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ΠΕΡΙΟΔΙΚΟ ΤΟΥ ΤΟΜΕΑ ΑΡΧΑΙΟΛΟΓΙΑΣ ΚΑΙ ΙΣΤΟΡΙΑΣ ΤΗΣ ΤΕΧΝΗΣ
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Four groups of Roman pottery from the Sanctuary of Apollo at Halasarna on the island of Kos¹

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ABSTRACT

This study presents and discusses the pottery from four recently investigated stratified assemblages of Roman Imperial date from the University of Athens excavations at the sanctuary of Apollo in Halasarna (modern Kardamena) on the island of Kos. The deposits come from the area of the so-called Building Δ, a distyle in antis temple of the Roman Imperial period, which is located in the northeastern part of the site. They span a period of ca. one and a half centuries, from the later first/early second to ca. the mid-third century CE. The pottery is presented and analyzed contextually, followed by a catalogue of selected diagnostic finds. Detailed quantified data for each assemblage are presented in an appendix, allowing an understanding of the relative volume of pottery wares circulating in the sanctuary, the sources from which they came and the changes in their relative proportions over time. In addition to providing the first detailed publication of Roman pottery from the island of Kos, the paper offers an opportunity to glimpse into the economy and trade links of Halasarna in imperial times, especially for the period after the earthquake of 139 or 141/142 CE that reportedly devastated the island.

INTRODUCTION

Since 2001 excavations by the University of Athens at the sanctuary of Apollo in Halasarna on the island of Kos have concentrated on the area of the so-called Building Δ in the northeastern part of the site (Fig. 1).² Subsequent investigation has shown that this building is a distyle temple *in antis*, which was built in the first century CE and underwent several modifications and phases of reuse into the LR period.³ During the 2014 and 2016 campaigns deep excavation on the exterior western and southern sides revealed a rich stratigraphic sequence that provides important evidence for the building's history and activity in the area preceding the LR period,

1 Study of the material took place during a short stay in Kardamena in June 2019. My thanks go to Prof. G. Kokkorou-Alevras, co-director of the University of Athens Halasarna excavation, and Dr. Eirini Poupaki, project assistant and supervisor of the works at Building Δ, for the invitation. Thanks are also due to the two anonymous referees, whose comments improved substantially my argument. All pottery drawings are the work of the author; unless otherwise stated, the scale is 1:3. Commonly used abbreviations: B: base; D: diameter; H: handle; R: rim; S: body sherd; L max.: maximum length; pres.: preserved; MNV: minimum number of vessels; HL: Hellenistic; ER: Early Roman (late first century BCE – early second century CE); MR: Middle Roman (later second – fourth century CE); LR: Late Roman (fifth – seventh century CE); CW: cooking ware; TWW: thin-walled ware; TAQ: *terminus ante quem*; TPQ: *terminus post quem*. Abbreviations of ceramic wares appear in the text in brackets.

2 Recent reports with further bibliography: Kokkorou-Alevras 2017; 2009a; 2009b.

3 For a recent overview, see Kokkorou-Alevras 2017, 320–2. See also Kokkorou-Alevras *et al.* forthcoming.



Fig. 1. Halasarna, sanctuary of Apollo. General plan after the 2016 campaign with area of Building Δ marked by square (plan drawn by G. Antoniou).

especially during middle imperial times (later second and third century CE) (Fig. 2). This period, which covers the aftermath of the earthquake and tidal wave that reportedly struck Caria, Lycia, Rhodes and the island of Kos in 139 or 141/142 CE (henceforth, referred to here as the 'Antonine earthquake'),⁴ is still very poorly known and documented in Halasarna. Previous

4 Paus. 8. No consensus exists amongst scholars regarding the date. For a discussion, see Robert 1978, 401–2; Chatzivasileiou 1990, 182; Guidoboni 1994, 235–6. Several building repairs or restoration projects in the city of Kos have been linked to the aftermath of this event, see e.g. Chlepa 1999, Rocco and Livadioti 2011, 401–20.



Fig. 2. Building Δ, southern sector. General state plan after the 2016 campaign, showing location of the deposits discussed in text (plan drawn by G. Antoniou).

	Provenance	RBHS	MNV
Deposit 1	Sector Π26-Π27-Π27 (2016) OM 23, OM 24, OM 25	1563	256
Deposit 2	Sector Π26-Π27-Π27 (2014) OM 19	610	125
Deposit 3	Sector Π26-Π27-Π27 (2014) OM 13, OM 15, OM 16	805	160
Deposit 4	Sector O29 (2001) OM 7; Sector O27 (2014), OM 9, OM 14, OM 17	424	73
TOTAL		3402	614

Fig. 3. Overview of pottery quantities in Deposits 1–4.

research has indicated that as a result of this earthquake several buildings in the sanctuary were destroyed, such as the stoa fronting Building A and the so-called Building B, while others, such as Building Γ, were repaired only after many decades.⁵ Based on this evidence it has been postulated that in the third century CE the sanctuary declined in importance and many buildings were abandoned.⁶ Furthermore, preliminary results of an intensive survey in the territory of the ancient *demos* of Halasarna have indicated a drastic drop in settlement activity during these centuries. This has been linked to a decline in the economic power of Halasarna as a result of the earthquake's effects on the regional economy.⁷

5 Kokkorou-Alevras 2009a, 60; 2009b, 137; Kokkorou-Alevras and Deligiannakis 2004, 84 n. 5; 90.

6 Kokkorou-Alevras 2009a, 61.

7 Kopanias 2009, 82; Kokkorou-Alevras 2009a, 64; 2009b, 151.

As a way of offering a different perspective to these questions, this study presents and discusses the pottery from four deposits associated with Building Δ that span the late first/early second to the later part of the third century CE (Fig. 3). The deposits comprise pottery either from individually excavated groups belonging to the same stratigraphic context or from stratigraphically related contexts, as suggested by the frequent existence of cross-fits. The homogeneous and well-stratified nature of the deposits, together with the range and quantity of wares represented, make these assemblages especially significant as typochronological markers for the Roman ceramic sequence of the entire site. For this reason, it has been decided to present and discuss this material separately, in advance of the final publication of the finds from the 1985–2013 campaigns, which is currently in preparation.⁸ In addition to enriching existing knowledge about the typology and chronology of local and imported wares, the study also aims to contextualize Roman pottery from Kos by examining some aspects of the sanctuary's pottery supply over the centuries in question. The quantified approach adopted here offers a first opportunity to investigate shifts and continuities over a crucial period in the history of the sanctuary, thus helping to assess the long-term impact of the Antonine earthquake on the local economy.

METHODOLOGY, CLASSIFICATION AND PRESENTATION OF THE MATERIAL

Despite the dearth of publications from the island of Kos, Roman pottery from sites in the Aegean and neighbouring Asia Minor provides adequate reference material for the identification of wares and fabrics and for establishing the chronology of the deposits in question. In lack of other internal evidence from the deposits themselves (e.g. coins), the absolute chronology proposed here relies unavoidably on the imported fine wares and lamps. In addition, it takes account of the relative chronology and the individual stratigraphic relationships, as well as the typological composition of each ceramic assemblage in terms of the other main functional categories (plain table wares, utility wares, cooking wares and amphorae). The deposits are presented in chronological order, from the earliest to the latest, and each is followed by a catalogue of diagnostic pottery. For reasons of economy, the information included in the catalogue entries has been kept to a minimum.⁹ Detailed description of the shapes and fabrics is omitted, especially for common imported fine wares, such as *terra sigillata*. In addition, the catalogue does not contain information on published parallels for individual finds, which can be found in the relevant discussion of the deposit in question. Equally, general or specific references to standard works and publications are also provided in the discussion of the deposits. Catalogue finds are numbered consecutively (1–197) and references to them in the text appear in brackets.

TPOLOGY

The pottery finds from the four deposits include imports of various origins (including sources close to Halasarna), pottery of local production (from the area of Halasarna), as well as wares of unidentified provenance. For the imported material, existing typological classifications based on publications of finds from sites in the Aegean and the Eastern Mediterranean, as

⁸ Grigoropoulos forthcoming a; forthcoming b. For a general overview, see Kokkorou-Alevras *et al.* 2016, 178–84; Grigoropoulos 2019.

⁹ Inventory numbers cited in the catalogue have the following form: sector or trench/excavation year/OM number, followed by 'A' (for pottery) and 'Π' (for other ceramic small finds, including lamps).

well as those established in standard reference works dealing with Roman pottery,¹⁰ are used. Nevertheless, these classifications cannot accommodate those pottery finds specific to the site, most notably local wares, which, as will be discussed below, make up the largest part of the assemblage in all deposits. To aid identification of local wares, a basic working type series of the most common shapes occurring in the four deposits is presented below and used in the discussion and the catalogue entries. Fig. 4 gives a visual overview of the typological range. The shapes are listed by type, grouped into generic ware category (table wares: Types T1–T10; plain utility wares: Types U1–U15; cooking wares: Types C1–C7; amphorae: Types A1–A2), and they are accompanied by a brief description of their main formal characteristics and general date range based on a seriation of the types in the deposits in question. Fig. 5 charts their occurrence in the four deposits under study. A full analysis of shape development and the classification of type variants are reserved for a future study.

Local table wares

Local table wares in the four deposits include mostly open shapes made in plain ware fabrics. Their surfaces are either plain or covered by a pinkish cream or pale yellow scum. A few pieces have a partial thin slip-coating. Ten basic types are identified:

- Type T1: Conical cup with vertical rim; either a ring foot, raised or flat base. D rim: 0.12–0.14 m. Date: ER, first century CE.
- Type T2: Conical cup with inturned rim; either flat or slightly raised base. D rim: 0.11–0.16 m. Date: MR, second century CE (second half) or later.
- Type T3: Flanged cup with offset rim; either ring foot, raised or flat base. D rim: 0.13–0.15 m. Date: ER, first – early second century CE.
- Type T4: Flanged cup with vertical rim. D rim: 0.12–0.15 m. Date: MR.
- Type T5: Keel-rim cup, flat-based. D rim: 0.09–0.12 m. Date MR, third century CE
- Type T6: Loop-handled bowl with ring foot; several type variants present. D rim: 0.12–0.16 m. Date: ER–MR, mostly later first – second century CE, with variants occurring as late as the third century CE.
- Type T7: Two-handled carinated cup; either flat-based or ring-foot. D rim: 0.10–0.14 m, several type variants present. Date: MR, with late variants occurring in later third and fourth century CE deposits.
- Type T8: Small convex dish with short everted rim. D rim: 0.10–0.12 m. Date: ER
- Type T9: Hemispherical cup. D rim: 0.09–0.11 m. Date: ER, first – early second century CE.
- Type T10: Fishplate, straight-walled. D rim 0.06–0.08 m. Date: ER, first – early second century CE.

Local plain utility wares

A wide range of shapes of local plain wares is attested in the four deposits. These can be broadly grouped into the following types:

- Type U1: Flagon or jug with internally hooked rim. D rim: 0.10 m. Date: ER.
- Type U2: Jug with downturned rim. D rim: 0.07 m. Date: MR.
- Type U3: Two-handled basin with hammerhead rim. D rim: 0.30–0.36 m, several type variants present. Date: mostly ER, with later type variants.

10 For the major imported sigillatas: Hayes 1972; 1985; Ettlinger *et al.* 2000; for Knidian fine table wares, Kögler 2010. For Aegean Cooking Ware, see Lüdorf 2006, 41–51; for Roman amphorae, see generally Peacock and Williams 1986 and the online database "Roman Amphorae: A Digital Resource" (<https://doi.org/10.5284/1028192>).

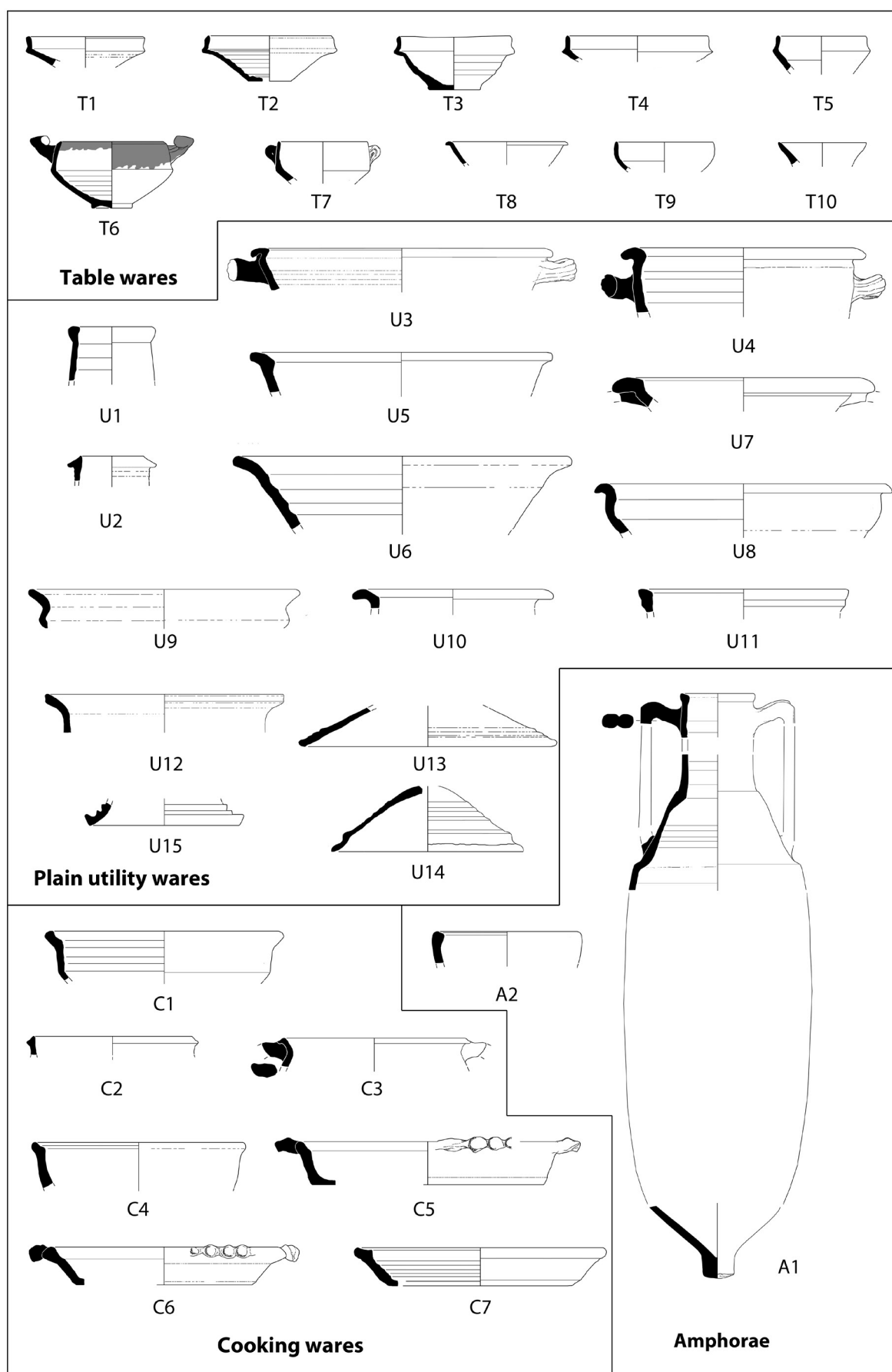


Fig. 4. Overview of local pottery types from Deposits 1-4.

		Deposit 1	Deposit 2	Deposit 3	Deposit 4
Table wares	T1				
	T2		■ ■ ■		
	T3				
	T4				
	T5				
	T6			■ ■ ■	
	T7				
	T8				
	T9		■ ■ ■		
	T10				
Plain utility wares	U1				
	U2				
	U3		■ ■ ■		
	U4				
	U5				
	U6				
	U7				
	U8				
	U9				
	U10				
	U11				
	U12				
	U13				
	U14				
	U15				
Cooking wares	C1				
	C2				
	C3			■ ■ ■	
	C4				
	C5				
	C6				
	C7				
Amphorae	A1			■ ■ ■	■ ■ ■
	A2				

Fig. 5. Occurrence chart of local pottery by type in Deposits 1–4. Broken line indicates that a type may be residual.

- Type U4: Two-handled basin with short flaring rim. D rim: 0.28 m. Date: MR.
- Type U5: Basin with short offset rim. D rim: 0.30–0.34 m. Date: MR.
- Type U6: Basin with flaring rim. D rim: 0.34–0.38 m. Date: MR, mostly third century CE or later.
- Type U7: Shallow two-handled bowl with thickened rim. D rim: 0.28–0.36 m. Date: MR, second – third century CE.
- Type U8: Crater bowl with short outcurved rim D rim: 0.32–0.36 m. Date: ER.
- Type U9: Crater bowl with flaring rim D rim: 0.30 m. Date: (ER?), MR.
- Type U10: Jar with hooked rim. D rim: 0.23–0.34 m. Date: MR.
- Type U11: Basket kalathos with articulated rim. D rim: 0.24 m. Date: MR?
- Type U12: Basket with straight walls, flaring rim with wide groove on exterior (so-called tub). D rim: 0.26–0.32 m. Date: MR, mostly third century CE or later.
- Type U13: Domed lid. D (resting surface) 0.20–0.28 m. Date: ER, MR
- Type U14: Flanged lid Date: D rim: 0.16–0.24 m. Date: MR.

- Type U15: Incense burner with ribbed domed base. D (resting surface): 0.18 m. Date: ER.

Local cooking wares

Three basic shapes of cooking vessels (casseroles, cooking pots and frying pans) made in the local fabrics are attested in the deposits. These can be grouped into the following seven types:

- Type C1: Casserole with ledge rim. D rim: 0.26 m. Date: ER.
- Type C2: Cooking pot with triangular rim, D rim: 0.18 m. Date: (ER-) MR.
- Type C3: Cooking pot with overhanging rim. D rim: 0.20–0.22 m. Date: (ER-) MR.
- Type C4: Frying pan or baking dish with grooved rim. D rim: 0.22–0.24 m. Date: ER-MR.
- Type C5: Frying pan with ledge rim. D rim: 0.22–0.28 m. Date: ER.
- Type C6: Frying pan with thickened rim. D rim: 0.18–0.24 m. Date: MR.
- Type C7: Frying pan with wide ledge rim. D rim: 0.24–0.28 m. Date: MR.

Local amphorae

Two basic amphora types of local manufacture are attested in the deposits discussed below:

- Type A1 (Dressel 2-4):¹¹ Amphora with bead rim, double-barellled handles, which are flattened on the exterior, cylindrical neck, bell-shaped shoulder, straight-sided cylindrical or ovoid body and simple button toe. Av. D rim: 0.10–0.13 m. Date: ER, MR (to early third century CE?).
- Type A2 (Dressel 24 *similis*/Knossos 18):¹² Amphora with wide funnel-shaped, internally hooked or thickened rim. Rest of form not known. Av. D rim: 0.12–0.16 m. Date: MR.

Fabrics

For the major fabrics of fine and plain table wares, coarse wares (plain or part-coated utility wares and cooking wares) and amphorae the following classification is used. Fabrics occurring only once are, in contrast, described in their respective catalogue entries. Description is based on the macroscopic examination of surface treatment and the fresh break with a handheld LED-light microscope in the field. In addition, identification of local wares, as well as the classification of other imported pottery and unidentified wares, builds upon the results of neutron activation analysis (NAA), petrography and an ED-XRF study carried out in previous years on selected samples from the 1985–2013 excavations.¹³ Photographic snapshots of selected fabrics taken with a digital microscope illustrate the appearance of fresh breaks (Figs. 6–7) and serve to aid future identification in the field.

Local table ware, plain ware and amphora fabrics

- Fabric 1.1: hard, finely granular, with common tiny white inclusions, and occasional glistening bits (mica). Occasional subangular voids and sparse medium-sized translucent grits present. Normally fired light red to

11 Panella and Fano 1977, 153 (Pompeii 6); Panella 1986, 617, n. 12; Hesnard 1986, 75–8; Martin-Kilcher 1994, 344–5; Georgopoulou *et al.* 2018, 46–7; Grigoropoulos 2019, 184.

12 For possible form parallels, see Hayes 1983, 149 fig. 22 nos. 49–50; Pülz 1985, 89 and fig. 10, pl. 23: 10 ('Form 19'); Auriemma and Quiri 2004, 49 and fig. 10B; Opaiț 2007, fig. 2 nos. 4–6; Opaiț and Tsaravopoulos 2011, fig. 10–1; Quiri 2015, 164 with fig. 5 nos. 2–3; Vidličková 2015, figs 2–3.

13 Hein *et al.* forthcoming. For local amphora production in Hellenistic and Roman Halasarna, see Hein *et al.* 2008; Georgopoulou *et al.* 2018, 43–5.



1 (Fabric 1.1)



2 (Fabric 1.2)



3 (Fabric 1.2)



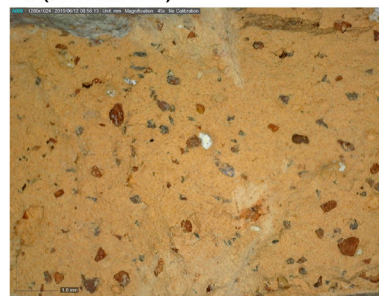
4 (Fabric 1.3)



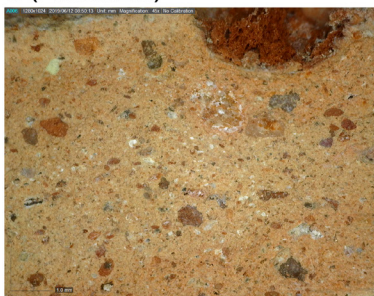
5 (Fabric 2.5)



6 (Fabric 2.6)



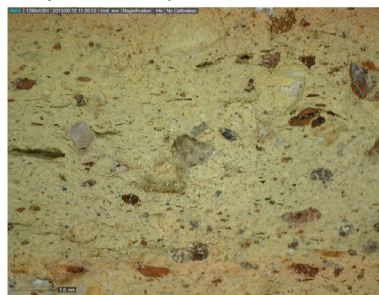
7 (Fabric 2.7)



8 (Fabric 2.7)



9 (Fabric 2.8)



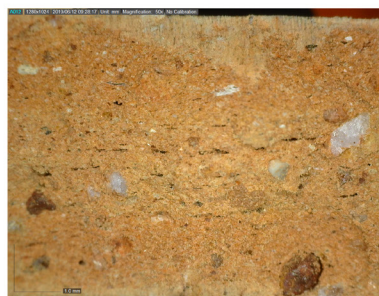
10 (Fabric 2.8)



11 (Fabric 3.1)



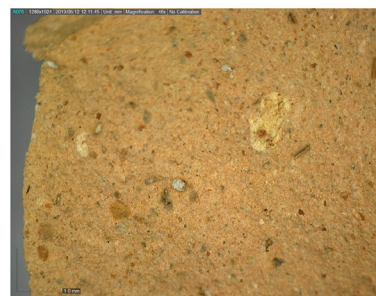
12 (Fabric 3.2)



13 (Fabric 3.2)



14 (Fabric 3.3)



15 (Fabric 4.1)

Fig. 6. Local and imported fabrics (Fabrics 1.1 – 4.1).

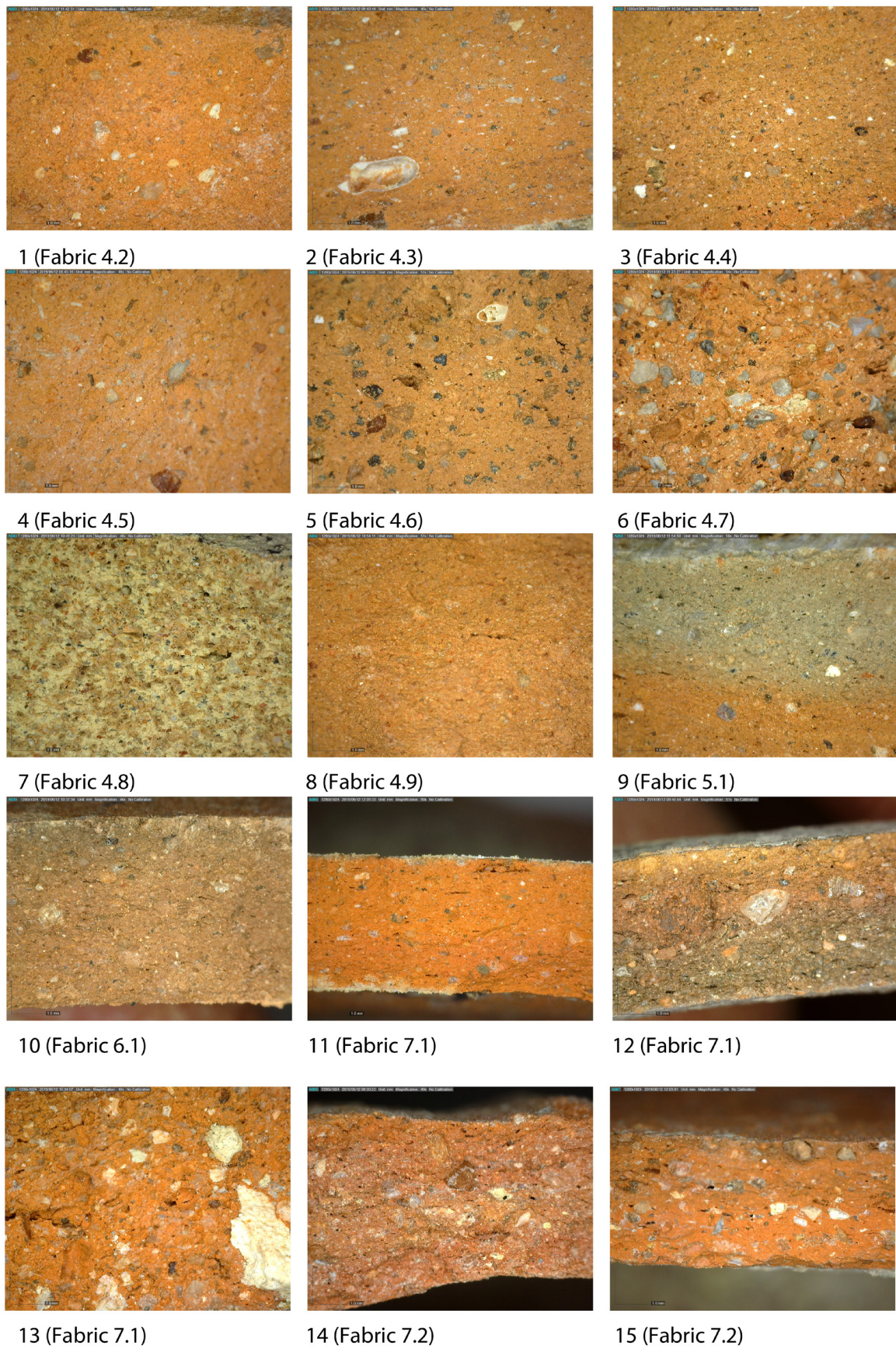


Fig. 7. Local and imported fabrics (Fabrics 4.2 – 7.2).

red (2.5YR 6/6 - 6/8-5/8), sometimes with a sandwich break (overfired margin). Surfaces are well-smoothed with common gold mica flecks and fired pale yellow (2.5Y 8/2) to very pale brown (10YR 8/3).

– Fabric 1.2: fine to medium-fine, medium-hard with a smooth break, micaceous, fired normally from light red (2.5YR 6/6) to reddish yellow (5YR 6/6), although darker tones (2.5YR 6/8) also occur. It contains frequent small (0.1–0.2 mm) white and grey inclusions and rare red. Occasional shells present. Sparse medium to large translucent grits. The surface may or may not have a buff scum, normally very pale brown (10YR 8/2-3 to 8/4). It is normally well-smoothed and has abundant tiny gold mica specks.

– Fabric 1.3: medium-hard with a finely granular break, similar to Fabric 1, but with a prominent diffuse white groundmass, occasional medium (ca. 0.5 mm max) subangular translucent grits and sparse dark red (iron?) inclusions and very rare mica. Occasional shells also present. Fired 5YR 7/6 to 5YR 6/6 but frequently showing sandwich breaks light greenish grey – light reddish brown to light red. Surfaces fired 2.5Y 8/2 to 10YR 8/4, with a smooth feel and occasional visible mica specks.

Imported table ware, plain ware and/or amphora fabrics

– Fabric 2.1 (Knidian table ware fabric):¹⁴ medium-hard, finely granular fabric with abundant poor-sorted glistening rocks (quartz?), frequent grey and sparse large red inclusions. Light red to red at break (2.5YR 6/6 – 5/6), sometimes with a light greenish grey core.

– Fabric 2.2 (Knidian table ware fabric): fine hard, with a sandwich break (margins: light brown/pink, 7.5YR 7/4 to greenish grey at core), frequent black grits, some large glistening rocks (quartz?) and sparse sparkling (mica?) bits.

– Fabric 2.3 (Knidian table ware fabric): fine hard, with a sandwich break, fired reddish brown (5YR 5/4) at margin to grayish black at core. Sparse black inclusions and frequent leached-out voids, glistening rocks (quartz?) and sparse sparkling (mica?) specks.

– Fabric 2.4 (Phocaeen thin-walled ware fabric?):¹⁵ fine granular, fired light red to reddish orange (2.5YR 5/8), a finer version of Fabric 7.1 (Aegean Cooking Ware).

– Fabric 2.5 ('black-sand fabric'): hard, with a granular break, frequent platy or sub-rounded black inclusions, common gold mica and rare large translucent grits (quartz?). Fired 5YR 5/6 – 6/6 at break, occasionally with a greenish margin.

– Fabric 2.6 ('black-sand fabric'): hard, with a hackly break and frequent to abundant black platy and sub-rounded inclusions visible to the naked eye; rare gold (?) mica. Core fired pale yellow (2.5Y 7/3-4) surface slightly lighter in tone (ca. 2.5Y 8/2). Possibly related to Fabric 2.5.

– Fabric 2.7 (Pamphylian?):¹⁶ very hard, with a hackly break, pinkish to light red (5YR 7/4-6 to 7.5YR 8/3), sometimes with a greenish grey core (5Y 7/2). Frequent small to medium angular to rounded red and dark grits, rare small glassy black inclusions.

– Fabric 2.8 (Pamphylian?):¹⁷ very hard, with a range of inclusions similar to Fabric 2.7, fired pale yellow (2.5Y 8/2–3).

Unidentified table ware, plain ware and/or amphora fabrics

– Fabric 3.1 (fine dark-grit fabric): hard, fine, fired yellowish red (5YR 5/6 – 5/8) showing frequent tiny white and grey inclusions, occasional golden mica and rare red grits.

14 For Hellenistic and Roman Knidian table ware fabrics, see Kögler 2010, 24–6.

15 Hayes 2008, 101–2.

16 Grace 1973, 187, 198; Opař 2014, 442; Palaczyk 2015, 35.

17 Cf. Palaczyk 2015, 35 fig. 4.5.

- Fabric 3.2 ('red pellet fabric'): hard, finely granular, with a sandwich break, fired light red 2.5YR 6/8 to light brown (7.5YR 6/4) or with a light greenish tinge. Frequent rounded to subrounded milky and grey rocks, rare black and prominent sparse small to medium red inclusions. Some gold mica present.
- Fabric 3.3 (soft plain ware fabric): soft, with a laminated to conchoidal break, with no visible inclusions, fired reddish yellow (5YR 6/8).

Imported amphora fabrics

- Fabric 4.1 (Rhodian/Camulodunum 184):¹⁸ hard, fine, with an even break and fired v. pale brown (10YR 8/3-4) with a calcitic groundmass and frequent tiny round reddish and occasional grey inclusions.
- Fabric 4.2 (Knidian/Pompeii 38):¹⁹ hard, finely granular, fired red (2.5YR 5/6-8) and with frequent translucent and opaque grits (mostly small; occasionally up to 1 mm) and other grey inclusions. Some golden mica present.
- Fabric 4.3 (Dressel 24 *similis*/Knossos 18): comparable to Fabric 4.2 but with smaller-sized inclusions and rare shell present.
- Fabric 4.4 (Dressel 2-4, close-regional?):²⁰ similar to Fabric 3.1
- Fabric 4.5 (ARC1b-c/Cretan Middle Roman 2):²¹ medium-hard, fine, fired light red (2.5YR 7/8), with occasional platy and sub-angular blueish grey grits.
- Fabric 4.6 (Cilician Pompeii 5):²² hard, granular, fired yellowish red (5YR 5/6 – 5/8), with frequent black and grey grits, a few of which glassy, rare red inclusions and some shell.
- Fabric 4.7 (Cilician unidentified): hard, with a granular break and an ill-sorted range of (mostly small) translucent and blueish grey inclusions and some mica.
- Fabric 4.8 (Cilician Agora M54):²³ similar to Fabric 4.7 but fired very pale brown (10YR 7/3-4).
- Fabric 4.9 (Agora G199):²⁴ hard, fine with a conchoidal break, fired yellowish red (5YR 5/6). Frequent fine mica, rare grey and red inclusions.

Local cooking ware fabrics

- Fabric 5.1 (local cooking fabric): similar to Fabric 1.2, micaceous but grittier, with somewhat more frequent translucent and dark inclusions, fired yellowish red to reddish brown (5YR 5/4-6), occasionally with a greenish grey margin.

Unidentified cooking ware fabrics

- Fabric 6.1 (Knidian?):²⁵ hard granular, fired brown (7.5YR 4/2-4) with frequent small translucent grits and mica.

18 This is Peacock's Rhodian Fabric 1: Peacock 1977a, 266-7; cf. also Bezezcky 2013, 40-2.

19 For the Knidian/Pompeii 38 fabric, see e.g. Bezezcky 2013, 55.

20 This may be compared to 'Koan Amphora Fabric 10' which is attributed to Halicarnassian production, see Berg-Briese 2005, 191.

21 Riley 1979, 180; Peacock and Williams 1986, 178-9; Marangou 1995, 70; Portale and Romeo 2001, 271-3, pl. 41 nos. c-f.

22 Reynolds 2005, 565; 2008, 70-2 with fig. 3a-d; Opaiç 2014, 1015; Autret 2012, 257-8.

23 Reynolds 2005, 564; Autret 2012, 255-6 with further bibliography.

24 This may be compared to Nea Paphos fabric 1, see Daszkiwiecz *et al.* 1996, 133. A similar fabric is reported for the local 'Type A' amphorae from the workshop at Anemurium, see Williams 1989, 91. For a discussion, see generally Lund 2000 and Autret 2012, 255-56 with further and more recent bibliography.

25 This may be compared to 'Fabric A' of presumed Knidian origin, see Doksanaltı and Tekocak 2014, 281.

Imported cooking ware fabrics

- Fabric 7.1 (Aegean Cooking Ware):²⁶ hard, fine or granular, fired light red to deep orange red (10R 6/8 – 5/8) or sometimes brown (7.5YR 4/2), with numerous translucent, grey, milky and other inclusions.
- Fabric 7.2 (Lycian Cooking Ware?):²⁷ hard, granular, fired weak red to red (10R 5/4 – 5/8) or occasionally reddish yellow (5YR 6/8), with frequent blueish grey and somewhat less frequent milky and translucent inclusions.

DEPOSIT 1: END OF FIRST – EARLY SECOND CENTURY CE (FIGS 8–10)

Deposit 1 comes from the area immediately to the south of the flight of steps in front of Building Δ and consists of two contexts that were excavated consecutively. The upper context (labeled OM 23) consisted of a packing of silt, ash and charcoal between +4.43 and +4.15. It had been deposited on top of a scatter of broken tile, pottery and smashed rhyolite slabs, which lay directly on top of the natural bedrock, at a depth of +4.15 to +4.13 (labeled OM 25 and OM 24). The pottery scatter included numerous conical and flanged cups of local manufacture that had been apparently intentionally broken and placed upside down. This scatter sealed the top of a pit or well, measuring 0.55 x 0.70 m. The pit had been cut into the natural bedrock and its opening lay below the lowermost step of the temple's podium on the eastern side. A preliminary study of the material collected from the interior suggests that the pit had been filled long before ER times, probably by the second century BCE at the latest. In contrast the two aforementioned contexts yielded pottery of exclusively ER date, including several cross-fits, suggesting that they belong together.

The fine ware imports offer good benchmarks for the date of the deposit. The rim fragment of an Italian Sigillata (ItS) Consp. 18.2 plate with vertical moulded rim (1), dating to the late Augustan – Tiberian period, is most probably residual.²⁸ As regards other sigillatas, the deposit yielded only one tiny Eastern Sigillata A (ES A)²⁹ fragment (form not identifiable), whereas the majority of the finds belong to Eastern Sigillata B (ES B).³⁰ With the exception of one *Atlante* Form 30 or 31 cup (2), the finds comprise forms belonging to the ES B 2 series, which is dated broadly from ca. the middle of the first century CE onwards. The most common finds represented belong to *Atlante* Form 60, 58 and 71 (3–6). This assortment occurs frequently in deposits of the second half of the first and the early second century CE from Aegean sites. All *Atlante* Form 60 dish fragments, in particular, belong to the early variant, which is characterized by a shallow body and well-executed short triangular rims.³¹ Similar dishes are dated mostly from Neronian to Early Hadrianic times at Ephesos, Knossos, Athens and Corinth.³² The foot fragment *Atlante* Form 58 (5) is also a shape of the later first and early second century CE. The plain small bowl or cup *Atlante* Form 71 may be one of the latest ES B 2 shapes in the deposit.

A similar date range is suggested by the Knidian table wares, which make up the vast majority

26 Istenič and Schneider 2000; Cf. Hayes 1983, 106; frying pans demonstrate a coarser, sandier fabric.

27 Cf. Lemaître *et al.* 2013, 200–3 ('pâtes lyciennes ferromagnésiennes').

28 Ettlinger *et al.* 1990, 82, pl. 16.

29 For the ware, see Hayes 1985, 9–48; 2008, 13–30; Bes 2015, 12–6; Grigoropoulos, 2019, 170.

30 Hayes 1985, 49–70; 2008, 31–40; Bes 2015, 16–7.

31 E.g. Hayes 2008, fig. 12: nos. 350-1, 358.

32 Sackett 1992, pl. 163: no. 8 ('Deposit N3', Neronian); Slane 1990, 50 fig. 6: 94 (first half of second century CE); Meriç 2000, 62, pl. 24: K258–K260 ('Füllung D1': Flavian); Hayes 2008, fig. 12: nos. 350-1, 358; Kögler 2010, fig. 49: no. Hb.57; fig. 51: nos. Hc.26–Hc.27.

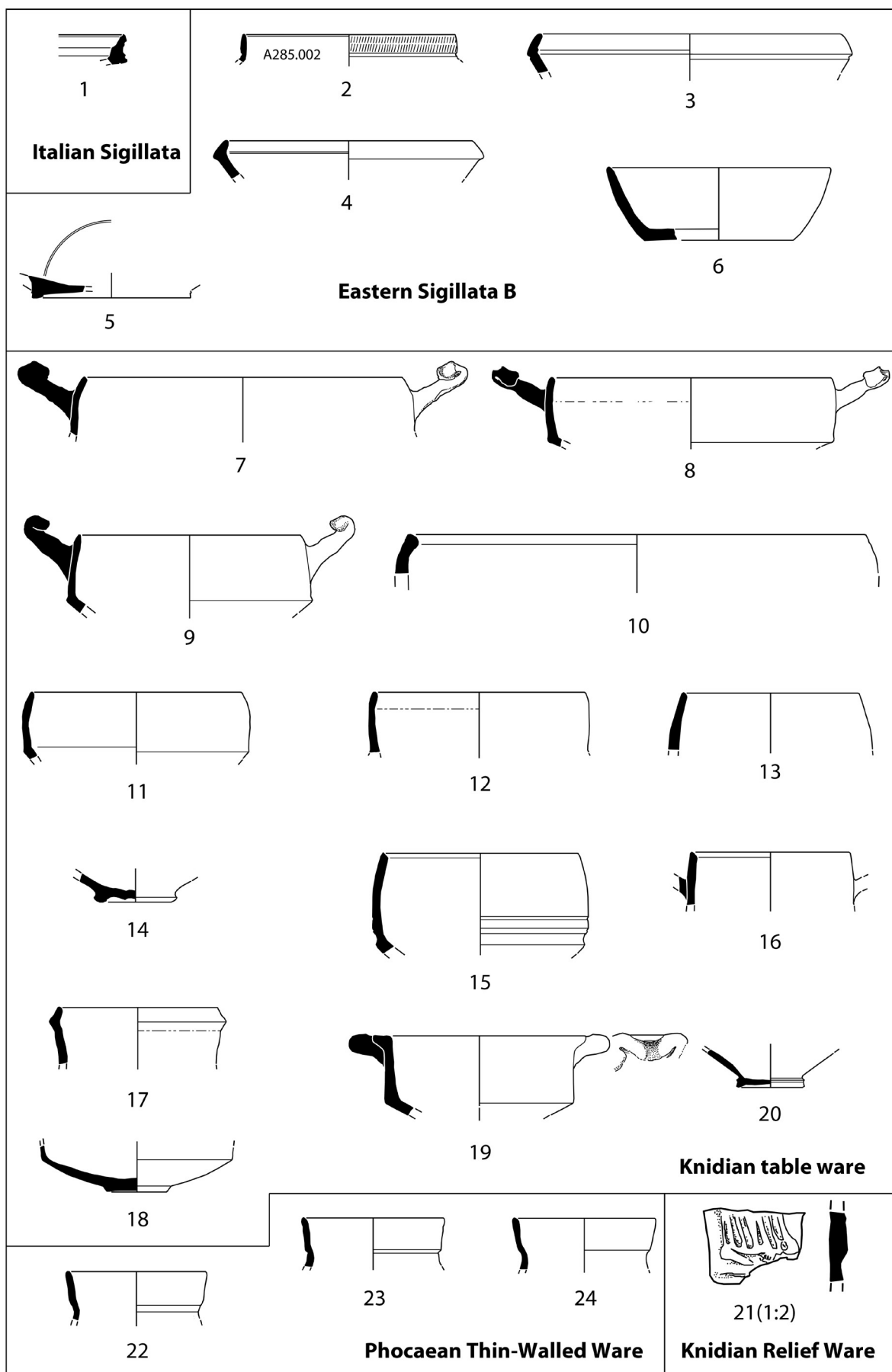


Fig. 8. Deposit 1. Imported table wares (nos. 1–24).

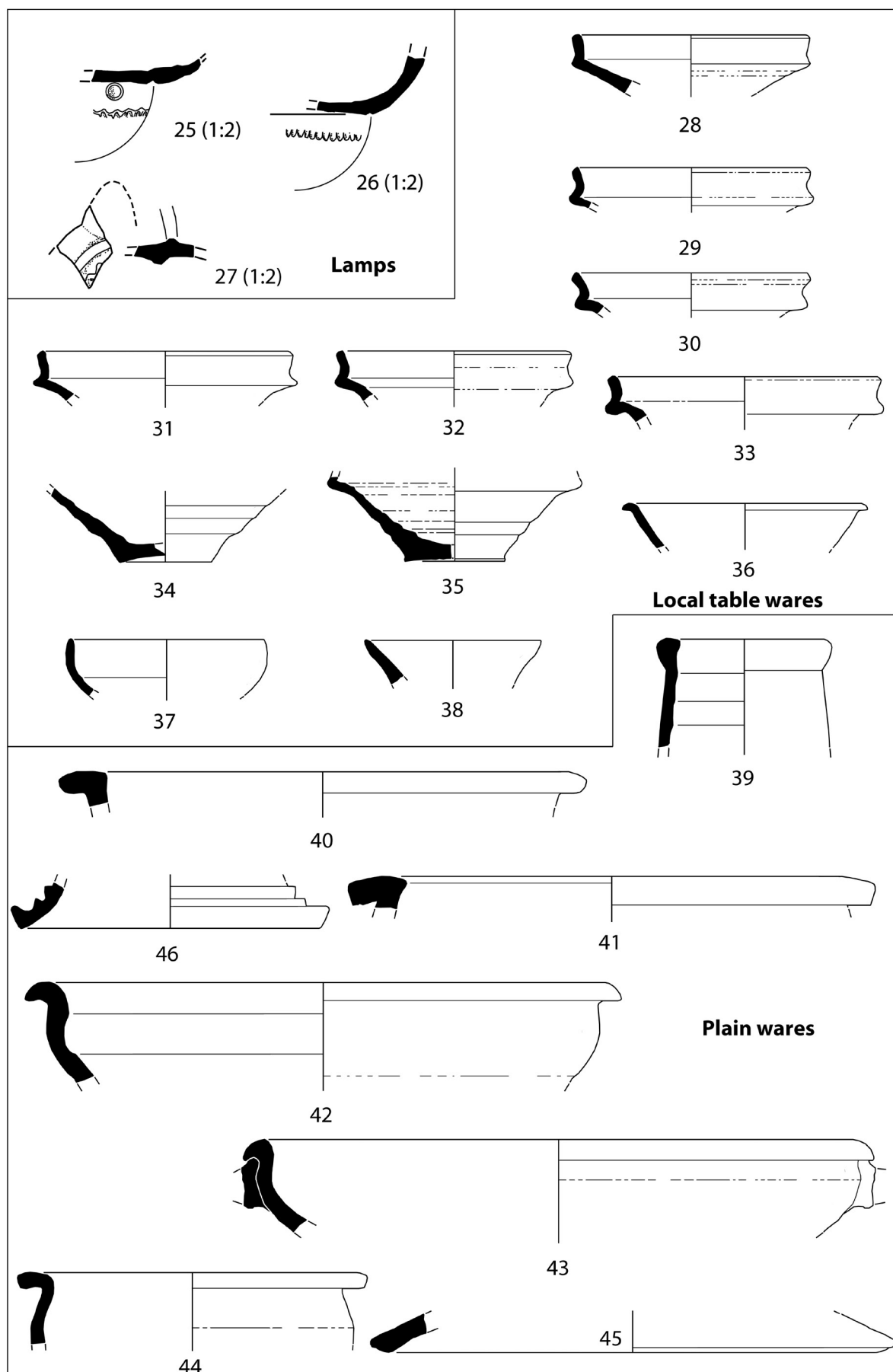


Fig. 9. Deposit 1. Lamps (nos. 25–7), local table wares (nos. 28–38) and plain wares (nos. 39–46).

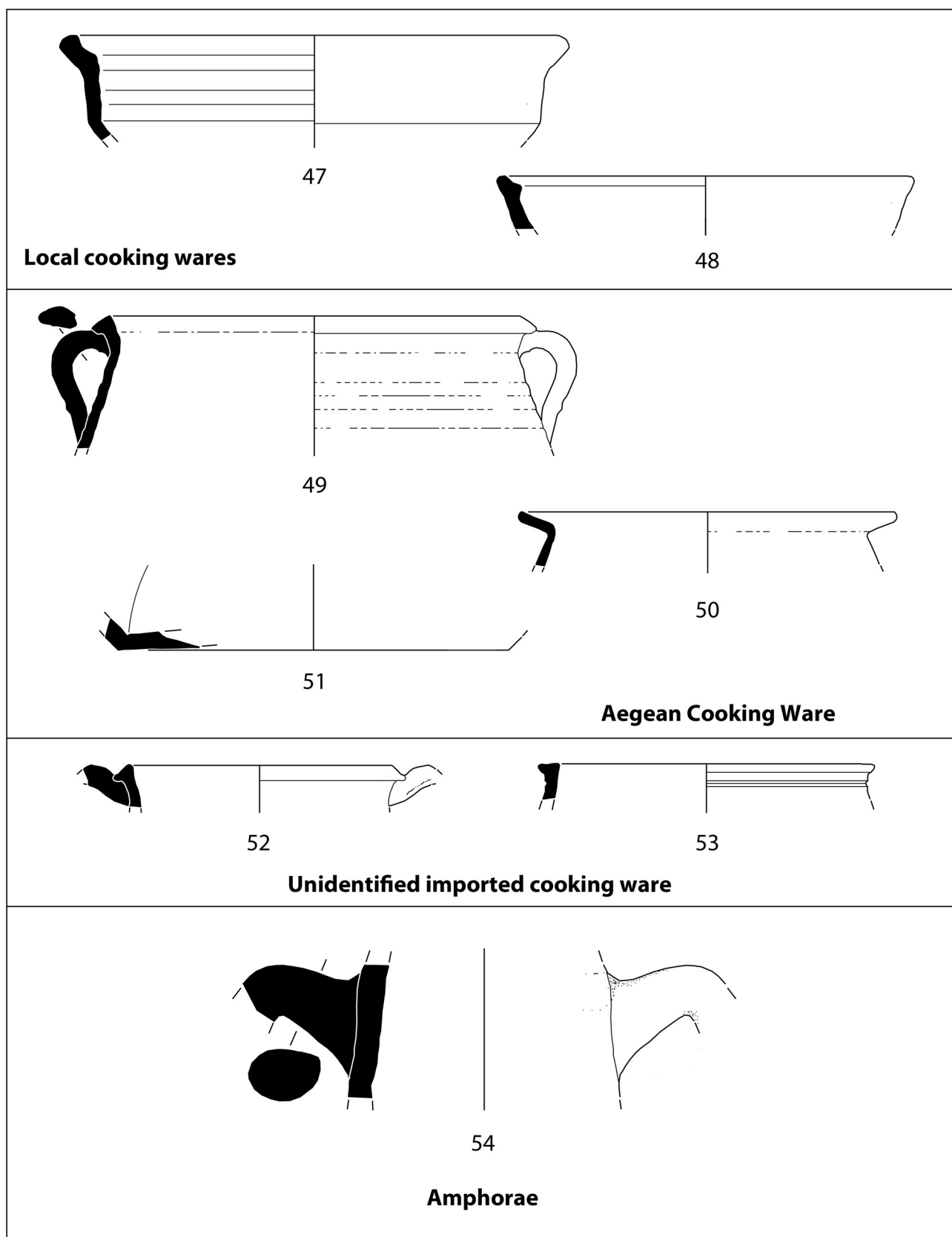


Fig. 10. Deposit 1. Cooking wares (nos. 47–53) and amphorae (no. 54).

of fine ware imports. Form IA cups are the most common imported Knidian fine ware products and comprise specimens of varying morphological and technological qualities. 7–8 are made in hard reduced fabrics, which Kögler associates with Knidian fine ware manufacture of early imperial times.³³ Their ratio of height to maximum diameter is closer to Late Hellenistic prototypes and can be compared with examples from the Blocked Stoa cistern at Knidos, which includes material spanning ca. the first three quarters of the first century CE.³⁴ 10 belongs to a large-sized version of the Form IA cup, which according to Kögler date mostly to Augustan – Claudian times.³⁵ Its fabric, however, is the one attested in later Knidian fine ware production, suggesting perhaps that such forms continued to be produced in the later part of the first and the first half of the second century CE.³⁶ 9 and especially 11–3 show a smaller and deeper variant with more pronounced, strongly incurved wall and lower point of carination, which represents a later stage of shape development in the series. Similar finds occur in Deposits G (Blocked Stoa cistern), Ha and Hb from Knidos, the last two including material from the second half of the first to the mid-second century CE.³⁷ The rest of the Knidian fine ware fragments also fall into this date range. They include Form IV C skyphoi (15–6) and Form XXX carinated jugs/mugs belonging to variant C (17–8).³⁸ The shallow cup with the horizontal handles that are pressed midway against the rim is a rare unclassified form that probably dates to the ER period (19).³⁹

Further evidence for the date of the deposit is provided by the thin-walled wares, the lamps and local plain table wares. The few finds of thin-walled wares include specimens of the Knidian ER series, such as 20, but also several fragments of funnel-mouthed mugs in a distinctive granular bright reddish orange fabric with grey surface, which shows strong similarities to the class known as "Aegean Cooking Ware" (21–3). Such drinking mugs are considered to be products of Phocaeen workshops in north-central western Asia Minor and they show a long line of evolution from ER times to the third century CE.⁴⁰ The best parallels for the finds from Deposit 1 come from early second century CE deposits on other Aegean sites.⁴¹ One fragment (24) belongs to an unidentifiable closed shape of Knidian Relief Ware (KnRW). This was produced at the latest from ca. the middle of the first century CE onwards and has a wide distribution all over the Roman Empire.⁴² The few lamp fragments all belong to mould-made Knidian products (25–7), two of which bear incised imitation signatures modeled after signed lamps of the Romane(n)sis workshop.⁴³ The local table ware repertoire comprises few open forms, the majority consisting of conical cups (Type T1; 28) and flanged bowls (Type T3; 29–35).

33 Kögler 2010, 26 ('Phase III').

34 On the differences between Form IA cups of Hellenistic and Roman times, see Doksanaltı 2000, 76; Kögler 2010, 86–8; fig. 35: G.4–G.9; fig. 36: G.10. The occurrence of such forms as late as the second century CE is however not rare: see e.g. Sackett 1992, pl. 175: no. 15 (Deposit D3: Hadrianic).

35 Kögler 2010, 87, fig. 35: G.1–G.3.

36 Kögler 2000, 71; 2010, 26 ('Phase IV').

37 Kögler 2010, fig. 36: G.23; fig. 37: G.24–G.25; fig. 47: Hb.1–Hb.2; fig. 49: Hc.1–Hc.2.

38 Kögler 2010, fig. 37: G.34–G.36; fig. 50: Hc.3 (Form IV C); fig. 49: Hb.33, Hb.40; fig. 52: J12 (Form XXX C).

39 For a carinated cup of different shape but with similar handles, see Kögler 2010, fig. 53: Kn.10.

40 Özyiğit 1991, 115, fig. 9b (third century CE form); for the series, see Hayes 2008, 102.

41 E.g. Sackett 1992, pl. 172: 7–8 (Deposit D1, Hadrianic); pl. 176: nos. 19a–d (Deposit D4, Hadrianic); Wintermeyer 2004, 92, cat. nos. Kg. 2.5–6, fig. 666–7; Ladstätter 2005, 313, pl. 178: K470–K473 (context of early second century CE); Hayes 2008, 267, cat. nos. 1597–600, fig. 50.

42 On the ware, see generally Kenrick 1985, 327–37; Mandel 1988, 97–191; Baldoni 2003, 6–11. On the start of KnRW production, see Mandel 2000 and Kögler and Mandel 2004, 94–107. For an overview of the finds from Halasarna, see Grigoropoulos and Marzec forthcoming.

43 Bailey 1988, 115–16, fig. 148–9. On the workshop, see Heres 1968; Bailey 1988, 100. For a revision of the workshop's chronological span of production, see Kögler and Mandel 2004, 94–107. For further finds of this workshop from Halasarna, see Dimakis 2017, 330, fig. 8.

Both these types are clearly modeled after imported prototypes, most evidently variants b and c of Knidian Form IX D, which are generally dated from ca. the mid-first to the early second century CE.⁴⁴ Knidian imports of this form are common in other ER deposits of the sanctuary. Other local shapes (Types T8 – T10) are attested in smaller numbers (36–8).

Various coarse wares are represented amongst the assemblage. Local plain wares for common use show considerable variety in terms of shapes, comprising flagons (Type U1; 39), bowls (40; 44), basins (Type U3; 41), crater bowls (Type U8; 42–3) and lids (Type U13; 45). The fragment of a flanged stand probably belongs to a high-footed incense burner (46), a form found frequently on other Aegean sites.⁴⁵ Two illustrated examples belong to the local micaceous cooking ware series. The first is a casserole with ledge rim (Type C1; 47), a form found in first and early century CE deposits, whereas the second is a grooved-rim pan (Type C5; 48) which imitates Phocaeen orlo bifido-style pans of the first century CE.⁴⁶ In addition to these local products, vessels used for cooking include imported products from at least two sources. A first group belongs to Aegean Cooking Ware, whose major production area lay at Phokaia.⁴⁷ It includes cooking pots (49–50) and flat-based frying pans with thickened rim and tubular twist-handles (51).⁴⁸ The cooking pot fragment 49 is a form attested from second century CE contexts in Knossos.⁴⁹ The cooking pot with downturned rim (52) and a cooking pot or jar with flat triangular rim (53) are unidentified imports. The closest form parallels of both can be found in early second century CE contexts from the Aegean, however their fabric suggests similarities to cooking wares of Lycian production.⁵⁰ Finally, with regard to transport amphorae, the vast majority of finds belongs to local products of Type A1 (Dressel 2–4), whereas fewer fragments belong to imported types, such as Rhodian/Camulodunum 184 and Knidian/Pompeii 38 (54).

CATALOGUE

Italian Sigillata

1. (Inv. no. Π26-Π27-Π27/2016/A267.007) Consp. Form 18.2, R fragment. D unknown (less than 3% pres.). Bright red gloss, extensively discoloured due to burning on surface and break.

Eastern Sigillata B (ES B)

2. (Inv. no. Π26-Π27/2016/A285.002) *Atlante* Form 30 or 31, R fragment. D 0.12 m (ca. 5% pres.). B1 ware.

3. (Inv. no. Π26-Π27/2016/A285.001) *Atlante* Form 60 early, R fragment. D 0.17 m (ca. 8% pres.). B2 ware.

4. (Inv. no. Π26-Π27/2016/A264.001) *Atlante* Form 60 early, R fragment. D 0.14 m (ca. 7.5% pres.). B2 ware.

44 Kögler 2010, 159–60, fig. 73: G.77, J.8.

45 Robinson 1959, 16–7, cat. no. F63, pl. 2; Meriç 1999, 37–8, pl. 9: K71–K76.

46 Meriç 2002, 106, pl. 56: K662–K664; Lüdorf 2006, pl. 3, nos. P30–P32 (pan type P II/1).

47 Özyiğit 1990; 1991; Istenič and Schneider 2000.

48 Lüdorf 2006, 42 with pl. 2 (cooking pan type P I/3); 47 with pl. 7, no. T4 (cooking pot type T I/1). For Aegean Cooking Ware, see generally Istenič and Schneider 2000; for the evidence of pottery (incl. cooking ware) production in Phokaia, see Özyiğit 1990; 1991; Lüdorf 2006, 39–40.

49 Hayes 1983, 122 nos. 56–7, fig. 5; Sackett 1992, pl. 170, no. 19 (Deposit T1: Trajanic). For a similar find at Corinth, see Slane 1990, 81 no. 174 fig. 18. For a similar form attested from the agora of Xanthos, see Lemaître *et al.* 2013, fig. 4, nos. LYC 130 and LYC 131.

50 E.g. Sackett 1992, pl. 178, no. 34 (Deposit D4: Hadrianic). For Lycian cooking wares, see Arqué *et al.* 2012; Lemaître *et al.* 2013, 200–3.

5. (Inv. no. Π26-Π27/2016/A262.001) *Atlante* Form 58 (?), B fragment. D 0.09 m (23% pres.). B2 ware.

6. (Inv. no. Π26-Π27/2016/A256.001) *Atlante* Form 71, Complete profile, mended from two sherds. D R 0.126 m (ca. 35% pres.). B2 ware.

Knidian table wares

7. (Inv. no. Π26-Π27/2016/A246.001) Form IA, R fragment. D 0.18 m (ca. 6% pres.). Knidian Fabric 2.3, semi-metallic purplish brown slip.

8. (Inv. no. Π26-Π27/2016/A246.001) Form IA, R fragment, mended from two sherds. D 0.16 m (ca. 7.5% pres.). Fabric 2.3, semi-metallic purplish brown slip.

9. (Inv. no. Π26-Π27/2016/A274.001) Form IA, R fragment. D max. at carination point 0.14 m. Fabric 2.1, flaky matt red slip fired 10R 5/8 to 10R 5/4.

10. (Inv. no. Π26-Π27/2016/A282.002) Form IA, R fragment. D 0.26 m (ca. 6% pres.). Fabric 2.2, semi-metallic weak red slip (10 R 5/3–4).

11. (Inv. no. Π26-Π27/2016/A248.001) Form IA, R fragment. D 0.12 m (ca. 12.5%). Fabric 2.2, semi-metallic weak red slip (10 R 5/3–4).

12. (Inv. no. Π26-Π27/2016/A290.001) Form IA, R fragment, mended from two sherds (one labeled A289). D 0.12 m (16% pres.). Fabric 2.2, metallic weak red slip (10 R 5/3–4).

13. (Inv. no. Π26-Π27/2016/A265.003. Form IA, R fragment. D 0.10 m (ca. 13% pres.). Fabric 2.2, semi-metallic weak red slip (10 R 5/3–4).

14. (Inv. no. Π26-Π27/2016/A265.004) Form IA, B fragment. D 0.048 (100% pres.). Fabric 2.1, matt weak red slip fired 10R 5/3.

15. (Inv. no. Π26-Π27/2016/A275.001) Form IV C. R fragment, mended from three sherds (one labeled OM 25 A291). D 0.11 (ca. 8% pres.). Fabric 2.1, matt weak red slip (10R 5/3–4).

16. (Inv. no. Π26-Π27/2016/A263.001) Form IV C, R fragment. D 0.09 m (ca. 20% pres.). Fabric 2.1, matt red slip (10R 5/8).

17. (Inv. no. Π26-Π27/2016/A257.001) Form XXX C, R fragment. D 0.09 m (ca. 15% pres.).

18. (Inv. no. Π26-Π27/2016/A265.001) Form XXX C, B fragment, mended from 2 sherds. D 0.035 m (ca. 50%). Fabric 2.3, semi-metallic purplish brown slip.

19. (Inv. no. Π26-Π27/2016/A247.001) Small carinated cup, R fragment. D 0.12 m (ca. 13% pres.). Fabric 2.1, matt brownish black slip external surface.

20. (Inv. no. Π26-Π27/2016/A276.001) Form IX D? B fragment. D 0.038 m (50% pres.). Fabric 2.1, semi-metallic weak red slip.

Knidian Relief Ware

21. (Inv. no. Π26-Π27/2016/A245.001) Form uncertain, possibly oinophoros or related. Body sherd. L max. 0.026 m. Part of draped figure in relief. Fabric 2.1, matt weak red slip.

Phocaeen Thin-Walled Ware

22. (Inv. no. Π26-Π27/2016/A344.001) Mug, R fragment. D 0.08 m (7.5% pres.). Fine granular reddish yellow fabric (5YR 5/6) with sparse glistening grits (quartz). Exterior surface fired light blueish grey.

23. (Inv. no. Π26-Π27/2016/A266.002) Mug, R fragment. D 0.08 m (17.5% pres.). Fabric and surface treatment as no. 22.

24. (Inv. no. П26-П27/2016/A267.006) Mug, R fragment. D 0.08 m (15% pres.). Fabric and surface treatment as no. 22.

Lamps

25. (Inv. no. П26-П27/2016/П28) Knidian, type uncertain. B fragment, incised signature Romanensis. Fabric 2.2, fired light brown, matt to semi-metallic brown slip.

26. (Inv. no. П26-П27/2016/П26) Knidian, type uncertain. B fragment, incised signature Romanensis. Fabric 2.1, semi-metallic weak red slip.

27. (Inv. no. П26-П27/2016/П32) Knidian, Loeschcke VIII. Fragment of shoulder and nozzle. Fabric 2.1, matt red slip.

Local plain table wares

28. (Inv. no. П26-П27/2016/A259.001) Conical cup (Type T1). R fragment. D 0.13 m (20% pres.). Fabric 1.3.

29. (Inv. no. П26-П27/2016/A267.003) Flanged cup (Type T2). R fragment. D 0.13 m (ca. 11% pres.). Fabric 1.2.

30. (Inv. no. П26-П27/2016/A267.002) Flanged cup (Type T2). R fragment. D 0.13 m (13% pres.). Fabric 1.2.

31. (Inv. no. П26-П27/2016/A282.002) Flanged cup (Type T2). R fragment. D 0.14 m (7.5% pres.). Fabric 1.2.

32. (Inv. no. П26-П27/2016/A291.001) Flanged cup (Type T2). R fragment, mended from two sherds. D 0.13 m (15% pres.). Fabric 1.2.

33. (Inv. no. П26-П27/2016/A295.002) Flanged cup (Type T2). R fragment. D 0.15 m (17% pres.). Fabric 1.2.

34. (Inv. no. П26-П27/2016/A298.001) Flanged cup (Type T2). B fragment. D 0.052 m (100% pres.). Fabric 1.2.

35. (Inv. no. П26-П27/2016/A299.001) Flanged cup (Type T2). B fragment, mended from two sherds. D 0.058 m (ca. 50% pres.). Fabric 1.2.

36. (Inv. no. П26-П27/2016/A267.001). Convex cup. R fragment. D 0.14 m (10% pres.). Fabric 1.4.

37. (Inv. no. П26-П27/2016/A273.002) Hemispherical cup. R fragment. D 0.11 m (10% pres.). Fabric 1.3.

38. (Inv. no. П26-П27/2016/A273.001) Convex cup. R fragment. D 0.10 m (ca. 20% pres.). Fabric 1.1.

Plain utility wares

39. (Inv. no. П26-П27/2016/A267.004) Large flagon or jug. R fragment. D 0.10 (ca. 15% pres.). Fabric 1.3, surface covered by pale yellow scum.

40. (Inv. no. П26-П27/2016/A251.004). Basin. R fragment. D 0.30 (ca. 5% pres.). Fabric 1.2, surface covered by pinkish scum.

41. (Inv. no. П26-П27/2016/A251.002). Basin. R fragment. D 0.30 (ca. 5% pres.). Fabric 1.3, surface covered by pale yellow scum.

42. (Inv. no. П26-П27/2016/A288.001) Crater. R fragment. D 0.34 m (ca. 10% pres.). Fabric 1.1. Surface covered by pale brown scum.

43. (Inv. no. П26-П27/2016/A271.001) Handled crater or basin. R fragment. D 0.36 m (ca. 11% pres.). Fabric 3.1, surface covered by pale yellow scum.

44. (Inv. no. Π26-Π27/2016/A295.001). Bowl. R fragment. D 0.20 m (ca. 15% pres.). Fabric 1.3, surface covered by pale yellow scum.

45. (Inv. no. Π26-Π27/2016/A295.003). Lid? R fragment. D 0.30 m (ca. 4–5% pres.). Fabric 1.1, surface covered by very pale brown scum.

46. (Inv. no. Π26-Π27/2016/Π29). Incense burner? B fragment. D. 0.18 (ca. 13% pres.). Fabric 1.1, surface covered by pinkish scum.

Local cooking wares

47. (Inv. no. Π26-Π27/2016/A251.001) Casserole. R fragment. D 0.26 m (ca. 9% pres.). Fabric 1.1 (plain ware).

48. (Inv. no. Π26-Π27/2016/A251.003) Frying pan. R fragment. D 0.22 m (ca. 6% pres.). Fabric 1.3 (plain ware).

Aegean Cooking Ware

49. (Inv. no. Π26-Π27/2016/A279.001) Cooking pot. R and H fragment, mended from three sherds. D 0.22 m (10% pres.). Fabric 7.1, blueish grey surface.

50. (Inv. no. Π26-Π27/2016/A344.002) Cooking pot. R fragment. D 0.20 m (12% pres.). Fabric 7.1, blueish grey surface.

51. (Inv. no. Π26-Π27/2016/A291.002) Frying pan. B fragment. D 0.21 m (15% pres.). Fabric 7.1, exterior surface sooted.

Other imported cooking wares

52. (Inv. no. Π26-Π27/2016/A261.001) Cooking pot. R and H fragment. D 0.14 m (7.5% pres.). Fabric 7.2, surface fired grey.

53. (Inv. no. Π26-Π27/2016/A291.003) Cooking pot or casserole. R fragment. D 0.28 m (5%) Fabric 6.1, surface sooted.

Amphorae

54. (Inv. no. Π26-Π27/2016/A277.001) Knidian/Pompeii 38. H and neck fragment. D at neck (internal): ca. 0.10 m. Fabric 4.2.

DEPOSIT 2: LATER SECOND CENTURY CE (FIGS. 11–3)

Deposit 2 represents the material from a light brown sandy fill with pockets of burnt matter and chunks of plaster excavated in the area immediately to the south and west of the podium-like steps of Building Δ. The deposit extended at more or less the same level of the building's *krepis* for 1.10 m and at a depth between +4.83 and +4.51 (OM 19). It lay directly below a massive loose fill (OM 18), which contained pottery of mainly LR date mixed with some ER and MR material and was encountered at a depth between +5.62 and +4.83. Based on the finds of LR micaceous cooking ware (cooking pots and casseroles), a date of this fill in the early fifth to sixth century CE seems likely. From a stratigraphic point of view, then, Deposit 2 represents material deposited in front and to the south of Building Δ at a time post-dating its foundation

and clearly pre-dating the LR deposits and the wall remains investigated close to the entrance of the building.

The pottery from Deposit 2 comprises a small but diverse range of imported fine wares. Several may be considered residual. They include a rim fragment of a crater bowl (55) belonging to an unidentified imported red-slipped fabric, referred to here as "Red Rouletted Ware". The form is reminiscent of Eastern Sigillata D (ES D) Form P37 and the fabric also bears strong similarities to this ware.⁵¹ The only exact parallel known to date comes from an ER context at Sidi Khrebish/Benghazi (Euesperides).⁵² Another possible residual piece is the small rim fragment of a bowl (58) that could belong to an ES D Form P21, dating to ca. the mid-first century BCE.⁵³ 56 belongs to an ES A *Atlante* Form 51 cup, which could date as late as the first half of the second century CE.⁵⁴ ES B2 is represented by a few fragments of *Atlante* Form 60 dishes (57), which occur throughout the second century CE. As with Deposit 1, Knidian pottery here too represents the largest group of fine ware imports, though it now includes almost exclusively Form IA cups (60–1) and Form XXX variant C mugs/jugs. A unique form is the rim fragment of a crater-like vessel (62). This does not find any parallel in the published deposits of Imperial date from Knidos and could represent a late (post-mid second century CE) form. The latest fine wares belong to the late series of Eastern Sigillata C (ES C)/Çandarlı, including the rim fragment of a H3 flanged cup (59). Its thick flange and heavy proportions are features associated with the late second or early third century variants of the form.⁵⁵

The scarce lamp finds include exclusively Knidian products, one of which belongs to a Loeschcke VIII dated generally to the second century CE. More dating evidence is provided by the local plain table wares, which include types not attested in Deposit 1. Several fragments belong to Type T2 (63), a cup or bowl with a rim turned inwards. This type is related to Type T1 but clearly represents a later stage of evolution and can be paralleled to Knidian Form IX D, variant e, which occurs at Knidos in the latest published deposits.⁵⁶ Similar forms are known from other sites of the later second and third century.⁵⁷ The same is probably the case with Type T4 (64), a late version of the ER flanged bowls of Type T3. In addition, the assemblage includes several fragments of two-handled carinated cups with either ring feet or flat bases (65–6). This shape does not occur in Deposit 1 and its absence has been noted from all other ER deposits from the sanctuary, whereas it represents one of the most common shapes in deposits of MR date. Similar to the other types discussed above, the closest form parallels of this shape are to be found in the Knidian fine ware repertoire, more specifically the Knidian carinated cups considered to be late successors of the thin-walled Form Dk.1.⁵⁸

Compared to Deposit 1, the coarse ware assemblage is more diverse. Plain utility wares include a far larger assortment of shapes and fabrics, both local and imported. Jugs and flagons, such as 67 (Type U2) and 68, occur here for the first time.⁵⁹ There are furthermore several types

51 Hayes 1985, 87 with pl. XXI, no. 1. Form P37 is dated to the second half of first century BCE – first half of first century CE.

52 Kenrick 1985, 306, fig. 47: no. B442.

53 Hayes 1985, 84, pl. 19: 13.

54 Hayes 1985, 37.

55 Hayes 1972, 321, fig. 64; 2008, 52, 200, fig. 25–6: cat. nos. 795–6.

56 Kögler 2010, 160–1; fig. 73: Kn.100.

57 Riley 1979, 358, cat. no. D987, fig. 129 (Deposit 81, late second century CE).

58 Kögler 2010, 344–7; fig. 64: Kn.376–8. Similar carinated cups are known from several excavated Roman sites on the island of Kos (S. Didioumi, pers. comm.).

59 For a form similar to cat. no. 68, see Riley 1979, 387, cat. no. D1153, fig. 139 ('Mid Roman Jug 3').

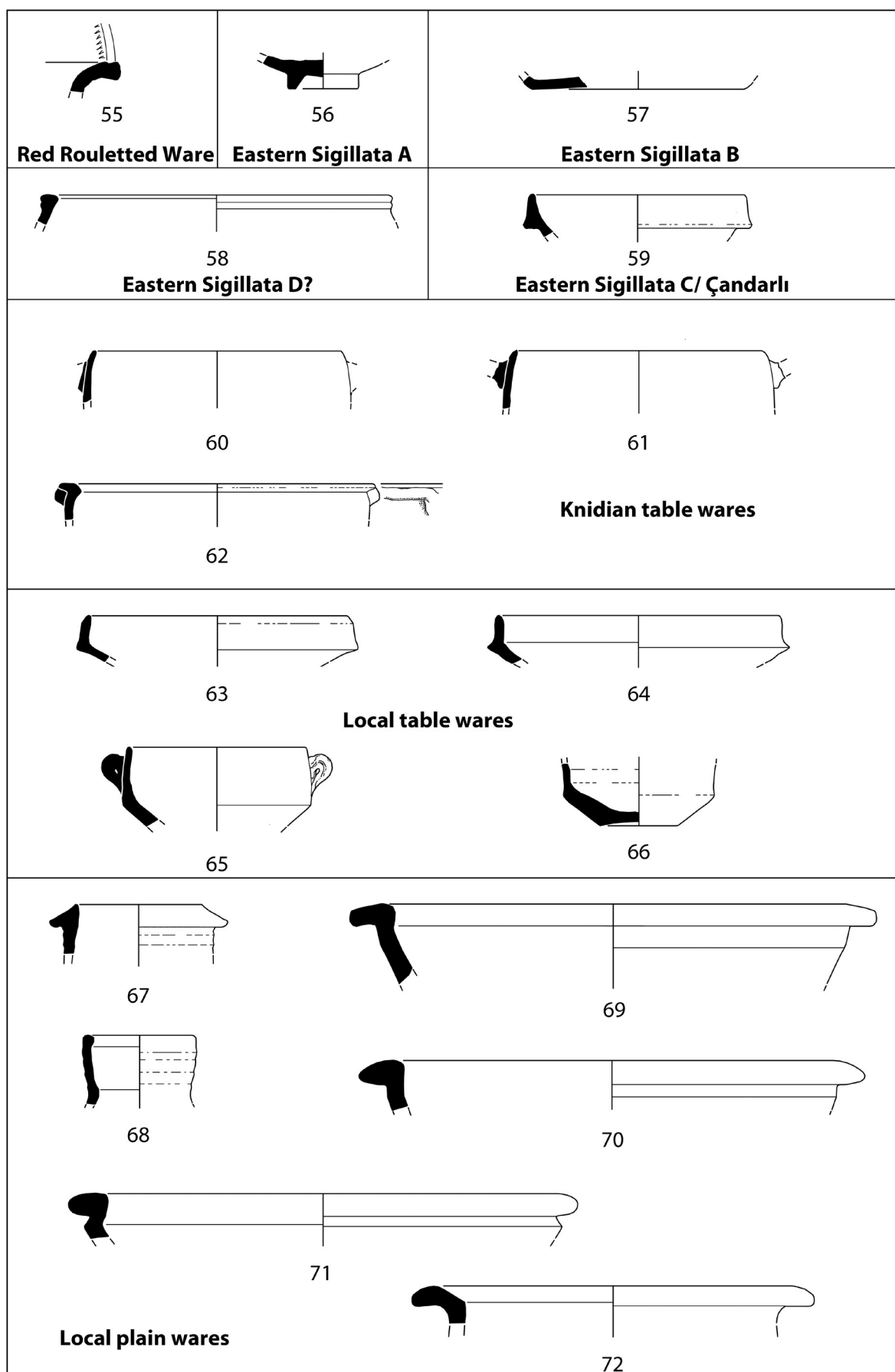


Fig.11. Deposit 2. Imported table wares (nos. 55–62), local table wares (nos. 63–66) and local plain wares (nos. 67–72).

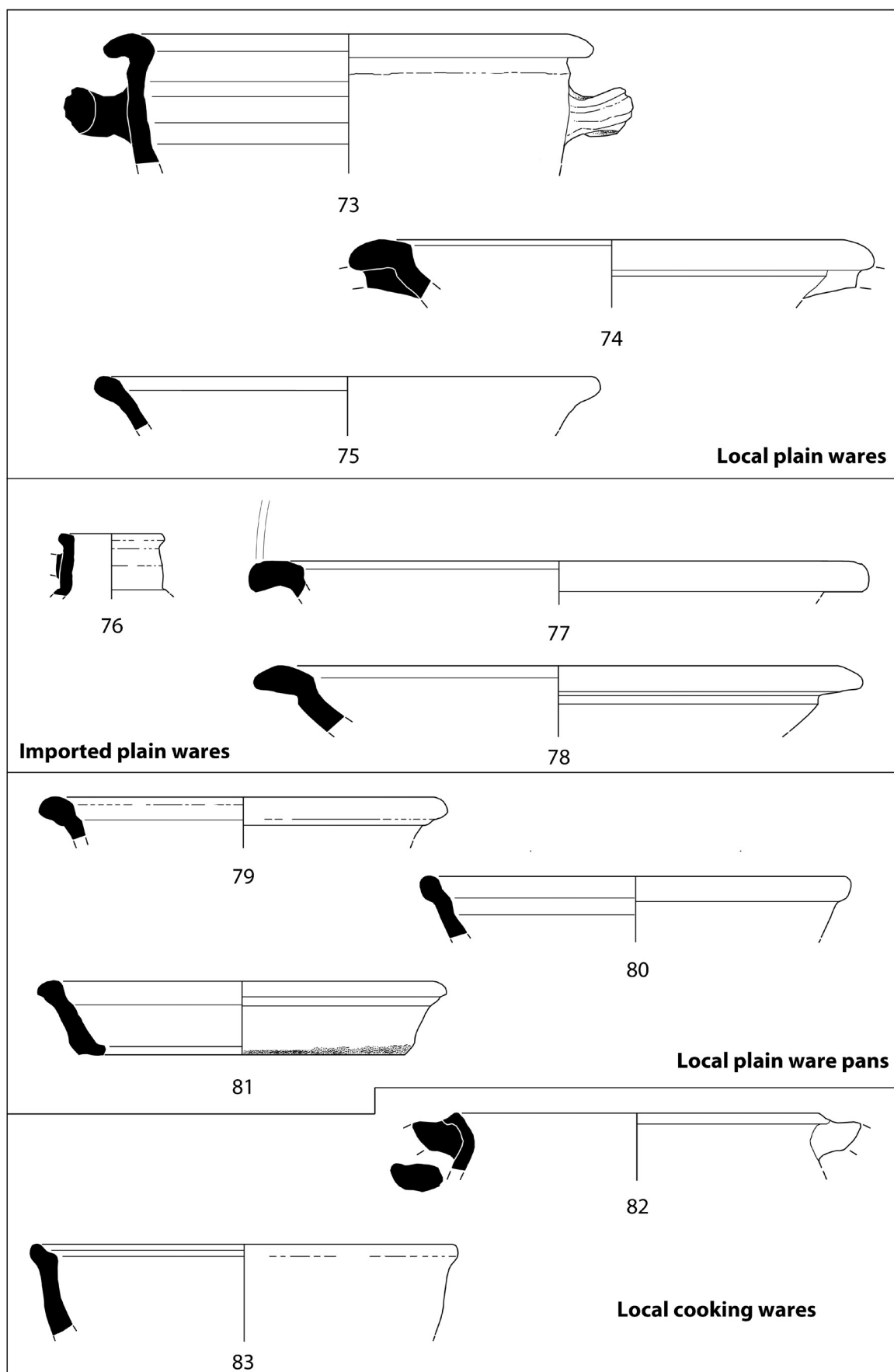


Fig. 12. Deposit 2. Local (nos. 73–5) and imported (nos. 76–8) plain wares, local plain ware pans (nos. 79–81) and local cooking wares (nos. 82–3).

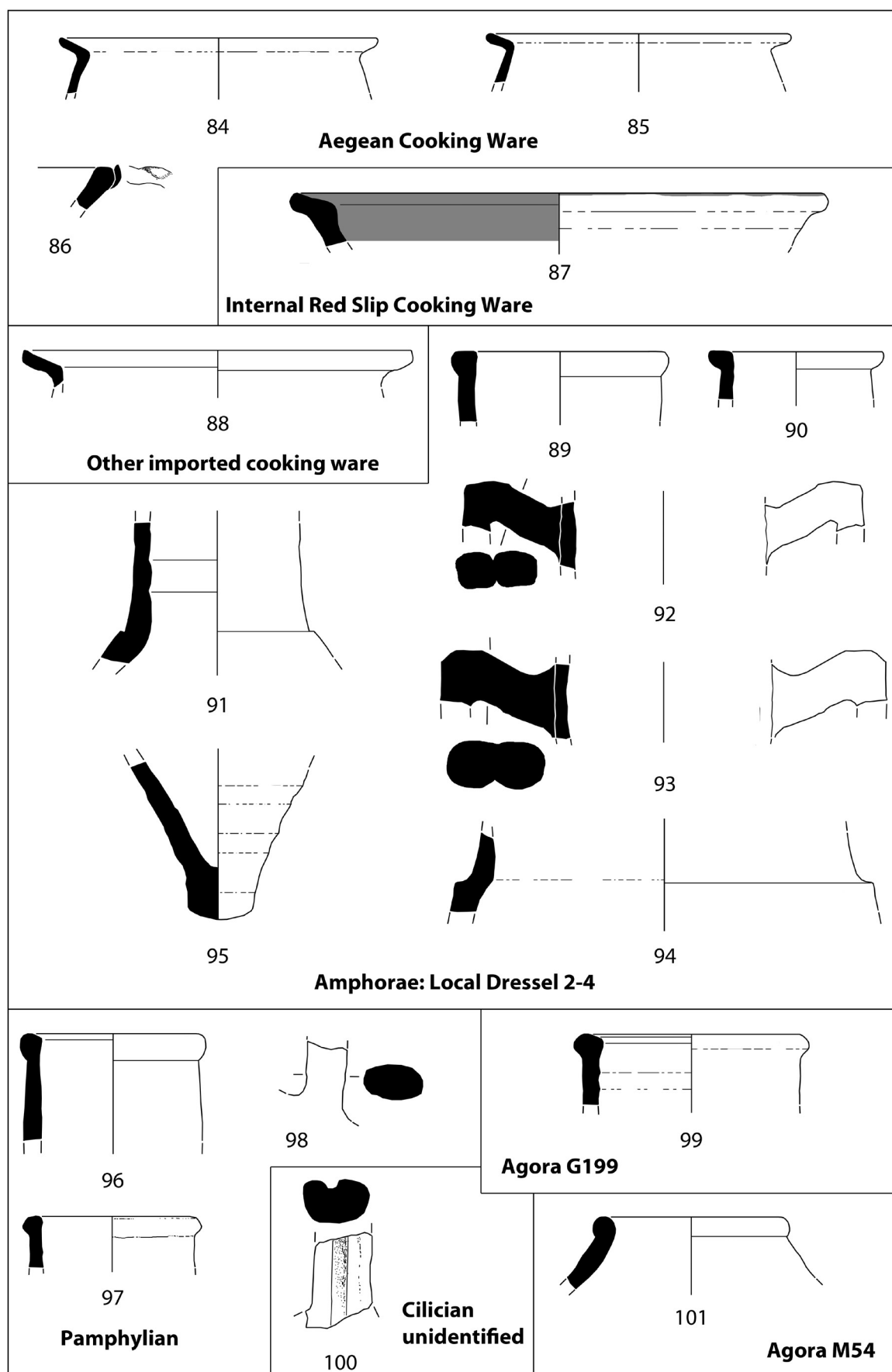


Fig. 13. Deposit 2. Imported cooking wares (nos. 84–8), local (nos. 89–95) and imported amphorae (nos. 96–101).

(or type variants) of basins and bowls (69–71), including jars with hooked rim (72).⁶⁰ This, as well as other shapes, like the handled basin (Type U4; 73) and the shallow handled bowl (Type U7; 74) also occur in the deposit for the first time. Three different imported plain ware fabrics are also attested. Two of the associated types belong to a jug and a basin or bowl, respectively (76–7). The shallow bowl (78) made in a black-sand fabric may represent the prototype for local versions like 74. The provenance of these imported plain wares is unknown but one may be Pamphylian. Several finds belong to variants of a common local type of pan or dish (Type C6; 79–81). Although made in plain ware fabrics, these vessels have rims with an internal ledge for lids, pie-crust handles but generally lack traces of secondary burning, suggesting that they were used in some form of food preparation, perhaps baking or braising.⁶¹ Vessels made in the actual local cooking fabric, which is sandier in texture, include a cooking pot with downturned rim (Type C3; 82) and a casserole or pan with grooved rim (Type C4; 83). In addition, there are several fragments of Aegean Cooking Ware pots (84–85) and pans (86). The fragment of a pan with internal red slip (87) is also an import. Such pans are common in second and third century CE contexts.⁶² Their place of production is not known but Phokaia and the wider western Asia Minor, as well as Crete, have been suggested.⁶³ 89 is another cooking ware import from an unidentified source.

Similarly, the transport amphorae show a wide range of types that belong mostly to wine containers. Local products of the Dressel 2-4 type (Type A1) are well-represented (89–95) but their number is considerably smaller than in Deposit 1. Amongst the material there are also other minor local products (such as presumable Knidian-style), fragments of imported Knidian/Pompeii 38, Cretan MR2/ARC1b-c,⁶⁴ as well as Dressel 2-4 in imported fabrics of unidentified (probably close-regional) provenance.⁶⁵ The rest of the identified amphora finds belong to types coming from other southern Asia Minor and eastern sources. One group represents finds belonging to a type with long neck, thickened rim, slightly curved vertical handles, ovoid ribbed body and a peg toe, made in a distinctive pink fabric with dark inclusions (96–98). This type occurs in late second and early third century CE contexts at the Athenian Agora, where it has been attributed by Grace to a late form of Pamphylian amphorae.⁶⁶ It is also known from the city of Kos and more recently finds have been published from later second century CE contexts in Eretria.⁶⁷ Another group includes finds belonging to various imports from Cilicia and/or Cyprus. 99 belongs to a so-called pinched-handle/Benghazi MR 4 amphora, a type produced both in Cilicia and Cyprus from the first to the fourth century CE.⁶⁸ Other Cilician imports include 100 and 101; the latter belongs to an Agora M54 cigar-shaped amphora. Its contents are presumed to have been dried fruit (raisins) or wine.⁶⁹

60 For plain basins with hooked rims, see Lüdorf 2006, pl. 20–2 ('Schüsseltypus S II).

61 For similar baking dishes or pans, see Opaît and Ionescu 2016, 78, no. 164, pl. 27 (Callatis).

62 E.g. Hayes 1983, Slane 1990, 79, cat. no. 165, fig. 16; Sackett 1992, fig. 188: 11 (Deposit S1, Severan); fig. 193: 70–2 (Deposit U, mixed).

63 Hayes 1983, 108, 126, nos. 103–9 (fig. 9).

64 Marangou-Lerat 1995, 70; Romeo and Portale 2001, 269–79.

65 One possible source may be Halikarnassos, where evidence suggests production of Dressel 2-4 in imperial times. See Berg-Briese 2005, 188–9, 199. For other close-regional production areas, see Empereur and Picon 1989, 225–9.

66 This is sometimes referred to as Form 17. Grace 1973, fig. 8: 17, fig. 9: 17, 198–9. For an earlier (first century CE) form of Pamphylian produced in western Cilicia, see Autret 2012.

67 Unpublished, personal observation (Casa Romana, Kos, August 2014); Eretria: Palaczyk 2015, 35, fig. 3.1a–b.

68 For the type, see Riley 1979, 186–7; Lund 2000; Autret and Marangou 2011, 359–60; Autret 2012, 255–6.

69 Autret and Marangou 2011, 361; Autret 2012, 257.

CATALOGUE

Imported red-gloss fine wares

55. (Inv. no. Π26-Π27-P27/2014/A216.001) Crater bowl. R fragment. D unidentified (less than 4% pres.). Unidentified imported fine red-gloss ware. Fine, compact light reddish yellow (5YR 6-8) fabric with no visible inclusions. Dull glaze, more shiny on interior, fired red to dusky red (2.5YR 5/8).
56. (Inv. no. Π26-Π27-P27/2014/A238.001) ES A *Atlante* Form 51. B fragment. D 0.04 m (100% pres.).
57. (Inv. no. Π26-Π27-P27/2014/A241.001) ES B *Atlante* Form 60. B fragment. D 0.12 m (ca. 10% pres.). B2 ware.
58. (Inv. no. Π26-Π27-P27/2014/A236.001). ES D *Atlante* Form P21 (?) or related. R fragment. D 0.20 m (6% pres.). Fine, compact red fabric (2.5YR 5/6), matt weak red slip (2.5YR 4/8).
59. (Inv. no. Π26-Π27-P27/2014/A221.001) ES C late/Çandarlı Form H3. R fragment. D 0.12 m (11% pres.).

Knidian table wares

60. (Inv. no. Π26-Π27-P27/2014/A220.001) Form IA cup. R fragment. D 0.14 m (ca. 7.5% pres.). Fabric 2.1, matt blotted red slip.
61. (Inv. no. Π26-Π27-P27/2014/A220.002) Form IA cup. R fragment. D 0.14 m (ca. 8% pres.). Fabric 2.3, matt dark grey slip.
62. (Inv. no. Π26-Π27-P27/2014/A216.008) Crater bowl (?). R fragment. D 0.18 m (8% pres.). Fabric 2.2, matt purplish black slip.

Local plain table wares

63. (Inv. no. Π26-Π27-P27/2014/A218.001) Conical cup. R fragment (ca. 5% pres.). D max at transition to lower body 0.16 m. Fabric 1.1, surface covered by pink scum (10YR 8/3).
64. (Inv. no. Π26-Π27-P27/2014/A236.002) Flanged cup. R fragment. D 0.16 m (ca. 13%). Fabric 1.2, fired pinkish grey (7.5YR 6/2). Surface covered by pale yellow scum (2.5Y 8/2).
65. (Inv. no. Π26-Π27-P27/2014/A222.002) Carinated cup. R fragment. D 0.10 m (ca. 13% pres.). Fabric 1.2, fired light yellowish brown (10YR 6/4), plain surface, fired very pale brown (10YR 7/5).
66. (Inv. no. Π26-Π27-P27/2014/A236.003) Carinated cup? B fragment. D 0.046 m (ca. 50% pres.). Fabric 1.2, fired reddish yellow (5YR 7/6).

Plain utility wares

67. (Inv. no. Π26-Π27-P27/2014/A216.003) Jug. R fragment. D 0.07 m (ca. 15% pres.). Fabric 1.1. Surface covered by pale yellow scum.
68. (Inv. no. Π26-Π27-P27/2014/A219.005) Jug or mug. R fragment. D 0.06 m (ca. 15% pres.). Fabric 1.2.
69. (Inv. no. Π26-Π27-P27/2014/A232.002) Basin. R fragment. D 0.30 m (ca. 10% pres.). Fabric 1.3. Surface covered by whitish scum.
70. (Inv. no. Π26-Π27-P27/2014/A216.006) Bowl. R fragment. D 0.26 m (ca. 5% pres.). Fabric 1.3.
71. (Inv. no. Π26-Π27-P27/2014/A236.006) Basin or bowl. R fragment. D 0.29 m (10% pres.). Fabric 1.2.
72. (Inv. no. Π26-Π27-P27/2014/A219.004) Deep basket or bowl. R fragment. D 0.23 m (ca. 11% pres.). Fabric 1, surface covered by pale yellow scum.
73. (Inv. no. Π26-Π27-P27/2014/A235.001) Handled basin. R fragment. D 0.28 m (ca. 13.5% pres.). Fabric 1.2, surface partly covered by pinkish white scum.

74. (Inv. no. Π26-Π27-P27/2014/A216.002) Handled bowl. R fragment. D 0.28 m (ca. 7.5% pres.). Fabric 1.2, surface covered by yellow scum.
75. (Inv. no. Π26-Π27-P27/2014/A216.004) Basket or tub. R fragment. D 0.28 m (ca. 5% pres.). Fabric 1.1, surface covered by yellow scum.
76. (Inv. no. Π26-Π27-P27/2014/A218.002) Juglet. R fragment. D 0.058 m (ca. 33% pres.). Fabric 3.2, surface covered by thick pink scum (5YR 7/3).
77. (Inv. no. Π26-Π27-P27/2014/A219.002) Basin with thickened rim. R fragment. D 0.34 m (ca. 7.5% pres.). Fabric 2.8, surface with a pimply feel, covered by pale yellow wash (2.5Y 8/2).
78. (Inv. no. Π26-Π27-P27/2014/A222.001) Basin with thickened rim. R fragment. D 0.32 m (ca. 6% pres.). Fabric 2.6, gritty surface.

Local cooking wares

79. (Inv. no. Π26-Π27-P27/2014/A216.005) Frying pan or baking dish. R fragment. D 0.22 m (ca. 11% pres.). Fabric 1.1, surface covered by pale yellow scum.
80. (Inv. no. Π26-Π27-P27/2014/A219.003) Frying pan or baking dish. R fragment. D 0.24m (ca. 11% pres.). Fabric 1.1, surface covered by pale yellow scum.
81. (Inv. no. Π26-Π27-P27/2014/A232.005) Frying pan or baking dish. R fragment. D 0.22 m (ca. 6% pres.). Fabric 1.2, surface covered by partial scum.
82. (Inv. no. Π26-Π27-P27/2014/A231.002) Cooking pot with downturned rim. R fragment. D 0.22 m (ca. 5% pres.). Fabric 5.1, surfaced fired light red (2.5YR 6/6).
83. (Inv. no. Π26-Π27-P27/2014/A247.001) Frying pan or baking dish. R fragment. D 0.22 – 0.24 m (ca. 5% pres.). Fabric 5.1.

Imported cooking wares

84. (Inv. no. Π26-Π27-P27/2014/A247.002) Aegean Cooking Ware, cooking pot. R fragment. D 0.18 m (ca. 15% pres.). Fabric 7.1, surface fired greyish black.
85. (Inv. no. Π26-Π27-P27/2014/A243.002) Aegean Cooking Ware, cooking pot. R fragment. D 0.17 m (17.5% pres.). Fabric 7.1, fired deep orange red (2.5YR 5/8), surface fired reddish grey (5YR 5/2).
86. (Inv. no. Π26-Π27-P27/2014/A218.003) Aegean Cooking Ware, frying pan with pie-crust. H and R fragment. D unknown (less than 4% pres.). Fabric 7.1, fired dark brown.
87. (Inv. no. Π26-Π27-P27/2014/A219.001) Internal red-slip ware, frying pan. R fragment. D 0.30 m (ca. 7.5% pres.). Fabric 7.1, fired deep orange red (2.5YR 5/8), thick red slip on interior (10R 5/6).
88. (Inv. no. Π26-Π27-P27/2014/A244.001) Unidentified imported ware, cooking pot. R fragment. D 0.28 m (ca. 5.5% pres.). Gritty micaceous fabric, fired red (2.5YR 5/8).

Local Type A1 (Dressel 2-4) amphorae

89. (Inv. no. Π26-Π27-P27/2014/A247.003) R fragment. D 0.12 m (ca. 7% pres.). Fabric 1.1.
90. (Inv. no. Π26-Π27-P27/2014/A216.007) R fragment. D 0.10 m (ca. 13% pres.). Fabric 1.1.
91. (Inv. no. Π26-Π27-P27/2014/A245.001) Neck fragment. D internal 0.08. Fabric 1.1.
92. (Inv. no. Π26-Π27-P27/2014/A240.001) H fragment. D neck (internal) 0.10 m. Fabric 3.2.
93. (Inv. no. Π26-Π27-P27/2014/A222.001) H fragment. D neck (internal) 0.11 m. Fabric 4.4, surface covered by whitish scum.

94. (Inv. no. Π26-Π27-P27/2014/A236.005) Shoulder fragment. D (max.) 0.24 m. Fabric 1.1.

95. (Inv. no. Π26-Π27-P27/2014/A248.001) B fragment. D 0.038 (100% pres.). Fabric 1.1. Surface covered by pale yellow scum.

Pamphylian (?) amphorae

96. (Inv. no. Π26-Π27-P27/2014/A232.003) Grace Form 17. R fragment. D. 0.11 m (ca. 10% pres.). Fabric 2.7, pimply surface fired very pale brown (10YR 8/3).

97. (Inv. no. Π26-Π27-P27/2014/A232.004) Grace Form 17. R fragment. D. 0.09 m (ca. 15% pres.). Fabric 2.7, pimply surface fired very pale brown (10YR 8/3).

98. (Inv. no. Π26-Π27-P27/2014/A222.003) Grace Form 17. H fragment. L max. 0.046 m. Fabric 2.7, pimply surface fired very pale brown (10YR 8/3).

Cilician amphorae, various types

99. (Inv. no. Π26-Π27-P27/2014/A236.004) Agora G199/Benghazi Middle Roman amphora 4. R fragment. D 0.12 m (12.5% pres.). Fabric 4.9. Self-slip.

100. (Inv. no. Π26-Π27-P27/2014/A235.002) Unidentified type. H fragment. L max. 0.055 m. Fabric 4.7. Surface fired light brown (7.5YR 6/4).

101. (Inv. no. Π26-Π27-P27/2014/A234.001) Agora M54/'pseudo-Cos en cloche'. R fragment. D 0.10 m (ca. 16% pres.). Fabric 4.8. Gritty surface, fired very pale brown (10YR 7/4).

DEPOSIT 3: FIRST HALF OF THIRD CENTURY CE (FIGS 14–7)

Deposit 3 represents the finds from the thick earth fill that covered the three steps of the podium fronting Building Δ. The fill consisted of soft light brown sandy earth interspersed with pockets of ash and was encountered at a maximum depth between +4.87 and +4.48. The finds from this deposit were collected in three consecutive spits (OM 13, OM, 15 and OM 16). Subsequent study yielded several cross-fits between these groups, suggesting that they belong together. This fill has the same consistency and lies at approximately the same level as Deposit 2, which was excavated in the area to the south (see above). Nevertheless, the systematic study of the pottery did not yield any cross-joining finds between the two deposits, suggesting that they probably belong to two different stratigraphic contexts. It should be noted that, from the point of view of absolute chronology, the two deposits are broadly comparable; however, Deposit 3 contains some pottery types and wares that appear more in line with a later closing date, perhaps in the first half of the third century CE. For this reason the pottery from Deposit 3 is presented here as a separate assemblage.

Compared to Deposits 2 and 1, Deposit 3 contains a far more restricted range of fine ware imports, which comprises almost exclusively Knidian products. It is noteworthy that only a few finds belong to Form IA cups (102), while numerous fragments can be identified as Form XXX C mugs/jugs (103–6). This Knidian form enjoyed a long life-time extending beyond the second half of the second and into the third century CE, as suggested by finds from a context dated ca. 125–50 CE at Athens and a deposit of Severan/early third century date in Knossos.⁷⁰ Other

⁷⁰ Sackett 1992, pl. 184: 3 (Deposit R1, late Antonine, now re-dated to the end of the second century CE, see Reynolds *et al.* 2011, 26); Hayes 2008, 269–70, cat. no. 1623, fig. 52.

imports from unidentified sources are rare and include only vessels in plain (non-slipped) ware (e.g. 107), while the total absence of late ES C/Çandarlı products is notable. Similarly, the only lamp recorded belongs to Loeschcke VIII (108), which can be broadly dated in the second century CE and may be residual.⁷¹ As with Deposit 2, local table wares include numerous examples of Types T2, T4 and T7 (e.g. 109–12) but these now take up a larger part of the total table ware assemblage. Fewer examples belong to local plain versions of loop-handled bowls (Type T6; 113) and miniature shapes like 114.

The plain utility wares include both local products and imports. The flagons with downturned rim (115–6) are a type also occurring in Deposit 2, while basins like 117 (Type U5) and 118–9 (Type U6) occur here for the first time. 120 belongs to a so-called ‘tub’ or handled basket (Type U12) of a type known mostly from Cretan sites but also elsewhere in the Aegean and dated from the later second to the fourth century CE.⁷² In addition, there are several basins and jars with overhanging rims (121–3), a type which compares to forms of the late second and third century CE from elsewhere.⁷³ The rim fragment 127 may belong to either a basket or a bee-hive kalathos (Type U11), while 128 may belong to a funnel. Imported plain wares include both open shapes, like the deep jar or basket kalathos 129 and the basin (?) 130, as well as closed ones, like the fragment of a jug or flagon 131. The deep basin 132 has the same shape as local Type U5, suggesting perhaps a close-regional origin.

The cooking wares are characterized by an even greater range than Deposit 2. Local products comprise flat-based pans in plain ware fabrics used for cooking (133–6). These may match some of the plain ware lids listed under 124–6. In addition to the pans with thickened rim (Type C6; 133–4), which also occur in Deposit 2, there are now pans with a wide ledge rim (Type C7; 135–6), a type copying a form known in various fabrics and imitated throughout the Eastern Mediterranean during the third century CE.⁷⁴ Other products in the local cooking fabric include various types of cooking pots whose precise forms are not known (137–9). Amongst the imported material, there are several casseroles (140), cooking pots (141) and straight-walled pans (142–5) belonging to Aegean Cooking Ware, as well as fragments of pans with internal red slip in a similar fabric (146–9) that find parallels in later second and third century CE contexts elsewhere in the Aegean.⁷⁵ Another group of imported cooking vessels is most probably of Lycian provenance. It includes cooking pots with a flaring triangular rim (150–4),⁷⁶ and another type of a deep globular cooking jar with downturned rim (155).⁷⁷ The date of the first type is unclear, while the latter is dated between the third and the early fourth century CE. They are made in a distinctive sandy fabric, which matches the description of the ‘*pâte ferromagnésien*’, one of the main local cooking fabrics determined by analyses on finds from various Lycian sites.

Amphorae show also a great variety. Local Type A1 (Dressel 2-4) amphorae occur in Deposit 3 but in much lesser quantity than in Deposits 1 and 2. They still make up a large part of the entire amphora assemblage, although several finds may be residual. In contrast, a new amphora

71 Bailey 1988, cat. no. Q 2820, pl. 88, fig. 142; cat. no. 2830, pl. 88.

72 Riley 1979, fig. 125; cat. nos. 899–902; Hayes 1983, fig. 13: 173–4; fig. 15: 175–6.

73 Lüdorf 2006, pl. 20–2 (‘Schüsseltypus S II’).

74 See e.g. Riley 1979, 352, cat. no. D953, fig. 352.

75 For these wares, see above n. 25, 47.

76 This is Xanthos Type 110. See Pellegrino 2007a, 230–2 with fig. 7 no. 1; 2004, 123 with fig. 1 nos. 7–8; 2007b, fig. 3 no. 26; Arqué *et al.* 2012, fig. 6 no. 5 (classified as a *lopas*); Lemaître *et al.* 2013, fig. 12 LYC 122.

77 This is Xanthos Type 120: Pellegrino 2004, 123 with fig. 1 nos. 1–6; 2007a, 232 with fig. 7 nos. 2–5; 2007b, fig. 3 nos. 25–6; Lemaître *et al.* 2013, fig. 12 nos. LYC 105–6.

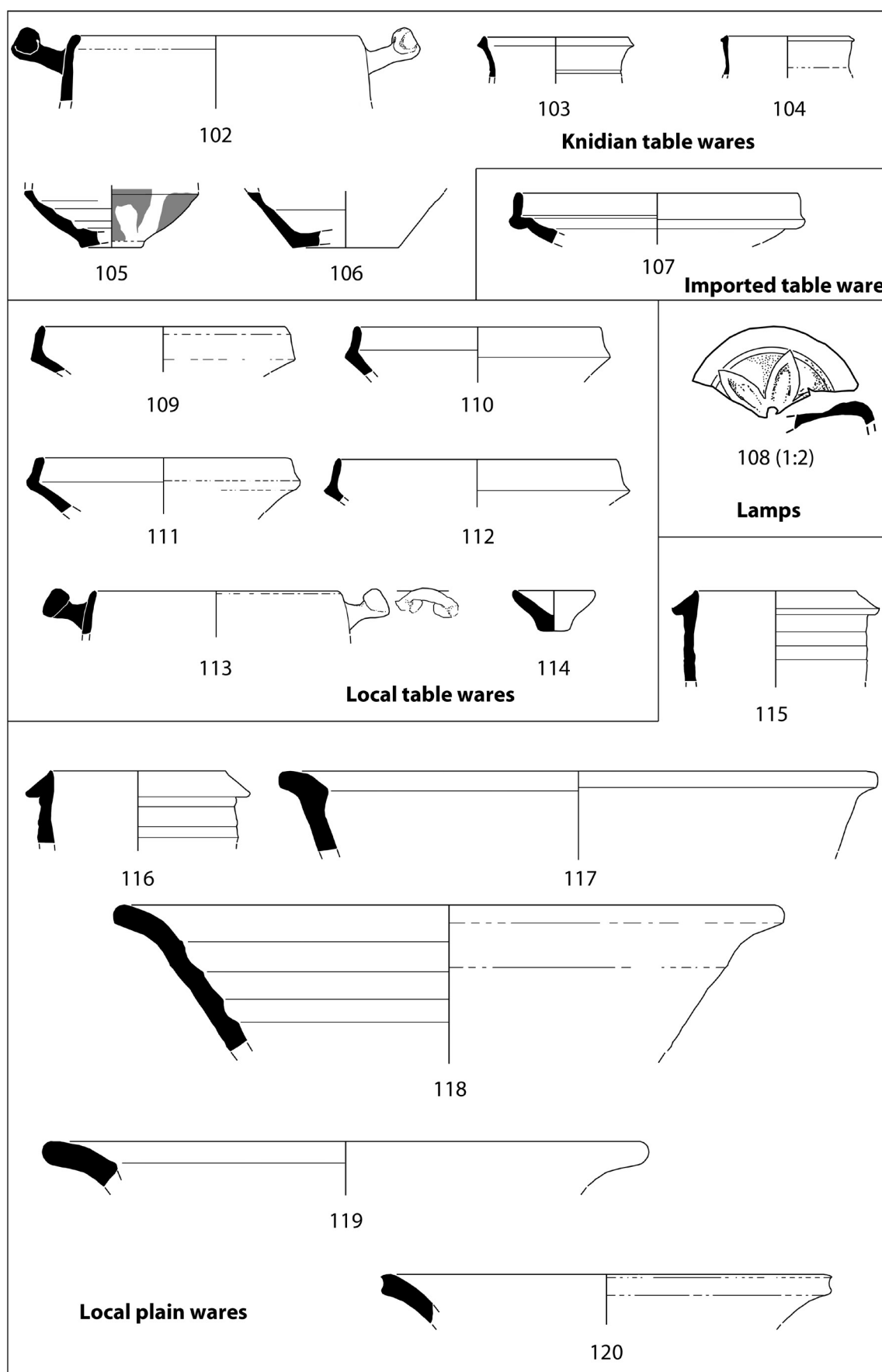


Fig. 14. Deposit 3. Imported table wares (nos. 102–7), lamp (no. 108), local table wares (nos. 109–14) and local plain wares (nos. 115–20).

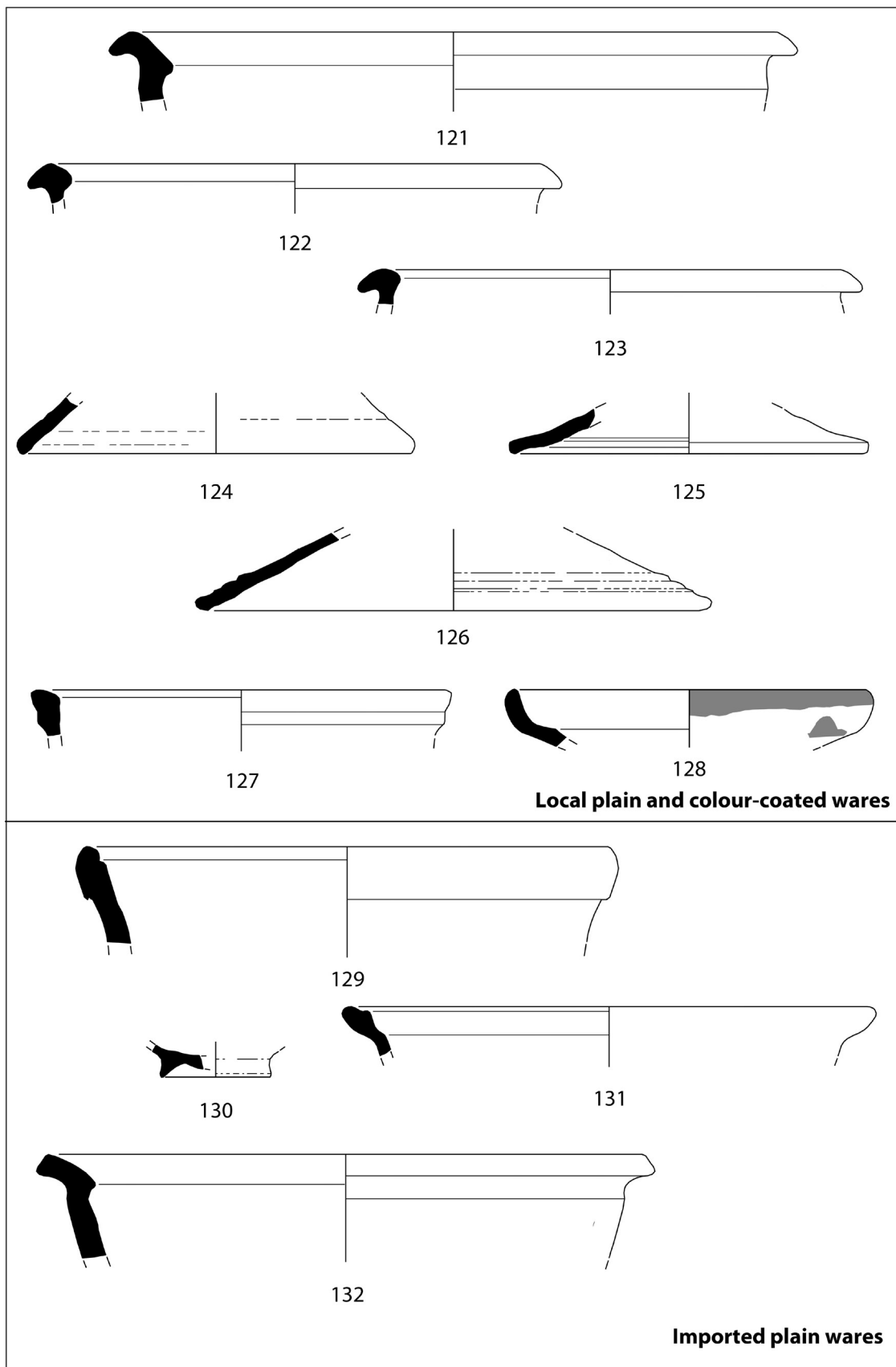


Fig. 15. Deposit 3. Local plain and colour-coated wares (nos. 121–8) and imported plain wares (nos. 129–32).

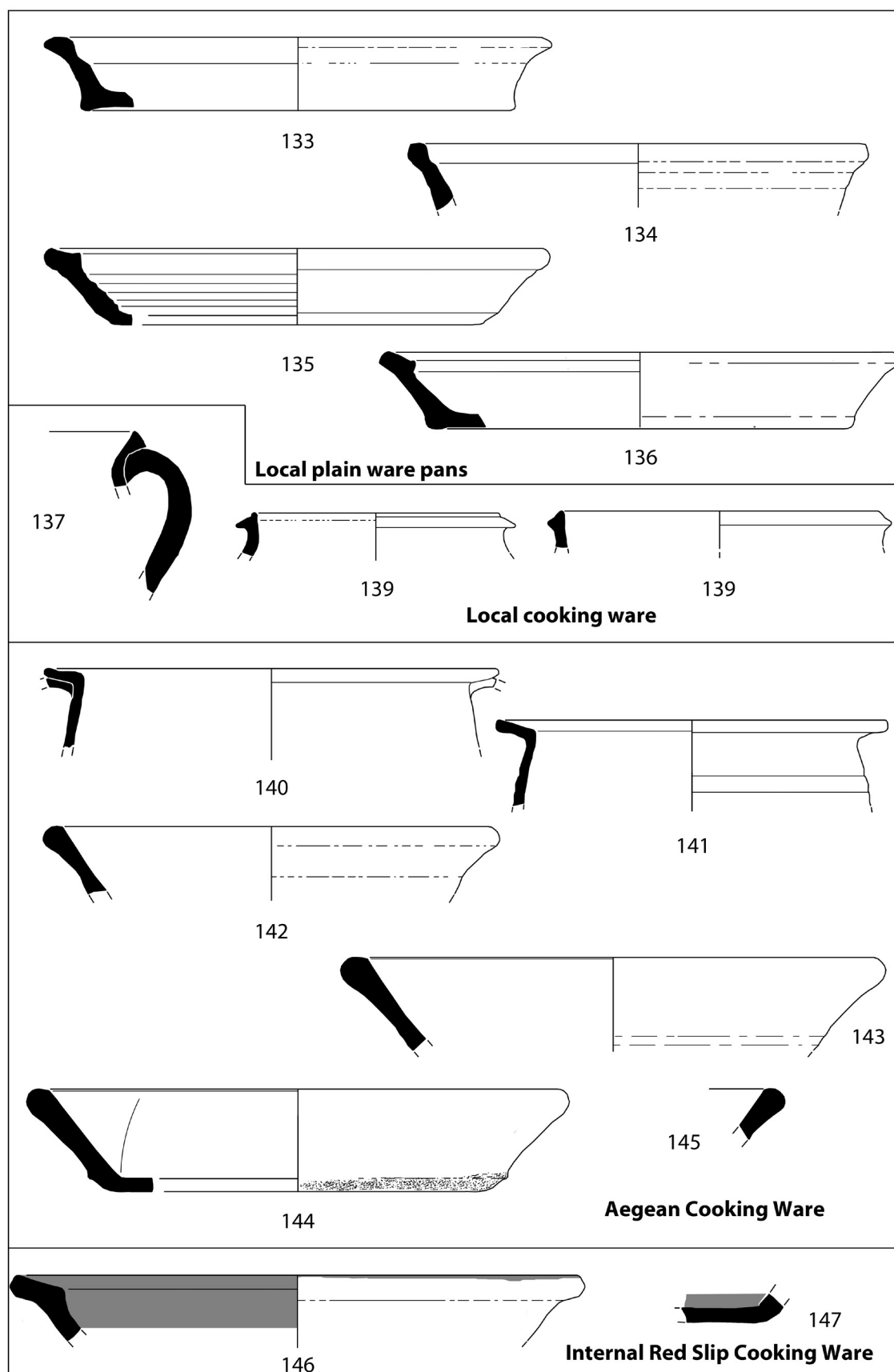


Fig. 16. Deposit 3. Local (nos. 133-9) and imported (nos. 140-7) cooking wares.

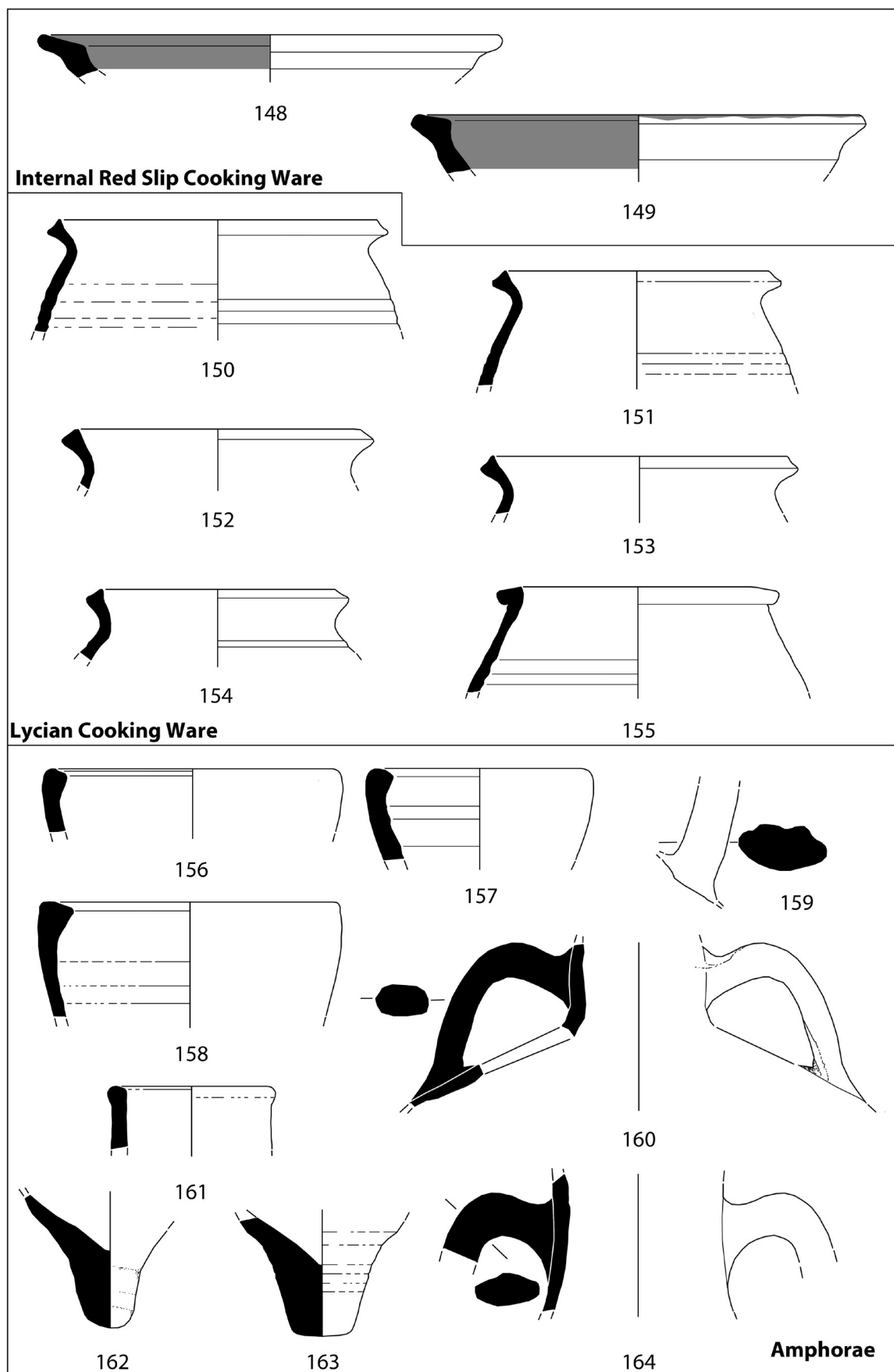


Fig. 17. Deposit 3. Imported cooking wares (nos. 148-55) and amphorae (nos. 156-64).

type (Type A2) now makes its appearance for the first time and should therefore be regarded as coeval with the rest of the assemblage. It is attested only in fragments, characterized by a funnel-shaped rim, which is hooked on the interior (156–7). The type probably takes after the form of Dressel 24 *similis* or Knossos 18. Amphorae of this type are thought to have been olive oil containers and they are known from land sites and shipwrecks in the Aegean, the Black Sea and Italy.⁷⁸ Production is attested on the island of Chios in the later second and third century CE but it has been suggested that the type was also manufactured elsewhere in the Aegean, including the area near Knidos and the wider Datça peninsula.⁷⁹ 158 is made in a fabric which may be of Knidian origin. Other imports comprise a late Pompeii 5 of west Cilician origin (159)⁸⁰ and a Cretan MR2/ARC1b-c (160) in a red micaceous fabric.⁸¹ Finally, numerous fragments can be attributed to the late second/early third century, presumably Pamphylian Grace Form 17 (161–4), which is also attested in Deposit 2. This type is the third largest in the total amphora assemblage and the most common amongst all imported amphorae in Deposit 3.

CATALOGUE

Knidian table wares

- 102. (Inv. no. Π26-Π27-P27/2014/A152.003) Form IA, R fragment. D 0.18 m (10% pres.). Fabric 2.1.
- 103. (Inv. no. Π26-Π27-P27/2014/A152.002) Form XXX C, R fragment. D 0.09 m (10% pres.). Fabric 2.3.
- 104. (Inv. no. Π26-Π27-P27/2014/A147.017) Form XXX C, R fragment. D 0.07 m (15% pres.). Fabric 2.3.
- 105. (Inv. no. Π26-Π27-P27/2014/A144.003) Form XXX C. B fragment. D 0.038 m (ca. 8% pres.).
- 106. (Inv. no. Π26-Π27-P27/2014/A144.001) Unidentified form. B fragment, D 0.06 m (5% pres.). Fabric 2.3.

Other imported table wares

- 107. (Inv. no. Π26-Π27-P27/2014/A147.014) Flanged cup. R fragment. D 0.16 m (15% pres.). Fabric 2.5, surface covered by pink scum (7.5YR 8/4 – 10YR 8/3).

Lamps

- 108. (Inv. no. Π26-Π27-P27/2014/Π4) Knidian, Loeschcke Type VIII, fragment of disc with pointed leave rosette. L max. 0.063 m. Fabric 2.3, matt reddish grey glaze (5YR 5/2).

Local plain table wares

- 109. (Inv. no. Π26-Π27-P27/2014/A147.016) Conical cup. R fragment. D 0.14 m (11% pres.). Fabric 1.1, surface covered by very pale brown scum.
- 110. (Inv. no. Π26-Π27-P27/2014/A152.001) Conical cup. R fragment. D 0.14 m (13% pres.). Fabric 1.1, surface covered by very pale brown scum.

78 For an overview and chronological classification, see Opař 2007. For finds in North Italy, see Auriemma and Quiri 2004, 49 with fig. 10: B; Auriemma *et al.* 2015, 147–8; Quiri 2015, 164 with fig. 5 nos. 2–3. For finds in the Aegean and Black Sea, see Opař and Tsaravopoulos 2011; Vidličková 2015.

79 Opař 2007, 629; Opař and Tsaravopoulos 2011.

80 Reynolds 2005, 565; 2008, 70–2 with fig. 3a–d; Opař 2014, 1015; Autret 2012, 257–8.

81 Riley 1979, 180.

111. (Inv. no. Π26-Π27-P27/2014/A147.005) Conical cup. R fragment. D 0.14 m (7.5% pres.). Fabric 1.2.
112. (Inv. no. Π26-Π27-P27/2014/A147.006) Flanged cup. R fragment. D 0.16 m (ca. 7% pres.). Fabric 1.1, overfired?
113. (Inv. no. Π26-Π27-P27/2014/A146.001) Loop-handled cup. R fragment. D 0.14 m (11% pres.). Fabric 1.1. Surface covered by very pale brown scum.
114. (Inv. no. Π26-Π27-P27/2014/A144.000) Miniature cup, complete profile. D (R) 0.046 m (30% pres.). Fabric 1.2. Surface covered by pale yellow scum.

Local plain and colour-coated utility wares

115. (Inv. no. Π26-Π27-P27/2014/A135.002) Jug or flagon with downturned rim. R fragment. D 0.12 (max.; ca. 6% pres.). Fabric 1.2, surface covered by pinkish white scum (7.5YR 8/3).
116. (Inv. no. Π26-Π27-P27/2014/A137.001) Jug or flagon with downturned rim. R fragment. D 0.10 m (10% pres.). Fabric 1.1. Surface covered by pale yellow to pinkish scum.
117. (Inv. no. Π26-Π27-P27/2014/A138.002) Deep basin with internally offset rim. R fragment. D 0.34 m (ca. 5% pres.). Fabric 1.2.
118. (Inv. no. Π26-Π27-P27/2014/A153.002) Deep basin with flaring rim. R fragment. D 0.38 m (ca. 7% pres.).
119. (Inv. no. Π26-Π27-P27/2014/A153.003) Deep basin or basket. R fragment. D 0.34 m (ca. 7% pres.). Fabric 1.2.
120. (Inv. no. Π26-Π27-P27/2014/A153.006) Deep basin or tub. R fragment. D 0.26 m (ca. 10% pres.). Fabric 1.1, surface covered by very pale brown scum.
121. (Inv. no. Π26-Π27-P27/2014/A135.005) Crater or basin with hooked rim. R fragment. D 0.32 m (ca. 6% pres.). Fabric 1.2.
122. (Inv. no. Π26-Π27-P27/2014/A153.004) Bowl or basin with hooked rim. R fragment. D 0.28 m (ca. 8% pres.). Fabric 1.1.
123. (Inv. no. Π26-Π27-P27/2014/A147.011) Jar or crater with hooked rim. R fragment. D 0.288 m (max; ca. 10% pres.). Fabric 2.
124. (Inv. no. Π26-Π27-P27/2014/A147.009) Lid (?). R fragment. D 0.22 m (25% pres.). Fabric 1.1. External surface covered by pale yellow scum, thin matt red wash on interior.
125. (Inv. no. Π26-Π27-P27/2014/A165.001) Lid. R fragment. D 0.20 m (15% pres.). Fabric 1.2.
126. (Inv. no. Π26-Π27-P27/2014/A159.001) Lid. R fragment. D 0.28 m (11% pres.). Fabric 1.2.
127. (Inv. no. Π26-Π27-P27/2014/A147.012) Basket. R fragment. D 0.24 m (ca. 5% pres.). Fabric 1.3.
128. (Inv. no. Π26-Π27-P27/2014/A153.001) Dish or funnel? D 0.20 m (7.5% pres.). Fabric 1.2. Exterior of rim dipped in thin matt red slip.

Imported plain utility wares

129. (Inv. no. Π26-Π27-P27/2014/A135.007) Basin or basket. R fragment. D 0.30 m (ca. 6% pres.). Fabric 3.3. Surface self-slip, with a soapy feel.
130. (Inv. no. Π26-Π27-P27/2014/A144.002) Jug or other closed vessel. B fragment. D 0.06 m (32% pres.). Fabric 2.7.
131. (Inv. no. Π26-Π27-P27/2014/A138.001) Unidentified shape (basin? flat-based pan?). R fragment. D 0.30 (7.5% pres.). Fabric 3.2. Surface covered by pinkish scum.
132. (Inv. no. Π26-Π27-P27/2014/A140.002) Basin with offset rim. R fragment. D 0.34 m (ca. 5% pres.). Fabric 2.6. Gritty surface, self-slip.

Local cooking wares

133. (Inv. no. Π26-Π27-P27/2014/A147.008) Flat-based pan, complete profile. D (B) 0.24 m (7.5% pres.). Fabric 1.2, interior surface covered with pinkish white scum.
134. (Inv. no. Π26-Π27-P27/2014/A147.015) Flat-based pan. R fragment. D 0.26 m (ca. 8% pres.). Fabric 1.1.
135. (Inv. no. Π26-Π27-P27/2014/A135.008) Flat-based pan, complete profile. D (R) 0.28 m (8% pres.). Fabric 1.3, surface covered by very pale brown scum (10YR 8/3).
136. (Inv. no. Π26-Π27-P27/2014/A147.010) Flat-based pan, complete profile pres. D (R) 0.28 m (ca. 6% pres.); D (B) 0.24 (ca. 13% pres.). Fabric 1.2
137. (Inv. no. Π26-Π27-P27/2014/A150.001) Cooking pot. R and H fragment. D unknown (less than 4% pres.). Fabric 5.1.
138. (Inv. no. Π26-Π27-P27/2014/A151.002) Cooking pot. R fragment. D 0.16 m (6% pres.). Fabric 5.1.
139. (Inv. no. Π26-Π27-P27/2014/A147.004) Cooking pot. R fragment. D 0.18 m (6%). Fabric 6.1.

Aegean Cooking Ware

140. (Inv. no. Π26-Π27-P27/2014/A151.003) Casserole. R fragment. D 0.26 m (ca. 17% pres.). Fabric 7.1, surface on exterior fired dark brown.
141. (Inv. no. Π26-Π27-P27/2014/A163.003) Cooking pot. R fragment. D 0.22 m (5% pres.). Fabric 7.1.
142. (Inv. no. Π26-Π27-P27/2014/A163.002) Frying pan. R fragment. D 0.26 m (7.5% pres.). Fabric 7.1, fired dark brown. External surface sooted.
143. (Inv. no. Π26-Π27-P27/2014/A147.002) Frying pan. R fragment. D 0.28 m (8% pres.). Fabric 7.1, fired light brown. External surface sooted.
144. (Inv. no. Π26-Π27-P27/2014/A147.001) Frying pan. R fragment. D 0.30 m (ca. 7% pres.). Fabric 7.1, fired orange red. External surface sooted.
145. (Inv. no. Π26-Π27-P27/2014/A135.003) Frying pan. R fragment. D unknown (less than 4% pres.). Fabric 7.1. External surface fired greyish brown.

Internal Red-Slip Cooking Ware

146. (Inv. no. Π26-Π27-P27/2014/A151.004) Frying pan. R fragment, mended from two sherds. D 0.32 m (12%). Fabric 7.1, fired red (10R 5/8).
147. (Inv. no. Π26-Π27-P27/2014/A140.003) Frying pan. B fragment. L max. 0.058 m. Fabric 7.1, fired brown (5YR 7.4).
148. (Inv. no. Π26-Π27-P27/2014/A160.001) Frying pan. R fragment. D 0.26 m (5%). Fabric 7.1, fired 10R 5/8.
149. (Inv. no. Π26-Π27-P27/2014/A163.001) Frying pan. R fragment. D 0.26 m (5%). Fabric 7.1, fired light brown. Internal surface covered by thick shiny brown slip.

Lycian cooking ware

150. (Inv. no. Π26-Π27-P27/2014/A137.002) Cooking pot. R fragment, mended from two sherds. D 0.18 m (10% pres.). Fabric 7.2. Surface fired from grey to weak red (2.5YR 5/2).
151. (Inv. no. Π26-Π27-P27/2014/A138.003) Cooking pot. R fragment, mended from three sherds. D 0.15 m (23% pres.). Fabric 7.2. External surface fired red (10R 5/6).
152. (Inv. no. Π26-Π27-P27/2014/A138.004) Cooking pot. R fragment, mended from two sherds. D 0.16 m

(ca. 22% pres.). Fabric 7.2. External surface fired red (10R 5/6).

153. (Inv. no. Π26-Π27-P27/2014/A135.006) Cooking pot. R fragment. D 0.18 m (6% pres.). Fabric 7.2, external surface fired blueish grey.

154. (Inv. no. Π26-Π27-P27/2014/A136.005) Cooking pot. R fragment. D 0.15 m (7.5% pres.). Fabric 7.2, surface fired grey.

155. (Inv. no. Π26-Π27-P27/2014/A151.001) Cooking pot. R fragment, mended from two sherds. D 0.16 m (25%). Fabric 7.2. Surface fired weak red (2.5YR 5/2).

Amphorae

156. (Inv. no. Π26-Π27-P27/2014/A147.007) Type A2/Dressel 24 *similis*. R fragment. D 0.16 m (ca. 5% pres.). Fabric 1.1.

157. (Inv. no. Π26-Π27-P27/2014/A157.002) Type A2/Dressel 24 *similis*. R fragment, mended from three sherds. D 0.12 m (ca. 47.5% pres.). Fabric 1.2, external surface covered by very pale brown scum.

158. (Inv. no. Π26-Π27-P27/2014/A135.009) Dressel 24 *similis*. R fragment. D 0.17 m (ca. 13% pres.). Fabric 4.2. Surface covered by pinkish scum (2.5YR 5/8).

159. (Inv. no. Π26-Π27-P27/2014/A139.002) Pompeii 5. H fragment. L max. 0.06 m. Fabric 4.6. Self-slip.

160. (Inv. no. Π26-Π27-P27/2014/A139.003) Cretan MR2/ARC1 b or c. H fragment with neck, mended from two sherds. D neck 0.06 m (internal). Fabric 4.5. Self-slip.

161. (Inv. no. Π26-Π27-P27/2014/A135.004) Pamphylian? Grace Form 17. R fragment. D 0.09 m (20% pres.). Fabric 2.8. Pimply surface with scum of similar colour.

162. (Inv. no. Π26-Π27-P27/2014/A140.001) Pamphylian? Grace Form 17. B fragment. L max. 0.075 m. Fabric 2.7. Surface relatively smooth, fired very pale brown (10YR 8/4).

163. (Inv. no. Π26-Π27-P27/2014/A138.001) Pamphylian? Grace Form 17. B fragment. D 0.035 m (100% pres.). Fabric 2.7. Pimply surface with pale yellow scum (2.5Y 8/3).

164. (Inv. no. Π26-Π27-P27/2014/A139.001) Pamphylian? Grace Form 17. H and neck fragment. D neck ca. 0.10 m (internal). Fabric 2.7. Pimply surface with pink scum (7.5YR 8/3).

DEPOSIT 4: CA. MID-THIRD CENTURY CE (FIGS. 18–9)

Deposit 4 comprises the pottery from four separately investigated groups that correspond to a sandy dark brown fill encountered on the W (exterior) side of Building Δ. This fill was first excavated in 2001, when a trial trench was opened to the W of Building Δ in Sector O29 (OM 7). In 2013 and 2014 investigation of the deposit resumed in the area between Sectors O28/O29 and O27 (OM 9 and OM17), respectively. The fill's upper surface was encountered at +5.81. This is approximately the same level of the lower (resting) surface of the ashlar masonry Wall T360/T362, i.e. the western wall of Building Δ, and at the point, where this extends over a projecting wall of poured concrete construction. The fill lay flush to the wall and continued to a depth of ca. +5.30, covering a water drain made of slate slabs on the projecting lower part of the foundation of Wall T360/T362 (upper surface at +5.76) (OM 14). During examination of the material in the field the four groups yielded several cross-joining sherds, suggesting that they belong together, and this is also confirmed by the study of the stratigraphic records. Deposit 4 provides therefore an important TAQ for several late interventions on the W side of Building Δ. It also provides the latest chronological index for the time, when the slab-built water drain to the W of Wall T360/T362 went out of use.

The pottery includes a limited range of imported fine wares and lamps, some of which, such as a few ES A and ES B1 sherds, are clearly ER residuals. The fragment of an ES B2 *Atlante* Form 60 dish (165) may be in phase with the rest of the material, since production and distribution of this ware is now considered to extend well into the third century CE.⁸² The fragment of a Form IA cup (166) is probably residual; its shape compares well with an early Augustan example from Knossos and other finds from Knidos that have been dated to the last quarter of the first century BCE or the early first century CE.⁸³ Two other Knidian forms do not appear amongst the published types of Imperial date from Knidos by Kögler and must therefore represent late types. The first belongs to a red-slipped flagon with ribbed handle (167), the second is a part-slipped keel-rim cup (168). Amongst the rest of Knidian fine wares, there is also a fragment of KnRW (169), which may belong to a baggy jug or *olpe*.⁸⁴ More conclusive evidence for the date of the deposit is furnished by a rim fragment of late ES C/Çandarlı H4 dish (not catalogued) and two fragments of African Red Slip Ware (ARSW) Form 50A (170–71). Çandarlı H4 dishes occur throughout the third and even into the early fourth century CE.⁸⁵ The beginning of ARSW Form 50A is placed from ca. 230/240 CE and available evidence suggests that it arrived in the Aegean from early on, becoming common by the middle of the century.⁸⁶ Since no other ARSW forms occur in the deposit and the two fragments belong to C2 ware, they are likely to be imports of around that time. The latest lamp find (not catalogued) is an import from the North Peloponnese of the Broneer XXVII type.⁸⁷

A date around the middle of the third century is also suggested by the rest of the table wares, both imported and local. Two types of imported table wares are represented: plain keel-rim cups (172) and carinated cups (with originally two handles) (173). They are both made in a relatively hard fabric with frequent black inclusions, which according to analytical study in the laboratory is not local.⁸⁸ The sources of these table wares remain unknown; however, their formal affinity to local types T2 and T7, respectively, indicates a close-regional provenance. Local table wares, either plain or covered by a partial matt thin colour-coating, also belong to these two types, especially T2 (174–8). Type T2 cups are also attested from Deposits 2 and 3 and, although some may be residual, this form is also attested from third century contexts on other sites.⁸⁹ A deeper form of conical cup with a keel-shaped rim appears for the first time in this deposit (179; Type T5). It is attested only in a plain version but its morphological dependence from Knidian part-slipped keel-rim cups like 168 is evident.

The few plain utility wares from the deposit include bowls or craters (180–1) and a flanged lid (182; Type U14). The majority of cooking vessels belong to Aegean Cooking Ware. In addition to cooking pots with everted rims (183), there are also carinated casseroles with downturned

82 E.g. Sackett 1992, pl. 187: no. 3 (Deposit S1, Severan, now re-dated to early third century CE); Hayes 2008, 38; Bes 2015, 17 n. 126 with further references.

83 Sackett 1992, pl. 130: no. 34 (Deposit A2, Augustan); Kögler 2010, figs 35–6: nos. G.4–G.11 (context of first three quarters of first century CE).

84 For a possible form parallel, see Baldoni 2003, 37 no. 85 ('Forma 1'), which she attributes to local/Carian production.

85 Hayes 1972, 321–2; 1985, 78; Sackett 1992, 158–9.

86 Hayes 1972, 72–3; 2008, 72; Reynolds *et al.* 2011, 17.

87 H fragment, inv. no. O29/A92/2001. The other fragment belongs to a Knidian lamp (Loeschcke VIII type?), probably residual.

88 A. Hein and E. Nodarou pers. comm. The results of these analyses will be published in the volumes currently in preparation: Grigoropoulos forthcoming a, forthcoming b.

89 Sidi Khrebish/Benghazi: Riley 1979, fig. 129: no. 987; Ephesos: Ladstätter 2005, pl. 192: nos. K711–K712 ('Fundkomplex Z/5', dated to the third century CE).

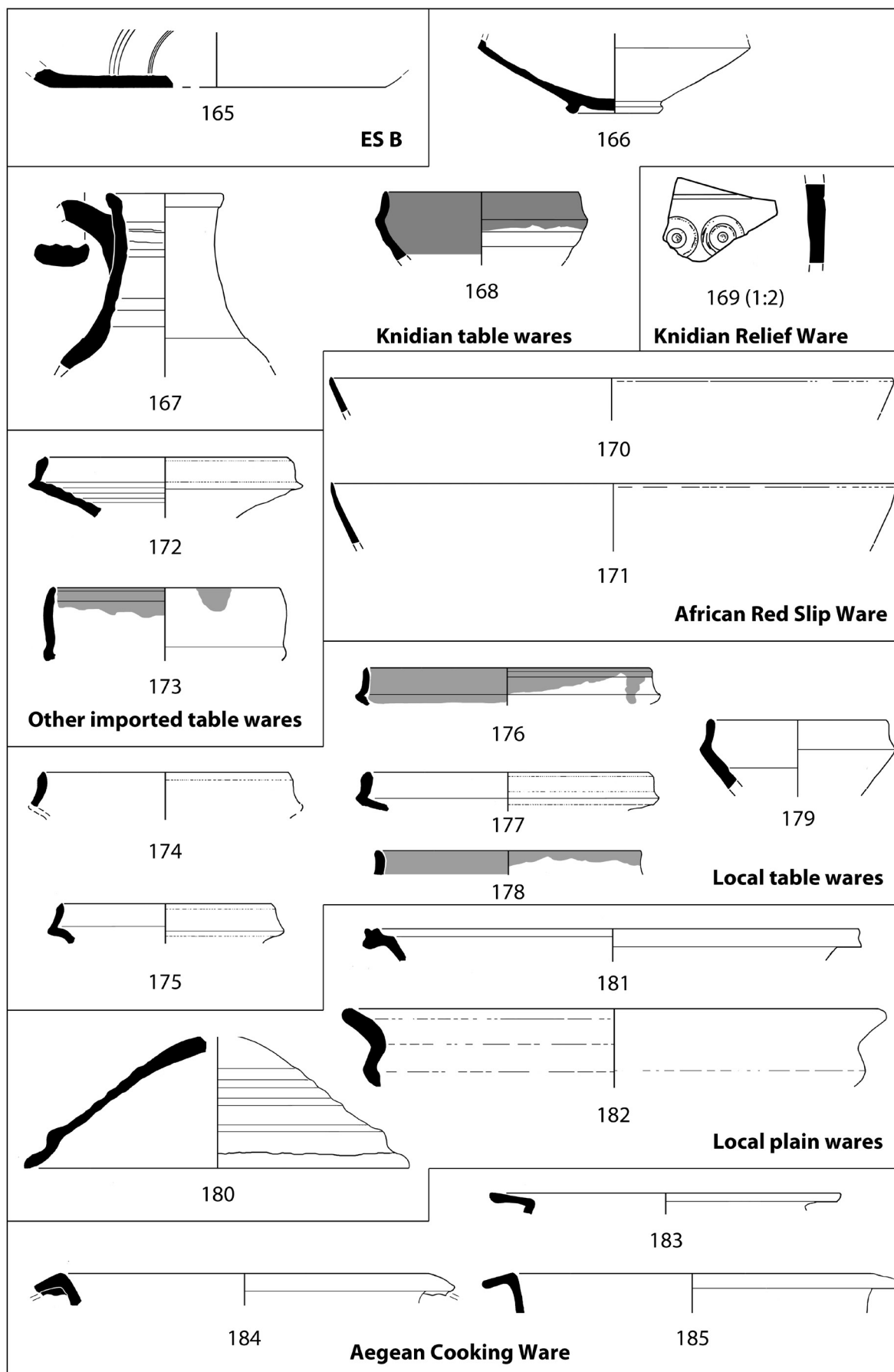


Fig. 18. Deposit 4. Imported table wares (nos. 165-73), local and other table wares (nos. 174-9), plain wares (nos. 180-2) and imported cooking wares (nos. 183-5).

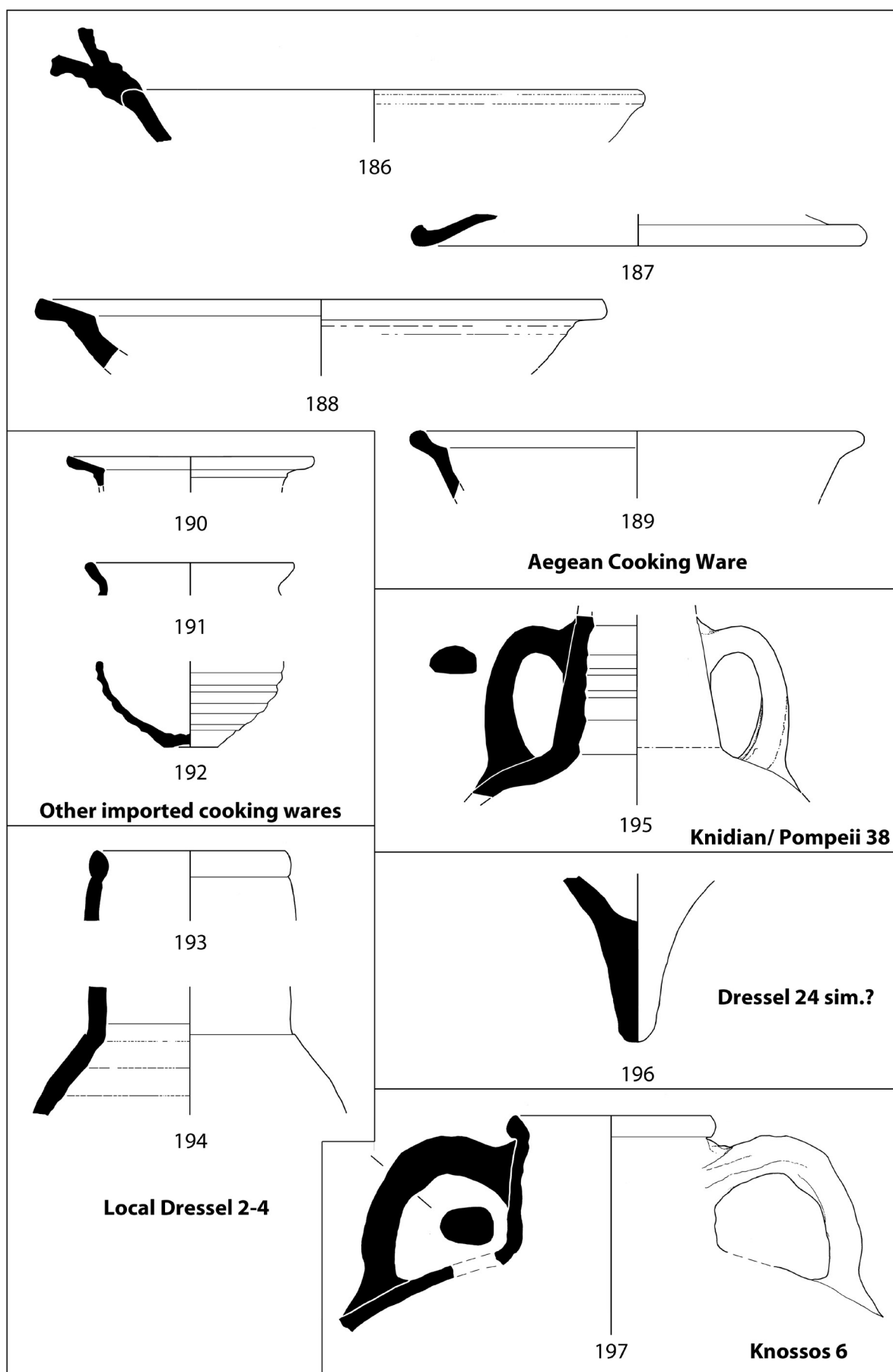


Fig. 19. Deposit 4. Imported cooking wares (nos. 186–92) and amphorae (nos. 193–6).

rim and corrugated bellies (184–5), a type found mostly in deposits of the third century CE or later. The finds also include a frying pan with tubular handle (186) and domed lid (187). The rim fragment of a deep pan (188) belongs to the same type as 146 from Deposit 3 but it has a much wider rim and it lacks an internal slip. 189 is another type attested here for the first time. Several finds belong to small cooking pots in a brown micaceous fabric of unidentified origin (190–2). Such forms in a similar fabric are known from Knidos, where, as argued recently, a local cooking ware production spanning the third century to LR times existed.⁹⁰

The amphora assemblage is small but shows a range of local and imported types of third century CE date. Local amphorae still include fragments of the Dressel 2-4 type (Type A1; 193–4), however, these are comparatively less numerous than in the preceding deposits and several may in fact be residual. Surprisingly, Type A2 amphorae are absent from the assemblage, though this is probably accidental. The majority of amphora finds belong to imports. These comprise an example of the baggy Knidian/Pompeii 38 type which occurs widely in contexts of the third century CE from Aegean sites and elsewhere (195).⁹¹ A pointed base (196) might belong to a Dressel 24 or a related type that generally date between the later first and the third century CE.⁹² As with Deposits 2 and 3, amphorae of the presumed Pamphylian Grace Type 17/18 are also relatively well-represented. One amphora with a bead rim and arched handles resembles strongly the type known as Knossos 6 (197). This is considered to be a type produced on Crete (the area of Knossos?) and it is dated to the "third century or later".⁹³

CATALOGUE

Eastern Sigillata B

165. (Inv. no. O29/2001/A117) Dish, *Atlante* Form 60, B2 ware. B fragment. D 0.20 m (ca. 8% pres.).

Knidian table wares

166. (Inv. no. O29/2001/A91) Cup, Form IA. B fragment. D 0.048 m (100% pres.). Fabric 2.2. Dull light red to deep red (2.5YR 6/6–5/8) slip on exterior.

167. (Inv. no. O27/2014/A116.001) Jug. R fragment, mended from several sherds (+1 more non-joining sherd, from same vessel). D 0.066 m (ca. 60% pres.). Fabric 2.1, matt red slip on exterior (2.5YR 5/8).

168. (Inv. no. O27/2014/A115.001). Flanged cup. R fragment. D 0.11 m (ca. 15% pres.). Fabric 2.3. Partial matt light reddish brown (2.5YR 6/4) slip on exterior.

Knidian Relief Ware

169. (Inv. no. O27/2014/A130.001) Unidentified closed form, body sherd, with relief studs. L max 0.03 m. Fabric 2.2, fired light brown (7.5YR 6/4). Surface covered by dull slip of same colour.

90 Doksanaltı and Tekocak 2014.

91 For late Cnidian amphorae, see discussion in Opaît 2014, 441–2.

92 Opaît 2007, fig. 2: no. 4: fig. 5: nos. 23–5.

93 Hayes 1983, 145, fig. 21: no. 28.

African Red Slip Ware

170. (Inv. no. O27/2014/A97.001) Form 50A, C2 ware. D 0.32 m (5% pres.).

171. (Inv. no. O27/2014/A131.001) Form 50A, C2 ware. D 0.32 m (5% pres.).

Unidentified imported table wares

172. (Inv. no. O29/2001/A99) Conical cup. R fragment. D 0.14 m (20% pres.). Fabric 2.5. Creamy pinkish scum on surface (7.5YR 8/3–4).

173. (Inv. no. O29/2001/A85) Carinated cup. R fragment. D 0.10 m (ca. 10% pres.). Fabric 2.5. Very pale brown scum on surface (10YR 8/2–3).

Local table wares

174. (Inv. no. O29/2001/A108) Conical cup. R fragment. D 0.14 m (7.5% pres.). Fabric 1.3. Surface covered by pale yellow scum (2.5Y 8/3).

175. (Inv. no. O29/2001/A86) Conical cup. R fragment. D 0.12 (12.5% pres.). Fabric 1.3. Surface with greenish grey scum (5Y 7/1).

176. (Inv. no. O29/2001/A137) Conical cup. R fragment. D 0.16 m (ca. 10% pres.). Fabric 1.2. Surface fired very pale brown (10YR 8/2), with a partial matt dark reddish brown slip.

177. (Inv. no. O29/2001/A98) Conical cup. R fragment. D 0.16 m (ca. 11% pres.). Fabric 1.2. Surface covered by very pale brown scum (10YR 8/2).

178. (Inv. no. O29/2001/A108) Conical cup. R fragment. D 0.15 (ca. 8% pres.). Fabric 1.1. Surface covered by partial very pale brown scum (10YR 7/4).

179. (Inv. no. O27/2014/A126.002) Keel-rim cup. R fragment. D 0.10 m (7% pres.). Fabric 1.1.

Plain wares

180. (Inv. no. O27/2014/A127.001) Flanged lid, complete profile, mended from three sherds (one cross-join with O29/2001/A115+A108). D (B) 0.22 m (60% pres.). Fabric 1.2. Surface covered by partial very pale brown scum.

181. (Inv. no. O29/2001/A115) Bowl or basin. R fragment. D 0.24 – 0.28 (ca. 5% pres.). Fabric 1.2.

182. (Inv. no. O29/2001/A134) Crater. R fragment. D 0.30 (5% pres.). Fabric 1.3, surface covered by pinkish white scum (7.5 YR 8/3).

Aegean Cooking Ware

183. (Inv. no. O29/2001/A98) Cooking pot, R fragment. D 0.20 m (16% pres.). Fabric 7.1. Surface covered by soot.

184. (Inv. no. O29/2001/A86) Casserole. R fragment. D 0.24 m (ca. 6%). Fabric 7.1. Surface covered by soot.

185. (Inv. no. O29/2001/A115). Casserole. R fragment. D 0.24 m (ca. 5%). Fabric 7.1, fired brown to dark brown (7.5YR 3/4–5/4).

186. (Inv. no. O29/2001/A90) Frying pan. R fragment. D 0.285 m (ca. 7% pres.). Fabric 7.1. External surface sooted.

187. (Inv. no. O29/2001/A108) Lid, R fragment. D 0.26 m (ca. 5% pres.). Fabric 7.1. External surface fired pink (5YR 7/4), with traces of soot.

188. (Inv. no. O27/2014/A114.001) Frying pan. R fragment. D 0.32 m (ca. 6% pres.). Fabric 7.1.
189. (Inv. no. O27/2014/A126.003). Frying pan or baking dish. R fragment, mended from two sherds (1 from OM 17: A147.001). D 0.26 m (10% pres.). Fabric 7.1.

Other unidentified cooking wares

190. (Inv. no. O27/2014/A126.001) Cooking pot. R fragment. D 0.14 m (5% pres.). Fabric 6.1, fired dark greyish brown (2.5YR 4/2).
191. (Inv. no. O29/2001/A127) Small cooking pot. R fragment. D 0.12 m (ca. 7.5% pres.). Fabric 6.1.
192. (Inv. no. O29/2001/A86) Kettle or small cooking pot. B fragment. 0.03 m (100% pres.). Fabric 6.1, fired weak red (2.5YR 5/2). External surface covered by soot.

Amphorae

193. (Inv. no. O29/2001/A115) Type A1/Dressel 2-4. R fragment. D 0.11 m (15% pres.). Fabric 1.2.
194. (Inv. no. O29/2001/A104) Type A1/Dressel 2-4. neck fragment. D 0.12 m. Fabric 1.1.
195. (Inv. no. O27/2014/A117.001) Knidian/Pompeii 38. H fragment with par of neck. D 0.066 m. Fabric 4.2.
196. (Inv. no. O29/2001/A93). Dressel 24 *similis*? B fragment. L max. 0.098 m. Fabric 4.3.
197. (Inv. no. O29/2001/A88) Knossos 6. R fragment with part of H and neck. D 0.12 m (ca. 17.5% pres.). Hard micaceous fabric, fired red (2.5YR 5/6) to light brown (7.5YR 6/4). Surface covered by yellowish brown wash (10YR 7/4).

THE FOUR DEPOSITS AND THE POTTERY SUPPLY OF ROMAN HALASARNA

As stated in the introduction, the significant quantities of ceramic material recovered from the four deposits provide scope for investigating patterns in the pottery supply and the trade networks of Halasarna in the period from ca. the late first/early second century CE to ca. the mid-third century CE. With this aim in mind, the pottery in each deposit was quantified by using a standard procedure of RBHS counts and a calculation of their percentages with regard to the entire assemblage. Although sherd counts are conditioned by the nature of deposits and differential breakage rate of pottery,⁹⁴ this measure remains the most widely used and therefore it ensures a certain level of comparability between deposits of a similar nature and chronology. As an additional measure to tackle taphonomic bias, an estimate of the minimum number of vessels (MNV) by ware and/or fabric in each deposit after mending is also provided. Although there are different ways to arrive at this estimate,⁹⁵ it was decided to focus on the sum of rims and bases, while handles were added as a supplementary measure only when they constituted the only surviving fragment type of an identifiable ware or fabric represented among the assemblage.⁹⁶ This decision was dictated by the nature and composition of the deposits, which frequently included solely handles of diagnostic wares or types, especially amphorae, whose exclusion from the quantification would be distorting. The complete data are presented in tabulated form in the Appendix and they form the basis for the following discussion.

94 Orton 1989; Orton and Tyers 1990, 84–5.

95 Orton and Tyers 1990, 83; Raux 1998. For amphorae, see specifically Laubenheimer 1998; 2018.

96 For a similar approach, see Lemaître 1995, 200.

On a first level, some conclusions can be drawn from examining each individual functional category in the four deposits in terms of the relative frequency between local products, imports and unidentified wares (Fig. 20). With regard to table wares (Fig. 20: A), the earliest deposit shows a rather balanced ratio between local and imported material, the former being however slightly more numerous compared to the latter. In Deposit 2, the ratio is reversed, with local table wares experiencing a significant drop with respect to imported material. This picture is reversed once more in Deposit 3, where the percentage of local table wares is higher than imports. Although local products continue to predominate in Deposit 4, they appear reduced compared to Deposit 3. In the case of plain utility wares (Fig. 20: B), the vast majority of the assemblage is made up by local products in all four deposits in question. Plain ware supply was therefore more or less constant over the entire period covered by the deposits, with local products forming the largest group. The cooking wares reveal a different pattern (Fig. 20: C). Imports are predominant in all four deposits, while local products take up consistently only a very small part of the assemblage. Finally, a more complex picture is presented by the amphorae. Local products are the dominant component in Deposit 1, whereas they drop in Deposit 2 and rise again to a significant level in Deposit 3. In Deposit 4, they drop sharply once again (Fig. 20: D).

These patterns exhibit several points worthy of comment. The differences observed in the relative percentages of local table wares and, especially, amphorae between Deposit 1 and Deposit 2, for example, indicate a drastic shift in the availability of local wares in the later second century CE. Not least, the range of imported amphora types in Deposit 2, most of which are associated with the transport of wine and occur for the first time, suggests that local supply became more dependent upon wine imports than previously. It would be tempting to explain this pattern in terms of the decline of local wine production and associate it with disruptions in local agriculture caused by the Antonine earthquake. However, even if the rural economy of Halasarna (and by implication local amphora production) suffered as a result of this event, it is clear that in the following period local workshops continued to produce all kinds of pottery (including amphorae of the Type A1/Dressel 2-4) as before. By the first half of the third century CE at the latest, even a new type of amphora (Type A2/Dressel 24 *similis*), perhaps for other agricultural products (olive oil?), began to be produced. Only by the mid-third century CE, when a sharp drop of Type A1 amphorae occurs in Deposit 4, is it safe to assume that their production had ceased, a conclusion also borne by the evidence from other late contexts in the sanctuary.

On another level, the imported material demonstrates Halasarna's orientation towards regional suppliers. This is most evident in the case of the fine wares (Fig. 21). Knidian products take up the lion's share in Deposit 1 and, despite their gradual decrease from ca. the later second century CE onwards, they still represent the single largest imported fine ware.⁹⁷ The large number of Knidian imports is unsurprising, since Knidos was home to a vibrant fine ware industry in imperial times and lay only a few miles from Halasarna on the opposite coast. It is noteworthy that the majority of Knidian imports are cups, bowls, mugs and/or jugs. They represent drinking equipment that presumably was in use during ritual feasting at the sanctuary. Interestingly, the high percentage of Knidian fine wares is in sharp contrast to the small number of finds belonging to Knidian Relief Ware (KnRW). This scarcity has also been noted from the rest of the site.⁹⁸ Products of the major eastern sigillata industries of the time, such as ES B (from the region around Tralleis) and ES C/Çandarlı (from the Pergamon region) ware are far less

97 On Knidian fine wares in Halasarna, see Grigoropoulos and Marzec 2021.

98 Grigoropoulos and Marzec 2021.

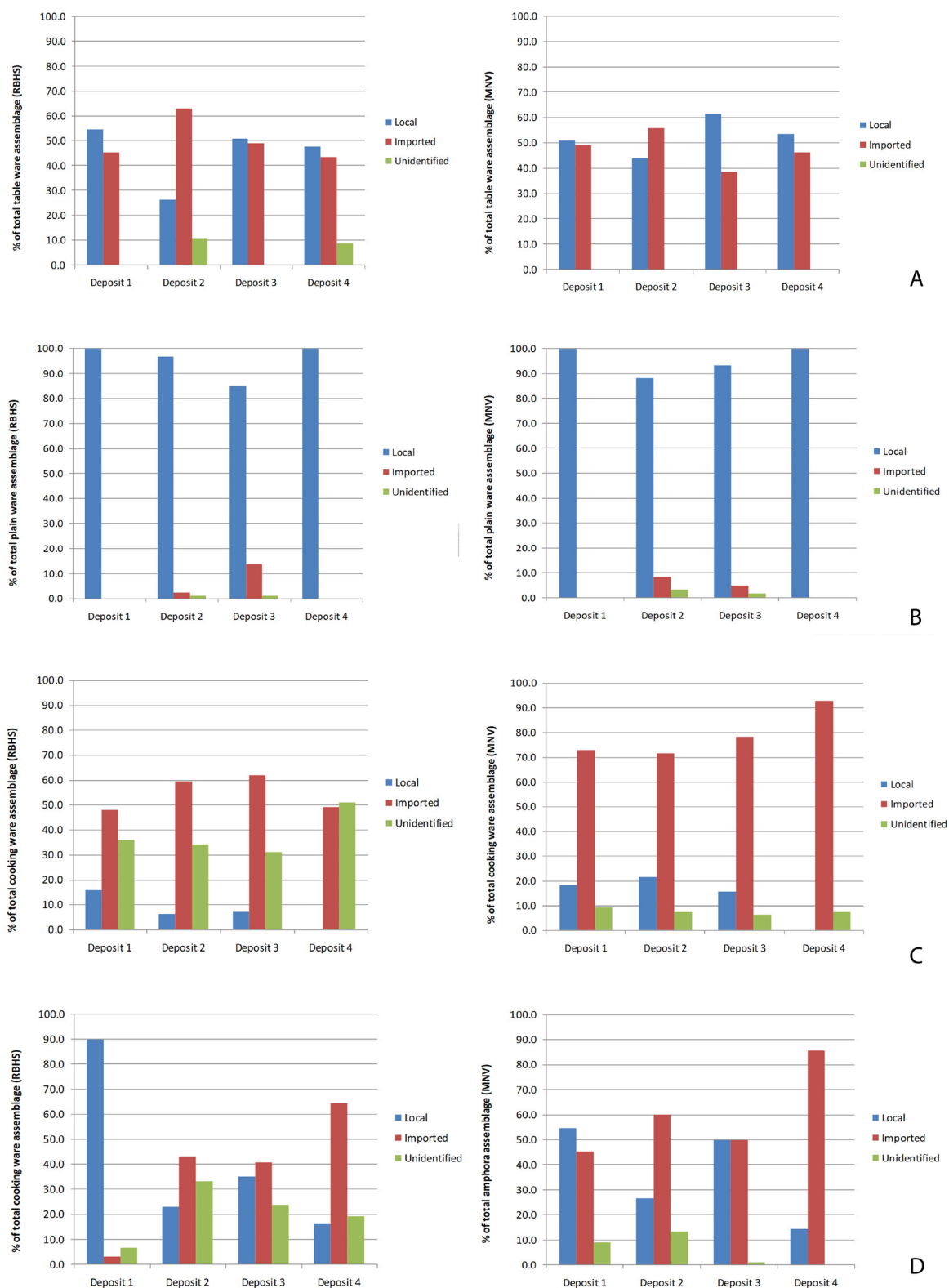


Fig. 20. Quantities of local, imported and unidentified wares in Deposits 1–4, expressed as percentages, based on RBHS count (left) and MNV estimate (right). A: table wares, B: plain utility wares, C: cooking wares, D: amphorae.

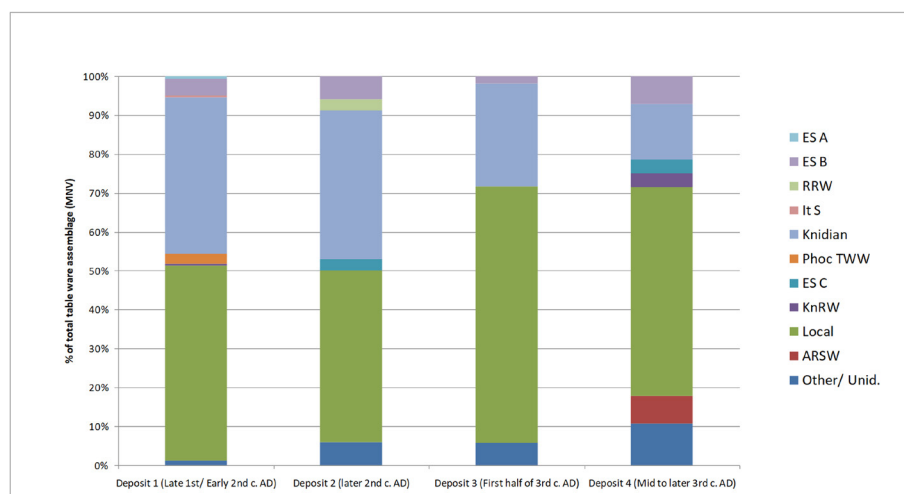


Fig. 21. Relative distribution of table ware percentages in the four deposits based on MNV estimates.

common, as is also the case with thin-walled products from other sources (e.g. PhocTWW from Phokaia). ItS and other western imports (e.g. Italian TWW) appear only as residual in the deposits examined but their extremely small numbers suggest that they were rare. Similarly, ARSW is attested in Deposit 4 only by a couple of fragments.⁹⁹

The coarse ware imports are also mostly of regional origin. As already stated above, the vast majority of cooking wares in all periods were imported. Aegean Cooking Ware is omnipresent in all deposits and outnumbers other fabrics by far (Fig. 22). The ware had a near-monopoly in the Aegean during the second and third century CE and was even exported to more distant markets.¹⁰⁰ Even if Phokaia was not the only production site, the ware's dominant position together with the wide range of shapes and types attested, suggests that Halasarna was within its core catchment area. Imports from other sources are rare: a few finds may come from Crete and possibly Knidos, while cooking wares from Lycia made a considerable impact only by the early third century CE. The presence of these imports indicates that by that time trade connections existed with these regions and local supply had become more diversified. A similar conclusion may be drawn from the amphorae (see below) and imported plain utility wares in Deposits 2 and 3. Their sources remain unknown and they are difficult to establish without the help of archaeometry. On the basis of fabric comparisons with imported amphorae, some finds may be of Pamphylian origin. Products in black sand fabrics and the so-called red pellet fabric, also used for plain table wares, may come from close-regional sources. Their small overall numbers point to a rather erratic pattern of supply, presumably in the context of trade in other commodities, including pottery of other types, imported to Halasarna.

Amphora imports point to some interesting shifts (Fig. 23). In Deposit 1 close-regional 'Aegean' amphorae such as Rhodian, Knidian/Pompeii 38 and other Dressel 2-4 of unidentified origin are the commonest imported types. In contrast, amphora imports in Deposit 2 consist of types coming mainly from more distant regions, especially Cilicia and Pamphylia. Cilician imports (including types of Cilician and/or Cypriot origin, like Agora G199) comprise no less than 20% of the total amphorae in Deposit 2. Shipwrecks confirm that already by the first half of the second century CE the waters off Knidos were frequented by vessels loaded with

99 For the distribution of Roman sigillata wares in the region, see Lund 1996b; Bes 2015.

100 Istenič and Schneider 2000.

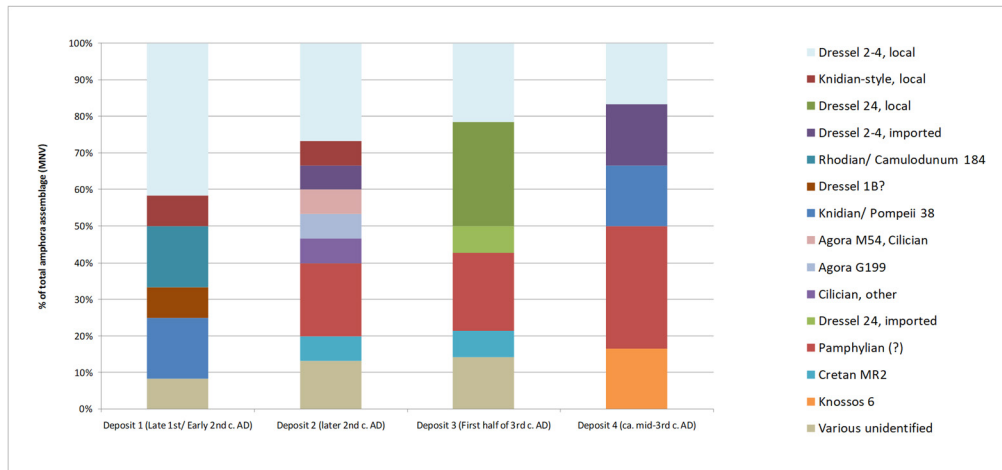


Fig. 22. Relative distribution of amphora percentages in the four deposits based on MNV estimates.

amphorae from Cilicia.¹⁰¹ The increased trade from eastern Asia Minor towards western markets may also explain the frequency of amphorae of possible Pamphylian origin in the deposits dated from the later second century CE to ca. the mid-third century CE. This type is the commonest amphora import and its occurrence appears to be consistently high throughout the period in question. In Deposits 2 and 3 Pamphylian amphorae make up 20% and 21.4% respectively, while in Deposit 4 they rise up to 33.3% of the entire amphora assemblage (Fig. 21: C, right). Available evidence from other contexts in the sanctuary confirms this picture.¹⁰² In contrast, Cretan amphorae are attested in Deposits 2, 3 and 4 by single finds only, a fact that points to a rather limited supply. Amphorae of other types, such as the Dressel 24 *similis*, and/or other regions are less frequent. This is the case even with Knidian/Pompeii 38, which are nevertheless still present at Halasarna well into the later third century CE.

CONCLUSION

Spanning ca. one and a half centuries, the four deposits examined above provide a cross-section of local and imported pottery at the sanctuary of Apollo immediately before and after the Antonine earthquake. What conclusions can be drawn from this comparison? A first remark is that throughout the period in question the sanctuary relied mostly on local production. The frequency of local wares in all the deposits examined suggests that workshops in the area of Halasarna functioned without interruption over this entire period, producing a wide range of ceramics. In the time immediately following the earthquake, the local form repertoire shows new types, which nevertheless can be clearly linked to pre-existing ones. A second observation concerns the direction of imports. Throughout the period in question imports came mostly from the western coast of Asia Minor, with Knidos and Phokaia being major and constant suppliers of table wares and cooking wares, respectively. Local supply in amphora-borne commodities, especially in the pre-earthquake period, was also complemented by imports from nearby Aegean and Asia Minor sources.¹⁰³ A shift in this pattern is indicated by the post-earthquake deposits, which are characterized by an increase in imports from Cilicia, Pamphylia and Lycia.

¹⁰¹ Opaiț *et al.* 2018.

¹⁰² Grigoropoulos 2020, 183.

¹⁰³ Kokkorou-Alevras *et al.* 2016, 182; Grigoropoulos 2020, 183.

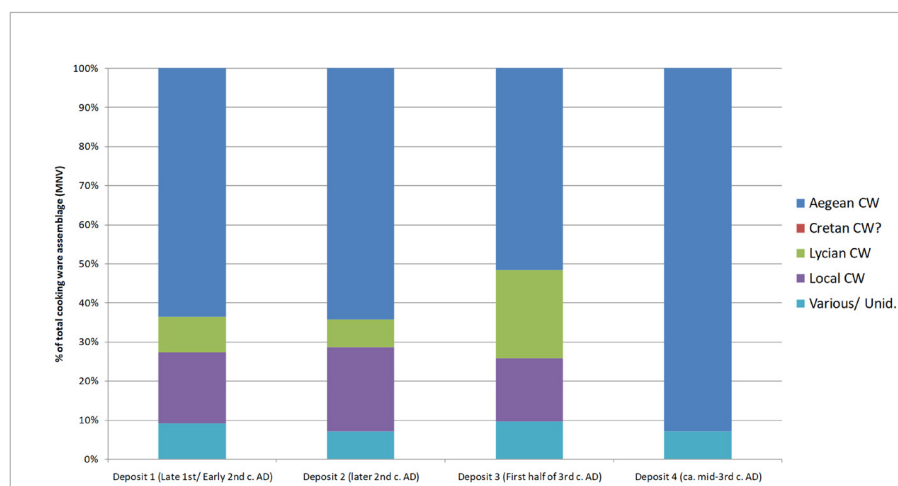


Fig. 23. Relative distribution of cooking ware percentages in the four deposits based on MNV estimates.

This concerns amphora-borne products and to a lesser extent other coarse and cooking wares, suggesting perhaps that in the course of the second and third centuries CE Kos increasingly functioned as a transshipment hub for exports from eastern Mediterranean sources, especially southern Asia Minor, to both regional (Aegean) and more distant (western) markets. This is suggested by the evidence from sites like Brindisi in southern Italy, where many of the imported types attested in the deposits discussed above, in addition to types where Kos was one of the centres of production (Dressel 2-4, Dressel 24), are found in third century CE deposits.¹⁰⁴ The significant number of amphorae of Pamphylian (?) origin in the post-earthquake deposits from Halasarna is also intriguing in this respect, since such amphorae are mostly documented from eastern rather than western sites.

Importantly, at the same time, the evidence suggests that the Antonine earthquake did not mark the end of local amphora production. This point is crucial because it has been proposed that Koan (Dressel 2-4) amphorae ceased to be produced in the second half of the second century CE.¹⁰⁵ This was certainly not the case with Dressel 2-4 amphorae, which, judging from the deposits investigated above, occur well into the third century CE. Even if residuality may explain this in part, it should be noted that Dressel 2-4 amphorae were still being produced in Italy in the early third century CE,¹⁰⁶ suggesting that the chronology of this amphora class as a whole requires revision. Continued production of Dressel 2-4, together with the emergence of a new local amphora type resembling Knossos 18/Dressel 24 *similis* by the early third century CE, shows that the area of Halasarna was still in a position to generate an agricultural surplus of some scale. Seen against the pottery evidence, it appears that, while shifts occurred and new supply networks emerged, the Antonine earthquake did not lead to major disruptions in local economy in the long term. This picture remains to be corroborated with the help of further data and tested against the evidence from the rest of the island of Kos in the future. These conclusions, however, could have wider implications. A decline in rural settlement by the third century CE is common across the eastern Mediterranean, with various explanations

¹⁰⁴ Auriemma and Quiri 2004, especially 48–9.

¹⁰⁵ Empereur and Hesnard 1987, 22–3; Panella 1986, 617 notes the presence of ‘Pompeii 6’ amphorae in Antonine contexts at Ostia in small numbers. At Lyon and other sites in Gaul Koan (and other Aegean Dressel 2-4) amphorae occur as late as the third century CE but by that time they are considered residual; see Lemaître 1995, 196 with n. 15; 2002, 220–1 with n. 24.

¹⁰⁶ For a discussion of late Italian Dressel 2-4, see Freed 1989.

offered, despite the fact that many survey projects still lack a well-developed understanding of local ceramics, especially coarse wares, and their chronology.¹⁰⁷ As demonstrated by the evidence discussed above, advances and refinements in existing knowledge can be of obvious significance for putting the presumed effects of catastrophic events and processes into perspective.

107 The point is forcefully made by Lund 1996a, 201; for a discussion of the third century crisis based on survey data, see Lund 1996a and 2018 (focusing on Cyprus) and Pettegrew 2006 (focusing on the Corinthia); for Greece and Asia Minor, see also Poblome 2006.

APPENDIX: QUANTIFIED DATA BY DEPOSIT

DEPOSIT 1		COUNTS						
CLASS	WARE/FABRIC	R	B	H	S	RBHS	% RBHS	MNVs
FINE	HL colour-coated		1			1	0.1	1
FINE	HL black-glazed	1		1	6	8	0.5	1
FINE	Eastern Sigillata A	1				1	0.1	1
FINE	Eastern Sigillata B	5	2		6	13	0.8	7
FINE	Ephesian grey ware	1				1	0.1	1
FINE	Italian Sigillata	1				1	0.1	1
FINE	Unidentified RS		1		1	2	0.1	1
FINE	"Red Rouletted Ware"				2	2	0.1	0
FINE	Knidian table ware	32	14	33	183	262	16.8	66
FINE	Plain table ware, local	67	15		265	347	22.2	82
FINE	Knidian Relief Ware				1	1	0.1	1
FINE	PhocTWW	4			1	5	0.3	4
PLAIN	Plain utility, local	33	31	13	430	507	32.5	64
AMPH	Dressel 2-4, local	4	1	6	203	214	13.7	5
AMPH	Cnidian-style, local			1		1	0.1	1
AMPH	Rhodian			2		2	0.1	2
AMPH	Dressel 1B?	1				1	0.1	1
AMPH	Knidian/Pompeii 38			2	2	4	0.3	2
AMPH	Various unidentified		1		15	16	1.0	1
COOKING	Aegean CW	6	1	5	56	68	4.4	7
COOKING	Cretan CW?				7	7	0.4	0
COOKING	Lycian CW	1				1	0.1	1
COOKING	CW, other	1		1	61	63	4.0	1
COOKING	Micaceous CW, local	2			23	25	1.6	2
LAMP	Knidian, Hellenistic	1				1	0.1	1
LAMP	Knidian, Loeschcke VIII		2	1	4	7	0.4	2
LAMP	Knidian, large variant				1	1	0.1	0
LAMP	ROW				1	1	0.1	0
TOTAL		159	69	65	1268	1562	100.0	256

DEPOSIT 2		COUNTS						
CLASS	WARE/FABRIC	R	B	H	S	RBHS	% RBHS	MNVs
FINE	LHL black-glazed	1			2	3	0.5	1
FINE	Eastern Sigillata B		2			2	0.3	2
FINE	Eastern Sigillata C	1			2	3	0.5	1
FINE	Eastern Sigillata D?	1				1	0.2	1
FINE	Unidentified RS			1	1	2	0.3	1
FINE	"Red Rouletted Ware"	1				1	0.2	1
FINE	Knidian table ware	4	9	13	21	47	7.7	13
FINE	Plain table ware, local	5	9		9	23	3.8	14
FINE	Plain table ware, Fabric 2.6				6	6	1.0	0
FINE	Plain table ware, Fabric 3.2				10	10	1.6	0
FINE	Part-coated table ware, local	1		1		2	0.3	1

PLAIN	Plain utility, local	29	23	13	135	200	32.8	52
PLAIN	Plain utility, Fabric 3.2	1	1			2	0.3	2
PLAIN	Plain utility, Fabrics 2.5-6	1	1			2	0.3	2
PLAIN	Pamphylian?	2	1			3	0.5	3
AMPH	Dressel 2-4, local	4		14	40	58	9.5	4
AMPH	Cilician, unidentified			1		1	0.2	1
AMPH	Cnidian-style, local			1		1	0.2	1
AMPH	Cretan MR2			1		1	0.2	1
AMPH	Agora M54, Cilician	1				1	0.2	1
AMPH	Agora G199	1				1	0.2	1
AMPH	Pamphylian? Form 16/17	3		3	41	47	7.7	3
AMPH	Dressel 2-4, imported			1	1	2	0.3	1
AMPH	Knidian/Pompeii 38				2	2	0.3	0
AMPH	Various unidentified		1		84	85	13.9	1
AMPH	Other, imported		1		54	55	9.2	1
COOKING	Aegean CW	8			9	17	2.8	8
COOKING	Internal Red Slip CW		1		1	2	0.3	1
COOKING	Micaceous CW, local	2	1			3	0.5	3
COOKING	Lycian CW/ "ferromagnesien"	1			8	9	1.5	1
COOKING	CW, other	1			15	16	2.6	1
LAMP	Knidian, large-sized				1	1	0.2	1
LAMP	Knidian, Loeschcke VIII				1	1	0.2	1
TOTAL		68	50	49	443	610	100.0	125

DEPOSIT 3		COUNTS						
CLASS	WARE/FABRIC	R	B	H	S	RBHS	% RBHS	MNVs
FINE	Late Hellenistic black-glazed				1	1	0.1	0
FINE	Eastern Sigillata A				1	1	0.1	0
FINE	Eastern Sigillata B		1		1	2	0.2	1
FINE	Knidian table wares	4	10	10	25	49	6.1	14
FINE	Knidian TWW		1			1	0.1	1
FINE	Plain table ware, local	10	12	1	18	41	5.1	22
FINE	Plain table ware, imported	2			1	3	0.4	2
FINE	Part-coated table ware, local		13		1	14	1.7	13
PLAIN	Plain utility, local	22	33	32	216	303	37.6	55
PLAIN	Plain utility, Fabric 2.5	1				1	0.1	1
PLAIN	Plain utility, Fabric 3.2		1	2	1	4	0.5	1
PLAIN	Plain utility, other	1		3	43	47	5.8	1
PLAIN	Pamphylian?		1			1	0.1	1
PLAIN	Part-coated, local	1				1	0.1	1
AMPH	Dressel 2-4, local			6	73	79	9.8	3
AMPH	Dressel 24, local	4				4	0.5	4
AMPH	Dressel 24, imported	1				1	0.1	1
AMPH	Pamphylian? Form 17	1	2	1	20	24	3.0	3

AMPH	Cretan MR2			1		1	0.1	1
AMPH	Pompeii 5			1		1	0.1	1
AMPH	Other, imported	..	1	2	66	69	8.6	1
AMPH	Various unidentified				56	56	7.0	0
COOKING	Aegean CW	13	3	1	8	25	3.1	16
COOKING	Internal Red Slip CW		1			1	0.1	1
COOKING	Micaceous CW, local	5		2		7	0.9	5
COOKING	Knidian?	1				1	0.1	1
COOKING	Lycian CW/"ferromagnesien"	7		1	27	35	4.3	7
COOKING	CW, other	2		1	28	31	3.9	2
LAMP	Knidian, Loeschcke VIII				1	1	0.1	1
TOTAL		75	79	64	587	805	100.0	160

DEPOSIT 4		COUNTS						
CLASS	WARE/FABRIC	R	B	H	S	RBHS	% RBHS	MNVs
FINE	Late Hellenistic black-glazed		1		3	4	0.9	1
FINE	Eastern Sigillata A		1			1	0.2	1
FINE	Eastern Sigillata B	1	3		3	7	1.7	4
FINE	Eastern Sigillata C/Çandarlı	1				1	0.2	1
FINE	Knidian table wares, ER-MR	6	2	3	12	23	5.4	8
FINE	African Red Slip Ware C2	2				2	0.5	2
FINE	Knidian Relief Ware				1	1	0.2	1
FINE	Other red-slipped, unidentified				4	4	0.9	0
FINE	Italian Thin-Walled Ware, ER		1			1	0.2	1
FINE	Other thin-walled ware			1		1	0.2	1
FINE	Plain table ware, local	10	1		7	18	4.2	11
FINE	Part-coated table ware, local	4				4	0.9	4
FINE	Plain table ware, imported	1				1	0.2	1
FINE	Part-coated table ware, import	1			1	2	0.5	1
PLAIN	Plain utility, local	13	1	4	97	115	27.1	14
AMPH	Dressel 2-4, local	1		1	28	31	7.3	1
AMPH	Dressel 2-4, imported				1	1	0.2	0
AMPH	Dressel 24?		1			1	0.2	1
AMPH	Pamphylian? Form 17	1		1	6	7	1.7	1
AMPH	Knossos 6	1				1	0.2	2
AMPH	Knidian/Pompeii 38			1		1	0.2	1
AMPH	Various imported				108	108	25.5	0
AMPH	Various unidentified				36	36	8.5	0
COOKING	Aegean CW	12	1		12	25	5.9	13
COOKING	CW, other	1		1	24	26	6.1	1
LAMP	Knidian			1		1	0.2	1
LAMP	Corinthian, Broneer XXVII			1		1	0.2	1
TOTAL		55	12	14	343	424	100.0	73

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