

ADALYA

27 2024



AKMED

KOÇ UNIVERSITY

Suna & İnan Kırac

Research Center for

Mediterranean Civilizations

27 2024

ISSN 1301-2746

ADALYA

The Annual of the Koç University Suna & İnan Kıraç Research Center
for Mediterranean Civilizations

(OFFPRINT)



ADALYA

The Annual of the Koç University Suna & İnan Kırac Research Center
for Mediterranean Civilizations (AKMED)

Adalya, a peer reviewed publication, is indexed in the A&HCI (Arts & Humanities Citation Index) – CC / A&H (Current Contents / Arts & Humanities), Social Sciences and Humanities Database of TÜBİTAK / ULAKBİM Tr Index, ERIH PLUS (European Reference Index for the Humanities and Social Sciences), Scopus, and Index Copernicus.

<i>Mode of publication</i>	Worldwide periodical
<i>Publisher certificate number</i>	18318
ISSN	1301-2746
<i>Publisher management</i>	Koç University Rumelifeneri Yolu, 34450 Sarıyer / İstanbul
<i>Publisher</i>	Metin Sitti, President, on behalf of Koç University
<i>Editor-in-chief</i>	Oğuz Tekin
<i>Editors</i>	Tarkan Kahya and Arif Yacı
<i>English copyediting</i>	Mark Wilson
<i>Editorial advisory board</i>	(Members serve for a period of five years) Emanuela Borgia, Università di Roma Sapienza (2021-2025) Ian Hodder, Koç Üniversitesi (2023-2027) Nevra Necipoğlu, Boğaziçi University (2023-2027) Fatih Onur, Akdeniz University (2023-2027) Christopher H. Roosevelt, Koç University (2021-2025) Mustafa H. Sayar, İstanbul University (2023-2027) M. Baha Tanman, İstanbul Research Institute (2024-2028) Peter van Alfen, American Numismatic Society (2023-2027)
©	Koç University AKMED, 2024
<i>Production</i>	Zero Production Ltd. Abdullah Sok. No. 17 Taksim 34433 İstanbul Tel: +90 (212) 244 75 21 • Fax: +90 (212) 244 32 09 info@zerobooksonline.com; www.zerobooksonline.com
<i>Printing</i>	Fotokitap Fotoğraf Ürünleri Paz. ve Tic. Ltd. Şti. Oruç Reis Mah. Tekstilkent B-5 Blok No. 10-AH111 Esenler - İstanbul / Türkiye Certificate number: 47448
<i>Mailing address</i>	Barbaros Mah. Kocatepe Sok. No. 22 Kaleiçi 07100 Antalya / Türkiye Tel: +90 (242) 243 42 74 • Fax: +90 (242) 243 80 13 https://akmed.ku.edu.tr
<i>E-mail address</i>	adalya@ku.edu.tr

Contents

F. Gülden Ekmen <i>A Vaulted Figurine from İnönü Cave: A New Link between the Balkans and Northwestern Türkiye</i>	1
Duygu Akar Tanriver – Serhat Foça <i>Archaic and Early Classical Trade Amphorae from Old Smyrna</i>	17
Utku Arınç – Fatma Bağdatlı Çam <i>The Heracles-Melqart Head from The Hatay Museum</i>	49
Candemir Zoroğlu – Ertekin M. Doksanaltı – D. Ozan Tozluca <i>The “Winged Woman of Burgaz”: A New Archaic Sculpture from the Territory of Knidos</i>	65
Uğurcan Orhan <i>A Group of Phaselis Type 3 Amphorae by the Base of the Phaselis Central Tower: A New Pottery Dumpster (Bothros) and Amphora Production Area</i>	85
Özlem Vapur – Abdulkadir Baran <i>An Underground Chamber Tomb with Serpent Relief in Ula, Muğla</i>	117
Gonca Cankardeş-Şenol – Oğuzhan İleri – A. Kaan Şenol <i>Stamped Amphora Handles from Kedreai</i>	145
Pınar Özlem Aytaçlar <i>New Funerary Monuments from Aizanoi</i>	169
Fatma Avcu – Hüseyin Uzunoğlu <i>New Inscriptions from Rough Cilicia</i>	193
Noah Kaye <i>In Search of Ancient Antalya (Attaleia): A First Approach</i>	211
Şevket Aktaş – Mustafa Koçak – Andrew Lepke – Feyzullah Şahin <i>Localizing and Reconstructing the Gymnasion of Patara. An Interdisciplinary Approach</i>	247
Nevzat Çevik <i>Kelbessos: A Military Settlement as Termessos' Peripolion</i>	293
Hüseyin Köker – Esra Tütüncü <i>Coin Finds from the Surveys of Northern Pisidia and the Excavations at Timbriada and Zindan Monastery</i>	313

Güray Ünver	
<i>A New Thiasos from Mylasa: Thiasitai Heroistai of Ouliades, Son of Euthydemos</i>	335
Hava Keskin – Serdar Hakan Öztaner	
<i>Some Thoughts on the Julio-Claudian Period of Nysa ad Maeandrum in the Light of a Private Portrait from the City</i>	347
Zeki Mete Aksan	
<i>A House Type Tomb in Sinope: A Neglected Burial from Paphlagonia</i>	363
Günder Varinlioğlu	
<i>Quarry Industry in Rough Cilicia: The Cases of Dana Island and Kesiktaş</i>	383
Mustafa Yıldızlı	
<i>Bricks and Roof Tiles of Alanya Castle: Evaluation of Animal Footprints from an Ichnoarchaeological Perspective</i>	409
Fatma Şimşek – Damla Ayoğlu-Duman	
<i>The French Consulate and Trade in Antalya in the 17th Century</i>	429

Archaic and Early Classical Trade Amphorae from Old Smyrna

DUYGU AKAR TANRIVER – SERHAT FOÇA*

Abstract

This study analyzes the commercial amphorae found in Old Smyrna, one of the settlements located in the northeast of the Gulf of Izmir and localized in the Smyrna hinterland. These amphorae, dating from the late seventh century BC to the late fifth century BC, provide data on Smyrna's commercial relations during the Archaic and Classical Periods and give information about the city's economic structure. In this study, 50 finds from both previous and recent excavations were examined, grouped according to their production centers, and classified typologically. In the Archaic Period, imported amphorae produced in various centers such as Chios, Clazomenai, Lesbos, Miletos, Samos and Teos, as well as Athens, were in demand in the city. In addition to these groups, the study also includes types that were produced in the Archaic Period, but whose place of production is still under debate. It makes a new contribution to the literature on the typology of these groups with finds from Old Smyrna. Considering the economic activities of the Aegean region, the finds from Old Smyrna offer a wide repertoire of commercial amphorae and provide remarkable data on the commercial relations of the cities.

Keywords: Old Smyrna, amphora, Archaic period, Classical period, commercial relations

Öz

Bu çalışmada, İzmir Körfezi'nin kuzeydoğusunda yer alan ve Smyrna art bölgesinde lokalize edilen yerleşmelerden biri olan Eski Smyrna'da bulunmuş ticari amphoralar incelenmiştir. MÖ yedinci yy. sonlarından MÖ beşinci yy. sonları arasındaki zaman dilimine tarihlenen bu amphoralar, Smyrna'nın Arkaik ve Klasik dönemlerdeki ticari ilişkilerine veriler sağlamakta, kentin ekonomik yapısı hakkında bilgiler vermektedir. Çalışmada, hem eski dönem hem de yeni dönem kazılarında bulunmuş 50 adet buluntu incelenmiş, üretim merkezlerine göre gruplandırılıp tipolojik olarak sınıflandırılmıştır. Arkaik Dönem'de Atina dahil Khios, Klazomenai, Lesbos, Miletos, Samos, Teos gibi çeşitli merkezlerde üretilmiş ithal amphora grupları, kentte talep görmüştür. Bu grupların yanı sıra Arkaik Dönem'de üretimi yapılan ancak üretim yeri üzerine tartışmaların devam ettiği tiplere de yer verilmiş, bu grupların tipolojisine Eski Smyrna buluntularıyla literatüre yeni bir katkı sağlanmıştır. Ege teritoryasının ekonomik etkinlikleri göz önüne alındığında geniş bir ticari amphora repertuarı sunan Eski Smyrna buluntuları; kentlerin ticari ilişkileri üzerine dikkate değer veriler sunmaktadır.

Anahtar Kelimeler: Eski Smyrna, amphora, Arkaik dönem, Klasik dönem, ticaret

* Prof. Dr. Duygu Akar Tanriver, Dokuz Eylül Üniversitesi, Edebiyat Fakültesi, Arkeoloji Bölümü, Tınaztepe Kampüsü, İzmir, Türkiye. E-mail: duygu.akar@deu.edu.tr ; <https://orcid.org/0000-0003-2711-2363>

Asst. Prof. Dr. Serhat Foça, Tekirdağ Namık Kemal Üniversitesi, Fen Edebiyat Fakültesi, Arkeoloji Bölümü, Tekirdağ, Türkiye. E-mail: sfoca@nku.edu.tr ; <https://orcid.org/0000-0002-9735-8126>

We are very grateful to the head of the Old Smyrna Excavation, Prof. Dr. Cumhuri Tanriver, for his support and permission to publish the amphorae. We are also thankful to Begüm Düztaş and Öykü Bandırma for their help with the drawings.

Introduction

The Aegean region's climatic advantage in producing quality crops such as olive oil and grapes inevitably influenced the marketization of these products, which were exported to many destinations ranging from the Mediterranean and the Black Sea to the Near East. In this context, one of the best sources of archaeological data on the commercial activities and relations of cities undoubtedly is the amphorae that carried these products. Amphorae are the most important of the critical elements of exportation and importation. They contribute to determining the commercial relations of the centers and to revealing the economic dimensions of the cities that produced these products. Smyrna has always maintained its geopolitical importance as a port city at the center of Mediterranean trade since the earliest periods. One of the several locations in the Smyrna hinterland where traces of settlement are evidenced at multiple points is Old Smyrna on the banks of the Meles Delta. Old Smyrna evidences traces of archaeological settlement data from the Early Bronze Age to the Hellenistic Period. However, there has yet to be a comprehensive study on commercial amphorae, because the previous studies conducted by various researchers have been superficial. A white-slipped Chian amphora unearthed during the excavations of 1948-1951 was published by J.M. Cook,¹ while E. Akurgal included pictures of two fourth century BC Clazomenian amphorae with plastic bands under the rim in his book *Eski Çağ'da Ege ve İzmir*.² In 2005, K. Öztürk studied the Archaic Period imported amphorae found in the area of child burials. He published this as a master's thesis in which he made a superficial evaluation of the products and suggested their dating.³ An article published by P. Dupont and V. Lungu in 2013 analyzed a group of trade amphorae recovered during the 1948-1951 Turkish-British excavations.⁴ Finally, amphorae registered in the inventory of the İzmir Archaeological Museum and recorded as finds from Old Smyrna were also included in some studies.⁵

One of the main objectives of the ongoing Old Smyrna Excavation under the direction of Prof. Dr. Cumhuri Tanriver,⁶ is to analyze the amphorae recovered in the excavation in a comprehensive project, and to find out the commercial relations of the city with its surroundings. The significant shortcoming is that many amphorae fragments found in old excavations before 2014 and preserved in excavation storage have not been researched yet. In line with this, one of the main objectives of this study is to publish not only the commercial amphora fragments recovered from recent excavations, but mostly those from previous excavations. The study aims to introduce imported commercial amphora groups produced between the seventh century BC and the fifth century BC (fig. 1). In selecting these groups, the earliest of which dates to around the seventh century BC, a wide range of fragments were examined concerning their place of production. These were classified in chronological order according to the centers from which they were imported. Dating suggestions have been made in line with similar examples found in the Mediterranean and Black Sea regions. In addition, the group of pottery with which the amphorae were found was also taken as a criterion. This study is essential as it contributes to the literature of amphorae produced in the Archaic Period

¹ Cook 1958 / 59, 16, fig. 4.

² Akurgal 1993, 51, pl. 65b-c.

³ Öztürk 2005, 4-18.

⁴ Dupont and Lungu 2013.

⁵ Sezgin 2012b, 202, fig. 2, 5; Sezgin et al. 2022, 49, cat. no. 034, 62; 045, 107; 080.

⁶ For the results of the recent excavation, see Erdem and Tanriver 2016; Tanriver et al. 2017, 2022, 2023; Cevizoğlu and Tanriver 2023.

and whose production sites are still debated, especially those in Old Smyrna. The amphora finds examined in this study were selected from accepted amphora types, produced and traded during the Archaic and Classical Periods. While a detailed classification study was conducted in the depots of the Old Smyrna Excavation, each amphora fragment published here was placed typologically and chronologically. This study is a general evaluation of the amphora groups dated to the Archaic and Classical Periods found in Old Smyrna, without presenting statistical data.

Sos Amphorae

It is hard to talk with clarity about the origins of SOS amphorae⁷ in terms of their form and design.⁸ Thanks to the stylistic study of A. Johnston and R.E. Jones, which included clay analysis, the centers where these amphorae were discovered were listed, and C.E. Pratt updated this list.⁹ The results obtained by clay analysis particularly prove that local production was carried out not only in Attica, but also in Euboea (Chalkis) as well as some other centers, even though it was limited.¹⁰ SOS amphorae of Athens are a group of amphorae produced in the late eighth century BC to the early sixth century BC and found in many centers in a wide geographical area. Graffiti with names, abbreviations, or symbols were usually found on the shoulders and neck of many examples.¹¹ In early SOS amphorae, the neck profile is sharply connected to the molding below the highly vertical lip, a characteristic of these amphorae.¹² The globular body is elongated with slightly flared feet and rounded handles. During development, the neck became slightly concave and elongated, while the rim became conical and reached the form of an echinus. The ridge on the neck decreased over time, disappearing altogether towards the end of the seventh century BC. The body expands and the shoulders become straight. When SOS amphorae are analyzed in terms of decoration, motifs are observed in reserved areas on the neck. In the earlier productions, triangular motifs were used between the two “S” motifs, which were sloppy like squiggly lines at first. Then the “S” motif took on more of a sigma form in the seventh century BC.¹³ The “O” motif has variations such as a dot with two rings, two rings and no dot, four rings, three rings with four spokes, and two rings with four spokes.¹⁴

While the SOS amphorae of Chalcis / Euboea were produced differently from the Athenian examples in form, their main features are a low base, tall body, flattened handles, slightly convex neck, and thick lips.¹⁵ The similarities between the SOS amphorae of Chalcis / Euboea and

⁷ These amphorae are called SOS (ΣΟΣ) in the literature because the zigzags used as ornamental elements in the neck decoration resemble a sigma and the circles resemble an omicron.

⁸ Pratt 2015, 217. SOS amphorae are considered to be the predecessors of the Panathenai amphorae; see Fragkopoulou 2019, 367.

⁹ Johnston and Jones 1978, 107-22; Pratt 2015, 233-39, table AI.

¹⁰ Pratt 2015, 214.

¹¹ Johnston and Jones 1978, 128. For SOS amphorae with graffiti dated to the late seventh century BC - early sixth century BC in Old Smyrna, see Jeffery 1964, 43, nos. 30-34a, fig. 1.

¹² Johnston and Jones explain this feature as being designed to prevent / minimize the loss of product inside during pouring; see Johnston and Jones 1978, 132-33. Pratt, on the other hand, argues that this view is debatable, that this ridge is insufficient to protect liquid-derived products and that it disappears in the process; see Pratt 2014, 233.

¹³ Johnston and Jones suggest that the “S” motif symbolizes the oil dripping inside the amphora; see Johnston and Jones 1978, 139. Pratt, on the other hand, suggests that this decoration is derived from the decorative tradition of North Aegean amphorae; see Pratt 2014, 234.

¹⁴ Pratt 2014, 234.

¹⁵ Johnston and Jones 1978, 133.

the North Aegean Proto-Geometric and Late Geometric amphorae in recent studies have been striking.¹⁶ This suggests that Euboean amphorae were influenced not only by Athenian products but also by North Aegean productions.¹⁷

Five rim-neck fragments from the SOS amphora group from Old Smyrna were recorded during the 1980s.¹⁸ The samples with flaring high echinus rims are decorated with standard elements in the reserved area on the outer part of the slightly concave neck. Amphorae numbered cat. no. 1 (fig. 2.1), cat. no. 2 (fig. 2.2), and cat. no. 4 (fig. 2.4) have thick lips and walls; their necks are decorated with two rings without dots and four lines of zigzags side by side. The rims of all three are completely glazed, while the under-rim projection on examples cat. no. 1 and cat. no. 2 is very light and soft. However, on cat. no. 4 it is sharp. Cat. no. 3 (fig. 2.3) and cat. no. 5 (fig. 2.5) have thinner lips and walls but with the same decoration - two rings without dots and double zigzags with four lines. The zigzag pattern on cat. no. 3 is overlapping and rather sloppy, and the ridge under the rim projection is sharp. The zigzag pattern of cat. no. 5, which still has its glazed handle intact, is decorated with longer and shorter lines, while the ridge is softer. Cat. no. 5 shows characteristics of a slightly later period in both form and decoration.¹⁹ All the sherds we examined have a clay color of 5 YR 7 / 6 (reddish yellow), indicating Athenian production. The Old Smyrna SOS amphorae, whose contexts are unknown except for one, can be dated to the late second half of the seventh century BC, while cat. no. 5 can be dated to the sixth century BC (possibly its beginning) based on the sherds it was found with.

Chian Amphorae

Thanks to the amphorae found in many centers around the Mediterranean and Black Seas, it is known that Chios was one of the centers producing some of the highest quality and desirable wines of Antiquity. Early Chian amphorae, characterized by their white slip, are a production group present in the commercial amphora market from the mid-seventh century BC onwards.²⁰ Different suggestions have been made for the production sites of commercial amphorae with this type of white-slip and decoration.²¹ The finds from Kofina Ridge in particular, dated to the late seventh century BC, provide evidence that their production site was in Chios.²² A white-slipped amphora with S-motifs found in Thasos is suggested to be produced in Chios.²³ Researchers date the white-slipped hydriae from Chios / Emporio between 660 and 630 BC,

¹⁶ Catling 1998; Gimatzidis 2010, 252-69; Pratt 2014, 234.

¹⁷ Pratt 2015, 217.

¹⁸ The two SOS amphorae recovered during the 1948-1951 Turkish-British excavations were found in layers dating to the seventh century BC and sixth century BC; see Dupont and Lungu 2013, 214-15, figs. 8-9. A well-preserved SOS amphora in the inventory of the İzmir Archaeological Museum, unearthed during the excavation in 1974, was dated to 600 BC; see Sezgin et al. 2022, 107, figs. 80a and 80b.

¹⁹ Amphora cat. no. 5 was recovered on the same level as the floor identified at a depth of 11.25 m in square E-13 in 1984, named Layer 2. It is noted in the daily excavation notebooks that sherds from the sixth century BC predominate in Layer 2.

²⁰ The early Chios and Clazomenai productions have a common denominator - thick glazed bands and S-shaped decoration. The white-slipped ones are identified as Chian amphorae, while the ones without a white slip are identified as Clazomenian amphorae; see Sezgin 2009, 150.

²¹ It has been suggested that the amphorae with white slip and S decoration found in Histria were produced in Miletos; see Lambrino 1938, 105-6. Based on a comparison with a similar amphora from Pitane, Metzger evaluated an amphora from Xanthos and suggested that these amphorae were produced in Pitane; see Metzger 1972, 70, pl. 25, cat. no. 111.

²² Anderson 1954, 136, cat. no. 17-21, figs. 5.17-18; 9, 20a, 21b, pl. 7a.

²³ Bernard 1964, 138.

regarding them as early example.²⁴ The white-slipped commercial amphorae with “S”-shaped motifs found in Tocra are considered to be products of Chian workshops.²⁵ Having achieved a standardized decoration and shape from the last quarter of the seventh century BC, the amphorae of Chios maintained a distinctive position in the commercial market until the last quarter of the sixth century BC with their white-slipped production. During the development process, Chian amphorae evolved from an ovoidal shape into a slender form, with different diversifications in the rim and feet. The white-slipped Chian amphorae are recognized by horizontal bands on the rim, under the shoulders, above and below the body. Vertical bands are found on the handles from the rim to the shoulder with “S”-shaped horizontal motifs, as well as various bands on the neck and body. Old Smyrna find cat. no. 6 (fig. 2.6), which we consider to belong to this group and whose context is unknown, has a cylindrical neck with a thick and convex high rim. The outer part of the rim is covered with a brown to cream-colored glaze extending to the beginning of the neck, while the remainder is covered with an eggshell-thin white / cream slip. We also observed a very small portion of the round vertical band (?) on the broken neck where the handle joins the neck. The rim-neck sherd on cat. no. 7 (fig. 2.7), whose context is unknown, has a high band and flared rim with a vertical, elliptical broken handle. The rim’s outer surface shows faint traces of white slip, and the rim and neck show a worn white slip. Amphora cat. no. 8 (fig. 2.8), recovered during recent excavations, is recognized by a thick, bracelet-shaped mouth with a high cylindrical neck expanding into the body, and an elliptical cane-shaped handle. The amphora is completely covered in white slip, and the standardized form of decoration is observed. The rim has a horizontal band slightly overhanging the neck, a horizontal thin band below the neck, glaze circles between the rim and the band below the neck, an “S”-shaped motif on the shoulder, and three up and down thin bands on the handle. The ceramic groups were discovered alongside the amphora fragment found during the excavations in the Archaic Period civilian building and date no later than 570 BC. Based on similar examples, the three Old Smyrna finds from this group are dated back to the late seventh century BC and early sixth century BC.²⁶

While the decline in the quality of the white-slipped and decorated types can be traced chronologically until their disappearance from the market, a new form appeared in the second half of the sixth century BC before the white-slipped ones disappeared. The variations of these amphorae, recognized in the literature as funnel-shaped,²⁷ continued to emerge until the end of the century. The most prominent feature of these amphorae is that they pioneered the bulging neck types that emerged as a new style. Chian amphorae with bulging necks, which first appeared in the late sixth century BC, continued to be produced until the last quarter of the fifth century BC.²⁸ While band motifs are seen in the early examples from the middle to the end of the century, they gradually gave way to plain decoration. The first amphora, cat. no. 9 (fig. 2.9), a part of this group in Old Smyrna, is an early example of this type and was

²⁴ Boardman 1967, 140, cat. no. 513, pl. 45.

²⁵ Boardman and Hayes 1966, 139, cat. no. 1414-415, pl. 90.1414; 1973, 62, cat. no. 2258-261, fig. 45.2258, 2261.

²⁶ See parallels in Anderson 1954, 169, fig. 5, no. 17; Karageorghis 1969, 447, 449, fig. 25; Boardman and Hayes 1973, 62, fig. 25, pl. 32, no. 2258; Doğer 1988, 217-18, figs. 26-27, no. 53; Johnston 1993, 364, fig. 8b, pl. 78, no. 108; Hürmüzlü 2003, 397, fig. 68, no. 200 / m; Masson 2007, 366, fig. 1.1; Sezgin 2012a, 116, 130, Khi2.04.

²⁷ Zeest 1960, 16, 139, pl. 3.10b. The specimens that belong to this group unearthed in Histria are grouped as Type A1-A2; see Lambrino 1938, 110-12, figs. 71-72.

²⁸ This group of Chios amphorae is classified into three variations; see Knigge 1976, 23-24. C / 1 was produced from the late sixth century BC to 480 BC, C / 2 from 480 BC to 440 BC, and C / 3 from 440 BC to 430 / 425 BC; see Lawall 1995, 89-115, figs. 19-21, 23-31.

unearthed in the area where the children's graves were found.²⁹ The round and bracelet-shaped rim is flared, the neck is slightly bulging, and the handle emerging from under the rim connects to the slightly sloping shoulder. In terms of the decoration of the early examples of the bulging-necked types, the rim band overhangs the neck and there is a thin vertical band on the handle starting from the place where it is attached and reaching along the body. This find seems to be a transitional form, especially based on its slightly bulging neck. Below the mouth and just above the neck is the "O" (omicron) mark that functions as a trademark.³⁰ Based on other similar amphorae, it is dated to the end of the sixth century BC or the beginning of the fifth century BC.³¹

The C / 2 variations, which appeared after 480 BC, have a narrow body with a wide, bulky neck and a rim basic in form compared to the C / 1 type. While the mouth profile is high and thick, the distinctive feature is the bulge in the neck. The handles, coming out from just below the mouth to above the neck, are higher than the previous type.³² The two finds, cat. no. 10 (fig. 2.10) and cat. no. 11 (fig. 2.11) from the Old Smyrna excavation in 2007,³³ were uncovered in the mudbrick fortification wall layer and bear the main characteristics of C / 2 or C / 2-C / 3 transition variations. The thick and high convex rim and the prominent bulging neck are quite thick and high, while the handles emerging from the neck are compressed on both sides, giving the rim an ovoidal form, characteristic of the type. The black slip seen on the interior of the amphorae must have been for the protection of the traded product (oil, wine, etc.). Trademark symbols, common in type C / 1, decline considerably in Type C / 2, whereas engraved dipinto letters and graffiti notches are commonly observed in Type C / 3. Cat. no. 11 has graffiti "A" and four notches drawn in graffiti under the bulging neck between the handles. Both amphorae are dated to the middle and third quarter of the fifth century BC.³⁴

With the disappearance of the late versions of the bulging-necked Chian amphorae, a straight-necked type called the "New Style" emerged.³⁵ The bulging neck and the newly emerging straight-necked styles continued to be used together in the last quarter of the fifth century BC.³⁶ Although it has similarities with the C / 3 type with bulging neck, the prominent straight neck is its most distinctive difference. There are two types of straight-necked amphorae: bulkier and lighter. This form, which began to be produced in 430 / 425 BC, is characterized by a slightly rounded narrow mouth going outwards. It also has a long straight neck rising upwards from just below the mouth and transitioning sharply from the shoulder to the body connected to the shoulder. Its bulging low body and toe has features in common with the C / 3 version. Amphora sherd cat. no. 12 (fig. 2.12), classified in this group and whose context

²⁹ For the child burials in Old Smyrna, see Mariud 2006; Foça 2021.

³⁰ Round glazed marks appear in the mid to late sixth century BC; see Lawall 1995, 105, fn. 68.

³¹ For similar examples, see Lambrino 1938, 110-12, Type A1, figs. 71-74, 85e; Dimitriu 1966, 90, fig. 52, no. 369; Roberts 1986, 67, fig. 42, pl. 18, nos. 419-20; Lawall 1995, 356, fig. 23; Sezgin 1998, fig. 27; Monachov 1999a, 57-9, fig. 9, nos. 1-4; Irimia 2006, 143, fig. 4, 10.4a-4b.

³² Lawall 1995, 90-91.

³³ The ceramic sherds recovered with both amphorae, whose context is recorded as the mudbrick fortification wall but an unknown level, are dated to the sixth century BC. The daily notes from the excavation site also indicate that sherds of pottery from the fifth and fourth centuries BC were recovered.

³⁴ Boulter 1953, 104-5, pl. 39, no. 150; Knigge 1976, 180-81, pl. 92.3; 146, pl. 62.5; Williams and Fisher 1976, 107, pl. 20; Čistov and Domžalski 2002, 106, fig. 9, no. 6; Monachov 2003a, 237, fig. 7, nos. 4-6; Carlson 2004, fig. 29, no. 13.

³⁵ Kakhidze and Khalvashi 2010, 136.

³⁶ Finkielsztejn 2002, 142. Examples of both types are known from four wells in Athens; see Lawall 1995, 102. The combination of both types was proposed for the transportation of different products. It was also considered a new commercial venture for the producers of Chios in the foreign market; see Şenol 2007, 104.

is unknown, has a slightly flared and rounded mouth, a straight and cylindrical long neck, and broken handles with rounded sections coming out of the mouth. It is dated to the late third quarter or early final quarter of the fifth century BC in line with similar finds.³⁷ Cat. no. 13 (fig. 2.13), which has the characteristic toe features of this period, is dated to the last quarter of the fifth century BC.³⁸

Clazomenian Amphorae

Clazomenai was one of the most important settlements of Ionia and a prominent production center for amphora. While many researchers have suggested East Greek as the place of production of Clazomenian amphorae,³⁹ P. Dupont proved that they were produced in Clazomenai through clay analysis and use of the XRF method.⁴⁰ E. Doğer, on the other hand, provides evidence for the existence of a production in Clazomenai in his evaluation of the production residues collected from the settlement and its surroundings.⁴¹ As a result of these data, Dupont dated the production of amphorae at Clazomenai from the beginning of the seventh century BC to the end of the sixth century BC, while Doğer dates it to the last quarter of the seventh century BC. Based on the results of the burials unearthed in recent years, especially in the Akpınar Necropolis, Y. Sezgin reveals that there had been production in the area since the second half of the seventh century BC.⁴² For the production and distribution of amphorae in the seventh century BC by the workshops of Chios and Clazomenai, the tilted “S” decoration had a brand value and expressed a common symbol for North Ionia.⁴³ The early Clazomenian amphorae produced during the second half of the seventh century BC are recognized by their profile of a thick torus rim,⁴⁴ bulbous belly, and wide ring shallow foot. At the same time, the “S” motif on the shoulders is the distinguishing criterion in the decorating concept, and a banded glaze was applied under the mouth, neck, shoulders and body.⁴⁵

Although most of the Clazomenian amphorae from Old Smyrna analyzed in this study lack contexts, we have chosen to evaluate them based on typological similarities. The two sherds,

³⁷ For similar examples, see Lawall 1995, 92, figs. 33-36; Monachov 2003a, 19-20, fig. 8, no. 6; Kakhidze and Khalvashi 2010, 136, pl. 74.6.

³⁸ For similar examples, see Abramov et al. 1991, 74, fig. 2.8; Monachov 2003a, 20, fig. 9, no. 6; Kakhidze and Khalvashi 2010, 136, pls. 74.7, 75.4.

³⁹ The band-decorated amphorae found at Thera have been suggested to be East Greek; see Dragendorf 1903, 228. Lambrino attributed the Ionian origin of the banded amphorae, which he labeled Type B, to Rhodes; see Lambrino 1938, 123-24. It is stated that the Clazomenian amphorae found in Histria were imported from Doric centers. Anderson also emphasized that the band-decorated finds, including the Clazomenian amphorae, are from Chios; see Anderson 1954, 168, fig. 9.48d. Grouping the amphorae from the Black Sea region, Zeest, on the other hand, categorized the Clazomenian amphorae within the banded groups as East Greek imports and identified Miletos as the place of manufacture; see Zeest 1960, 70. The specimens recovered from Tocra may be from Chios (?); see Boardman and Hayes 1973, 62. East Greek / Ionian proposals have been made for the Cypriot finds; see Calvet and Yon 1977, 19, pls. 11-12, cat. nos. 118, 121, 122; Gjerstad 1977, pl. 23.2, cat. no. 199; Karageorghis 1977, pl. 2.6, cat. no. 11.

⁴⁰ Cook and Dupont 1998, 156.

⁴¹ Doğer 1986, 465, fig. 11; 1988, 77-78.

⁴² Sezgin 2009, 52.

⁴³ Y. Sezgin considers the slipped or pale slipped amphorae to be from Chios and the unslipped ones from Clazomenai. Sezgin 2009, 55.

⁴⁴ The bracelet-shaped and rounded rim on the Clazomenian amphorae throughout the sixth century BC makes dating difficult. Sezgin 2009, 55.

⁴⁵ The samples from the second half of the seventh century BC are classified as Kla1, Kla2, Kla3 by Y. Sezgin. Sezgin 2012a, 25-39.

cat. no. 14 (fig. 3.14) and cat. no. 15 (fig. 3.15), date to the end of the third quarter of the seventh century BC and reflect characteristics of the period. These include the overhanging, drooping rim form in cross-section, while the horizontal band on the outer part of the rim and the vertical band on the handle evidence production in Clazomenai which had started to become a standard. At the end of the seventh century BC and the beginning of the sixth century BC, Clazomenian amphorae achieved a standard type of form and decoration.⁴⁶ They became a popular commercial group in the amphora market throughout the century,⁴⁷ and include a rounded bracelet-shaped mouth, arching handles, a tightened body structure, and a convex, thumb-sectioned, truncated conical-shaped foot. The standard form continued in terms of ornamentation. Cat. no. 16 (fig. 3.16), recovered from the cemetery where child burials were organized in Old Smyrna, shows the characteristics of the late seventh century BC productions with its bracelet-shaped mouth profile, ovoidal body, and vertical decorative elements on the horizontal handles on the body. It is thought that the settlers of Clazomenai left the mainland because of the Persian invasion in 546 BC and moved to Karantina Island to set up new living spaces for a while. However, the data from excavations in the third quarter of the sixth century BC have yet to be discovered.⁴⁸ As a result of the settlers' return to the mainland in 530 BC, amphora production and trade increased probably due to the Persian's benevolent policy towards locals. Production thus flourished in the late fifth century BC, reached its peak by producing different variations such as the ovoidal form with a bulbous belly near the shoulders and the slender-elongated ovoidal form.⁴⁹ As for the decorations, the standard type was maintained except for minor changes.⁵⁰ The sixth century BC Clazomenian amphora fragments from Old Smyrna, which we examined in this study, need more context but were dated in line with similar fragments. While the bracelet-shaped rim profile, which breaks at an angle under the mouth and joins the body, stands out in fragments from the first half of the sixth century BC (cat. nos. 17-23; fig. 3.17-23), the glazed band over the lips shows standard features throughout the century. The flaring, thumb-section with deeply shallow foot is seen in Old Smyrna. Finds from the second half of the sixth century BC (cat. nos. 24-32, fig. 3.24-32) show the continuation of the rounded bracelet-shaped rim and the horizontal glaze on the lip. The standard form was maintained, while the shallow foot was deepened.⁵¹ For amphorae produced during the sixth century BC, it should be noted that a precise form does not separate both rim and foot profiles, and therefore cannot be classified easily.

Teian Amphorae

Proposing a broad typology for the amphorae found around the Black Sea, S. Ju. Monachov considers this type of amphorae as close to the Clazomenai productions.⁵² In his doctoral study, M. Pesenti analyzed the amphora finds from and around Egypt and associated this

⁴⁶ E. Doğer classifies this group of specimens as Type 2 and 3, and Y. Sezgin classifies them as Kla5. Doğer 1988, 50-9; Sezgin 2012a, 42-45.

⁴⁷ E. Doğer classified this group of specimens as Type 1 and Y. Sezgin as Kla4. Doğer 1988, 43-50; Sezgin 2012a, 39-42.

⁴⁸ It is clear from the data that amphora production at Clazomenai weakened during this period. Y. Sezgin evaluated the amphorae of the third quarter of the sixth century BC recovered from other centers in the Kla6 group, but emphasized that they could be included in the finds of the second half of the sixth century BC. Sezgin 2012a, 46.

⁴⁹ E. Doğer classifies this group as Type 4 and Y. Sezgin as Kla7. Doğer 1988, 59-74; Sezgin 2012a, 48-55.

⁵⁰ The handle circles at the points where the handles were attached to the neck and shoulder and the horizontal firmis bands at the neck-circle transition have disappeared.

⁵¹ For the dating and comparing of the Clazomenian amphorae from Old Smyrna, see the "Catalog" section.

⁵² Monachov 1999b, 167-68.

group with the Clazomenai region in a similar manner.⁵³ However, contrary to these suggestions, no amphorae of this type were found in the settlement deposits or cemeteries of Clazomenai. In addition to these suggestions, an undecorated amphora from the first half of the sixth century BC has been attributed to one of the Samian types due to its similarities.⁵⁴ In his published article Y. Sezgin has added a different dimension to this debate by suggesting that this group of amphorae is a production originating from Teos.⁵⁵ In recent publications, this proposal has begun to be accepted by researchers and classified as the Teos type.⁵⁶ These types, especially the ones recovered from sites in Egypt and around the Black Sea region, have a flaring bracelet-shaped rim, a neck that slightly narrows where it meets the shoulder, elliptical-sectioned arching handles coming out from under the rim that connects to the shoulder, a sharp angle shoulder-body transition, a sharp narrowing to the foot, and a wide hollow foot with a flaring. Vertical and horizontal bands are also preferred for decoration. A fragment of a foot of this type recovered from Old Smyrna, albeit with an unknown context, is considered by us, not with certainty, to be a Teos production. In terms of the color and structure of the fragment's clay, it seems to be quite similar to the amphorae produced in the sixth century BC in Clazomenai, and it is similar to the Teian type we have detailed above with its slightly outward-facing thumb section and low, hollow and wide base. The only example we examined, the base fragment cat. no. 33 (fig. 4.33), is dated to the first half of the sixth century BC.⁵⁷

Lesbian Amphorae

Lesbos, one of the quality wine production points of Antiquity, was a prominent amphorae production site, especially in the Archaic Period. Lesbian amphorae are classified into two main groups according to their clay colors, Grey and Red, even though both share similar form features. They were produced from the seventh century BC to the third century BC.⁵⁸ B.G. Clinkenbeard suggested that the “rat tail” detail on the ceramics, characteristic of Lesbian amphorae, is also found on the gray-colored Aeolian Bukkhero ceramics. This suggests that Lesbos may have been the production site.⁵⁹ The typological development of these amphorae is challenging to trace. While B.G. Clinkenbeard classified the amphorae based on criteria such as changes in the length, connection points of the handles, changes in the bases, and bulbous in the neck,⁶⁰ M. Lawall⁶¹ and Y. Sezgin⁶² used different criteria. Red clay Lesbian amphorae show a parallel development with the grey series in terms of form. They are called “fractional

⁵³ Pesenti 2015.

⁵⁴ Sezgin 2017, 21.

⁵⁵ Sezgin 2017. In his Ph.D. thesis, he named these types, which he mentioned among the groups with unknown production sites, as North Ionian production. Sezgin 2009, 450-57. In his book “Arkaik Dönem İonia Üretimi Ticari Amphoralar”, which he produced from this thesis, Y. Sezgin named it Ionia.γ. Sezgin 2012a, 283-88.

⁵⁶ Chistov et al. 2020, 31-2; Monachov et al. 2020, 125.

⁵⁷ For similar ones, see Monachov 1999b, 168, fig. 7; Pesenti 2015, 298-99, no. A-S-29.

⁵⁸ Gray Lesbian amphorae appear from the third quarter of the seventh century BC; see Clinkenbeard 1982, 249. Studies at Tell Quadadi (Israel) suggest that early examples of gray Lesbian amphorae can be dated to the early eighth century BC and late seventh century BC; see Fantalkin and Tal 2010, 9. Red-clay Lesbos production appears in the late seventh century BC. For the amphora from Clazomenai, one of the early series dated between 620-600 BC, see Sezgin 2009, 393.

⁵⁹ Clinkenbeard 1982, 258-59.

⁶⁰ Clinkenbeard 1982, 250-52.

⁶¹ For Grey 1, Grey 2 and Grey 3 classification, see Lawall 1995, 198-204.

⁶² For the GLes 1-5 classification, see Sezgin 2009, 373-90.

red,⁶³ whereas Zeest groups them as “tumbler-bottom.”⁶⁴ Three Lesbian amphorae recovered from Old Smyrna were examined in this study. The earliest, amphora cat. no. 34 (fig. 4.34), is one of the early examples of the gray series. The amphora, used for a burial in the necropolis although its context is unknown, is missing the rim profile and neck. The amphora carries standard features with its rounded section handles, ovoidal bulbous body, and shallow hollowed base. It is dark gray, probably due to firing. The rat tail detail is visible where the intact handle joins the shoulder. The amphora can be dated to the first half to the middle of the sixth century BC based on a comparison of the base form.⁶⁵ In the gray series, the two base sherds cat. no. 35 (fig. 4.35) and cat. no. 36 (fig. 4.36) are narrow and cylindrical sherds that directly connect with the lower body. Fragment cat. no. 35 dates from the late sixth century BC to early fifth century BC, and fragment cat. no. 36 from the late fifth century BC to the first quarter of the fourth century and later.⁶⁶

Milesian Amphorae

As a leading city in the production of olive oil in southern Ionia, Miletos also had an important position in commercial activities. The data on the ceramic production of the city has been analyzed in detail in many aspects. Through these studies, we learn about suggestions for the production of amphorae. P. Dupont, using clay analysis, suggests that some amphorae are of Miletos production.⁶⁷ W. Voigtländer, on the other hand, emphasized the local production of Miletos for amphora production with the results of his analysis.⁶⁸ Another recent study by P. Dupont suggests a wider region such as Southern Ionia and Caria instead of Miletos.⁶⁹ The Datça Peninsula provides new data on the suggestions for the production site of Milesian amphorae, and the ceramic workshops and sherds recovered from the dumps found around the region provide evidence of the existence of production outside Miletos.⁷⁰ Among the debated opinions persisting today is the suggestion that these amphorae were produced locally in South Ionian under the control of Miletos.⁷¹ The most prominent feature of Milesian amphorae, which began to acquire a standardized form in the mid-seventh century BC, is the protruding high and thin torus-shaped rim with a single offset fillet under the rim. The Milesian amphora cat. no. 37 (fig. 4.37) examined in this study was found at a depth of 11.45 m and 11.25 m in Room no. 2 during the 1986 excavation.⁷² The convex, torus-shaped rim and the single fillet at

⁶³ Clinkenbeard 1986, 354.

⁶⁴ Zeest 1960, 18, pl. 3, 9a-b. M.L. Lawall typologically classified these amphorae as Red 1, Red 2 and Y. Sezgin as KLes 1-3.

⁶⁵ For similar finds, see Ruban 1983, 285, fig. 1, no. 14; Cook and Dupont 1998, 158, fig. 23.4b; Fantalkin 2001, 94-95, fig. 34, no. 2; Monachov et al. 2020, 115, LG.2.

⁶⁶ For a similar fragment of cat. no. 35, see Ruban 1990, 18, fig. 4, Type 2. For similar fragments of cat. no. 36, see Čistov and Domžalski 2002, 105, fig. 8, no. 10-12; Tzochew 2011, 81, fig. 6, no. 20.

⁶⁷ Dupont 1982, 203-4, fig. 1d; 1983, 27, 32, 34, 42, fig. 19.

⁶⁸ Voigtländer used the term “Goldglimmer” (Golden Mica) especially for a substance in the clay content and suggested that it was produced in Miletos; see Voigtländer 1986, 46. M. Seifert, who published another study of clay analyses, is skeptical of this idea, since the gold mica content is related to the geological structure of the Büyük Menderes basin; see Seifert 2004, 51.

⁶⁹ Dupont 2007, 621-22.

⁷⁰ Tuna 1987, 313-17.

⁷¹ Sezgin 2012a, 140.

⁷² According to the information in the excavation books, the other ceramic groups recovered together with the amphora fragment show periodic differences.

the transition point of the rim and neck are characteristic features that became popular from the mid-sixth century BC onwards. The broken handle comes out right over the sharp protruding fillet. This Old Smyrna find is similar to the amphora found at Kalabaktepe near Miletos, dated to the last two decades of the sixth century BC.⁷³ Even though the clay and slip color are not the same, they are likely the product of the same workshop. The find dates back to the mid-sixth century BC and later, in line with similar examples.⁷⁴ The amphora cat. no. 38 (fig. 4.38), found during the recent excavations, was uncovered in the room named TG-1. It dates back to the fifth century BC. The almond-shaped rim with a high echinus, the cylindrical neck that narrows slightly towards the shoulder, the pear-shaped body, and the high ring foot with a deeply hollowed, flared curved ring base are all characteristic of fifth century BC Milesian production. The almond-shaped rim profile is similar to the Black Sea finds, while the toe resembles the Athenian example. Especially the gold mica additive, seen in parts of the clay structure, leaves no doubt that it was produced in Miletos or its environs. It can be dated from the mid to the last quarter of the fifth century BC and later, in line with similar ones.⁷⁵ The last amphora fragment in this group, amphora cat. no. 39 (fig. 4.39), has a similar form to the toe of amphora no. 38 and is within the same date range.⁷⁶

Samian Amphorae

A broad typology for Samian amphorae, which began to be produced in the last quarter of the seventh century BC, was created by V.R. Grace. To make a typology for the products of the fifth century BC, they were compared to Samian coins in terms of similarities.⁷⁷ Some researchers use the Samos-Miletos nomenclature for a commercial group that began to be produced in the second half of the sixth century BC.⁷⁸ While the rim profiles of the early Samian amphorae of the last quarter of the seventh century BC and the first half of the sixth century BC vary, there are two distinct characteristic features. One is the creation of horizontal fillet at the transition point from the neck to the shoulder, while the other is the bow-shaped, elliptical-sectioned handles that emerge from the center of the neck and connect to the center of the shoulder.⁷⁹ The Samian amphora cat. no. 40 (fig. 5.40) has a rim and neck profile. Uncovered in Old Smyrna, its context is unknown. The mouth of the amphora is protruding and slightly curved, and the neck has a conical form. The features presented in Samian amphorae date to the first half of the sixth century BC. These include elliptical bow-shaped handles that emerge from the center of the neck and connect to the shoulder and a horizontal overlapping fillet marking the junction between the neck and shoulder. These are also seen on this Old Smyrna example. The find is dated to the first half of the sixth century BC, in line with similar finds.⁸⁰

⁷³ For similar example, see Naso 2005, 76, 83, fig. 3, cat. no. 10.

⁷⁴ For other similar examples, see Voigtländer 1982, 55, fig. 28, no. 171; Ruban 1991, 182, fig. 2.1.

⁷⁵ For similar ones, see Cook and Dupont 1998, 175, fig. 23.9e (base); Monachov 2013, 30, fig. 1, no. 5 (rim profile, Type 1-B).

⁷⁶ For parallel examples, see Cook and Dupont 1998, 175, fig. 23.9e; Lawall 1995, 180-81, fig. 75 (below).

⁷⁷ Grace 1971. A similar study was conducted by H.B.A. Mattingly for the comparison of Samian coins and amphorae; see Mattingly 1981, 81-85.

⁷⁸ Johnston 1990, 47; Lawall 1995, 176-95, figs. 69-77; Whitbread 1995, 129.

⁷⁹ Sezgin 2009, 296.

⁸⁰ A similar find from Daskyleion is dated to the second half of the sixth century BC; see Atila 2005, 116, fig. 4, cat. no. 24. For similar examples dated to the first half of the sixth century BC, see Calvet and Yon 1977, 19, pl. 11, cat. no. 115; Docter 2000, 69-70, cat. 3, fig. 8c; Buyskykh 2014, 96, fig. 10, no. 8.

Ionian Alpha / Erythrai? Amphorae

The place or places of production of this group of amphorae, which emerged as a new type in the late sixth and early fifth centuries BC, is debatable, as is the case for the Ionian Beta examples discussed below.⁸¹ The most characteristic features of these amphorae are the offset ridge in the middle of the necks or between the neck and the shoulder, and the high plastic ring toes that hollowed. Two different variations of the rim profile are seen in these amphorae: a thick, curved and dipper-sectioned type is common, while an elongated almond-shaped type with a flared rim is also seen. The basic form features and the presence of offset ridge in the neck and neck-shoulder transitions are similar to the Samian productions of the second half of the sixth century BC.⁸² M. Lawall, who based his classifications on finds from the Athenian Agora, classifies the products of several workshops on Samos and the opposite shores as the “Samos-Miletos” group, while the late examples of type S-1 are similar to the group with offset ridge.⁸³ In the S-3 type, these offset ridges are seen in the neck-shoulder transition.⁸⁴ P. Dupont attributed this group to Miletos based on similarities in the rim with the Milesian productions of the second half of the sixth century BC.⁸⁵ One of the other sites where the characteristic features of this type are observed is Clazomenai; this group of amphorae was also recovered from sondages on the Akpınar Necropolis and Karantina Island.⁸⁶ Y. Sezgin says that the finds from Karantina Island should be analyzed extensively and suggests that Clazomenai may have been one of the production sites of the Ionian Alpha amphora.⁸⁷

One of the important data sources for the Ionian Alpha amphorae is the Tektaş Burnu Shipwreck, located west of Sığacık, and southeast of Çeşme. The ship mostly carried commercial amphorae that numbered more than 200; however, the place of production of most is unidentified, except for the types produced in Mendea and Chios.⁸⁸ In his doctoral thesis D.N. Carlson analyzed all the unknown finds and identified them as the “Pseudo Samian” type, since O. Lordkipanidze used this name to define Phasis amphora finds.⁸⁹ Among these amphorae, a commercial amphora sealed with the EPY (Epsilon-Rho-Upsilon) monogram on the neck provides evidence of production at Erythrai.⁹⁰ This amphora, understood to be an Erythrai production thanks to its sealing system, shares a similar form with the 200 other amphorae found on the wreck, showing that they were produced contemporaneously. It is noteworthy that both stepped and unstepped examples were used together. Especially the presence of types with

⁸¹ The nomenclature proposed by Sezgin for these amphora groups, whose place of manufacture is unknown, has also been used by us. Other suggestions have been made, but these remain debatable.

⁸² Sezgin states that the Ionian Alpha group, which was produced intensively in the first half of the fifth century BC, fills a gap in the chronology of Samian amphorae and that a group of production should be sought in Samos. He also noted that this group had not been published among the finds from Samos; see Sezgin 2012a, 246.

⁸³ Lawall 1995, 370-72, fig. 73-74.

⁸⁴ Lawall 1995, 371, fig. 76.

⁸⁵ Cook and Dupont 1998, 175-76, figs. 23.9d-g.

⁸⁶ Doğer 1988, 264-65, fig. 51, pl. 20, cat. no. 133 (Yıldıztepe Necropolis); Güngör 1994, 42-43, figs. 37-39, cat. nos. 130-35 (Karantina Island); Sezgin 2012a, 247, *Ionian*. α .18, α .20, α .15, α .14, α .19, α .3 (Akpınar Necropolis). See also Ersoy 2004, 66, fig. 23d.

⁸⁷ Sezgin 2012a, 251.

⁸⁸ The Tektaş Burnu Shipwreck is dated to 440-430 BC with the help of Mendeian and Chian amphorae; see Carlson and Lawall 2005 / 06, 33.

⁸⁹ Carlson 2004, 36-40. O. Lordkipanidze used the nomenclature “Pseudo Samos” based on Zeest’s typology of “Samos and Protothasos”; see Lordkipanidze 1968, 39-40.

⁹⁰ The abbreviation “ERY” is a monogram used on the city’s coins from the fourth century BC until the Roman period. For later finds in which the abbreviation ERY is used as an amphora seal, see Kirkanlı 2021, 31-33.

high plastic ring toes and types with almond-shaped echinus rims corroborates the idea that this group is an Erythrai production.

While we know there was wine production in Erythrai from ancient sources, archaeological data supports this as well.⁹¹ D.N. Carlson and M.L. Lawall proposed the typology of amphorae in the city and identified four main types of production from the mid-fifth century BC to the early first century BC.⁹² The group with the tall rounded rim, short flaring neck and round body was classified as Type 1, based on the ERY sealed finds from the Tektaş Burnu Shipwreck.⁹³ S.Ju. Monachov, on the other hand, dated the echinoid-rimmed amphorae, which he classified as Type 1-A, to the third quarter of the fifth century BC. He considered them as a production of Erythrai.⁹⁴ The rim-neck fragments from Old Smyrna, cat. nos. 41 (fig. 5.41), 42 (fig. 5.42), and 43 (fig. 5.43), make critical contributions to this group of amphorae. Although there are minor changes in the rim profiles of all three samples, they are products of the same center judging from their basic form, clay, and slip colors. These amphorae - with protruding almond-shaped echinus rims and thick necks that narrow down towards the shoulder - are similar to the Erythrai amphorae from the Tektaş Burnu Shipwreck. The three Old Smyrna fragments, whose exact context is unknown, can be dated to the middle of the third quarter of the fifth century BC, in line with their counterparts.⁹⁵ Although the toe sherd cat. no. 44 (fig. 5.44) with deep grooves, a dished outer face, and a high plastic ring is similar to the Milesian productions in terms of basic form, it is considered to be among the Ionian Alpha group due to its larger toe diameter and unknown place of production. It can be dated from the end of the sixth century BC to the mid-fifth century BC, in line with similar examples.⁹⁶

Ionian Beta Amphorae

A classification for these amphora groups found in many centers around the Black Sea was first established by I.B. Zeest. These amphorae were found extensively in layers from the first half of the sixth century BC to the beginning of the fifth century BC and named “Samos” and “Protothasos.”⁹⁷ While Zeest’s typology continues to be used by researchers today, the debate on the production place of this type continues, and researchers have offered different suggestions. Both series have various rim and toe combinations within themselves and show similar morphological characteristics.⁹⁸ Especially N.A. Leipunskaiia’s evaluation of the Olbia finds has added to the argument that this group of amphorae may have had more than one production site rather than a single center.⁹⁹ Based on clay analysis and typological studies, P. Dupont

⁹¹ The discovery of amorphous ceramic sherds and slags in Banyoz Tepe in 1988 indicates the presence of ceramic workshops; see Özyiğit 1990, 125-26, 128, pl. 1.

⁹² Carlson and Lawall 2005 / 06, 33. The same typology was used in the study of the amphorae unearthed during the 1977-1988 excavations at Erythrai see Kirkanlı 2021.

⁹³ Carlson and Lawall 2005 / 06, 34-35. For the amphora rim sherds dated to the late fifth century BC and early fourth century BC recovered during the sounding excavations in Erythrai and at Cennettepe, see Kirkanlı 2021, 36-37, pls. 1-3, cat. nos. 1-3.

⁹⁴ Monachov 2013, 29-31.

⁹⁵ For similar ones, see Carlson 2004, 170, fig. 34, cat. no. 15; Carlson and Lawall 2005 / 06, 35, fig. 3 (Gordion); Monachov 2013, 30-31, pl. 1.3 (Type 1 A).

⁹⁶ For similar examples of the toe, see Doğer 1988, 136, fig. 51, pl. 20, cat. no. 133; Carlson 2004, 173, 229, fig. 41; Sezgin 2012a, 255, Ionia α.14.

⁹⁷ Zeest 1960, 70, 79-80.

⁹⁸ Sezgin 2009, 326.

⁹⁹ Leipunskaiia 1981, 23.

suggested that Thasos, Abdera, Chios and Miletos could be the production centers.¹⁰⁰ V.V. Ruban, on the other hand, categorized the finds in Zeest's typology as Milesian production.¹⁰¹ Monachov classified the amphora finds from the centers around the Black Sea and those recorded in museums in a comprehensive study and considered this group of amphorae as North Aegean productions.¹⁰² One of the noteworthy centers of production is Chios, and the studies conducted at Rizari on the island uncovered production residues.¹⁰³ These find provide evidence that Chios may also have been a production center. M. Kerschner and H. Mommsen included geological factors in their clay analysis studies on Ephesus finds, and suggested sites on the Gulf of Ephesus, including Samos, as places of production.¹⁰⁴ For Clazomenai, where a large number of fragments have been recovered, E. Doğer states that evidence of production should be sought in an area extending from north of Mount Mycale to Erythrai.¹⁰⁵ Recent studies suggest the existence of a production site originating from Ionia.¹⁰⁶

This group of amphorae, whose place of manufacture is still debated today, is frequently found in the Old Smyrna layers. The four rim-neck sherds we analyzed in this study clearly show the shallow grooves on the neck under the rim, which are characteristic of these types. The rim, with an overhanging, bulbous almond form, is a common feature among all the sherds. Cat. no. 45 (fig. 5.45), with a conical neck narrowing towards the shoulder and oval-sectioned handles rising from below the rim, shows similarities to the pithoid type, according to Monachov's classification.¹⁰⁷ Although the profiles of rim sherds cat. nos. 46 (fig. 5.46), 47 (fig. 5.47), and 48 (fig. 5.48) differ slightly, they share basic characteristics and have straighter necks.¹⁰⁸ All four rim sherds are dated to the end of the sixth century BC and the beginning of the fifth century BC, in line with other similar examples. The first of the two toes examined in the study is cat. no. 49 (fig. 5.49) with a button-shaped low and sharp bottom, a hollow interior, and a spur on the upper edge of the outer face. It was a preferred toe type in the earliest series of this group (pithoid form). The find dates from the second half of the sixth century BC and possibly to the early fifth century BC, in line with similar finds.¹⁰⁹ The last find in the Ionian Beta amphorae group is shallowly hollowed and has a flaring concave plastic ring toe. It can be considered among the fifth series of Monachov's classification. The find cat. no. 50 (fig. 5.50) can be dated to the second quarter of the fifth century BC, in line with similar finds.¹¹⁰

¹⁰⁰ Cook and Dupont 1998, 182; Dupont 2007, 622.

¹⁰¹ Ruban 1991.

¹⁰² These amphorae, which Zeest cites as Samian and Protothasian, are grouped in five different variations in a single group and date from the mid-sixth century BC to the mid-fifth century BC; see Monachov 2003b, 256-57.

¹⁰³ Tsaravopoulos 1986, 138-39, pl. 31.5.

¹⁰⁴ In this study, 39 percent of the fragments recovered from the early levels under the Tetragonos Agora include Zeest's Samian and Protothasos types. Only one sample was analyzed in the analysis results; see Kerschner and Mommsen 2005, 125-26.

¹⁰⁵ This group of amphorae is grouped as "ÜYB" in E. Doğer's classification; see Doğer 1988, 132.

¹⁰⁶ Birzescu 2012, 113-24; Sezgin 2012a, 259-71.

¹⁰⁷ For similar examples, see Monachov 1999a, 52, fig. 6, no. 1; Chistov et al. 2012, 24, pl. 11, no. 5; Astashova and Lomtadze 2017, 89, pl. 91.6, cat. no. 181.

¹⁰⁸ For similar amphorae of amphora 47, see Lomtadze 2005, 332, fig. 6, no. 11; Monachov et al. 2019, 117, NA.9. For parallel examples of amphora number 48, see Monachov 2003a, 255, fig. 25, no. 5; Astashova and Lomtadze 2017, 91-92, pl. 92.15, no. 205. For similar examples of the rim fragment number 49, see Ruban 1991, 187, fig. 5, no. 1; Monachov 2003a, fig. 25, no. 5.

¹⁰⁹ For similar examples, see Monachov 2003b, 248-49, fig. 1, no. 4; Astashova and Lomtadze 2017, 58, fig. 92.4, cat. no. 194; Zavoykin 2018, 145, fig. 4, no. 10.

¹¹⁰ For close analogies see Lomtadze 2005, 332, fig. 6, no. 11; Monachov et al. 2019, 33, fig. 9, no. 10-11, 13; 119, NA.13.

Conclusion

Located at a strategic point northeast of the Gulf of Izmir, the settlement of Old Smyrna is included in the commercial sphere of the Aegean coast and its islands. The impact of being located in such a fertile geography paved the way for establishing a strong import and export network with its surroundings. There is a considerable void in the literature of Old Smyrna, which has been a long-term research topic for both foreign and Turkish researchers since the 20th century. However, relatively few commercial amphorae have contributed to it. The large number of amphora fragments recorded in the excavation storage, especially in the classification works carried out by us with the start of the new period excavations since 2014, reveals the commercial activity of Old Smyrna. In this context we have categorized many amphora groups first by place of production and then typologically and chronologically within themselves, without deviating from the methods adopted by scholars who have researched the subject.

The majority of amphorae discovered during previous excavations and some discovered during recent excavations were dated based on the contexts of the ceramic groups with which they were found and through comparison with samples from centers around the Aegean and Black Seas.

As a general assessment, these amphorae dated from the seventh century BC to the end of the fifth century BC and belonged to various groups according to their forms. The first is the Attic SOS amphorae, which represent the most distant trade. This group of amphorae, widely and popularly exported from the middle and last quarter of the seventh century BC to the first quarter of the sixth century BC and found in many centers, was also founded in the same period in Old Smyrna. Chian amphorae, whose typology can be traced clearly except for the funnel-shaped neck group, first appeared with the white-slipped amphorae of the late seventh century BC and early sixth century BC. This dominated the Archaic Period together with Clazomenian amphorae. The fifth century BC bulging-neck types from Chios were also popular as imported products during the period when Persian authority was observed. It is understood from the finds that Clazomenai, which had a wide commercial network with Chios in the Archaic Period, had a close relationship with Old Smyrna from the late seventh century BC through the sixth century BC until the early fifth century BC at the latest. During the fifth century BC, the commercial relations between Old Smyrna and Clazomenai stopped for the political reasons according to data obtained from amphora finds. The amphorae with plastic bands under the mouth, which emerged as a new type with the weakening of Persian policies, were produced throughout the fourth century BC, with the earliest example dating from the early fifth century BC. It shows that an intensive export to Old Smyrna was underway again.¹¹¹ Among the fragments we examined from Teos, which have recently begun to accept as a production site from the sixth century BC, there is one fragment. However, it still raising questions. Amphorae from Lesbos, one of the leading centers in the Aeolian region, are not a group found extensively in the Archaic Period layers of Old Smyrna. But an amphora with the standard features of this period is included in this study. Imported pieces were also identified in the fifth century BC. Our example of Samian amphorae, a preferred group in the production market of the Archaic Period, was dated to the first half of the sixth century BC. The Milesian amphorae found in Old Smyrna are important because they show a trade connection

¹¹¹ The study of amphorae from Old Smyrna, some of which date to the second half of the fifth century BC and the majority to the fourth century BC, is currently under publication.

with Miletos during the sixth century BC and the fifth century BC, when the city was under Persian control. The most remarkable groups in this study are the Ionian Alpha and Ionia Beta amphorae, for which the researchers who conducted the amphora research made different suggestions as to their place of production. These types, which were intensively produced and traded in the late sixth century BC and early fifth century BC, were also in demand in Old Smyrna. By comparing the echinus-rim specimens in the Ionian Alpha group with finds from the Tektaş Burnu Shipwreck, it can be argued that this group was produced in Erythrai. Most researchers agree that the Ionian Beta amphorae found in the Old Smyrna layers were produced in an Ionian center of uncertain origin. All but one of the sherds analyzed in this article date between the late sixth century BC and early fifth century BC, while one example dates to the second quarter of the fifth century BC. By suggesting that these types are distributed from a center originating from Ionia, it can be argued that there may have been production in Old Smyrna. However, this idea is not provable without a clay analysis study or the presence of any production residues or workshops in the city.

As detailed above, amphorae were imported from the last quarter of the seventh century BC until the end of the fifth century BC. Our data proves that Old Smyrna was an import market for many centers that dominated the amphora trade during this period. It is also believed that the city's residents demanded quality and luxury products from a wide range of nearby centers. In addition, commercial actions changed from time to time due to the effects of political movements in the region. To summarize, the commercial amphorae found in Old Smyrna have been used to conclude the city's close or distant commercial relations. With this study, the finds from Old Smyrna will make critical contributions to the literature on amphorae.

Catalogue

SOS Amphorae

1. Fragment of rim-neck. BYR 83, G 3 square, 10.85 m. Diam. of rim: 20 cm, h: 14,4 cm. Fabric: lime, stone, sand (little), mica (little); 5 YR 7 / 6 (reddish yellow). Slip: 7.5 YR 7 / 4 (pink). Glaze: 7.5 YR 4 / 4 (brown).
2. Fragment of rim-neck. BYR 84, H 2 square, 10.42 m. Diam. of rim: 19 cm, h: 10,3 cm. Fabric: lime, stone, sand (little), mica (little); 5 YR 7 / 6 (reddish yellow). Slip: 5 YR 6 / 6 (reddish brown). Glaze: 10 YR 3 / 1 (very dark gray).
3. Fragment of rim-neck. BYR 83, G 2 square, 10.40 m. Diam. of rim: 20 cm, h: 13,6 cm. Fabric: lime, stone, sand; 5 YR 7 / 6 (reddish yellow). Slip: 5 YR 8 / 4 (pink). Glaze: 10 YR 3 / 1 (very dark gray).
4. Fragment of rim-neck. Diam. of rim: 20 cm, h: 10,9 cm. Fabric: lime, stone, sand, mica (little); 5 YR 8 / 4 (pink). Slip: 7.5 YR 8 / 3 (pink). Glaze: 5 YR 4 / 1 (dark gray).
5. Fragment of rim-neck. BYR 84, E-13 square, 11.28 m / 11.21 m. diam. of rim: 18 cm, h: 15,3 cm. Fabric: lime, stone, sand, mica (little); 5 YR 7 / 6 (reddish yellow). Slip: 2.5 YR 7 / 4 (light reddish brown). Glaze: 7.5 YR 3 / 1 (very dark gray).

Comparanda (1-5): Petrie 1888, 61, pl. 24, no. 9 (Tell Defenneh); Jacopi 1929, 120, pl. 4, Tomb 86 (Rhodes); 1931, 352, pl. 8, Tomb 205 (600 BC), (Rhodes); Burr 1933, 570-71, figs. 29-30, nos. 126-29, (seventh century BC) (Athens); Eilmann and Gebauer 1938, 28, pl. 39, no. 5; Lambrino 1938, 137, fig. 94; Robertson 1940, 19, fig. 8e (seventh-sixth century BC) (Al Mina); Weinberg 1948, 227, pl. 83, D69, (seventh century BC) (Corinth); Brann 1956, 372, fig. 5, no. 88, (600-540 BC) (Corinth) (second quarter and beginning of the third quarter of the sixth century BC); Karageorghis 1960, 278-79, fig. 57 (seventh-sixty century BC) (Cyprus-Nicosia); Brann 1961, 338-39, pl. 80, F 40-42, (third quarter of the seventh century BC), 354, pl. 80, G 37, (third

and end of the seventh century BC), 369-70, pl. 80, H 45-46, (last quarter of the seventh century BC) (Athens); 1962, 32-33, pl. 2, nos. 24 (last quarter of the seventh century BC), 26 (first half of the seventh century BC), 27 (middle of the seventh century BC), 28 (end of the seventh century BC), (Athens); Daux 1966, 788, fig. 3 (seventh century BC) (Porto Cheli); Hind 1983 / 84, 79, fig. 10. (Berezan); Karadima and Koutsoumanis 1995, 683, fig. 10 (sixth century BC) (Samothrace); Johnston 2005, 363, fig. 26, no. 196 (end of the seventh century BC); Gimatzidis 2010, 288, cat. no. 661, pl. 89-661, 122f (Sindos); Filis 2013, 71, fig. 14a (seventh century BC), (Akanthos).

Chian Amphorae

6. Fragments of rim. Diam. of rim: 12 cm, h: 4,9 cm. Fabric: lime, stone, sand, mica (little); 7.5 YR 5 / 3 (brown). Slip: 2.5 YR 8 / 2 (pale brown). Glaze: 7.5 YR 2.5 / 3 (very dark brown).

7. Fragments of rim-neck. Diam. of rim: 12 cm, h: 8,9 cm. Fabric: lime, stone, mica, sand (little), 5 YR 7 / 6 (reddish yellow). Slip: 2.5 YR 8 / 1 (white). Glaze: 2.5 YR 6 / 6 (light red).

8. Fragment of rim-neck-handle. BYR 2022 / FMZ, ST 22 trench, west of the wall, 9.41 m / 9.26 m. Diam. of rim: 10,2 cm, h: 22,1 cm. Fabric: lime (little), sand (little), mica (little); 5 YR 7 / 4 (pink). Slip: 7.5 YR 8 / 2 (pinkish white). Glaze: 10 R 4 / 6 (red) (dark), 10 R 5 / 6 (red) (light).

Comparanda (6-8): Anderson 1954, 169, fig. 5, no. 17 (end of the seventh century BC); Karageorghis 1969, 447, 449, fig. 25 (Cyprus, end of the seventh century BC - beginning of the sixth century BC); Boardman and Hayes 1973, 62, fig. 25, pl. 32, no. 2258 (Tocra, 620-590 BC); Doğer 1988, 217-18, fig. 26-27, no. 53 (Clazomenai, Monastrakia Necropolis, end of the seventh century BC - beginning of the sixth century BC); Johnston 1993, 364, fig. 8b, pl. 78, no. 108 (Kommos / Crete, end of the seventh century BC); Hürmüzlü 2003, 397, fig. 68, no. 200 / m (Clazomenai, Akpınar Necropolis, end of the seventh century BC); Masson 2007, 366, fig. 1.1 (Karnak, end of the seventh century BC - beginning of the sixth century BC); Sezgin 2012a, 116, 130, Khi2.04 (Pitane Necropolis, end of the seventh century BC - beginning of the sixth century BC).

9. Fragment of rim-neck. Necropolis. Diam. of rim: 10,2 cm, h: 16,7 cm. Fabric: stone, sand; 7.5 YR 6 / 4 (light brown). Slip: 7.5 YR 6 / 4 (light brown). Glaze: Rim, 5 YR 4 / 3 (reddish brown), 5 YR 5 / 4 (reddish brown); Trademark, 5 YR 3 / 3 (dark reddish brown).

Comparanda: Lambrino 1938, 110-12, Typ A1, figs. 71-74, 85e; Dimitriu 1966, 90, fig. 52, no. 369 (Histria, Archaic Period, Level 3); Roberts 1986, 67, fig. 42, pl. 18, no. 419-20 (Athens, 520-480 BC); Lawall 1995, 356, fig. 23 (until 480 BC); Sezgin 1998, fig. 27 (Clazomenai, Akpınar Necropolis, 530-510 BC) (especially rim); Monachov 1999a, 57-59, fig. 9, nos. 1-4 (Nymphaion Necropolis, second half of the sixth century BC (similar decoration, more swollen neck); Irimia 2006, 143, fig. 4 and 10 4a-b (second half of the sixth century BC).

10. Fragment of rim-neck. BYR 07, trench of mudbrick fortification wall, between walls. Diam. of rim: 13,8 cm, h: 19,8 cm. Fabric: lime, stone, sand; 5 YR 6 / 6 (reddish yellow). Slip: 5 YR 7 / 3 (pink), inside: 5 YR 2.5 / 1 (black).

11. Fragment of rim-neck. BYR 07, trench of mudbrick fortification wall, between walls. Diam. of rim: 13,4 cm, h: 19,3 cm. Fabric: stone, lime (little) sand (little); 7.5 YR 6 / 4 (light brown). Slip: 7.5 YR 6 / 3 (light brown), inside: 7.5 YR 2.5 / 1 (black).

Comparanda (10-11): Boulter 1953, 104-5, pl. 39, no. 150 (Athens, middle of the fifth century BC); Knigge 1976, 180-81, pl. 92.3 (Kerameikos, 470-460 BC); 146, pl. 62.5 (Kerameikos, middle of the fifth century BC); Williams and Fisher 1976, 107, pl. 20 (Corinth, 460-440 BC); Čistov and Domžalski 2002, 106, fig. 9, no. 6 (third quarter of the fifth century); Monachov 2003a, 237, fig. 7, nos. 4-6; Carlson 2004, fig. 29, no. 13 (Tektaş Burnu Shipwreck, 450-440 BC).

12. Fragment of rim-neck. Diam. of rim: 16,4 cm, h: 20,9 cm. Fabric: stone (little), lime (little) mica (little); 2.5 YR 6 / 6 (light red). Slip: 2.5 YR 7 / 4 (light reddish brown).

Comparanda: Lawall 1995, 92, fig. 33.6 (Athens, 425 BC); Monachov 2003a, 19-20, fig. 8, no. 6 (440-430 BC); Kakhidze and Khalvashi 2010, 136, pl. 74.6 (Pichvnari, third quarter of the fifth century BC).

13. Fragment of foot. BYR 84, b 2 - c 2, 11.72 m / 11.62 m. Diam. of toe: 3,6 cm, h: 10,8 cm. Fabric: stone, mica, sand (little); 2.5 YR 6 / 6 (light red). Slip: 2.5 YR 7 / 4 (light reddish brown).

Comparanda: Abramov et al. 1991, 74, fig. 2.8 (end of the fifth century BC); Monachov 2003a, 20, fig. 9, no. 6 (Olbia, 420 / 410 BC); Kakhidze and Khalvashi 2010, 136, pls. 74.7, 75.4. (Pichvnari, last quarter of the fifth century BC).

Clazomenian Amphorae

Seventh Century BC

14. Fragment of rim-neck. Diam. of rim: -, h: 11.4 cm. Fabric: stone, mica, lime, sand; 10 R 6 / 4 (pale red). Slip: 2.5 YR 5 / 8 (red). Glaze: 2.5 YR 4 / 2 (weak red) / 2.5 YR 4 / 4 (reddish brown).

Comparanda: Dupont and Skarlatidou 2005, 79, 81, fig. 2b (Abdera, beginning of the third of the seventh century).

15. Fragment of rim-neck. Diam. of rim: 11 cm, h: 5,2 cm. Fabric: stone, lime, sand; 2.5 YR 6 / 6 (light red). Slip: 2.5 YR 6 / 6 (light red). Glaze: 10 R 5 / 6 (red).

Comparanda: Boardman and Hayes 1973, 64, fig. 25, no. 2268 (Tocra, Deposit I); Calvet and Yon 1977, 18, cat. no. 106, pl. 10 (Cyprus, end of the seventh century BC); Doğer 1988, 184, fig. 1, pl. 1, cat. no. 1 (Clazomenai / Kalabak 2 Necropolis, 635-630 BC); Dupont and Skarlatidou 2005, 79, 81, fig. 2a (Abdera, beginning of the third of the seventh century).

16. Almost complete. Diam. of rim: 14 cm, Diam. of foot: 8,4 cm, h: 60,2 cm. Necropolis. Fabric: stone, lime, sand, mica (little); 5 YR 6 / 6 (yellowish red). Slip: 5 YR 5 / 4 (reddish brown). Glaze: 10 R 4 / 8 (red).

Comparanda: Boardman and Hayes 1973, 64, fig. 25, no. 2268 (Tocra, Deposit I); Calvet and Yon 1977, 18, cat. no. 106, pl. 10 (Cyprus, end of the seventh century BC); Doğer 1988, 188-89, fig. 4, cat. no. 10 (Clazomenai / HBT Sector, 600-590 BC and before); Dupont and Skarlatidou 2005, 79, 81, fig. 2a (Abdera, beginning of the third of the seventh century).

First Half of the Sixth Century BC

17. Foot, body, handles. Necropolis. Diam. of foot: 7,5 cm, h: 49,2 cm. Necropolis. Fabric: lime, sand; 5 YR 6 / 6 (reddish yellow). Slip: 5 YR 6 / 4 (light reddish brown). Glaze: 10 R 4 / 3 (weak red) / 10 R 5 / 6 (red).

Comparanda: Doğer 1988, 193-94, fig. 8, pl. 2, no. 19 (Clazomenai, Kalabak 2 Necropolis, first half of the sixth century BC); Rizzo 1990, fig. 198 (Vulci, Tomba Cantorini, 600-575 BC); Sezgin 2012a, 62, 77, Kla5.07 (Clazomenai, Akpınar Necropolis, 600-575 BC).

18. Fragment of rim-neck. Diam. of rim: 15 cm, h: 4,6 cm. Fabric: mica, stone, sand; 7.5 R 6 / 6 (light red). Slip: 7.5 R 6 / 6 (light red), 2.5 YR 7 / 4 (light reddish brown), Glaze: 5 YR 4 / 1 (dark gray).

Comparanda: Dimitriu 1966, 103, pl. 54, no. 525 (Histria, 600-570 / 560 BC); Doğer 1988, 190, fig. 5, no. 3 (Clazomenai, 600-590 / 570 BC).

19. Fragment of rim-neck. Diam. of rim: 14 cm, h: 6,6 cm. Fabric: stone, sand, lime; 2.5 YR 6 / 6 (light red). Slip: 2.5 YR 6 / 6 (light red). Glaze: 10 R 5 / 8 (red).

Comparanda: Dimitriu 1966, 103, pl. 54, no. 525 (Histria, 600-570 / 560 BC); Calvet and Yon 1977, 19, pl. 12, no. 121-22; Doğer 1988, 189, fig. 4, no. 11 (Clazomenai, 600-590 BC and before).

20. Fragment of rim-neck. Diam. of rim: 11,4 cm, h: 5,4 cm. Fabric: lime, stone, sand; 10 R 5 / 6 (red). Slip: 5 YR 5 / 4 (reddish brown). Glaze: 2.5 YR 3 / 1 (dark reddish gray) / 7.5 YR 5 / 6 (red).

Comparanda: Doğer 1988, 189, fig. 4, no. 11 (Clazomenai, 600-590 BC and before).

21. Fragment of rim-neck. Diam. of rim: 13 cm, h: 5,2 cm. Fabric: stone, sand; 5 YR 6 / 4 (light reddish brown). Slip: 2.5 YR 6 / 4 (light reddish brown) / 5 YR 5 / 4 (reddish brown).

Comparanda: Tzochiev 2011, 78, fig. 3, no. 10 (Bourgas, first half of the sixth century BC).

22. Fragment of foot. Diam. of foot: 7,6 cm, h: 7,1 cm. Fabric: stone, lime, sand, mica (little); 10 R 5 / 4 (weak red). Slip: 5 YR 5 / 6 (yellowish red), 5 YR 5 / 6 (yellowish red), 2.5 YR 7 / 6 (light red).

Comparanda: Ersoy 1993, 57, 402, pl. 39, no. 344 (Clazomenai); Yaldir 2009, 394, fig. 21, no. T40 (Daskyleion, first quarter of the sixth century BC).

23. Fragment of foot. Diam. of foot: 6 cm, h: 7,3 cm. stone, mica, lime (little), sand (little); Fabric: 5 YR 7 / 4 (pink), Slip: 5 YR 7 / 4 (pink), 5 YR 6 / 4 (light reddish brown).

Comparanda: Boardman and Hayes 1973, 62, fig. 25, no. 2263 (Tocra, 590-565 BC, Deposit II); Atila and Okan 2018, 100, fig. 4, cat. no. 19 (Phocaea, first half of the sixth century BC).

Second Half of the Sixth Century BC

24. Fragment of rim-neck. Diam. of foot: 11,8 cm, h: 6,3 cm. Fabric: stone, lime, mica (little); 2.5 YR 6 / 6 (light red). Slip: 2.5 YR 6 / 4 (light reddish brown) / 2.5 YR 6 / 3 (light reddish brown). Glaze: 7.5 R 5 / 6 (red).

Comparanda: Lambrino 1938, 133-34, figs. 76-77 (Histria, second half of the sixth century BC); Doğer 1988, 197-98, fig. 10, pls. 3-4, no. 25 (Clazomenai, last quarter of the sixth century BC); Monachov 2003a, 54, fig. 33, no. 2 (second half of the sixth century BC).

25. Fragment of rim, neck, handle. Diam. of rim: 13 cm, h: 10,7 cm. Fabric: lime, stone, sand; 2.5 YR 6 / 6 (light red). Slip: 2.5 YR 8 / 2 (pinkish white) / 2.5 YR 4 / 2 (weak red). Glaze: 2.5 YR 2.5 / 1 (reddish black).

Comparanda: Karageorghis 1970, 63, pl. 116.22 (Salamis / Cyprus, 550-500 BC); Doğer 1988, 197, fig. 10, pl. 10, no. 25 (Clazomenai, last quarter of the sixth century BC).

26. Fragment of rim, neck, handle. Diam. of rim: 13 cm, h: 4,7 cm. Fabric: stone, lime, sand (little); 10 R 7 / 6 (light red). Slip: 7.5 YR 8 / 3 (pink) / 2.5 YR 7 / 8 (light red). Glaze: 7.5 YR 2.5 / 1 (black) / 10 R 5 / 6 (red).

Comparanda: Karageorghis 1970, 63, pl. 116.22 (Salamis / Cyprus, 550-500 BC); Doğer 1988, 197-98, fig. 10, pls. 3-4, no. 25 (Clazomenai, last quarter of the sixth century BC); Monachov 1999a, 73, fig. 15, no. 3 (Berezan, 500-480 BC).

27. Fragment of rim-neck. Diam. of rim: 15 cm, h: 4,3 cm. Fabric: lime, stone, sand (little), mica (little); 10 R 6 / 4 (pale red). Slip: 2.5 YR 7 / 4 (light reddish brown) / 5 YR 6 / 3 (light reddish brown). Glaze: 5 YR 2.5 / 1 (black) / 5 YR 6 / 3 (light reddish brown).

Comparanda: Karageorghis 1970, 63, pl. 116.22 (Salamis / Cyprus, 550-500 BC); Doğer 1988, 197-98, fig. 10, pls. 3-4, no. 25 (Clazomenai, last quarter of the sixth century BC); Monachov 1999a, 73, fig. 15, no. 3 (Berezan, 500-480 BC).

28. Fragment of rim. Diam. of rim: 10,4 cm, h: 3,4 cm. Fabric: stone, lime, sand, mica (little); 10 R 7 / 6 (light red). Slip: 5 YR 7 / 4 (pink) / 7.5 YR 8 / 3 (pink). Glaze: 2.5 YR 3 / 2 (dusky red) / 2.5 YR 5 / 6 (red).

Comparanda: Karageorghis 1970, 63, pl. 116.22 (Salamis / Cyprus, 550-500 BC); Doğer 1988, 197-98, fig. 10, pls. 3-4, no. 25 (Clazomenai, last quarter of the sixth century BC); Monachov 1999a, 73, fig. 15, no. 3 (Berezan, 500-480 BC).

29. Fragment of rim-neck. BYR 84, C-14, 11.80 m - 11.49 m. Diam. of rim: 13 cm, h: 7 cm. Fabric: stone, sand, lime (little); 10 R 7 / 6 (light red). Slip: 2.5 YR 7 / 8 (light red) / 5 YR 6 / 6 (reddish yellow). Glaze: 2.5 YR 4 / 3 (reddish brown) / 10 R 5 / 6 (red).

Comparanda: Sezgin 2009, 129, pl. 24, cat. no. 7.16 (Pitane, 550-500 BC).

30. Fragment of foot. Diam. of foot: 6,8 cm, h: 7 cm. Fabric: lime, stone, sand (little), mica (little); 5 YR 6 / 4 (light reddish brown). Slip: 5 YR 6 / 4 (light reddish brown) / 5 YR 8 / 1 (white), 5 YR 6 / 3 (light reddish brown).

Comparanda: Doğer 1988, 197-98, fig. 10, pls. 3-4 (Clazomenai, Yıldıztepe Necropolis, last quarter of the sixth century BC).

31. Fragment of foot. Diam. of foot: 6,3 cm, h: 7,2 cm. Fabric: lime, sand; 2.5 YR 5 / 4 (reddish brown). Slip: 5 YR 6 / 4 (light reddish brown) / 5 YR 5 / 4 (reddish brown).

Comparanda: Monachov 1999b, 181, 183, fig. 2.2 (Taurikon / Myrmekion, second half of the sixth century BC).

32. Fragment of foot. Diam. of foot: 5,9 cm, h: 10,7 cm. Fabric: stone, lime (little), sand (little), mica; 10 R 5 / 4 (weak red). Slip: 2.5 YR 6 / 6 (light red) / 10 R 4 / 2 (weak red).

Comparanda: Doğer 1988, 207-8, fig. 19, 25, pl. 3, cat. no. 38 (Clazomenai, Yıldıztepe Necropolis, end of the sixth century BC, around 500 BC); Monachov 1999b, 181, 183, fig. 4 (Porthmeion, beginning fifth century BC).

Teian Amphora

33. Fragment of foot. Diam. of foot: 6 cm, h: 9,9 cm. Fabric: stone, lime, mica; 10 R 5 / 4 (weak red). Slip: 10 YR 6 / 2 (light brownish gray).

Comparanda: Monachov 1999b, 168, fig. 7 (end of the seventh century BC - middle of the sixth century BC); Pesenti 2015, 298-99, no. A-S-29.

Lesbian Amphorae

34. Almost complete. Diam. of foot: 7,7 cm, h: 62 cm. Fabric: mica, stone; 10 YR 5 / 2 (grayish brown), Slip: 10 YR 2 / 1 (black).

Comparanda: Ruban 1983, 285, fig. 1, no. 14 (middle of the sixth century BC); Cook and Dupont 1998, 158, fig. 23.4b (first half of the sixth century BC); Fantalkin 2001, 94-5, fig. 34, no. 2; Monachov et. al. 2020, 115, LG.2 (second and third of the sixth century BC).

35. Fragment of foot. Diam. of foot: 3,6 cm, h: 15,2 cm. Fabric: mica, stone, lime; 10 YR 6 / 3 (pale brown). Slip: 10 YR 6 / 2 (light brownish gray).

Comparanda: Ruban 1990, 18, fig. 4, type 2 (end of the sixth century BC - beginning of the fifth century BC).

36. Fragment of foot. Diam. of foot: 2,8 cm, h: 12,7 cm. Fabric: mica, stone, sand (little); 7.5 YR 5 / 1 (gray). Slip: 10 YR 7 / 1 (light gray).

Comparanda: Čistov and Domžalski 2002, 105, fig. 8, nos. 10-12 (end of the fifth century BC - first quarter of the fourth century); Tzochev 2011, 81, fig. 6, no. 20 (Classical Period).

Milesian Amphorae

37. Fragment of rim-neck. BYR 86, A / 11-12, 11.45 m / 11.25 m. Diam. of rim: 15.4 cm, h: 8 cm. Fabric: mica, stone, lime (little); 7.5 YR 7 / 4 (pink). Slip: 7.5 YR 4 / 1 (dark gray).

Comparanda: Ruban 1991, 182, fig. 2.1 (Berezan, 550 / 490-480 BC); Voigtländer 1982, fig. 28, no. 171 (Miletos, sixth century BC); Naso 2005, 76, 83, fig. 3, cat. no. 10 (Miletos / Kalabaktepe, 520-500 BC).

38. Almost complete. TG-1 trench, BYR 15, 6.42 m. Diam. of rim: 14,3 cm, h: 76,2 cm. Fabric: sand, lime, mica, gold mica; 5 YR 6 / 6 (reddish yellow). Slip: 5 YR 7 / 4 (pink).

Comparanda: Dupont 1982, 175, fig. 23.9e (foot profile, middle of the fifth century BC); Monachov 2013, 30, table 1, no. 5 (rim profile, type 1b / last quarter of the fifth century BC).

39. Fragment of foot. Diam. of foot: 3.8 cm, h: 4.7 cm. Fabric: lime, mica, stone (little); 5 YR 7 / 6 (reddish yellow), Slip: 2.5 YR 7 / 4 (light reddish brown).

Comparanda: Cook and Dupont 1998, 175, fig. 23.9e (middle of the fifth century BC); Lawall 1995, fig. 75, below (fifth century BC).

Samian Amphora

40. Fragment of rim-neck. Diam. of rim: 12,2 cm, h: 12,2 cm. Fabric: mica, sand, lime (little); 2.5 YR 6 / 6 (light red). Slip: 2.5 YR 7 / 3 (light reddish brown).

Comparanda: Calvet and Yon 1977, 19, pl. 11, cat. no. 115 (Salamis / Cyprus, 600-550 BC); Docter 2000, 69-70, cat. 3, fig. 8c (Carthage, 600-550 BC), Atila 2005, 116, fig. 4, cat. no. 24 (Daskyleion, second half of the sixth century BC); Buyskykh 2014, 96, fig. 10, no. 8 (Borysthenes, not after middle of the sixth century BC).

Ionian Alpha / Erythrai? Amphorae

41. Fragment of rim-neck. Diam. of rim: 14,4 cm, h: 11,4 cm. Fabric: stone (little), sand, lime, mica (little); 5 YR 6 / 6 (reddish yellow). Slip: 2.5 YR 6 / 4 (reddish yellow).

42. Fragment of rim-neck. Diam. of rim: 15 cm, h: 11,3 cm. Fabric: lime, mica, stone (little); 5 YR 6 / 4 (light reddish brown). Slip: 2.5 YR 7 / 4 (light reddish brown).

43. Fragment of rim-neck. Diam. of rim: 14,2 cm, h: 11,8 cm. Fabric: sand, lime, mica (little); 7.5 YR 6 / 4 (light brown). Slip: 5 YR 7 / 3 (pink).

Comparanda (42, 43, 44): Carlson 2004, 170, fig. 34, cat. no. 15 (Tektaş Burnu Shipwreck, 450-440 BC); Carlson and Lawall 2005 / 06, 35, fig. 3 (Gordion); Monachov 2013, 30-31, fig. 1.3 / type 1a, end of the fifth century BC).

44. Fragment of foot. BYR 84, C2 (?) 13.45 m / 13.40 m. Diam. of rim: 4 cm, h: 7,6 cm. Fabric: lime, sand, mica (little); 5 YR 7 / 4 (pink). Slip: 5 YR 6 / 1 (gray).

Comparanda: Doğer 1988, 264-65, fig. 51, pl. 20, cat. no. 133 (Clazomenai, Yıldıztepe Necropolis, end of the sixth century BC); Carlson 2004, 173, 229, fig. 41 (Tektaş Burnu Shipwreck, middle of the fifth century BC); Sezgin 2012a, 255, Ionia *α*. 14 (Clazomenai, Akpınar Nekropolis / beginning of the fifth century BC).

Ionian Beta Amphorae

45. Fragment of rim-neck. Diam. of rim: 11,1 cm, h: 12 cm. Fabric: lime, mica; 5 YR 6 / 4 (light reddish brown), Slip: 5 YR 6 / 6 (reddish yellow).

Comparanda: Monachov 1999a, 52, fig. 6, no. 1; Chistov et. al. 2012, 24, pl. 11, no. 5; Astashova and Lomtadze 2017, 89, pl. 91.6, cat. no. 181.

46. Fragment of rim. Diam. of rim: 13 cm, h: 10,7 cm. Fabric: lime, sand, mica; 2.5 YR 6 / 4 (light reddish brown). Slip: 5 YR 6 / 6 (reddish yellow).

Comparanda: Lomtadze 2005, 332, fig. 6, no. 11 (end of the sixth century BC - beginning of the fifth century BC); Monachov et al. 2019, 117, NA.9 (500-480 BC).

47. Fragment of rim. Diam. of rim: 11 cm, h: 8,1 cm. Fabric: sand, mica, lime; 5 YR 5 / 6 (yellowish red). Slip: 5 YR 7 / 4 (pink).

Comparanda: Monachov 2003a, 255, fig. 25, no. 5; Astashova and Lomtadze 2017, 91-92, pl. 92-15, no. 205 (end of the sixth century BC - beginning of the fifth century BC).

48. Fragment of rim. Diam. of rim: 10,2 cm, h: 5,3 cm. Fabric: lime, sand, mica (little), stone (little); 10 R 6 / 6 (light red), Slip: 5 YR 7 / 2 (pinkish gray).

Comparanda: Ruban 1991, 187, fig. 5, no. 1; Monachov 2003a, 255, fig. 25, no. 5 (500-470 BC).

49. Fragment of foot. Diam. of foot: 4,8 cm, h: 6,6 cm. Fabric: mica, stone, lime; 2.5 YR 6 / 6 (light red). Slip: 7.5 YR 6 / 4 (light brown).

Comparanda: Astashova and Lomtadze 2017, 58, fig. 92.4, cat. no. 194 (second half of the sixth century BC); Zavoykin 2018, 145, fig. 4, no. 10 (Phanagoria, end of the sixth century BC - beginning of the fifth century BC); Monachov 2003b, 248-49, fig. 1, no. 4 (Olbia Necropolis, 550-500 BC).

50. Fragment of foot. Diam. of foot: 3,6 cm, h: 7,7 cm. Fabric: sand, mica, lime; 2.5 YR 6 / 4 (light reddish brown). Slip: 10 YR 8 / 3 (very pale brown).

Comparanda: Monachov et. al. 2019, 33, fig. 9, no. 10-11, 13; 119, NA.13 (second quarter of the fifth century BC); Lomtadze 2005, 332, fig. 6, no. 11.

Bibliography

- Abramov, A.P., A.A. Maslenikov, and V.N. Rozov. 1991. "Ceramic Complex of the Turn of the V-IV Centuries BC from the Settlement on Cape Ryuk." *Brief Communications of the Institute of Archaeology* 207:70-77 (in Russian).
- Akurgal, E. 1993. *Eski Çağda Ege ve İzmir*. Izmir: Tükelmat A.Ş.
- Anderson, J.K. 1954. "Excavation on the Kofinà Ridges, Chios." *BSA* 49:123-82.
- Astashova, N.S., and G.A. Lomtadze. 2017. "Chapter 2: Ceramic Containers from the End of the 7th - First Half of the 5th Century BC from the Excavations of the Central Part of Panticapaeum." In *The Earliest Panticapaeum: From an Apoikia to a City*, edited by V.P. Tolstikov, 54-93. Moscow: Pero Publishing House (in Russian).
- Atila, C. 2005. "Daskyleion'da Bulunan Arkaik Dönem Ticari Amphoraları." *Arkeoloji, Anadolu & Avrasya* 2.2005:107-21.
- Atila, C., and E. Okan. 2018. "Commercial Relationships of Phocaea in the Light of Archaic Trade Amphorae." *Ege Üniversitesi Arkeoloji Dergisi* 23:91-105.
- Bernard, P. 1964. "Céramiques de la Première Moitié du VIIe Siècle à Thasos." *BCH* 88.1:77-146.
- Bîrzescu, I. 2012. *Die archaischen und frühklassischen Transportamphoren*. Histria 15. Bucharest: Editura Enciclopedică.
- Boardman, J. 1967. *Excavations in Chios 1952-1955: Greek Emporio*. BSA Suppl. 6. London: British School of Archaeology at Athens / Thames and Hudson.
- Boardman, J., and J. Hayes. 1966. *Excavations at Tocra 1963-1965: The Archaic Deposits 1*. BSA Suppl. 4. London: British School of Archaeology at Athens / Thames and Hudson.
- Boardman, J., and J. Hayes. 1973. *Excavations at Tocra 1963-1965, The Archaic Deposits 2 and Later Deposits*. BSA Suppl. 10. London: British School of Archaeology at Athens / Thames and Hudson.
- Boulter, C. 1953. "Pottery of the Mid-Fifth Century from a Well in the Athenian Agora." *Hesperia* 22.2:59-115.
- Brann, E. 1956. "A Well of the "Corinthian" Period Found in Corinth." *Hesperia* 25.4:350-74.
- Brann, E. 1961. "Protoattic Well Groups from the Athenian Agora." *Hesperia* 30.4:305-79.
- Buytskykh, A.V. 2014. "Amphorae of the Early 7th - the Late 5th Centuries BC from Borysthenees." *Archaeology and Ancient History of Ukraine* 1.12:88-100 (in Russian).
- Burr, D. 1933. "A Geometric House and a Proto-Attic Votive Deposit." *Hesperia* 2.4:542-640.
- Calvet, Y., and M. Yon. 1977. "Céramique Trouvée à Salamine (Fouilles de la Ville)." In *Greek Geometric and Archaic Pottery found in Cyprus*, edited by E. Gjerstad, 9-21. Skrifter Utgivna av Svenska Institutet i Athen. 4.26. Stockholm: Paul Åströms Förlag.
- Carlson, D.N. 2004. "Cargo in Context: The Morphology, Stamping, and Origins of the Amphoras from a Fifth-Century B.C. Ionian Shipwreck." Ph.D. diss., The University of Texas at Austin.
- Carlson, D.N., and M.L. Lawall. 2005 / 06. "Towards a Typology of Erythraian Amphoras." *Skyllis* 7.1.2:33-40.
- Catling, R.W.V. 1998. "The Typology of the Protogeometric and Subprotogeometric Pottery from Troia and Its Aegean Context." *Studia Troica* 8:151-87.
- Cevizoglu, H., and C. Tannirer. 2023. "Eski Smyrna Savunma Duvarları." *Höyük* 2023.11:73-88.
- Chistov, D.E., Y.I. Ilyina, A.A. Eremeeva, and O.E. Shcherbakova. 2020. *Materials of the Berezan (Lower Bug) Archaeological Expedition*. Vol. 3, *The Site of Berezan in the Studies of 2010-2014*. Archaeology at the Hermitage 1. Saint Petersburg: The State Hermitage Publishers (in Russian).

- Chistov, D.E., V.Y. Zuev, Y.I. Ilyina, A.K. Kasparov, and N.Y. Novoselova. 2012. *Materials of the Berezan (Lower Bug) Archaeological Expedition*. Vol. 2, *Survey on the Berezan Island in 2005-2009*. St. Petersburg: The State Hermitage (in Russian).
- Clinkenbeard, B.G. 1982. "Lesbian Wine and Storage Amphoras: A Progress Report on Identification." *Hesperia* 51.3:248-68.
- Clinkenbeard, B.G. 1986. "Lesbian and Thasian Wine Amphoras Questions Concerning Collaboration." In *Recherches Sur Les Amphores Grecques / Actes du Colloque International Organisé par le Centre National de la Recherche Scientifique, l'Université de Rennes II et l'École Française d'Athènes, Athènes, 10-12 Septembre 1984*, edited by J.Y. Empereur, and Y. Garlan, 353-62. BCH Suppl. 13. Paris: Diffusion de Bocard.
- Cook, J.M. 1958 / 59. "Old Smyrna 1948-51." *BSA* 53 / 54:1-34.
- Cook, R.M., and P. Dupont. 1998. *East Greek Pottery*. London / New York: Routledge.
- Čistov, D.E., and K. Domžalski. 2002. "Nymphaion - Results of Excavations in Sector N, 1994-1998." *ArcheologiaWar* 52.2001:97-136.
- Daux, G. 1966. "Chronique des Fouilles et Découvertes Archéologiques en Grèce en 1965." *BCH* 90.2:715-1019.
- Dimitriu, S. 1966. "Cartierul de Locuinte din Zona de Vest a Cetatii in Epoca Arhaica. Săpături 1955-1960." *Histria* 2, edited by Em. Condurachi, 19-131. Bucharest: Editura Academiei Republicii Socialiste România.
- Docter, R.F. 2000. "East Greek Fine Wares and Transport Amphorae of the 8th-5th Century BC from Carthage and Toscanos." In *Cerâmiques Jônies D'Época Arcaica: Centres de Producció i Comercialització al Mediterrani Occidental / Actes de la Taula Rodona celebrada a Empúries, els dies 26 al 28 maig de 1999*, edited by P.C. Bonet and M.S. Retolazza, 63-88. Monografies Emporitanes 11. Barcelona: Museu d'Arqueologia de Catalunya.
- Doğer, E. 1986. "Premières Remarques sur les Amphores de Clazomènes." In *Recherches Sur Les Amphores Grecques / Actes du Colloque International Organisé par le Centre National de la Recherche Scientifique, l'Université de Rennes II et l'École Française d'Athènes, Athènes, 10-12 Septembre 1984*, edited by J.Y. Empereur, and Y. Garlan, 461-71. BCH Suppl. 13. Paris: Diffusion de Bocard.
- Doğer, E. 1988. "Klazomenai Kazısındaki Arkaik Dönem Ticari Amphoraları." Ph.D. diss., Ege Üniversitesi.
- Dragendorf, H. 1903. *Thera: Untersuchungen, Vermessungen und Ausgrabungen in den Jahren 1895-1902*, edited by F.H. von Gaertringen. Berlin: Verlag von Georg Reimer.
- Dupont, P. 1982. "Amphores Commerciales Archaiques de la Grèce de L'est." *PP* 37:193-209.
- Dupont, P. 1983. "Classification et Détermination de Provenance des Céramiques Grecques Orientales Archaiques D'Istros. Rapport Préliminaire." *Dacia* 27.1-2:19-43.
- Dupont, P. 2007. "Diffusion des Amphores Commerciales de Type Milesian dans le Pont Archaique." In *Frühes Ionien eine Bestandsaufnahme / Panionion-Symposion Güzelçamlı, 26. September - 1. Oktober 1999*, edited by J. Cobet, V. von Greave, W.D. Niemeier, and K. Zimmermann, 621-30. Milesische Forschungen 5. Mainz: Verlag Philipp von Zabern.
- Dupont, P., and E. Skarlatidou. 2005. "Les Débuts de la Colonisation Grecque en Mer Noire: Éléments de Chronologie Amphorique." In *Pont-Euxin et Polis: Polis Hellenis et Polis Barbaron / Actes du Xe Symposium de Vani, 23-26 Septembre 2002 / Hommage à Otar Lordkipanidzé et Pierre Lévêque*, edited by D. Kacharava, M. Faudot, and E. Geny, 77-82. Besançon: Institut des Sciences et Techniques de L'Antiquité.
- Dupont, P., and V. Lungu. 2013. "Les Fouilles Anglo-Turques de L'ancienne Smyrne (1948-1951): Archives de John Cook sur les Amphores de Transport." In *PATABS 3, Production and Trade of Amphorae in the Black Sea, Actes de la Table Ronde Internationale de Constanta, 6-10 Octobre 2009*, edited by L. Buzoianu, P. Dupont, and V. Lungu, 213-49. Constanța: Muzeul de Istorie Nationale si Arheologie.

- Eilmann, R., and K. Gebauer. 1938. *CVA Deutschland 2* / Berlin 1. Munich: C.H. Beck'sciie Verlagbuchhandlung.
- Erdem, A.Ü., and C. Tanniver. 2016. "2015 Yılı Bayraklı Höyük Kazıları: Tunç Çağı Çalışmalarına Dair Ön Rapor." *Ege Üniversitesi Arkeoloji Dergisi* 21:1-9.
- Ersoy, Y.E. 1993. "Clazomenae: The Archaic Settlement." Ph.D. diss., Bryn Mawr College.
- Ersoy, Y.E. 2004. "Klazomenai: 900-500 BC. History and Settlement Evidence." In *Klazomenai, Teos and Abdera: Metropoleis and Colony: Proceedings of the International Symposium held at the Archaeological Museum of Abdera, 20-21 October 2001*, edited by A. Moustaka, E.M. Skarlatidou, C. Tzannes, and Y. Ersoy, 43-76. Thessaloniki: University Studio Press.
- Fantalkin, A. 2001. "Mezad Hashavyahu: Its Material Culture and Historical Background." *TelAviv* 28.1:3-165.
- Fantalkin, A., and O. Tal. 2010. "Reassessing the Date of the Beginning of the Grey Series Transport Amphorae from Lesbos." *BABesch* 85:1-12.
- Filis, K. 2013. "Transport Amphorae from Akanthos." In *PATABS 3, Production and Trade of Amphorae in the Black Sea, Actes de la Table Ronde Internationale de Constanta, 6-10 Octobre 2009*, edited by L. Buzoianu, P. Dupont, and V. Lungu, 67-88. Constanta: Muzeul de Istorie Nationale si Arheologie.
- Finkielsztejn, G. 2002. "Les Amphores Hellénistiques de Crète et les Questions des Imitations d'Amphores et des Timbres Amphoriques à Types Monétaires." In *Oimos Palaios Edypotos, 24-26 April 1998*, edited by A.K. Mylopotamitake, 137-45. Herakleion: Ministry of Culture Archaeological Institute of Crete.
- Foça, S. 2021. "Eski Smyrna Nekropolisleri ve Ölü Gömme Uygulamaları Üzerine Genel Bir Değerlendirme." *Ege Üniversitesi Arkeoloji Dergisi* 26:95-120.
- Fragkopoulou, F. 2019. "The SOS Amphorae from Phaleron Revisited." In *Τῶ διδασκάλῳ Τιμητικὸς τόμος για τον καθηγητὴ Ιωάννη Ακαμάτη*, edited by N. Akamatis, A. Bouvoulis, A. Laftsidis, and N. Poulakakis, 367-74. Thessaloniki: Επιτροπή Έκδοσης.
- Gimatzidis, S. 2010. *Die Stadt Sindos: Eine Siedlung von der Späten Bronze-bis zur Klassischen Zeit am Thermaischen Golf in Makedonien*. Prähistorische Archäologie in Südosteuropa 26. Rahden: Westphalia.
- Gjerstadt, E. 1977. "Pottery from Various Parts of Cyprus." In *Geometric and Archaic Pottery found in Cyprus*, edited by E. Gjerstad, 23-60. Skrifter Utgivna av Svenska Institutet i Athen. 4.26. Stockholm: Paul Åströms Förlag.
- Grace, V.R. 1971. "Samian Amphoras." *Hesperia* 40.1:52-95.
- Güngör, Ü. 1994. "Klazomenai Karantina Adası Sondajı Tabakalanması." Bachelor thesis, Ege University.
- Hind, J.G.F. 1983 / 84. "Greek and Barbarian Peoples on the Shores of the Black Sea." *AR* 30:71-97.
- Hürmüzlü, B. 2003. "Klazomenai Akpınar Nekropolisi." Ph.D. diss., Ege University.
- Irimia, M. 2006. "Noi Descoperiri Getice Şi Greceşti Din Dobrogea Şi Din Stânga Dunării." *Pontica* 39:123-68.
- Jacopi, G. 1929. *Scavi Nella Necropoli di Jalisso 1924-1928*. ClRh. Vol. 3. Rodi: Istituto Storico-Archeologico.
- Jacopi, G. 1931. *Scavi Nelle Necropoli Camiresi 1929-1930*. ClRh. Vol. 4. Rodi: Istituto Storico-Archeologico.
- Jeffery, L.H. 1964. "Old Smyrna: Inscriptions on Sherds and Small Objects." *BSA* 59:39-49.
- Johnston, A.W. 1990. "Aegina, Aphaia-Tempel XIII. The Storage Amphorae." *AA* 1990:37-64.
- Johnston, A. 1993. "Pottery from Archaic Building Q at Kommos." *Hesperia* 62.3:339-82.
- Johnston, A.W. 2005. "Kommos: Further Iron Age Pottery." *Hesperia* 74.3:309-93.
- Johnston, A., and R.E. Jones. 1978. "The 'SOS' Amphora." *BSA* 73:103-41.

- Kakhidze, A., and M. Khalvashi. 2010. "Chian Amphorae at Pichvnari." In *PATABS 1, Production and Trade of Amphorae in the Black Sea / Actes de la Table Ronde Internationale de Batoumi et Trabzon, 27-29 Avril 2006*, edited by D. Kassab-Tezgör, and N. Inaishvili, 135-37. *Varia Anatolica* 21. Paris: De Boccard.
- Karadima, X., and M. Koutsoumanis. 1995. "Αρχαιολογικές εργασίες Σαμοθράκης 1992." In *To Αρχαιολογικό Έργο στη Μακεδονία Και Θράκη 6.1992*, 677-83. Thessaloniki: Υπουργείο Πολιτισμού ΤΑΠ.
- Karageorghis, V. 1960. "Chronique des Fouilles et Découvertes Archéologiques à Chypre en 1959." *BCH* 84.1:242-99.
- Karageorghis, V. 1969. "Chronique des Fouilles et Découvertes Archéologiques à Chypre en 1968." *BCH* 93.2:431-569.
- Karageorghis, V. 1970. *Excavations in Necropolis of Salamis, 2. Salamis 4*. Nicosia: Department of Antiquities.
- Karageorghis, V. 1977. "Pottery from Kition." In *Greek Geometric and Archaic Pottery found in Cyprus*, edited by E. Gjerstad, 61-64. *Skrifter Utgivna av Svenska Institutet i Athen*. 4.26. Stockholm: Paul Åströms Förlag.
- Kerschner, M., and H. Mommsen. 2005. "Transportamphoren Milesischen Typs in Ephesos Archäometrische und Archäologische Untersuchungen zum Handel im Archaischen Ionien." In *Synergia Festschrift für Friedrich Krinzing* 1, edited by B. Brandt, V. Gassner, and S. Ladstätter, 119-30. Vienna: Phoibos Verlag.
- Kırkanlı, E. 2021. "1977-1988 Erythrai Kazıları Ticari Amphora Buluntuları." Master's thesis, Ankara Üniversitesi.
- Knigge, U. 1976. *Der Südbügel*. *Kerameikos* 9. Berlin: Walter de Gruyter.
- Lambrino, M.F. 1938. *Les Vases Archaiques d'Histria*. Bucharest: Fundatia Regele Carol I.
- Lawall, M.L. 1995. "Transport Amphoras and Trademarks: Imports to Athens and Economic Diversity in the Fifth Century B.C." Ph.D. diss., University of Michigan.
- Leipunskaja, N.A. 1981. *Ceramic Containers from Olbia: From the Experience of Studying. Amphorae of the VI-IV Centuries BC*. Kiev: Scientific thought (in Russian).
- Lomtadze, G.A. 2005. "Protothasian Amphorae in the Collection of the State Historical Museum." *Bosporos Studies* 8:318-38 (in Russian).
- Lordkipanidze, O. 1968. "Colchis in the Early Antique Period and Her Relations with the Greek World." *Archeologia* 19:15-44.
- Mariaud, O. 2006. "Rituel Funéraire et Transformations Spatiales en Ionie Archaique: Le Cas des Tombes D'enfant à Smyrne." *RÉA* 108:173-202.
- Masson, A. 2007. "Amphore de Chios et Amphore à Anses de Panier Découvertes dans la maison VII du Quartier des Prêtres de Karnak". In *Amphores d'Égypte de La Basse Époque à L'époque Arabe*, edited by S. Marchand, and A. Marangou, 361-67. *Cahiers de la Ceramique Egyptienne* 8.1. Cairo: IFAO.
- Mattingly, H.B. 1981. "Coins and Amphorae-Chios, Samos and Thasos in the Fifth Century B.C." *JHS* 101:78-86.
- Metzger, H. 1972. *Les Céramiques Archaiques et Classiques de l'Acropole Lyciennes*. Fouilles de Xanthos 4. Paris: Librairie C. Klincksieck.
- Monachov, S.Ju. 1999a. *Greek Amphorae in the Black Sea Region: Complexes of Ceramic Containers from the 7th-2nd Centuries BC*. Saratov: Saratov University Press (in Russian).
- Monachov, S.Ju. 1999b. "Quelques Séries D'Amphores Grecques des VIIe-Ve S. Av. N. È. au Nord de la Mer Noire." In *Production et Commerce des Amphores Anciennes en Mer Noire / Colloque International Organisé à Istanbul, 25-28 Mai 1994*, edited by Y. Garlan, 163-94. Aix-en-Provence: Publications de l'Université de Provence.

- Monachov, S.Ju. 2003a. *Greek Amphorae in the Black Sea Region, Typology of Amphorae of the Leading Centers Exporting Goods in Ceramic Containers*. Moscow, Saratov: Saratov University Press (in Russian).
- Monachov, S.Ju. 2003b. "Amphorae from Unidentified Centres in the North Aegean." In *The Cauldron of Ariantas: Studies Presented to A.N. Ščeglov on the Occasion of his 70th Birthday*, edited by P. Guldager Bilde, J.M. Højte, and V.F. Stolba, 247-59. Aarhus: Aarhus University Press.
- Monachov, S.Ju. 2013. "Notes on Localization of Ceramic Ware. III. Amphorae of Erythrai (Asia Minor) and Their Stamps." *Journal of Ancient History* 286.3:28-51 (in Russian).
- Monachov, S.Ju., E.V. Kuznetsova, D.E. Chistov, and N.B. Churekova. 2019. *The Ancient Amphorae Collection of the State Hermitage Museum 6th-2th c. BC*. Saratov: Amirit (in Russian).
- Monachov, S.Ju., E.V. Kuznetsova, V.P. Tolstikov, and N.B. Churekova. 2020. *The Amphorae of the 6th-1st c. BC of the Pushkin State Museum of Fine Arts*. Saratov: Amirit (in Russian).
- Naso, A. 2005. "Funde aus Milet, 19. Anfore Commerciali Archaiche a Mileto: Rapport Preliminare." *AA* 2005.2:73-84.
- Özyigit, Ö. 1990. "1988 Yılı Erythrai Sondaj Çalışmaları." *KST* 11.1:125-50.
- Öztürk, K. 2005. "Smyrna Kent Sur Duvarı Önü Bezemesiz Gümü Kapları." Master's thesis, Dokuz Eylül University.
- Pesenti, M. 2015. "Amphores Grecques en Égypte Saïte: Histoire des Mobilités Méditerranéennes Archaïques." Ph.D. diss., Aix-Marseille University.
- Petrie, W.M.F. 1888. *Nebesheb (Am) and Defenneb (Tabpanbes)*. Tanis 2. London: Trübner.
- Pratt, C.E. 2014. "Critical Commodities: Tracing Greek Trade in Oil and Wine from the Late Bronze Age to the Archaic Period." Ph.D. diss., University of California.
- Pratt, C.E. 2015. "The 'SOS' Amphora: An Update." *BSA* 110:213-45.
- Rizzo, M.A. 1990. *Complissi Tombali dall'Etruria Meridionale*. Le Anfore da Trasporto e il Commercio Etrusco Arcaico 1. Studi di archeologia pubblicati dalla Soprintendenza Archeologica per l'Etruria Meridionale 3. Rome: De Luca.
- Roberts, S.R. 1986. "The Stoa Gutter Well: A Late Archaic Deposit in the Athenian Agora." *Hesperia* 55.1:1-74.
- Robertson, M. 1940. "The Excavations at Al Mina, Suedia: IV. The Early Greek Vases." *JHS* 60:2-21.
- Ruban, V.V. 1983. "The Yagorlyk Settlement Ceramics from the Kherson Museum Collection." *Soviet Archaeology* 1.1983:285-91 (in Russian).
- Ruban, V.V. 1990. "On the Chronology of Red Clay Amphorae with Conical Legs of the VII-V Centuries BC." *Brief Communications of the Institute of Archaeology* 197:12-19 (in Russian).
- Ruban, V.V. 1991. "An Attempt of Classification of so-called Milesian Amphorae from the Lower Bug Area." *Soviet Archaeology* 1991.2:182-95 (in Russian).
- Seifert, M. 2004. *Herkunftsbestimmung Archaischer Keramik am Beispiel von Amphoren aus Milet*. BAR-IS 1233. Oxford: John and Erica Hedges.
- Sezgin, Y. 1998. Klazomenai Akpınar Nekropolisi Ticari Amphoraları. Master's thesis, Ege University.
- Sezgin, Y. 2009. "Arkaik Dönem Doğu Yunan Ticari Amphora Sorunu." Ph.D. diss., Ege University.
- Sezgin, Y. 2012a. *Arkaik Dönem İonia Üretimi Ticari Amphoralar*. Istanbul: Ege Yayınları.
- Sezgin, Y. 2012b. "İzmir Arkeoloji Müzesi'ndeki Arkaik Dönem Ticari Amphoralar." In *İsmail Fazhoğlu Anı Kitabı*, edited by I. Şahin, 201-11. Ankara: Bizim Büro Basımevi.
- Sezgin, Y. 2017. "Arkaik Dönemde Teos'ta Ticari Amphora Üretimi: Sorunlar ve Gözlemler." *Anadolu* 43:15-39.

- Sezgin, Y., A.K. Şenol, and G. Cankardeş Şenol. 2022. *İzmir Arkeoloji Müzesi Ticari Amphoraları*. İstanbul: Ege Yayınları.
- Şenol, A.K. 2007. "Hellenistik Dönem'de Khios ve Lesbos Şarabının Mısır'a İhracatı." *Ege Üniversitesi Arkeoloji Dergisi* 9:103-28.
- Tanrıver, C., S. Akat Özenir, D.S. Akar Tanrıver, A.Ü. Erdem Otman, and A. Erdoğan. 2017. "Eski Smyrna (Bayraklı Örenyeri / Tepekule) Kazısı 2014-2015." *KST* 38.3:95-114.
- Tanrıver, C., B. Ertüzün, A.Ü. Erdem, and D.S. Akar Tanrıver. 2022. "Eski Smyrna (Bayraklı Ören Yeri) Kazısı 2019-2020." In *2019-2020 Yılı Kazı Çalışmaları 1*, edited by A. Özme, 495-512. Ankara: T.C. Kültür ve Turizm Bakanlığı, Kültür Varlıkları ve Müzeler Genel Müdürlüğü.
- Tanrıver, C., B. Ertüzün, A.Ü. Erdem, and D.S. Akar Tanrıver. 2023. "Eski Smyrna (Bayraklı Ören Yeri) Kazısı 2021 Yılı Çalışmaları." *KST* 42.2:53-68.
- Tsaravopoulos, A.N. 1986. "Η αρχαία πόλη της Χίου." *Hopos* 4:12444.
- Tuna, N. 1987. "İonia ve Datça Yarımadası Arkeolojik YüzeY Araştırmaları." *AST* 5.1:303-57.
- Tzochev, C. 2011. "Archaic Amphora Import Thracian Sites Around the Bay of Bourgas." In *PATABS 2, 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*, edited by C. Tzochev, T. Stoyanov, and A. Bozkova, 73-86. Sofia: Bulgarian Academy of Sciences, National Archaeological Institute with Museum, St. Kliment Ohridski University of Sofia.
- Voigtländer, W. 1982. "Funde aus der Insula Westlich des Buleuterion in Milet." *IstMitt* 32:30-173.
- Voigtländer, W. 1986. "Zur Archaischen Keramik in Milet." In *Milet 1899-1980 Ergebnisse, Probleme und Perspektiven einer Ausgrabung / Kolloquium Frankfurt am Main 1980*, edited by W. Müller-Wiener, 35-56. *IstMitt* 36. Tübingen: Verlag Ernst Wasmuth.
- Weinberg, S.S. 1948. "A Cross-Section of Corinthian Antiquities (Excavations of 1940)." *Hesperia* 17.3:197-241.
- Whitbread, I.K. 1995. *Greek Transport Amphorae a Petrological and Archaeological Study*. Fitch Laboratory Occasional Paper 4. Athens / London: British School of Archaeology.
- Williams, C.K., and J.E. Fisher. 1976. "Corinth, 1975: Forum Southwest." *Hesperia* 45.2:99-162.
- Yaldir, A.K. 2009. "İ.Ö. Yedinci ve Altıncı Yüzyıllarda Daskyleion'un Ticari İlişkileri." Ph.D. diss., Ege University.
- Zavoykin, A.A. 2018. "Amphora Finds from the Earliest Layer in Phanagoria." *Brief Communications of the Institute of Archaeology* 252:138-52 (in Russian).
- Zeest, I.B. 1960. *Ceramic Containers of Bosphorus. Materials and Research on the Archaeology of the USSR*. 83. Moscow: Publishing House of the USSR Academy of Sciences (in Russian).



FIG. 1 Map of Sites in the Aegean.



FIG. 2 Amphorae 1-13.

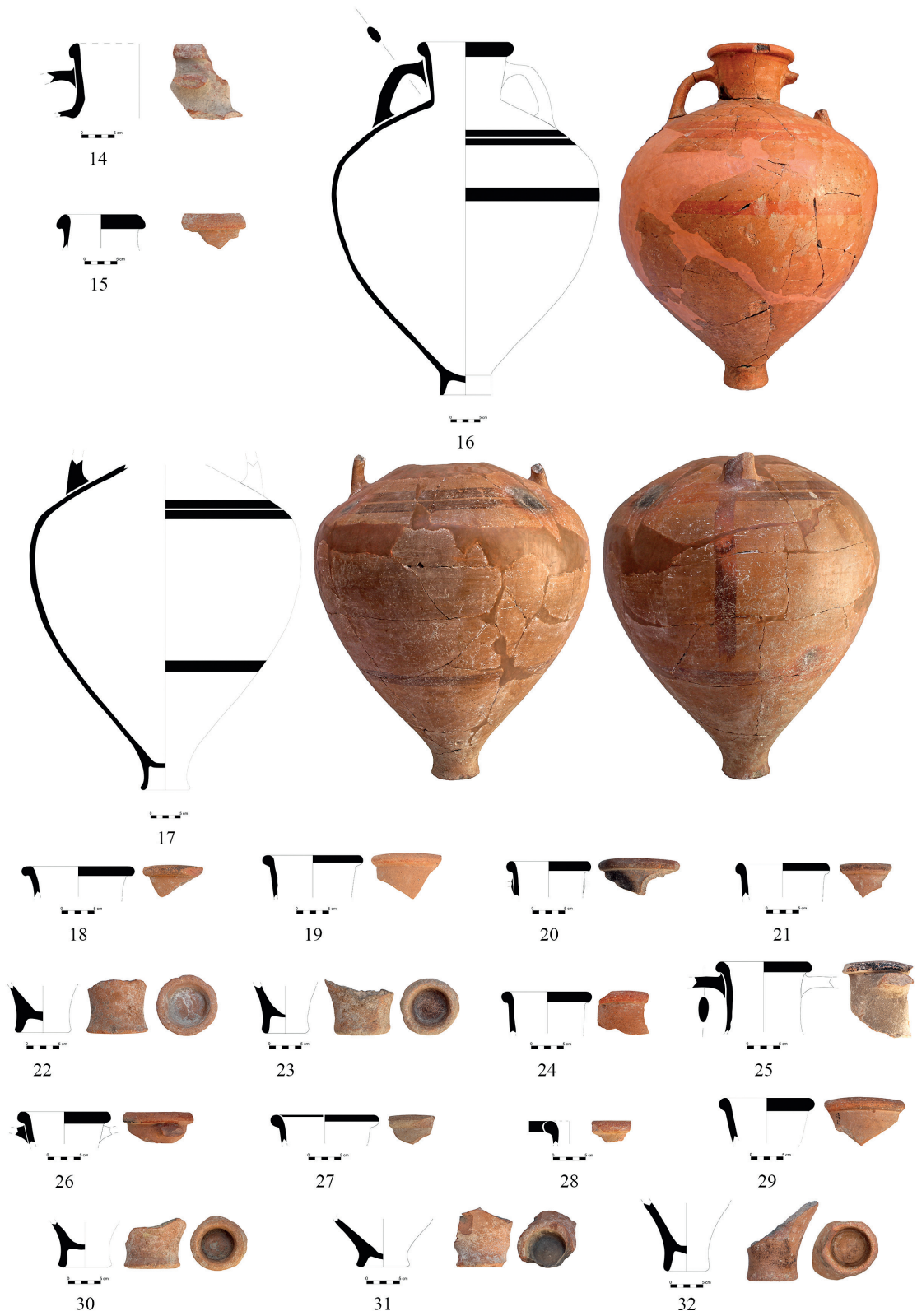


FIG. 3 Amphorae 14-32.



FIG. 4 Amphorae 33-39.

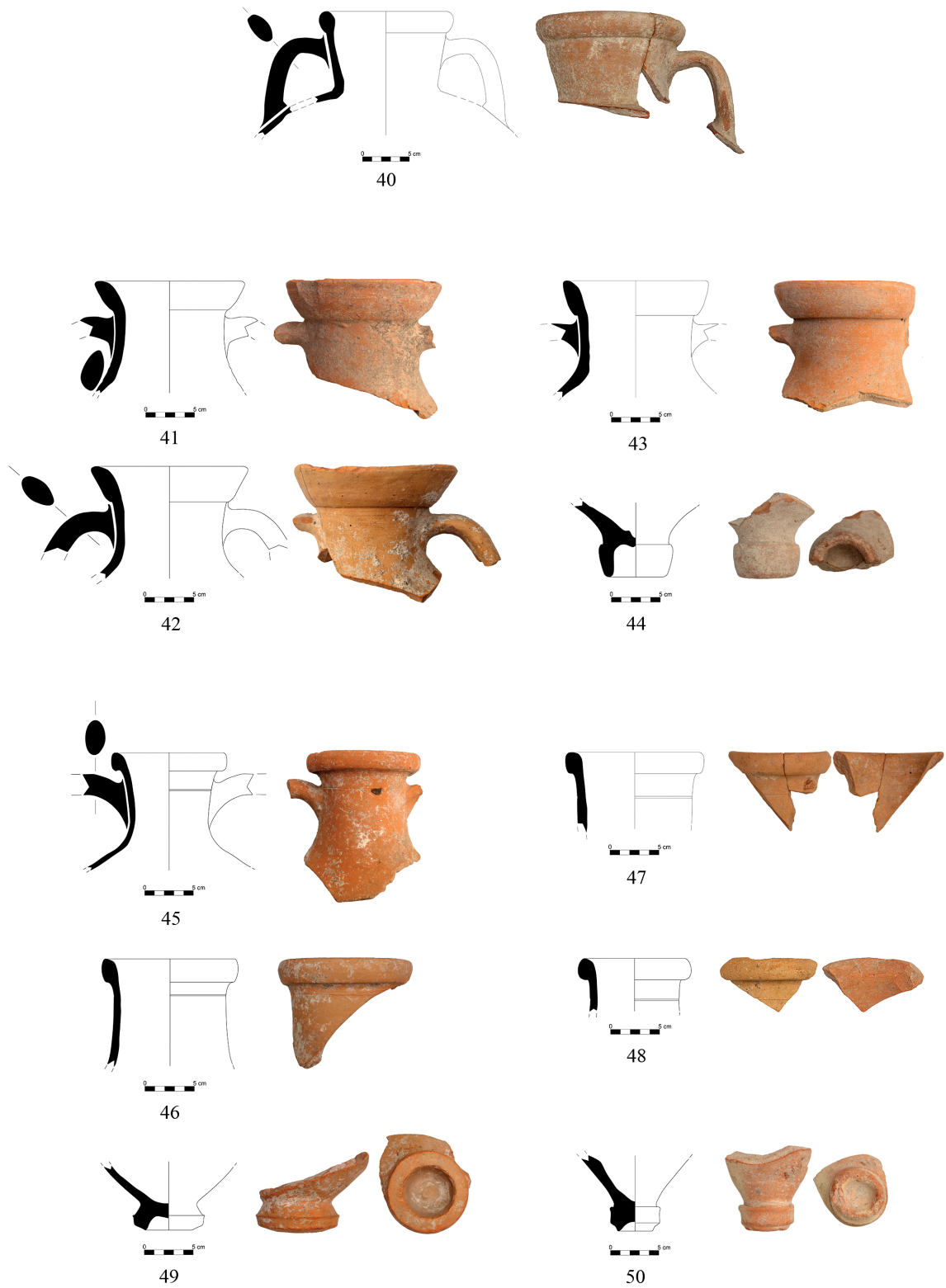


FIG. 5 Amphorae 40-50.

