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LATE ROMAN TABLE WARE IN PERGAMON

Late tableware has only rarely come to light in Pergamon so far, but this is mostly because of the stratigraphic situation of the excavation areas. To date representative examples of Late Roman C, African Red Slip, Late Roman Light Coloured and Late Relief Ware have been identified. Some fabrics of these wares give reason to assume that such vessels were part of the local production in late Roman Pergamon. The archaeometric analysis was able to prove the fabrication of these wares in Pergamon and additionally in the neighbouring settlement Pitane. Against this background, the export of certain ceramic goods from Pergamon and Pitane can now be verified. On the other hand, only a few late Roman vessels were probably imported to Pergamon. Based on these examinations it can be said that Pergamon was an active member of the pottery production network even in the late Roman period.

Pergamon – Pottery production – Late Roman Light Coloured Ware – Late Relief Ware – Late Roman C Ware

The city hill of Pergamon on the western coast of modern Turkey was probably inhabited from the late Bronze Age onwards, with a very extensive settlement in the Hellenistic and Roman periods. But it was almost completely abandoned in the later 4th century CE.¹ As a result, there is hardly any extant pottery from the late Roman period. The centre of urban life seems to have been on the southern plain, which was incorporated into the city already in the Roman period. In the southwest is the sanctuary of Asclepius (Ziegenaus and de Luca 1968; Ziegenaus and de Luca 1975; Ziegenaus 1981; Hoffmann 2011; Radt 2011: 220-242; Riethmüller 2011), which was founded in the early Hellenistic period and still in use in the late Roman period, although probably in a Christian context. Several building activities are observable in the sanctuary especially dating to the 5th century (De Luca 1984: 1-2). The area was presumably abandoned in the 7th century.

Local pottery production started early in Pergamon, probably already in the late Bronze Age. However, extensive manufacture of fine ceramics seems to have begun in the 3rd century BCE. One of the associated potters' quarters was uncovered during emergency excavations at the northeastern foot of the city hill. It was located in the immediate vicinity of the Ketios River in ancient times and is now completely covered by a reservoir. Four different workshop complexes with 24 furnaces came to light there. Unfortunately, there is no comprehensive excavation publication, only preliminary reports (Erdemgil 1980; 1981a; 1981b; Erdemgil and Özenir 1982; Bounegru and Erdemgil

1998; Bounegru and Erdemgil 2000; Degryse et al. 2001; Poblome et al. 2001; Bounegru 2009; 2014), and so it is not possible to make precise statements about the repertoire and the chronology. Two theses on the production period have been published: The scientific editor of the ceramics, late O. Bounegru, divided the production into two phases, the first from the mid-3rd to the end of the 1st century BCE and the second from the 4th to the second half of the 6th century CE with a gap in between (Bounegru 2003; 2014). According to the excavator, S. Erdemgil, production lasted from the 3rd/2nd century BCE until the 4th century CE, with a workshop in a more distant branch of the Ketios Valley still in use until the 6th century (Erdemgil 1980; Erdemgil and Özenir 1982). The latter might relate to a building with pottery kilns east of the city hill (Karagöz, Radt and Rheidt 1986). Early Byzantine material is said to have been found here; it is described as dishes and plates without slip, with a cross or figurative decoration as well as rouletted design. This seems to indicate late Roman Sigillata. To verify the local production of pottery in Pergamon, different types of clay vessels were sampled in an extensive archaeological-archaeometric project using NAA, WD-XRF and MRG analyses.² This research suggests that the main production took place from the 3rd century BCE to probably the 6th century CE – the evidence of late Roman production is presented below.

Most of the late Roman pottery in Pergamon represents one typical late Roman red-slipped ware, the so-called Late Relief Ware. It was found in the Asclepieion as well as on the city hill. The vessels consist of two joined parts made in

¹ For the historical development, see for example Radt 2011: 23-51 (with bibliography); Pirson 2017; Gehrke 2018. Systematic excavations began in Pergamon in 1878 on behalf of the Royal Museums in Berlin and were taken over by the German Archaeological Institute (DAI) from 1900. They are continuing to this day.

² The NAA analysis was conducted by H. Mommsen (Bonn); Mommsen and Japp 2009. The WD-XRF and MGR analysis has been executed by G. Schneider (Berlin) and M. Daszkiewicz (Warsaw); Schneider and Japp 2009. The results of the subsequent analyses will be published soon in *Istanbuler Mitteilungen*.

moulds with a prominent vertical seam marking the junctions. They are covered with a thin matt red slip and decorated with figural reliefs on the entire exterior surface. The interior surface is rather irregular because of hand forming and joining techniques. Late Relief Ware has been found at several sites, and production centres are known, for example, in Knidos (Bailey 1979; Mandel 1988: 99-191. 232-264; Mandel 2000). The Pergamenian *Oinophorenware* constitutes a special group, (see for the following Türr 1972; Ziegenaus and de Luca 1975: 102-117 pl. 56-60. 81-81; de Luca 1984: 26-31 pl. 12; Mandel 1988: 6-98. 216-232), as the vessel forms and the motifs differ from the others. The most common vessels are jugs with a cylindrical body where the shoulder is decorated with a leaf motif and the body with figurative scenes in one or two friezes. There exist also pear-shaped vessels, with a relief zone that emerges from leaves, and pilgrim flasks with a central motif surrounded by a wreath of laurel or tendrils. Other forms, such as plastic vases shaped like rams, heads or a phallus, occur rarely. The mythological scenes are typical of the earlier period, while the warrior or gladiator representations were added later. This production already began in Pergamon in the early 2nd century CE, and probably continued until at least the early 4th century. The vessel forms, relief motifs and design as well as the fabric investigations, which differ from those of other production sites, developed the idea of a Pergamenian fabrication early on and, accordingly, the export of this product to other sites. This assumption of local production is now supported by archaeometric analyses: The Late Relief Ware samples

(**fig. 1**) (Perga 15 - Japp 2009: 214 fig. 1, Perga 101 - Japp 2009: 241 fig. 19; Perga 174 – Japp, forthcoming) belong to a group (chemical group 1a classified by WD-XRF and chemical group PegA classified by NAA; see Japp 2009: 206; Mommsen and Japp 2009: 272; Schneider and Japp 2009: 292-294), that can be assigned to the afore-mentioned potters' quarter in the Ketios Valley northeast of the city hill. This chemical group forms the group with the most extensive material both in terms of quantity and the range of shapes and primarily comprises decorated and undecorated tableware from the Hellenistic to the late Roman period.

Another group of late Roman vessels in Pergamon are the late versions of Eastern Sigillata C such as the carinated bowls Hayes Çandarlı Type 1, which were produced in Pergamon from the late 1st to perhaps the late 3rd century CE. Most of the analysed pieces (**fig. 2**) belong to the main Pergamenian chemical group mentioned above (chemical WD-XRF group 1/1a and NAA group PegA/PegE/Pege: Perga 109 - Japp 2009: 244 fig. 21; Perga 197. 214. 246. 249. 323. 365-366 – Japp, forthcoming). In addition, some samples are placed in a chemical group that can be allocated to the production of ceramics in ancient Pitane, a site located 30 km southwest of Pergamon as the crows flies, on the seashore (chemical WD-XRF group 2: Can 2. 5. 8-10 - Japp 2009: 248-250 fig. 24. See for group 2 Schneider and Japp 2009: 294-296). This production site is confirmed by the discovery of pottery kilns. The large amount of kiln slag and many misfired pieces, wasters and spacer discs observed in different areas of Pitane (modern Çandarlı) attest to the range, both typologically and



Fig. 1. Pergamenian Relief Ware (a: Perga 15, b: Perga 101, c: Perga 174 (no scale). DAI/S. Japp

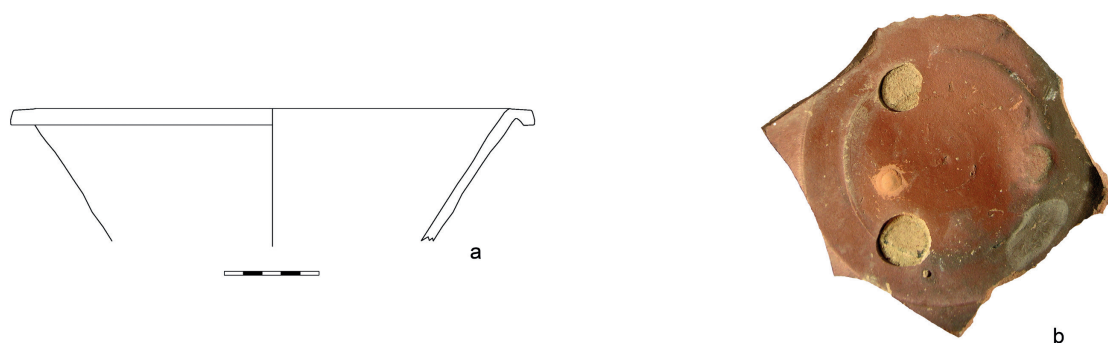


Fig. 2. a: Pergamenian carinated bowl (Perga 249); b: Pitane carinated bowl (Can 8) (no scale). DAI/S. Japp.

chronologically, of production at this site (Loeschcke 1912; Bes and Keweloh-Kaletta 2020). In Pitane, fragments of the carinated bowls Hayes Çandarlı Type 1 were often found with spacer discs still attached to the foot or the inner centre, which seem to be exclusively associated with this form (**fig. 2, a**).³ This vessel type was uncovered at several Roman sites; however, it is not clear whether these exports came from Pergamon and/or Pitane. Another vessel form starting already in the 1st century CE (ESC Hayes form 4) is the dish with a vertical curved rim, which is also displayed in later versions (Late Roman C Hayes form 1). These later forms were fabricated in Pergamon (Japp 2009: 231 Perga 73 [PegE/group 1a]. Perga 130 [PegA/group 1a]; Perga 200 [group 1]; Perga 248 [group 1]) and in Pitane; and they were probably exported too. Other forms of Late Roman C also belong to the find material in Pergamon (**fig. 3**). Hayes form 3 occurs frequently with early versions as well as the typical variants c, e, f and h, which can generally be dated between the 5th and 6th centuries based on the form and the local find complexes. Moreover, there are vessel feet with stamped decoration on the interior, including rosettes, pointed leaves, rhomboid elements with volutes, circles, rectangles, crosses and a few zoomorphic, but almost no anthropomorphic, figures.⁴ Regarding the types of stamps, G. de Luca already observed that both eastern and North African motifs can be found; however, according to the fabric, the pieces were not made in the known production centres. De Luca speaks of a kind of Mediterranean *koiné* that used all of these motifs (de Luca 1984: 20). Some of the LRC vessels found in Pergamon were

– according to the macroscopic examination – produced in Phocaea, some probably also in Grynaion. However, a larger number most likely came from Pitane (see Japp, Mommsen and Schneider 2013). This has also been confirmed by the extensive survey conducted in Pitane by the German Archaeological Institute in recent years. Primarily the variants of Hayes form 3 were observed during the field work.⁵ Beyond that, however, the WD-XRF analysis has shown that at least one early version of LRC Hayes form 3 was made from one of the main Pergamenian fabrics belonging to the potters' quarter in the Ketios Valley (**fig. 4**) (Perga 299: WD-XRF group 1a). Another LRC sample fits into a chemical group that was cautiously assigned to a Pergamenian production (**fig. 4**); however, the corresponding workshop has not been located (Perga 290: WD-XRF group 6).

The so-called Late Roman Light Coloured Ware (Hayes 1972: 409-410; Ergürer 2014: 177; Hayes and Heath; Heath and Tekkök), is also represented in Pergamon and – to put it cautiously – occurs in strikingly large quantities. It was also named West Asia Minor Pale Ware (Tekkök-Biçken 1996: 140) and Late Roman West Asia Minor Light Coloured Ware (Heath and Tekkök). The ware is characterized by a thin light brownish to light orangish slip, which is often irregular, and sometimes traces of fingertips are observable. The relatively dense clay body is of a similar colour and regularly displays a few fine micaceous and white inclusions and some pores. In general, this matrix and temper are typical of the Pergamenian production. Another fabric shows several fine particles, namely micaceous, white and red ones; this could also be

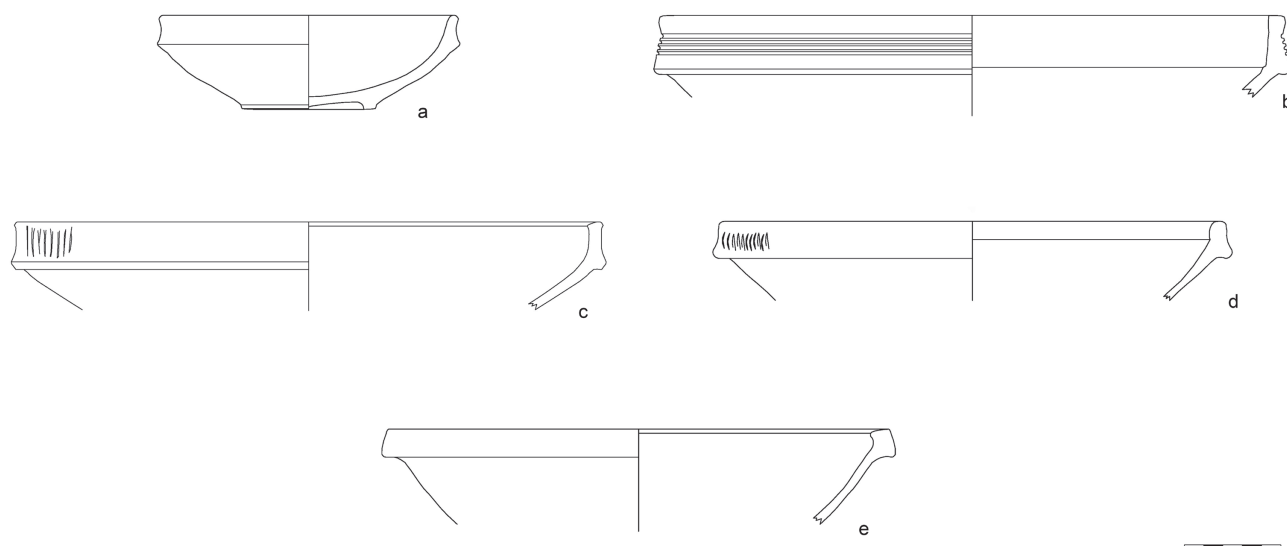


Fig. 3. Late Roman C Ware found in Pergamon (a: VTK 74/171, b: Perga 292, c: Perga 360, d: Perga 362, e: Askl uniniv.). DAI/S. Japp.

³ Friendly information by A. Keweloh-Kaletta and Ph. Bes.

⁴ De Luca 1984: 11-16 pl. 6-11. 27-29. However, the material presented there most likely includes not only examples of Late Roman C Ware, but also Late Roman Light Coloured Ware.

⁵ Information kindly provided by A. Keweloh-Kaletta and Ph. Bes. The manufacture of red-slipped table ware in Pitane from the 1st to the 5th centuries CE is confirmed by numerous artefacts (Bes and Keweloh-Kaletta 2020: 121. 135 fig. 70).

a Pergamenian fabric. The surface is decorated with broad rouletted bands and several incised parallel or wavy lines, which appear not only on the interior but also the exterior. Sometimes stamps are visible, mainly sandal stamps, but also crosses and rosettes. Occasionally the rims are notched. This ware is generally dated to the 5th and 6th centuries CE, and the same applies to Pergamenian find contexts. The shapes are often reminiscent of Late Roman C such as derivatives of forms Hayes 2, 3, 5 and 10, or African Red Slip forms such as Hayes 104/105, which certainly influenced the design. It is noticeable that the vessels show numerous decorative elements, more than the models do. H. E. Ergürer's classification (2014) can be used to illustrate the repertoire in Pergamon:

Relatively thick-walled deep bowls with straight vertical rims and incised horizontal and wavy lines on the exterior (**fig. 5, a**) match Ergürer form 1 (2014: 177-179). Different variations of Ergürer form 2 appear in Pergamon displaying dishes with a horizontal rim zone, thickened at the lip with a step towards the body and rouletting and incisions on the interior and exterior body (**fig. 5, b**) (2014: 179). The same is true of Ergürer form 3, which can be characterized as a bowl with a carinated body and an out-turning, sometimes oblique, sometimes straight horizontal rim zone, equipped with a notched or broadened lip (**fig. 5, c**) (2014: 179-181). Rather flat bowls with a straight vertical rim zone displaying a kind of collar at the lower end and a rounded or flattened upper lip often have

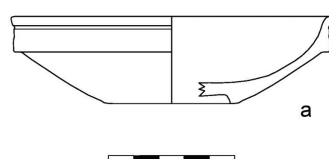


Fig. 4. a: Late Roman C Ware produced in Pergamon (Perga 299); b: probably produced in Pergamon (Perga 290; no scale). DAI/S. Japp.

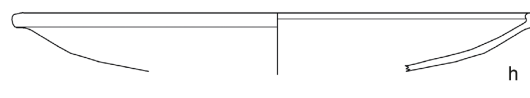
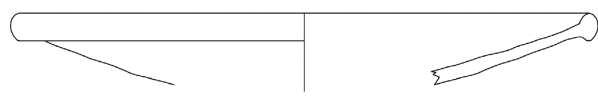
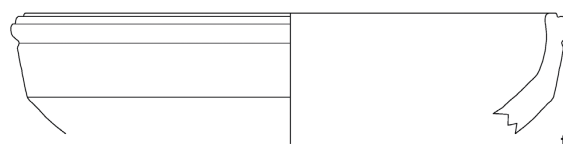
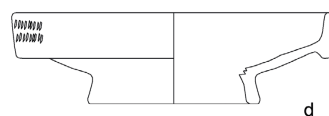
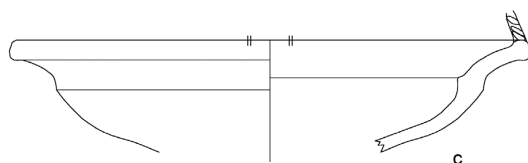
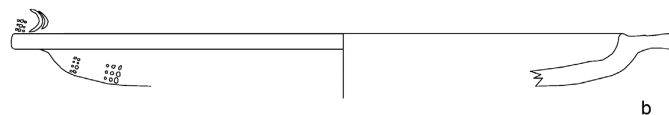


Fig. 5. Light Coloured Ware Ergürer Form 1 (a: VTK 74/191; no scale), Form 2 (b: VTK 69/3), Form 3 (c: VTK 69/172), Form 5 (d: 428), Form 8 (e: Ask1 uniniv.), Form 11 (f: VTK 69/44) and Form 15 (g/h: VTK 74/90 and 22E1) found in Pergamon. DAI/S. Japp.

horizontal rouletting on the exterior (**fig. 5, d**); they belong to Ergürer form 5 (2014: 181). Hemispherical bowls with no further accentuated rims – while the lip can be rounded, flattened or even indented – have deep horizontally incised lines and large rouletting (**fig. 5, e**), like examples of Ergürer form 8 (2014: 183). A thick-walled bowl with a carinated heavy wall and a thickened profiled rim section (**fig. 5, f**), which seems to resemble Ergürer form 11, is almost unique in Pergamon (2014: 183-185). Varieties of plates with heavy knobbed rims, rounded on the interior or on both sides or sometimes even angular (**fig. 5, g-h**), appear rather often in Pergamon. This type corresponds to Ergürer form 15 (2014: 185-188). In addition, the Champlevé technique was used as another type of decoration of Late Roman Light Coloured Ware. Here the slipped motif was highlighted by scratching off the surrounding slipped area, so that the entire decorative motif was projected in low relief against the lighter coloured matt background. The slip colour is orangish to orangish brown. The beige-coloured fabric can be described as fine with a few fine micaceous and fine to medium-fine white particles and pores. The interior rim zone was apparently decorated with ornamental bands such as the Vitruvian scroll, leaf tips and triangular designs, while the interior featured figural motifs, such as different kinds of animals and floral elements (**fig. 6**). The Pergamenian examples often have a shallow bowl with a high slightly out-turning foot and a short up-turning rim, which is flattened on the top and grooved (**fig. 6**) (de Luca 1984: 34-35 pl. 13 no. 291-296). Champlevé Ware is not very common in Pergamon. It can be cautiously dated to the 5th/early 6th century CE.

Late Roman Light Coloured Ware has been found in the Eastern Mediterranean, the Cyrenaica and the Black Sea region (see Ergürer 2014: 176-177 fig. 1). Such vessels were often discovered in coastal settlements, pointing therefore to maritime trade. Specimens occurred in larger numbers in the northern Aegean and the Propontis. J. W. Hayes assumed that the location of the production was in the Knidian region (last in Hayes 2008: 91), while C. Şimşek proposed Laodikea (Şimşek 2008: 133). A remarkable number of finds in Parion, according to H. E. Ergürer, indicated that they were produced at a site in the Troas, the Pergamenian region or in Propontis (Ergürer 2014: 175). B. Tekkök presumed a fabrication in the Troas region,⁶ and K. Domžalski in Pergamon (Domžalski 2012: 340 footnote 51). The archaeometric analysis in Pergamon reveals an interesting picture: one piece (**fig. 7, a**) is currently assigned to a Light Coloured Ware group, which until then had consisted of four fragments from three different sites.⁷ A possible origin from Pergamon was assumed for these pieces even before the analysis; this now seems to be confirmed by the Pergamenian fragment. Two other pieces (**Fig. 7, b**) belong to the main Pitane group.⁸ The Champlevé



Fig. 6. Champlevé Ware found in Pergamon (Perga 286, no scale; drawing rim: Perga 286; drawing foot: Perga 319). DAI/S. Japp

piece unfortunately remains a single (**Fig. 7, c**). Against this background, production in Pergamon seems possible, and production in Pitane even very likely. The archaeological situation is exactly the opposite: we have several pieces that were uncovered in Pergamon, but, so far, no confirmed piece from Pitane. For this reason, the exact location of production cannot be identified yet, but the vessels were part of export activities and had a relatively wide distribution.

The apparently simultaneous production of Late Roman C and Late Roman Light Coloured Ware at Pergamon and Pitane leads to the question of whether the two production sites operated independently or were connected. For Late Hellenistic and (Early) Roman production, it is assumed that Pergamon was the ‘creative centre’, characterized by several transformations of common forms and new inventions. This would argue for the specific own design of the Late Relief Ware and the development of the Late Roman Light Coloured Ware in Pergamon. Accordingly, Pitane is seen to have taken on an executive role in this production, especially since its location facilitated export across the sea. To what extent Pitane also developed its own forms or remained associated with Pergamon cannot be conclusively established yet.

Cypriot, Pontic or Sagalassos Red Slip Ware have not been identified within the find material of Pergamon so far. Only a few sherds of African Red Slip Ware have been recovered, for example form Hayes 67 and 105, which cover the period from the 3rd to the 7th century CE.⁹

⁶ Information kindly provided B. Tekkök.

⁷ Personal information by G. Schneider, who conducted the WD-XRF analysis for H. Meyza. The three locations are Ptolemais in Libya, Shi’in in Lebanon and Illychevka in northeast Crimea. In the first publication, the sample Perga 112 remained a single: Japp 2009: 246.

⁸ Perga 113: Japp 2009: 246 (WD-XRF group 2). Perga 114 was included in the Pergamenian group 1a (Japp 2009: 246), but as a result of the new samples was reassigned to the Pitane group.

⁹ Personal research in Pergamon.

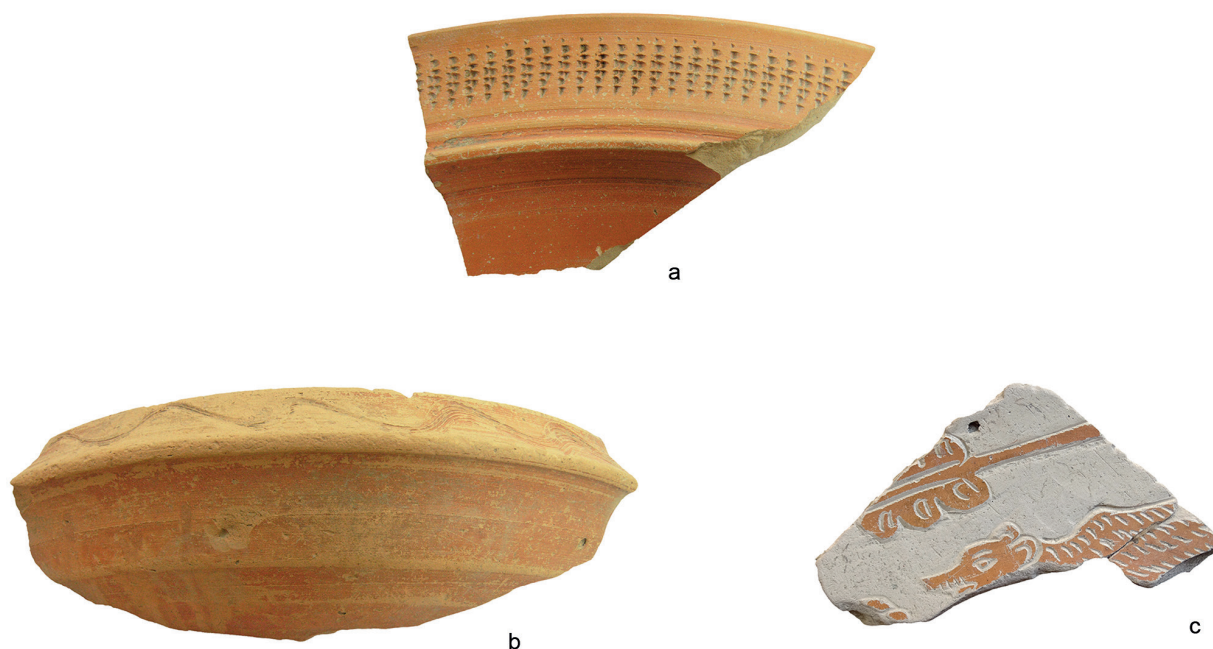


Fig. 7. a: Light Coloured Ware sample of “Light Coloured Ware Group” (Perga 112; no scale); b: Light Coloured Ware sample of “Pitane Group” (Perga 113; no scale); c: sample of Champléve Ware (Perga 319; no scale). DAI/S. Japp.

Thus, on the one hand, the Pergamenian potters followed a certain contemporary fashion by continuing and further developing the later forms of Eastern Sigillata C and by producing Late Relief Ware. The latter differed from the other production sites in the shape of the vessels and in the chosen motifs. Late Roman C Ware was also made on site, at least to a lesser extent, using typical stamps for decorating the interior surface. The Late Roman Light Coloured Ware could be a Pergamenian or regional invention inspired by already extant LRC and ARS forms. On the other hand, Pergamon also imported certain ceramic wares. Based on the find situation, it is not entirely clear whether the quantity of these imports in Late Antiquity was larger than in the Early and High Imperial Roman periods or whether it was similarly small. According to our current knowledge, these imports are limited to a few selected regions: LRC was imported from Phocaea and probably also from Grynaion. Both sites are

situated close to Pergamon. Late ESC, LRC and Late Roman Light Coloured Ware were also imported from Pitane, a city closely associated with Pergamon and a known distributor of Eastern Sigillata C and probably also of Late Roman C. Contacts with North Africa were apparently not very intensive, but this may have to do with Pergamon’s strained economic situation from the 3rd century CE onwards which resulted in activities more limited to the regional setting.

Nevertheless, given the distribution of the Late Roman Light Coloured Ware and the Late Relief Ware, Pergamon still seems to have been a player in the international Late Roman pottery network.

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