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Big Brothers: Two North Pontic Amphorae of Type Zeest 83 / 89 found in Limyra

BANU YENER-MARKSTEINER – PHILIP BES*

Abstract

This article presents two large commercial amphorae from the ancient city of Limyra unearthed during the renewed excavations of the so-called Theater Baths in 2007-2010, a building located southwest of the ancient theater.

The large amphorae were identified as type Zeest 83 / 89, thought to have been produced in the northern Black Sea. To the authors' best knowledge, these two examples are the first specimens of this type to be identified at a Mediterranean site. This not only sheds light on connections between Limyra and the northern Black Sea during the Roman imperial period, but also highlights as a material culture their socio-economic character because of the content, which is suggested to have been a fish product.

Keywords: Limyra, Lycia, Roman Imperial amphorae, Bosphoran Kingdom, fish products in antiquity

Öz

Bu makalede, Limyra antik kentinde, antik tiyatronun güneybatısında 2007-2010 yıllarında tekrar kazılmaya başlanan ve tiyatro hamamı olarak adlandırılan yapıda gün ışığına çıkartılmış iki büyük ticari amfora ele alınmaktadır.

Zeest 83 / 89 tipi olarak bilinen bu büyük amforaların Kuzey Karadeniz'de üretildiği düşünülmektedir. Yazarların bildiği kadarıyla Limyra'dan bu iki örnek, Küçük Asya'daki antik yerleşimlerde bulunmuş ilk Zeest 83 / 89 tipi amforalardır. Roma İmparatorluk Dönemi'nde Limyra'nın Kuzey Karadeniz Bölgesi ile ilişkisine ışık tutmanın yanı sıra, Limyra'da bulunmuş bu iki amfora balık ürünleri olarak tahmin edilen içerikleri nedeniyle materyal kültür bazında sosyoekonomik karakterleri ile dikkat çekerler.

Anahtar Kelimeler: Limyra, Likya, Roma İmparatorluk Dönemi amforaları, Bosporos Krallığı, Antik Dönem'de balık ürünleri

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Introduction

The remains of ancient Limyra are located on the lower slopes and in the plain at the foot of Tocak Dağı, whose summit is 1223 m above sea level, in southeast Lycia. It is situated some five km northeast of modern Finike, the site of Limyra's presumed harbor Phoinike or Phoinix. Architectural and artefactual remains testify to continuous occupation of Limyra's area from Classical to Ottoman times.¹

During stratigraphic excavations in the Theaterthermen (Theater Baths) in 2009 two partially preserved amphorae of rather remarkable size and, above all, great rarity were brought to light. Following their restoration both could be identified as specimens of Zeest Type 83 / 89, presumably manufactured in the north Pontic area. Their archaeological context and particularly their rarity merit this contribution which discusses their findspot, characteristics of typology and fabric, and provenance.

Findspot

The two amphorae were uncovered during the excavations of a building complex located immediately outside the southwest corner of the Roman theater in the center of the ancient city (fig. 1). Excavations in this area were carried out in 1995 and 1996 and, after a hiatus of over ten years, were resumed in 2007 and concluded in 2010, although excavation of the complex has not been completed.² The results of these four campaigns showed that the building was constructed in the third century as a bath complex, though the question whether it was part of a private building or functioned as a public bath still cannot be answered (fig. 2). The plan of the building nevertheless presents the typical layout of a bath complex with three rooms in a row (frigidarium, tepidarium, caldarium, here Rooms II, III and IV respectively), a layout that is also known from other ancient cities in Lycia, albeit with smaller dimensions.³ Sometime in the mid-fifth century the hypocaust rooms of the complex were filled, and the entire building lost its function as a bath.

In a subsequent phase of reutilization of the building that began in the second half of the fifth century, the complex was rebuilt, enlarged, and remained in use until the eighth century. Furthermore, a small amount of archaeological evidence indicates that parts of the building continued to be used until the 10th century.⁴ Even though the function during this later phase is not exactly clear, archaeological evidence points to commercial and religious purposes. This suggests that it could have been the residence of a prominent person or an important authority, or perhaps a Christian charitable institution, for example, a *xenodochion*.⁵ Since there is no archaeological evidence datable to the 11th to 13th centuries, the building was either abandoned prior to that time, or the upper layers were removed before or when the area was transformed into a burial ground in the 14th century, which remained in use until the 17th century.⁶

¹ All dates are AD and approximate unless otherwise noted.

² Marksteiner and Schuh 2008, 42-45; Seyer and Schuh 2009, 45-47; 2010, 50-53; 2011b, 54-56; Schuh 2012a, 2012b; Baybo 2009.

³ Schuh 2012a, 288, 293; 2012b, 161-62, 166.

⁴ Yener-Marksteiner 2019, Yener-Marksteiner (forthcoming). For other bath complexes in Limyra, see Ganzert 1996; Sewing 2015.

⁵ Yener-Marksteiner 2016, 198-99.

⁶ Cf. an unpublished anthropological report from Jan Nováček and Kristina Scheelen. It cannot be ruled out that the area was used as a burial ground already prior to the 14th century. Only a small number of skeletal remains from

Both amphorae presented here were uncovered in Room VI (Q18-5) in the northeast part of the building complex during the excavation campaign in 2009.⁷ Despite intensive construction activities in this part of the building in later centuries, stratigraphic data testifies that the northeast corner under the secondary walls of Room VI, as well as a canal running to Room II found below a mortar screed floor in this area, belonged to the complex's first phase.⁸ The spectrum of pottery finds from the backfilling of the canal (find no. Li09-290) and from the layer below the mortar screed floor (find no. Li09-282)⁹ is known from other contexts in Limyra and provides a *terminus ante quem* in the fourth century.¹⁰ The small quantity of finds from the layer in which both amphorae were found (find no. Li09-308) is homogenous and of the same chronology. Yet the contamination of stratigraphically related layers in the same area (i.e., with residual and / or intrusive artefacts), caused by subsequent construction activities as well as use of the area as a burial ground, shows how deeply the layers were interfered with.¹¹ Here, reuse of one or both well-preserved amphorae can be plausibly considered when considering size, (im)mobility, and pragmatic usage of such large vessels, though neither amphora could be fully restored.

The Amphorae

Morphology and Typology

Indeed, neither amphora could be fully restored with the missing parts *in casu* fragments absent in the excavated layer. Missing from specimen 1 (object no. Li09-308-1), which is better preserved, are part of the rim, lower wall, and entire bottom. Essentially, however, it preserves most of its profile (figs. 3-4). This shows a rim with a diameter of ca. 20 cm that is offset from the broad neck by an exterior step, and with a strongly beveled interior lip. The two large handles are ear-shaped in profile and circular in section. Both handles are rather neatly attached, running from a few cm below the stepped rim to the middle of the shoulder (fig. 5). On both sides of the interior neck an indentation can be seen at the height where the handles are attached, which is where (presumably) a finger was pressed into the wall to ensure a firm attachment of the upper onset. This feature was not observed on the interior shoulder, i.e., at the lower onset, although this feature is observed on specimens found elsewhere.¹² The high and wide neck gently broadens from the rim downward where it curves into the shoulder. The overall body profile can be described as an inverted pear-shape. Even if the bottom and lower wall are missing, its typological identification (see below) suggests that the vessel's lower segment is probably to be reconstructed as a solid, somewhat pointed toe, which can nevertheless vary in profile, height, and width. Where preserved, the exterior - which is in fact heavily battered - is rather smooth. That the exterior is patchily preserved could point to an extended and / or intensive period of usage, perhaps exacerbated by the vessel being moved around on multiple occasions. The exterior surface color is 2.5YR 6 / 6-6 / 8 "light red", and it has a 2.5YR 6 / 6 "light red" fresh break with a 5YR 8 / 4 "pink" core.

individuals were analyzed using ¹⁴C, and not all burials were excavated since the excavations stopped in 2010. See also Schuh 2012a, 292.

⁷ Seyer and Schuh 2011a, 333.

⁸ Schuh 2012a, 291.

⁹ Unpublished material.

¹⁰ For Limyra's pottery repertoire of the first to third centuries, see Yener-Marksteiner 2020, 2021.

¹¹ Publication of the excavations is in progress.

¹² Kassab Tezgör 2020, 66, pl. 43, cat. nos. 137, 141.

Specimen 2 (object no. Li09-308-2) is less well-preserved, missing its wall from just below the vessel's widest point (figs. 6-7). Its overall profile and morphological details are, however, largely similar to those described for specimen 1 and require no repetition. Although the handles are still ear-shaped, one noticeable difference is that they are ever so slightly less curved in profile (fig. 8a-b). The second specimen has more of its original surface preserved, in particular that of both handles. It has a 5YR 8 / 4 "pink" exterior, and a fresh break shifts from 5YR 6 / 1 "gray" to 2.5YR 6 / 6 "light red".

Both specimens conform very well with what Zeest originally published under two separate type numbers, Types 83 and 89, both of which are labelled as "Pink clay amphorae with wide neck."¹³ Despite separate type headings, Zeest already pointed to morphological similarities between the two types,¹⁴ while at the same time grouping amphorae with different body profiles under one typological header, e.g., those illustrated as Type 83a (from Pantikapaion) and 83b (from Semenovka).¹⁵ Despite such differences, there is good reason to classify both types under the moniker Type 83 / 89.¹⁶ This is followed for both amphorae from Limyra, noting that both of these specimens conform best to type-variant 83b with regard to overall shape. Minor though they may be, morphological differences more generally should not be ignored nor downplayed. Such attributes can be chronologically significant, or represent different potters, workshops, and / or places of manufacture.¹⁷ Dominique Kassab Tezgör also raised this point in her recent discussion of Zeest 83 / 89 amphorae, wherein she distinguishes two type-variants, taking rim, neck, and handle profile, rim diameter and general body shape and height into account, among others.¹⁸ In so far as they are preserved, when considering rim diameter, neck-shoulder profile as well as overall body shape, the specimens from Limyra best match type-variant 2.

Manufacture and Provenance

A Zeest 83 / 89 specimen found in ancient Pergamon helps to understand aspects of this type's manufacturing technique.¹⁹ First, the seam between the neck and shoulder of the Pergamon specimen is marked by a series of rather thick and irregular downward smears of clay, indicating that the neck was applied separately. Although this was common practice in the manufacture of closed vessels, these smears provide the first clue that this vessel was not wheel-made. Further clarifying the manufacturing technique are the smears, wipes, and indents on the Pergamon vessel's interior wall, which points to an absence of centrifugal force during its manufacture, and strongly suggests that it was hand-made instead. Presumably, this vessel was manufactured by coiling or slab building, techniques by means of which vessels were constructed in segments.²⁰ Such techniques were often applied in the construction of larger vessels such as pithoi, and it is perhaps no coincidence that Zeest 83 / 89 amphorae are indeed

¹³ Zeest 1960, 115, 117.

¹⁴ Zeest 1960, 115-17, 170, 172, pls. 34, 36.

¹⁵ Zeest 1960, 170, pl. 34.

¹⁶ Opař 2007, 114-17, figs. 22-23; Kassab Tezgör 2020, 66.

¹⁷ Rim profiles published by Yermolin and Fedoseev (2013, 194-96, figs. 6-8) show a considerable variety in, for example, general profile and rim height.

¹⁸ Kassab Tezgör 2020, 66-68, 137-38, 165, pls. 25-26, 43.

¹⁹ To be published separately. We kindly thank Felix Pirson (German Archaeological Institute, Istanbul) and Güler Ateş (Celal Bayar Üniversitesi, Manisa) for their permission to mention the amphora here.

²⁰ Rice 2015, 135-38.

referred to as “Amphores pithoi.”²¹ Furthermore, traces on the interior upper wall are conceivably indicative of pinching and drawing, techniques used in conjunction with coil or slab building. This aimed to obtain the desired thickness and firmly fix each individual segment onto the gradually growing vessel.²² This irregular interior surface is in stark contrast with the smooth exterior, which presumably was achieved by paddling so as to obtain or enhance certain desired properties including strengthening the vessel’s structural integrity.²³ Furthermore, it is reasonable to assume that the entire exterior was finished / smoothed by wiping it with a (wet) cloth including the handles.²⁴

When permitting ourselves some degree of generalization, we may conclude that amphorae of Zeest 83 / 89 were manufactured without a wheel. Instead, they were hand-made, adding and fixing wall segments by coiling / slab building and kneading / paddling these in place. There is in fact a further clue that helps to understand their manufacture. Circular clay objects were found among what is interpreted as the remains of a workshop of these amphorae (see below), and which are interpreted as drying supports.²⁵ An indication for their use is provided by an irregular surface that is attested around the lower wall of Zeest 83 / 89 amphora fragments found among the workshop remains.²⁶ This irregular ring was caused by the amphora resting upright within such a support ring, which pushed some of the exterior clay of the lower wall upward because of the weight of the amphora (i.e. this happened before firing). This further caused the lower wall to become somewhat concave or dented. Since both specimens from Limyra are missing their lower wall, it cannot be verified whether they also had such traces. One (or two?) holes in the wall of these supports furthermore ensured that the vessel’s lower wall and toe could dry at a more or less even pace with the rest of the vessel.²⁷ Given that these amphorae were completely manufactured by hand (see above), in combination with their size and shape (e.g., the pointed toe), the possibility cannot be excluded that these supports also functioned to stabilize vessels during (part of) their manufacturing process.²⁸ It is then plausible to think that an amphora, once finished, was left to dry on the very same spot where it was manufactured. Moving a finished amphora to a drying area must have been quite cumbersome given their size and weight.

Provenance

Concerning her Types 83 and 89, Zeest hinted at one or more places of manufacture within the Bosphoran Kingdom,²⁹ and more specifically referred to the “Asian Bosphorus” for the origin of Type 89.³⁰ Kassab Tezgör follows this idea, specifically mentioning Zeest’s association

²¹ Kassab Tezgör 2020, 66.

²² Rice 2015, 137.

²³ Rice 2015, 147-48, fig. 8.11.

²⁴ Rice 2015, 149.

²⁵ Yermolin and Fedoseev 2013, 187-88, 190-93, figs. 2-5.

²⁶ Kassab Tezgör 2020, 67. The wall below this irregular ring was smoothed on specimens of her type-variant 2.

²⁷ Yermolin and Fedoseev 2013, 192-93, figs. 4-5.

²⁸ Rice 2015, 140.

²⁹ This was a Hellenistic kingdom and subsequent client state of Rome located in the northeast part of the Black Sea. It comprised lands on both sides of the Cimmerian Bosphorus (modern Kerch Strait), which connects the Black Sea with the Sea of Azov (ancient Lake Maeotis), that is, parts of the Crimean Peninsula, the Taman Peninsula, and the lands east of the Sea of Azov.

³⁰ Zeest 1960, 117.

of her Type 83 with the area west of the Cimmerian Bosphorus, today the Kerch Strait.³¹ One manufacturing center for Zeest 83 / 89 amphorae has now been identified at ancient Pantikapaion, modern Kerch,³² one of several findspots of these amphorae that Zeest originally mentioned. Workshop activities are thought to have spanned the second half of the second and early third centuries, yet the grounds on which this date was established are not further explicated.³³ Surprisingly, the authors do not identify the amphorae from their excavation according to any existing and suitable (i.e., Zeest's) typology, and instead refer to these as Bosphoran amphorae.

Although the excavation trench was small (2 x 1-2 m), the authors offer compelling clues for local manufacture: ash layers (some including charcoal fragments), beneath which “traces of repair of the kiln have been found out [sic]: fragments of the burnt clay, ceramic wasters [...], fragments of kiln's parts.”³⁴ Finds further include supports discussed above, in relation to which the authors mention the irregular ring on the lower wall of amphorae found in the same trench.³⁵ In addition, other nearby sondages revealed traces of dumps, while “[k]ilns were situated above on a slope and to the east”.³⁶ The authors make further valuable observations. For example, they speak of a “light engobe” that covers “all vessels,”³⁷ which was not immediately observed for the specimens from Limyra. They also report that the amphorae were manufactured in two sizes: “rather small vessels with rim diameter of 16-20 cm (a transport variant) (figs. 6-7) and large vessels with a rim diameter of 22-28 cm intended for stationary storage of fish (figs. 8-10).”³⁸ No exact measurements were yet taken, but from the drawing and photographs it can be estimated that both specimens from Limyra have a rim diameter of ca. 20 cm. This indicates that both vessels just fall within the first group. The authors' hypothesis of two size-function groups requires testing, particularly so at consumption sites. While Yermolin and Fedoseev observe a “[v]isual resemblance between Bosphoran and Chersonesos clays,”³⁹ it is assumed that the two amphorae presented here were manufactured in the north Pontic, plausibly in one or two workshops in the Bosphoran Kingdom.

³¹ Kassab Tezgör 2020, 66.

³² Yermolin and Fedoseev 2013. Golofast discusses amphorae found in two “cinder” layers in Pantikapaion that include a range of types, including examples of Zeest Types 83, 89 or similis (e.g., Golofast 2010, 123-24, figs. 14.16-17, 15.5-8, with varying rim profiles, some lacking the indentation on the interior neck at the height of the handle): “[s]ome fragments of rose-clay wide-necked amphorae of Bosphoran make (about 7%)” (Golofast 2010, 110). Since Yermolin and Fedoseev (2013, 188) report that amphorae of the two types we are concerned with constitute about 90% of the finds, this may concern a different excavation. According to Kassab Tezgör (2020, 66, n. 48), none of the five amphorae catalogued by her “correspond à la description de la pâte des amphores produites dans l'atelier de Kertch”.

³³ Yermolin and Fedoseev 2013. A tentative clue for the appearance of these amphorae, however, is offered by other finds from Pantikapaion: “[s]ome quantity of light-clay narrow-necked amphorae of Vnukov C IVC type allows assigning the end of its formation [‘cinder heap 1’] to the second quarter of the second century. Some fragments of rose-clay wide-necked amphorae of Bosphoran make (about 7%) [i.e., Zeest Types 83, 89, and /so similis?] testify to the appearance of this amphorae type in the first half of the second century” (Golofast 2010, 110).

³⁴ Yermolin and Fedoseev 2013, 187, 192, fig. 3.

³⁵ Yermolin and Fedoseev 2013, 187-88, 190-93, figs. 2-5.

³⁶ Yermolin and Fedoseev 2013, 188.

³⁷ Yermolin and Fedoseev 2013, 188.

³⁸ Yermolin and Fedoseev 2013, 188.

³⁹ Yermolin and Fedoseev 2013, 186.

Fabric

Microscope photographs of the two specimens from Limyra, taken on a fresh break and magnified ca. 35 times using body sherds, show some differences. The question whether we are permitted to speak of two *different* fabrics - echoing Zeest's and Kassab Tezgör's notions of multiple workshops - can only be answered through archaeometrical analyses.⁴⁰ The fabric of the better-preserved specimen from Limyra shows an unevenly wavy colored matrix reminiscent of marble cake, or indeed what Opaı̇ describes as "halva,"⁴¹ which suggests that two different clays were mixed.⁴² Colors encompass various hues of red and pink.⁴³ Within this matrix one can observe a fair amount of mostly tiny rounded and elongated pores and, possibly, secondary lime formed on these pores' edges. Additionally, some quartz can be recognized, as well as some reddish-brownish grits. A few nodules⁴⁴ and tiny light-colored grits complement this picture (fig. 9a-b). The second vessel shows a more evenly colored matrix. Besides some elongated and irregularly shaped pores of varying size, one can particularly observe a scatter of tiny lighter and darker greyish grits. In addition, there are some rounded brownish-red grits (fig. 10).

Chronology

Both types have been attributed to the second-third centuries and can be considered as members of a family of large to very large amphorae which further includes Zeest Types 75,⁴⁵ 80, and 85,⁴⁶ which are generally dated to the first to fourth centuries. For some of these types and / or variants thereof, a provenance in the area of the Bosporan Kingdom or the Black Sea area more generally has been established, or is suspected for good reasons. The area of origin of other types remains unresolved and therefore disputed. The provenance of Zeest Type 80, for example, is invariably sought somewhere in the Black Sea or Aegean areas. Whereas this type's common appearance at Hyettos and Tanagra (Boeotia, Central Greece) - together with a number of fragments belonging to Knossos Type 39, which shares the same fabric⁴⁷ - does not resolve the matter, such a quantitative argument could help clarify the question regarding its general provenance - perhaps a locality somewhere in the (northern?) Aegean.⁴⁸

Content

These various aspects inevitably bring up the question as to their content. Zeest pondered that Type 83 could have been used to "store grain, salted fish and other food supplies."⁴⁹ Indeed, in a local / regional context it makes good sense to envisage the use of such vessels for the storage of a range of foodstuffs as well as perhaps non-food products.⁵⁰ What these amphorae

⁴⁰ Samples of both amphorae are awaiting analyses and interpretation.

⁴¹ Opaı̇ 2007, 115.

⁴² Degryse and Braekmans 2016, 254.

⁴³ This recalls the "rosa-red" of fragments that were excavated in Pantikapaion; see Yermolin and Fedoseev 2013, 188.

⁴⁴ Possibly those that Opaı̇ (2007, 115) refers to as "large clay pellets (?)."

⁴⁵ Opaı̇ 2007, 108-13, figs. 11-19; Kassab Tezgör 2020, 62-65, 145-46, 164, 171, pls. 23-24, 42, 49, cat. nos. 131-35.

⁴⁶ Zeest 1960, 113-16, 167, 169, 171, pls. 31, 33, 35; Opaı̇ 2007, 113-15, fig. 21; Kassab Tezgör 2020, 68-69, 124, 148, pls. 2, 26, cat. nos. 142-43.

⁴⁷ Hayes 1983, 154-55, 163, fig. 25, A91.

⁴⁸ Bes (forthcoming).

⁴⁹ Zeest 1960, 115.

⁵⁰ Kassab Tezgör 2020, 66, n. 49.

carried in a wider economic-distributional context, however, could very well have been another matter. Their wide necks made them impractical to hold anything liquid such as wine or olive oil. Instead, these vessels were better suited to transport semi-liquid or solid foodstuffs, such as a kind of (thickish) fish sauce or salted fish, either whole or in chunks.⁵¹ Various fish-based products from the Black Sea region did indeed have a reputation in pre-Roman and Roman times.⁵² Archaeological remains that attest to the production of fish-based products in the northern Black Sea, such as salting vats (*cetariae*), have been brought to light at, for instance, Chersonesos, Tyritake, and Myrmekion.⁵³ We nevertheless remain uninformed as to the original content of both specimens found in Limyra, if only because reuse prior to their arrival cannot be ruled out.

Distribution and Wider Context

Zeest and more recently Opaït point out that the distribution of Zeest Type 83 / 89 is largely confined to the Bosporan Kingdom.⁵⁴ A fragment that preserves part of the rim and the upper handle segment was recently found at Callatis on the Black Sea coast in southeast Romania.⁵⁵ Besides the two specimens from Limyra and the one from Pergamon (see above), the authors to the best of their knowledge are not aware of any other Zeest Type 83 / 89 amphora found at an Aegean or Mediterranean site. Their size and weight (certainly when filled) must have made these vessels cumbersome to transport. It is also not unthinkable that fragments of these and similarly large-sized amphorae - body sherds in particular - were mistaken for pithos fragments. Yet, at this point we presume that these amphorae were rarely exported to the Aegean or Mediterranean, and that ultimately their distribution must have been very thin. The specimen from Pergamon also points out that consumers were not necessarily situated only on the coast; for that matter, Limyra is also not located directly on the coast.

If, for the sake of argument, we presume that both vessels still had their primary / original content by the time they arrived in Limyra, in a Lycian context the import of foodstuffs from the Black Sea is not a complete surprise. Lycia not only had a number of well-equipped ports such as Telmessos, Patara, Antiphellos, Andriake (Myra), Phoinix (Limyra), and Olympos, but also small landing stages which may have been used for more than just regional trade (fig. 11).⁵⁶ These harbors were among the important stopping points on the main maritime trade routes within the Eastern Mediterranean,⁵⁷ and *in extenso* connected it with the Western Mediterranean, North Africa, and the Black Sea. The evidence for Black Sea amphorae in Limyra and other sites in Lycia slowly but surely increases particularly for middle and late Roman times, for there is hardly any information available for early Roman imperial times

⁵¹ Opaït 2007; Theodoropoulou 2014, 220; Kassab Tezgör 2020, 66.

⁵² Højte 2005; Dumitrache 2015; Theodoropoulou 2014, 221-22; Čechová 2014.

⁵³ Curtis 2005, 38; Højte 2005, 142-53, figs. 5-15; Vnukov 2017, 125.

⁵⁴ E.g., Alekseeva 1997 (Gorgippia); Kamelina 2012, 52, 66, fig. 8.4 (Charax); Zinko et al. 2020, 431, 438, fig. 451.4-5 (Tyritake).

⁵⁵ Opaït and Ionescu 2016, 69, 99, pl. 15.93. For the distribution of other Bosporan amphorae, see e.g. Matera 2011. For the apparent continuation of the production of fish-based produce in Chersonesos during late antiquity, see Jirouskova 2013. It remains unclear, however, in which amphora type(s) this produce was transported (66).

⁵⁶ Hellenkemper and Hild 2004, 1:184-85; Brandt and Kolb 2005, 101-4.

⁵⁷ Zimmermann 1992.

which in itself could be telling.⁵⁸ Although more quantified data is required to make more founded statements, so far their quantitative role may have been relatively modest.⁵⁹ Relations, economic and other, between Lycia and the Black Sea in Roman imperial times are furthermore reflected by ports on the Bosphorus named after traders from Lycia.⁶⁰ We may also mention a third-century inscription, found on a sarcophagus in Olympos, which records the periodical voyage of a Lycian seafarer and trader named Eudemos to the Bosphorus and Black Sea (fig. 12).⁶¹

Surprising, however, is the presence of amphorae of Zeest Type 83 / 89 in Limyra, given their presumed fish-based primary content. They are worth highlighting in the context of Limyra and Lycia. The seas off the Lycian coast were well known for their high fish yields, as recorded by ancient writers, inscriptions, and travel reports.⁶² This is reflected archaeologically by workshops for making salted fish attested at the port of Timiousa, on Kekova Island, in Istlada, and probably also in Aperlai. These were in use from Roman imperial until late antique-early Byzantine times (fig. 13).⁶³ It has been calculated that the workshop complex in Timiousa alone had a processing capacity of over 500 tons of fish per year.⁶⁴ The capacity of the three best-preserved fish sauce workshops on Kekova Island are thought to have had a combined volume of ca. 177 m³, while a combined volume of ca. 600 m³ was calculated for all fish processing workshops registered on the island.⁶⁵ For Limyra, archaeozoological studies have shown that fish was an essential element of its inhabitants' diet - especially in Roman imperial contexts - as shown by the proportion of fish bones. Furthermore, species that have been identified point to close-shore fishing as well as in open sea,⁶⁶ so fishing played an important role in the local and regional economy.

It is needless to say that a regional tradition of fish processing would not have excluded the import of fish from elsewhere. One way to explain their import into Lycia, which on a yearly basis may have produced more fish-based products than the local market(s) could consume, is that northern Pontic fish products had a reputation of some culinary renown. In this light it is worth mentioning that some fish species have the Black Sea and Bosphorus as their natural habitat and are not found in Mediterranean waters. Then, the content of both "big brothers" may have been enjoyed by some inhabitants of Limyra as a privileged delicacy. In a second life, we may imagine that both vessels were reused (to hold a similar content?), not only because of pragmatic but maybe also for representative reasons. Last, both Zeest 83 / 89 vessels are further testimonies to the extent and variety of Limyra's exchange relations, and of a community with a wish to acquire and consume a delicacy.

⁵⁸ For Roman amphorae from the Black Sea found mostly in late Roman-early Byzantine contexts in Lycia, see e.g., Lemaître and Yener-Marksteiner 2019, 262, fig. 5; Bes and Dolea 2020. Bes 2021 provides an overview of fourth- to seventh-century Black Sea amphorae in the Eastern Mediterranean.

⁵⁹ Bes 2019, 236-37, table 3; Bes 2020, 234-35, table 1. Note the change in the quantification methods used.

⁶⁰ Hellenkemper and Hild 2004, 1:185, n. 444; Adak and Atvur 1997, 17, n. 22.

⁶¹ Adak and Atvur 1997.

⁶² Hellenkemper and Hild 2004, 1:172-74; Brandt and Kolb 2005, 101-5.

⁶³ Zimmerman 2003, 288-93; Aslan 2017; Marksteiner 2010, 142; Hohlfelder and Vann 2000, 132, fig. 8.

⁶⁴ Zimmerman 2003, 292.

⁶⁵ Aslan 2017, 182.

⁶⁶ Galik et al. 2012, 165.

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FIG. 1 Plan of the ancient remains of Limyra and the findspot of the two amphorae (© ÖAW-ÖAI / Lykien Archiv, Ch. Kurtze; digital image editing: B. Yener-Marksteiner).

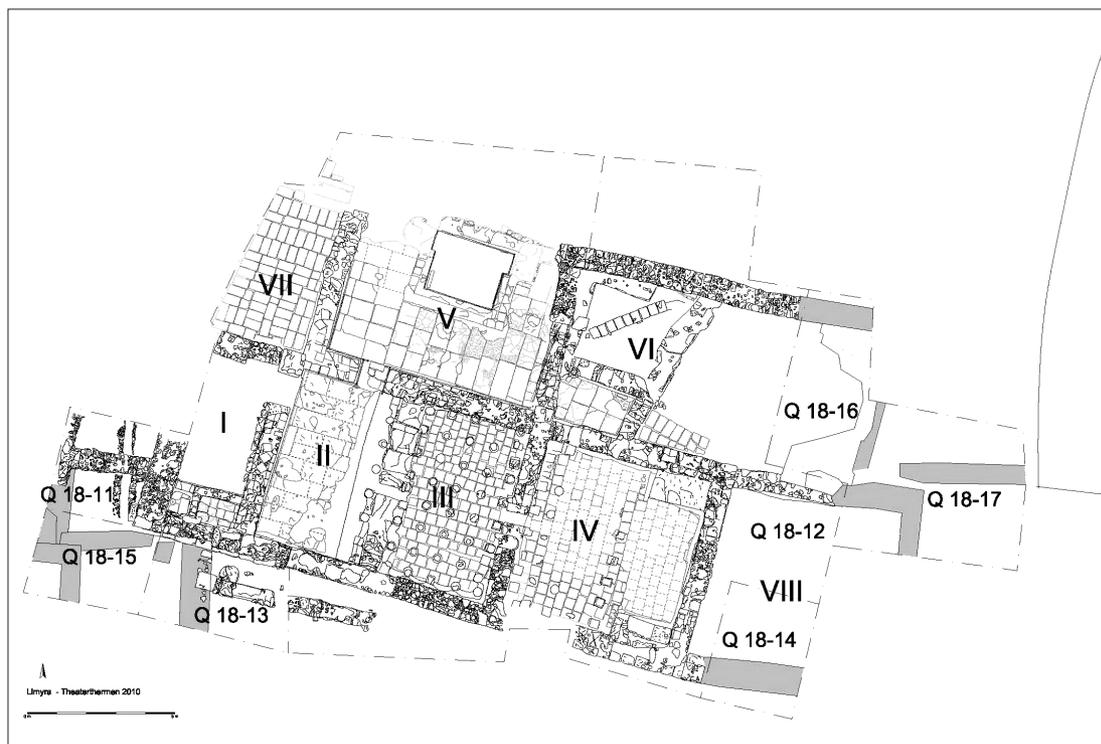


FIG. 2 Plan of the Theater Baths, with room numbers indicated (Schuh 2012a, 299, fig. 16).

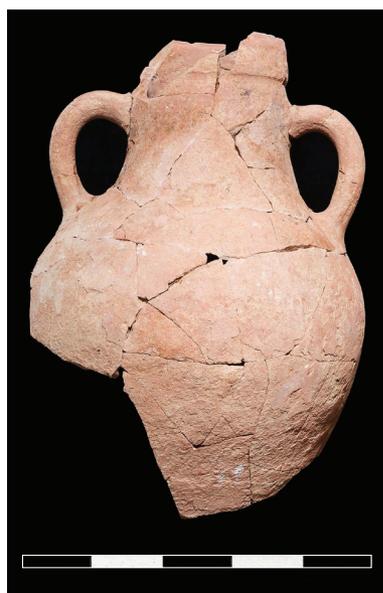


FIG. 3 Photograph of specimen 1 (object no. Li09-308-1) (© ÖAW-ÖAI / Lykien Archiv, R. Hügli; digital image editing: B. Yener-Marksteiner).

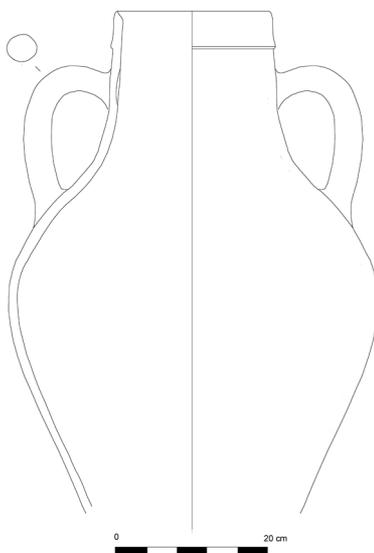


FIG. 4 Drawing of specimen 1 (© ÖAW-ÖAI / Lykien Archiv, B. Yener-Marksteiner).



FIG. 5 Detail of one handle of specimen 1 (© ÖAW-ÖAI / Lykien Archiv, R. Hügli; digital image editing: B. Yener-Marksteiner).

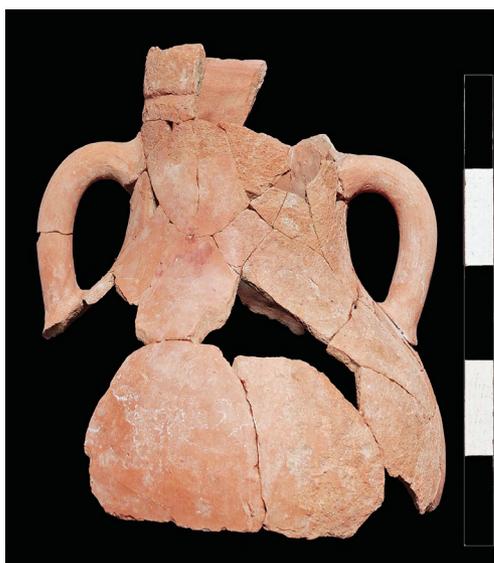


FIG. 6 Photograph of specimen 2
(object no. Li09-308-2)
(© ÖAW-ÖAI / Lykien Archiv, R. Hügli;
digital image editing: B. Yener-Marksteiner).

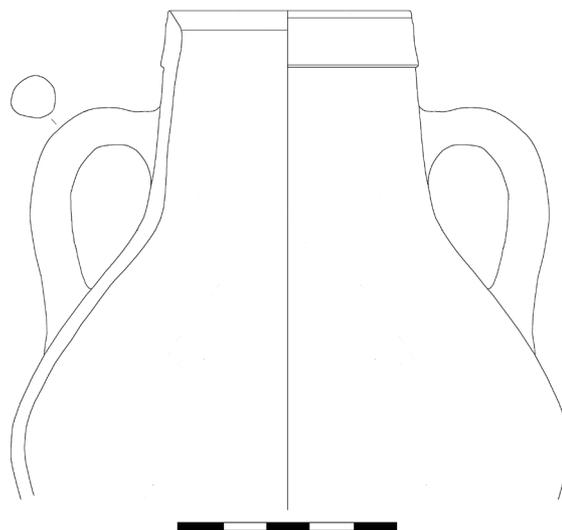


FIG. 7 Drawing of specimen 2
(© ÖAW-ÖAI / Lykien Archiv, B. Yener-Marksteiner).



FIG. 8a-b Details of both handles of specimen 2
(© ÖAW-ÖAI / Lykien Archiv, R. Hügli;
digital image editing: B. Yener-Marksteiner).



FIG. 9a-b Microscope photographs of a fresh
break of specimen 1, magnified ca. 35 times
(© ÖAW-ÖAI / Lykien Archiv, Ph. Bes).

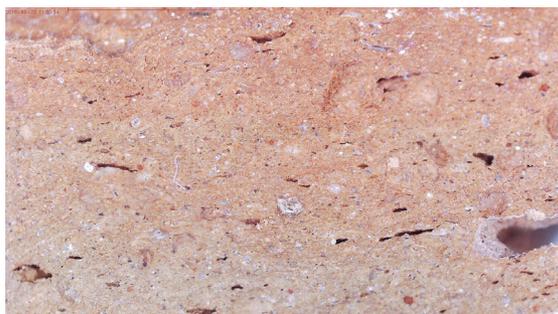


FIG. 10
Microscope photograph of a fresh break
of specimen 2, magnified ca. 35 times
(© ÖAW-ÖAI / Lykien Archiv, Ph. Bes).

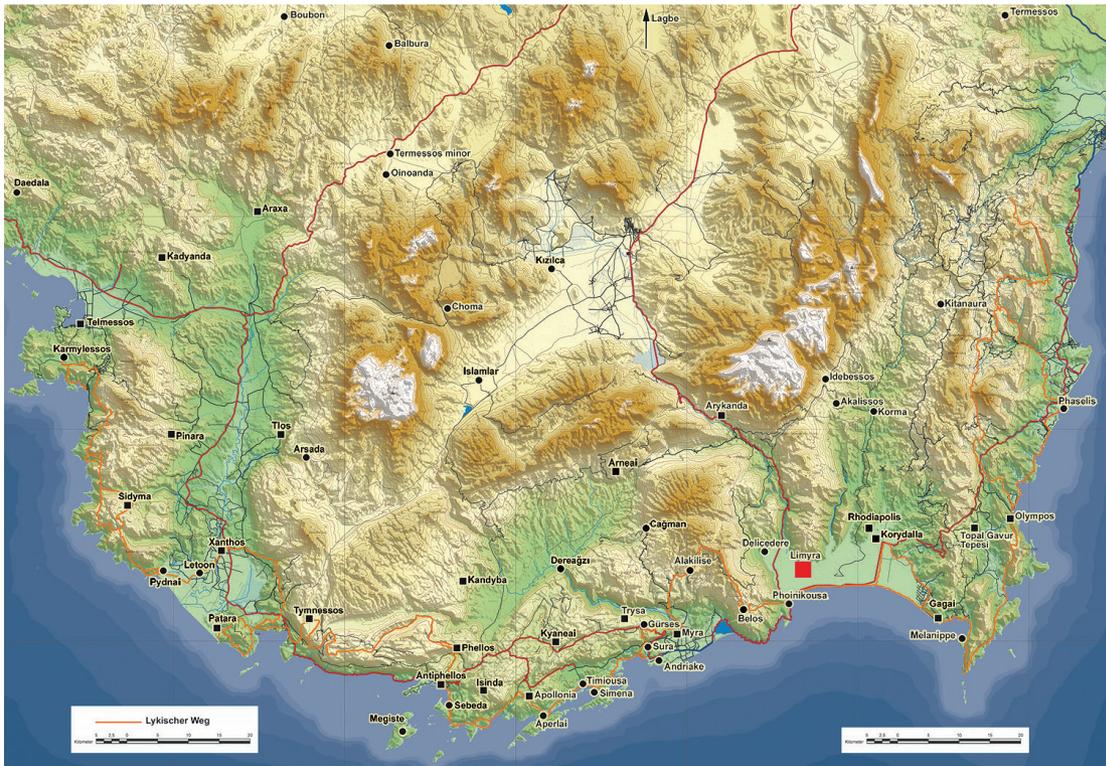


FIG. 11 Plan of Lycia with sites mentioned in the text (C. Steimel).



FIG. 12 Inscription on a sarcophagus from Olympos depicting a boat and mentioning Eudemos from Lycia (© B. Yener-Marksteiner).



FIG. 13 Sites in Lycia with workshops for fish-based products, indicated with blue circles (Plan: C. Steimel; digital image editing: B. Yener-Marksteiner).

