## **BOOK REVIEW**

Roman Warships. By Michael PITASSI. Rochester, New York: Boydell Press, 2011. Pp. xii + 191. Hardcover, \$90.00. ISBN 978-1-84383-610-0.

ike Michael Pitassi's first book on Roman maritime culture (The Navies of Rome, Rochester, 2009), Roman Warships offers more for the general reader than the specialist. This volume, useful for its generous and rich illustrations, technical in tone, affirms an understanding of ships and the underlying technology and engineering. Pitassi's projected reconstructions of ship types are reasonable and logical, albeit speculative, as he himself frequently admits. His historical contextualizations are valid but generalizing. His work with visual sources is cautious, skeptical and informative: he asks, for example, how accurate are the 16th century drawings of the column of Arcadius, destroyed by earthquake in 1715 (p. 167). The treatment of written sources (primary and secondary) is less satisfactory. One wonders if Pitassi consulted the sources in the original languages. His bibliography includes only translations of primary sources (without supporting data, including place and date of publication), and he often refers to accounts as already filtered by other scholars: e.g., he cites Lionel Casson, Ships and Seamanship in the Ancient World (Baltimore 1995) for Pliny on the use of cork floats used as mooring marker buoys and life preservers (pp. 175, 176 n. 4; see Casson, 257; Pliny, NH 16.34; Pausanias 8.12.1; Lucian, Toxaris 20). Citations are more frequently vague than helpful: for the spread of quadriremes, and Alexander's use of them at Tyre, Pitassi (pp. 89, 113 n. 2) cites Casson (supra) without specifying a page number (Casson's study comprises 370 pages of text, and 197 illustrations!). For Alexander at Tyre, see Casson, 97-98; Arr. Anab. 2.22.3-5. For the "sexteres" in the fleet of Sextus Pompeius off Sicily in 36 BCE, Pitassi (pp. 90, 113 n. 6) vaguely points the reader to Appian, Civil Wars (five books of over 100 chapters each; for which see App. BC 5.71, 73; Casson, supra, 99 n. 6). Finally, there are slips in historical and cultural comparanda and anecdotes. One example: Hadrian did not visit all of the provinces, contra Pitassi, (p. 134). Neither literary nor archaeological evidence attests Hadrian's presence in Aquitania, Lusitania, Sardinia, Corsica, Crete, Cyrene, or Cyprus.

Nine chapters divide into two parts: "Interpretation" (Part I) consisting of three general chapters on sources, terminology, and ship Technische; and "The Ships" (Part II) comprising five technical chapters devoted chronologically to ship types. In his "Introduction" (Ch. 1), Pitassi addresses problems with extant sources. Despite over 1,000 recorded wrecks, no actual ship, military or merchant, survives intact. Literary sources refer to, but fail to describe in detail, the ships (Caesar rightly assumed that his readers were sufficiently familiar with Roman warships: BG 4.24-25; BC 1.36, 2.23). Visual sources are interpretive, stylized, and selective by nature (coins show usually only the prow of a ship or a ram, but never the entire vessel). Pitassi treats the universal components of ancient ships in two chapters "Interpreting the Sources" (Ch. 2) and "Fittings" (Ch. 3). Pitassi's accessible précis of the complex systems of oars developed by the Greeks, bolstered by clearly labeled and plentiful illustrations, including his own models, neither advances nor refutes earlier accounts (e.g., J. S. Morrison and R. T. Williams, Greek Oared Ships, 900-322 B.C. (Cambridge 1968)). The author addresses nautical mechanics (pp. 21-6), exploring technical considerations of mechanical efficiency, the vertical and horizontal challenges of propelling a vehicle by oar power, and the ideal maximum sizes of ships (including ratios of length to beam, and height to draft). Helpful also is Pitassi's catalogue of ship fittings (Ch. 3) including components (figureheads, foredecks, etc.), rigging (sails and lines), and equipment (artillery, pumps, gangways), with references to literary sources and material remains.

In the second part, Pitassi turns his attentions specifically to Roman warships, cataloguing the types chronologically: Ch. 4, "The Earliest Types: Eighth to Fourth Centuries BC"; Ch. 5, "Naval Ascendancy: Third to Second Centuries BC"; Ch. 6, "Civil Wars and Imperial Fleets: First Centuries BC and AD" (when smaller river craft begin to evolve); Ch. 7, "Height of Empire: Second to Third Centuries AD" (a period of largely unchallenged maritime domination, when the fleet is neglected for the army in the field); Ch. 8, "The Late Empire: Fourth and Fifth Centuries AD" (although Roman sources are abysmally lacking, there survive useful *comparanda* with contemporary ships of northern Europe; at this time the fleets of the northern provinces were strengthened with the development of new ship types including the *triaconter* and *lusoria*); Ch. 9, "Terminus" (on the late empire). Each chapter begins with historical contextualization and then launches into descriptions of each type as prevalent during a given military era: monoreme, bireme, trireme, quinquereme, quadrireme, liburna, *celox* (a de-

scriptor rather than a type), *exploratoriae*, *lusoria*, and others. The subsections detailing the types include discussion of the evolution of the type, its adaptation from other forms, tactical merits and disadvantages, and projected dimensions, including suggested crew strengths, length, beam, and draft. Interesting are Pitassi's final remarks on the continuity of the Roman naval tradition (the technology was never rendered obsolete, and new types developed only in answer to specific purposes, such as riverine patrol), and its enduring legacy (the poop deck is the *puppis*; a skiff, small boat, a *scapha*).

Pitassi's work concludes with four constructive appendices: App. 1, "Service Lives of Ship Types" (a quick and ready spreadsheet of the chronology of the types); App. 2, "Types of Roman Warships"; App. 3, "Gazetteer: Where to See Roman Boats and Ships"; App. 4, "Glossary of Nautical Terms Used" (sufficiently accurate, but inviting some quibbles, e.g., s.v. "LATEEN," Pitassi omits that such sails are triangular; s.v. "RIG," any self-respecting sailor would shudder at the use of "rope" for "line").

The book does not pretend to be something that it is not and, for the most part, succeeds in accomplishing the author's aims, quibbles aside. The novice will be well-served, and academics who focus on non-maritime aspects of Roman history will find here a handy précis of Roman warships, their capabilities, and their weaknesses.

GEORGIA L. IRBY

The College of William and Mary, glirby@wm.edu