

Chiara Maria Mauro, *Archaic and Classical Harbours of the Greek World. The Aegean and Eastern Ionian contexts*, Oxford, Archaeopress Publishing LTD, 2019, 115 pp. [ISBN: 978-1-78969-128.3].

This book, which is the revised and expanded version of the author's PhD thesis, aims to provide a complete and multidisciplinary analysis of Archaic and Classical harbours from Greece, with a focus on sites from the Aegean and Eastern Ionian coasts. As stated by the author in the Introduction, the three main objectives of the volume are: to give a historical and archaeological value to harbours, to fill the lack of information on these chronological periods, and to provide scholars with a bibliographic and scientific basis to this particular topic amongst the broader research area of maritime archaeology.

In the first chapter, Mauro gives an account of the previous research on harbours, starting with the main ancient textual sources (e.g., in particular, the *Periplus of Pseudo-Skylax*). Further on, she mentions the modern studies from 19<sup>th</sup> century to the advent of the underwater and maritime archaeology in the 1970s and to the most recent scholarships on the importance of the environment in ancient seafaring. Particularly interesting is the paragraph on how meteorological local framework in Aegean and Ionian coasts affected ancient seafaring, pointing out that it was an all-year-round activity not limited to the summer season.

The second chapter provides an overview of the development of harbours from the Bronze Age to the Iron Age, with a combination of archaeological data and iconographic sources. The account starts with 3<sup>rd</sup> millennium Egypt, where the main sources of information are painted representations of harbour scenes from tombs (Kenamun's tomb at Thebes; Queen Hatshepsut's funerary temple at Deir el-Bahari). Further on, she reviews the development of harbours in the Aegean Bronze Age, with a reference to the maritime scenes on wall-paintings from the Western House of Thera; then she deals with Cyprus in Post-Palatial period and the Levant in 1<sup>st</sup> millennium, where the first use of harbour works is attested at Sidon. Lastly, she discusses the transmission of technical knowledge on harbour construction between Greeks and Phoenicians, due to the systematic contacts between the two areas between the 13<sup>th</sup> and the 10<sup>th</sup> centuries BC, where Cyprus played a central role.

With Chapter Three, "The Geomorphology of Greek Harbours", we reach the core of the book. Indeed, the geomorphology of the coastlines played a fundamental role in the locational choice of harbours and, following Flemming's theoretical models for identifying harbours (Flemming, N. C. (1980): "Cities under the Mediterranean", [in] K. Muckelroy (ed.), *Archaeology Under Water. An Atlas of the World's Submerged Sites*, New York, 162-163), the author defines a new typology for Aegean and eastern Ionian coasts. She distinguishes four main categories according to the principal protection features: headlands, islands, bays and rivers. Moreover, for each of them she points out a sub-typology based on specific characteristics that are present in the

geomorphology of the coastlines considered. Hence, she provides a wider spectrum of harbours' natural frameworks which takes into consideration all the varieties that can be found across the Aegean and eastern Ionian coasts. Each typology comes with schematic designs, that help to understand the harbours' configuration and the degree of protection against prevailing winds and wave fronts. In addition, the author provides examples from port sites –according to archaeological or literary sources– in Greece and the Aegean islands. The sites mentioned refer to the complete list in the Appendix.

Finally, and particularly interestingly, in the last paragraph the author applies each typology to the terminology known from Homer, to differentiate harbours offering a high level of protection (λιμὴν κλυτὸς, “renowned harbour”, *Od.* 10.87-93) from the ones with medium-low protection (λιμένες εὖορμος, “good mooring”, *Od.* 9.136-140) used only temporarily.

Chapter Four deals with harbour works in the Greek world. First of all, the author provides a list of methodological problems connected to the study of harbour works, such as the difficulty to provide a chronology to the structures even if accurately excavated; then she makes a distinction between completely natural harbours (“λιμένες ἀυτοφειῖς”), harbours with limited interventions to increase natural protection, and artificial harbours (“λιμένες χειροποιήτοι”). In the following paragraphs, Mauro examines all the artificial infrastructures that can be found in Archaic and Classical harbours, still combining the archaeological evidence with ancient literary sources mentioning them. In particular, for each infrastructure a description of construction techniques and function is provided, together with pictures of the harbours investigated in the Greek area. The first infrastructures analysed are breakwaters and moles, whose main purpose is to defend the basin from both strong waves and enemies, since in particular from the 6<sup>th</sup> century BC some *poleis* started building moles and breakwaters as extensions of city-walls, as in Thasos. Then, structures to assist beaching and maintenance –shipshed and slipways– are accurately described, followed by the structures to improve harbours visibility, such as temples and sanctuaries located on elevated sites along the coast, and coastal towers hosting fires, attested from the 6<sup>th</sup> century BC.

Chapter Five provides a classification of harbours according to the number of basins exploited: harbours with a single basin, harbours with two basins –amongst which can be further observed harbours with two basins in close proximity, with double basin, with inner and outer basins and with two distant basins also known as “simple harbour system”– and finally harbours with multiple basins. As the author states in the discussion, the development of two-basin and multiple basins harbours (or “complex harbour system”) is strictly connected with historical events. Indeed, even though two-basin harbours were mostly spread during the Hellenistic period, they are mentioned by Homer and are attested in several cities during the Persian wars. Also, simple and complex harbour systems appear during the 6<sup>th</sup> century BC, when under the Persian threat several *poleis* decided to build safer and better structured ports, as Athens did with the Piraeus port (beginning of the 5<sup>th</sup> century BC). Moreover, the author observes the existence between the 8<sup>th</sup> and 4<sup>th</sup> centuries BC of harbours alliances, where a city-state controlled and had access to basins belonging to other settlements, in order to have a better control of the sea, e.g. Athens control not only of the ports along the coastline of Attica, such as Sounion and Passa Limani, but also in other regions.

Last (but not least), after the Conclusions where the author summarizes the development of harbours during the Archaic and Classical periods in light of the integrated use of multidisciplinary sources, an Appendix provides a complete list of harbours, most of them cited in the text, from the Aegean and eastern Ionian areas. For each harbour the ancient toponym, the current location, the geographic area, the harbour works attested, and the literary sources and references are given. In addition, an extended version of the catalogue can be accessed online at <http://www.ancientgreekharbours.com>.

In conclusion, the book fills the gap in the state of the research on harbours in the Greek area during the Archaic and Classical periods, since until now most of the studies were devoted to Phoenician and Near Eastern areas, Roman ports and Hellenistic harbours. The methodology applied to this work is remarkable, since the author outstandingly combines multidisciplinary approaches with extensive use of archaeological resources from previous excavation reports and publications together with the geomorphological study of the coastlines, as well as a constant reference to ancient authors mentioning harbours and nautical practices in the Greek world. For these reasons, I strongly recommend the monography as a handbook for students attending courses on maritime archaeology, in order to provide them not only with information on Archaic and Classical Greek harbours, but also with a methodological guide on the study of Classical Archaeology.

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