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Harbors and Harbor Cities in the Eastern Mediterranean from Antiquity to the Byzantine Period: Recent Discoveries and Current Approaches

Band 1

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Hrsg. von
Sabine Ladstätter – Felix Pirson – Thomas Schmidts

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Recording the Harbour Network of Ancient Lesbos (2008–2009)

Theotokis THEODOULOU

Abstract

In 2007 the Ephorate of Underwater Antiquities of the Ministry of Culture of Greece initiated the project ›Recording the harbour network of ancient Lesbos‹, in order to proceed with the complete mapping, studying and documentation of the harbour remains of the ancient cities at the island of Lesbos.

After the first mission in 2007 for the photographic documentation of the sites two more expeditions took place in 2008 and 2009. During the course of these campaigns the harbour structures of Methymna, Eressos, St. Focas – ancient Vrissa –, along with a small rough quay at Mesitziki in the Gulf of Kalloni were mapped and documented. Investigation of Antissa also began along with the preparation tasks for mapping the impressive commercial northern harbour of Mytilene. In addition, the remains of a quay were located at Skala Sykamias as well as more submerged relics in some other sites. The preliminary results of the last two aforementioned missions are presented below.

Özet

2007'de Yunanistan Kültür Bakanlığı'nın Sualtı Eski Eserleri Eforluğu ›Eski Lesbos'taki Liman Şebekesi‹ projesini başlatmıştır. Amaç, Lesbos adasının tarihi şehirlerine ait liman kalıntılarının tamamının haritalama, inceleme ve belgelenmesiydi.

2007'deki ilk sezonda arkeolojik alanların fotoğrafla belgelenmesi çalışmasının ardından 2008 ve 2009'da iki yeni aşama gerçekleşti. Bu aşamalarda Methymna, Eressos, Aya Foca (antik Vrissa) limanları ile ve Kalloni körfezindeki Mesitziki'deki küçük bir rıhtımın haritaları çıkarıldı ve belgelenmeleri tamamlandı. Çok daha gelişmiş bir liman olan kuzeydeki Mytilene limanı ile beraber Antissa'da araştırmalara başlandı. Skala Sykamias'ta bir rıhtım bulundu ve daha küçük başka yerlerde de batık kalıntılara rastlandı. Bu yazıda bahsedilen, bu son iki aşamada elde edilen ilk sonuçlar paylaşılacaktır.

In 2007 a team from the Ephorate of Underwater Antiquities of the Ministry of Culture of Greece (EUA) conducted an expedition to initiate the photographic documentation of the remains of the ancient harbour installations on the island of Lesbos in northeastern

Fig. 1 Map of Lesvos island with the five city states of ›Lesviaki Pentapolis‹ and the secondary sites that have been investigated (after P. Karvonis – M. Mikedakis – Y. Zachos, Tabula Imperii Romani J 35 – Smyrna I: Aegean Islands [Athens 2012] map 2)

Aegean. The results of that first mission were reported during the 10th Tropis International Symposium on Ship Construction in Antiquity[1]. Two more missions followed in 2008 and 2009[2] and their results will be presented here[3].

Lesbos had five coastal city-states (the ›Lesviaki Pentapolis‹) in the Classical period and is well known as a historically active island. It was a major hub on the sea routes connecting Aegean with Propontis and Black Sea as well as the two shores of the Aegean. Every one of those cities had artificial harbour installations, while at the same time several refugees with or without harbour structures can be traced around the island[4].

The aim of the project, named »Recording the harbour network of ancient Lesbos«, was to document these monuments using mapping, studying, and digital visualization techniques, in an attempt to provide effective protection and promotion.

1 Theodoulou forthcoming.

2 The two missions were sponsored by Lesbos Port Fund. Participants were: the topographer Yiannis Pittos, the underwater photographer Vasilis Mentoyiannis, the EUA's diver Athina Patsourou and the volunteer student Photis Bitsikas. To all of them I express my gratitude.

3 Two preliminary articles have also been published in Greek, most directed to the open public – Theodoulou 2010; Theodoulou – Kourtzellis 2010.

4 Koldewey 1890; Kontis 1977; Williams 2007.

The five city-states of the Classical times were Mytilene, Methymna, Antissa, Eressos and Pyrra (**Fig. 1**). During the two missions in 2008 and 2009 the team managed to map the harbour structures of Methymna and Eressos, and started mapping Antissa. We also came to the conclusion that the quoted harbour structures of Pyrra were not visible anymore and what was considered as a southern mole was just a submerged terrestrial projection. The harbour works of St. Focas, ancient Vrissa, along with a small rough quay at Mesitziki in the Gulf of Kalloni were also mapped. Furthermore, the remains of a quay at Skala Sykamias was located and preparations for the mapping of the impressive commercial harbour of Mytilene begun.

In this presentation the preliminary results of the two missions will be described, beginning from the city of Mytilene and proceeding anti-clockwise towards Methymna and the rest of the sites.

Mytilene

The city of Mytilene had two harbour basins, connected until Middle Ages with a channel named Euripus: the northern basin consisted a commercial port and the southern a military one, according to ancient testimonies[5]. The southern harbour installations were covered by infrastructure constructions in the 19th and 20th centuries. Rescue excavations of the local Archaeological Ephorate uncovered remnants of ship sheds[6] at the southern basin and notable harbour structures along the Euripus way, especially in the northern entrance[7].

A description of the visible remains of the two harbours and the related initial conclusions has already been given at Tropis Symposium[8], so it will just added one more remark: During the expedition of 2009 we re-visited the northern harbour and took a series of pictures in order to test the procedure of photo-mosaic creation in extended underwater structures (**Fig. 2**). Thus, we had the opportunity to observe, although not without doubts that at the western mole, either two structural faces or the base of the fortification upon the mole can be distinguished (**Fig. 3**). The lower part of the mole construction projects slightly from the upper surviving course and both bear carvings of dovetail clamps. Since lead clamps could not be poured underwater it is obvious that the lower structure had been the first dock to be constructed and was later submerged, thus one more course

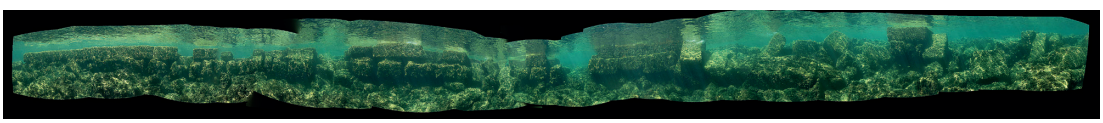

Fig. 2 Trial photomosaic of the eastern windward mole of the northern harbour of Mytilene (© EUA)

5 Strab. 13, 2, 2; Ps.-Sky. 97.

6 Acheilara 1998, 767.

7 Archontidou – Kourtzellis forthcoming; Kourtzellis 2010.

8 Theodoulou forthcoming.

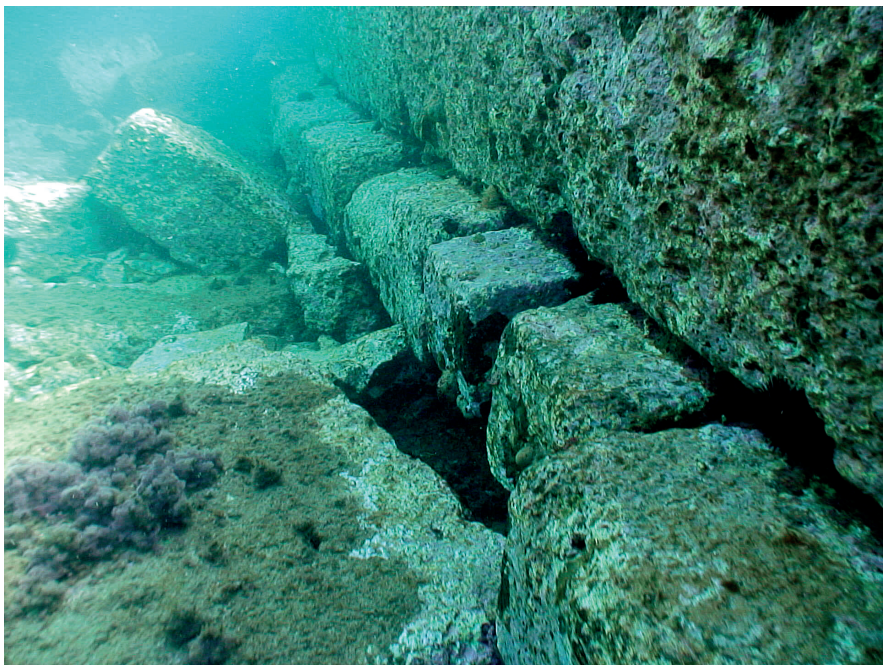

Fig. 3
Two possible structural faces at the western mole of the northern harbour of Mytilene (© EUA)

was added. Another possible explanation is that the two structures were built at the same time, the one as the top of the dock and the other as the base of the fortification wall. The level of the lower structure is quite similar to another isodomic structure at the harbour of Methymna (≈ 0.60 m below sea level). At Methymna the sea level rise was estimated at approx. 1.30 m. Therefore, 0.90 m (1.30–0.60 m) above sea level was an appropriate height for a quay. The isodomic structural pattern and the use of dovetail clamps can be compared to the remains of the harbour structures that have been excavated at the north entrance of Euripus, where a coin found among the building ashlars of the pier can convincingly contribute to dating the construction in the 4th century B.C.[9]. But, it is worth to note that at the easternmost mole the pattern does not seem to be repeated.

Skala Sykamias

North of Mytilene, at Skala Sykamias, a vivid fishing shelter, we located the remains of what was probably a quay or a terrestrial seafront wall which became a quay. Some roughly worked large stones are more or less aligned in the sea bottom at a depth of 1–1.5 m. One of them bears a hole and was obviously used as a mooring stone (**Fig. 4**). The pottery collected around the stones can be dated to early Byzantine times (4th–7th century A.D.). A basilica of the same date has located at the neighbouring area and ancient ashlars were reported among the material of the traditional mole at the Ephorate's Archive. Nevertheless, that was a discovery which we could not be further investigated due to time restraints.

9 Kourtzellis 2010, 190 f.

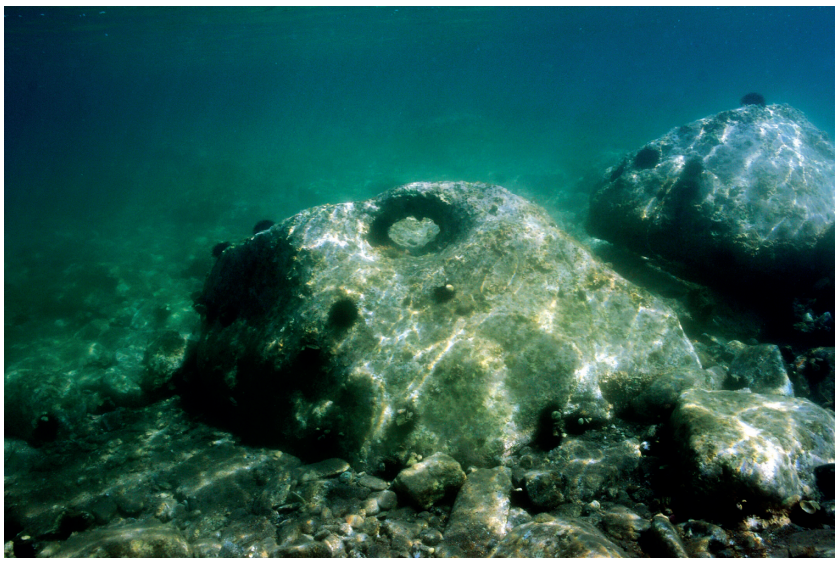

Fig. 4
A submerged stone bearing a hole, obviously used as a mooring stone at Skala Skamias (© EUA)

Methymna

The picturesque fishing refugee of Molyvos, the medieval name for the ancient Methymna, was identified by R. Koldewey[10] as the ancient military harbour of the city. However, he believes that it did not dispose any fortifications upon the moles that would justify the character of the Classical type of *limen kleistos*. The stone built mole, with its inner quay framing the protected basin and its entrance at the west, remains undated. It was documented by R. Koldewey[11]; however, we cannot reject a quite earlier dating. Several parts of the mole are now covered under a concrete coating. The structure stands on a huge rubble stone platform reaching a depth of 25 m at the south (**Fig. 5**). It is quite possible that part of its core was a natural formation, a cape or reef, which was artificially, shaped to accommodate harbour structures. But these structures were not the ones just described.

In 2007, at the south-east of the present mole at a depth of 0.62 m a surviving part of the tip of an ancient mole was located (**Fig. 6**), erected in an elaborate isodomic building pattern, similar to the abovementioned structures of the city of Mytilene, especially the northeastern mole at Epano Scala. It faces northwest and it measures 6 m in width by 2.5 m in length. At the northeastern side of the structure, a part of an architectural element looking like a mooring stone survives (**Fig. 7**). The stone blocks of the upper course bear holes for dove-tail clamps. The construction stands at a height of two courses, founded on projecting roughly-worked large blocks, at a depth of 1.29 m, where most probably the sea level was. Subtracting 0.62 m from 1.29 m we get 0.67 m, a height not sufficient for a quay. Therefore, we may safely assume that the construction misses the top layer of the dock, covering the whole surface and the rubble filling among the sidewalls. This assumption is strengthened by the presence of quadrilateral holes for the connection of an upper course. At the south-west of the construction a later addition of the same building pattern

10 Koldewey 1890, 17.

11 Koldewey 1890, pl. 4.

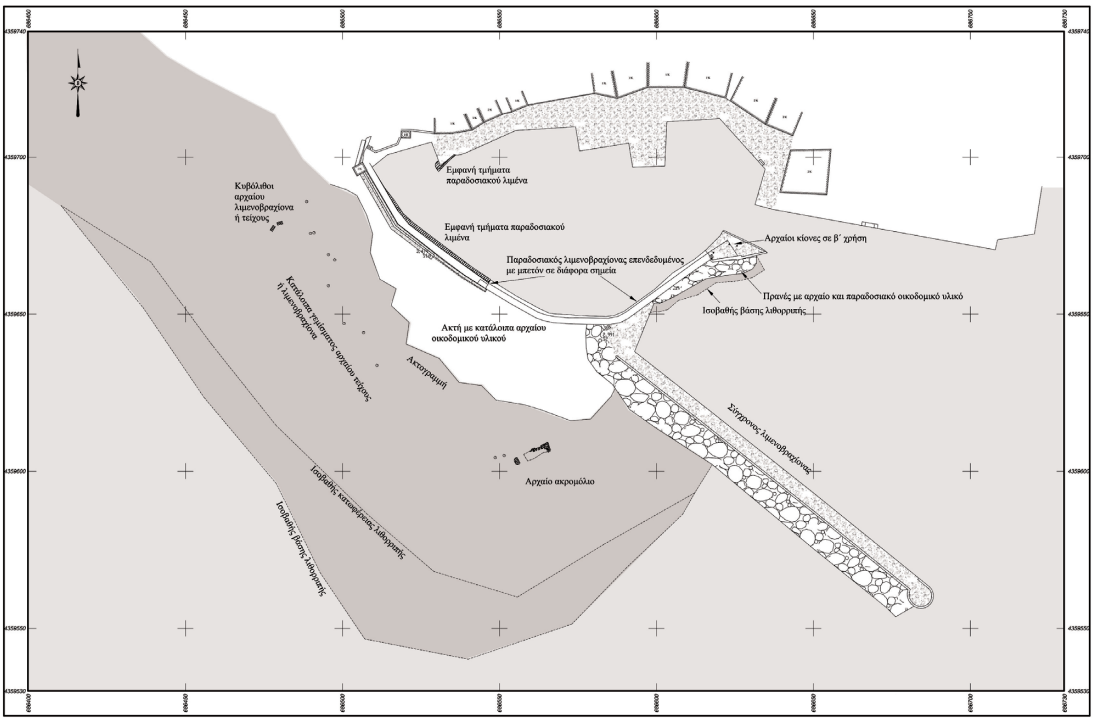

Fig. 5 Layout of the harbour at Methymna with modern and ancient structures (© EUA)

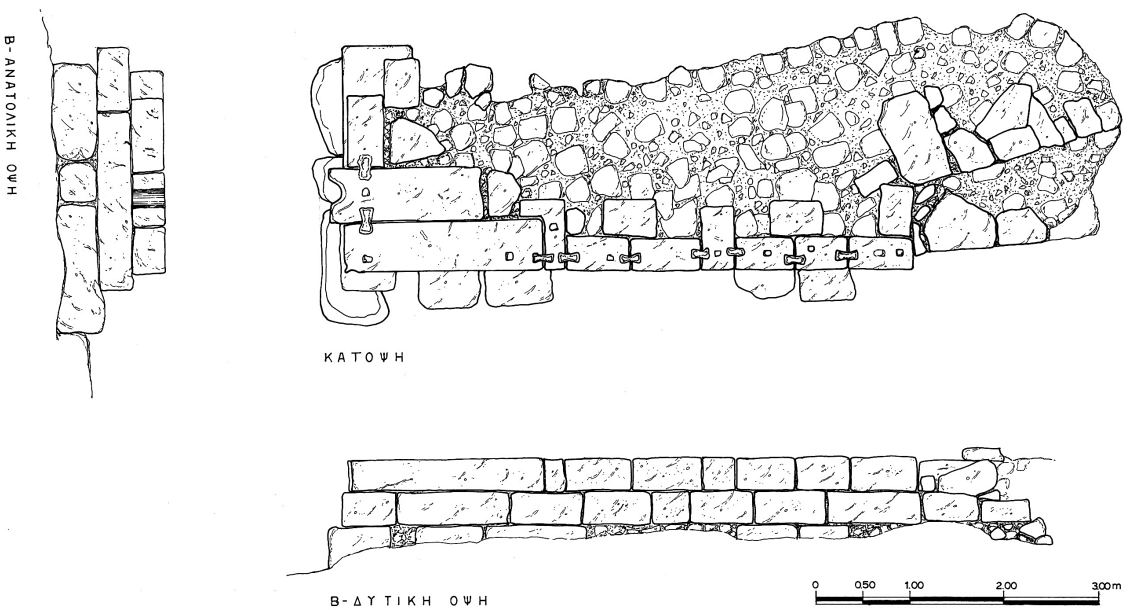

Fig. 6 Plan of the submerged tip of the ancient mole at Methymna (© EUA)

exists, with vertical sides and a filling of rubble stones, but of quite modest technique. The highly structured isodomic shape along with the feature of the rounded edges of the corner stones and the similarity to Mytilene's structures can most likely date this mole in the 4th century B.C., as well.

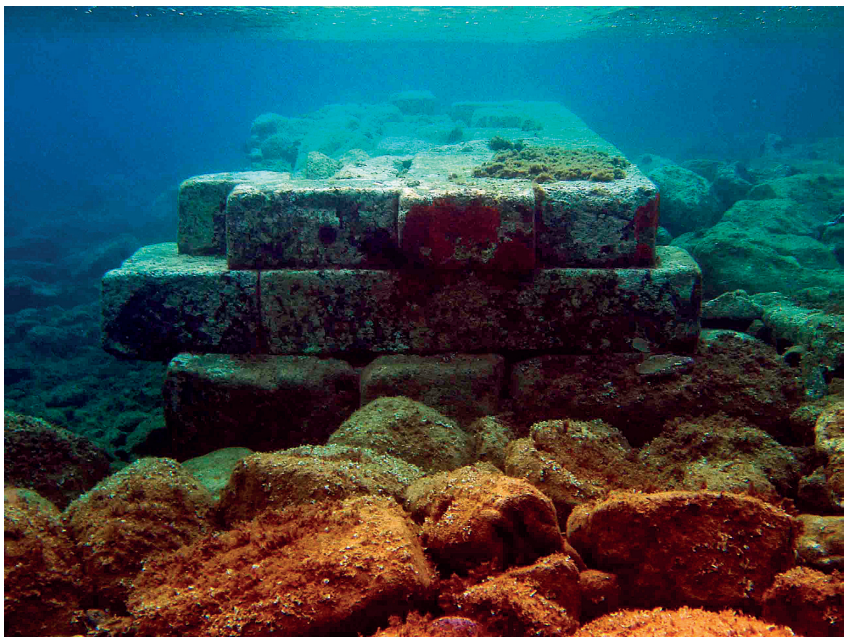

Fig. 7
Underwater view of the submerged tip of the ancient mole at Methymna (© EUA)

Fig. 8
View of the harbour of Methymna at a picture of 1930. Ancient relics are still visible (unknown)

The northwestern orientation of the tip's face leads us to the conclusion that the ancient harbour had its entrance to the south as opposed to the modern harbour that faces to the northwest. The harbour had definitely a broader basin and was embraced by two moles. Chunks of conglomerated rubble stones in an imaginary line witness the existence of the second mole encompassing the harbour basin from north-east. They are probably parts of the filling either of the mole itself or of the city wall that extended along it. At the area where the entrance of the harbour was expected to be, just north-western of the moles tip, no rubble stone chunks were traced (see **Fig. 5**).

The mole was 6 m wide and such a width was enough to provide support to a 3 m-wide defensive wall upon it. Relics of a wall at the same position with the ancient one is visible in a picture of 1930 (**Fig. 8**), but unfortunately it was not preserved to the present days. Judging from its height as shown in the pictures, and taking into account the rise of the sea level, it can be inferred that its nature could only have been defensive. Most of the ashlar blocks of the ancient mole were obviously used for the building of the surviving fishing shelter.

In the light of the new evidence and contrary to R. Koldewey's view, it seems that the topography of the ancient harbour was quite different than today and the fortification of Methymna obviously included the naval base of the city.

Furthermore, the question of the location of the commercial harbour could perhaps also be answered with evidences brought to light by the recent research. At the long flat beach south-west of the city – where I. Kontis[12] remarks that the commercial harbour could have been located – submerged buildings were found, proving a different configuration of the shoreline in antiquity. Remains of harbour structures were not located. Even though, on one hand, the area is silted by a small river and harbour structures were not necessary on sandy beaches, plus the fact that we did not have the opportunity to investigate that certain area quite thoroughly.

Antissa

At the cove southeast of the ancient city, a breakwater forms a harbour basin. R. Koldewey[13] represented the basin much larger than the existing harbour, which included the neighbouring low sandy beach, a fact that we think is reconfirmed by satellite images of Google Earth. The harbour basin's depth does not exceed 0.6–0.7 m due to silting. During the first visit in 2007, it was observed that the northwestern arm of the breakwater is in fact a natural rocky formation, which was reinforced at its northern edge and was further extended to northeast by a foundation of rough stones. Possibly, the two formations functioned as the base of a mole-quay, as testified by the presence of ashlars inside the silted basin.

The last day of the mission in 2009, when we started mapping at Antissa, the following observations were made: north-east of the basin, at the starting point of the mole we located the foundation of a semi-submerged large Lesbian wall, stretching northwest for about 50 m. It is constructed of monoliths (≈1.2 × 0.5 × 0.5 m) facing north-east (**Fig. 9**). It looks like the base of a fortification wall directly connected to the mole. Similar structures surviving in two courses were located also at the two sides of the cape upon which the Genoese castle Ovriocastro and the city of ancient Antissa extends. There, W. Lamb's excavations in 1930's[14] uncovered traces from LBA to the middle of 2nd century B.C., when the city was destroyed by the Romans. Over the hill, both the Lesbian city walls of the 6th century B.C. and the later isodomic additions, dated in 3rd century B.C., were

12 Kontis 1977, 275.

13 Koldewey 1890, pl. 6.

14 Lamb 1931, 1932.

Fig. 9
Remnants of a semi-submerged Lesbian wall northeastern of Antissa's harbour basin (personal archive Y. Kourtzellis)

Fig. 10
Underwater relics of a lesbian wall at the east side of the promontory, where the medieval castle stands (© EUA)

uncovered[15]. Hence, the submerged walls founded can be attributed to archaic fortifications, which were extended on a larger area that was decreased later due to the sea level rising. One more interesting feature is that at the area south-west of the castle, the wall we located ends properly, having a width of 8 m encompassing an area which could operate as a harbour basin (**Fig. 10**). Do we have here the archaic *limen kleistos* of the city? It must be noted that if it was really a mole and not just a tower belonging to the city wall, then this could have been one of the earliest constructed harbours of the island and the Aegean in general.

15 Lamb 1931, 172–174; Kontis 1977, 310; Spencer 1995, 62 f.

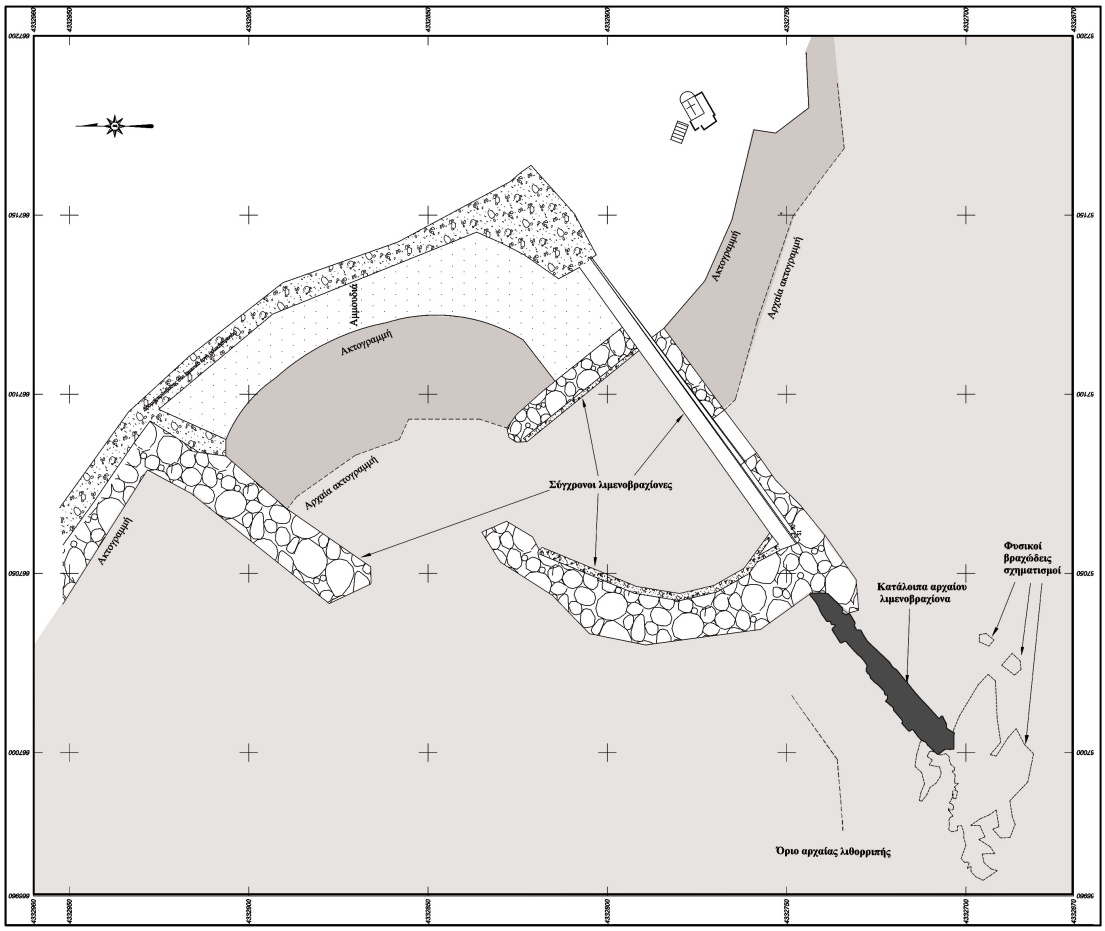

Fig. 11 Layout of the modern fishing shelter of Eressos with the remnants of the ancient mole at the south (© EUA)

As naval base of the city has also proposed some other harbour remains at Kalo (or Tsamour) Limani, a couple of kilometres further north by A. Simossi[16], with objections by H. Williams[17], which we tend to adopt too under the view of the constructions located. Of course even the harbour that recorded from R. Koldewey could be a *limen kleistos* under the new evidence of the wall located at its starting point.

Eressos

Similar to the previous discussion we have to add new evidence about Eressos harbour relics. The Eressos harbour remnants witness a similar story. During the 2008 mission, the surviving jetty extending from the shore to a rocky islet to the south was mapped, having an average width of 7.3 m and a maximum length of 140 m (**Fig. 11**). The length is measured from the rocky edge of the seashore, from which it projected, now submerged in

16 Simossi 1998.

17 Williams 2007.

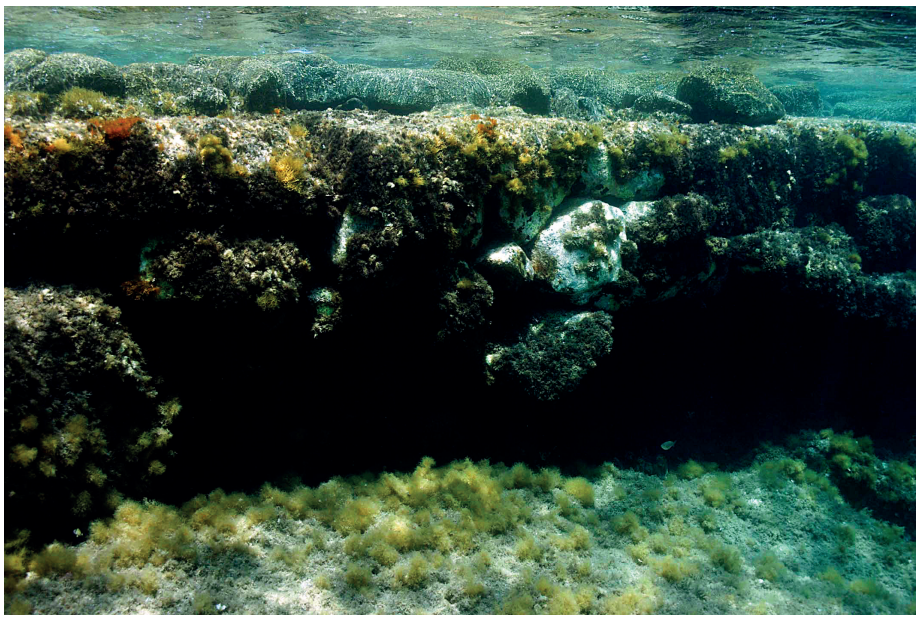

Fig. 12 Underwater view of the southeastern side of the mole at Eressos (© EUA)

the modern fish shelter's basin and towards its southwestern part. The jetty is erected on a rough stone base, clearly visible at the north-west side of the jetty, starting from –2/2.5 m and reaching the sandy bottom at 4.5 m. The maximum preserved height of the pier is 2.5 m. Although, the team did not have the chance to clean the structure from the sea plants and proceed with the thorough architectural mapping the constructing pattern looks more or less of Lesbian masonry too (**Fig. 12**). That links the structure with the Antissa remnants and connects both cases to the Archaic period. Remains of the archaic, Lesbian walls of Eressos are still visible around the acropolis[18], while isodomic remains are mostly related to the southeastern extension of the city dated in Hellenistic period[19].

At the same time, the mere existence of a pier, which does not form a harbour basin, as well as the absence of an organic connection of the port with the fortified hill suggests more a commercial than a military use. This can also be assumed by the absence of any kind of superstructure's signs, where the surviving upper course of the pier is located. After that, the military ›enclosed harbor‹ of the city, if there ever was one, has to be traced elsewhere. The shoreline has certainly changed since the antiquity and where now the village extends there are indications that some harbour installations may had been existed. On the other hand, according to Diodorus Siculus in 389 B.C., the Athenian general Thrasybulus who conquered Lesbos cities »… sailed from the Hellespont to Lesbos and anchored off the coast at Eresus. But strong winds arose and twenty-three triremes were lost …«[20]. It is apparent that this clearly describes the strong south winds, as well as the absence of a well protected harbour, at least at the time of Thrasybulos.

18 Kontis 1977, 327–329.

19 Kontis 1977, 328 f.; Koldewey 1890, 61.

20 Diod. 14, 94, 3.

St. Focas (ancient Vrissa)

Although Vrissa was not one of the five classical city-states of Lesbos, on top of St. Focas promontory, a Christian basilica has been excavated at the same point where epigraphical testimony[21] along with existing architectural elements led R. Koldewey[22] to suspect the presence of a Doric temple of the 1st century B.C., related to the worship of Dionysus Vrissagenis (of Vrissa).

On the promontory's western side a fishing shelter operates since ancient times. At the tip of the windward eastern mole, one course of ashlars lies, 26.80 m long, obviously remnants of an ancient quay. Two last blocks of an upper course are still surviving (**Fig. 13**). The ashlars are holding a filling consisting of cemented little pebbles. The same material is found at the remaining length of the mole and the southern cove of the basin, but the front ashlar wall there is missing. The mole is covered now under natural stone blocks along with material from the basin's dredging, including architectural members and mud. In its outer eastern side what looked like a rocky protection of the mole was an artificial platform made out of cemented material and bearing relics of ancient buildings (**Fig. 14**). At a distance of 45–50 m southeast of the platform we also located an underwater breakwater, obviously constructed to protect the platform and the buildings from southeastern waves. It is rather peculiar that the length of the breakwater does not exceed half of the platform's length, hence leaving that part, where the buildings' remnants are far more difficult to be detected, unprotected. At the starting point of the breakwater there are two manmade coves on the hill side, from where probably the stones for the breakwater were quarried.

The remnants of the leeward mole were also located under modern natural stone additions, consisted of small-scale natural stones with dispersed architectural elements.

The use of cement, the absence of any joining clamps and the archaeological record of the area indicate that the structures can be dated to Roman times. However, a black

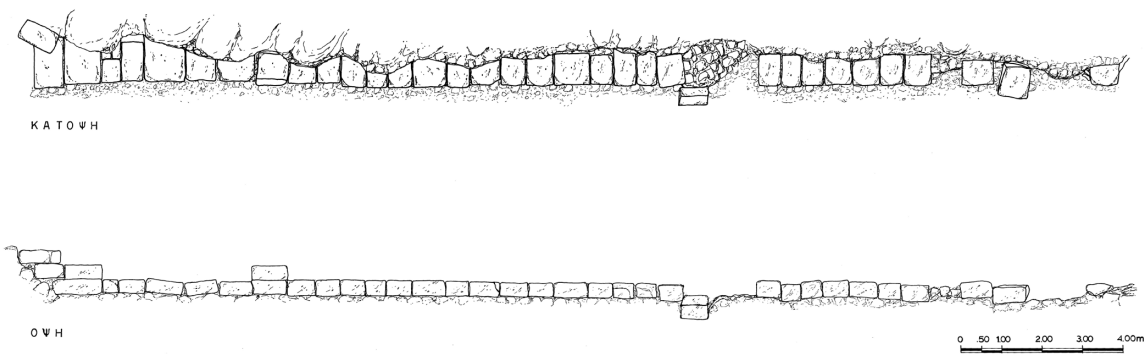

Fig. 13 Plan of the relics of the quay at St. Phocas surviving at the tip of the eastern mole (© EUA)

21 IG 12, 2, 478.

22 Koldewey 1890, 36.

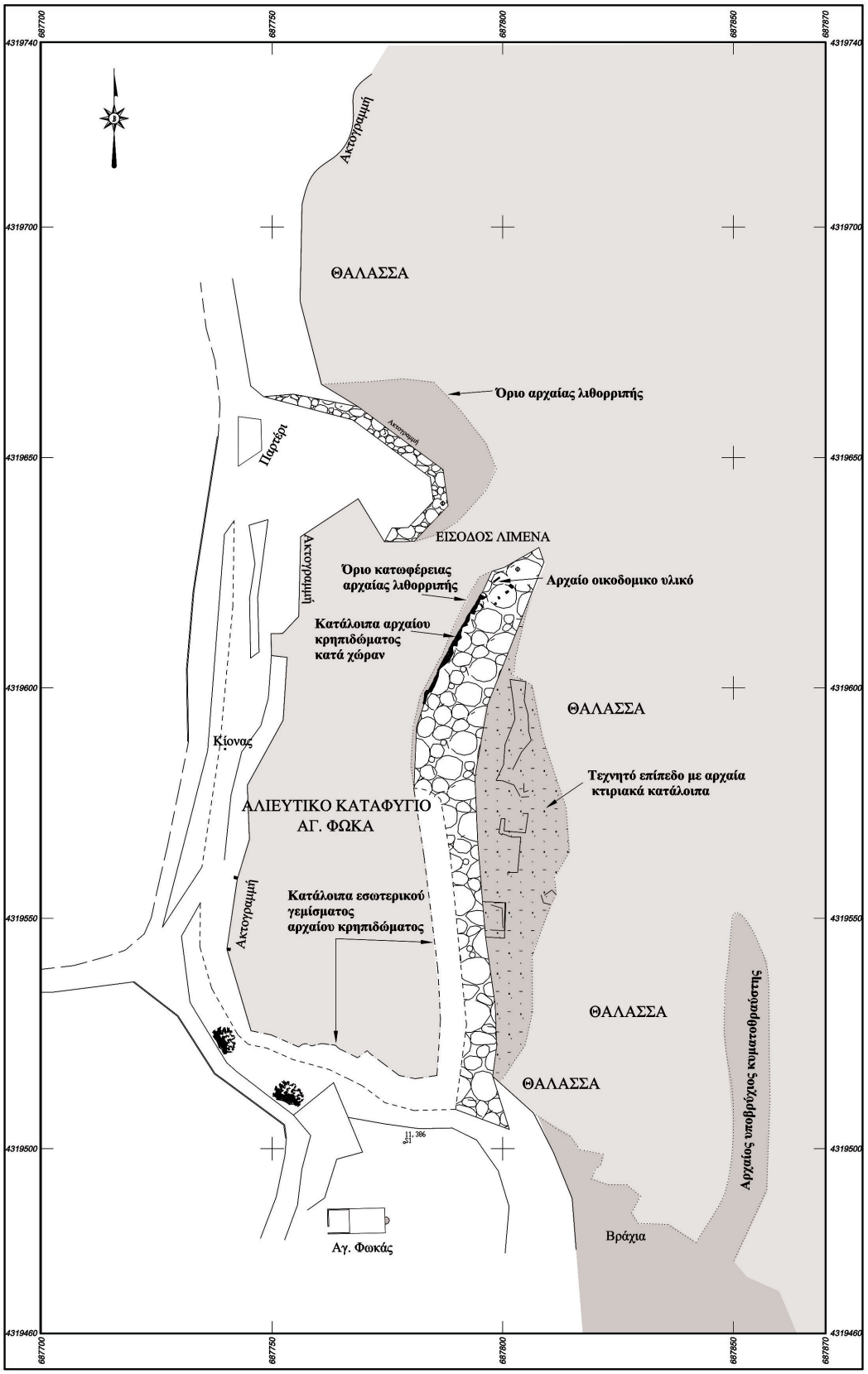

Fig. 14 Layout of the fishing shelter at St. Phocas, with the ancient remains (© EUA)

glazed bowl, given to us from locals that collected it during an old dredging of the basin, dates back to 3rd century B.C., indicating that the site was used earlier than the Roman period. Likewise, not too far from the harbour, after information received by a fisherman, remnants of two shipwrecks with main cargo of Chian amphoras were found, dated back to 5th and 4th centuries B.C. Chios Island is visible from St. Phocas promontory. It is quite possible that at least an anchorage existed even from the Classical period being a stop point at the sea route connecting the two islands.

Pyrra

At Pyrra, the fifth city of Lesbos our investigation reconfirmed the estimations of the first visit in 2007. No visible remains can be found either from the north inlet where was probably the classical harbour of the city with the ship-sheds that R. Koldewey[23] and I. Kontis[24] stated, or from the mole encompassing the southern cove. At the area depicted as a southern mole there is a lot of dispersed building material with clear semi-submerged walls at the shore but not any traces of harbour constructions. Of course the longer terrestrial projection into the sea was protecting the cove lying south of it, causing a safe anchorage.

Mesitziki

At a small bay north of Pyrra, named Mesitziki, remnants of a quay was discovered in 2005[25]. At the bay some fishing boats still find shelter. At its southern tip some roughly worked stones were discovered, which had been arranged in a way that formed a kind of a quay, semi-submerged today. We took some pictures and made a rough drawing of the side (**Fig. 15**). However, we do not have sufficient data allowing interpretation, lacking pottery or identifiable building pattern. The toponym of the area deriving from the same root as the famous neighbouring sanctuary and temple of Messa, constitutes an indirect indication[26]. The position of the quay is the nearest to the sanctuary, assuming the morphology of the area was the same in

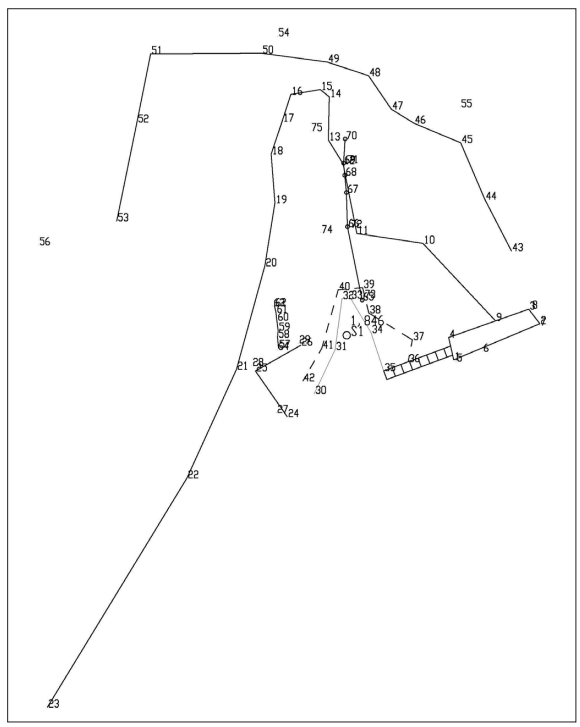

Fig. 15 Picture and plan of harbour structures at Mesitziki cove at Kalloni gulf (© EUA)

[23] Koldewey 1890, 27.

[24] Kontis 1977, 347 f.

[25] Argyri – Theodoulou 2012.

[26] Acheilara 2005.

antiquity. But the morphology of this area needs quite more investigation and discussion. The shores of the Kalloni gulf are very dynamic as it is obvious from the marches and the submerged sides. Thus, the Mesitziki structures can not be dated with any certainty and the initial purpose of its construction remains unknown.

Finally, it should be mentioned that except for harbour installations, the team has also located several submerged structure sites. Obviously, a lot of work has yet to be done in order to achieve our primary target to map all the ancient harbour installations of the island. We hope that we will be able to continue but even if not, at least, the first step was made at most of the sites and other colleagues will be able to continue from there on.

References

Acheilara 1998 — L. Acheilara, Προκυμαία. Οδός Κουντουριώτου (οικόπεδο Βοστάνειου Νοσοκομείου), ADelt 53 B3, 1998, 767.

Acheilara 2005 — L. Acheilara, Προϊστορική Περίοδος-Αρχαία χρόνια, in: Αγία Παρασκευή-Νάπη, Γνωριμία με τον Τόπο και τους Ανθρώπους, Δήμος Αγ. Παρασκευής, Μυτιλήνη 2005, 33–51.

Archondidou – Kourtzellis forthcoming — A. Archondidou – Y. Kourtzellis, The Ancient Ports of Lesbos. The Case of the Town of Mytilini, in: H. Tzalas (ed.), Tropis 10. Proceedings of the 10th International Symposium on Ship Construction in Antiquity, Hydra 2008 (forthcoming).

Argyri – Theodoulou 2012 — S. Argyri – Th. Theodoulou, Επιφανειακή αρχαιολογική έρευνα στον Κόλπο Καλλονής Λέσβου (2005), Enalia 11, 2012, 100–109.

Koldewey 1890 — R. Koldewey, Die antiken Baureste der Insel Lesbos (Berlin 1890).

Kontis 1977 — I. Kontis, Η Λέσβος και η Μικρασιατική της περιοχή, Δοξιάδης (Athens 1977).

Kourtzellis 2010 — G. Kourtzellis, Νομίσματα από τις αρχαίες λιμενικές εγκαταστάσεις του βόρειου λιμένα της Μυτιλήνης, in: P. Tselekas (ed.), Το νόμισμα στα νησιά του Αιγαίου. Πρακτικά Συνεδρίου της Ε΄ Επιστημονικής Συνάντησης, Μυτιλήνη 16 – 19 Σεπτ. 2006, Οβολός 9, Οι φίλοι του νομισματικού Μουσείου 1 (Athens 2010) 185–200.

Lamb 1931 — W. Lamb, Antissa, BSA 1930/1931, 166–178.

Lamb 1932 — W. Lamb, Antissa, BSA 1931/1932, 41–67.

Simossi 1998 — A. Simossi, Καλός Λιμένας (Τσαμούρ Λιμάνι). Ο Πολεμικός Ναύσταθμος της Αρχαίας Αντισσας, ΑΑΑ 29–31 (1996–1998) 147–156.

Spencer 1995 — N. Spencer, A Gazetteer of Archaeological Sites in Lesbos, BARIntSer 623 (Oxford 1995).

Theodoulou 2010 — Th. Theodoulou, Υποβρύχια έρευνα στα αρχαία λιμάνια της Λέσβου, Αρχαιολογία και Τέχνες 116, 93–102.

Theodoulou – Kourtzellis 2010 — Th. Theodoulou – G. Kourtzellis, Λιμάνια και ναυτικοί δρόμοι στην αρχαία Λέσβο, Λεσβιακό Ημερολόγιο 2011. Γράμματα, τέχνες, πολιτισμός, Αιολίδα, Μυτιλήνη 2010, 129–147.

Theodoulou forthcoming — Th. Theodoulou, The Harbour Network of Ancient Lesbos. First Step of an Underwater Approach, in: H. Tzalas (ed.), Tropis 10. Proceedings of the 10th International. Symposium on Ship Construction in Antiquity, Hydra 2008 (forthcoming).

Williams 2007 — H. Williams, The Harbors of Ancient Lesbos, in: P. P. Betancourt – M. C. Nelson – H. Williams (eds.), Krinoi kai Limenes: Studies in Honor of Joseph and Maria Shaw (Philadelphia 2007) 107–116.