Al-Andalus desde el mar. Una aproximación al sistema portuario de la Almeria andalusí, by Marta Del Mastro Ochoa. BAR International Series S3012. BAR Publishing, 2020. 168 pp., 64 figures in colour or B&W, 22 tables. £42.00. ISBN-13: 9781407357737.

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The main theme of this book is the analysis of the harbour of Almeria between the 8th and 12th centuries AD, since the beginning of the al-Andalus period to the conquest of the city in 1147 by Genoese troops. This work, originally the master dissertation of the author, analyses the port system of Almeria and the links between its madina, its harbour and the bay in which they are located, factoring in the natural conditions for maritime activity. To achieve this goal, Del Mastro Ochoa applies a diachronic perspective and examines the written and archaeological sources already known for the city and bay of Almeria from Antiquity to early modern period. Furthermore, in a novel way for the study of al-Andalus, the author undertakes maritime visibility and navigability analyses through a Geographical Information System.

The book presents a classic structure with six chapters. The first three are committed to summarizing the objectives of the study, the methodology applied and its theoretical framework. The second part of the book is focused on the analysis of the written, iconographic and archaeological sources, and on the examination of the physical and geographic characteristics of Almeria's bay, with the maritime spatial analysis of this area. After the conclusions and the list of primary sources and bibliography employed, the book concludes with broad appendixes that include more maps and the data tables employed in the database of the GIS.

In the first chapters (1-4), Del Mastro Ochoa establishes C. Westerdahl's notion of maritime cultural landscape as the core of her theoretical framework to analyse the port system of Almeria. She then moves to a state of the art of the study of medieval ports in the Western Mediterranean. Her interdisciplinary methodology includes the analysis of a great amount of sources of different nature, although all of them were already published, and inserted in a GIS. This is the platform used to perform the spatial analyses on the navigability in the bay of Almeria.

After the discussion of the methodology, Chapter 5 focuses on the analysis of the sources. The author makes use of all the written sources that mention Almeria and its bay from Antiquity to the early Modern Age, with special attention to the geographical and nautical descriptions from the Middle Ages. She also compiles and analyses all the cartographic and iconographic representations of this area since classical times to the 19th century. Aside from historical accounts, the largest group of sources used are archaeology and toponymns. The study of the latter includes settlements and other human-made structures, but above all, place names of the geographical elements that affected navigation, such as beaches, reefs or natural anchorages. With respect to the archaeological remains, the author analyses all the known shipwrecks and underwater findings in the bay of Almeria, as well as all the settlements located on land with direct links with the sea and port structures.

Chapter 6 is devoted to the maritime spatial analysis of the bay in medieval times. Del Mastro Ochoa starts with the analysis of all the conditioning factors for the navigation in the bay, such as orography, prevailing wings, marine currents and waves. The author, following the main works on the field, considers that these factors are the same in our days than those in medieval times. Taking into account these conditioning factors, she develops visibility and connectivity analyses. On the one hand, binary visibility analysis were aimed to investigate how visible where different structures (Alcazaba of Almeria, ribats, coastal watchtowers...) and large geographic features (such as the Cape of Gata) that could be used as visual marks for the medieval navigators. On the other hand, the connectivity analysis employed is mainly a proxy to stablish theoretical times of travel with a medieval boat in function of the distance, i.e. to calculate the days of travel from Almeria to the ports of the southern part of the Alboran Sea (current Morocco and Algeria).

The analysis of historical sources and maritime spatial analysis allows Del Mastro Ochoa to propose an interesting reconstruction of the most feasible navigation routes across the bay, the visual marks for the sailors and the anchorage points that were used in medieval times. The author concludes that the natural factors of the bay allowed a fast navigation towards the ports of the southern coast of the Alboran Sea, within one to two days of navigation. Thus, Pechina first and the madina of Almeria later, were located in a privileged point for the commerce and exchange with the Magreb, and this was one of the main causes for the maritime development of Almeria. According to the conclusions of the author, this development should have included necessarily the construction of structures to create a safe haven from the winds and waves for the boats in the medina of Almeria, although such structures have not yet been identified in the archaeology.

In conclusion, this monograph, though limited to the analysis of secondary sources (as the author has not conducted fieldwork), stands out for its innovative application of maritime archaeology to a case study of al-Andalus. It also contributes with and interesting reconstruction of the navigation and the reconstruction of the harbour infrastructure in the bay of Almeria from the eighth to the twelf centuries. Therefore, Del Mastro Ochoa opens an appealing route for the future that should focus on deepen in the port system of Almeria in medieval times through the analysis of unpublished written and archaeological sources, and the application of more complex spatial analysis.