

The Aegean during the ‘transitional’ period of Byzantium: the archaeological evidence

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Abstract

Στο κείμενο αυτό εξετάζονται αρχαιολογικά δεδομένα για τα νησιά του Αιγαίου κατά την διάρκεια μιας ιδιαίτερα ενδιαφέρουσας περιόδου, που περιλαμβάνει τον 7^ο, 8^ο και 9^ο αιώνα, δηλαδή τους μεταβατικούς αιώνες του Βυζαντίου. Στην σύντομη εισαγωγή, αναφέρονται συνοπτικά τα προβλήματα που αντιμετωπίζει ο ερευνητής αυτής της περιόδου, καθώς και το ζήτημα του χαρακτηρισμού της ως «μεταβατικής». Παρουσιάζονται και αναλύονται αρχαιολογικά δεδομένα από τα Δωδεκάνησα (Ρόδο, Κω, Λειψούς, Κάρπαθο, Κάλυμνο, Αγαθονήσι), τα νησιά του ανατολικού Αιγαίου Σάμο και Χίο και από τις Κυκλάδες (Νάξος, Πάρος, Θήρα/Σαντορίνη, Αμοργός, Δήλος), ενώ λίγα στοιχεία υπάρχουν για τα υπόλοιπα νησιά όπως η Κέα, η Σίφνος, η Σέριφος, η Μήλος.

Η εξέταση των αρχαιολογικών δεδομένων επέτρεψε να συνάγουμε ενδιαφέροντα συμπεράσματα σχετικά με αυτή την ιδιαίτερα δύσκολη περίοδο, κατά την οποία ο Αραβικός κίνδυνος είναι υπαρκτός. Τα νησιά του Αιγαίου έπαιζαν πολύ σημαντικό ρόλο στον αγώνα των Βυζαντινών εναντίον των Αράβων. Παρατηρούμε ότι αυτή την περίοδο υπάρχουν ενδείξεις ότι το κράτος φροντίζει για την ενίσχυση της άμυνας σε πολλά από τα νησιά, ενώ πρέπει να υπάρχει κρατικός έλεγχος στην διάθεση της αγροτικής παραγωγής. Στα συμπεράσματα αυτά μας επιτρέπουν να καταλήξουμε αρχαιολογικά δεδομένα όπως οχυρωματικοί περίβολοι, αποθήκες για αγροτικά προϊόντα, και εργαστήρια παραγωγής αμφορέων. Παράλληλα, τα στοιχεία από τα κινητά ευρήματα όπως τα αγγεία μεταφοράς, η πρώιμη εφυαλωμένη κεραμική, οι μολύβδινες σφραγίδες αξιωματούχων και τα νομίσματα ενισχύουν τα συμπεράσματα αυτά.

As an introduction I wish only to make a brief comment on the terms ‘Transitional period’ and ‘Dark Ages’ in relation to Byzantium and its history. In the telling of Byzantium’s story, the time between the late 6th/early 7th centuries AD down to the first half of the 9th (some two and half centuries) has become known from both historical and archaeological viewpoints as ‘Transitional’. Earlier researchers used the term ‘Dark Ages’ to designate this period due to the lack of sufficiently good historical and archaeological data. Until recently it was difficult (if not impossible) to interpret phenomena that played an important role in shaping the social and economic conditions of the period.¹

Archaeological research over the last 30 years or so not only has and continues to offer new and vital material evidence, but also – and in particular – has evolved methodologies to “read” and explain in new ways both the old and fresh findings. The information gleaned through archaeology is crucial to the characterization of the period as transitional. We have now established that this was not a time of decline and neglect, but rather one of change and evolution. Late Antiquity is giving way and trans-

1. On this period see Haldon (1997); McCormick (2001); Wickham (2005); Brubaker and Haldon (2011); Haldon (2016).

forming into the Middle Byzantine era. Such a conclusion is increasingly being accepted by historians studying this period. Collaboration between these two bodies of research – archaeology and history – is essential to achieve a comprehensive estimation of the various phenomena of the period.

Returning to the issue of archaeological research: through both excavation proper and surface surveys, we find that it is feasible to define with greater precision the chronological limits of this period of change within various parts of the Byzantine Empire. This in turn makes it possible for researchers to study the alterations at all levels; how Byzantine society adapted to the new situation(s), and indeed continued to develop different ways of handling each and every emerging circumstance. Systematic study, then, of the archaeology of this period is revealing new aspects where previously we had very little to go on indeed.

When I accepted the invitation to present the evidence for the Aegean islands that could throw light on this period, I realized that the published facts were not numerous, rather the reverse. However, in the course of my research, it became clear that more could be extracted from what was already available from published works or in the archaeological record if examined using a different methodology. During the period from the 7th to 9th centuries – the period of the transformation of the Eastern Roman Empire into the Byzantine state – important changes to the Empire's frontiers and thus size occurred. This is particularly evident in the East – mostly in Syria, Palestine and Egypt, the sources of the best part of Byzantine agricultural production, when these fell to the Arabs in the 640s.

The appearance of the Arabs in the Mediterranean – and in the Aegean region in particular – created changes in several important sectors of Byzantine administration: in defence, in commerce and in the securing of communication routes. As written sources shed little light on this span of years in Byzantine history, archaeology plays a crucial role. In this paper I will explore to what extent the material evidence assists a better comprehension of this period of turbulence. Concerning currency, I will mention only a few of the numismatic and sealing evidence, for further information see the article by V. Penna in this volume. I will examine to what extent the archaeological evidence, corroborated by written sources, can help us reconstruct activity in the Aegean between the 7th and 9th centuries.

For the purpose of this presentation, I will address two major island groups, the Dodecanese and the Cyclades, as well as two islands in the eastern Aegean, namely Samos and Chios (**fig. 1**).

The Dodecanese

I will begin with the Dodecanese – and more specifically with *Rhodes*. This island figures amongst the most significant ports as it lay on the maritime route to Constantinople.² Already in 2000, the late Ilias Kollias had provided important evidence for the time period we are considering. His focus was the fortifications of the Early Byzantine period, surviving today on the north side of the city. They date to the 7th century AD. An Arab source allows us to deduce that this strong defensive system was in place by the second half of the 7th century AD.³ Two gates existed on the south side, and another on the side by the main harbour of Emporio in continuous use from antiquity to the present day, as the latest research has shown. We should not forget the existence of a second harbour at Mandraki also in use during this period.⁴ This fortification project, which must have been sponsored by the state, continuously developed up to the late 11th or early 12th century. Archaeological investigation by the Ephorate of Antiquities of the Dodecanese has shown that in the 7th and 8th centuries the town extended beyond the Early Byzantine walls but the inhabitants could take refuge within the walls in times of danger. The

2. On the arsenals of Rhodes cf. Ahrweiler (1966), p. 425.

3. Kollias (2000), pp. 303-37; Michailidou (2013), pp. 244-45.

4. Manousou-Ntella (2012), pp. 21-36 and esp. 29-30.

enlarged town did receive its own considerable fortifications after the 9th century AD, perhaps in the late 11th or early 12th century.⁵

The lead seals dated from the late 7th to 8th centuries⁶ as well as the bronze belt buckles found in Rhodes (Ialyssos)⁷ and dated in our opinion from the 7th to 9th century, are valuable evidence for the presence of state officials on the island during this period.

Next, and still in the Dodecanese, to the island of Kos: according to current archaeological evidence, the town of Kos remained active until the end of the 7th century.⁸ Epigraphic evidence extends this date into at least the first half of the 8th century.⁹ Although written sources inform us that in 654-655 the island of Kos was attacked by the Arabs, archaeological research proved that these raids did not cause radical interruption to daily life. Of particular importance for the history of the island is the discovery of Arab inscriptions on two columns in the *extra muros* religious complex of Agios Gabriel: it is possible that during the 8th century an Arab garrison was established there – for a short spell, as we know was also the case for Rhodes. Similar Arab inscriptions dated to the same period have been found at Cnidus, in Cyprus, on the Cilician coast,¹⁰ on the south coast of Crete and on Delos as well, although the dating of the latter example is not secure.¹¹ Research is ongoing in the town of Kos, such that the picture we now have is likely to change in the future.

In the countryside, surveys across the island have produced a very different perspective. For 10 km along the coast of Kardamaina there is evidence for a number of settlements, at least one of which can be dated throughout the 7th century, as well as at least one ceramic workshop dated to the same period (**fig. 2, 7**).¹² The fortified steep-sided hill of Evraiokastro dominates the coastline and two coins of Constans II (641-668) attest continuing occupation in the second half of the 7th century.¹³

We also encounter examples of rural workshops manufacturing amphorae on other islands throughout the 7th century, which can be directly related to agricultural production on Kos. We believe that the *annona militaris*, which continued to exist throughout the 7th century, as argued by Goutzioukostas and Moniaros,¹⁴ was centred on the produce grown on the islands once the rich eastern provinces and Egypt had been lost to Byzantium.

In the following centuries, the best evidence comes from the excavations at Kephalos, a site situated at the south-west shoreline of the island of Kos, which has produced evidence for numerous *folleis* of Heraclius (610-641) – some of them clipped –, a *miliaresion* of Leo V (812-820, minted in 813), and contemporary imported and local wares as well.¹⁵ Some of the later amphorae found at Kephalos are probably locally made and are dated to the 8th and first half of the 9th centuries (**fig. 3**). It is interesting that similar vessels come from the Bozburun shipwreck dated to the 9th century (**fig. 3**).¹⁶ One of the houses excavated at Kephalos can be described as a warehouse.¹⁷ All these details are valuable indica-

5. Kollias (2000), pp. 305-6.

6. Koltsida-Makre (2011), p. 244; Kollias *et al.* (2004), p. 85.

7. Nika (2014), pp. 333-58.

8. Baldini (2015), p. 13; Pellacchia (2015), p. 53.

9. Cosentino (2015a), pp. 240-45.

10. Beghelli and Di Branco (2011), p. 61, fig. I.4.2; Cosentino (2015b), pp. 112-14. On these inscriptions see Imbert (2014), pp. 731-60.

11. Personal communication from the excavator P. Epitropakis concerning Arab inscriptions found in the Tsoutsouros basilica, south Crete. For Delos see Vallois (1923), pp. 166-68, fig. 232.

12. Poulou-Papadimitriou and Didioumi (2010), pp. 741-49; Poulou-Papadimitriou and Didioumi (2015), pp. 401-3 with bibliography.

13. Brouscari and Didioumi (2006), pp. 311-12.

14. Goutzioukostas and Moniaros (2009), pp. 217-32.

15. Brouscari and Didioumi (2006), pp. 307-9; Didioumi (2011), pp. 106-8, fig. II.2.25-26.

16. Poulou-Papadimitriou and Didioumi (2010), pp. 741-49; Hocker, and Yamini (1998), pp. 3-13.

17. Didioumi (2011), pp. 106-8.

tions as to the organization of the market and state control of production in the 8th and 9th centuries.

Amphora workshops are also known from excavations at Leipsoi (**fig. 4**): these transport vessels belong to the ‘survivals’ of the LRA1 type dated in our opinion to the 8th century (**fig. 5**).¹⁸ Another important piece of information comes from excavations at Leukos on Karpathos. It is known that ships from Karpathos, belonging to the *Kibyrrhaiotai*, led the Byzantine fleet during its voyage to Crete in 949.¹⁹ The coastal settlement has two small harbours that have revealed a purple-dye workshop and a ceramic manufacture dating to the 6th/7th century, while a *folles* of Michael II (820-829/ minted in 821-829) is an indication of continuing activity during the 9th century AD.²⁰

This new evidence demonstrates that ceramic workshops were active in the Dodecanese throughout the 7th, 8th and 9th centuries, contrary to the prevailing opinion. This production was not only for local consumption, but also for the transportation of produce grown on these islands. Also significant is that that these activities are detectable on both large islands (e.g. Rhodes, Kos) and on much smaller ones (e.g. Leipsoi).

Recent archaeological investigations on Kalymnos (Vathy) and at the eastern coast of Telendos, facing Kalymnos, add new evidence to our knowledge on insular settlements during the ‘transitional’ period. The settlement of Vathy situated near a fertile plain and the safe harbour of Rhina has been dated generally to the Early Byzantine period, while there is evidence – i.e. later phases in the buildings – for activity during the following centuries.²¹ Furthermore, the discovery of lead seals – one of these reads *Ioannou presbyterou* – dated to the 8th century and later, near the church complex of Palaiopagnia in Vathy constitutes further evidence for human activity during the period under study.²² The settlement of Telendos is situated on the eastern coast of this small island just off the coast of Kalymnos. The channel between the two islands offers a safe anchorage for large or small ships. Later phases have been recognized in the buildings, while the discovery of a *folles* of Tiberius Apsimar (698-705) and one of Theodosius III (715-717) on the same island is evidence that this coastal settlement was inhabited and active during the 7th and into the 8th centuries.²³

Recent archaeological evidence concerns the identification of warehouses at coastal settlements such as Kephalos on Kos, or big granaries/*horrea* like the building on Agathonisi (**fig. 6**).²⁴ Moreover, an important settlement, which will require further archaeological investigation, has been discovered on the islet of Saria off Karpathos at Palatia and preliminary reports have been published.²⁵ We believe that some of the buildings located on this site were used as warehouses during the 7th to 9th centuries and such coastal installations must have been integrated as part of a well-organized system supervised by state officials. The large vaulted complex at the site called Tholoi on the island of Agathonisi offers substantial evidence for the existence of warehouses (granaries/*horrea*) on the small Aegean islands during the transitional period.

If the identification of these structures dating from the late 7th on into the 8th and 9th centuries as warehouses is accepted then we can talk of a well-organized system under state control for the collection and redistribution(?) of agricultural produce. The seals of *kommerkiarioi* are revealing in this context: by the late 7th century, the Aegean islands were already under the supervision of these and other officials charged with tax collection and with the responsibility of keeping transport and movement of

18. Papavassiliou, Sarantidis and Papanikolaou (2014), pp. 159-68. According to the excavators, the workshop dates from the middle 7th c. onwards.

19. Ahrweiler (1966), pp. 52-53, n. 3, p. 115, 401; Haldon (2000), pp. 220-21.

20. Karabatsos (2006), 290-95, fig. 14-17; Papavassiliou and Didioumi (forthcoming).

21. Koutellas (2014), pp. 119-24.

22. Deligiannakis (2016), pp. 68-69, 106-7. The seals mentioned above are unpublished.

23. Deligiannakis (2016), pp. 68, 106.

24. For Kephalos cf. Didioumi (2011), 106-8; for Agathonisi cf. Triantafyllidis (2006), pp. 186-92.

25. Deligiannakis (2016), pp. 67-79.

goods firmly under the scrutiny of the state. These duties remain pretty much the tasks of the *vasilika kommerkia* following a restructuring of the fiscal system in the 8th century.²⁶ A further instance may be adduced. Ragia has recently argued that in the corpus of seals of the *vasilika kommerkia* linked to the Dodecanese, one more example can be added: the seal of the *vasilika kommerkia* of Kato Hexapolis (741/2 AD). She argues that Kato Hexapolis should be equated with the Dorian Hexapolis of the wider Rhodian region, namely Kos, Cnidus, Halicarnassus and the three cities of Rhodes itself i.e. Ialysos, Cameirus and Lindus.²⁷

We can thus conclude that the Dodecanese islands, large and small, were integrated into a new system of controlling and handling produce (agricultural products, timber, etc.) which begins in the mid-7th century AD in the Aegean. This commercial network achieved its final form during the reign of Leo III (717-741) and his successor, Constantine V (741-775), in the 8th century.²⁸

Islands in the East Aegean: Samos and Chios

Moving northwards, we will consider two islands in the East Aegean: Samos and Chios. Samos, like all Aegean islands, experienced a period of expansion between the 4th and 7th centuries AD.²⁹ The latest works of the former 27th Ephorate of Byzantine Antiquities (now Ephorate of Antiquities of Samos and Ikaria) just outside the Kastion of Pythagorion/Tigani provide evidence for the fortification of the hilltop during the 7th century.³⁰ It is known from earlier publications that the fortification wall was completed and repaired during the 9th century.³¹

Excavations at Pythagorion/Tigani, the Eupalinos tunnel and at the Heraion, and evidence from surface surveys at the fortified settlement on Mount Lazaros have all turned up plenty of examples of globular amphorae amongst the range of ceramic material (**fig. 7**).³² In particular, the majority of transport vessels found at the Eupalinos tunnel can be identified as belonging to the *family* of Byzantine globular amphorae contrary to the published opinion.³³ We have argued that amphorae of this form date to around the middle 7th to late 8th/early 9th centuries, turning up in very many places in the Aegean and at Constantinople itself.³⁴ Many such vessels are made from local Samian clays, bolstering the argument made in 1985 for local amphorae and lamp production in the period preceding the one now under discussion.³⁵ Two finds from the islet of Pseira off Crete support the claim for amphorae of Samian origin in the 8th and 9th centuries. Amongst the ceramic finds on Pseira were globular amphorae as well as survival-type LRA1 vessels, the petrographic analysis of which has shown that they

26. Brandes (2002); Haldon (2012), pp. 99-122; Montinaro (2013), pp. 351-538.

27. Ragia (2012), pp. 124-25.

28. During the 8th c. we observe the revival of maritime traffic: during that period, because of the strengthening of state supervision by military officials (i.e. the *droungarii*), that joined the administrative service of the maritime areas, people, troops and goods were circulated, as confirmed by a series of reports in written sources and seals, as well as by the archaeological evidence; on this subject see also Leontsini (2017).

29. Poulou-Papadimitriou (1985), pp. 383-95. Tsakos 1979, pp. 11-25.

30. For this information, I thank the former Director of the 27th Ephorate of Byzantine Antiquities, Mrs Olga Vassi as well as the archaeologist who excavated part of the early Byzantine fortification, Mrs Evangelia Mavrikou, for the discussion we had.

31. Rhoby (2014), pp. 342-44 with bibliography.

32. Hautumm (1981), pp. 21-58, fig. 17-41; Poulou-Papadimitriou (1985), pp. 164-65, pl. 142.a, b; Poulou-Papadimitriou and Nodarou (2014), pp. 874, 876; Kienast *et al.* (2017), pp. 158-185, fig. 156, 158 a, b, 167 a-c.

33. Hautumm has published all the globular amphorae—including LRA 2—found in the Eupalinos tunnel and other sites at Samos as examples of the same type (LRA 2) cf. Hautumm (1981), pp. 21-58, figs. 17-41.

34. Poulou-Papadimitriou and Nodarou (2014), p. 874.

35. For the lamps see Poulou-Papadimitriou (1986), pp. 594-95. For the amphorae, local production see Poulou-Papadimitriou (1985), pp. 276-79, pl. 131-4.

probably originated in Samos (**fig. 5**).³⁶ Production of pottery on Samos and its export requires the prior existence of agricultural goods needing to be transported. Only the systematic study of excavated material will inform us what was taking place on this island, possessed of one of the safest of harbours on the sea-route to and from Constantinople.

A little further to the north is the island of Chios. Here on a peninsula at the south-east is the fortress-settlement of Emporio, dated to the reign of Constans II (641-668). According to the excavators, after a destruction most probably in the time of Constantine IV (668-685), the settlement and fort were reoccupied in the 8th century and were certainly in use in the 9th, as the ceramics and coinage show.³⁷ Significantly, among the published material, which includes vessel types belonging to the 8th and 9th centuries, one should recognize the presence of globular amphorae and survival-types of the LRA1 sort (**fig. 5**).³⁸ Important information for the commercial activities or probably for a military presence in the city of Chios also comes from the discovery of a hoard, dated during the reign of Constans II (113 *folles* minted in 651/2 and 654/5).³⁹

The absence of coinage of the 8th century, as observed at Emporio, is a phenomenon commonly encountered throughout the Aegean region.⁴⁰ It has been argued that 7th-century coin circulation and usage continued well beyond their issue, possibly into the 8th century.⁴¹ The definite existence of extensive and copious amounts of 7th century copper coinage (especially those of Constans II) found in the Aegean probably does not equate one-to-one with what is actually happening. It is very likely that some remained in circulation for a good number of years after their issue – right down into the 8th century, by which time they were *ανεπίκαιρα* or outdated, so to speak.⁴² The picture of an 8th-century dearth of copper coinage that we seem to have is misleading. I believe that the continued use of earlier coins would explain why in some archaeological contexts we find pottery datable to the 8th century alongside coins of Heraclius and of Constans II, many of them clipped and carelessly struck.⁴³

Ongoing archaeological research on these two Aegean islands, Samos and Chios, especially as the new data is published, is bound to yield new points of view. It will also demonstrate how vital these islands were to Byzantium, thus corroborating the existing historical judgments.

The Cyclades

Discussion of the Cyclades is left to the end and will begin with the largest island – Naxos. The island group of the Cyclades, lying at the centre of the Aegean, was extremely valuable for the free movement of the Byzantine fleet and the passage of people and goods to and from Constantinople: the ship carrying Pope Martin, sailing to Constantinople, stopped by Naxos.⁴⁴ The island, with its large agricultural output, continues to be of great significance in the following centuries as well: a naval station on the maritime itinerary from Constantinople to the South Aegean and Crete, with additional stop-over points at Ios, Thera, Therasia, Ta Christiana (Anaphe?) and the islet of Dia as is shown in the *Stadiodromikon* which details the sea route followed by the naval expedition for the attempted re-

36. Poulou-Papadimitriou and Nodarou (2014), pp. 875-76.

37. Ballance *et al.* (1989), pp. 7-10, 50-85.

38. Ballance *et al.* (1989), fig. 43, no. 280, 281, pl. 238, 240, 241.

39. Vassi (2006), pp. 61-75.

40. Nikolaou (2004), pp. 298-300; Nikolaou (2010), pp. 78-80; see Penna this volume.

41. Haldon (2012), p. 112 with previous bibliography.

42. The term *ανεπίκαιρα* is firstly used by Y. Nikolaou.

43. Poulou-Papadimitriou (forthcoming).

44. *Εἰ μὴ ἐν τῇ Ναξίῳ χρονοτριβήσαντες (...) εἶτα προπέμψαντες οἱ κατέχοντες αὐτὸν φύλακές τινα ἀπὸ Ἀβύδου προλαβείν ἐν τῷ Βυζαντίῳ πρὸς τὸ μνηύσαι τὴν παρουσίαν καὶ κατοχὴν αὐτοῦ* see Peeters (1933), pp. 257-58. Leontsini (2017) with bibliography. See also Magdalino in this volume.

capture of Crete in 949.⁴⁵ The great importance of Naxos at this time is revealed first by the significant defensive structures such as the fortress Apalirou where the Norwegian Institute team is conducting a most interesting study.⁴⁶ From this fortress, which includes churches and water cisterns, it is possible to overlook almost the whole seascape between the islands of Naxos, Paros, Ios, Amorgos, and the small islands of Heraklia, Schinoussa and Keros, while the position offers a view to the island's inland territory as well. It is worth noting that the Byzantine fortification of Ios, dated during the transitional era, has visual contact with the castle Apalirou.⁴⁷ These fortifications, as many others in the Aegean and Crete,⁴⁸ must have been integrated in a well-organized system and in our opinion, their construction must have depended on a central decision.

Furthermore, residential developments on the island of Naxos must have been important as it would seem judging by the considerable number of churches with intriguing aniconic wall paintings of the Iconoclastic period.⁴⁹ Concerning these buildings, the work of the Ephorate of Antiquities of the Cyclades has shown that in its first phase, dating from the 7th/8th century, the church of Taxiarchis was a three-aisled basilica with rectangular piers.⁵⁰ This picture is complemented by previous discoveries such as the residential structure at Aplomata, where a *solidus* of Constantine V (741-775) was found, or the workshops at Grotta – with a cistern and the remains of a tannery found together with a *miliaresion* of Leo V (813-820).⁵¹

On Paros, excavations by the Ephorate of Antiquities of the Cyclades at the Zoodochos Pighi cove situated in the north-east of Naoussa bay was able to identify a potter's workshop evidenced by ceramic wasters and the remains of kilns.⁵² This workshop produced amphorae of two different forms: one was first recognised by the excavator as imitations of the LRA1, the other the Byzantine globular amphora. The operation has been dated to between the last quarter of the 6th and the first half of the 7th century; the excavator also suggests that the stamps on the vases indicate state control. In my opinion, the presence of globular amphorae (**fig. 7c**) suggests that we are into the second half of the 7th or the early 8th century; moreover, the first amphora type (imitation of LRA1) seems to me to be a late 7th/8th century vessel belonging to the 'survivals' of the LRA1. Finally, the stamps do indeed indicate that there was a system of control in place. The final and complete publication of these finds will provide us with a full picture of ceramic manufacture on Paros, as well as new information on the handling of the agricultural production in the late 7th/early 8th century.

The discoveries from Thera/Santorini, though few in number, are impressive in their importance. The excavations at Perissa have revealed a huge three-aisled basilica (**fig. 8**) where three phases were distinguished: at the end of the first phase – during the second half of the 6th century – the basilica was hastily repaired, the columns being strengthened by piers, and the wooden roof was replaced by a vaulted one. The excavator believes the second phase of this building ended during the 8th century. It is important that later phases have been identified in the outbuilding north of the basilica. In a third phase, during the 8th and 9th centuries, the basilica was reduced in size and a two-aisle vaulted church was constructed in the east part of its middle aisle.⁵³

From the final layers of the northern structure adjacent to the north wall of the basilica (space B),

45. Malamut (1988), pp. 544-45.

46. See contributions in this volume.

47. Penna (2001), pp. 402-3.

48. For Crete see Poulou-Papadimitriou (2011), pp. 383-87 with bibliography.

49. Acheimastou-Potamianou (1984), pp. 329-82; see the papers by Aslanidis, and Crow and Turner in this volume.

50. Delaporta and Tsafou (2013), oral communication.

51. Lambrinouidakis (1996), pp. 162-63; Lambrinouidakis (1984), pp. 254-55. See also Penna (2001), pp. 403-4; see Lambrinouidakis, this volume.

52. Diamanti (2016), pp. 691-97, fig. 2, 8-9.

53. Gerousi (2010), pp. 17-32; Gerousi (2012), pp. 23-31.

was found a *foliis* of Heraclius (minted in 623/4) and another of Constans II (minted in 646/7), whilst from the floor of a smaller space (space C) a *solidus* of Leo III (minted in 720-725) was discovered (fig. 8).⁵⁴ The same locations produced ceramics of the late 7th and 8th centuries, namely a few fragments of Glazed White Ware I and II.⁵⁵ It is worth mentioning that from the later layers in the north-west area of the basilica came three *foliis* of Leo V (813-820), while a hoard (now lost) of one *solidus* of the emperor Michael II (820-829) and 29 *miliaresia* of the emperor Theophilus (829-842, minted in 829) were found in the area of ancient Thera (Mesa Vouno).⁵⁶

The early lead-glaze ware with its white fabric began to be produced in Constantinople and its hinterland during the last decades of the 7th century AD, and such ceramics are regarded as pottery of the Capital par excellence. The first two of Hayes' groups – namely Glazed White Wares I and II – date to the 7th and 8th centuries;⁵⁷ these early pieces are fragile and easily escape attention. Nonetheless, they are an important chronological marker for the period. The question is how widely they are distributed outside Constantinople. Pieces of GWW I have been recovered from the Yassi Ada shipwreck (a *foliis* of Heraclius minted in 625/6 gives us a *terminus post quem*);⁵⁸ fragments of GWW I and II have been found on Melos, at Perissa on Santorini, on the islands of Aegina and Kythera (in a layer of the late 7th to 8th century), in Corinth, at many sites on Crete (Gortyn, Herakleion, Agia Galini, Itanos and Pseira islet) – even in Cyprus (7th and 8th centuries) and at Carthage (slightly before 698 AD).⁵⁹ The presence of this early material outside Constantinople undoubtedly reflects contact between the capital and the larger peripheral cities such as Corinth, Carthage and Gortyn and is not surprising. On the other hand, its appearance at sites of smaller size and of minor importance, according to our present data, such as Melos, Kythera or Perissa on Santorini, is more striking: the evidence needs careful consideration. Within the Aegean, the scanty pieces of these ceramics are not necessarily the result of commerce. The pattern of their occurrence seems to coincide with the maritime routes in the 7th and 8th centuries that connected Constantinople with the larger port-cities mentioned above.

Returning to Santorini, the ceramic finds as well as the coins may be explained by some small port installation in the natural harbour of Perissa in the 8th and 9th centuries. Such a port installation would have been in direct contact with a larger settlement on the island's interior, with the harbour receiving vessels of the Byzantine fleet, as has been already suggested. Findings from the fortified settlement at Mesa Vouno date to the transitional era and indicate activity during this period.⁶⁰ The evidence suggests that the island had recovered quickly after the catastrophic eruption of 726 AD, regaining its important position along the sea routes.⁶¹

The island of Amorgos appears to have housed a regular naval station; the hoard hidden at the acropolis of Arkesini along with findings like the *miliaresion* of Leo III from Markiani and the material of the 7th/8th century unearthed in the Pyrgos (Tower) of Agia Triada⁶² – belt buckles and pottery –

54. Gerousi (2010), pp. 28-29.

55. Dafi (2005), pp. 272.

56. Penna (2001), pp. 404-5; Gerousi (2010), pp. 30-31; Penna (2010), pp. 30-31; Penna this volume.

57. Hayes (1992), pp. 12-34.

58. For the first time, a date in the mid 7th c.(+) was proposed for the Yassi Ada shipwreck in a workshop at Barcelona in 2008 (Exploratory Workshop on Late Roman Fine Wares: Solving Problems of Typology and Chronology, Barcelona, Spain (5-9th of November 2008), published in *LRFW Working Group, P. Reynolds, M. Bonifay, M. A. Cau* (2011), pp. 22, 32. For the dating of the Yassi Ada globular amphorae to the mid 7th c. see Poulou-Papadimitriou (2014), pp. 127-52. The same dating is followed by Vroom 2016 in a later study. For the Yassi Ada publication see Bass (1982), pp. 165-67, fig. 8-9, P1-P4.

59. Sanders (1996), p. 148; Dafi (2005), p. 272; Felten (1975), pp. 74-76; Poulou-Papadimitriou (2013), pp. 87-92; Slane and Sanders (2005), pp. 273-80, fig. 11. 4-1. For Crete see Poulou-Papadimitriou (2011), pp. 394-95. For Cyprus and Carthage see Hayes (1980), pp. 375-79.

60. Penna (2001), pp. 405-7; Gerousi (2010), pp. 30-31.

61. See Magdalino this volume for the wider historical context.

62. Touratsoglou (1999), pp. 351-52; Penna (2001), p. 408, n. 40; Maragou (2005), pp. 59, 67, fig. 58.3, 66.6-7.

indicate a military presence on the island during this period. It seems that ancient towers on Amorgos, and those on other Cycladic islands such as Kea, Seriphos and Naxos, were probably used as watch-posts and/or as storehouses during this period; some of these constructions, strengthened by small fortifications, probably housed a military unit and played a defensive role. It is worth noting that on Kea, there was a naval base for the *Karabisianoi* in 680 and a safe harbour later in the 8th century.⁶³ The toponym Koummertzi is thought to derive from the Byzantine *kommerkion*, possibly indicating the presence of a station, a storehouse or some kind of customs house for the control of produce.⁶⁴

The remainder of the Cyclades yields little information. A dedicatory inscription of 787 in the church of Agios Thomas on Siphnos gives us information about the activities of the islanders in the 8th century.⁶⁵ More information would surely be forthcoming from a study of the towers as already mentioned. It has been argued that some of them, especially those with easy access to the coast and natural harbours, could have been used as storehouses during the Byzantine period.⁶⁶ It seems reasonable that these buildings were incorporated in an organized network of state storehouses which, as already noted, must have existed in the Aegean during the transitional period. Interesting, although few in number, are the finds from Delos: the old excavations by the École française d'Athènes and especially in the Stoa of Philip V unearthed metal objects, seven belt buckles (dated from the 7th to the 9th century),⁶⁷ a *miliaresion* of Michael I and Theophylact (811-813) and another one of Michael II and Theophilus (821-829). Moreover, a *folles* of Leo IV (775-780) comes from the islet Rheneia.⁶⁸ Of special interest are the Arab inscriptions carved on architectural members of the Stoa of Philip V near the ancient port of Delos.⁶⁹ If these are datable to the 8th century like the inscriptions from Kos, Cnidus and Crete, this is interesting evidence of an Arab presence – in particular of Arab garrisons – for a short spell in these Aegean coastal sites during this period.

Recent excavations (2006-2008) on the south coast of the islet of Dhaskalio off Keros record a small amount of pottery that can be associated with the chapel erected there: these belong to the time-period under study and are evidence of activity on this small Cycladic island.⁷⁰

The evidence from Melos and nearby islets is limited in quantity, but of great significance: sherds of GWW I and II were found during survey on Melos, and lead seals of 8th century mention, amongst the *vasilika kommerkia*, those of Melos (730/731), the Islands of the *Aigaion Pelagos* (734/735?) and the *dioikisis* of Melos, along with Thera, Anaphe, Ios and Amorgos (738/739).⁷¹ Moreover, two *solidi* of Theophilus (829-842) and a lead seal of *vasilika kommerkia* of Hellespont, Asia and Caria dated to 742/743 come from the small islet Arcadia or Achradies located in the entrance of Adamas port.⁷² One further piece of numismatic evidence, a *folles* of Constantine V (741-775), came to light on the islet Polyaigos between Kimolos and Melos.⁷³ Finds like the lead seals reconfirm the mobility of dignitaries, or more precisely their documents, and the presence of state organization. Lead seals belonging to officials responsible for taxation, for example, constitute important evidence not only for the movement of goods in the Aegean but primarily for the control exercised by the state on commercial transactions.⁷⁴

63. Malamut (1988), pp. 105, 539; Ahrweiler (1966), p. 26.

64. Pennas (2002), pp. 44-45. See also Malamut (1988), p. 214.

65. Kountoura-Galaki (2002), pp. 32-36.

66. Pennas (2002), p. 45.

67. Deonna (1938), p. 239, pl. 77, no. 638, 296, fig. 366-67, pl. 88, no. 758-63. For the dating see Poulou-Papadimitriou (forthcoming).

68. Penna (2001), pp. 407-8.

69. Vallois (1923), pp. 166-68, fig. 232 and Appendix.

70. Tzavella (2016), pp. 87-91; see this volume.

71. Zacos, Veglery, *Byzantine Lead Seals*, vol. I/1, no. 242, p. 192, 194, table 34, no. 249, p. 162, table 17 and p. 192, table 34.

72. For this seal see Koltsida-Makri (2006), pp. 15-16. We have accepted the date proposed by Montinaro (2013), p. 437, n. 225.

73. Penna (2001), p. 408.

74. Montinaro (2013), pp. 351-538; Haldon (2012), pp. 99-122; Brandes (2002).

Conclusions

During the 7th century, the Byzantine Empire faced new conditions and therefore a new situation emerged in the Aegean. The islands of the Archipelago played a significant role for the Byzantines in their effort against the Arabs; however, reorganization in important sectors – defence, administration, agriculture, supervision of transactions and maritime communications – was the prerequisite for the survival and functioning of the state during this period. The archaeological evidence indicates different aspects of the state's efforts to maintain control and to adapt to these difficult conditions.

FORTIFICATION AND SECURITY. The mid-7th century saw the reinforcement of existing urban fortifications, in whole or part, such as at Rhodes or Samos. At the same time, in places of strategic importance, defensive works were undertaken, such as at Emporio on Chios and late in the 7th century at the castle Apalirou on Naxos. Further, coastal installations were set up at spots suited to keeping watch over the sea-lanes, such as Evriokastro on Kos or other small fortified settlements in many sites in the Aegean. As already mentioned, the strengthening of insular defences must have been integrated in a well-organized system under state control.

AGRICULTURAL PRODUCTION – WAREHOUSES. During the 7th century, the eastern provinces – Syria, Palestine – as well as Egypt and North Africa, the regions indispensable for Constantinople's supply, were lost to Byzantium, creating the need to procure agricultural products from other regions. These must have been Bithynia and, generally, Asia Minor but the Aegean islands will have played an important role as well, given the increased importance of resources from Byzantine Sicily.⁷⁵

Alongside these concerns, agricultural output in the Aegean islands was maintained and – perhaps from around the mid-7th century – intensified. Irrefutable evidence for this is the increasing number of discoveries of ceramic workshops, and also amphorae produced in and found on the islands of the Archipelago. These goods covered the needs of the islands themselves but the surplus was shipped to Constantinople or to other regions even as far as Sicily. The 8th century *Vita* of St Pankratios of Taormina (a saint of the 1st century AD), talks of traders (*pragmateutai*) sailing between Sicily and Jerusalem, and mentions various goods imported to Sicily, such as carpets from Asia, olive oil from Crete, incense and wine from islands.⁷⁶ The warehouses – of a simple type like that at Kephalos on Kos or larger ones as on Agathonisi – found on many islets and islands indicate that a system of storage and redistribution of goods (agricultural and artisanal products, raw materials, timber, etc.) was in operation during this period under state control.

LOCAL CERAMIC PRODUCTION. By the end of the 7th century, many of the 'international' amphora types ceased to be produced in the large pottery workshops or, if these survived, no longer reached the Aegean. From that period onwards, as our research has already shown, changes occurred in the organization of pottery production: we have noted that the local transport vessels were no longer produced in a few large centres but instead in many smaller workshops located at various sites around the Aegean, the islands, Cyprus and even in Sicily and Byzantine Italy. Recent research has revealed many previously unknown production sites, including workshops and kilns. More specifically, three amphora workshops have been excavated at Kardamaina on Kos, one dated securely from the middle to the end of the 7th century, and there seems to be evidence for local (i.e. Koan) production from the excavation at Kephalos in the 8th/9th century. Other production centres have been identified at Leipsoi (late 7th to 8th century), Karpathos (6th-7th century) and Paros (late 7th century). In Samos, there must have been pottery production throughout the 7th to 9th centuries as indicated by petrographic analyses.

75. Prigent (2006); Molinari (2013).

76. Laiou (2002), pp. 708, n. 50.

TRANSPORT VESSEL TYPES. For the sorts of amphorae manufactured, we observe that from the mid-7th century in the Aegean, changes occurred that are matched elsewhere in the empire. During the 7th century the Aegean potters produced *imitations* (fig. 2) of the commonest transport amphora known then in the Mediterranean – namely the LRA1. From the mid-7th and into the 8th century in particular, what we term the *survivals* of the LRA1 type are to be found (fig. 5).⁷⁷ Amphorae of this type have been found in the Aegean at Emporio on Chios, (9th century) (fig. 5), Leipsoi (8th century) (fig. 5a), Pseira off the coast of Crete (late 8th/9th century) (fig. 5), in Cyprus (8th/9th century) (fig. 5), in the Bozburun shipwreck (late 8th/9th century) (fig. 5) and in shipwreck 12 of Yeni Kapi (YK12), Istanbul (9th century) (fig. 5).⁷⁸

But the most characteristic shape of this period is the globular amphora. In contexts from the middle of the 7th until the late 8th/9th centuries, amphorae are noted that share one morphological characteristic: a globular body (fig. 7). The neck and rim forms may differ, the shoulder may or may not carry incisions, but the body is always globular. Macroscopic investigation of their fabrics suggested, as long ago as 2001, that there were many production centres across the Aegean, an initial observation corroborated by subsequent petrographic analyses. The study of a range of these products in Greece has allowed us to conclude that this new *family* of transport vessels appeared in the 7th century and became the main form used in trade from the end of the 7th up to the 9th century all over the empire (Constantinople, Asia Minor, regions in the Black Sea, the Aegean, the Greek mainland, Byzantine Italy), and in regions that maintained contact with the Byzantine heartlands, i.e. Syria, Egypt and North Africa. Even distant ceramic centres were influenced and adapted themselves to the new form for much of their output.⁷⁹ The scale of the success of the globular form suggests that there is more going on than the mere imitation of a popular shape (i.e. LRA2) – although this must be part of the story too. The globular shape could also have been influenced by the sorts of ships which carried them. Changes in the system created to handle the exchange of goods and their transport may be, in my opinion, a more compelling factor that could have affected the shape of the amphorae, leading to a quasi-homogenization of the vessel shape or a Byzantine *koine* in transport containers.⁸⁰

STATE CONTROL OF PRODUCTION AND MARITIME NETWORKS. The underlying cause of these changes to the organization of ceramic production – the multiplication of workshops across many islands, the standardization of pot-forms – is the reorganization of the modes of agricultural production and distribution. During this period, the Aegean islands had to supply Constantinople and the army with staple products. To that purpose, an interrelationship between the state – i.e. state officials – and private entrepreneurs must have existed.⁸¹ State supervision of these activities developed during the 8th century. Archaeology has shown that the state could and did exert control over the maritime routes (be they commercial or military), even and especially in this time of omnipresent Arab threat, which was real, as the Arab inscriptions found in different regions indicate. The Byzantines knew that the Aegean was vital for them: every safe harbour or gulf – no matter how small – could provide haven in case of need. It was not only the sizeable towns that were involved. Research has shown that even smaller coastal settlements once thought to have been abandoned were in fact endowed with harbour facilities, small secure anchorages and cisterns for water.

77. Poulou-Papadimitriou and Nodarou (2014), pp. 875-76.

78. Ballance *et al.* (1989), fig. 43, no. 280; Papavassiliou, Sarantidis and Papanikolaou (2014), pp. 159-68; Hayes (2003), pp. 505-6, fig. 32, no. 341; Hocker and Yamini (1998), pp. 3-13; Denker *et al.* (2013), p. 204, no. 237. For Pseira/Crete see note 75.

79. Istanbul cf. Hayes (1992), pp. 66-73, fig. 23.3-13, 25.1. Anemorion cf. Williams (1989), p. 98, no. 575, fig. 60. For findings from Greece and Cyprus cf. Poulou-Papadimitriou (2001), pp. 243-47; Poulou-Papadimitriou and Nodarou (2014), pp. 874-78. Italy cf. Murialdo (2001), pp. 286-95, pl. 17, no. 210-215, 18, no. 216-221, 19, no. 223-240; Arthur and Patterson (1998), pp. 516-21, 526-28, figs. 4, 5; Sagui (1998), pp. 315-17, figs. 8.4, 8.5, 8.6, 9.1. Syria cf. Pieri (2005), pp. 583-96. Egypt cf. Majcherek (2004), p. 235, fig. 7.8. North Sinai cf. Arthur and Oren (1998), p. 207. Tunisia cf. Bonifay (2004), pp. 151-53, fig. 83.

80. Poulou-Papadimitriou and Didioumi (2010), pp. 741-49; Poulou-Papadimitriou (forthcoming).

81. Wickham (2005), p. 784-85.

All these preparations suggest activity and mobility in the sea-lanes of the Aegean in the 7th to 9th centuries: contact between the centre and the periphery. The historical documents show that the circumstances faced by the Byzantine Empire in the 7th century differed considerably from those of the 8th century. This difference should, therefore, be reflected in our interpretations of the two periods. In the 7th century, Constans II (641-668) continued the efforts expressed by his predecessor to reorganize the defence and to protect maritime networks. At the same time this emperor clearly gave manifest importance to the western provinces of the Empire, personally setting up safe passages for the fleets through the Aegean. A good example of this is Emporio on Chios – and indeed similar 7th century fortified sites are found scattered across the Aegean and Crete as well.

The early 8th century saw the Arab siege of Constantinople (717-718). This at once led to direct action by Leo III (717-741): the creation of the naval theme of *Kibyrrhaiotai* (θέμα Κιβυρραιωτῶν) (732) was part of this reaction, as were further reinforcements of coastal sites and passages in the Aegean – especially in the Cyclades and Crete. A comparable desire and ability on the part of the state to control commerce and exchange is another manifestation of this concern – the recovery of *kommerkiarioi* seals as well the seals mentioning *vasilika kommerkia* and *apotheke* at several Aegean sites, some right in the centre of Archipelago, provide tangible proof of this.

At the end of this study, in order to better understand the importance that the Byzantines ascribed to the Aegean islands – larger or smaller – in this ‘transitional’ period, it is necessary to underline that the maritime route to and from the Capital traversed the Archipelago. Ensuring safe passage through it constituted a prerequisite for the safety of Constantinople itself. The ever-increasing archaeological evidence enables a closer mapping and comprehension of such activity through the Aegean Sea from the 7th to the 9th century AD.

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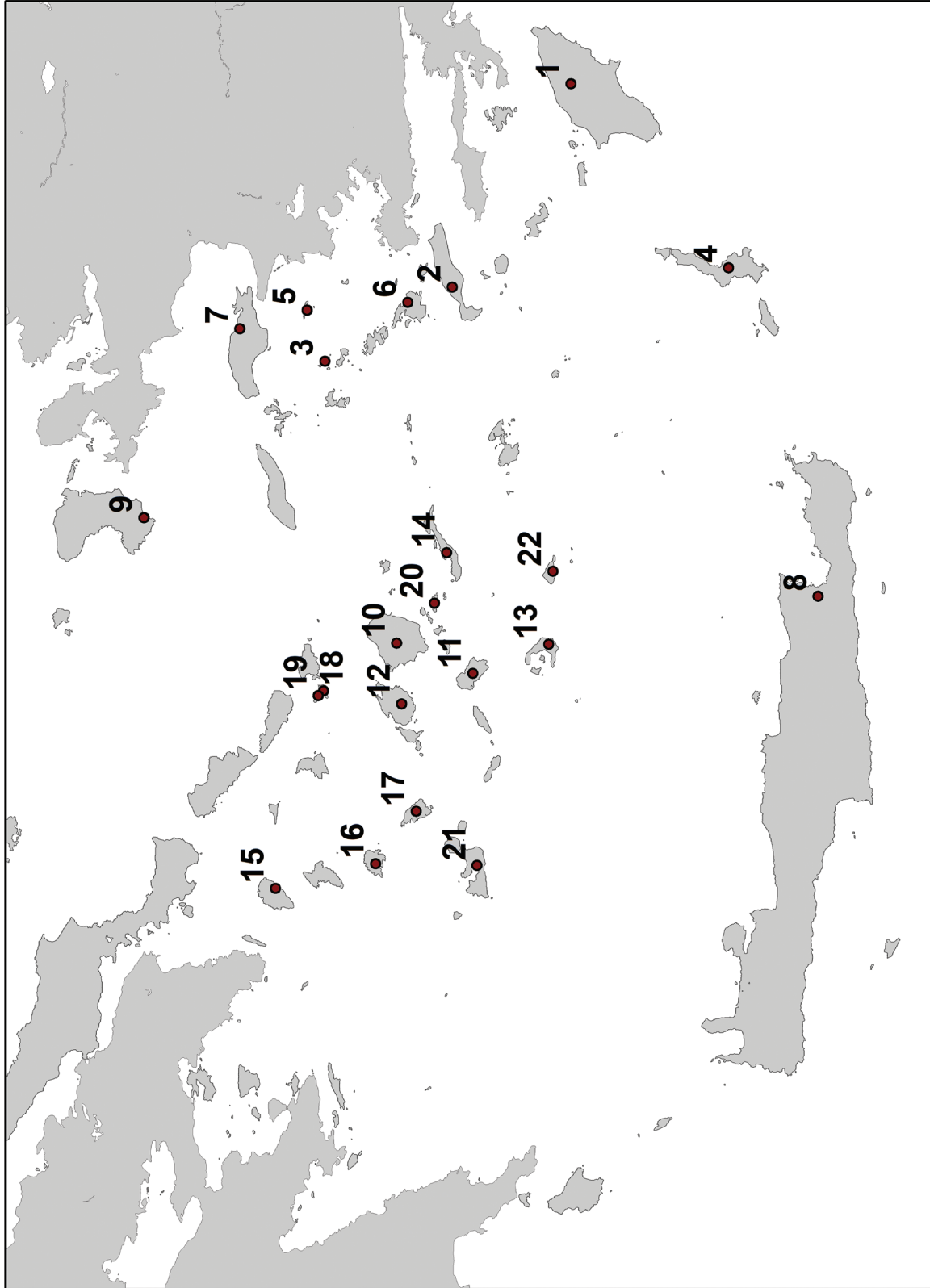


Figure 1. Rhodes, 2. Kos, 3. Leipsoi, 4. Karpathos, 5. Agathonisi, 6. Kalymnos, 7. Samos, 8. Pseira/Crete, 9. Chios, 10. Naxos, 11. Ios, 12. Paros, 13. Santorini/Thera, 14. Amorgos, 15. Kea, 16. Seriphos, 17. Siphnos, 18. Keros, 19. Rheneia, 20. Delos, 21. Melos, 22. Anaphi.

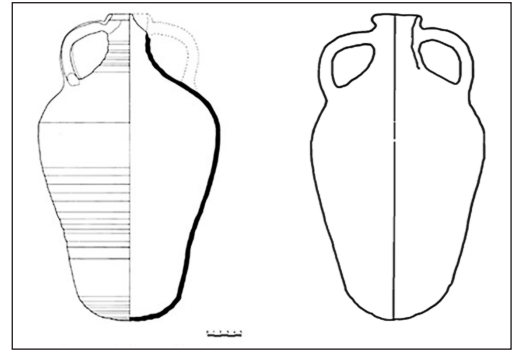
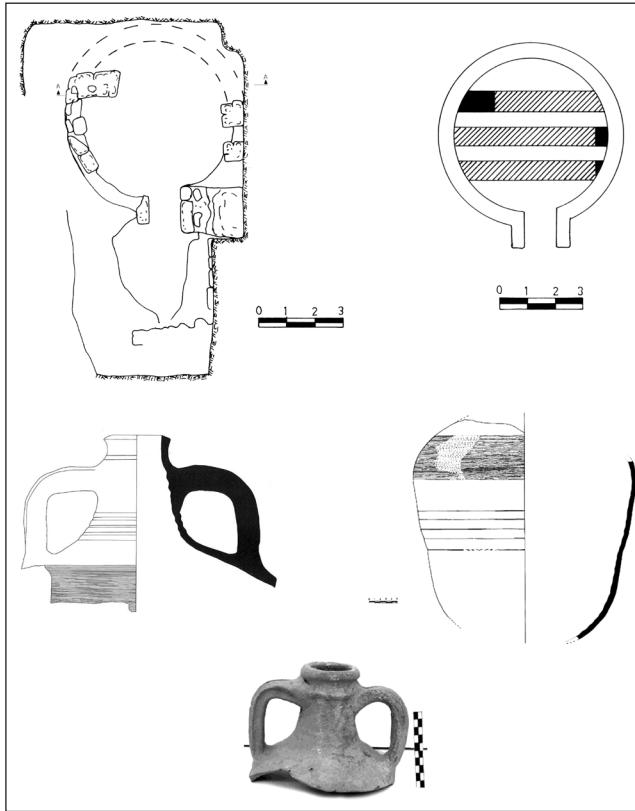


Figure 3.
 (Left) Kephalos, amphora of late 8th-9th c., Poulou-Papadimitriou and Didioumi (2010). (Right) Bozburun, amphora of 9th c., Hocker, and Yamini (1998).

Figure 2.
 Kardamaina, ceramic workshop and products, Poulou-Papadimitriou and Didioumi (2010).



Figure 4.
 Leipsoi, ceramic workshop and products, 8th c., Papavassiliou, Sarantidis and Papanikolaou (2014).

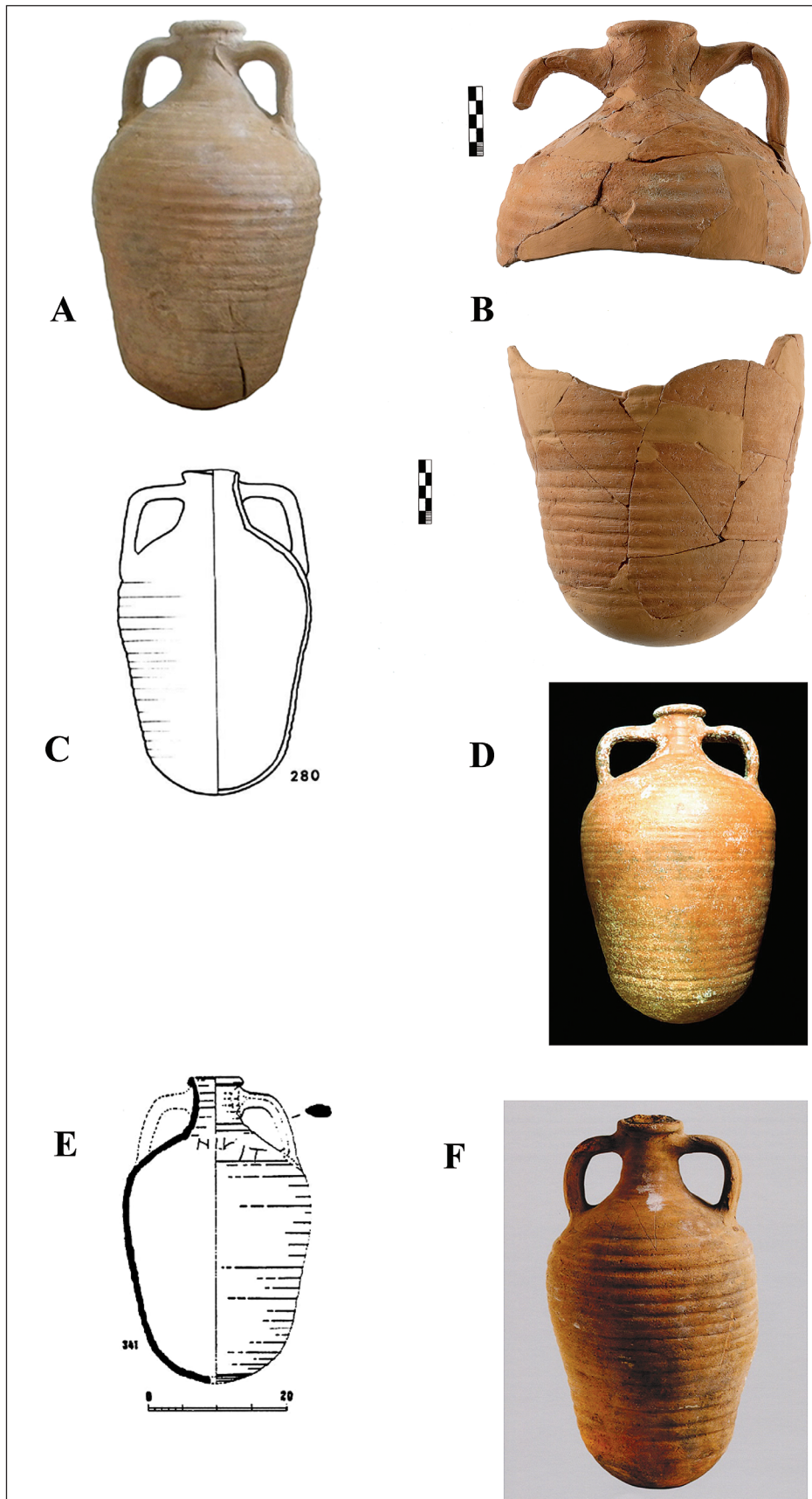


Figure 5. Amphorae 'survivals' of LRA1 type: a. Leipsoi (8th c.), b. Pseira (late 8th/9th c.), c. Emporio, Chios (9th c.), d. Bozburun (9th c.), e. Cyprus (8th/9th c.), f. Yeni Kapi12 (9th c.).

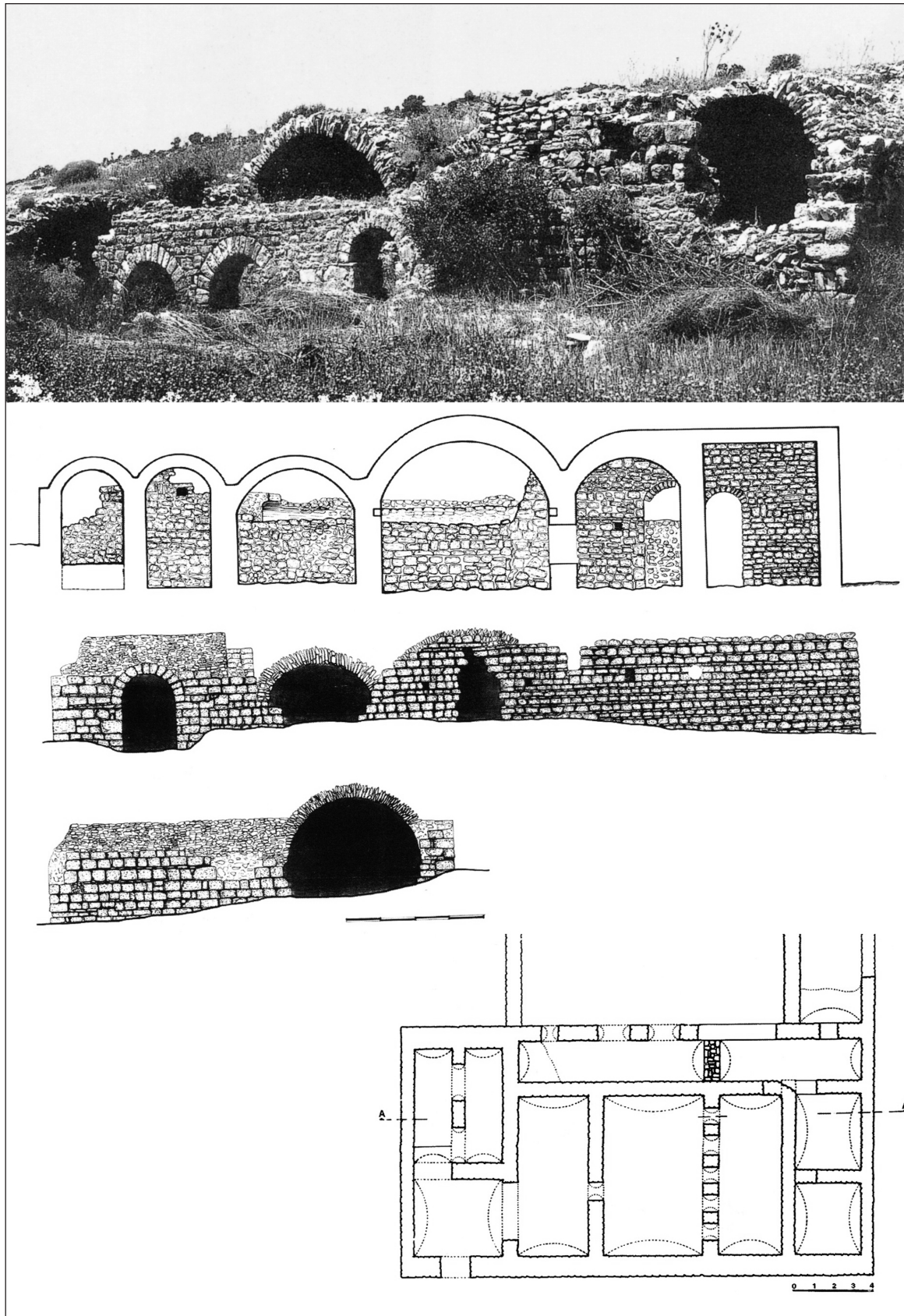


Figure 6. Agathonisi, vaulted complex-warehouse, Triantafyllidis (2006).

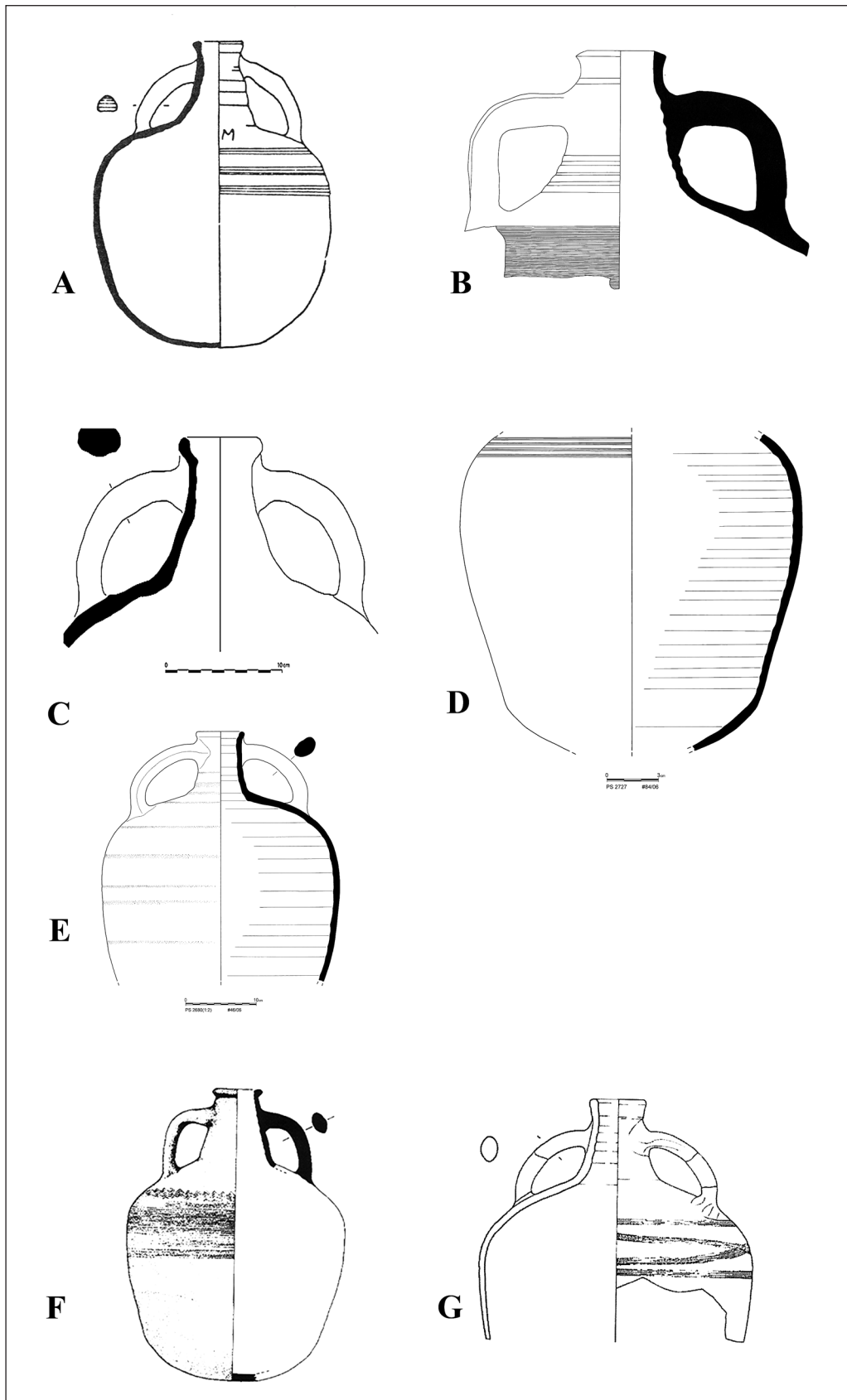


Figure 7. Byzantine Globular Amphorae: a. Samos (late 7th/8th c.), b. Kardamaina/Kos, late 7th c., c. Paros (late 7th c.), d. Pseira/Crete (8th/9th c.), e. Pseira/Crete (8th/9th c.), f. Yassi Ada (second half of 7th c.), g. Crypta Balbi (late 7th c.).

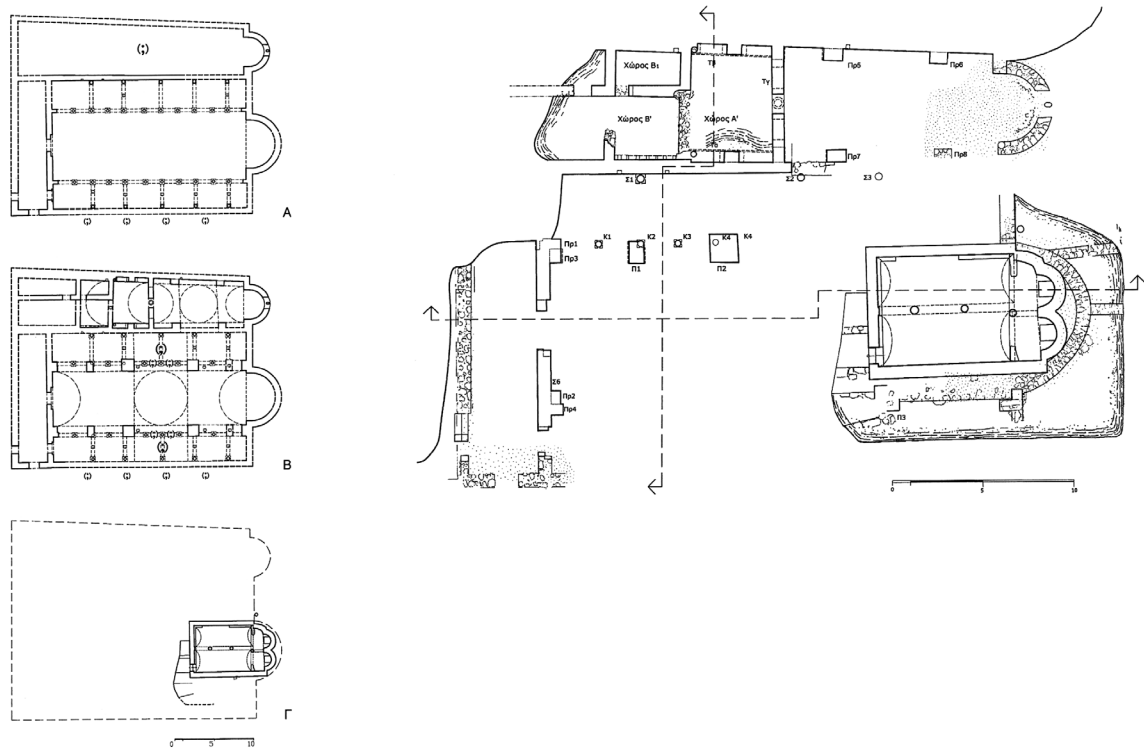


Figure 8. Santorini, Perissa. The phases of the three-aisled basilica and the *solidus* of Leo III, Gerousi (2010 and 2012).