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THE AMPHORAE OF ROMAN EPHEBUS. A NEW VISION FROM NEW EVIDENCE AND NEW IDEAS

In 2013, Tamas Bezczky published his book “The Amphorae of Roman Ephesus”, presenting for the first time a complete catalogue of the most important amphorae in some interesting Ephesian contexts (mainly in the Tetragonos Agora and in some small contexts from the upper Agora and Terrace Houses). This impressive work should be considered as the basis for all future studies concerning late Hellenistic and Roman Imperial amphorae, not only in Ephesus, but in the whole Aegean region.

Even so, the revision of the pottery of some contexts in Ephesus as published by specialists such as Sabine Ladstätter, Alice Waldner and Recep Meriç, combined with the studies of material from new contexts during the last years, have enlarged our knowledge about the forms, quantities and trade connexions of Ephesus during the Roman and Byzantine periods, making it imperative to pose some new hypotheses as a result.

Transport amphorae – Aegean basin – local production – import and consumption – Roman and Byzantine periods

1. Introduction. From Bezczky's¹ book to the state of research in 2023

A decade ago, Tamas Bezczky published his monograph – “The Roman Amphorae of Ephesus” – with the Austrian Academy of Sciences. This work, fundamental for the understanding of the amphorae not only of Ephesus or Asia Minor, but of the Aegean and more broadly the whole Eastern Mediterranean, included some 71 amphora types (some divided into different subtypes) for the period running from the late 2nd BC to the 6th AD. It analysed the huge amount of examples that Dr. Bezczky had scrutinized during a decade of work, presenting the different types of amphorae he documented, and followed by an impressive work in petrography done in collaboration with Roman Sauer.

Bezczky's work has been used in Ephesus as the fundamental underpinning for all amphora studies during the last decade. Important as it is, we have also realized that there are still many open questions regarding amphora studies at this site. One factor that must be appreciated here is that the book is mainly based on just three contexts: the Tetragonos Agora, some material from the Terrace Houses and some from different excavations in the Upper Agora (**fig. 1**). Among these sources, the most important were the excavations made by P. Scherrer in the Tetragonos Agora in the late 1990s and early 2000s. This context selection meant that most of the material worked on by Bezczky belonged to the late Hellenistic and Imperial periods, with only some amphorae from Late Antiquity.

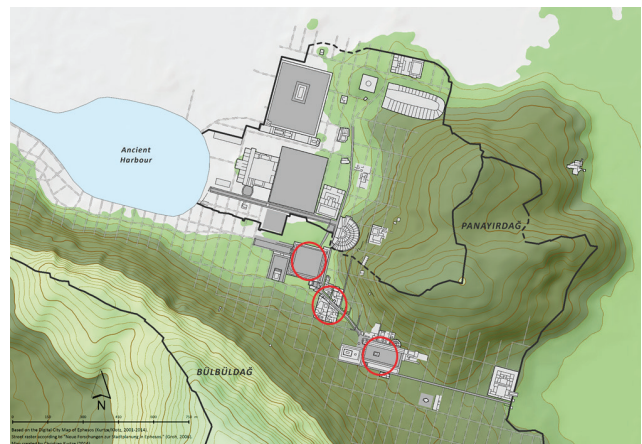


Fig. 1. Map of Ephesus with the main context studied by Bezczky (worked on © ÖAW/ÖAI-C. Kurtze).

During the last 20 years the intense archaeological labour of the Austrian Archaeological Institute has meant that now we can count on much more material. The publications of Sabine Ladstätter concerning the Terrace House 1, the Vedius Gymnasium, or the Terrace House 2 (among others: 2003a; 2008; 2005) to mention just some of them, of Alice Waldner in the Terrace House 2, the Theatre and the Curetes Street, (2016; 2017; 2020) or of the author in the Terrace House 2 (González Cesteros and Sauer 2020), as well as other excavations whose material is still being processed, have broadened and somehow changed the template for the amphorae of Ephesus, especially for the Late Antique material. I am convinced that now we can speak of a watershed moment in our understanding of the Late Antique and early Byzantine phases of Ephesus. The process continues, as the

¹ This publication is dedicated to the memory of Tamas Bezczky, who sadly has passed away far too early. He first introduced me to Ephesus, a place I am now attached to at both the professional and personal levels.

spectacular finds of the 2022 campaign have demonstrated (Ladstätter et al. 2022). Before engaging with the latest phases of Antiquity, it is convenient to review new insights into the Roman Imperial period.

2. New approaches to the Roman Imperial amphorae of Ephesos

Most excavations carried out in Ephesos during the last decade have focused on the Late Antique and Byzantine eras. However, some other interventions have also dealt with earlier phases of the settlement, revealing material from different periods before the 3rd-4th centuries CE. The study of this material has also been enhanced by the revision and publication of materials coming from excavations undertaken before 2013. One of the best examples of this re-studying process is the publication in 2020 by an interdisciplinary group of scholars under direction of S. Ladstätter of a very small but quite important context in the Terrace House 2 (Unit 5 Room 12a), dated in the Neronian period (fig. 2). This particular context has been interpreted as evidence of a banquet.

The pottery of the context is formed mainly by coarse and cooking wares, followed by fine wares, with a large quantity of ESB that helped to date the context in the third quarter of

the 1st century CE, most probably in the Neronian period (Ladstätter and Liedl 2020). They appeared along with many fishbones, belonging to many different species, but also terrestrial animal bones that indicated pigs and lambs killed at a very young age (Galik et al. 2020). This animal consumption pattern seems to suggest that we are faced with an extraordinary context that reflects a special moment, probably linked with a kind of festivity or ritual consumption, something that is supported by the amphora finds too.

In this context we find Chian wine in an amphora bearing a stamp in Greek mentioning somebody called “Gaios”, but also olive oil from Asia Minor, different kinds of Cretan wines, as well as a range of imports from the Western Mediterranean, comprising Campanian wine, Tripolitanian and Baetican olive oil, and Baetican fish products (González Cesteros and Sauer 2020). Most of these amphorae were preserved complete (or almost so) and two of them still had more or less well-preserved ink inscriptions, in particular a Dressel 12 produced in the Bay of Cadiz mentioning the name of the product, *Garum Scomber*, and the name of the merchant, a freedmen called Tiberius Claudius Alexander. This amphora has already been published in different places (González Cesteros 2012; González Cesteros and Sauer 2020; González Cesteros, Scheibelreiter-Gail and Galik 2020): it is of value for the superior and highly prized product it carried, but also in its mention

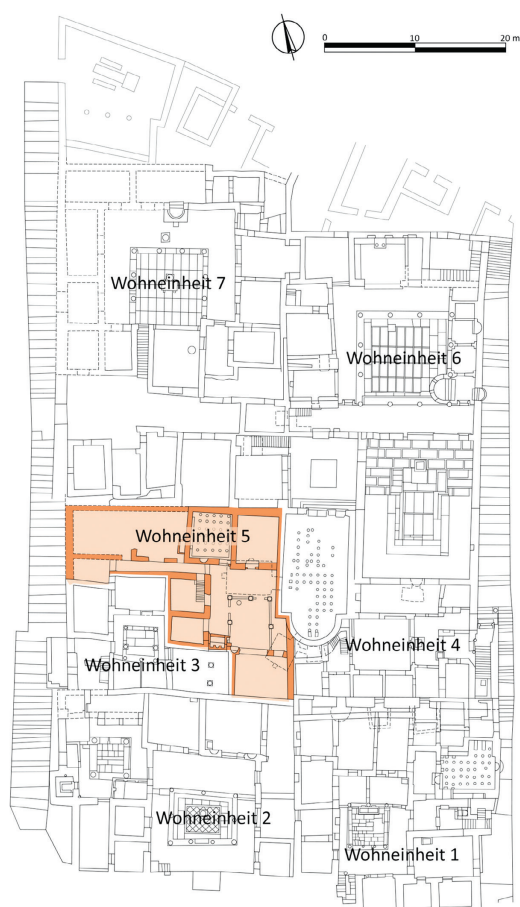


Fig. 2. Left, Map of Terrace House 2 with the excavated area (© ÖAW/ÖAI-C. Kurtze). Right, image of the excavation made in 2005, slightly larger than 2m x 1m and no deeper than 60 cm (Abb. 5 of Ladstätter 2020, from © ÖAW/IKANT E. Rathmayer).

of a merchant from the numerous Tiberii Claudii, imperial freedmen who dealt in amphora commodities between East and West (Tchernia 2008: 62; González Cesteros 2022: 194).

From a quantitative perspective, the most numerous among the transport vessels found, as in any other excavation in Ephesos, were the local wares, in this case the small containers called “one-handled jars”, especially the Agora F 66. This looks to be confirmed as the typical one-handled jar during the central decades of the 1st century CE.

We must keep in mind the special function of this context and the very good state of preservation of the vessels. Even if the number of exemplars, under 100, may invalidate their use for statistical manipulation, the exceptionality of their contexts makes it very rewarding for economic and social interpretations. The limited area excavated, and the remarkable significance of the amphorae and other items found makes the ensemble and the quantities of material recollected significant in and by itself. It is important to emphasise here that all the material in the context has been worked on and that no cherry-picking occurred. The two most important features of the context are (i) the association we can recognize between it and a special event performed by the upper class of Ephesos, and (ii) its precise chronological moment. These helps repair what are probably the weakest points of the 2013 book, namely the paucity of information deducible about the social and chronological aspects in the consumption of amphorae.

Contexts such as the banquet in Terrace House 2 in combination with other ones well-dated and with specific formation are essential for enhancing the picture of amphora production and imports provided by Bezaczký, and thus, to enhance our knowledge of the Ephesian economy in Roman times.

3. Reflections on the local amphora production in Ephesos. From the LR 3 and its predecessors to the emergence of new Ephesian products

The greatest contribution of T. Bezaczký to amphora studies was the characterization of the Ephesian local production. Thanks to the close collaboration he developed with R. Sauer, he was able to establish to the satisfaction of the academic community that the main production place for some of the most widespread amphora types of the Eastern Mediterranean, specifically for the LR 3 and its one-handled predecessors, was Ephesos. Even as late as the first decade of the 21st century, we can still find references expressed that the one-handled jars and LR 3 were made in such places as Samos, the Meander valley or Aphrodisias. Thanks to the rigorous work of Bezaczký (2013; 2021) these ideas must be in some cases abandoned and in others nuanced, but the question of the production place of one-handled jars and LR 3 still requires close attention in future research.

The main production area was indeed the Ephesos region and the boom in the small vessels, under way already from the Flavian period and definitely ongoing during the Antonine and Severian dynasties, cannot be dissociated from Ephesos' growth as a major Roman metropolis and capital of one of the richest provinces of the Empire (among others see Scherrer 2007; Groh 2006), a province densely populated

and with many important cities. However, equally they were also fashioned in other places, particularly at the zenith of its popularity, namely the 2nd and 3rd centuries, and again in the 5th and early 6th. I am persuaded that a crucial factor when approaching the production of “Ephesian” vessels in other parts of Anatolia and eastern Aegean islands is the realization that this was a “provincial” production. Thus, we must not envisage the economic, territorial, administrative and political organization as one where all the cities were highly independent and produced their own amphora forms, as was mostly the case during the Classical and part of the Hellenistic period. Quite the opposite: we must think of the Roman version as a closely controlled and deeply structured organization, a system in which the province was the basic framework. In such a system it would be normal that a successful product was then also produced in nearby areas; even more so if they shared similar geographic and climatic conditions as the main river valleys that flow from the inner Anatolian country to the Aegean indeed do.² There is thus still a lot of work remaining to be done on the production of small transport containers in Roman Asia. Accordingly, it would be expedient to raise the unsolved questions in a different way. We should change our approach and realize that in the same way we talk about a Baetican, a Narbonensis or a Tarraconensis production for the West, we should talk about an Asian production and not merely an “Ephesian” one, even if Ephesos, due to its geographical and economic conditions, was the main production place.

Such an analysis and viewpoint would better explain the fact that not only the “Ephesian” wares were produced in other neighbour areas, but also that other amphora types, originally from different territories within the province or in the nearby islands, were produced in the vicinity of Ephesos, such as the Koan Imperial amphorae (Dressel 2-5) and the Dressel 24, as the on-going work in different context in Ephesos has evidenced.

The presence in Ephesos of vessels related to the one-handled jars that were clearly not made there, and the suggestions of other Turkish colleagues of the production of these vessels in places such as Tralleis/Aydin and Magnesia on the Meander,³ has also nuanced and clarified some of the first thoughts proposed by Bezaczký. A considerable surprise here arose during the 2022 campaign. The spectacular finds brought in light by the Austrian Archaeological Institute in the excavation of Helmut Schwaiger and the direction of S. Ladstätter produced a good number of complete or almost complete amphorae dated in the first third of the 7th century. Among them and of key relevance is a complete specimen of what until now has been called a “Sardis amphora”, specifically of type A of Rautman (1995). In the recent publication of the Palace over the Theatre in Ephesos, Özlem Vapur (2023)

² The three main rivers flowing from inner Anatolia to the Aegean coast in Ionia are still today, from south to north, the Meander (Büyük Menderes), the Kaystros (Küçük Menderes) and the Hermo (Gediz). It is true that a regional koine of ceramic production in Ionia can be traced back as early as the Archaic period, but it was not before the late Hellenistic period, when the region was already under Roman control, that this process was boosted by a long-term political unity.

³ I am especially grateful to Sezen Palamutçu and Özlem Vapur.

has also identified fragments, mostly bases, of the so-called Sardis Amphorae, but in this case of type B. However, the first visual diagnosis of fabric and form suggested to us that such could very well be not only an output of Sardis, but equally one from Ephesos or a nearby place. The local fabric of Ephesos seems to have been commonly confused with that in Sardis. Further, the material from the Palace over the Theatre has been dated in the 6th and early 7th centuries, something in concordance with the 2022 discoveries, reinforcing the idea that these vases must be dated in the very late 6th and first part of the 7th centuries, something that is not only in accordance with contexts from other settlements, such as the destruction levels of the shops and the fill of the wells of the residential area in Sardis (Crawford 1990; Rautman 1995), the finds from Constantinople and its surrounding area (Hayes 1992: Deposit 30, 201; Kara 2020), and those from Histria and other settlements in the Danube (Opait 2004: 18-19; 2017: 597), or Pyrgouthi (Hjohlman 2005)⁴.

These are but some worthy examples of how the continuing study in Ephesos will bring interesting new data to the scholarly community. So long and so massive was the production of amphorae in Ephesos that there are many gaps to be resolved. One of the most important is to find the actual spot of the production workshops. Where are the kiln-sites in the Caystros valley? We have some vague information about some discarded material dated in the 3rd century CE and the presence of deposits with suggestively high quantities of local relief bowls of the late Hellenistic period in the area near the Magnesian Gate in the eastern part of the city (Outschar 1993; Sokolicek 2010), and a small kiln of the Hellenistic period exists in the area of the Terrace House 2 (probably used for miniature vessels: Ladstätter 2003b), but no amphora workshop has been documented and excavated so far. This problem concerns not only the production of amphorae, but almost of every pottery shape. The situation has to do with the lack of an extensive survey of the Ephesian territory, even if some attempts have already been made (Sauer 1995; Merić 2009; and recently Fragnoli et al. 2022).

Other important aspects that must be investigated most scrupulously concern the chronological subdivision of the Ephesian production. Questions such as: when did the Ephesian production of small one-handled jars begin? At the moment the answer would be during the 1st century BCE or in the Augustan period and, for Bezczy (2021: 380), more precisely the last quarter of this century. More accurate information about this topic is lacking, but I think the production of the small one-handled vessels probably started around the central decades of the 1st century BCE, since it seems to me closely connected not with the amphora production, but with the Hellenistic production of lagynoi.⁵ Moreover, a final significant question is: when did the production of LR 3 amphorae finish? This question will be partially answered in following sections.

The production of the one-handled jars and the LR 3 has normally been tied into wine, and there are clear proofs in favour of such a content (González Cesteros et al. 2016: 151-155; Bezczy 2021) even if the results of some contents analysis from Rome were interpreted as a vegetal fat content and thus linked with olive oil (Rothschild-Boros 1981). A profitable approach for future research would be to put more emphasis in determining links between certain amphorae and certain agricultural production. Always a very complicated question but a necessary one to resolve if we want to hypothesize about the products exported from and, if possible, imported to Ephesos (for a first attempt on identifying imported fish products, see González Cesteros et al. 2020, and for local wine out, see Bezczy 2021).

One remaining but still essential subject is to follow the diffusion of other pottery types produced in Ephesos, such as lamps, fine and cooking wares and unguentaria. We would expect those products to have mainly been produced in the same pottery workshops, certainly so for the late Ephesian unguentaria and the LR 3, but a question here is if they were also exported together.

4. Western imports into Ephesos. Beyond the early Imperial Italian products

Ephesos was from the 2nd century BCE, and especially from the moment Delos lost its pre-eminence as the main trade centre of the Aegean, a city open to the Roman communities of the western Mediterranean, especially to the Italians (Kirbihler 2007; 2014; regarding the link of this question with the pottery evidence: Ladstätter 2007). Bezczy (2001; 2006; 2013) realized the importance of the Italian amphorae for the late Hellenistic and Augustan periods. As we can see in the context of the Terrace House 2 Unit 5 Room 12a, this dynamic level of Italian imports continued during the middle 1st century CE. But contrary to the picture presented by Bezczy, from Julio-Claudian times they do not seem to be the most important western imports, since they appear in lower quantities than the Hispanic amphorae (González Cesteros and Sauer 2021: 102 Abb.1), while products from North Africa are also present. In fact, comparison with the material from other published contexts in the Terrace Houses suggests that from the first part of the 1st century CE until the late 2nd or 3rd centuries, the most important group of imports from the western Mediterranean reaching Ephesos is that of south Spain.

From the 3rd century onwards, though, the situation seems to change, and the current perception fits the general trend seen in the Roman world, namely an increase of the African imports that soon swamp any other western import. However, the imports from Africa, especially from Tunisia, are already attested in Ephesos at least from the late 3rd or first part of the 2nd centuries BCE with the arrival of Punic types, mostly versions of the T.7.4 group of J. Ramon (1995). They continued, albeit in small quantities, to arrive through all the Hellenistic period, as seen by Bezczy (2006; 2013). The excavations in the Harbour Necropolis have recently documented the presence of one fragment of *Africana Antiqua*

⁴ Opait and Hjohlman, both suggested its resemblance with the LR 3 and its fabric.

⁵ I hope to have the time to develop this idea in the next years with Dimitra Voutyrea from an in-depth analysis of both the material from the Austrian excavations in Ephesos and the material of the Agora Excavation of the American School at Athens.

(probably of the 1st century BCE). This, together with the presence in other contexts in Ephesos of 1st and 2nd century CE amphorae produced in Tripolitania and other parts of central North Africa, suggests a certain continuity of African imports but one already under Roman patterns of production and distribution (**fig. 3, 1-2**). I have previously suggested a special commercial link between Carthage and Ephesos from the Hellenistic period, becoming particularly strong after mid-Imperial times, and revived during the latest moments of Late Antiquity (González Cesteros 2021: 341-344). The increase of the African amphora imports, clearly visible from the 3rd and at their zenith from the late 4th century, seems to be connected with the arrival of African Red Slip wares that also increased at the same time (Waldner and Ladstätter 2014: 49). This fact runs counter to the traditional vision that dissociated the imports of African fine wares and amphorae in the Aegean⁶ (for this topic see: González Cesteros 2021: 342). However, we must wait for future studies to see if Ephesos emerges as a privileged centre for the African commodities or if what we find is common to all the region.

5. Late Antiquity amphorae from Ephesos. From the basic lines to the perception of Ephesos as a massive producer (4th to late 7th centuries)

As previously mentioned, the work of Bezeczy was mostly focused on the late Hellenistic and early Imperial periods. Nonetheless, he also did some research on amphorae of Late Antiquity and published one article dedicated to the topic (Bezeczy 2005). The important point he made about the local production was that it saw continuity into Late Antiquity. Further than the small one handled containers and the subsequent LR 3, he also indicated that in Ephesos in this period, a type called “Ephesus 56” was manufactured. This production of different amphora types during Late Antiquity has also been suggested by Ladstätter (among others: 2008).

Above and beyond these previous valuable contributions, the incredible progress experienced in the last decade in the understanding of the different phases of Late Antique and Byzantine Ephesos has completely transformed our vision regarding trade and production of pottery. Now we can affirm that current research into this period is creating some very thought-provoking surprises. This is evidenced best by the spectacular finds of the 2022 and 2023 campaigns that belong in the first third of the 7th century.

For the earlier periods, the excavation of the Harbour Necropolis is of special relevance. Placed outside the western city walls of the city, this funerary area was studied and excavated in the first decades of the 21st century. The latest moment of use of the monuments seems to be the late 5th or just the initial moments of the 6th centuries, as some Sinopean C Snp II⁷ and African Keay 62Q amphorae attest (**fig. 4**). After its abandonment, the site was covered by alluvial strata transporting with it great quantities of archaeological mate-

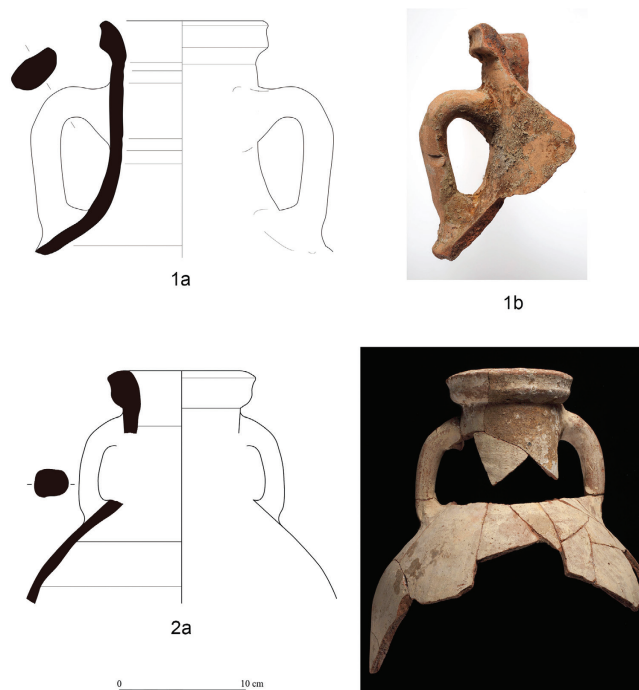


Fig. 3. Examples of Hellenistic and Early Roman African imports in Ephesos: 1) *Africana Antiqua*; 2) *Tripolitania II* (author on © ÖAW/ÖAI-N. Gail and N. Math)

rial, most of it dated from the 4th to the beginning of the 6th centuries. The results of the study are still in progress, but some broad lines can be indicated. The most important is the enormous variety of production places documented for the late 4th and 5th centuries. The local production of amphorae is highly represented, with different variants of the LR 3 and other amphora types, but what is remarkable is the enormous number of imports, with three regions heavily represented: Cilicia, the Levant, and the Black Sea.

Another very important context of Late Antiquity, in this case the early 7th century, is the *taberna* in the upper part of the Curetes Street, destroyed most probably during the second or third decade of the 7th century in a Persian attack. In the excavation of 2015, a massive destruction level was found, with many complete or almost complete finds, among them large quantities of table and cooking wares, as well as amphorae. Just as for the Harbour Necropolis, the material has already been studied but is waiting publication. It would also be sensible here to await the chance of further comparison with the warehouse and *tabernae* excavated in 2022 and 2023 on the other side of the Curetes Street. The precise chronology of the moment of destruction and their spectacular state of preservation makes the contexts on both sides of the Curetes Street uniquely suited and crucial for the understanding of the different aspects of the economy, society and politics of Ephesos in the latest moments of Late Antiquity.

The last important context, again still in process of study, is the Late Antique and Medieval City Quarter south of the Church of Mary (LAMCQ). Its excavation from 2012 to 2016 opened a broad area that had evolved from a Late Antique residential area to what seems to be a medieval industrial

⁶ Recent research developed by Carina Hasenzagl suggests a bigger quantity of African Red Slip Forms of the 4th century as previously thought. I would like to thank Dr. Hasenzagl for this information.

⁷ For the nomenclature used for the Sinopean production see the work of Dominique Kassab Tezgör, especially Kassab Tezgör 2009.

quartier (Ladstätter 2019; Schwaiger, Sahm and Scheiffinger 2020). Large quantities of pottery and other archaeological artefacts from Late Antiquity until the 13th or 14th centuries have been uncovered and will be published by a multidisciplinary team. Further, this excavation has proven to be essential for the understanding of two important points related to amphora studies in Late Antiquity and the Medieval period. The first is the continuity of the local production throughout the 7th and 8th centuries, even if with changing amphora types. The second is how the material of the LAMCQ has greatly

improved our knowledge regarding the amphorae and the trade connections in the Byzantine period as a whole.

A comparison with other Ephesian findspots with important Late Antique phases – such as the latest phases of the Vedium Gymnasium (Ladstätter 2008) and the Lucas Grave (Ladstätter 2010), the Bishops palace, or the central and lower part of the Curetes Street (Waldner 2020), just to mention some – are essential for a complete understanding of Late Antique amphorae and trade of the city.

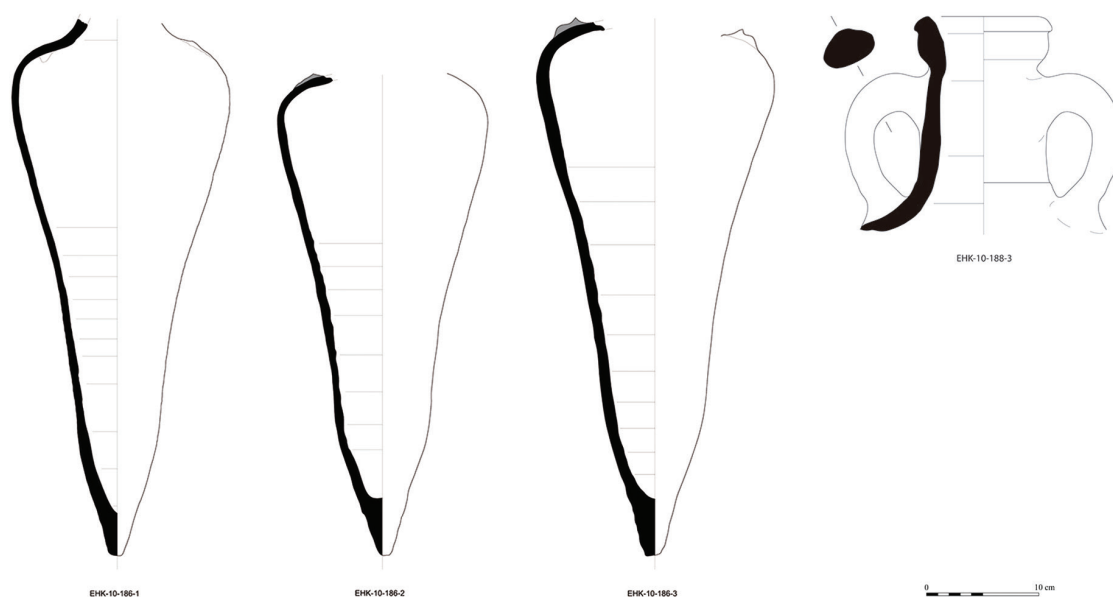
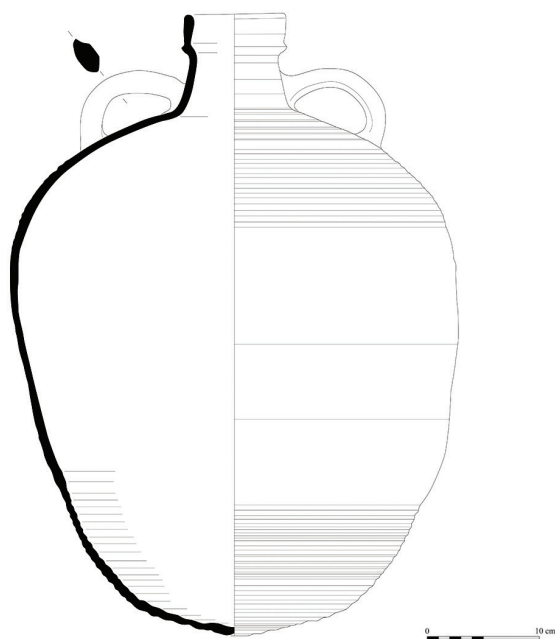


Fig. 4. Chamber in the Harbour Necropolis with Keay 62Q/Albenga 11-12 and C Snp II (author on © ÖAW/ÖAI-M. Steskal).

Although we must wait for future studies, even now some worthwhile remarks can be made that open up a new vision and understanding of the Late Antique amphorae in Ephesos. One of the most remarkable of imports are those from Cilician-Cyprus and the Levantine regions. Bezczky (2013: 159) mentioned some few finds of LR 1, but the excavations of the Harbour Necropolis (as well as in other areas) have radically changed our understanding. It can clearly be suggested that they are the most common imports in Late Antique Ephesos, especially the versions of the late 5th

and 6th centuries. The restudying of some LR 1 from older excavations that still bear ink inscriptions have also shone fresh light onto the rich epigraphical aspects of these vessels (Sänger and González Cesteros 2019).

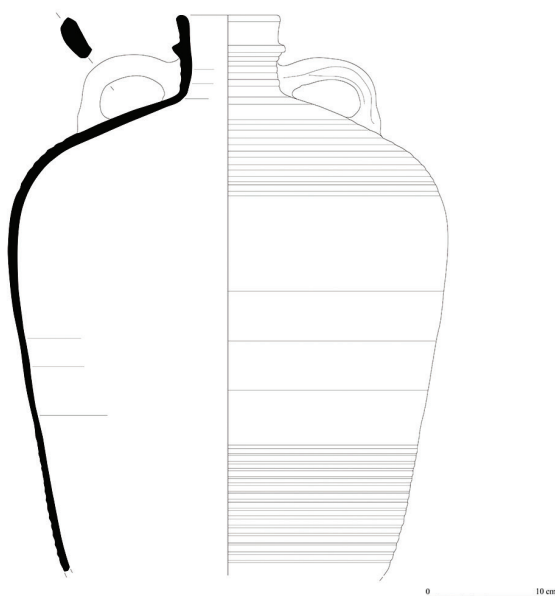
Connected with the LR 1, or to put it more accurately using the same trade route as the LR 1, there also arrived a range of other products of the Levant. In the Harbour Necropolis and in the LAMCQ, good quantities of Gazan amphorae have been found, covering the different evolving variants from the 5th century to the latest production phases. They



1a



1b



2a



2b

Fig. 5. New Levantine amphorae from Ephesos (author on © ÖAW/ÖAI-N. Gail and N. Math).

travelled together with products from the central Levantine region, mainly with versions of baggy-shaped amphorae dating from the 5th to the late 7th or 8th centuries, most having the fabrics typical of the coastal region of Judea, but also with some exemplars with the black fabrics from the region of the area around the Sea of Galilee and Scythopolis (Landgraf 1980: 67-79; Reynolds 2005: 573). Together with them arrived products of Phoenicia, mainly M 334 and similar types dated in the 5th and 6th centuries, but also some Beirut Amphorae of the 6th and 7th centuries.

Special mention must be made here of a type of Levantine amphora that was not previously known in Ephesos before the excavation of the upper tabernae of the Curetes street, where two complete exemplars were found (fig. 5); to them in the 2022 campaign at least one more example is added. This form has a beige and reddish-brown fabric, rough and relatively porous, with several sorts of inclusions but especially some small limestone fragments and whitish and rounded (or almost rounded) quartz grains. A production place in the north Levant seems to be the most feasible option. No exactly parallels in shape have been found for these two vessels, even if they display unquestionable resemblances with some other Levantine amphorae (Reynolds 2005: plate 16). The closest parallels could be in a vessel from Louloudies in Pierie (southern Macedonia), in this case in a context dated from the second part of the 6th century (Marki and Cheimonopoulou 2003: 708, fig. 16), with some amphorae found in Scythia of a similar date (Opait 2004: 10), and with the upper part of a vessel found in Antinoopolis in Egypt, dated, as both our exemplars, in the early 7th century and associated with a Levantine origin. The amphorae from Scythia were classified as a version of the LR 1, while the one from Antinoopolis was classified as a baggy-shaped from its fabric and shape. These suggestions somehow reinforce the idea that the production area must be placed between the central Levant and Cilicia. Further, the example from Antinoopolis has an ink inscription with a name that seems to indicate a kind of oil (Fournet and Pieri 2008: 208). The ink inscription is very significant since it mentions something like *grimelaion*, that following the authors' opinion should be a kind of special oil, maybe produced in a specific geographical area placed in the Lebanon region (Fournet and Pieri 2008: 210). The same authors mention that the same name appears on a M 334 *similis* amphora from Antinoopolis, on another M 334 from the Coptic Museum and on a similar amphora from Kellia. Further, it is observed by Fournet and Pieri (2008: 209-210) that all those vessels have a similar fabric, just like the vessels found in the Taberna.

Another amphora production area better represented in Ephesos than previously thought is the Black Sea (González Cesteros forthcoming). We must add to the LR 1 and Levantine trade routes arriving at Ephesos that of Black Sea amphorae, especially from the late 4th century CE (Reynolds 2010; Bes 2021; González Cesteros forthcoming). Ephesos was surely a very important nodal-point (but also one of consumption) for the products en route between Constantinople and Antioch. However, the connection with the Black Sea seems also to precede the creation of Constantinople, since we already find a good number of forms of the 3rd and 4th centuries from the Crimea and the southern Black Sea, leaving

aside the question of the probable origin of the Kapitän 2 on the northern shores of the Black Sea (contrary to this opinion: Opait 2022 who suggests a Chian origin. For all these topics see: González Cesteros forthcoming). From the late 5th and during the 6th centuries the Ephesian contexts have shown that the products of the region of Sinope and probably other nearby areas in the southern part of the Black Sea are to be commonly encountered, mostly the amphorae of the C Snp group, but also some D Snp. However, no Black Sea amphorae have been recorded so far in the layers of the early 7th century destruction levels in the upper part of the Curetes Street.

Together with the Aegean products, these above-discussed regions are the most common eastern Mediterranean imports in Ephesos. But as previously mentioned, the western regions, especially Africa throughout Late Antiquity and the Iberian Peninsula in the 4th, 5th and maybe early 6th centuries, also exported their products to Ephesos.

As already mentioned, the African amphorae increased in quantity in Late Antique Ephesos. For the 3rd century they are already presented in good quantities among the material from the latest phases of the Terrace House 2, and the first overview of the 5th and early 6th centuries, based mainly in the Harbour Necropolis finds, reinforces the continuity of the African imports in this period, in keeping with other African materials such as the ARS (Waldner and Ladstätter 2014) and the presence of African coins in the city (Schindler 2009; González Cesteros 2021: 343). Elsewhere I have argued for a special link between Ephesos and Carthage through the Roman and Late Antique periods, a connection that seems to increase with the restoration of the Roman power in North Africa under Justinian. Even though the amphora types of Vandal Africa, such as Keay 35, 55 or 8B are present at a reasonable level in Ephesos, the findings resulting from the LAMCQ, the 2022 excavated tabernae and other areas of the city with contexts of the 6th and 7th centuries point to a bigger percentage presence of late 6th and 7th century African types, such as different variants of Keay 62, Keay 61 and late Spatheia, but also other types, such as the Keay 8A/50, the Orlo a Fascia, or even the Globular African forms (Ladstätter 2008). Those amphora types probably arrived together with 7th century forms of ARS, such as the Hayes 105, 99 and even the 109 (Waldner and Ladstätter 2014; Ladstätter 2008).

Ongoing research will bring out more information about the intensity of the trade connections between North Africa and Ephesos, as it will do for the link with the Iberian Peninsula. Once again, the material from the Harbour Necropolis when compared with other excavated places has revealed important novelties concerning the Lusitanian and Baetican amphorae found in Ephesos. In his book Bezeczky could point to some forms roughly characterized as within the Almagro 50, 51a-b and 51c set that were presented as Lusitanian and Baetican types; today we can affirm that during the 3rd and probably 4th centuries, types such as early versions of the Almagro 51c and Keay XVI or the Beltrán 68 (fig. 6, 6) are clearly documented, most of them in fabrics of the Bay of Cádiz. On the other hand, the Lusitanian amphora types Almagro 50 and Almagro 51c have also been found in contexts such as the Harbour Necropolis or the LAMCQ and can be dated in the 5th century.

As important as these two Hispanic regions were, recent research has enlarged the number of production regions in the Iberian Peninsula that exported their amphorae to Ephesos. Without a doubt, Málaga was the most important region for the very last products arriving in amphorae from the Iberian Peninsula. In their typical metamorphic fabrics, sometimes with big mica/schists inclusions (characteristic of the Málaga output), we find an important number of Keay XIX and Dressel 23d that sometimes, if just the handle and wall fragments survive, cannot be told apart (fig. 6, 1-2 and 4). The

Keay XIX contributes a small number in contexts such as the Harbour Necropolis or the Odeion (Struber-Ilhan 2018) and can be also connected with fabrics of the Bay of Cadiz; the Dressel 23d seem to have exclusively the metamorphic fabrics of Málaga. Yet other amphorae produced in Málaga arrived at Ephesos, for example a copy of a Keay 25 (fig. 6, 5) whose fabric, from a macroscopic point of view, is the same as that of the Dressel 23d and most of the Keay XIX we find in Ephesos.



Fig. 6. Examples of late antique Iberian Peninsula amphorae from the 3rd CE. 1 and 2) Keay XIX with Málaga fabric; 3) Spatheion with micaceous fabric from the Carthago Nova area; 4) Dressel 23d from Málaga; 5) Keay XXV from Málaga; 6) Beltrán 68 from Cádiz Bay (author on © ÖAW/ÖAI-N. Gail).

Baetica and Lusitania are the main Hispanic provinces represented in Ephesos, but we do identify other parts of the Iberian Peninsula whose products arrived there. Restudying the declassified material of old excavations, probably from the harbour basin, we found a Spatheion that, awaiting for the thin section analysis, we suspect was probably produced in the Carthago Nova area (fig. 6, 3). This is a production area that is starting to be better known of late (Quevedo 2021).

One last important question that requires a better understanding is that of the exact moment when the Hispanic commodities stopped arriving at Ephesos. We have known since the late 1990s that the production of amphorae in certain parts of the Iberian Peninsula, mainly in coastal Baetica and Lusitania, straddles the transition of the 5th-6th centuries divide (among others: Bernal-Casasola 2001; Fabião 2008). The presence of Keay XIX and Dressel 23d in contexts dated from the late 5th and 6th centuries suggests that the Hispanic export economy was still quite active, and their products reached at least one of the main cities of the Aegean, and in all probability many of them.

These imports appear together with some of the most common Aegean productions like the LR 2, and the so-called Adamshek RC 22 or Ikarian amphorae, typical of the 5th and early 6th centuries. I do not agree with this nomenclature that follows the classification of Kencherei made by Beverley Adamshek in 1979, and would prefer to name them as “Torone VII amphora”, following John Papadopoulos’ (1989; 2001) publication of the late Roman cemetery in Torone.⁸ Paul Arthur (1998: 170) suggested that this type, quite common in Aegean sites but also distributed in the central and western Mediterranean, was produced in the island of Ikaria based on the presence of ink inscriptions, but he does not mention where those inscriptions come from, nor has a picture or drawing of them. Although this hypothesis is attractive, it has never been tested since there are no petrographic analysis made nor has a production workshop found in Ikaria. Moreover, the Kencherei publication, where just the upper parts of some amphorae are drawn, contrasts with the publication of the necropolis of Torone where we find complete pieces of this and other types.

Various named then as Torone VII, Ikarian type or Adamshek RC 22, this type of amphora is closely linked to a large group produced in Ephesos and other areas of western Anatolia in Late Antiquity: the group of amphorae related to the “Samos Cistern”, that I prefer to call “Samos Cistern group” or “Samos Cistern family”.⁹ In this group of containers, amphorae such as the M 273, as well as the Samos Cistern and the Ephesus 56, are included. Even if for the Ephesus 56 there is no doubt about its production in Ephesos and probably in other places in the eastern Aegean (for Kos see: Diodumedi 2014: 171), for the other two forms Ephesos has never been suggested as their provenance of production.

This is especially surprising for the Samos Cistern, because different authors have observed that their fabrics are quite similar to the LR 3,¹⁰ as also seen in the petrographic analysis published by Bezeczky, who hesitating to pronounce on a Samian or western Asia Minor production did not mention Ephesos as a central production place. In contrast, Bezeczky (2013: 157) pointed out that just a very few were found in Ephesos; but new research has indicated that they are one of the most common types in the 6th and 7th centuries, as its predecessor the M 273 and its related forms were beforehand. We do know that Ephesos was not the only place to produce both types. The range of fabrics with the M 273 indicates different production places in the eastern Aegean, something confirmed by the finds of possible kiln-sites in the area of Elaia in the case of the M 273 (Empereur and Picon 1986: 143) and for the Samos Cistern, a bay in the western part of the Mykale Mountain range, just in front of the island of Samos (Lohman, Kalaitzoglou and Lüdorf 2017: 271-272). The analysis of the samples taken from M 273 and the Samos Cistern in Ephesos will surely help sorting this conundrum out.

These amphora types appear together with the latest versions of the LR 3. Some, though not all, are of a very small size, sometimes of under one litre capacity, and in most cases with rectangular rims and massive closed spikes. In Ephesos, the LR 3, Ephesus 56 and the Samos Cistern still appear together in the first part of the 7th century, as they do in the first 7th century layer in the Eupalinos Tunnel in Samos (Hautumm 2004: 204-205), or in the Yassiada 2 shipwreck (Bass 1982). Whether they still continued to be produced during the central decades of the century is a difficult question to answer, and even if in a 7th century deposit of Crypta Balbi, dated after coins in the very late 7th century (Sagui 1998: 306), there exists a LR 3 as well as some Samos Cistern and one Ephesus 56, it seems to me difficult to support that they had such a prolonged life-span.

The current information from both Ephesos and most imported contexts suggest that they were still being produced in the first part of the 7th century, probably until the central decades of the century and maybe still during the third quarter. However, to believe that they continued up to the very last moments of the century seems to me quite unlikely since this is a time when new amphora forms are emerging in the Aegean and displacing the “old” Late Antique types.

⁸ This name has also been used by A. Opait (2004: 16-17).

⁹ P. Reynolds (among others 2021: 312-315) also suggest that around the Samos Cistern there is a big group of containers that goes from the M 273 and Torone VII to the Ephesus 56 and Samos Cistern. He prefers to enclose all of them as variants of the “Samos Cistern-type”.

¹⁰ L. Sagui mentioned the similarity of the fabrics of LR 3 and Samos Cistern but thought the Meander valley as the production area of both types: Sagui 2001: 289. The same for Elaiussa Sebaste: Ricci 2007: 173; and Pieri 2005: 136 also mention the resemblance to the LR 3 and some forms of LR 2 (I assume the latest versions of his classification) and suggest its origin in Samos or in the continental coast nearby. Reynolds and Pavlidis (2014: 453), describe the fabric of some Samos Cistern from Nicopolis in the same way of the LR 3, however they do not mention their possible production in the Ephesos area. In a recent article, P. Reynolds mentions the idea of a production of the M 273 and the Samos Cistern in the area around Ephesos (Reynolds 2021: 312-315). I would like to thank Mr. Reynolds for the fruitful discussions about this and many other topics.

6. Still a lot of work to do. Byzantine amphorae of Ephesos and their potential for the understanding of the city's continuing existence

In this paper I have tried to present an updated global vision of the work undertaken in Ephesos during the last years, focusing on the period from the late 1st century BCE to the mid-7th century. However, this work would be incomplete if I did not briefly mention the continuity of amphora production at and importation into Ephesos beyond this date.

The above-mentioned excavations of Byzantine contexts in the last decade and the increasing interest in the Ephesian research about the post-antique phases of the town have led to a new approach to analyses of the Byzantine material culture, including the amphorae of the 7th to 14th centuries. Here, we are in a position to say that the end of Antiquity and the troubles the Anatolian and Aegean regions suffered, especially in the 7th and 8th centuries, did not spell the end of the arrival of outside wares at Ephesos nor did it finish off the export of local commodities in clay containers. The presence of locally produced and imported amphorae of the large group of the so-called Globular amphorae (maybe it would be convenient to search for a different name?) as well as the arrival of some products from North Africa during the 7th and from Egypt and Levant in the 7th and probably early 8th centuries, provide the essential information to recognize the continuity of trade relations with other regions, something supplemented by the presence of cooking and fine wares from the Constantinople region.

The work carried out in Ephesos since 2017 in the framework of the Austrian Science Found Project (FWF M 2305) "Byzantine Amphorae of Ephesos" has brought some stimulating new data concerning the still not well-known local productions of the 7th and 8th centuries. One of the most impressive results has been the acknowledgment of a massive local production of the so-called LR 13 amphorae.

These amphorae, also known as LR 2C following D. Pieri's classification (Pieri 2005: 88-89) and various other names given by some other authors, have been found in large quantities in the excavations of the LAMCQ; their typical highly micaceous Ephesian fabrics are usually in lighter colours than the LR 3, the Samos Cistern or the Ephesos 56. Further, it is quite possible that many of the LR 13 found in other places – for instance those in Eupalinos (Hautumm 2004), Yassiada (Bass 1982; 2015), Italy (Sagui 1998; Murialdo 2001) or even in places such as Marseille (Bonifay and Pieri 1995; Pieri 2005) and Tarragona (Rodríguez Martorell 2020) – have an Ephesian origin.

This is a very interesting development that requires further investigation in the next years as does the matter of the local production of amphorae in the 8th and 9th centuries. For this, it is essential to undertake petrographical analyses on the scale Bezeczky did a decade past ago for the Roman production.

In this article I have tried to show that the amphora research developed in Ephesos during the last decade has enhanced, and in a very stimulating way, the impact one of the most important works on amphora studies has had in the second decade of the 21st century. This is a clarion call to those who believe the work in pottery studies here is nearly done, and of encouragement to those working on sites with occupation deposits extensive in time and space. Ceramics, in this case amphorae, are ever capable of springing surprises; new methodologies and new ways of analysis will open new perspectives and research lines. However, we also always will need works of the calibre that Tamas Bezeczky produced: they provide the secure ground for the next step forward.

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