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A Late Roman Amphora I workshop in Kazanlı, ancient Cilicia Pedias

Abstract

Kazanlı is a settlement between the cities of Tarsus and Mersin in Turkey, and part of Cilicia Pedias in antiquity. Here, an amphora dump was discovered on the shoreline; it has not yet been officially recognized as an archaeological site. A waste layer in the dump consists of a large majority Late Roman Amphorae 1 (LRA 1) and few Late Roman Amphorae 4 fragments. LRA 1 is an amphora type produced in Cilicia, the Orontes delta, Cyprus, western Anatolia and the southern Aegean islands. In this article, results of research into the typological traits, fabrics, surface and slip colours of a sample of LR 1 amphorae produced in Kazanlı are introduced to the literature for the first time. According to the dates of the parallels, we may date the activity of this workshop to the late 4th–6th, and possibly 7th centuries AD.

Keywords: Cilicia, Kazanlı, Late Roman Amphora, LRA 1, LRA 4

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Introduction

Kazanlı is a settlement some 10 km east of Mersin and some 18 km to the south-west of Tarsus in Turkey (Figs 1, 2). This location was part of Cilicia Pedias in antiquity. In his work *Geography*, the ancient writer Strabon from Amesia (Amasya, 63 BC–AD 24), named the region including Soli Pompeiopolis, Tarsus and Issos as the Cilicia plains. A field survey was conducted at Kazanlı, resulting in the discovery of an amphora dump on the shoreline of the Mediterranean Sea. The site lies between glasshouses to the east and the south-eastern part of a large industrial complex to the west (Figs 1–4).¹ A sec-

tion cut by wave action through the dump revealed that the amphorae fragments were densely piled on top of each other. Unfortunately, a large number of amphorae fragments from the dump site lie below the water. The aim of this paper is to bring to the attention of the academic community this newly discovered dump, which mainly consists of Late Roman Amphora 1 (LRA 1) fragments, while giving a proper identification and date for the amphorae that were found at the site. We should note that a few Late Roman Amphora 4 (LRA 4) from Gaza, Palestine, were also found at Kazanlı.

Late Roman Amphora I (LRA I)

The kind of amphora discussed here, which was named LRA 1 according to the classification at Carthage, Tunisia, is one of the most common types of transport amphorae in the seaborne trade of the Late Roman–Early Byzantine period.² The amphorae in this group are classified typologically based on variations in their form and size.³ Research indicates that the predecessors of the LR 1 amphorae emerged during the 3rd century AD.⁴ Early examples of this group were classified as LRA 1A, and are distinguished by their narrower necks. From c. 450 AD, LRA 1A was replaced by a subgroup with a wider neck and a cylindrical body, classified by Dominique Pieri as LRA 1B.⁵ LRA 1 amphorae were produced widely, see Fig. 2. In modern-day Turkey production sites include Seleu-

tions. We took notes and carried out work similar to a surface survey. We primarily mean our observations by “surface survey”. From the perspective of archaeological research methods, it is indeed a surface survey.

² Bezczky 2013, 158.

³ Pieri 2005, 71, fig. 26; Marchand *et al.* 2022.

⁴ Reynolds 2008, 70.

⁵ Sezgin *et al.* 2022, 139.

¹ Durukan 2015b, 50, figs 23–24. Durukan first mentioned this site in his 2015 publication. Subsequently, as experts on the subject, we—the authors—visited the area in 2018 and conducted observa-



Fig. 1. Kazanlı, Turkey, with the location of the Late Roman Amphora 1 dump marked by red lines added by the authors. Photograph by Google Earth (5 May 2023).

keia Pieria (Çevlik, Hatay), Rhosos (Arsuz, Hatay), Magarsos (Karatat, Adana), Tarsus,⁶ Aegeai (Ayas, Adana),⁷ Zephyrion (Mersin),⁸ Soli Pompeipolis (Viranşehir, Mersin),⁹ Elaiussa Sebaste (Ayas, Erdemli)¹⁰ and Korykos (Kızılkalesi, Erdemli).¹¹ On Cyprus production sites are known at Zygi-Petrini,¹² Paphos,¹³ Amathous¹⁴ and Kourion,¹⁵ and within modern-day Greece at Rhodes,¹⁶ Kos¹⁷ and Paros.¹⁸

The extensive production within a specific geographic region prompts the query: were these amphorae systematically manufactured by an organized entity?¹⁹ Such production in many centres, with little to no typological differences, might be linked to the restructuring of the imperial administrative

and military systems under Diocletian (Roman emperor 284–305 AD). The *Diocesis Orientis*, including Cilicia, Syria and a part of the North African coast, was the most important amongst the *praefectura praetorio Orientis* and continued to be so in the later development of the eastern provinces and their administrative capitals, including Constantinopolis, founded in 330 AD. This region was highly valuable to the Roman Empire for its trade, agriculture and religious, eventually Christian centres.²⁰

As noted above, LRA 1 had a wide production area in the Eastern Mediterranean, but it had an even wider distribution. It is possible to identify this amphora type across the whole Mediterranean, the Aegean, the Pontus Euxinus basin, the River Danube, Gaul, the Atlantic coast of Spain and Portugal and as far as Britain.²¹ The amphorae of this group have also been found in the East, including India.²² The reason behind this broad distribution was most probably related to the in-kind taxation *annona civica* and *annona militaris* that served the Late Roman administration, army and navy. However, the sheer scale of the distribution of LRA 1, both quantitatively and geographically, speaks in favour of its distribution as a commodity in itself, and not just as a container for exported goods.²³ The 4th–mid-7th cen-

⁶ Empereur & Picon 1989, 239, fig. 18.

⁷ Şenol & Alkaç 2017.

⁸ During the municipality's restoration of the flat area to the south of the Archaeological Museum in Mersin city centre, now Republic Square, a dump comprising LRA 1 was discovered. This area and environs are thought to have been part of Zephyrion in antiquity (Durukan 2015b, 13–17).

⁹ Autret *et al.* 2010.

¹⁰ Burragato *et al.* 2007, 690–691; Ferrazzoli & Ricci 2009, 37, fig. 6.

¹¹ Opař 2004, 295, fig. 4.

¹² Manning *et al.* 2000, 255.

¹³ Michaelides 1996, 149.

¹⁴ Empereur & Picon 1989, 239, fig. 18.

¹⁵ Jacobsen 2004, 145.

¹⁶ Empereur & Picon 1989, 239, fig. 18.

¹⁷ Diamanti 2010, 1.

¹⁸ Diamanti 2016, 691.

¹⁹ Sezgin *et al.* 2022, 139.

²⁰ Durukan 2015a, 247.

²¹ Şenol 2003, 84; Pieri 2005, 74, fig. 32; Newett & Jackson 2007, 402; Reynolds 2010, 98–99; Duggan 2018, 73–74.

²² Tomber 2009, 48–50, fig. 4.

²³ Kara 2021, 65–79.

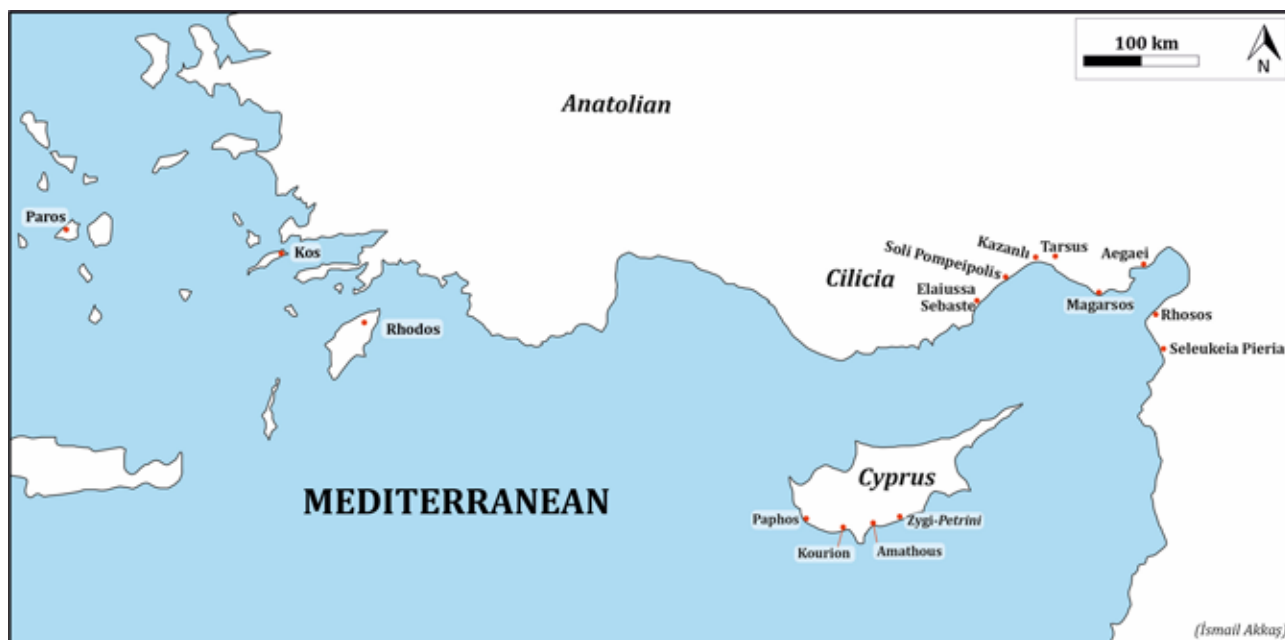


Fig. 2. LRA 1 production sites, including Kazanlı. Map by Ismail Akkas.

ture AD witnessed the uninterrupted production of LRA.²⁴ The 6th century AD was the period of peak production and export of LRA 1, especially those produced in Cilicia. It was also during this century that the type was most widely distributed to consumption centres across the Mediterranean, Pontus Euxinus and beyond.²⁵ These containers, which were produced for nearly 300 years, were rarely stamped, but many bear *dipinti* and some graffiti.²⁶ The prevailing consensus is that the amphorae once contained and transported primarily wine.²⁷

²⁴ Bevezsky 2013, 159. See Reynolds 2010, for evidence and comment on the scale of the distribution of LRA 1 and its implications for complex long-distance networks.

²⁵ Sezgin *et al.* 2022, 139.

²⁶ Kara 2021, 69. For *dipinti*, see Fournet & Pieri 2008. Graffiti (e.g., examples with *post-cocturam* graffiti on the Yassi Ada wreck: van Alfen 1996) and stamps are more a feature of the later production and reuse of LR 1 amphorae in the southern Aegean (Diamanti 2010; 2016).

²⁷ Pieri 2005; Fournet & Pieri 2008, for the suggestion of wine; Şenol 2009, 146.

Late Roman Amphora IA (LRA IA) and IB (LRA IB) in Kazanlı

The ceramic finds at Kazanlı are visible within a long wave-cut section of the seashore. Since this area has not yet been excavated, no related features could be identified. In some parts of the survey area, amphora fragments had been brought to the surface due to human activities and natural events.

Among diagnostic sherds, we note that rims, rims preserved with neck, rims and necks preserved with shoulder, necks, shoulders and handles preserved with body sherds have been found on the coast at Kazanlı. These are of the type LRA 1, subgroups A and B (*Cat. Nos 1–14*) and appeared in a deposit comprising solely amphorae. In certain parts of the field, some amphora pieces came to surface due to the human activities and natural events. The very large amount of LRA 1 fragments support the notion that there was once a workshop here. So far approximately twelve LR 1A and 150 examples of LR 1B have been identified in this area. LRA 1B outnumbers the rest, both on the surface and in the stratigraphy. As part of this research, hundreds of LR1 amphorae fragments found in Kazanlı were examined in terms of their form. The amphorae fragments were drawn, photographed, and then returned to their original locations. A sample of these pieces were then classified according to differences in rim shapes and catalogued. As well as at Kazanlı, dump sites of LR 1 amphorae in Cilicia Region



Fig. 3. Amphorae dump at Kazanlı and its surroundings. Photographs by Erkan Alkaç.

have been identified in the hinterland of Aegeai²⁸ and Soli Pompeipolis.²⁹

Among diagnostic sherds, we note that rims, rims preserved with neck, rims and necks preserved with shoulder, necks, shoulders and handles preserved with body sherds were found at the site. These are of the LRA 1 type, subgroups A and B (*Cat. Nos 1–14, Figs 5–18*) and appeared in a deposit comprising solely amphorae. The very large amount of LRA 1 fragments support the notion that there was once a workshop here. So far approximately twelve examples of LRA 1A and 150 of LRA 1B have been identified in this area, LRA 1B forming the majority both on the ground surface and in the exposed wave-cut section.

The LRA 1A example included in the catalogue (*Cat. No. 1, Fig. 5*) has a rim with a small band, oval-sectioned and grooved handles, a tall and ribbed narrow neck and a sloping shoulder. These features are characteristic of the LRA 1A amphorae found at Kazanlı. The surface of *Cat. No. 1* is covered with red slip. Parallels from Elaiussa Sebaste are dated to the 5th century AD³⁰ while another example (original find-spot unknown) held in the Taşucu Amphora Museum (near Sil-

ifke, Turkey) is dated to the 5th–6th centuries AD.³¹ However, good parallels for this variant of LRA 1A have also been dated to the mid- and late 4th century AD, the neck becoming shorter and more tronco-conical by the second quarter of the 5th century AD. The form of *Cat. No. 1* is similar to an example found in Beirut (Lebanon), which is dated to around AD 410.³² A similar amphora from Kellia (Egypt) dates to the early 5th century AD.³³

LR 1B amphorae from Kazanlı can be sorted under two groups according to their rim types. The first group consists of the amphorae with everted rims (*Cat. Nos 2–11, Figs 6–15*) while the second one consists of amphorae with rounded, vertical rims (*Cat. No. 12, Fig. 16*). Outcurved rims are dominant among the whole assemblage. The diameter of the rims range from 8.0 to 11.6 cm.

A characteristic feature of the LRA 1B is the slight dent, groove or ridge on the upper part of the neck. This feature can be seen as a dent on *Cat. Nos 2–5, 8–10* and *12*, as a groove on *Cat. Nos 6–7* and as a ridge on *Cat. No. 11*.

A complete amphora that was found buried under the sand of the Kazanlı shore helps us properly understand the form

²⁸ Şenol & Alkaç 2017.

²⁹ Autret *et al.* 2010.

³⁰ Kızırlıslanoğlu 2016, 351–352, cat. no. 52.

³¹ Şenol 2009, 230, no. 55.

³² Reynolds 2005, 566–567, figs 31–32, pl. 4.

³³ Egloff 1977, fig. 28:2, 169.



Fig. 4. Amphorae at Kazanlı.
Photographs by Erkan Alkaç.

of the Kazanlı LRA 1B (*Cat. No. 11, Fig. 15*). The outcurved rim is attached to a broad neck. The ridge on the upper part of the neck is noticeable. The oval-sectioned, grooved handles spring from below the rim and rejoin at the point where the body and shoulder meet. The grooved body tapers to a small, pointed toe.

The LRA 1B of Kazanlı has a cylindrical neck. The height of the neck is generally about 6.0 cm. The neck-to-shoulder transition can be smooth or marked (as in the case of *Cat. No. 11*). Grooves or ridges can be seen on the inner wall of the neck (*Cat. No. 13, Fig. 17*).

Oval-sectioned handles always spring from just under the rim. The handles, which form a wide angle with the neck, bear one or more grooves and may be straight or a little twisted. It is observed that some of the mouldings of the handles are rather sharp (see, for instance, *Cat. No. 14, Fig. 18*). The width of the handles varies.

Another find that should be noted here is the bi-conical stand (*Cat. No. 15, Fig. 19*), which was used to support the LRA 1 amphorae in an upright position: it is not possible for these amphorae to stand without such a support due to their round base. Such items may also have been used as a separation element in the kiln. Stoppers, lids and supports were

produced together with LRA 1 at Elaiussa Sebaste.³⁴ Similar stands were also found in the layers of dumps at Aegeai, one of the coastal production sites of LRA 1 in Cilicia Pedias.³⁵

Parallels for the Kazanlı LR 1B amphorae include amphorae from Elaiussa Sebaste dated to the 6th–early 7th centuries AD,³⁶ Rhodiapolis (Kumluca, Antalya, Turkey) dated to the 5th–7th centuries AD,³⁷ Alexandria (Egypt) dated to the 6th–7th centuries AD³⁸ and examples in the Greco-Roman Museum of Alexandria dated to the late 6th–early 7th centuries AD.³⁹ Early examples of LR 1B amphorae have been noted in Beirut and in Gallic contexts, and are dated after 450 AD.⁴⁰

Examination of the clay shows that in Kazanlı the firing of the amphorae was of a good standard. No significant holes were observed in the sections. Nevertheless, slight holes on the surface and in the section should be noted. These holes were formed due to the burning of lime during the firing process. Inclusions in the clay are mainly sand, chamotte, grit and limestone. Small pieces of seashell were also observed.

³⁴ Kızılsarıslanoğlu 2016, 67.

³⁵ Şenol & Alkaç 2017.

³⁶ Kızılsarıslanoğlu 2016, 363–364, cat. no. 66.

³⁷ Çömezoğlu 2014, 667, fig. 8-a.

³⁸ Şenol 2000, 458–461, nos 336–342.

³⁹ Şenol 2018, 516–517, no. 436.

⁴⁰ Reynolds 2005, 566–567.

Several of the amphorae are covered with white slip (5Y 8/1 according to the Munsell colour system). The colour of the clay and the surface has a wide range of light brown (7.5YR 7/4), very pale brown (10YR 8/2), reddish yellow (5YR 6/6), pink (5YR 7/3), light grey (10YR 7/2) and pale yellow (5Y 8/3; 5Y 8/4).

Late Roman Amphora 4 (LRA 4) in Kazanlı

Two LR 4 amphorae (*Cat. Nos 16–17, Figs 20–21*) were found to have fallen from the wave-cut section of the LRA 1 dump deposit at Kazanlı.⁴¹ Some further fragments of this kind of amphora were present in the waste deposit.⁴² LRA 4 amphorae are referred to by different names in the literature.⁴³ The amphorae of this type were produced in southern Palestine, especially in the Gaza region.⁴⁴

Cat. No. 16 has an upright rim, and a rather marked transition from the sloping shoulder to the body. The upper part of the body is preserved and is densely grooved. The area where the oval-sectioned handles meet the body is also heavily grooved, in a wide band. This example can be classified within Pieri's group B1, which is dated to the late 5th–early 6th centuries AD.⁴⁵

For *Cat. No. 17*, only the handle and a part of the body are preserved. This fragment displays the characteristics of the form, and the grooves at the point where the handle connects to the body. *Cat. No. 17* is similar, and the clay compositions of both show similarities with the specimens of LRA 4 from the Gaza region.

Parallels for our LR 4 amphorae from Kazanlı have been found at several locations in Turkey. Examples found in Elaiussa Sebaste are dated to the second quarter of the 6th century AD,⁴⁶ parallels found at Tarsus Gözlükule Mound are dated to the Late Roman period,⁴⁷ those found at Nicaea (Iznik, Bursa) to the late 5th–6th centuries AD,⁴⁸ those kept in Taşucu Aslan Eyce Amphora Museum in Silifke are dated to the late 6th century AD and those in Mersin Museum to the second half

of the 6th–7th centuries AD.⁴⁹ Moving on to Cyprus, parallels found at Paphos have been dated to the late 5th–early 6th centuries AD,⁵⁰ and the same time-span is assigned to examples at the Greco-Roman Museum of Alexandria, Egypt.⁵¹ According to the dates of the parallels, we may also date our fragments to the late 5th–7th centuries AD.

Evaluation and conclusion

LR 1 amphorae were produced between the mid-4th and the mid-7th centuries AD on the southern coast of Anatolia, Cyprus and the southern Aegean. Cilicia stands out as the most prominent production centre (*Fig. 2*). Amphorae of the LRA 1 type are known to have been produced at Rhosos, Aegeai, Magarsos, Tarsus, Zephyrion, Soli Pompeipolis and Elaiussa Sebaste. Following our studies of the amphora dump site at Kazanlı, where a large number of diagnostic sherds of LRA 1, of both type A and B, were found, this coastal site can now be added to the list of known Cilician production centres.

Of the two subgroups, LRA 1A and LRA 1B, the latter is the most common here and would appear to have been the kind primarily produced by the Kazanlı workshop. As the examples of LRA 1B found here differ from those from other sites, as regards both clay composition and form, we can fairly confidently assume that they were produced at Kazanlı. LRA 1A and 1B examples share similarities in clay colour, temper and firing quality. The low number of LRA 1A fragments could indicate that this group was not produced at Kazanlı. However, future archaeological excavations in this area should provide evidence as to whether LRA 1A was produced there or not. The amphorae from these deposits can be dated to the late 4th–early 5th centuries AD (LRA 1A) and especially to the second half or late 5th–6th centuries AD and perhaps on into the early 7th century AD.

We believe that LR 1A and 1B amphorae were produced in Kazanlı, as thousands of LR 1 amphora body sherds and hundreds of mouths, necks and handle fragments have been found in the area. The large quantity of amphorae fragments suggests their production nearby, the fragments are stratified along the coast in a manner resembling a dump. Rim, neck, and body fragments of LR 1 amphorae are scattered across a wide area on the surface. Similar sherd layers have also been identified in Seleukeia Pieria, Rhosos, Aegeai and Soli Pompeipolis. Kiln remains were discovered near the amphora waste layer in Soli

⁴¹ Durukan 2015b, 208, fig. 23.

⁴² Pers. comm. Prof. Dr Murat Durukan, to whom we are grateful for providing this information.

⁴³ Names: Carthage Late Roman Amphora 4; Almagro 54; Keay 54; Peacock–Williams 48–49; Kuzmanov 14; Zemer 53; Caesaraea type 2; Kellia type 182; Augst 54; Pieri LRA 4B. See Peacock & Williams 1986, 198; Bezczky 2013, 170.

⁴⁴ Riley 1975, 27–31; Majcherek 1995, 165; Regev 2004, 348.

⁴⁵ Pieri 2007, fig. 5.

⁴⁶ Kızırlıslanoğlu 2016, 387–388, cat. no. 97.

⁴⁷ Jones 1950, 278, no. 835, fig. 167.

⁴⁸ Meriç 2018, 75, no. 46, pl. 8.

⁴⁹ Şenol & Kerem 2000, table no. 16, 10.

⁵⁰ Megaw & Hayes 2003, figs 223–224.

⁵¹ Şenol 2018, 460–461, nos 380–382.

Pompeipolis.⁵² We have so far not discovered a kiln or any related remains at Kazanlı. In addition, there is no evidence of wasters. Nonetheless, clay sources, wood for fuel and fresh water, which were all necessary for production, would have been accessible nearby. When considered alongside the aforementioned production centres, the concentration of LR 1 amphorae in this area strengthens the likelihood of local production. The kiln in Kazanlı must have been located near this amphora deposit. We believe that future archaeological excavations in this area will likely lead to the discovery of kiln remains and additional examples of amphorae.

In the area where LR 1 amphorae are spread, no fragments of daily use ceramics, service vessels or storage containers such as pithoi have been found. This indicates that the area was used specifically for the production of LR 1 amphorae. However, we do not rule out the possibility that other ceramic groups were also produced at this site. The production of LR 1 amphorae alongside other ceramic groups has been identified in Magarsos,⁵³ Soli Pompeipolis,⁵⁴ Elaiussa Sebaste⁵⁵ and Zygipetini.⁵⁶

The high land to the north of Kazanlı is particularly suitable for agricultural activity, particularly the cultivation of olives and grapes. The presumed location of the amphora workshop on the coast suggests that the local wine or olive oil carried in the LR 1 amphorae of Kazanlı is likely primarily to have been exported.

There are few traces of an ancient settlement around the LR 1 amphora dump site at Kazanlı. A few architectural remains, inscriptions and ceramics fragments, all dated to the Roman period or later, are the sole evidence of a port settlement nearby. Some of the architectural remains hint to a port close to the dump site.⁵⁷

Establishing the origin of LR 1 amphorae found in various consumption centres is a major scientific problem. In publications, LRA 1 is mostly simply referred as Cilician or Cypriot, without closer specification. This is mainly because identifying which site in Cilicia or Cyprus produced the amphorae is difficult so long as the fabrics of all production sites are unpublished and/or difficult to understand. To address this inquiry, LRA 1 samples from each production centre should be presented in scientific papers and, if possible, archaeometrically investigated. This would help in determining and identifying the distribution of specific sources of LRA 1 exports. With this aim in mind, the continued study of LRA 1 from Kazanlı will enable the identification of amphorae from this

particular production centre in various consumption centres. Publications of LRA 1 production centres including the information about form, clay inclusions, clay and surface colour and archaeometric references are essential for the determination of the origin of amphorae found in a consumption centre.⁵⁸

Finally, the presence of some LRA 4 diagnostic sherds in Gazan, not local, fabric in the Kazanlı amphora dump do not necessarily detract from the evidence for local production of LRA 1 at the site. A similar situation is also encountered in the refuse dumps of the amphora workshops on the shore of Lake Mareotis at Alexandria, where the excavations yielded fragments of LRA 4 amphorae of Gazan origin.⁵⁹

Further scientific evaluation of the LRA 1 deposit at Kazanlı is of importance, as there is a clear need to present in even greater detail the typological characteristics, clay inclusions, colour of the clay, surface and slip of Kazanlı LRA 1 to the scholarly community. The LRA 1 of Kazanlı reminds us that there may be other unknown LRA 1 production sites in Cilicia. Thus, the necessity for further archaeological research to locate other LRA 1 workshops in Cilicia is brought to the fore.

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⁵² Autret *et al.* 2010, 203.

⁵³ Empereur & Picon 1989, 237.

⁵⁴ Autret *et al.* 2010, 204.

⁵⁵ Ferrazzoli & Ricci 2010, 817–818.

⁵⁶ Manning *et al.* 2000.

⁵⁷ Durukan 2015b, 51–52.

⁵⁸ Williams 2005; Autret *et al.* 2010; Şenol & Alkaç 2017, 831–843; Kızıllarslanoglu 2018.

⁵⁹ Bezeczky 2013, 158; Pichot & Şenol 2015.

Catalogue

No. 1. LRA 1A

Rim diameter: 5.1 cm
 Height: 17.9 cm
 Surface: 5Y 8/3 pale yellow
 Clay: 5Y 8/4 pale yellow
 Slip: 7.5YR 5/8–6/8 light red
 Inclusions: sand, chamotte, limestone, mica
 Description: small rim band, slightly everted. Tall, narrow, cylindrical, well-ribbed neck. Small oval-sectioned, grooved handle and sloping shoulder
 Date: late 4th–early 5th centuries AD

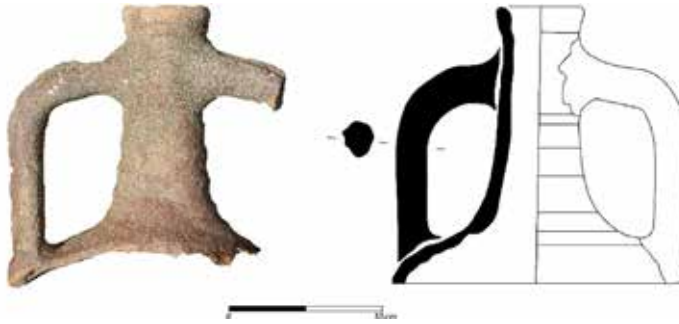


Fig. 5. Cat. No. 1. *Photograph and drawing: Erkan Alkaç.*

No. 2. LRA 1B

Rim diameter: 8.0 cm
 Height: 7.9 cm
 Surface: 7.5YR 7/4 light brown
 Clay colour: 7.5YR 7/5 reddish yellow
 Slip colour: 5Y 8/1 white
 Inclusions: sand, chamotte, limestone, mica
 Description: everted rim, cylindrical grooved neck, oval-sectioned grooved handle
 Date: 5th–7th centuries AD



Fig. 6. Cat. No. 2. *Photographs and drawing: Erkan Alkaç.*

No. 3. LRA 1B

Rim diameter: 11.6 cm
 Height: 9.8 cm
 Surface colour: 10YR 8/2 very pale brown
 Clay colour: 7.5YR 7/3 pink
 Slip colour: -
 Inclusions: sand, chamotte, limestone, mica
 Description: everted rim, with a wide, concave band-ridge on the transition from rim to neck, cylindrical neck, oval-sectioned handle
 Date: 5th–7th centuries AD



Fig. 7. Cat. No. 3. *Photograph and drawing: Erkan Alkaç.*



Fig. 8. Cat. No. 4. Photographs and drawing: Erkan Alkaç.

No. 4. LRA IB

Rim diameter: 8.0 cm

Height: 3.5 cm

Surface colour: 5YR 6/6
reddish yellow

Clay colour: 5YR 6/4
light reddish brown

Slip colour: -

Inclusions: sand, chamotte,
limestone, mica

Description: everted rim, ridge
on the transition from rim to
neck, cylindrical neck

Date: 5th–7th centuries AD



Fig. 9. Cat. No. 5. Photographs and drawing: Erkan Alkaç.

No. 5. LRA IB

Rim diameter: 9.2 cm

Height: 6.0 cm

Surface colour: 5YR 7/3 pink

Clay colour: 5YR 6/4
light reddish brown

Slip colour: -

Inclusions: sand, chamotte,
organic inclusion (seashell)

Description: everted rim, cy-
lindrical neck, oval-sectioned
grooved handle

Date: 5th–7th centuries AD



Fig. 10. Cat. No. 6. Photographs and drawing: Erkan Alkaç.

No. 6. LRA IB

Rim diameter: 9.2 cm

Height: 6.8 cm

Surface colour: 7.5YR 7/2

pinkish grey

Clay colour: 7.5YR 7/2

pinkish grey

Slip colour: -

Inclusions: sand, chamotte,
limestone, mica

Description: everted rim,
cylindrical neck, oval-
sectioned grooved handle

Date: 5th–7th centuries AD

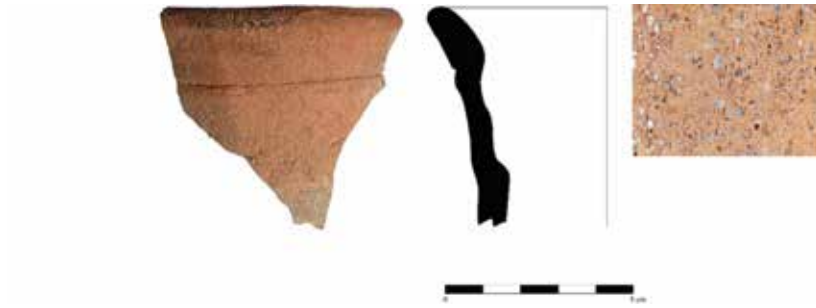


Fig. 11. Cat. No. 7. Photographs and drawing: Erkan Alkaç.

No. 7. LRA 1B

Rim diameter: 9.6 cm

Height: 5.8 cm

Surface colour: 5YR 7/6
reddish yellow

Clay colour: 5YR 6/6
reddish yellow

Slip colour: -

Inclusions: sand, limestone,
mica

Description: everted rim,
cylindrical neck, groove
on the transition from rim
to neck, ridge on the inner
wall of the neck

Date: late 5th–7th centuries AD



Fig. 12. Cat. No. 8. Photographs and drawing: Erkan Alkaç.

No. 8. LRA 1B

Rim diameter: 8.8 cm

Height: 9.9 cm

Surface colour: 7.5YR 7/4
pink

Clay colour: 7.5YR 7/4 pink
Slip colour: 5Y 8/1 white

Inclusions: sand, chamotte,
limestone, mica

Description: everted rim,
cylindrical neck, ridge on
the transition from rim to
neck, oval-sectioned handle,
sloping shoulder, ridge on
the inner wall of the neck

Date: late 5th–7th centuries AD



Fig. 13. Cat. No. 9. Photographs and drawing: Erkan Alkaç.

No. 9. LRA 1B

Rim diameter: 9.4 cm

Height: 6.6 cm

Surface colour: 5Y 8/3
pale yellow

Clay colour: 5Y 8/4
pale yellow

Slip colour: -

Inclusions: sand, chamotte,
limestone, mica

Description: everted rim, cylin-
drical neck, ridge on the transi-
tion from rim to neck

Date: late 5th–7th centuries AD



Fig. 14. Cat. No. 10. Photograph and drawing: Erkan Alkaç.

No. 10. LRA IB

Rim diameter: 8.6 cm
Height: 7 cm
Surface colour: 5Y 8/2
pale yellow
Clay colour: 5Y 8/2
pale yellow
Slip colour: -
Inclusions: sand, chamotte,
mica
Description: everted rim,
cylindrical neck, oval-sectioned grooved handle
Date: 5th–7th centuries AD



Fig. 15. Cat. No. 11. Photograph and drawing: Erkan Alkaç.

No. 11. LRA IB

Rim diameter: 8.0 cm
Height: 46.7 cm
Surface colour: 5Y 8/3
pale yellow
Clay colour: 5Y 8/4 pale yellow
Slip colour: -
Inclusions: sand, chamotte,
limestone, mica
Description: everted rim,
cylindrical neck, ridge on
the neck, sloping shoulder,
oval-sectioned grooved handle,
cylindrical grooved body
tapering to a small, pointed toe
Date: 5th–7th centuries AD

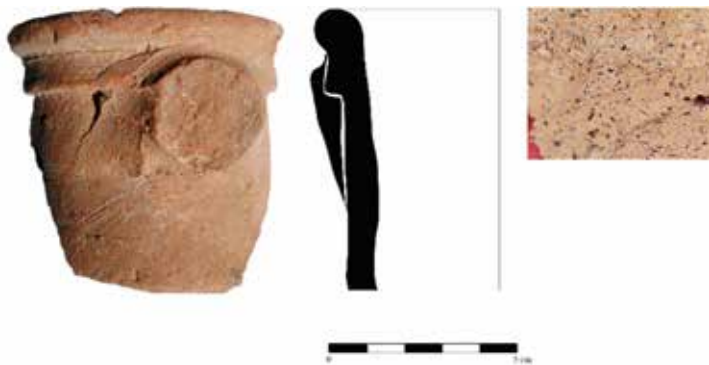


Fig. 16. Cat. No. 12. Photographs and drawing: Erkan Alkaç.

No. 12. LRA IB

Rim diameter: 9.8 cm
Height: 7.5 cm
Surface colour: 5YR 6/6
reddish yellow
Clay colour: 2.5YR 6/4
light reddish brown
Slip colour: -
Inclusions: sand, chamotte,
limestone
Description: thick, vertical
rounded rim, cylindrical neck,
wide band or ridge on the transition from the rim to the neck
Date: 5th–7th centuries AD



Fig. 17. Cat. No. 13. Photographs and drawing: Erkan Alkaç.

No. 13. LRA IB

Rim diameter: -
 Height: 5.8 cm
 Surface colour: 10YR 7/2
 light grey
 Clay colour: 10YR 7/3
 very pale brown
 Slip colour: -
 Inclusions: sand, chamotte,
 mica
 Description: "S"-shaped neck
 and sloping shoulder
 Date: 5th–7th centuries AD



Fig. 18. Cat. No. 14. Photographs and drawing: Erkan Alkaç.

No. 14. LRA IB

Rim diameter: -
 Height: -
 Surface colour: 5Y 8/2
 pale yellow
 Clay colour: 5Y 8/2
 pale yellow
 Slip colour: -
 Inclusions: sand, chamotte,
 mica
 Description: oval-sectioned
 grooved handle
 Date: second half of 5th
 century AD



Fig. 19. Cat. No. 15. Photograph: Erkan Alkaç.

No. 15

Rim diameter: 13.0 cm
 Height: 5.5 cm
 Surface colour: 10YR 8/2
 very pale brown
 Clay colour: 7.5YR 7/3 pink
 Slip colour: -
 Inclusions: sand, chamotte,
 mica
 Description: biconical
 support, widens towards
 the bottom
 Date: 5th–7th centuries AD



Fig. 20. Cat. No. 16. Photograph and drawing: Erkan Alkaç.

No. 16. LRA 4

Rim diameter: 11.3 cm

Height: 20.6 cm

Surface colour: 5YR 6/4

light reddish brown

Clay colour: 7.5YR 5/5 yellowish red

Slip colour: -

Inclusions: sand, quartz, limestone, grits, mica

Description: upright rounded rim, small neck, angled shoulder, oval-sectioned small ring handles, cylindrical body with a wide band of grooves on the upper part

Date: end of 5th–first half of 6th centuries AD



Fig. 21. Cat. No. 17. Photograph and drawing: Erkan Alkaç.

No. 17. LRA 4

Height: 7.9 cm

Surface colour: 5YR 6/4

light reddish brown

Clay colour: 7.5YR 5/5 yellowish red

Slip colour: -

Inclusions: sand (medium), few limestone, few grits, few mica

Description: oval-sectioned small ring handles, grooves on the point where the handle meets the body

Date: late 5th–7th centuries AD

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