

Closed Harbours: an Open Question. Preliminary Thoughts Based on Archaic and Classical Evidence

Chiara Maria Mauro

Introduction

In archaeological publications on harbours, the phrase “λιμὴν κλειστός” is often mentioned, especially when referring to the Graeco-Roman world. The expression must have a specific meaning, since it appears 14 times in the *Periplus of Pseudo-Skylax*, the only “Classical” nautical text that has survived to the present. Therefore, it should derive from technical, nautical terminology or, at least, should refer to a specific trait that harbours would have had in that era.¹ Additionally, this phrase is not limited to a precise historical moment, since it also appears in other literary sources: indeed, it can be found in the geographical poem by Dionysus, son of Kalliphon, entitled *Ἀναγραφή της Ἑλλάδος* and in the *Γεωγραφικά* by Strabo.²

This paper is centred on the use of this phrase by Skylax for the following reasons:³ firstly, the *Periplus of Pseudo-Skylax*, despite being a controversial document, is the only text probably derived from written or oral nautical sources, and therefore it may cast light on earlier nautical jargon; secondly, it is possible that this same phrase changed over time, or that it was used with different meanings in different genres. In other words, it is not certain that the expression “λιμὴν κλειστός” was used in the 6th–4th century BC with the same meaning that Strabo attributed to it in the Augustan Age; indeed, language is a complex system, which varies according to the sender, the receiver, and the circumstances.

Previous Theories

The debate on this topic began in the early 20th century, when the phrase “λιμὴν κλειστός” became a subject of research for several scholars.

In 1898, Ardaillon – in his “*Quomodo Graeci collocaverint portus atque aedificaverint*” – maintained that Greeks used to distinguish between natural and artificial harbours. He did not explicitly mention the phrase “λιμὴν κλειστός”, but he stated that artificial harbours were built by men and then *closed* by means of the construction of breakwaters.⁴ However, in the last centuries, various theories have been provided in response to that claim.

According to **Lehmann-Hartleben**, a “λιμὴν κλειστός” could have referred to two different cases, sometimes gathered together: it could be a harbour located **inside the city-walls**, as well as a closed harbour **with a narrow entrance**.⁵ The German archaeologist also added that these defences were a clear sign of what he called the



Fig. 1: Location of the “closed harbours” mentioned in the Periplus of Pseudo-Scylax, in the Aegean Sea.

“Monopolcharakter” of harbour cities located in the Mediterranean area. Following this theory, Lehmann-Hartleben identified 42 closed harbours among the 303 that he had previously classified.

A year later, Von Gerkan was the first to associate explicitly the phrase “λιμὴν κλειστός” with **military harbours** that, in his opinion, used to be *closed* with barriers.⁶ In addition, during the 1960s, Rougé defined “ports fermés” (closed harbours) as those harbours which had a narrow entrance and that could have been closed with chains.⁷ His theory was considered similar to Von Gerkan’s stance, since even according to Rougé, the main feature of a “λιμὴν κλειστός” was basically the military nature.⁸

In a paper published in 1997 and focused exclusively on the “closed harbours” of the Greek world, Moreschini wrote that they were “harbours provided with moles,

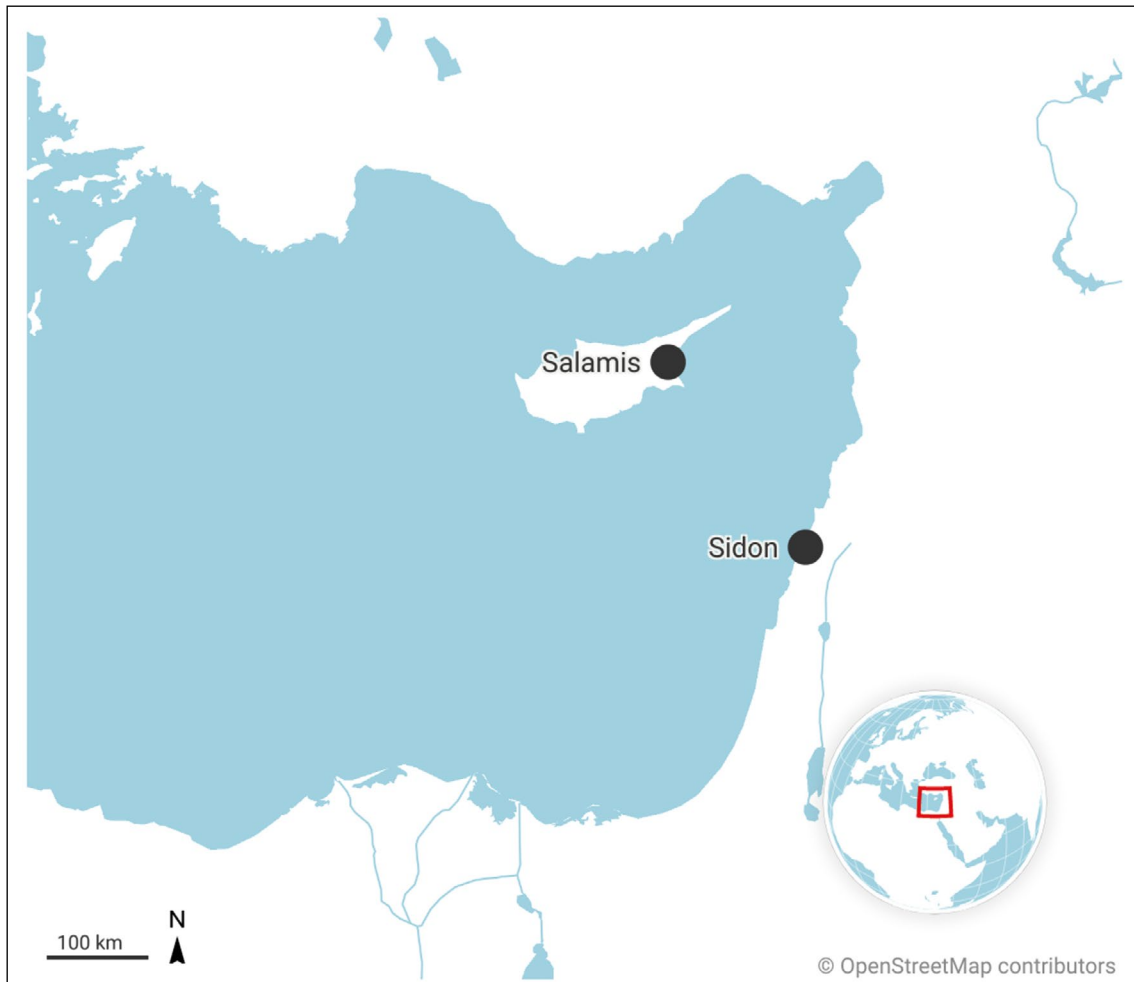


Fig. 2: Location of the “closed harbours” mentioned in the Periplus of Pseudo-Skylax, in the Levant.

that clearly represented an artificial closure, but to which, if necessary, another defensive structure could be added in order to completely close the entrance”.⁹ Moreover, she added: “It should be borne in mind that these kinds of harbours were probably located inside the city-walls”.¹⁰ In this way, Moreschini combined the previous theories, supported by Von Gerkan and Rougé, with Lehmann-Hartleben’s hypothesis.

In recent times, scholars have espoused Von Gerkan’s and Lehmann-Hartleben’s theories: in particular, Blackman maintained that a harbour was considered “closed” when “the city-walls were extended along the harbour moles, to end in towers as at any normal city gate”.¹¹ Baika, following Lehmann-Hartleben’s path, stated that a harbour was considered “closed” only if moles were a continuation of the city-walls; during the Hellenistic epoch, she added, the expression was used to define military harbours in general.¹²



Fig. 3: Location of the “closed harbours” mentioned in the *Periplus of Pseudo-Skylax*, in the Black Sea.

Comparison with Archaeological Data

There are 14 harbours identified as “λιμὴν κλειστός” by the *Periplus of Pseudo-Skylax*: Korkyra,¹³ Ambracia,¹⁴ Thasos,¹⁵ Samos,¹⁶ Paros,¹⁷ Priene,¹⁸ Halicarnassus,¹⁹ Kaunos,²⁰ Kos,²¹ Phalasarna,²² Kydonia,²³ Salamis,²⁴ Sidon²⁵ and Genetes²⁶ (figs. 1–3). Not all of the harbours have been studied extensively, either because of problems connected with the natural changes in the configuration of the coasts (i.e., Paros, Priene, Kaunos), or for the fact that archaeological excavations are currently in progress (i.e. Samos). However, it is still possible to notice that there is not a precise correlation between archaeological data and the common agreement on the interpretation of the phrase “λιμὴν κλειστός”, so far as the Archaic and Classical eras are concerned. Particularly, there are two cases which denote this discordance and which deserve to be analysed in detail.

The first case corresponds to the very first mention of the expression “λιμὴν κλειστός” in Skylax and it refers to **Korkyra** (fig. 4). According to Skylax, the city would have been equipped with three harbours, one of them “closed”: “λιμένας ἔχουσα τρεῖς κατὰ τὴν

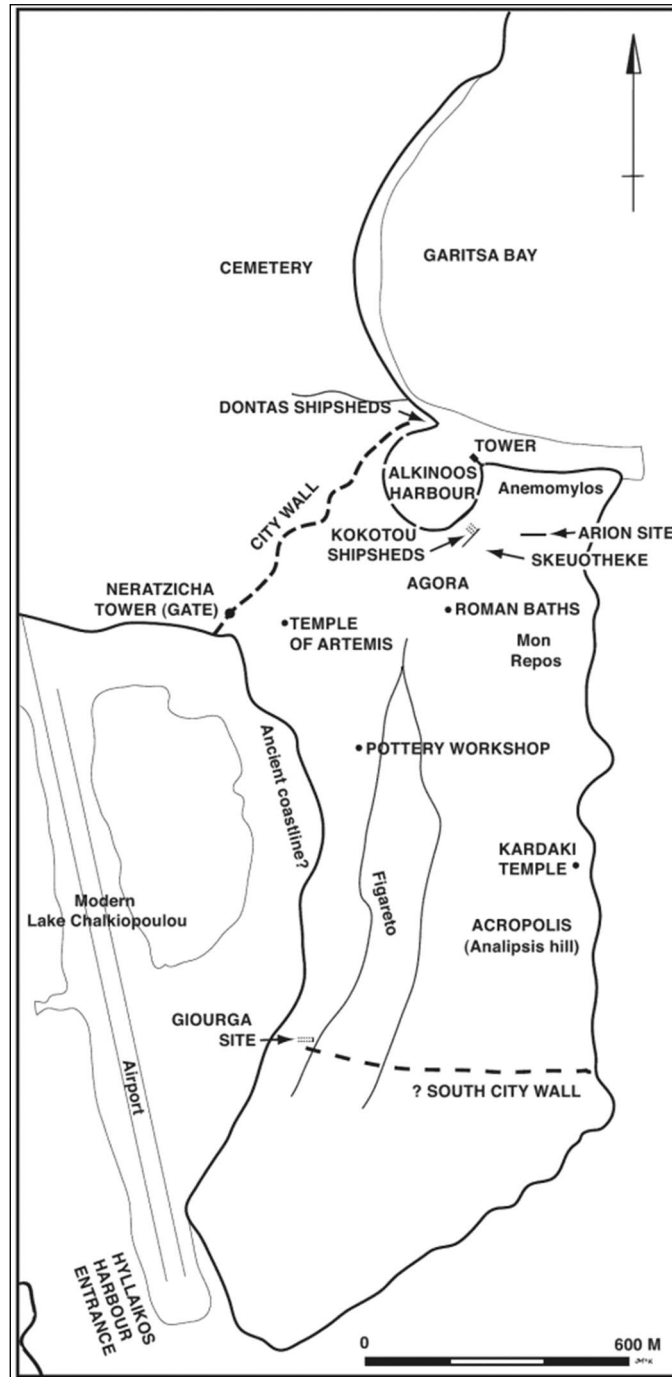


Fig. 4: Korkyra's city plan with the location of the three harbours.

πόλιν· τούτων δ' εἷς κλειστός".²⁷ Scholars are still uncertain about which of the three Korkyrean harbours would have corresponded to this definition. However, very often the basin of Alkinoos, located in the northern part of the Kononi headland, has been



Fig. 5: Satellite photo of the supposed location of Kydonia's harbour, landlocked by a natural sandstone formation.

identified as the “closed harbour” mentioned by Skylax; this hypothesis is mainly based on Von Gerkan's idea, that a closed harbour was used for military purposes.²⁸ Moreover, this assumption is supported by the location of this same harbour basin within the city-walls, which probably ended in towers.²⁹

According to other scholars, the “λιμὴν κλειστός” of Korkyra would have corresponded to the basin of Hyllaikos, also included within the city-walls.³⁰ Therefore, both Alkinoos and Hyllaikos were included within Korkyra's fortifications: this is why Lehmann-Hartleben defined both of them as “closed” ports, considering a “closed harbour” as a harbour basin within the urban fortification.³¹

Lastly, with the scarce amount of information available today, it is hard to identify the “closed harbour” with the third harbour basin of Korkyra, since the only known thing is its probable location at the site called Arion. However, if the Arion site truly corresponds to the location of Korkyra's third harbour, then this basin was also included within the walls.

Despite the difficulties associated with identifying the “closed harbour”, Korkyra is a crucial element for examining the meaning of this phrase, since Skylax mentioned three different harbours, saying that only one of them was “κλειστός”. This likely means that one of the three harbour basins must have had something different than the other two. Particularly, the case of Korkyra appears to contrast with Lehmann-Hartleben's theory:³² indeed, if a closed harbour was simply an harbour inside the city-walls, then Skylax would have mentioned the presence of at least *two* closed harbours in Korkyra – or even *three* (if the Arion site truly corresponds to the location of the third harbour).

The other meaningful case is that of the harbour of **Kydonia**, on the northern side of the island of Crete. According to Skylax, in Kydonia there was only one harbour, that

he defined as a “λιμὴν κλειστός πρὸς βορέαν·”, which literally means a “harbour closed towards the North”.³³ In the Archaic and Classical periods, the harbour of Kydonia was probably accessible through a natural narrow entrance, formed by the presence of a reef barrier located on its northern side, which acted as a natural mole (fig. 5).³⁴ However, no archaeological study suggests that this same harbour could have been inserted within the urban fortifications of the city.

An Alternative Perspective

Looking at the 14 harbours identified as “λιμὴν κλειστός” by the Periplus, it is possible to note that the archaeological data does not exactly correspond with the extant theories. This is the case even if the hypotheses by Lehmann-Hartleben (a closed harbour as a harbour within the city-walls) and by Rougé (a closed harbour as one with a narrow entrance, or a narrow one closed with chains: a typical trait of military harbours) are certainly numerically relevant (tab. 1). The traditional identification of the “λιμὴν κλειστός” with a military harbour should be rejected, at least as Archaic and Classical periods are concerned, since Skylax often mentions cities with only one harbour, saying that this same harbour was “κλειστός” (closed). If a “λιμὴν κλειστός” would really indicate a “military harbour”, how should the presence of only one harbour in a city be interpreted? Two hypotheses could be suggested, but both of them appear to be impracticable: the first is that in some cities there was only one harbour and that it was used uniquely for military purposes; the second would be that Skylax purposefully neglected to mention the presence of a second basin. Concerning the first hypothesis, it seems impossible that some cities were equipped with only one harbour basin and that they decided to use it uniquely for military purposes, without allowing – for example – merchant ships to enter. The second hypothesis may be also rejected, as there are no reasons why Skylax could have forgotten to mention the presence of other harbours in a city; on other occasions he explicitly refers to the presence of many harbour basins extant in the same city (e.g. Halicarnassus and Paros).

The Lehmann-Hartleben hypothesis, that a “λιμὴν κλειστός” was a harbour within the city-wall, seems to be contradicted by the case of Korkyra. Indeed, here Skylax mentions three harbours, saying that only one was “κλειστός”; as has been previously stated, this means that one of the harbours had to have something different from the other two. If we assign to “κλειστός” the meaning of “included within the city wall”, then the attribute referred by Skylax to only one harbour would be meaningless, since at least *two* of the Korkyrean harbours (if not *three*) were located inside the city walls.

Then, the only plausible theory seems Rougé’s stance,³⁵ even if it needs to be partially revised. Indeed, Rougé defined “ports fermés” (closed harbours) as those harbours which had a narrow entrance and that could have been closed with chains and that this was a

Λιμὴν κλειστός	Harbour within the city-walls (Lehmann-Hartleben 1923)	Harbour closed with barriers (Von Gerkan 1924)	Military harbour (Rougé 1966)
Alkinoos, Korkyra	X	?	X
Hyllaikos, Korkyra	X		
Arion, Korkyra	?	?	?
Ambracia			
Thasos	X	X	X
Samos	?	?	
Paros	?	?	?
Priene			?
Halicarnassus	X		?
Kaunos	?	?	?
Kos	X	?	
Phalasarna	X	X	X
Kydonia	?	?	
Salamis, Cyprus	X?	?	?
Sidon	?	?	?
Genetes			

Tab. 1: Comparison between the previous theories: presence and absence of particular features in the harbours identified as “closed harbours” by Skylax. The question marks (?) indicate the cases that are not certain, whilst the X followed by a question mark (X?) indicates cases that are likely.

characteristic of a military harbour. We have already seen why the first part of his stance, the one which refers to the military nature, should be rejected, at least for the Archaic and Classical periods. Furthermore, the closure by means of chains could not be applied to every single case; indeed, to the best of our knowledge, no sign of the installation of chains has been found for any of these 14 harbours, as far as the Archaic and Classical periods are concerned. However, **the first part of his definition, the one which refers to the “narrow entrance” and which was also shared by Lehmann-Hartleben, appears to be reasonable** (tab. 2). If this meaning is assigned to the phrase “λιμὴν κλειστός”, the case of Kydonia immediately appears to be clearer. As noted earlier, in the Periplus, the harbour of Kydonia is defined “κλειστός”, but this adjective is followed by the addendum “towards the North” (“pros Boréan”). Assigning this alternative meaning to the expression, this passage could be interpreted in the following way: the harbour of Kydonia, having a narrow entrance on its northern part, was considered “protected” (that is to say “closed”) to the North (“πρὸς βορέαν”). This specification would be less

Λιμὴν κλειστός	Harbour within the city-walls (Lehmann-Hartleben 1923)	Harbour closed with barriers (Von Gerkan 1924)	Military harbour (Rougé 1966)	Harbour with a narrow entrance
Alkinoos, Korkyra	X	?	X	X
Hyllaikos, Korkyra	X			
Arion, Korkyra	?	?	?	?
Ambracia				X
Thasos	X	X	X	X
Samos		?		X
Paros	?	?	?	?
Priene			?	?
Halicarnassus	X		?	X
Kaunos	?	?	?	?
Kos	X	?		X
Phalasarna	X	X	X	X
Kydonia	?	?		X
Salamis, Cyprus	X?	?	?	X
Sidon	?	?	?	X
Genetes				?

Tab. 2: Comparison between the previous theories and the cases in which the concordance between the new interpretation of the phrase proposed in this contribution is certain (X), uncertain (?) or likely (X?).

clear if we give to the expression “λιμὴν κλειστός” any of the meanings suggested by previous theories.

Concerning the case of Korkyra, this interpretation would make sense too, because just one of the three harbours was surrounded by a fortification which made the entrance narrower (Alkinoos). As such, even if Korkyra had three harbour basins, only one of them would have had something different from the other two.

Conclusion

Despite being a common expression in studies referred to the Graeco-Roman world, significant doubts still exist about the correct interpretation of the phrase “λιμὴν κλειστός”. Currently, the most credible theories claim that this term could have been used to identify the harbours included within the city-walls,³⁶ or harbours closable by means of chains. However, none of these hypotheses could be applied to these 14

harbours in their Archaic and Classical stages. Furthermore, these theories date back to the beginning of the previous century, so the archaeological records discovered in the meantime have contributed to raise doubts on these assumptions. Indeed, as far as the 14 cases of “λιμὴν κλειστός” recorded by the Pseudo-Skylax are concerned, there is not a precise correlation between archaeological data and traditional theories. For this reason, it is possible to consider that the expression “λιμὴν κλειστός” could have been employed by Skylax to identify harbours with a naturally narrow or an artificially narrowed entrance. A naturally narrow entrance could be found at Kydonia and Sidon, where the narrow entrances were due to reinforced natural reefs; examples of artificially narrowed entrances can be found at Samos and Thasos. Thus, as it has been shown, such an interpretation is completely aligned with archaeological records and would allow us to better interpret some controversial passages included in Skylax’s text.

Notes

¹The work is conserved in the cod. Parisinus 443 (p), dated to the 13th century AD, and is titled *Περίπλους τῆς θαλάττης τῆς οἰκουμένης Εὐρώπης καὶ Ἀσίας καὶ Λιβύης*, rendered in Latin as *Periplus maris interni*. Unfortunately, the nature of this periplus is controversial, since the technical information it contained could have been lost with its absorption into the literary tradition. On the periplus, see Cordano 1992; Marcotte 1986; Prontera 1990; Shipley 2011.

²Dionysus defines as “κλειστός” two harbours mentioned also by Skylax: Ambracia (Dion. Calliphon. 28-30), and Phalasarua (Dion. Calliphon. 118–122). On the contrary, the harbours defined as “closed” by Strabo do not correspond to Skylax’s mentions, except for Kaunos in Karia (see Strab. 14.2.3).

³Strab. 14.2.20.

⁴Ardaillon 1898, 33.

⁵Lehmann-Hartleben 1923, 65–74.

⁶Von Gerkan 1924, 110–114.

⁷Rougé 1966, 116 f.

⁸Ibid.

⁹Moreschini 1997, 344 (translation by the author).

¹⁰Ibid.

¹¹Blackman 2008, 654.

¹²Baika 2009, 435.

¹³Scyl. 29.

¹⁴Scyl. 33.

¹⁵Scyl. 67.

¹⁶Scyl. 98.

¹⁷Scyl. 58.

¹⁸Scyl. 98.

¹⁹Scyl. 99.

²⁰ Ibid.

²¹ Ibid.

²² Scyl. 47.

²³ Ibid.

²⁴ Scyl. 103.

²⁵ Scyl. 104.

²⁶ Scyl. 88.

²⁷ Scyl. 29: “Korkyra, with a city and three harbours; of these one is closed” (Translation by the author).

²⁸ Von Gerkan 1924, 110–114.

²⁹ According to Baika (in Blackman and Rankow 2013, 323), the fortification enclosing this harbour dates back to the 5th century BC, or to the beginnings of the 4th century BC.

³⁰ Moreschini 1997, 236.

³¹ Lehmann-Hartleben 1923, s.v. Korkyra.

³² Lehmann-Hartleben 1923.

³³ Scyl., 47: “Κυδωνία καὶ λιμὴν κλειστός πρὸς βορέαν·”.

³⁴ Lehmann-Hartleben 1923, 57 f. According to Herodotus (3.44), Kydonia was founded by the Samians around 520 BC, while other sources attribute it to the Aeginetans (Strab. 8.6.16), Kydon (Paus. 8.53.4 and Stephanus, s.v. Κυδωνία). Even if the evidence for the early phases of the settlement is rather limited, the identification proposed by Pashley (1837, 11–17) and Spratt (1865, 137–142) with the current Chania is traditionally accepted.

³⁵ Rougé 1966, 116 f.

³⁶ Lehmann-Hartleben 1923.

Image Credits

Fig. 1–3: by the author. – Fig. 4: Blackman – Rankov 2013, 320. – Fig. 5: Google Earth. – Tab. 1. 2: by the author.

References

Ardaillon 1898

E. Ardaillon, 1898. *Quomodo Graeci collocaverint portus atque aedificaverint* (Paris 1898).

Baika 2009

K. Baika, Greek Harbours of the Aegean, in: X. Nieto – M.A. Cau (eds.), *Arqueología náutica mediterránea* (Girona 2009) 429–441.

Blackman 2008

D. J. Blackman, Sea Transport – Part 2: Harbours, in: P.J. Oleson (ed.), *The Oxford Handbook of Engineering and Technology in the Classical World* (Oxford 2009) 638–670.

Blackman – Rankov 2013

D. J. Blackman – B. Rankov (eds.), *Shipheds of the Ancient Mediterranean* (Cambridge 2013).

Brückner 1997

H. Brückner, Coastal Changes in Western Turkey; Rapid Delta Progradation in Historical Time, *Bulletin de l'Institut océanographique* 18, 63–74.

Cordano 1992

F. Cordano, *Antichi viaggi per mare. Periplus greci e fenici* (Pordenone 1992).

Frost 1973

H. Frost, The Offshore Island Harbour at Sidon and Other Phoenician Sites in the Light of New Dating Evidence, *IJNA* 2.1, 1973, 75–94.

Lehmann-Hartleben 1923

K. Lehmann-Hartleben, *Die antiken Hafenanlagen des Mittelmeeres* (Leipzig 1923).

Marcotte 1986

D. Marcotte, Le Périples dit de Scylax. Esquisse d'un commentaire épigraphique et archéologique, *Bollettino dei Classici* 7, 1986, 166–182.

Moreschini 1997

D. Moreschini, The Closed Greek Harbours in the Mediterranean, *Acme* 1, 1997, 235–244.

Pashley 1837

R. Pashley, *Travels in Crete* 1 (London 1837).

Peretti 1990

A. Peretti, I Periplus arcaici e Scilace di Carianda, in: F. Prontera (ed.), *Geografia e geografi nel mondo antico. Guida storica e critica* (Roma 1990).

Rougé 1966

J. Rougé, *Recherches sur l'organisation du commerce maritime en Méditerranée sous l'Empire romain* (Paris 1966).

Shiplely 2011

G. Shipley, *Pseudo-Skylax's Periplus: The Circumnavigation of the Inhabited World. Text, Translation and Commentary* (Exeter 2011).

Spratt 1865

T.A.B. Spratt, *Travels and Researches in Crete* 1 (London 1865).

Von Gerkan 1924

A. Von Gerkan, *Griechische Städteanlagen: Untersuchungen zur Entwicklung des Städtebaues im Altertum* (Berlin 1924).

