensive commercial activities. Excavations conducted at the Roman Baths and the olive market provided valuable insights into the maritime trade of Tarsus. Among the amphorae recovered from these two excavation sites, certain amphorae groups were identified that were likely produced around the Black Sea and its surrounding areas. These include examples classified as Sinope, Shelov Type D and Zeest 80 amphorae, all unearthed from mixed ceramic fill layers at both excavation sites. Therefore, the amphorae discussed in this paper are dated by analogy. Among the amphorae, those of Shelov Type D and Zeest 80 are dated to the first half of the 3rd century AD, while the Sinopean specimens are attributed to the 5th and 6th centuries AD. This is the first publication on amphorae from Tarsus that feature the amphora groups of Shelov Type D and Zeest 80. It is noteworthy that these forms have not been previously documented in any publications concerning Cilician amphorae. The presence of these two amphora groups in this part of the Eastern Mediterranean region sheds new light onto the geographical distribution of these forms.

Cuvinte-cheie: Tarsus, amforă, Sinope Type C Snp III-2, Shelov tip D, Zeest 80, relații comerciale

Rezumat: Săpăturile arheologice de la Tarsus, un oraș-port semnificativ din punct de vedere istoric din regiunea Cilicia, au scos la iveală numeroase fragmente de amfore produse în regiunile Mediteranei, Egeei și Mării Negre. Aceste descoperiri, care acoperă diverse secole, atestă activitățile comerciale extinse ale orașului. Săpăturile efectuate la Băile Romane și la piața de măsline au oferit informații valoroase despre comerțul maritim din Tarsus. Printre amforele recuperate din aceste două situri au fost identificate anumite grupuri de amfore care probabil au fost produse în zona Mării Negre și teritoriile înconjurătoare. Acestea includ amfore de tip Sinope, Shelov Type D și Zeest 80, toate descoperite din straturi amestecate de umplutură. Prin urmare, amforele discutate în această lucrare sunt datate prin analogie. Dintre acestea, cele de tip Shelov D și Zeest 80 sunt datate în prima jumătate a secolului al III-lea d.Hr., în timp ce exemplarele sinopeane sunt atribuite secolelor al V-lea și al VI-lea d.Hr. Aceasta este prima publicație despre amforele din Tarsus care prezintă grupurile de amfore de tip Shelov D și Zeest 80. Este de remarcat faptul că aceste forme nu au fost documentate anterior în nicio publicație referitoare la amforele ciliciene. Prezența acestor două grupuri de amfore în această parte a regiunii Mediteranei de est aruncă o lumină nouă asupra distribuției geografice a acestor forme.

The Cilicia region, which encompassed a substantial portion of Turkey's contemporary Mediterranean coastline, was bounded by Korakesion (Coracesium) in the west and Alexandria Kat'Isson in the east¹. Situated within Plain Cilicia, Tarsus was one of the important port cities in the Eastern Mediterranean region during antiquity. Retaining its importance over the centuries, the city persisted in roughly the same location throughout its history. This, however, resulted in the destruction or reuse of earlier structural remnants by subsequent settlers, or even the construction of new settlements on top of the older ones. As a result, the archaeological works in Tarsus have not been conducted within the framework of a single plan and project, but instead have been carried out at different times and in different areas of the city. This paper focuses on the finds recovered from two of these areas that have gained prominence in recent years.

The first site is the Roman Baths, located in the city centre of Tarsus. Although largely destroyed, it still is one of the few remains of antiquity that have survived to the present day in the city. Excavations were conducted in this area between 2004 and 2006, which revealed the changes that the structure and the city underwent over time².

The other site is represented by the remains of a reservoir, which was discovered during the construction of the olive market of Tarsus. Rescue excavations were carried out at the site between 2012 and 2014, and exposed a reservoir structure consisting of a dam complex, regulator, and three chambers, as well as the remains of a mosaic floor³.

Both sites yielded a substantial quantity of potsherds from fill layers that possessed dense artifact assemblages, including numerous fragments of amphorae produced

¹ Strabon XIV, III, 1.

² Adak Adibelli 2007.

³ Dunbabin *et alii* 2019, p. 329–330.

across different centuries in the Mediterranean, Aegean, and Black Sea regions⁴. Besides the ones from the Black Sea, there were also some that were suggested to be from Propontis and its vicinity. The purpose of this paper is to categorize these amphorae, and to identify and date their sub-variants/groups. A number of the amphorae examined here are of particular significance both for their associated form groups and for Tarsus. This is the first time that amphorae classified in the literature as Shelov Type D and Zeest 80 have been discovered in Tarsus. Therefore, the two groups discussed here provide new insights about the city as well as the region.

Shelov Type D Amphora

A group of amphorae produced in the Heraclea Pontica region was classified by Shelov as Type D, E, and F based on variations in body proportions and base forms⁵. These were used in the exportation of Pontic wine⁶. In the scientific literature, especially the Russian one, Shelov Type D is also referred to as the Tanais-type. Amphorae of this type were chiefly discovered in Kiev and its immediate vicinity. It was established that Shelov Type D amphorae emerged around the mid-3rd century AD, or slightly earlier⁷. Amphorae of this type were also commonly found in Olbia and dated from the 3rd century to the beginning of the 4th century AD⁸.

A fragment of an amphora discovered during one of the excavations at the olive market was identified as a Shelov Type D (Fig. 1). It features an out-curved rounded rim, a narrow cylindrical neck, and a handle attached just below the rim. The handle exhibits an oval cross-section. The fabric of the fragment is light in colour. A comparable amphora in terms of form was unearthed in Besedovka and dated to the 3rd century AD⁹. Considering the historical development of Tarsus, the one in Fig. 1 must date to the first half of the 3rd century AD.

Zeest 80 Amphora¹⁰

In his book “Keramicheskaya Tara Bospora”, I. B. Zeest identified amphora No. 80 as “Zeest 80” and divided the amphorae of this group into two variants¹¹. Scorpan examined the same amphora group from chronological and morphological perspectives¹². Opaıt also analysed this

group in terms of chronology and form development and divided it into four types¹³.

Zeest 80 amphorae have everted triangular rims. They usually feature two deep grooves along the rim. The neck is cylindrical, and the oval-sectioned handles are attached from the upper portion of the neck to the shoulder. The ovoid body is covered with horizontal grooving from its upper section almost to the toe, excluding the plain middle section. The toe is solid and conical in shape¹⁴.

The production centre of the Zeest 80 amphorae has yet to be identified. Although the examples of this amphorae group were abundant in the western Black Sea region, the characteristics of the clay of the amphorae known to have been produced in this area do not correspond to those of Zeest 80. Due to the clay structure of the Zeest 80 amphorae, it has been suggested that the production centre for this group was located in Propontis or Thessaly¹⁵. Another potential centre, based on the seals and inscriptions on the amphorae of this group, was proposed to be the Monastery of St. Agapios, which is known to be located between Lake Apolyont/Apolloniatis (Uluabat Lake) and the Sea of Propontis¹⁶.

It was determined that the form development of Zeest 80 amphorae began in the 2nd century AD and continued until the 6th century AD¹⁷. It has been suggested that the commodities carried in Zeest 80 amphorae were likely fish-sauce, wine, olive oil, and grain or grain products¹⁸. While most of the examples were concentrated around the Black Sea and its vicinity, they were also found in the Aegean and the Mediterranean regions¹⁹. However, from the mid-4th century AD onwards, the distribution of this form was confined to the areas of Constantinople, the Black Sea, and the Lower Danube²⁰.

The amphora fragment (Fig. 2) discovered at the Roman Baths exhibits part of the rim and neck. The rim is everted and triangular in shape. There is a deep groove at the rim-to-neck transition. In terms of its form characteristics, this fragment is close to Type 2 in Opaıt’s classification. According to Opaıt, Type 2 had 6 variants²¹. The Zeest 80 amphora from the Roman Baths of Tarsus resembles, in terms of form, the examples of the 6th variant of Type 2 that were dated to the middle and second half of the 3rd century AD. The distinctive feature of the 6th variant, the deep groove, is situated at the top edge of the triangular rim. On the fragment from Tarsus, this feature is located at the transition between the rim and neck. Similar examples from Alexandria exhibit a different number of grooves and were assigned to the 3rd century AD²².

⁴ Alkaç, Adak Adibelli 2024, p. 86; Adak Adibelli, Alkaç 2024, p. 369–385.

⁵ Shelov 1978, p. 16–21.

⁶ Opaıt 2017, p. 593.

⁷ Opaıt, Grigoraş 2022, p. 53.

⁸ Krapivina 2010, p. 71, Pl. 37, cat. no. 20–23; Pl. 39, cat. no. 4.

⁹ Magomedov 2010, p. 75, cat. no. 1, Pl. 40.

¹⁰ This type of amphora has also been referred to as Knossos 38, Mid Roman Amphora 5, and Type 60. Bezeczky 2013, p. 173.

¹¹ Zeest 1960, p. 114–115.

¹² Scorpan 1975, p. 275–276; Scorpan 1976, Pl. X.3; Scorpan 1977, p. 278, Fig. 13, 15.

¹³ Opaıt 1987, p. 246–250.

¹⁴ Şenol 2000, p. 190.

¹⁵ Swan 2010, p. 114.

¹⁶ Kara 2023, p. 274.

¹⁷ Opaıt, Grigoraş 2022, p. 53; Opaıt 2023, p. 160.

¹⁸ Swan 2010, p. 112; Opaıt 2017, p. 596; Şenol 2000, p. 191.

¹⁹ Akkaş 2020, p. 325–326.

²⁰ Swan 2010, p. 112.

²¹ Opaıt 1987, p. 248, cat. no. 2a–b, Fig. 4; p. 257.

²² Şenol 2000, p. 310–311, cat. no. 50–52.

A specimen from the Athenian Agora was dated to the mid-3rd century AD²³. Considering the historical development of Tarsus, the amphora in Fig. 2 must be dated to the first half of the 3rd century AD.

Sinopean Amphorae

Sinope, a prominent wine-producing city in the Black Sea region, began producing amphorae around the mid-4th century BC²⁴, and continued to produce them into the Roman Imperial period in order to market its agricultural products. The production of Sinopean amphorae reached its peak between the 4th and the first half of the 6th centuries AD²⁵. They have been found across the Black Sea region, Greece, Anatolia, the Eastern Mediterranean, and Egypt²⁶.

The discovery of the amphora production workshop in Demirci has yielded important data on the form, fabric, and inclusions of Sinopean amphorae, thus enabling the establishment of their typological development²⁷. Typologically, the amphorae are classified into four main types: Groups A, B, C, and D²⁸. Among them, the amphorae classified as Type C Snp III are further divided into two subtypes in terms of form and size: C Snp III-1 and C Snp III-2²⁹. The amphorae of Type C Snp III have a double-stepped triangular out-curved rim, a tall cylindrical neck that widens towards the shoulder, two grooved and oval-sectioned handles attached from the lower neck to the shoulder, a conical shoulder, and a triangular body tapering to a pointed base³⁰. The amphorae of this form, with their elongated necks and bodies, and their pointed bases are also known in the literature as “carrot-shaped” amphorae³¹. The production of Type C amphorae is said to have occurred within a general timeframe spanning from the early 4th century AD to the late 5th or early 6th century AD³².

Approximately 50 Sinopean amphorae in total were recovered from the excavations at the Roman Baths, and about four from the excavations at the olive market. These are fragments of rim and neck, body and base. All the examples fall into subtype C Snp III-2 in Kassab Tezgör’s classification of the Sinopean amphorae³³. The rim and neck fragments from Tarsus’s both excavation sites feature out-curved double-stepped triangular rims, and cylindrical necks (Figs. 3–5). There was only one body and base fragment among the finds (Fig. 6). In addition to the examples from the Roman Baths and the olive market,

a complete specimen of this subtype was found during an excavation at Gözlükule Mound³⁴. Of the examples similar in form to the Tarsus specimens, those from Elaiussa Sebaste were dated between the 5th and 6th centuries AD³⁵, those from Kelenderis to the 5th century AD³⁶, and those housed in the İzmir Archaeological Museum to the 5th century AD³⁷.

Since there was a high demand for Sinopean wine, Sinopean amphorae were also produced in various other centres across the Black Sea region. This necessitates an analysis of the clay composition of the relevant amphorae before discussing their origins³⁸. Specimens from the Roman Baths and the olive market in Tarsus contained inclusions such as pyroxene, quartz, lime, and red minerals, which are consistent with those identified in amphorae produced in Sinope.

CONCLUSION

During the excavations at the Roman Baths and the olive market in Tarsus, a number of amphorae were found, which belonged to amphora groups suggested to have been produced in the Black Sea, Propontis, and Thessaly regions (see Graphic 1). These amphora groups are Sinope, Shelov Type D and Zeest 80. The amphorae discussed in this paper were recovered from fill layers and were not found in a context or layer tied to a specific period. Therefore, the proposed dates for these amphorae are based on analogous examples and the historical trajectory of Tarsus.

A Shelov Type D amphora was discovered during the excavations at the olive market (Fig. 1). It is a fragmentary example, exhibiting rim, neck, and one handle. Analogues of this amphora were dated to the 3rd century AD. Considering the historical trajectory of Tarsus, the image in Fig. 1 should likely be dated to the first half of the 3rd century AD.

A Zeest 80 amphora was found during an excavation at the Roman Baths (Fig. 2). This example is also fragmentary, consisting of rim and neck. Analogues of this form were dated to the 3rd century AD. Given the city’s historical development, it is also likely that the amphora in Fig. 2 should belong to the first half of the 3rd century AD.

Within the amphora groups, the Sinopean amphora is represented by the largest number of examples (54 pieces). The Sinope amphorae recovered from the abovementioned two excavation sites of Tarsus were identified as variants of Type C Snp III-2 (Figs. 3–6). The examples consist of rim, neck and base fragments. The inclusions of pyroxene, quartz, lime and red minerals in these amphorae indicate that they were produced in Sinope. The analogues of Type C Snp III-2 specimens analysed here generally belonged to the 5th and 6th centuries AD.

²³ Robinson 1959, Pl. 40, cat. no. 21330, K 115.

²⁴ Cankardeş Şenol 2006, p. 44.

²⁵ Sezgin *et alii* 2022, p. 169.

²⁶ Bezecky 2013, p. 176.

²⁷ Kassab Tezgör 2011, p. 200–264.

²⁸ Kassab Tezgör 2010, p. 124–136.

²⁹ Kassab Tezgör 2011, p. 198–200, Pl. II.

³⁰ Şenol 2018, p. 524, cat. no. 380, Fig. 445.

³¹ Kassab Tezgör, Tatlıcan 1996, p. 354.

³² Kızırlansanoğlu 2022, p. 160.

³³ For amphorae of this type, see Kassab Tezgör 2020, p. 26.

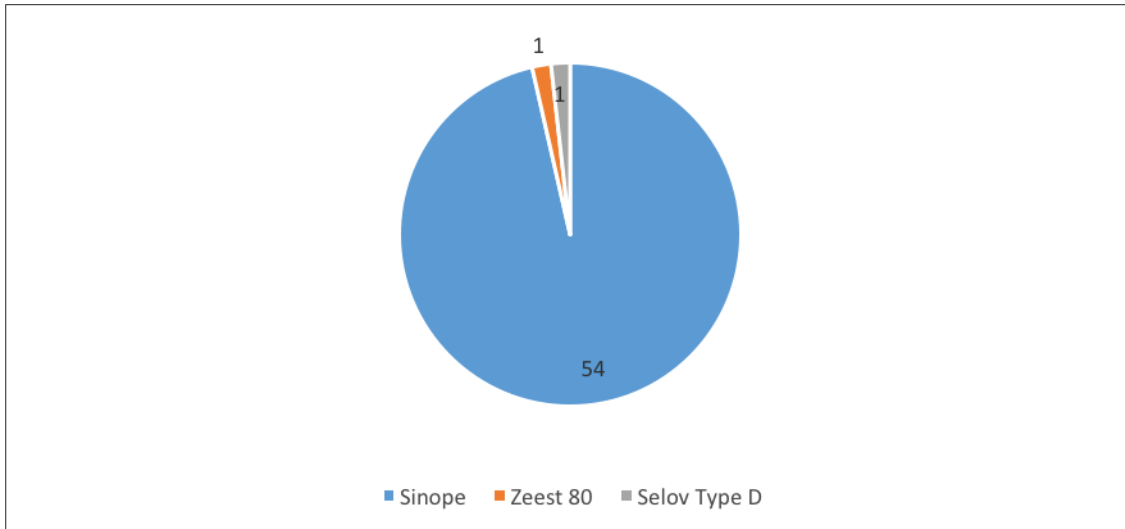
³⁴ Jones 1950, p. 278, cat. no. 831, Fig. 166.

³⁵ Kızırlansanoğlu 2022, p. 163–164, cat. no. 8–9, Fig. 4.

³⁶ Tekocak, Zoroğlu 2013, p. 116, Fig. 8–9.

³⁷ Sezgin *et alii* 2022, p. 170, cat. no. 120–121.

³⁸ Opaıt 2010, p. 398–399.



Graphic 1. Production of amphorae groups in the Black Sea, Propontis, and Thessaly.

The Zeest 80 amphora from the Roman Baths and the Shelov Type D amphora from the olive market represent the first examples of their respective groups to be published from the Cilicia region. The presence of these two groups in this part of the Eastern Mediterranean provides new insights into the geographical distribution of these forms.

The Zeest 80 and Shelov Type D amphorae of Tarsus, given the historical trajectory of the city, date probably to the first half of the 3rd century AD. This is because the military campaign of Sassanid King Shapur I in AD 260 into the interior of Anatolia via the Mediterranean coast and Isauria created widespread chaos across the region³⁹. This campaign, described as a pillaging expedition, resulted in widespread devastation across the Cilician cities, including Tarsus⁴⁰.

Subsequent Isaurian revolts, which continued through much of the second half of the 4th century AD, particularly created big problems in the southern coast of Anatolia and Cyprus. These revolts spread westward to Lycia and southward to Palestina, blocking the maritime route between the southern Anatolia and Cyprus. Throughout this period, the cities of Cilicia, in particular, along with those of Pamphylia and Lycia, were adversely affected. The repercussions of this unfavourable situation can be tracked through data such as the reduced frequency of ceramic finds associated with overseas trade⁴¹. Archaeological finds indicate a revitalisation of trade across the southern coastal cities of Anatolia following the end of the Isaurian revolts in the late 4th and early 5th centuries AD. The Sinopean amphorae analysed in this paper are likely dated to the period following the end of this turbulent era.

Shaped by the dynamics of the Late Antique period, the effects of the new economic arrangements emerging

across the Mediterranean in the 5th century AD are also evident in Tarsus. The city's increasing trade activity from the mid-5th century AD onwards is reflected in the rising numbers of imported goods⁴². During the 5th and 6th centuries AD, Cilicia sent olive oil to Constantinople to meet the capital's *annona* requirements. Although the resurgence of the Isaurian revolts at the end of the 5th century AD threatened this supply, it was recorded that, following the suppression of the revolts, Eastern Roman Emperor Anastasius reduced the taxes paid by Cilician sailors to cross the Hellespont⁴³, thus likely stimulating trade activity in the region. It is possible to observe that the increasing number of imported red slip ware in the late 5th and early 6th centuries AD⁴⁴ parallels the increase in the quantity of Sinopean amphorae. In Late Antiquity, Constantinople, as the administrative and economic capital of the Eastern Roman Empire, also became a hub for commercial activities and interactions. Building on the view that goods from the Eastern Roman Empire's Mediterranean territories were stored in the capital and transported from there to the Black Sea⁴⁵, the large number of Cilician amphorae recovered from Black Sea settlements, particularly Sinope⁴⁶, demonstrates that the exchange of goods between the two regions was reciprocal. This also highlights the role of Constantinople in the supply and distribution of goods from the coasts of northern, southern and western Anatolia. It is therefore possible, especially in the 5th and 6th centuries AD, that Sinopean amphorae carried goods from the major production centres in the Black Sea to the Cilician ports, and thus to Tarsus, or that they were part of the cargo loaded from the warehouses in

⁴² Adak Adibelli 2017, p. 2–7, 18.

⁴³ Mitchell 2007, p. 120, 338.

⁴⁴ Adak Adibelli 2017, p. 2–7, 18.

⁴⁵ Opaıt *et alii* 2019, p. 83.

⁴⁶ Csiky 2017, p. 17–21; Tekkök *et alii* 2024, p. 60–65.

³⁹ Dignas, Winter 2007, p. 23; Kurt 2018, p. 804.

⁴⁰ Şahin 2007, p. 135.

⁴¹ Alkaç 2024, p. 156–158.

Constantinople on the return journey. Whatever the case, it is clear that in the 5th and 6th centuries AD, Sinopean products were sought-after goods in the Tarsus market.

Tarsus, with its almost uninterrupted history from the Neolithic period to the present day, is a unique blend of the ancient and the modern. Therefore, every piece of ceramic published from Tarsus will bring valuable insights into the archaeology of both the city and Cilicia.

CATALOGUE

Amphora: Shelov Type D (Pl. I/1)

Findspot: Olive Market

Rim Diameter: 6 cm

Height: 15 cm

Colour of the Surface: 7.5 YR 7/4 Pale Brown

Colour of the Clay: 7.5 YR 7/4 Pale Brown

Inclusions: lime, sand, and pyroxene

Date: First half of the 3rd century AD

Amphora: Zeest 80 – Tip 2–6. Variant (Pl. I/2)

Findspot: Roman Baths

Rim Diameter: 14 cm

Height: 12.5 cm

Colour of the Surface: 2.5 YR 6/8 light red

Colour of the Clay: 5 YR 5/8 reddish yellow

Inclusions: mica, limestone

Date: First half of the 3rd century AD

Amphora: C Snp III-2 (Pl. I/3)

Findspot: Roman Baths

Rim Diameter: 9 cm

Height: 6 cm

Colour of the Surface: 2.5 YR 6/6 light red

Colour of the Clay: 2.5 YR 6/4 light reddish brown

Inclusions: coarse-grained black pyroxene, limestone, grit, chamotte

Date: 5th–6th century AD

Amphora: C Snp III-2 (Pl. I/4)

Findspot: Roman Baths

Rim Diameter: 10 cm

Height: 7,5 cm

Colour of the Surface: 2.5 YR 6/6 light red

Colour of the Clay: 2.5 YR 6/4 light reddish brown

Inclusions: abundant coarse-grained black pyroxene, limestone, grit, chamotte

Date: 5th–6th century AD

Amphora: C Snp III-2 (Pl. I/5)

Findspot: Olive Market

Rim Diameter: 13 cm

Height: 8 cm

Colour of the Surface: 2.5 YR 6/6 light red

Colour of the Clay: 2.5 YR 6/4 light reddish brown

Inclusions: abundant coarse-grained black pyroxene, limestone, grit, chamotte

Date: 5th–6th century AD

Amphora: C Snp III-2 (Pl. I/6)

Findspot: Olive Market

Rim Diameter: 1 cm

Height: 11,2 cm

Colour of the Surface: 2.5 YR 6/6 light red

Colour of the Clay: 2.5 YR 6/4 light reddish brown

Inclusions: abundant coarse-grained black pyroxene, limestone, grit, chamotte

Date: 5th–6th century AD

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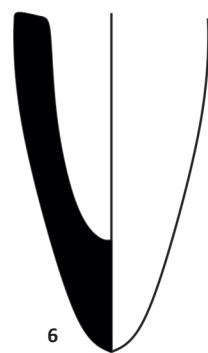
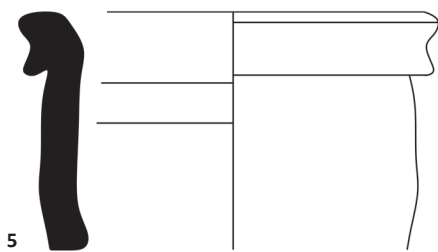
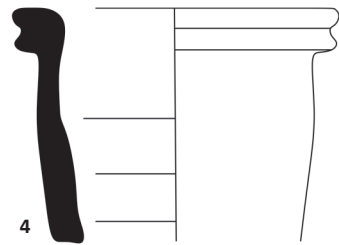
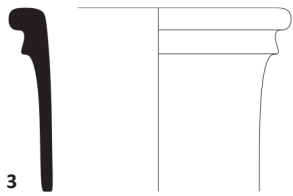
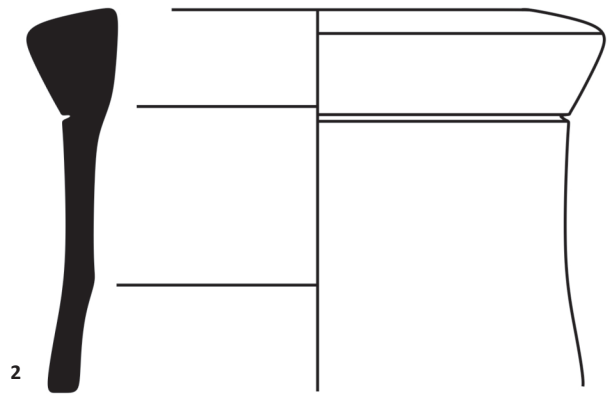
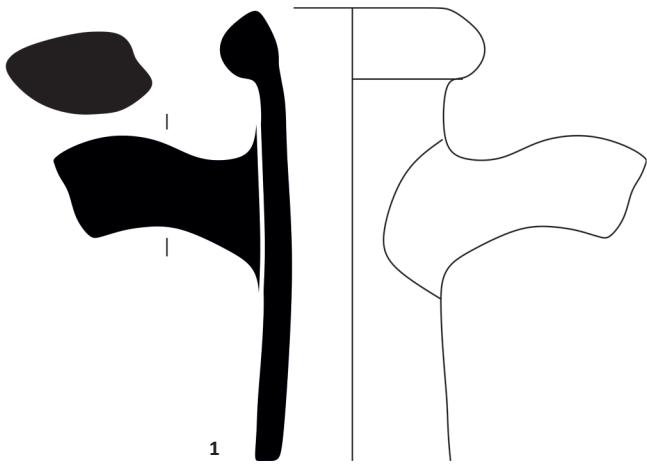


Plate 1. Amphora types mentioned in the catalogue.