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KILIKIA ARKEOLOJİSİNİ ARAŞTIRMA MERKEZİ
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Kapsam

Olba süreli yayını Mayıs ayında olmak üzere yılda bir kez basılır. Yayınlanması istenilen makalelerin en geç her yıl Kasım ayında gönderilmiş olması gerekmektedir. 1998 yılından bu yana basılan Olba; Küçükasya, Akdeniz bölgesi ve Ortadoğu’ya ilişkin orijinal sonuçlar içeren Antropoloji, Prehistorya, Protohistorya, Klasik Arkeoloji, Klasik Filoloji (ve Eskiçağ Dilleri ve Kültürleri), Eskiçağ Tarihi, Nüvizmatik ve Erken Hıristiyanlık Arkeolojisi alanlarında yazılmış makaleleri kapsamaktadır.

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soyadları arasında boşluk bırakmaksızın kısa tire kullanılmalıdır (Dentzer-Feydy); bir makale birden fazla yazarlı ise her yazardan sonra bir boşluk, ardından uzun tire ve yine boşluktan sonra diğer yazarın soyadı gelmelidir (Hagel – Tomaschitz).

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Dipnot (kitaplar için)

Richter 1977, 162, res. 217.

Dipnot (Makaleler için)

Oppenheim 1973, 9, lev.1.

Diğer Kısaltmalar

age.	adı geçen eser
ay.	aynı yazar
vd.	ve devamı
yak.	yaklaşık
v.d.	ve diğerleri
y.dn.	yukarı dipnot
dn.	dipnot
a.dn.	aşağı dipnot
bk.	Bakınız

4. Tüm resim, çizim ve haritalar için sadece “fig.” kısaltması kullanılmalı ve figürlerin numaralandırılmasında süreklilik olmalıdır. (Levha, Resim, Çizim, Şekil, Harita ya da bir başka ifade veya kısaltma kesinlikle kullanılmamalıdır).

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Scope

Olba is printed once a year in May. Deadline for sending papers is November of each year.

The Journal ‘Olba’, being published since 1998 by the ‘Research Center of Cilician Archeology’ of the Mersin University (Turkey), includes original studies done on antropology, prehistory, protohistory, classical archaeology, classical philology (and ancient languages and cultures), ancient history, numismatics and early christian archeology of Asia Minor, the Mediterranean region and the Near East.

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Footnotes (for books):

Richter 1977, 162, fig. 217.

Footnotes (for articles):

Oppenheim 1973, 9, pl.1.

Miscellaneous Abbreviations:

op. cit.	in the work already cited
idem	an author that has just been mentioned
ff	following pages
et al.	and others
n.	footnote
see	see
infra	see below
supra	see above

4. For all photographies, drawings and maps only the abbreviation ‘fig.’ should be used

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LATE ROMAN POTTERY FROM A BUILDING IN KLAZOMENAI

Mehmet GÜRBÜZER*

ÖZ

Klazomenai'da Bir Yapıdan Ele Geçen Geç Roma Seramikleri

Çalışmanın konusunu, Klazomenai HBT sektöründe 1990 ile 2001 yılları arasında gerçekleştirilen kazılarda ortaya çıkarılan Geç Roma dönemine ait muhtemelen bir çiftlik yapısı ve buradan ele geçen seramikler oluşturmaktadır. Büyük oranda tahrip olan yapının planı tam olarak belirgin değildir. Çiftlik yapısından günümüze ancak yedi mekan ulaşabilmiştir ve bunlardan işlevi tespit edilebilenler sıralanacak olursa kuzey ve güneyde iki avlu, doğuda bir triclinium (yemek odası), kuzeydoğuda bir depodur. Kuzeydeki taş döşemeli avlu yapının ana avlusunu oluşturmakta, güneydeki avlunun merkezinde bir sarnıç yer almaktadır. MS 5. yüzyılın başında inşa edilen yapının yaklaşık iki yüz elli yıla yakın bir süre kullanım gördükten sonra MS 630/40'taki Arap istilası ile terkedildiği anlaşılmaktadır. Çiftlik yapısından ele geçen seramikler üç ana grupta toplanmaktadır. Afrika Kırmızı Astarlı seramikler (ARS) ve Geç Roma C (LRC) seramiklerini kapsayan ince mallar yapıdaki en yoğun buluntu grubunu oluşturmaktadır. MS 400 dolayları ile birlikte Klazomenai'de görülmeye başlayan ARS seramikleri kent piyasasında yaklaşık elli yıl varlık göstermiş ve yüzyılın ortaları ile birlikte yerini LRC seramiklerine bırakmıştır. Klazomenai'de sınırlı sayıda temsil edilen ARS repertuarı içerisinde; Hayes Form 45/46, Hayes Form 59B, Hayes Form 61B, Hayes Form 61C ve Hayes Form 66 sayılabilir. Klazomenai'de ince malların neredeyse tamamına yakınına oluşturan LRC'ler, Hayes Form 4 ve Hayes Form 8 haricinde tüm örnekleri ile kentte izlenebilmektedir. Söz konusu formlardan kentte en baskın ve en popüler olan Form 3 ise tüm varyasyonları ile tespit edilmiştir. İkinci gruptaki amphoralar arasında LR 1A, LR 1B, LR 2, Keay 57 ve M 273 olmak üzere beş farklı tip görülmektedir. Bunlar içerisinde LR 1A'nın diğer örneklerden daha yoğun ele geçtiği, buna karşın diğer dört tipin aynı orana sahip olduğu söylenebilir. Yapıda ele geçen son seramik grubu ise pişirme kaplarını, maşrapaları ve leğenleri içermektedir. Yayında ilk olarak, yapıda ele geçen seramikler işlevlerine ve üretim yerlerine göre sınıflandırılmasından sonra bu

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I would like to thank Prof. Yaşar Ersoy, director of Klazomenai Excavations, for encouraging me to publish Late Roman Pottery from Klazomenai. My special thanks to also Dr. Ümit Güngör for information and showing me photos of Roman pottery which were found in Karantina Island. I am thankful to Prof. Kaan Şenol and Assoc. Prof. Murat Fırat for the useful discussion and suggestions.

ana sınıflama içerisinde de seramiklerin form ve tipolojilerine dayalı alt sınıflamalar oluşturulmuştur. Yapının türü ve işlevi belirlenerek, eldeki diğer bulgular ile birlikte Geç Roma döneminde Klazomenai'nin yerleşim modeli hakkında fikir sahibi olmak amaçlanmaktadır. Klazomenai'nin Roma öncesi erken dönemleri son derece iyi çalışılmasına ve bu dönemlere ilişkin tatmin edici bilgilere sahip olunmasına karşın, kentnin Geç Roma dönemine ait veriler oldukça sınırlıdır. Bu çalışma, Klazomenai'nin Geç Roma dönemine bir ilk adım niteliği taşımaktadır.

Anahtar Kelimeler: Afrika Kırmızı Astarlı, Geç Roma C, amphora, mutfak kapları, çiftlik yapısı.

ABSTRACT

In this paper, the Late Roman pottery found in a farmstead in Sector HBT of the Klazomenai excavations between 1990 and 2001 is examined. The main plan of the farmstead is not completely preserved. Only seven units of the building remained and the units of which the functions could be determined follow as two courtyards in the north and south, a triclinium (dining room) in the east, and a storeroom in the northeast. The northern courtyard with a stone pavement is the main one, while the southern with a cistern in the center should be the secondary courtyard. The farmstead was built in the beginning of the 5th century and then approximately two hundred years later, abandoned in consequence of Arab conquests in 630/640 AD. The Late Roman pottery found in the building is divided into three main groups. The first group consists of African Red Slip (ARS) wares and Late Roman C (LRC) wares which constitute the majority of the finds from the building. The ARS wares started to be seen in Klazomenai at around 400 AD and disappeared in the middle of the same century. The LRC wares then took the place of the ARS wares in the same period and dominated the market in the city until the early 7th century AD. There are four different forms such as Hayes Form 45/46, Hayes Form 59B, Hayes Form 61B, Hayes Form 61C and Hayes Form 66 within the ARS wares in small quantities at Klazomenai. Constituting the majority of the fine wares in Klazomenai, LRC wares are represented by eight forms. The most popular form among the LRC wares in Klazomenai is Hayes Form 3, of which all subtypes are found. Among the amphorae, the second group, five different types have been identified such as LR 1A, LR 1B, Keay 57 and M 273. LR 1A is the most common type of amphora in Klazomenai. The last group, are kitchen wares including cooking pots, mugs, and basins. In this study, the pottery will be first classified by their functions and production places. Then the subgroups within this main classification, which is defined according to the shapes and typology of the pottery, will follow. After the classification, the paper will try to understand the function and the type of this Late Roman building. Considering the other archaeological material dated to the Late Roman period, the settlement patterns of the Late Roman period at Klazomenai will be studied. Although the research on the pre-Roman periods of Klazomenai provided information about the history of the city late antique period studies are limited. Therefore, this study accounts as a preliminary research upon understanding Late Antique period of Klazomenai.

Keywords: African Red Slip (ARS), Late Roman C (LRC), amphora, kitchen wares, farmstead.

One of the Ionian *dodecapolis*¹, Klazomenai is today located in the İskele District of Urla in the Province of İzmir. The excavations conducted in the sectors HBT, FGT, MGT, and in Karantina Island since 1979 research the settlement patterns of the city (fig. 1). These excavations showed that Klazomenai was continuously settled from the Early Bronze to the end of the Iron Age². The settlement in the mainland was abandoned after the Persian invasion in 547/6 BC for three decades and moved to the Karantina Island nearby³. Returning to the mainland in the last quarter of the 6th century BC, the people of Klazomenai abandoned the site again because of the Persian threat in the region after the Ionian Revolt in 499 BC and inhabited in and around Karantina Island for approximately a century⁴. The city witnessed the struggle between the democrats and oligarchs during the 5th century BC. After Spartan Admiral Lysander defeated Athens in 404 BC, the oligarchs supporting the Spartans moved to the mainland and founded a new settlement named Khyton (Sector FGT)⁵. Organized in the Hippodomic plan, this settlement was abandoned in the middle of the 4th century BC and the occupation continued in the island during the Hellenistic period⁶. The island was uninterruptedly settled from the Hellenistic period through the Roman period and abandoned at the end of the 3rd century AD⁷. After a gap for almost a century in the settlement history, a new settlement emerged in Sector HBT of Klazomenai at the beginning of the 5th century AD. This Late Antique settlement lasted ca. 150 years and there is no sign of an occupation in the sector after this date onwards until the modern time.

The excavations of Sector HBT conducted since 1990 revealed that this part of the settlement was the western extension of the main settlement of the city and it was occupied from the Early Bronze Age to the 7th century AD⁸. The traces of the above mentioned historical events that affected the city were also observed in this sector. The Greek colonization of the sector started in the Early Iron Age and continued until the end of the Archaic Period. The sector remained unoccupied for almost a century after

1 Hdt. 1. 142.

2 Ersoy 2004, 43-76; Ersoy 2007, 149-178.

3 Ersoy 2004, 55-56.

4 Hdt. 5. 123; Paus. 7. 3. 9. Hasdağlı 2015, 223.

5 Thuk. 8, 14, 23. For more details on this subject, see Tanrıver 1989, 31-60; Özbay 2004, 133. 134; Özbay 2006 25-32; Ayaçlar 2008, 147-151; Hasdağlı 2010, 262-267.

6 For the Classical period of Klazomenai, see Tanrıver 1989; Güngör 2004, 121-132; Özbay 2004, 133-161; Özbay 2006; Ersoy 2004, 64-67; Hasdağlı 2010; Hasdağlı 2015, 223-236.

7 The studies conducted in the Karantina Island by Dr. Ü. Güngör showed that the occupation in the island ended in the 3rd century AD. The latest evidence found in the excavations of the Karantina Island until today is the Eastern Sigillata C (ESC) including Form 2 and Form 3 dating to the 2. and the 3. centuries AD. In particular, many ESC wares were found on a floor of a Roman building. Dr. Güngör gave me the opportunity to see the pictures of these materials (Personal Communication).

8 For Sector HBT, see Bakır – Ersoy 1999, 67-76; Bakır et al. 2000, 47-56; Bakır et al. 2001, 27-38; Bakır et al. 2002, 41-54; Bakır et al. 2006, 363-372; Bakır et al. 2007, 185-202; Bakır et al. 2008, 313-332; Ersoy et al. 2009, 233-254; Ersoy et al. 2010, 185-204; Ersoy et al. 2011a, 169-182; Ersoy et al. 2013, 191-210; Ersoy et al. 2016, 517-540.

the Ionian Revolt⁹. The re-established settlement on the mainland at the end of the 5th century BC was extended westwards to Sector HBT and abandoned in the middle of the 4th century BC¹⁰. Unsettled until the Late Roman Period, Sector HBT was inhabited again in the 5th century AD. The both Archaic and Classical strata in the sector were destroyed by the construction activities during the Late Roman Period¹¹.

The walls belonging to a large building were exposed in the excavations of Sector HBT between 1990 and 2001. Because the walls were damaged badly, the plan of the building could not be understood clearly. Nevertheless, considering the layout of the walls, this building was apparently oriented in the north-south direction. Approximately one hundred twenty of pottery were discovered in this building.

1. Pottery

The Late Roman pottery found abundantly in the above-mentioned building are divided into three main groups (fig. 2). While the first group, fine wares, constitute the majority of the finds from the building, other two groups comprise of the amphorae and kitchen wares. The fine wares belong to the most famous and widespread workshops in Africa and Phokaia¹². The amphorae have four different forms. Casseroles, basins, and mugs are the pottery shapes within the kitchen wares.

Considering the distribution of the pottery, the fine wares constitute 82 % of the pottery (fig. 2). The second largest group is the kitchen wares having 12% of the pottery. The rest of them (6%) are the amphorae. Compared to pottery of the centers in Mainland Greece, the high ratio of the fine wares in the Late Roman pottery of Klazomenai is quite remarkable¹³. The evidence of pottery disappears in the second half of the 3rd century AD from Klazomenai and appear again at beginning of the 5th century AD (fig. 3).

1.1. Fine Wares

The fine wares have two different subgroups as ARS (African Red Slip) and LRC (Late Roman C)¹⁴. The ARS, the earliest wares in this group, are represented with a few fragments. The LRC, on the other hand, consist approximately 91 % of the fine wares (fig. 4). The similar quantities in the distributions are observed in the other centers¹⁵. While the ARS wares have some forms, nearly all forms of LRC wares were

9 Ersoy 2004, 66. 67; Bakır et al. 2007, 186.

10 For the Sector HBT in the 4th century BC, see Sezgin 2002; Bakır et al. 2007, 186-193; Hasdağlı 2010; Hasdağlı 2015, 225-230.

11 Bakır et al. 2000, 50. 54, res. 3-4; Bakır et al. 2001, 33; Koparal – İplikçi 2004, 222, fig. 2; Ersoy et al. 2009, 242.

12 Waagé 1933, 298-304; Hayes 1972, 13-370; Hayes 2008, 67-88.

13 Pettegrew 2007, 758, table. 6; 774, table 12.

14 See n. 12.

15 Rautman 2000, 319, fig. 1, fig. 2; 323, fig. 3; Pettegrew 2007, 777, table 13; Pettegrew 2010, 220, table 2.

found in Klazomenai. The ARS started to be seen in small quantities at the beginning of the 5th century AD and disappeared in the middle of the same century from the Klazomenian market. The LRC wares then took the place of the ARS wares in the same period and dominated the market in the city until the early 7th century AD.

1.1.1. African Red Slip Wares

The ARS wares of Klazomenai that appear in small quantities consist of rim and base fragments belonging to the plates with flat bases. Apart from No. 7, none of the fragments have full profiles. The ARS wares have a light red (2,5YR 5/8) refined clay with shiny reddish orange (10R 5/8; 10R 6/8) thick slip and not include mica. Thus, all of these wares reflect the general characteristics of the ARS wares¹⁶.

There are four different forms within the ARS wares of Klazomenai (fig. 5. 13). No. 1 with a shallow triangular foot at the edge marked off by a slight inset, the three-row circle of hexagonal rouletting around the central floor, resembles Hayes Form 45/46 which is dated to 4th century AD¹⁷. No. 2 in Hayes Form 59B a flat based dish with broad flat rim, is dated to 400-420 AD by the similar specimens in many different deposits¹⁸. However, a date, in the second half of the 4th century AD is suggested by the coins for the similar types in Tripolis¹⁹. The Athenian examples are from the second quarter of the 4th century to the early 5th century AD²⁰. The four examples (Nos. 3-6) in Hayes Form 61 comprise two variants of this form. Of these, Nos. 3-5, the unstamped pieces of Hayes Form 61B vertical and incurved rim, tending to overhang on the outside, correspond to Bonifay's Sigillée Type 38 Variante B2²¹. While the form generally appeared throughout the first half of 5th century AD²², the securely dated examples are from the second quarter of the 5th century AD²³. No. 6, the single fragment of Hayes Form 61C (Bonifay Sigillée Type 39), belongs to the middle of the

16 Hayes 1972, 16. 289; Hayes 2008, 68.

17 Hayes 1972, 64, fig. 11.

18 op. cit. 98, fig. 15, form 59; Atlante I, tav. 33, nos. 1-4; Hayes 1983, 121, fig. 4, No. 52; Berndt 2003, taf. 3, TS 022; Pickersgill – Roberts 2003; 572, fig. 11, no. 69; Zelle 2003, 101, abb. 11, Hayes Form 59B, no. 1; Hayes 2008, fig. 33, nos. 1054-1056; Smokotina 2014, 74, fig. 3, nos. 2-5; Smokotina 2015, 326, fig. 5, nos. 6. 7; Duman 2016, 703, fig. 5, nos. 8-10. This form corresponds Sigillée Type 36 of Bonifay (Bonifay 2004, 167. 172, fig. 92).

19 Duman 2016, 702.

20 Hayes 2008, fig. 33, nos. 1054-1056.

21 Bonifay 2004, 168, fig. 90, nos. 20. 23. 24. For the typology, see Bonifay 2004, 167-170.

22 Hayes 1972, 107.

23 op. cit. 102, fig. 16; 104, fig. 17; Atlante I, tav. 34, nos. 1-9; tav. 35, nos. 1-6; Bonifay – Pelletier 1983, 307, Fig. 16; Berndt 2003, taf. 3, TS 024; Pickersgill – Roberts 2003; 572, fig. 11, no. 71; Hayes 2008; fig. 33, nos. 1064-1070; Johnson 2008, 46, no. 146; Bonifay 2010, 60, nos. 30. 31; Bonifay et al. 2010, 152, fig. 4, no. 25; 154, fig. 6, no. 43; Bonifay 2011, 16, fig. 1, nos. 1. 2; Marty 2011, 157, fig. 2, nos. 2. 3; Pellegrino 2011a, 178, fig. 4, nos. 8. 9; Mackensen 2015, 174, abb. 3, nos. 2. 3; 175, abb. 4, nos. 1-5; Zagermann 2015, 627, abb. 8, nos. 1. 2; Duman 2016, 704, fig. 6, nos. 11. 12.

5th century AD²⁴. Composed of a rim fragment and a large body fragment, No. 7 has almost a full profile and only the little part between its rim and body is missing. On account of the similarity in the profile of the rim and its lip with grooved upper part, No. 7 must be included in Hayes Form 66 that is dated to the beginning of the 5th century AD²⁵. However, its rim profile also shows similarities with Hayes Form 67 (Bonifay Sigillée Type 41) which is dated between the late 4th and early 5th centuries AD, and in particular with Hayes Form 68²⁶. On its wide flat body, palm branches with which two or three short vertical ribs on each side at bottom in Style B and concentric circles in Style A are used as an outer band²⁷. While the palm branches are the typical type of Style B which is dated second half of fourth century AD, concentric circles in Style A (ii) are from the 350-420 AD²⁸. Ventimiglia bowl, the similar example of Hayes Form 67, is dated to early fifth century AD²⁹. The potsherds of Hayes Form 67 in Tripolis are dated to second half of the 4th century AD³⁰. Evidence shows that ARS wares in Klazomenai range from the early to middle of the 5th century AD.

The ARS wares constitute the majority of the fines wares from Klazomenai that date to the first half of the 5th century AD. In addition to the ARS wares, the existence of the North African wares is an important indication of the purchasing power of the city. The trade between North Africa and the cities in Asia Minor such as Klazomenai, Troia, Assos and Ephesos was not only based on the pottery but also could have included the cereals as well³¹. It is known that Klazomenai was incapable of producing cereals in the Classical Period and thus, it imported them³². Using reapers and water-mills widely, North Africa showed great technological advancements in agricultural economics in the 4th century AD and became an important cereal production center

24 Bonifay 2004, 169, fig. 91, nos. 38, 46-48.

25 Hayes 1972, 110, fig. 18; Hayes 2008, fig. 33, no. 1080; Bourgeois 2011, 233, fig. 1, no. 15.

26 For the Form 67, see Hayes 1972, 114, fig. 19; Bailey 1998, pl. 2, A 24; Bonifay – Pelletier 1983, 316, fig. 24, no. 68; Berndt 2003, f. 3, TS 026–030; Pickersgill – Roberts 2003, 572, fig. 11, no. 72; Hayes 2008, fig. 34, nos. 1081-1085; Health – Tekkök 2006-2009, nos. 11, 12; Calvo 2011, 136, fig. 2, nos. 2, 7; Duperron – Verdin 2011, 171, fig. 5, no. 42; Pellegrino 2011a, 178, fig. 4, nos. 4-7; Quercia et al. 2011, 67, fig. 2, no. 6; Ballet et al. 2012, 91, fig. 1, no. 9. For the Form 68, see Hayes 1972, 118, fig. 20; Atlante I, tav. 55, nos. 3-6; Bonifay 2004, 52, fig. 23; 172, fig. 92; Hayes 2008, fig. 34, nos. 1091-1095; Health – Tekkök 2006-2009, no. 13; Bonifay 2011, 16, fig. 1, nos. 13-17; Paz – Vargas 2011, 89, no. 5; Pellegrino 2011b, 186, fig. 3, nos. 6, 7; Bonifay et al. 2013, 111, fig. 21, nos. 51, 52.

27 For the stamp type in Style B, see Hayes 1972, 219-223. For the palm branches in Type 9, see Hayes 1972, 232, fig. 39, Type 10, f-h. For the six concentric circles in Style A(ii), see Kübler 1931, Beilage 31-36; Hayes 1972, 234, fig. 40, Type 29, l; Bonifay 2004, 190, fig. 101, Style A(iii), 3-5; Duman 2016, 705, fig. 7, nos. 23, 24.

28 Hayes 1972, 231.

29 op. cit. 219.

30 Duman 2014, 17, fig. 5, no. 122; Duman 2016, 702, 704, fig. 6, nos. 13-16.

31 For Troia, see Tekkök-Biçken 1996; Health – Tekkök 2006-2009. For Assos, see Zelle 2003. For Ephesos, see Ladstätter – Sauer 2005.

32 An inscription dated to the middle of the 4th century BC records that Klazomenai imported cereals from Phokaia (Forsters 1920, ii.16. 1348b; Koparal 2014a, 66; Koparal 2014b, 138).

during the first half of the 5th century AD³³. Therefore, Klazomenai might have imported cereals along with the fine wares from North Africa, which was such a great economic power. North Africa lost this power in the 440s AD because of the Vandal invasions and could no longer export its goods³⁴. This economic collapse in North Africa was reflected on the distribution of the ARS wares that dominated the Mediterranean markets³⁵. From this date onwards, after the North African wares went out of the markets, new fine wares (LRC) emerged. These new wares, which originated in Phokaia and increased its fame during the 6th century AD, were distributed over the whole Mediterranean world. Favoured by its proximity to Phokaia, Klazomenai yielded these wares as well. The LRC is undoubtedly the most widespread wares in Klazomenai from the second half of the 5th century AD to the beginning of the 7th century AD.

1.1.2. Late Roman C Wares

Constituting the majority of the fine wares in Klazomenai, LRC wares are represented by many rim fragments of plates and some bases. The clay reflects the general characteristics of the LRC: The clay, whose color ranges between light red (2,5YR 6/6; 10R 6/8) to reddish brown (5YR 6/4), contains lime and mica. Eight forms were detected in Klazomenai among ten forms of the LRC (fig. 6. 13-15)³⁶.

No. 8 with a vertical rim that has an incurved lip is within Hayes Form 1A that is dated to the early 5th century AD³⁷. The dishes of Hayes Form 2A, with broad flaring rim and flattened on top (Nos. 9-11) are generally common between 425 and 450 AD³⁸, whereas the parallels at Athens go down as early as the first quarter of the century³⁹. No. 11 with longer and more curved rim shows differences from the other two examples⁴⁰. Although it is not clearly visible, No. 12 in Hayes Form 2 has a stamp of

33 CAH XIII, 283-286.

34 Fentress et al. 2004, 150; Elton 2005, 693; Reynolds 2016, 131. 132.

35 CAH XIV, 357, 358; Reynolds 2016, 129. 130.

36 For LRC forms, see Hayes 1972, 323-346.

37 op. cit. 325, fig. 65; Atlante I, tav. 111, nos. 1-5; Gassner 1997, taf. 44, nos. 534. 535; Arsen'eva – Domžalski 2002, 446, fig. 14, nos. 583-585; Berndt 2003, taf. 13, TS 143-152; Ladstätter – Sauer 2005, 187, taf. 1, nos. 1-5; Tekocak 2013, 167, fig. 6, no. 1; Fırat 2015, 184, fig. 1, 1A; Smokotina 2015, 327, fig. 6, no. 1; Bădescu – Iliescu 2016, 150, fig. 1, nos. 7-11; 151, fig. 2, nos. 3-10.

38 Hayes 1972, 328, fig. 66; Atlante I, tav. 111, nos. 7, 8; Anderson-Stojanovic 1992, pl. 46, no. 397; Gassner 1997, taf. 45, nos. 540. 541; Arsen'eva – Domžalski 2002, 448, fig. 16, nos. 605-607; Berndt 2003, taf. 14, TS 162. 163; Ladstätter – Sauer 2005, 187, taf. 1, nos. 14. 15; Yılmaz 2007, 126, abb. 2, no. 2; Health – Tekkök 2006-2009, nos. 10-14; Erol 2011, 402-406, K 245-257; Tekocak 2013, 167, fig. 6, No. 4. 5; Fırat 2015, 184, fig. 2, 2A.

39 Hayes 2008, fig. 37, no. 1237. 1238.

40 Hayes 1972, 328, fig. 66; Hayes 1983, 121, fig. 4, no. 53; Mayet – Picon 1986, 142, pl. 7, no. 47; Hayes 1992, 153, fig. 32, deposit 11, no. 4; Gassner 1997, taf. 45, no. 539; Arsen'eva – Domžalski 2002, 448, fig. 16, nos. 603. 604; Zelle 2003, 91, abb. 6; Ladstätter – Sauer 2005, 187, taf. 1, no. 16; Doğer 2007, 108, pl. II.

a hare⁴¹ or a stag⁴² on its tondo, which was the common motif of the 6th century AD. Moreover, a palm-branch decoration of Group I is represented on the tondo of No. 13 that is the last example of Hayes Form 2⁴³. No. 13 is dated to the first half of the 5th century AD with the parallels from the Athenian Agora⁴⁴, Ephesos⁴⁵ and Troia⁴⁶.

The most popular form among the LRC in Klazomenai is Hayes Form 3, of which are found all subtypes (fig. 7). No. 14 with tapering rim forming a carination is a unique example of Hayes Form 3A, which is the earliest type dated to c. 400 AD in this form⁴⁷. Another single piece, No. 15 with vertical rim, thickened on the outside to form a slight flange at the bottom, suggest a date 460-475 AD by other parallels⁴⁸. Nos. 16-18 of Hayes Form 3C, with a tall vertical thickened rim, but only of No. 17 one line rouletting on outside, are from the same date with No. 15⁴⁹. The most common type in Klazomenai is Hayes Form 3D. The lower part of a thick roll rims bulging outwards (Nos. 19-28) is a main feature of the type, with deeply impressed rouletting or stamped decoration with grooves on outside. Some of them have an offset at the junction with wall. Fragments Nos. 29 and 30 must be of low feet in Hayes Form 3D⁵⁰. A date in the late 5th – early 6th century AD is suggested for all pieces of Hayes Form 3D in Klazomenai⁵¹. Nos. 31-33 specimens of Hayes Form 3E which is a less-common subtype in Klazomenai, has underside of a concave rim with slight offset at the junction with wall, and must be dated to early 6th century AD⁵². Nos. 34-36 with

41 Hayes 1972, 354, fig. 74, no. 35 y; 356, fig. 75, no. 35 a-e; Mayet – Picon 1986, 136, pl. 1, no. 1; 137, pl. 2, no. 5; Gassner 1997, taf. 48, no. 587; Doğer 2007, 110, pl. IV.

42 Hayes 1972, 358, fig. 76, no. 41, a-d; no. 42, e-h; Erol 2011, 463, K 405; 464, K 406-407.

43 Hayes 1972, 350, fig. 72 b, j; Mayet – Picon 1986, 141, pl. 6, no. 38; Zelle 2003, 99, abb. 10, Stempel-motive no. 2.

44 Hayes 1972, 349.

45 Ladstätter – Sauer 2005, 194, taf. 8. 15, nos. 98. 99.

46 The example in Troia is ARS, see Health – Tekkök 2006-2009, no. 20.

47 Hayes 1983, 121, fig. 4, no. 54; Mayet – Picon 1986, 141, pl. 6, nos. 34. 35; Hayes 1992, 153, fig. 32, deposit 11, no. 7; Gassner 1997, taf. 46, nos. 551-554; Hayes 2008, fig. 38, nos. 1248-1250; Erol 2011, 411, K 270; Reynolds 2011, 212, fig. 4, no. 46; Bădescu – Iliescu 2016, 155, fig. 6, no. 2.

48 Ladstätter – Sauer 2005, 191, taf. 5, nos. 55-58; Shkodra 2006, 437, fig. 5, No. 20.

49 Rudolph – Sheehan 1979, 312, fig. 8, no. 31; Mayet – Picon 1986, 140, pl. 5, nos. 21. 27; Hayes 1992, 157, fig. 36, deposit 23, no. 3; Gassner 1997, taf. 47, nos. 570. 571; Sanders 1999, 466, fig. 7, no. 2; Berndt 2003, taf. 30, TS 367-377; Zelle 2003, 95, abb. 8, Gassner Variante g; Ladstätter – Sauer 2005, 189, taf. 3, nos. 36-41; 191, taf. 5, nos. 63. 68. 69; Shkodra 2006, 437, fig. 5, no. 24; Johnson 2008, 65, no. 193; Ladstätter – Sauer 2008, taf. 309, K 406; Health – Tekkök 2006-2009, nos. 18. 19; Marty 2011, 158, fig. 3, no. 6; Quercia et al. 2011, 69, fig. 3, no. 17; Reynolds 2011, 214, fig. 6, nos. 75. 84. Tekocak 2013, 168, fig. 7, 21-23; Bădescu – Iliescu 2016, 155, fig. 6, no. 2.

50 Hayes 1972, 332, fig. 68.

51 Mayet – Picon 1986, 137, pl. 2, no. 8; 139, pl. 4, nos. 14-16; 140, pl. 5, no. 25; Zelle 2003, 93, abb. 7; Hayes 2008, fig. 39, no. 1274; Johnson 2008, 65, no. 195; Tekocak 2013, 167, fig. 6, No. 12; Smokotina 2015, 328, no. 2.

52 Rudolph – Sheehan 1979, 312, fig. 8, no. 30; Mayet – Picon 1986, 141, pl. 6, nos. 30. 31; Hayes 1992, 155, fig. 34, deposit 16, no. 2-5; Vapur 2001, çiz.12, no. 61; Berndt 2003, taf. 28, TS 337-351; Zelle 2003, 93, abb. 7; Beaumont et al. 2004, 237, fig. 17, nos. 139. 140; Ladstätter – Sauer 2005, 189, taf.

broad and flattish rim with offset at the junction with wall belong to Hayes Form 3F and is dated to the first quarter of the 6th century AD⁵³. Nos. 37 and 38 have a with flat and slightly convex outer face with two or triple lines of rouletting, and is hollow on inside. These two examples are from the second quarter of the 6th century AD⁵⁴. Nos. 39-42 fragments of the second common type in the city, belong to Hayes Form 3H with heavy and vertical rim with or without offset on underside at junction with wall; Nos. 40 and 41 have a single line of either rough grooves or diamond rouletting on outer face. All pieces of Hayes Form 3H must be dated to the middle of the 6th century AD⁵⁵. The foot fragment No. 43 cross-monogram with two pendants blow arms in Group III on its tondo, is a common type with a double outline may be derived from ARS⁵⁶, probably an example of Hayes Form 3 dated to the late 5th – early 6th century AD⁵⁷.

Following Hayes Form 3, except Hayes Form 10, other forms presented few numbers in Klazomenai. For No. 44, the single piece of Hayes Form 5B with horizontal rim, slightly concave on top, thickening towards a beveled lip and with curved body,

3, no. 32-34; 192, taf. 6, no. 71; Ladstätter – Sauer 2008, taf. 309, K 404; Erol 2011, 417, K 296; 419, K 300; 422, K 308-309; Reynolds 2011, 214, fig. 6, no. 76; Tekocak 2013, 167, fig. 6, nos. 13-18; Bădescu – Iliescu 2016, 154, fig. 5, no. 9; 156, fig. 7, no. 2.

53 Robinson 1959, pl. 71, M 351; Mayet – Picon 1986, 137, pl. 2, no. 8; 141, pl. 6, no. 33; Ballance et al. 1989, 93, fig. 27, nos. 50-57; Mitsopoulos-Leon 1991, 143, taf. 200, 201, m12-17; Hayes 1992, 158, fig. 37, deposit 26, no. 2; Hayes 2001, 439, fig. 4, no. 16; Arsen'eva – Domžalski 2002, 449, fig. 17, nos. 623-626; Berndt 2003, taf. 16, TS 175-179; Zelle 2003, 93, abb. 7; Ladstätter – Sauer 2005, 188, taf. 2, nos. 20-25; Yılmaz 2007, 126, abb. 2, no. 3; Hayes 2008, fig. 39, nos. 1275-1279; fig. 40, no. 1284; Health – Tekkök 2006-2009, nos. 22-24; Erol 2011, 424, K314; Reynolds 2011, 214, fig. 6, no. 85; Ergürer 2015, 86, res. 9, no. 47-50; Smokotina 2015, 328, fig. 7, no. 5; Waldner 2016, taf. 215, K 509.

54 Mayet – Picon 1986, 137, pl. 2, no. 6; 140, pl. 5, nos. 28, 29; Hayes 1992, 158, fig. 37, deposit 27, no. 2; Anderson-Stojanovic 1992, pl. 47, no. 405; Gassner 1997, taf. 46, no. 562; taf. 47, no. 572; Hayes 2001, 439, fig. 4, no. A18; Shkodra 2006, 437, fig. 5, no. 23; Hayes 2008, fig. 38, nos. 1253, 1254; Bădescu – Iliescu 2016, 155, fig. 6, no. 11.

55 Rudolph – Sheehan 1979, 312, fig. 8, nos. 25, 29; Ballance et al. 1989, 93, fig. 27, nos. 58-64; Gassner 1997, taf. 47, nos. 566, 567; Sanders 1999, 466, fig. 7, no. 1; Hayes 2001, 436, fig. 2, no. 42; 439, fig. 4, nos. 17, 18; Vapur 2001, çiz. 13, no. 69; Berndt 2003, taf. 17, TS 193-200, taf. 18, TS 210-213; taf. 20, TS 232-238; Zelle 2003, 95, abb. 8, Variante e, g; Ladstätter – Sauer 2005, 192, taf. 6, Nos. 74-77; 195, taf. 9, nos. 119-122; Shkodra 2006, 437, fig. 5, no. 21; Yılmaz 2007, 127, abb. 3, no. 3; Johnson 2008, 67, no. 199; 68, no. 204; 69, nos. 205, 206; Health – Tekkök 2006-2009, nos. 22-24; Tekocak 2013, 168, fig. 7, nos. 24, 25; Smokotina 2015, 329, fig. 8, no. 2; Bădescu – Iliescu 2016, 155, fig. 6, no. 7; 156, fig. 7, no. 1.

56 Hayes 1972, 348.

57 For the cross motif, see Hayes 1972, 364, fig. 78, j-l; Atlante I, tav. 117, no. 41; Zelle 2003, 97, abb. 9, Hayes Form 5, no. 4; Ladstätter – Sauer 2005, 188, 201, taf. 2, 15, nos. 25, 26; 194, taf. 8, 15, nos. 106-108; Shkodra 2006, 437, fig. 5, no. 26; Johnson 2008, 72, nos. 219, 220; Erol 2011, 454, K 387; 455, K 388-389; 456, K 390; Smokotina 2015, 328, fig. 7, no. 5. For the cross- monograms with four circle-motifs between arms, see Hayes 1972, 364, fig. 78, m-n; 366, fig. 79, p-t; Forster 2005, 129, fig. 4, no. 1; 130, fig. 5; Doğer 2007, 111, pl. V d, h.

is suggested a date the first half of the 6th century AD⁵⁸. Deep dishes of Hayes Form 6 include two examples (Nos. 45 and 46) in Klazomenai, with heavy knobbed rim flattened on top and an offset at the junction with wall, and date from early 6th century AD⁵⁹. The unique dish in Hayes Form 7, No. 47 with outturned rim, bearing a small flange on top along the inner edge, is a rare form of the early 6th century AD⁶⁰. No. 48 of Hayes Form 9, the last uncommon piece in the city, is a dish with vertical rim, flat floor and beveled foot. Its parallels appeared during the second quarter of the 6th century AD⁶¹. Besides Hayes Form 3, the second most common fine ware in Klazomenai is Hayes Form 10C. The bowls in Hayes Form 10C (Nos. 49-57), with knobbed rim rounded on the outside and with an offset at junction with wall, exemplify the late series of the fine ware in Klazomenai. While the form is common from the second half of the 6th to mid 7th century AD, the parallels in many settlements are generally dated to late 6th - early 7th century AD⁶².

1.2. Amphorae

Four different types of amphorae in Klazomenai have been identified (fig. 8. 15). Among them, No. 58, a single example of North African amphora Keay 57B (Bonifay Type 42)⁶³ shows features with a thickened rim on outside and high slightly conical neck. The date range for this type is mainly from 5th to 7th century AD. The early examples in Neapolis (Nabeuli in Tunisia) were found with potsherds of ARS Form 61B from the second half of 5th century AD⁶⁴. While the pieces of Akragas are also

58 Hayes 1972, 340, fig. 70; Atlante I, tav. 114, nos. 3. 4; Hayes 1992, 155, Fig. 34, deposit 18, no. 3; Zelle 2003, 97, abb. 9; Ladstätter – Sauer 2005, 192, taf. 6, no. 83; Doğer 2007, 113, pl. VII g; Hayes 2008, fig. 41, no. 1300-1303; Erol 2011, 429, K 327-329; 430, K 331; Ergürer 2015, 86, res. 9, no. 51; Smokotina 2015, 329, fig. 8, no. 7.

59 Hayes 1972, 340, fig. 70; Atlante I, tav. 114, nos. 3. 4; Hayes 1992, 154, fig. 33, deposit 14, nos. 14, 15; Gassner 1997, taf. 48, no. 579; Zelle 2003, 97, abb. 9, Hayes Form 6, no. 1; Ladstätter – Sauer 2005, 193, taf. 7, nos. 84. 86; 197, taf. 11, EHA 22; Ergürer 2015, 86, res. 9, no. 52. 53; Smokotina 2015, 330, fig. 9, nos. 1-3; Waldner 2016, taf. 215, K 510.

60 Hayes 1972, 340, fig. 70. Atlante I, tav. 114, no. 7. For the Form 10A in Histria, see Bădescu – Iliescu 2016, 156, fig. 7, no. 9. The similar examples in Troia dated before 500 AD earthquake (see, Rose et al. 2018).

61 Hayes 2008, fig. 41, No. 1324.

62 Hayes 1972, 344, fig. 71, no. 11-13; Rudolph – Sheehan 1979, 311, fig. 7, no. 23; 312, fig. 8, 24.; Mayet – Picon 1986, 141, pl. 6, no. 40; Ballance et al. 1989, 94, fig. 28, nos. 80-94; Gassner 1997, taf. 48, nos. 585. 586; Berndt 2003, taf. 46, TS 607-616; taf. 47, TS 617-639; taf. 48, TS 630-642; taf. 49, TS 643-659; taf. 50, TS 662-668; Zelle 2003, 99, abb. 10, nos. 1. 2; Beaumont et al. 2004, fig. 18, nos. 151-157; Ladstätter – Sauer 2005, 193, taf. 7, nos. 90-95; Slane – Sanders 2005, 267, fig. 8, nos. 3-14. 15; Yılmaz 2007, 127, abb. 3, no. 4; Ladstätter – Sauer 2008, taf. 308, K391; Erol 2011, 433, K 340; Reynolds 2011, 222, fig. 12, nos. 181-191; Tekocak 2013, 168, fig. 7, nos. 29. 30; Smokotina 2014, 75, fig. 5, nos. 3-5; Smokotina 2015, 329, fig. 8, nos. 5. 6; Bădescu – Iliescu 2016, 157, fig. 8, nos. 1-9; Waldner 2016, taf. 216, K 517-519.

63 For Type 42, see Bonifay 2004, 135-137.

64 op. cit. 136, fig. 73, no. 1 (B); Bonifay 2005, 467, fig. 11, no. 1; Bonifay 2010, 56, fig. 4, no. 20; Bonifay et al. 2010, 154, fig. 6, no. 41; Bonifay 2011, 18, fig. 2, no. 25.

dated to the same date with the Neapolitan ones⁶⁵, the examples in Massalia⁶⁶ and Lugiria⁶⁷ indicate a later date, end of 5th – early 6th century AD. The latest parallels of the amphora belong to early 7th century AD⁶⁸. Three examples diagnosed as LR 1 amphorae⁶⁹ are the most common type of amphora in Klazomenai. Of them, Nos. 59 and 60 as a subtype LR 1A⁷⁰ and No. 61 is another subtype LR 1B⁷¹ both have a rounded rim, cylindrical neck with an offset, arched handles, and wide shoulder. While the most examples of the LR 1 amphorae are in the late 5th – early 6th century AD, there is no any chronological difference between type 1A and 1B⁷². Evidence in Antiokeia proves that principal content of LR 1 is both oil olive and wine⁷³. The main candidates for the production centers of LR 1 amphorae have a wide distribution throughout Mediterranean, including Kilikia⁷⁴, North Syria and Cyprus but also other regions in Asia Minor such as Lykia and Pamphylia⁷⁵. No. 62, a single piece of LR 2, features a high everted rim, conical neck and bowed handles from the shoulder to the neck. Though the earliest example of the LR 2 at Athens is dated to 4th century AD, the form is popular in the early 6th century AD and increased in the market during the century⁷⁶. No. 63, knobbed foot fragment is another unique type of amphora, Type Robinson M 273 from the 5th century AD in Klazomenai⁷⁷.

Klazomenai, one of the most important olive oil production centers in the

65 Caminnci et al. 2010; 280, fig. 1, no. 15.

66 Bonifay – Piéri 1995, 101, fig. 3, nos. 17. 18.

67 Gandolfi et al. 2010, 52, fig. 8, nos. 2. 3. 6.

68 Bonifay – Raynaud 2007, 99, fig. 52, no. 6; Smokotina 2014, 76, fig. 6, no. 20.

69 For LR 1, see Elton 2005, 691-695; Williams 2005a, 157-168; Opait 2010, 1015-1022; Williams 2005b, 613-624.

70 For LR 1A, see Bonifay – Piéri 1995, 109, fig. 7, no. 51; Şenol 2000, 393, fig. 10.15; Bonifay et al. 2002, 76, fig. 8, nos. 64-76; Shkodra 2006, 438, fig. 6, no. 29; Şenol 2008, 130, fig. 5; Reynolds 2010, 110, fig. 7, b.

71 For LR 1B, see Peacock – Williams 1991, 185, fig. 104; Pollard 1998, 154, fig. 3 b; Şenol 2000, 392, fig. 10.9-14; Berndt 2003, taf. 83, A 392-396; Hayes 2003, 493, fig. 25, no. 264; Shkodra 2006, 438, fig. 6, nos. 30. 31; Slane 2008, 479, fig. 3, LRA 1; Şenol 2008, 129, fig. 4; 131, fig. 9; Caminnci et al. 2010; 280, fig. 1, no. 23; Reynolds 2010, 110, fig. 7, c; Rizzo – Zambito 2010, 298, no. 15; Demesticha 2014, 605, fig. 1. 2; 606, Fig. 3. 4.

72 Peacock – Williams 1991, 187.

73 Liebeschuetz 1972, 79-81; Elton 2005, 691.

74 H. Elton pointed out that LR 1 amphorae may have been the “Cilician jar” mentioned by Palladius (Lausiaca History 17. 11. 27). For the discussion, see Elton 2005, 694; Ricci 2007, 172, fig. 1. no. 1.

75 Elton 2005, 691. 692.

76 Bonifay – Piéri 1995, 107, fig. 6, nos. 47. 48; 110, fig. 8, nos. 52-55; Şenol 2000, 393, fig. 10. 19; Berndt 2003, taf. 79, A 360-364; Vroom 2004, 295, fig. 3; Hjøhlmann 2005, 119, fig. 2; Slane – Sanders 2005, 252, fig. 3, no. 1-23; Shkodra 2006, 438, fig. 6, nos. 32-35; Slane 2008, 479, fig. 3, LRA 2; Caminnci et al. 2010; 280, fig. 1, no. 25; Reynolds 2010, 108, fig. 5, d-f; Rizzo – Zambito 2010, 298, nos. 13. 14; Bonifay et al. 2013, 109, fig. 19, no. 15.

77 Robinson 1959, pl. 29, M 273; Bonifay – Piéri 1995, 114, fig. 11, no. 75.

Mediterranean in the Archaic Period, produced distinctive amphorae⁷⁸ and had enhanced workshops for olive oil that went beyond their time⁷⁹. In order to fill the deficiency of Klazomenai in producing cereals in the Classical Period, the agricultural activities concentrated on the viticulture and olive cultivation. Thus, the incomes acquired from the trade of wine and olive oil made up this deficiency in agriculture⁸⁰. Considering the distribution ratio of the LR 1 amphorae, Klazomenai that had a great reputation in producing olive oil might have carried out the trade of olive oil in the Late Antiquity. Klazomenai may have imported the Kilikian white muscatel wine from Kilikia, which is the strongest candidate for a LR 1 production center, and exported its own olive oil in exchange.

1.3. Kitchen Wares

Kitchen wares in Klazomenai can be grouped here as cooking pots, mugs, and basins (fig. 9. 15). The cooking pots (Nos. 64-66) with sharply outturned rim, slightly convex on top and sloping toward inside, and with bulbous body, are classified as Type Reynolds 1993, and dated between the second half of 5th and beginning of 6th century AD⁸¹. Nos. 67-71, the mugs among the thin-walled vessels, are preserved in either upper parts (Nos. 67 and 68) with the out-curved rim, broad grooved belly, flattened vertical handle, or lower parts (Nos. 69-71) with flattened base. Even though this kind of mugs appeared in the 2th century AD in both Corinth and Athens⁸², the parallels in other cities mostly dated to late 5th – early 6th century AD⁸³. Two pieces of basins (Nos. 72 and 73) with down curved and drooping rim with slightly inset, and grooved body are from the first half of 6th century⁸⁴.

2. Building

Situated in the mainland settlement that forms the core of Klazomenai⁸⁵, Sector HBT is ca. 4 m above sea level and covers a large area in which agricultural activities are conducted today. The Late Roman layer is approximately 30 cm below today's ground level while it becomes closer to the surface in some places. For this reason,

78 For Klazomenian amphorae, see Sezgin 2004, 169-184.

79 For the olive oil plant in Klazomenai, see Koparal – İplikçi 2004, 221-234.

80 Koparal 2014b, 138, 142.

81 Reynolds 1993, pl. 97, no. 652; Gassner 1997, 58, nos. 727-729; Berndt 2003, taf. 95, KG 09-014; taf. 96, KG 015-017; taf. 99, KG 062-065; taf. 103, KG 121-125; Bonifay 2004, 240, fig. 129, Culinnaire Type 32, nos. 4. 6. 8. Slane – Sanders 2005, 252, fig. 3, nos. 1-30. 31; Tréglià 2005, 300, 305, fig. 1, nos. 7-11; Turnovsky 2005, 640, fig. 1, nos. 6. 7. 14-16; Waldner 2016, taf. 215, K 511.

82 Slane 1990, 94, fig. 22, nos. 196-198; Hayes 2008, figs. 50. 51, nos. 1602-1608. 1752.

83 Bonifay et al. 2002, 70, fig. 2, nos. 17-19; Bonifay 2004, 286, Commune Type 52, nos. 1-6; Parello et al. 2010, 289, fig. 4, no. 11.

84 Berndt 2003, taf. 136, Schü 020-206; Bonifay 2004, 273, fig. 150, Commune Type 34, no. 1; Slane – Sanders 2005, 260, fig. 6, no. 2. 38-41.

85 Koparal 2014a, 136.

the layer has been damaged badly by modern agricultural activities. The architectural remains of Late Antiquity are spread out on an approximately 20 ha area in the sector. Among the few survived remains are some walls, fills belonging to the rooms, floors and as well as a cistern (fig. 10. 11). The walls, which are generally 50 cm wide, had two rows of stones and small stones were used to fill spaces in between. While the best-preserved wall is 10 m long, the others survive only for a few meters. The walls have a loose structure because mortar was not used in the construction.

Based on the preserved parts of the walls oriented north-south and east-west, there are 8 units. Two of them are situated in the northern part while the rest are in the southern part. Among the two units in the northern area, the western one has a stone pavement (fig. 10. 11). The other unit is located to ca. 10 m east and has an almost square plan measuring 3 x 4 m (fig. 10. 11). The easternmost room in the southern part is the largest unit of the building (fig. 10. 11). According to its preserved walls, this room covers at least a 100 m² area. A cistern is about 2 m in depth and 1 m in diameter, situated southwestern corner of the westernmost unit. The cistern was built exactly on the rock-cut store of the olive oil workshop dated to the 6th century BC (fig. 11). It could store water for a long time as the cistern was constructed directly on the bedrock. The five steps leading inside from the top of the cistern could have made easier the water transportation. There is another unit immediately to the south of this westernmost unit with cistern. In addition, there are two units oriented north-south in the narrow area between the unit with cistern and the large unit in the easternmost part.

The evidence is not sufficient to determine the functions of the units fully. Nevertheless, the section with the cistern in the southwestern part must have been a courtyard and, immediately to the north, the stone-paved area may have belonged to another courtyard or a street. Running in the east-west direction, the stone pavement ends with the wall of the unit in the eastern part. Therefore, the area with this stone pavement was unlikely to be a street but it may have been a blind alley. However, considering the dwelling architecture in Asia Minor, buildings having at least one unroofed courtyard with stone pavement surrounded by rooms, were very widespread in Late Antiquity⁸⁶. Farmsteads with storages, workshops, and rooms that were situated around an unroofed large courtyard were common in Thrace, Dalmatia and Dacia as well⁸⁷. Accordingly, the abovementioned area with the stone pavement in Klazomenai must have been the main courtyard constituting the center of the building. It is not possible to give the exact dimensions and the limits of the courtyard because only a small section of it could be exposed. The section with the cistern in the southern part might have been another courtyard in which the agricultural and small-scaled production activities were conducted. The pottery found in great numbers indicate that this second courtyard was a frequently occupied living space. Although the architectural remains are inadequate to determine the functions of the other units, the analyses on the distribution and typology of the pottery retrieved from these units enable us to give

86 Özgenel 2005, 248.

87 Mulvin 2004, 390. 391, fig. 4.

at least an idea (fig. 12).

According to the distribution of the pottery, the largest unit with mortared floor in the easternmost part of the building yielded the highest quantity of pottery. The pottery consists almost entirely of the plates and bowls of fine and kitchen wares (fig. 12). Therefore, this unit might have been a *triclinium* (dining room)⁸⁸. The second highest amount of pottery came from the square-like unit in the northeastern part. The first plan of the building resembles the watchtowers seen in the farmsteads of Late Antiquity in the 400s AD⁸⁹. In addition to the small size of the building, the forms of pottery found in this unit, suggest another function than being a watchtower. This unit may have been a storeroom because the greatest amount of amphorae were discovered here (fig. 12). Four different floor levels indicating four different construction phases were discovered in this storeroom. The renovations related with repairing of the floors show that this storeroom was used often. The floors were made of a mortar including earth, small stones, and sherds. There was a 10 cm fill between each floor level.

The sherds beneath the floor of the rooms suggest a *terminus post quem* for the date of the building. On the lowest floor level of the abovementioned storeroom No. 12 was discovered. In light of this sherd, the first construction phase of the storeroom is dated to the first half of the 5th century AD. After this phase, the storeroom was renovated for three times. No. 44 was found on the highest floor level, suggesting that the storeroom was renovated the last time in the first half of the 6th century AD. The ARS wares (Nos. 2-7) and LRC wares (Nos. 8-11 and 14) found on the main courtyard in the west of the storeroom date this area to 400-420 AD. The pottery found both in the storeroom and on the main courtyard indicate that these two units were constructed in the same period as parts of the same building complex. These units in the northern part of the building were constructed in the early 5th century AD and remained occupied during the 6th century AD. Based on the pottery again, the units (South courtyard, cistern, Unit I, II and III) in the southern part of the building must have been built in the late 5th century AD-early 6th century AD and continued in use until the middle of the 7th century AD.

Most of the dwellings in the 5th and 6th centuries AD in Asia Minor were converted from the already existing structures with some alterations⁹⁰. From the 5th century AD onwards, there was a decline in the architectural applications and especially in the construction techniques: The rooms of the buildings were divided into more sections rather than constructing new ones. The mosaics floors were replaced with earthen floors, even the mosaics of the earlier buildings were covered by wooden huts, and the graves were built near the farmsteads⁹¹. However, in the abovementioned Late Roman building of Klazomenai, neither the earlier structures nor the earlier architectural material belonging to these structures were re-used although they existed. The building

88 Stephenson 2016, 54-71.

89 Small – Buck 1994, 117; Sfameni 2004, 351, fig. 5.

90 Sfameni 2004, 335. 349-351; Özgenel 2005, 240.

91 Francovich – Hodges 2003, 34-37.

was a distinctive new building following the architectural characteristics of its own time. The previously stated application of constructing the graves near the farmsteads in the Late Antiquity was also present at Klazomenai: In the west of the building, the roof tile graves⁹² dated to the Roman Period and in the eastern part, inhumation graves were discovered⁹³. Furthermore, these graves define the western and eastern limits of the building.

Although this building is relatively well preserved and the most information about Klazomenai in Late Antiquity, there are other dispersed rural settlements scattered around the city center. The number of the rural settlements in the Klazomenian *khora* increased up to 115 in the Roman Period⁹⁴. Among these rural settlements, there were many Late Roman settlements⁹⁵. This was also the case for the settlements of Asia Minor, Mainland Greece, Syria, and Palestine. In parallel with the sudden increase in the populations of the settlements in the 5th and 7th centuries AD, the rise in the agricultural activities caused a boost in the number of the rural settlements and farmsteads⁹⁶.

From ca. 400 AD onwards in Aizonai in Asia Minor, the last construction activities began. In the second half of the 5th century AD, in addition to the central power and public order, economy and demography of Aizonai declined. This led an increase in the rural settlements⁹⁷. The same case was observed at Sagalassos. There was a decrease in the number of settlements near Sagalassos from the second half of the 5th century AD onwards⁹⁸. Even though it is not possible to determine whether there was a decline in the settlements of Klazomenai in the second half of the 5th century AD, an abrupt decrease was observed in the evidence of pottery. Compact village that dominated the rural settlements as a pattern in Late Antiquity in the eastern provinces must be defined a *vicus* instead of *civitas* or *poleis*, because of the city did not have the administrative status⁹⁹. A slow decline occurred on the settlement type between the 5th and late 6th century AD, which led to the end of the villa by changing social and economic circumstances¹⁰⁰. The rural pattern of the settlement in Klazomenian *khora* also could reflect the Justinianic plague that appeared in 541/2 AD and continued during the century¹⁰¹. Considering its architectural features and as well as the above-

92 Bakır et al. 2007, 192.

93 Bakır et al. 2008, 314. 325, res. 2.

94 Ersoy – Koparal 2009, 73-90; Koparal 2014b, 69. 79, fig. 10.

95 Ersoy – Koparal 2007; 47-70; Ersoy – Koparal 2010, 129. 130. 142, fig. 2; Ersoy et al. 2011b, 340. 341.

96 Bintliff 1991, 122-132; Bintliff 1999, 29. 30, fig. 13; Pettegrew 2007, 746-749; Pettegrew 2010, 216. 217; Poblome 2015, 101. 102.

97 Niewöhner 2006, 241.245, fig. 1.

98 Poblome 2015, 102.

99 CAH XIV, 328.

100 Francovich – Hodges 2003, 37.

101 Procop. Arc. 2.22. The Justinianic plague affected to killed over 10000 people a day, hit the east, subsequently spreading to the west and also recurring intermittently through the 6th and 7th centuries

mentioned socio-economic changes in the Late Antiquity, this building of Klazomenai might have been a farmstead.

Showing a rapid increase in the 6th century AD, these rural settlements of Klazomenai were abandoned in the 7th century AD according to the archaeological evidence. Based mainly on the olive oil production in the Mediterranean market, the trade in the rural settlements was terminated in 630/40 AD after the Arab conquests, and earthquake consequently, many settlements were deserted¹⁰². The latest finds from Klazomenai confirm this date. The absence of any discovered archaeological evidence dated later than the middle of the 7th century AD in the city indicates that after the Arab conquests, life in Klazomenai ended. The conquests of the 7th century AD caused a dramatic change in the region and new cities emerged with new trade networks. Thus, as a consequence of the changing economic balances, many of the previous rural settlements lost their significance and they were abandoned¹⁰³. The rural settlement in Klazomenai took its share from the changing political and economic events after the Arab conquests and went out of existence. The answer for the question “where then did the inhabitants of the city go?” may lie behind this information: It is known that most of the Hellenistic fortifications of Asia Minor, where there was a peaceful environment in Late Antiquity, were renovated in the 4th century AD. In addition, the city walls of the many *poleis* such as Smyrna, Ephesos, Sardeis, and Ankyra were repaired and rebuilt¹⁰⁴. Escaping from the Arab conquests, the people of Klazomenai may have taken shelter in Smyrna with renovated and fortified walls in the 4th century AD.

3. Conclusion

Within the pottery divided into the three main groups, the fine wares including ARS and LRC wares were found in the farmstead of Klazomenai in larger quantities than the other groups. Among the five different forms of the ARS wares, Hayes Form 61 has the highest amount. Except for one example, all LRC forms were found in Klazomenai and Hayes Form 3 outnumbers the others. Type D is the most widespread shape of Hayes Form 3 and was represented by all its subtypes. Apart from the fine wares, the second group found in the farmstead is the amphorae with four different forms common to North Africa and Asia Minor. The third one consists of kitchen wares including cooking wares, mugs and, basins. Mugs are the most commonly found form of this group.

Considering the distribution of the Late Roman pottery in Sector HBT of Klazomenai in terms of their dates, quantity of pottery that was less in the 5th century

AD, as of 541/2 it is seen demographic decline and the dropped population in the east (CAH XIV, 322-324. 389. 584; Little 2007, 1-21).

102 CAH XIV, 319. 360. 586; Vanhaverbeke et al. 2004, 274; Özgenel 2005, 244; Waelkens et al. 2005, 507; Reynolds 2016, 145-147.

103 CAH XIV, 360. 361.

104 CAH XIV, 577. 578.

AD and increased towards the middle of the century (fig. 2). The earliest group of the Late Roman pottery in Klazomenai is the ARS wares. Circulated for almost 50 years in the Klazomenian market, ARS wares were replaced by LRC wares in the middle of the century. While ARS wares were dominant in the distribution of the fine wares in the first half of the 5th century AD, there was a remarkable increase in the amount of LRC wares towards the middle of the century. In addition to ARS wares, the North African amphorae found in Klazomenai indicate not only the economic purchasing power of the city but also its importance as a great market in that period. The amount of the pottery decreases in the second half of the 5th century AD (fig. 2). In the middle of this century, the ARS wares went out of the market of Klazomenai and they were replaced by LRC wares because of the Vandal raids in North Africa in 440 AD. There was a remarkable rise in the pottery beginning with the early 6th century AD (fig. 2). The rise continued during the first half of the 6th century but it was interrupted abruptly in the middle of the century. The reason for this interruption might be the Justinianic plague in addition to the collapse in the political and economic orders. The archaeological reflections of these dramatic changes in the political and economic structure were also present at Klazomenai. Declining in the middle of the 5th century AD, the intensity of the pottery began to increase again during the second half of the century (fig. 2). This increase was stable in the first half of the 7th century AD but then abruptly ceased in the middle of the same century (fig. 2).

As for the farmstead of Klazomenai, it is not possible to give a clear plan of the building for the moment because it was damaged badly and the archaeological evidence is limited. Nevertheless, following the dwelling architecture of the 5th and 6th centuries AD, this building must have been a farmstead with a central courtyard surrounded by rooms, which were used for various functions. Constructed in ca. 400 AD, this farmstead was occupied approximately for 250 years and then abandoned in the middle of the 7th century.

The earliest occupation in Klazomenai was dated to the Early Bronze Age. The settlement of the city was moved to the Karantina Island in the Roman Period and continued until the 3rd century AD there. However, on the mainland, there is no reflection of the Roman settlement. Moreover, the main settlement did not extend beyond the mainland in this period. The latest evidence of the Roman period in the Karantina Island is dated to the 3rd century AD. There has been no archaeological material later than this date. The reason for this interruption might have been the Herulian invasions between 267 and 272 AD that made the same impact on other settlements, especially in Athens¹⁰⁵, Corinth¹⁰⁶ and Aigai¹⁰⁷. Besides the Goths, the Herulians marched southwards along with the western shores of Asia Minor and invaded many coastal settlements until Ephesos in 267 AD¹⁰⁸. The chaotic atmosphere caused by the raids must

105 Hayes 2008, 7. 8. 72.

106 Slane 1990, 4. 5. 17. 18; Slane 1994, 127.

107 Gürbüzler 2015, 23. 24. 130. 188. 211. 212.

108 CAH XII, 227. 228.

have affected Klazomenai as well. Neither the mainland settlement nor the Karantina Island yielded any archaeological material dated later than the 3rd century AD in the Roman period. This suggests that the city was most probably abandoned temporarily because of the fear in the region as a consequence of this raid. The settlement patterns of Klazomenai in 400s AD presented a rural character dominated by farmsteads situated in and around the settlement on the mainland. Continuing in the 5th and 6th centuries AD, this rural settlement was abandoned after the Arab conquests in 630/640 AD, and thus, life in Klazomenai ended.

Catalogue

No. 1 Large bowl. Hayes Form 45/46. Diam. foot 11.4 cm; H. 1.4 cm. Color: clay and slip 10R 5/8 (red). Refined clay. Date: The late 4th – early 5th century AD.

No. 2 Flat-based dish. Hayes Form 59. Diam. rim 42 cm; H. 4 cm. Color: clay 2.5YR 6/8 (light red), slip 10R 6/8 (light red). Clay with lime. Date: 400-420 AD.

No. 3 Flat-based dish. Hayes Form 61B. Diam. rim 30.4 cm; H. 4.3 cm. Color: clay 2.5YR 6/8 (light red), slip 10R 6/8 (light red). Clay contains a few lime particles. Date: The first half of 5th century AD.

No. 4 Flat-based dish. Hayes Form 61B. Diam. rim 35 cm; H. 3 cm. Color: clay 2.5YR 6/8 (light red), slip 10R 6/8 (light red). Clay with a few lime inclusions. Date: The first half of 5th century AD.

No. 5 Flat-based dish. Hayes Form 61B. Diam. rim 35 cm; H. 3 cm. Color: clay and slip 2.5YR 6/8 (light red). Clay with a few lime particles. Date: The first half of 5th century AD.

No. 6 Flat-based dish. Hayes Form 61C. Diam. rim 26 cm; H. 4.5 cm. Color: clay 10R 6/8 (light red), slip 10R 5/8 (red). Clay contains lime. Date: The middle of the 5th century AD.

No. 7 Large plate. Hayes Form 66. Diam. rim 46.6 cm; H. 5 cm. Color: clay 10R 6/8 (light red), slip 10R 5/8 (red). Clay contains lime. Date: 400's AD.

No. 8 Dish. Hayes Form 1A. Diam. rim 25.2 cm; H. 4.7 cm. Color: clay 2.5YR 6/8 (light red), slip 2.5YR 5/8 (red). Refined clay. Date: The early 5th century AD.

No. 9 Dish. Hayes Form 2A. Diam. rim 22.6 cm; H. 4.2 cm. Color: clay 2.5YR 6/8 (light red), slip 10R 6/8 (light red). Refined clay. Date: The second quarter of the 5th century AD.

No. 10 Dish. Hayes Form 2A. Diam. rim 34 cm; H. 2.8 cm. Color: clay 2.5YR 6/8 (light red), slip 10R 6/8 (light red). Refined clay. Date: The second quarter of the 5th century AD.

No. 11 Dish. Hayes Form 2A. Diam. rim 32 cm; H. 4.1 cm. Color: clay 10R 6/8 (light red), slip 10R 5/8 (red). Clay contains many lime particles. Date: The second quarter of the 5th century AD.

No. 12 Dish. Hayes Form 2. Diam. foot 7 cm, H. 1 cm. Color: clay 10R 6/6 (light red), slip 10R 6/8 (light red). Clay includes a few lime and micas. Date: 6th century AD.

No. 13 Dish. Hayes Form 2. Diam. foot 12.6 cm, H. 1.7 cm. Color: clay 2.5YR 6/6 (light red), slip 2.5YR 6/8 (light red). Clay with a few lime and micas. Date: the first half of the 5th century AD.

No. 14 Dish/Bowl. Hayes Form 3A. Diam. rim 30.6 cm, H. 3.2 cm. Color: clay 10R 6/8 (light red), slip 10R 5/6 (red). Clay contains limes. Date: c. 400 AD.

No. 15 Dish/Bowl. Hayes Form 3B. Diam. rim 35.6 cm, H. 3.5 cm. Color: clay and slip 10R

6/6 (light red). Clay contains many lime particles. Date: 460-475 AD.

No. 16 Dish/Bowl. Hayes Form 3C. Diam. rim 27.4 cm, H. 2.7 cm. Color: clay 5YR 7/8 (reddish yellow), slip 2.5YR 6/8 (light red). Clay includes a few limes. Date: 460-475 AD.

No. 17 Dish/Bowl. Hayes Form 3C. Diam. rim 23.6 cm, H. 3.4 cm. Color: clay and slip 10R 6/8 (light red). Refined clay. Date: 460-475 AD.

No. 18 Dish/Bowl. Hayes Form 3C. Diam. rim 23 cm, H. 2 cm. Color: clay and slip 10R 6/8 (light red). Clay contains a few lime inclusions. Date: 460-475 AD.

No. 19 Dish/Bowl. Hayes Form 3D. Diam. rim 29.2 cm, H. 3.5 cm. Color: clay and slip 10R 6/8 (light red). Clay with a few lime and micas. Date: The late 5th – early 6th century AD.

No. 20 Dish/Bowl. Hayes Form 3D. Diam. rim 27 cm, H. 2.1 cm. Color: clay and slip 10R 6/8 (light red). Clay includes many lime and mica particles. Date: The late 5th – early 6th century AD.

No. 21 Dish/Bowl. Hayes Form 3D. Diam. rim 28.2 cm, H. 1.8 cm. Color: clay 10R 6/8 (light red), slip 10R 5/6 (red). Refined clay. Date: The late 5th – early 6th century AD.

No. 22 Dish/Bowl. Hayes Form 3D. Diam. rim 30 cm, H. 1.9 cm. Color: clay 10R 6/6 (light red), slip 10R 5/8 (red). Clay contains many lime particles. Date: The late 5th – early 6th century AD.

No. 23 Dish/Bowl. Hayes Form 3D. Diam. rim 25.6 cm, H. 3.3 cm. Color: clay and slip 10R 6/8 (light red). Clay contains a few lime inclusions. Date: The late 5th – early 6th century AD.

No. 24 Dish/Bowl. Hayes Form 3D. Diam. rim 26 cm, H. 3.6 cm. Color: clay and slip 2.5YR 6/8 (light red). Clay with a few lime inclusions. Date: The late 5th – early 6th century AD.

No. 25 Dish/Bowl. Hayes Form 3D. Diam. rim 31 cm, H. 2.6 cm. Color: clay and slip 2.5YR 6/6 (light red). Clay contains a few lime particles. Date: The late 5th – early 6th century AD.

No. 26 Dish/Bowl. Hayes Form 3D. Diam. rim 27 cm, H. 3.5 cm. Color: clay and slip 10R 5/6 (red). Clay with a few lime and mica inclusions. Date: The late 5th – early 6th century AD.

No. 27 Dish/Bowl. Hayes Form 3D. Diam. rim 29.6 cm, H. 2.3 cm. Color: clay and slip 10R 5/8 (red). Clay with a few limes. Date: The late 5th – early 6th century AD.

No. 28 Dish/Bowl. Hayes Form 3D. Diam. rim 33.4 cm, H. 2.8 cm. Color: clay and slip 10R 5/6 (red). Clay contains a few lime inclusions. Date: The late 5th – early 6th century AD.

No. 29 Dish/Bowl. Hayes Form 3D. Diam. foot 17.4 cm, H. 2.5 cm. Color: clay and slip 10R 5/6 (red). Clay with a few limes. Date: The late 5th – early 6th century AD.

No. 30 Dish/Bowl. Hayes Form 3D. Diam. foot 15 cm, H. 2.4 cm. Color: clay and slip 2.5YR 6/8 (light red). Refined clay. Date: The late 5th – early 6th century AD.

No. 31 Dish/Bowl. Hayes Form 3E. Diam. rim 25 cm, H. 2.6 cm. Color: clay 2.5YR 6/6 (light red), slip 2.5YR 5/8 (red). Clay with many limes. Date: The early 6th century AD.

No. 32 Dish/Bowl. Hayes Form 3E. Diam. rim 30 cm, H. 2 cm. Color: clay and slip 2.5YR 6/8 (light red). Refined clay. Date: The early 6th century AD.

No. 33 Dish/Bowl. Hayes Form 3E. Diam. rim 34.6 cm, H. 2.5 cm. Color: clay 2.5YR 6/8 (light red), slip 10R 5/8 (red). Clay with a few limes. Date: The early 6th century AD.

No. 34 Dish/Bowl. Hayes Form 3F. Diam. rim 23.6 cm, H. 3.1 cm. Color: clay and slip 2.5YR 6/8 (light red). Refined clay. Date: The first quarter of the 6th century AD.

No. 35 Dish/Bowl. Hayes Form 3F. Diam. rim 24.4 cm, H. 3.8 cm. Color: clay and slip 10R

5/8 (red). Clay includes many lime particles. Date: The first quarter of the 6th century AD.

No. 36 Dish/Bowl. Hayes Form 3F. Diam. rim 34 cm, H. 3.8 cm. Color: clay and slip 10R 6/8 (light red). Clay with lime. Date: The first quarter of the 6th century AD.

No. 37 Dish/Bowl. Hayes Form 3G. Diam. rim 34.6cm, H. 2.8 cm. Color: clay 2.5YR 6/6 (light red), slip 10R 5/6 (red). Clay with a few limes. Date: The second quarter of the 6th century AD.

No. 38 Dish/Bowl. Hayes Form 3G. Diam. rim 22.4 cm, H. 2.2 cm. Color: clay 5YR 6/4 (light reddish brown), slip 10R 6/4 (pale red). Clay contains many lime particles. Date: The second quarter of the 6th century AD.

No. 39 Dish/Bowl. Hayes Form 3H. Diam. rim 34 cm, H. 2.2 cm. Color: clay and slip 2.5YR 6/4 (light reddish brown). Clay contains many lime inclusions. Date: The middle of the 6th century AD.

No. 40 Dish/Bowl. Hayes Form 3H. Diam. rim 23 cm, H. 3 cm. Color: clay and slip 2.5YR 6/6 (light red). Clay with many limes. Date: The middle of the 6th century AD.

No. 41 Dish/Bowl. Hayes Form 3H. Diam. rim 26.4 cm, H. 3.8 cm. Color: clay and slip 2.5YR 6/8 (light red). Clay contains many lime particles. Date: The middle of the 6th century AD.

No. 42 Dish/Bowl. Hayes Form 3H. Diam. rim 29.6 cm, H. 3.7 cm. Color: clay and slip 10R 5/8 (red). Clay with a few limes. Date: The middle of the 6th century AD.

No. 43 Dish/Bowl. Hayes Form 3. Color: clay 2.5YR 6/8 (light red), slip 10R 6/8 (red). Clay with a few limes. Date: The late 5th – early 6th century AD.

No. 44 Dish. Hayes Form 5B. Diam. rim 26.6 cm, H. 3 cm. Color: clay and slip 2.5YR 6/8 (light red). Clay includes a few limes. Date: The first half of the 6th century AD.

No. 45 Dish. Hayes Form 6. Diam. rim 32.2 cm, H. 2.7 cm. Color: clay and slip 10R 6/8 (light red). Clay contains a few limes. Date: The early 6th century AD.

No. 46 Dish. Hayes Form 6. Diam. rim 26 cm, H. 2.6 cm. Color: clay 10R 6/6 (light red), slip 10R 5/8 (red). Refined clay. Date: The early 6th century AD.

No. 47 Dish. Hayes Form 7. Diam. rim 29 cm, H. 4.6 cm. Color: clay and slip 10YR 6/8 (light red). Clay with many limes. Date: The early 6th century AD.

No. 48 Dish. Hayes Form 9. Diam. rim 36 cm, H. 4.3 cm. Color: clay 2.5YR 6/6 (light red), slip 2.5YR 5/6 (red). Clay contains a few lime. Date: The second quarter of the 6th century AD.

No. 49 Dish/Bowl. Hayes Form 10C. Diam. rim 36.4 cm, H. 3.4 cm. Color: clay and slip 2.5YR 6/8 (light red). Clay includes many limes and micas. Date: The late 6th – early 7th century AD.

No. 50 Dish/Bowl. Hayes Form 10C. Diam. rim 28 cm, H. 2.6 cm. Color: clay and slip 10R 6/8 (light red). Clay with many limes. Date: The late 6th – early 7th century AD.

No. 51 Dish/Bowl. Hayes Form 10C. Diam. rim 24 cm, H. 2.6 cm. Color: clay and slip 5YR 6/8 (reddish yellow). Clay contains a few limes. Date: The late 6th – early 7th century AD.

No. 52 Dish/Bowl. Hayes Form 10C. Diam. rim 24 cm, H. 2.4 cm. Color: clay and slip 2.5YR 6/8 (light red). Clay with a few limes. Date: The late 6th – early 7th century AD.

No. 53 Dish/Bowl. Hayes Form 10C. Diam. rim 24.2 cm, H. 3.6 cm. Color: clay and slip 10R 6/8 (light red). Clay includes a few limes. Date: The late 6th – early 7th century AD.

No. 54 Dish/Bowl. Hayes Form 10C. Diam. rim 26.2 cm, H. 2.5 cm. Color: clay and slip 5YR 6/8 (reddish yellow). Clay contains a few limes. Date: The late 6th – early 7th century AD.

No. 55 Dish/Bowl. Hayes Form 10C. Diam. rim 29 cm, H. 2.5 cm. Color: clay 5YR 6/8 (reddish yellow), slip 2.5YR 6/8 (light red). Clay with a few limes. Date: The late 6th – early 7th century AD.

No. 56 Dish/Bowl. Hayes Form 10C. Diam. rim 31.4 cm, H. 2.2 cm. Color: clay 2.5YR 6/8 (light red), slip 10R 6/8 (light red). Refined clay. Date: The late 6th – early 7th century AD.

No. 57 Dish/Bowl. Hayes Form 10C. Diam. rim 26.2 cm, H. 2.5 cm. Color: clay and slip 5YR 6/8 (reddish yellow). Clay with many limes. Date: The late 6th – early 7th century AD.

No. 58 Amphora. Keay 57B. Diam. Rim 14 cm, H. 8.8 cm. Color: clay 5YR 7/6 (reddish yellow), slip 2.5YR 8/2 (white). Clay includes sedimentary rocks and limes. Date: The late 5th – early 6th century AD.

No. 59 Amphora. LR 1A. Diam. rim 8.6 cm, H. 15 cm. Color: clay 7.5YR 7/6 (reddish yellow), slip 10YR 8/4 (very pale brown). Clay contains many sedimentary rocks and limes. Date: The late 5th – early 6th century AD.

No. 60 Amphora. LR 1A. Diam. rim 11 cm, H. 7 cm. Color: clay 7.5YR 7/6 (reddish yellow), slip 10YR 8/2 (white). Clay with many sedimentary rock and lime particles. Date: The late 5th – early 6th century AD.

No. 61 Amphora. LR 1B. Diam. rim 9.4 cm, H. 14.5 cm. Color: clay 7.5YR 7/6 (reddish yellow), slip 10YR 8/3 (very pale brown). Clay includes many limes and a few micas. Date: The late 5th – early 6th century AD.

No. 62 Amphora. LR 2. Diam. rim 23.6 cm, H. 10.2 cm. Color: clay and slip 7.5YR 6/4 (light brown). Clay contains many sedimentary rocks and limes. Date: The early 6th century AD.

No. 63 Amphora. M 273. Diam. Foot 4.8 cm, H. 12 cm. Color: clay 7.5YR 7/6 (reddish yellow), slip 5YR 7/6 (reddish yellow). Clay with many sedimentary rock inclusions. Date: The 5th century AD.

No. 64 Cooking pots. Diam. rim 16.6 cm, H. 12.5 cm. Color: clay 5YR 4/4 (reddish brown), slip 10YR 5/2 (grayish brown). Clay contains many sedimentary rocks and limes. Date: The second half of the 5th – early 6th century AD.

No. 65 Cooking pots. Diam. Rim 20 cm, H. 6.7 cm. Color: clay 7.5YR 5/4 (brown), slip 7.5YR 5/2 (brown). Clay includes many sedimentary rocks and limes particles. Date: The second half of the 5th – early 6th century AD.

No. 66 Cooking pots. Diam. Rim 18 cm, H. 4.8 cm. Color: clay 5YR 4/6 (yellowish red), slip 5YR 5/2 (reddish gray). Clay with sedimentary rocks and limes. Date: The second half of the 5th – early 6th century AD.

No. 67 Mug. Diam. rim 10 cm, H. 9.5 cm. Color: clay and slip 2.5YR 6/6 (light red). Clay contains a few lime inclusions. Date: The late 5th – early 6th century AD.

No. 68 Mug. Diam. rim 7 cm, H. 8.4 cm. Color: clay 2.5YR 6/6 (light red), surface 5YR 7/4 (pink). Clay with many limes. Date: The late 5th – early 6th century AD.

No. 69 Mug. Diam. rim 3.6 cm, H. 2.4 cm. Color: clay 5YR 6/2 (pinkish gray), surface 5YR 6/4 (light reddish brown). Clay includes many sedimentary rocks and limes. Date: The late 5th – early 6th century AD.

No. 70 Mug. Diam. rim 3 cm, H. 3.4 cm. Color: clay and surface 5YR 6/6 (reddish brown). Clay contains a few limes particles. Date: The late 5th – early 6th century AD.

No. 71 Mug. Diam. rim 2 cm, H. 2 cm. Color: clay 5YR 7/4 (pink), surface 7.5YR 6/0 (gray). Refined clay. Date: The late 5th – early 6th century AD.

No. 72 Basin. Diam. rim 22 cm, H. 6.3 cm. Color: clay 2.5YR 6/6 (light red), surface 10YR 8/4 (very pale brown). Clay with sedimentary rock and lime inclusions. Date: The first half of the 6th century AD.

No. 73 Basin. Diam. rim 35 cm, H. 4.4 cm. Color: clay 10YR 5/3 (brown), surface 10YR 7/3 (very pale brown). Clay contains lime particles. Date: The first half of the 6th century AD.

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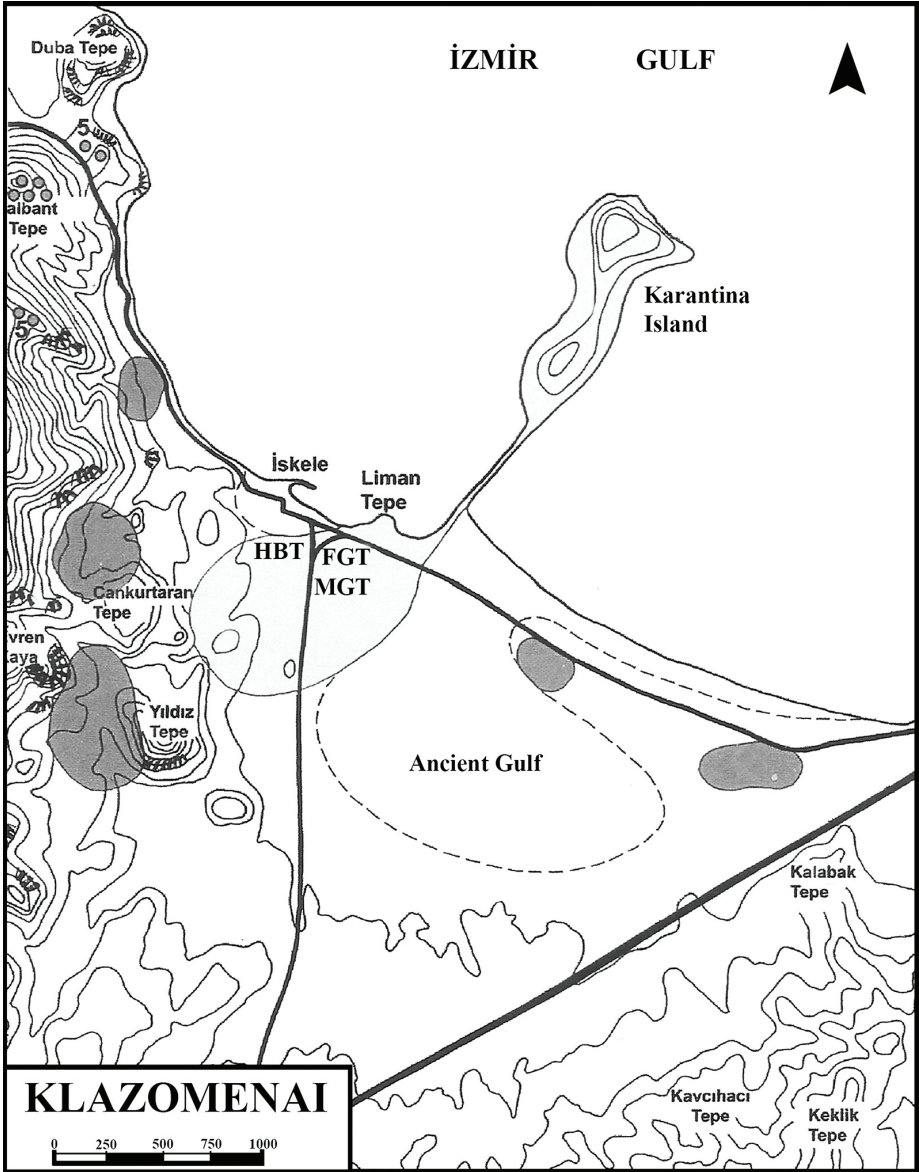


Fig. 1 Sectors of Klazomenai Excavations.

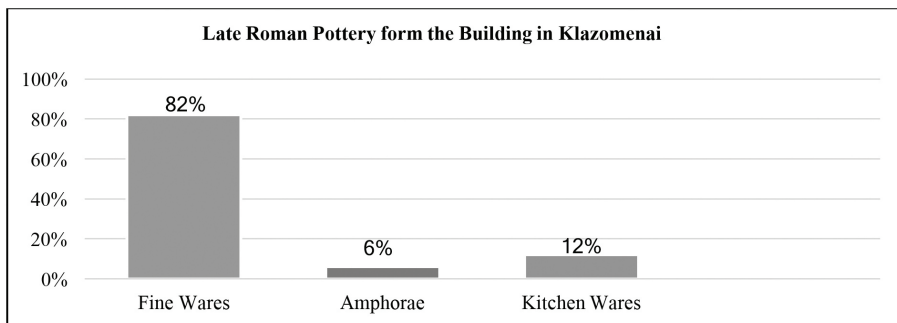


Fig. 2 Sectors of Klazomenai Excavations.

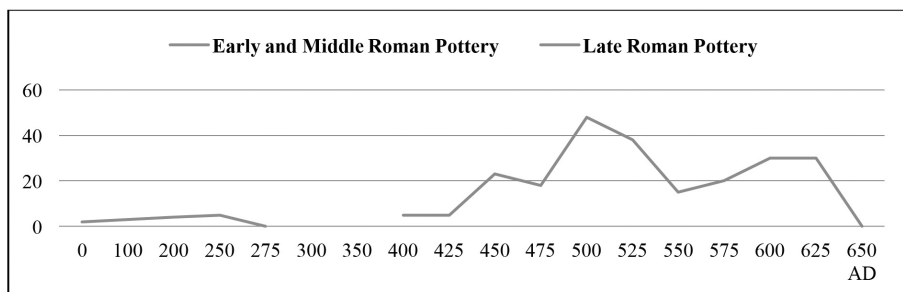


Fig. 3 Chronological diagram of the Roman pottery in Klazomenai.

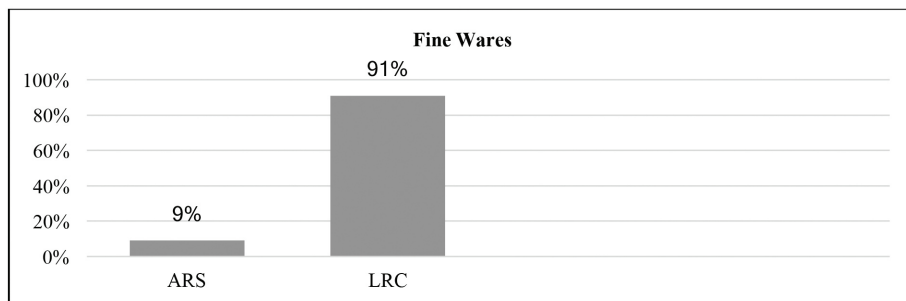


Fig. 4 Chart of the fine wares.

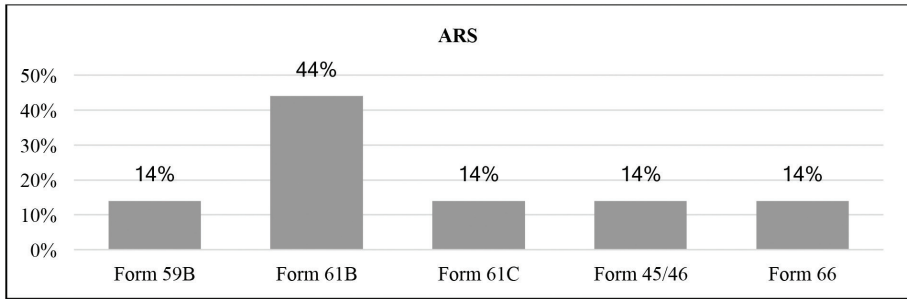


Fig. 5 The subtypes of the ARS wares from the building.

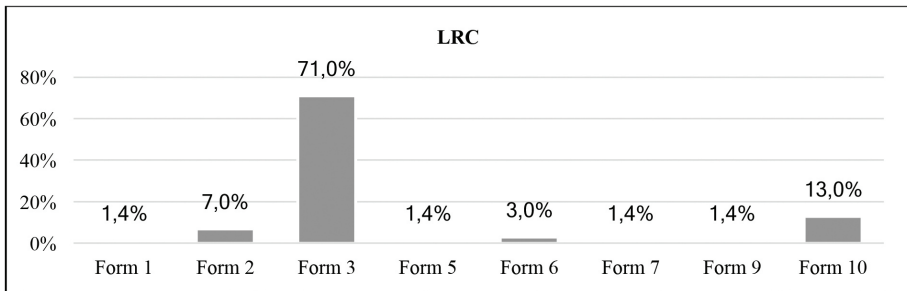


Fig. 6 The subtypes of the LRC wares from the building.

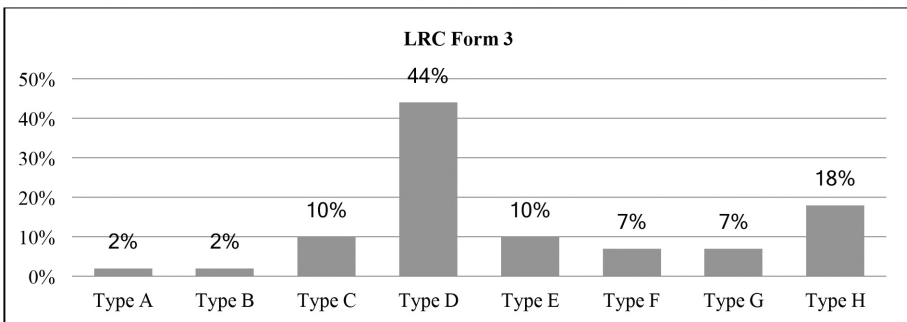


Fig. 7 The variants of the Form 3 from the building.

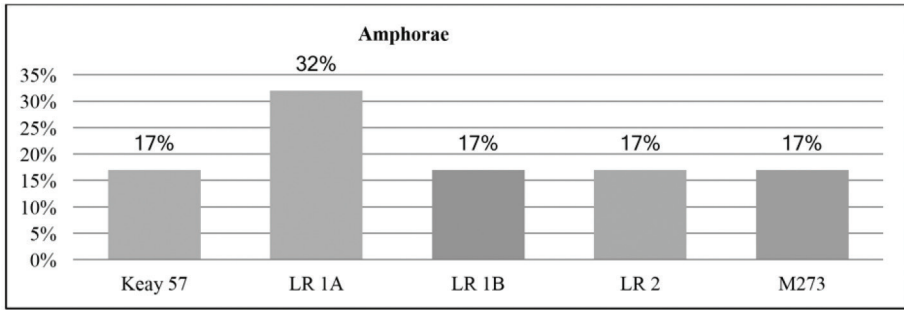


Fig. 8 The amphorae from the building.

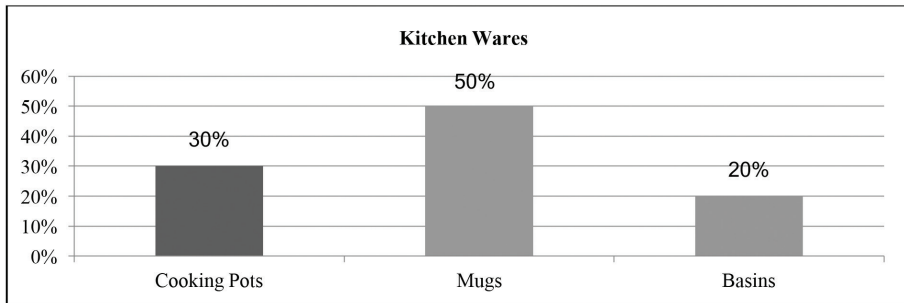


Fig. 9 The amphorae from the building.

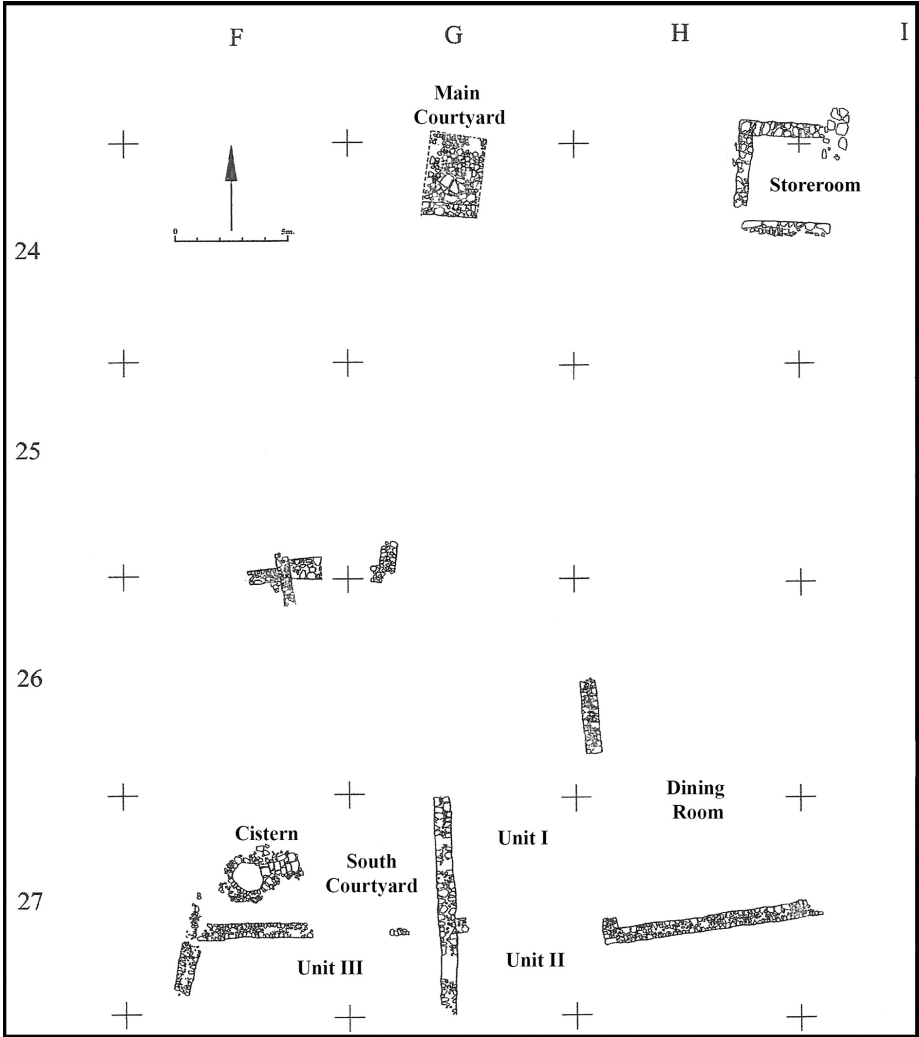


Fig. 10 Architectural layout of the building.

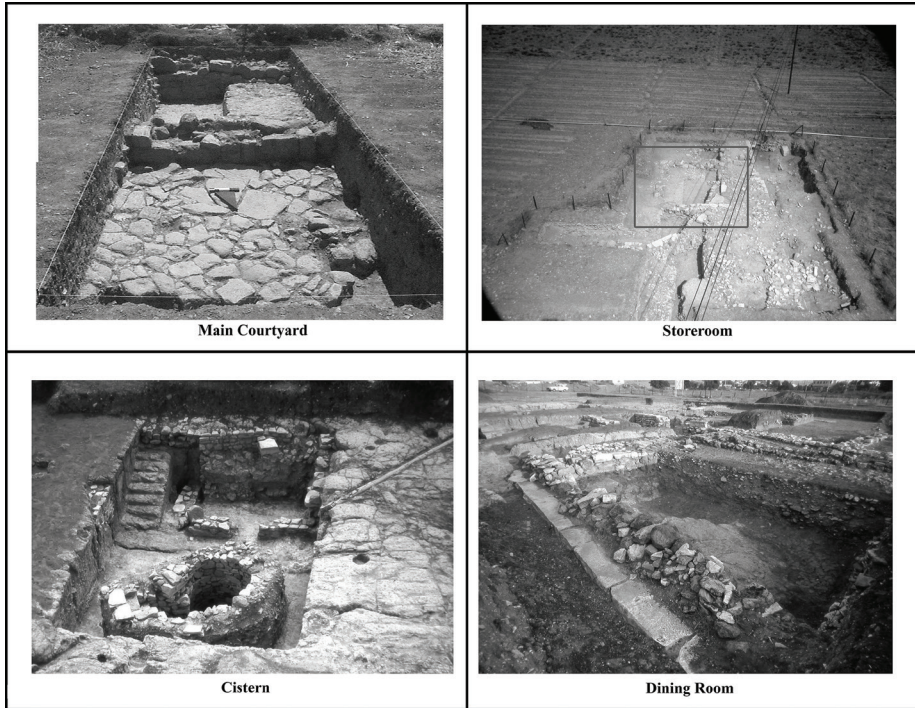


Fig. 11 Architectural remains of the building.

FIND SPOTS								
	Storeroom	Main Courtyard	South Courtyard	Cistern	Dining Room	Unit I	Unit II	Unit III
ARS		Nos. 2-6	No. 7		No. 1			
LRC	Nos. 8, 12, 13, 34, 35, 44	Nos. 9, 10, 14	Nos. 16, 19, 20, 25-31, 37-39, 41, 42, 45, 49, 54-57	Nos. 50-53	Nos. 11, 21-24, 32, 33, 43, 46-48,	Nos. 15, 36, 40	No. 17	No. 18
Amphorae	Nos. 59-61, 63		No. 58			No. 62		
Kitchen wares	No. 65		Nos. 67, 72		Nos. 64, 66, 68-71, 73			

Fig. 12 Find spots of the pottery in the building.

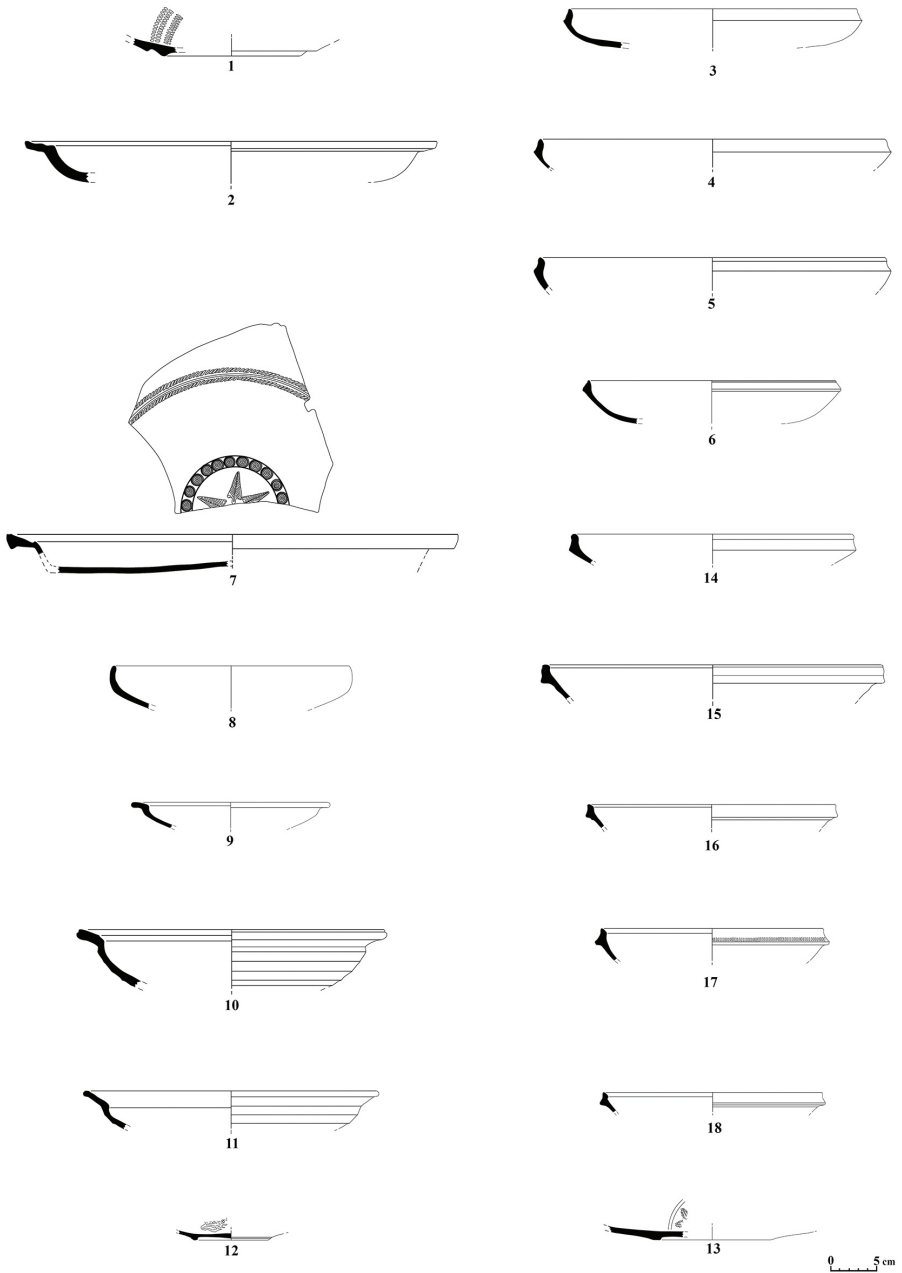


Fig. 13 ARS Form 45/46 (No. 1). ARS Form 59 (No. 2). ARS Form 61B (Nos. 3-5). ARS Form 61C (No. 6). ARS Form 66 (No. 7). LRC Form 1A (No. 8). LRC Form 2A (Nos. 9-11). LRC Form 2 (Nos. 12, 13). LRC Form 3A (No. 14). LRC Form 3B (No. 15). LRC Form 3C (Nos. 16-18).

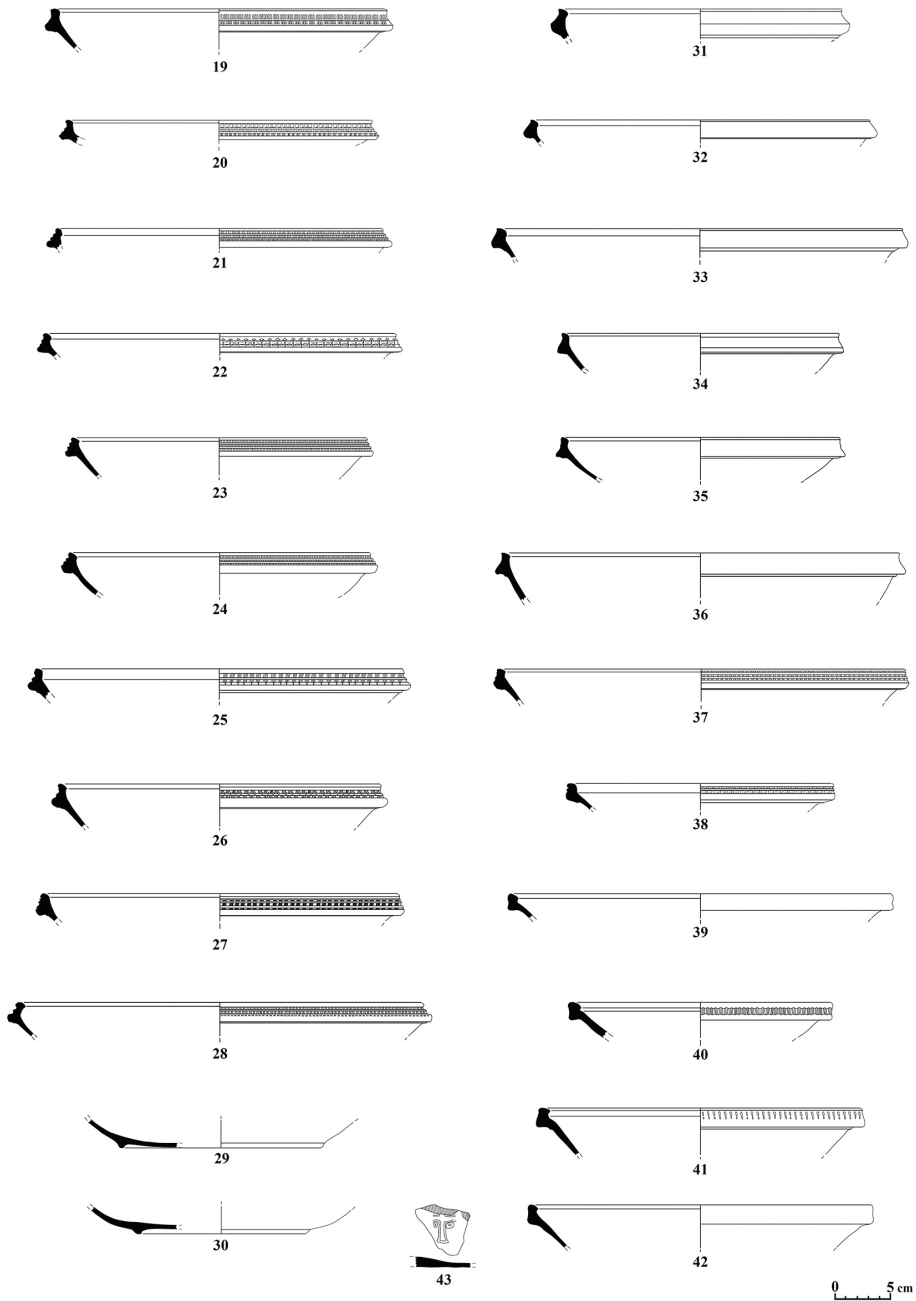


Fig. 14 LRC Form 3D (Nos. 19-30). LRC Form 3E (Nos. 31-33). LRC Form 3F (Nos. 34-36). LRC Form 3G (Nos. 37. 38). LRC Form 3H (Nos. 39-42). LRC Form 3 (No. 43).

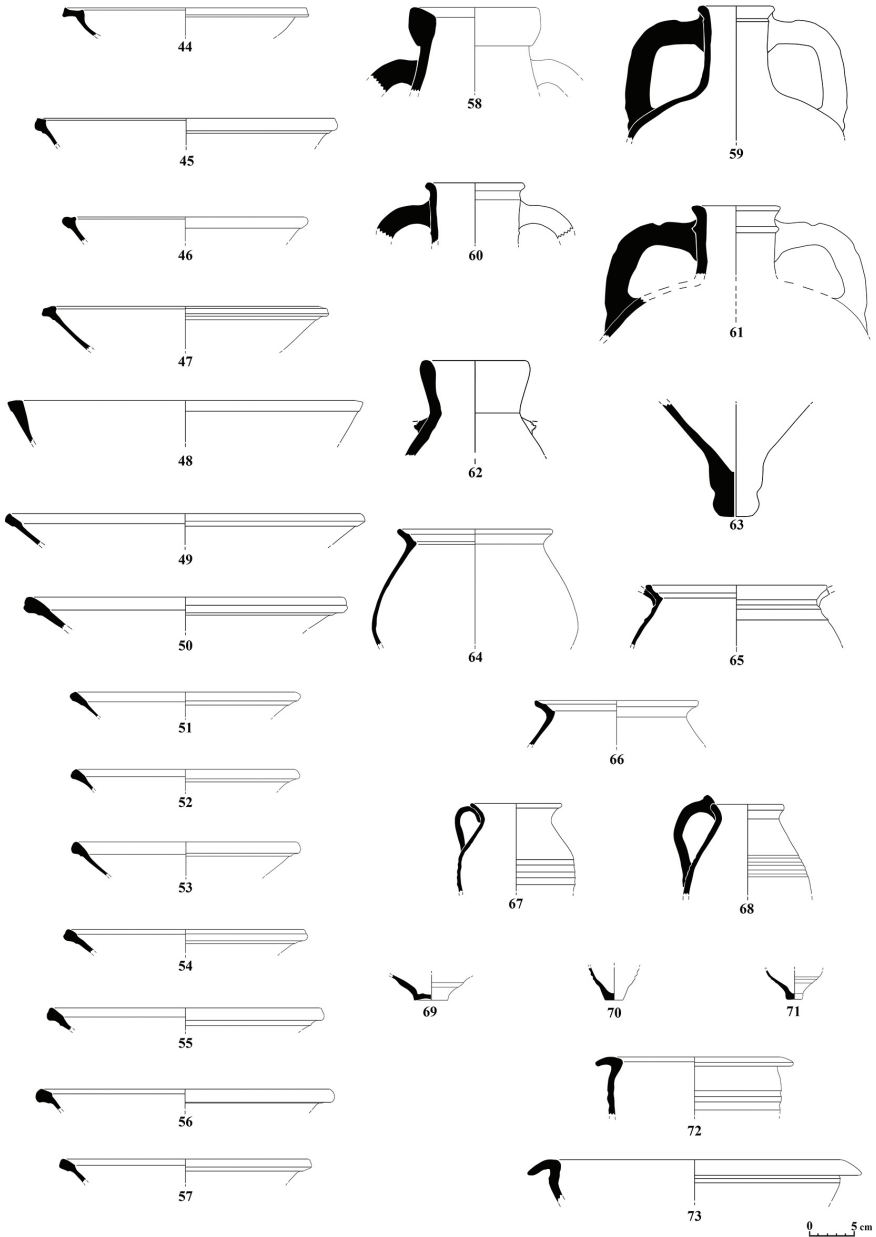


Fig. 15 LRC Form 5B (No. 44). LRC Form 6 (Nos. 45, 46). LRC Form 7 (No. 47). LRC Form 9 (No. 48). LRC Form 10C (Nos. 49-57). Kean 57B amphora (No. 58). LR 1A amphora (Nos. 59, 60). LR 1B amphora (No. 61). LR 2 amphora (No. 62). M 273 amphora (No. 63). Cooking pots (Nos. 64-66). Mugs (Nos. 67-71). Basins (Nos. 72, 73).