Mackowski, Richard M. 1980 Jerusalem City of Jesus: An Exploration of the Traditions, Writings and Remains of the Holy City from the Time of Christ, Grand Rapids: Eerdmans.

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Andrew M. Madden, Corpus of Byzantine Church Mosaic Pavements from Israel and the Palestinian Territories, Colloquia Antiqua 13, Peeters, Leuven, Belgium, 2014, pp 242. includes pattern diagrams, map and 38 photographs, ISBN 978-90-429-3061-2, €78

Reviewed by Susan Balderstone

Based on his doctoral thesis, Andrew Maddern has published this catalogue of mosaics from almost 3000 sites within the territory of Roman Palestine from the 4th to the 8th century AD. Using the patterns and nomenclature established by Michael Avi-Yonah (Mosaic Pavements in Palestine, 1933-35) as amended by Ruth and Asher Ovadieh (Hellenistic, Roman and Early Byzantine Mosaic Pavements in Israel, 1987), Madden has brought the record up to date, providing what should be a useful basis for comparison of new discoveries and perhaps for review of the dating of existing churches containing mosaics. The handy indexes at the back enable a particular pattern to be easily traced at all the churches where it has been used in the area of Roman Palestine and where in the church it was located - for example nave field, north aisle field etc. Where firm dates have been given for the church floors by inscription, some conclusions can perhaps be drawn as to the dates of similar floors where there are no inscriptions. However, unfortunately, the published records of the individual churches from which the information has been collected are such that one rarely obtains accurate dates. Tracing a particular pattern (J5) at all the churches where it has been identified results in dates ranging from the last quarter of the 4th century in the first church at Bethany (nave field) to uncertain 5th or 6th century dates in several others or no date is given at all.

There is clearly a further task that could be done using this information, which would be to table places and dates for each pattern with the addition of information from the other similar catalogues for the surrounding region such as Michele Piccirillo's The Mosaics of Jordan (1993) and Pauline Donceel-Voûte's Les Pavements des églises Byzantines de Syrie et du Liban (1988). Ideally this would be supplemented with similar information from Cyprus and Turkey. Such a catalogue would be immensely useful, particularly if it also contained coloured photographs of each pattern in use. A comprehensive overview such as this would enable a far better understanding of how the design of church floors changed over time (geometric to figurative and back to geometric for instance) and whether particular designs related to particular areas or theological contexts.

However, this suggestion is not intended to belittle the vast amount of work accomplished in this study. As it stands it provides a substantial basis for further analysis and is certain to prove extremely useful to scholars researching Roman Palestine.

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David Beresford, Ancient Sailing Season, (Mnemosyne Supplements 351) Leiden & Boston: Brill, 2013, pp xvi+ 364, ills, maps, ISBN: 978-90-04223523, €142.

Reviewed by Christopher J. Davey

In the last edition of *Buried History* I suggested that Roman period shipping could sail anywhere (*Sailing to Windward in Roman Times: the spritsail legacy*). This book by David Beresford argues that they may have done so at any time. It includes a discussion of the textual evidence used to support the idea of a closed sailing season, it considers the climatic regime in the Mediterranean and the character of shipping and navigation during the Graeco-Roman period, to challenge the traditional idea that seafaring on the Mediterranean was seasonal in nature.

According to Beresford there are three ancient texts that are often used to define the sailing season, the 700 BC poem *Works and Days* by Hesiod, the AD 400 Roman military manual *Epitoma rei militaris* by Vegetius and the AD 380 edict of Emperor Gratian which survives in the *Codex Theodosianus*. There is agreement amongst these texts that the sailing season was from March/April to October/November. Hesiod's poem encourages mariners to remove their boats from the water after the setting of Pleiades at the end of October. Beresford argues that this advice applied only to the Archaic period and that it did not relate to the entire Graeco-Roman period because of later developments in maritime technology such as improved hull construction.

Vegetius seems clear, 'So from three days before the Ides of November [ie 11th November] to six days before the Ides of March [ie 10th March] the seas are closed.' Beresford argues that Vegetius was only concerned with warships and that he was not referring to the entire Mediterranean. He draws on a 323 BC Athenian lawsuit which determined that sailing conditions in the Aegean were different from those in the eastern Mediterranean to support the latter proposition. This approach has been bolstered by a 474 or 454 BC Elephantine Palimpsest of customs records from an unknown Egyptian port listing forty-two ships coming and going between March and December (21).

The Gratian edict states that ships would not be received in port between November and March. Beresford argues that the edict only applied to the shipmasters operating in late Roman Africa and was prompted by the treacherous nature of the Libyan coast (24). He also believes it to be an example of bureaucratic over-reach and not the formalising of a longstanding maritime tradition. There is enough in these arguments to establish that the sailing calendar varied from time to time and from place to place and was often dependent on the politico-economic structure of the maritime industry.

The story of Paul's shipwreck (Acts 27:1-28:13) is discussed in a number of contexts as the narrative highlights Paul's criticism of the inappropriate seasonal timing of his ill-fated voyage. Beresford accepts an October date for the journey, which he believes to be the consensus amongst biblical scholars, and he believes that the January date for the onward journey from Malta to Puteoli supports his contention that there was not a closed sailing season. According to Beresford the weather described in the story, which included fourteen overcast days, is without modern parallel (78).

The chapter on climate acknowledges that the Graeco-Roman period weather may not have been the same as the present, but that current relative conditions may be a reasonable indication of ancient weather patterns. The western Mediterranean in winter experiences more strong wind events than the Levantine coast and the Tunisian-Libyan coast experiences more strong winds all year round than the rest of the Mediterranean. Indeed, winter on the Levantine coast seems better than the summer in the west or on the Tunisian-Libyan coast. During the summer northerly etesian winds prevail in the Aegean making northward passages slow. Beresford argues that winter wind directions may have been more favourable for some journeys than the prevailing summer winds and, in fact, the rapid passage of St Paul aboard Castor and Pollux from Malta to Puteoli was the result of a southerly winter wind in a region where summer prevailing winds were northerly. The discussion of wave states lacks the appreciation of a mariner. There is no recognition that short steep waves can be more destructive than higher waves with long distances between crests.

The section about the technology of ships and sails is traditional and rather dated. The most recent advances in the understanding of Roman period ship construction and design are not included. The sea-worthiness of ships is not addressed, except in relation to the sea-trials of the replicas *Olympias* and *Kyrenia*. Repairs to hulls are often reported by maritime archaeologists but the nature of hull damage and the effectiveness of repairs, so relevant to sea-worthiness, are not considered. The development of ancillary functions such as the capacity to remove water from ships' bilges are not discussed; many Roman period shipwrecks have the remains of pumps made from lead.

The section on navigation is useful. Winter sailing involves long nights and overcast skies but in keeping with the rest of the book there is no quantitative analysis. The section on the Indian Ocean offers an interesting comparison, it discusses wind and wave states but not temperatures. The chapter on pirates describes them as seasonal and not generally given to winter sailing, supposedly because their boats lacked sea-worthiness. The book does not discuss other possibilities; there may have been a different cargo regime in the winter, more bulk commodities and fewer passengers with valuable items.

These later chapters are somewhat peripheral to the main subject and occupy space that may have included more strategic studies. The analysis fails to recognise that the well-being of sailors during the cold months was a significant issue; ambient temperatures and their consequences are not included in the discussion. Whatever was technologically and climactically possible by Roman period ships may not have been physically possible by their crews. A modern illustration is to be found in winter recreational sailing in open waters, which has grown in popularity during the last forty years partly because of the improved design of sailors' clothing.

Shipwrecks themselves provide an important source of data. Cargoes may give some idea of the time of year a vessel came to grief and the context of the wreck-site may indicate if the ship's demise was weather related. When reading the weather chapter, one often wonders if the conditions described may have resulted in known shipwrecks. However, comparatively few shipwrecks are referenced in the bibliography and there is no discussion of the topic, which is curious given that safety was a significant reason for limiting the sailing season.

The analysis accepts, indeed depends on, the progress of maritime technology and practice during the Graeco-Roman period but there is no clear statement of what those developments were and how they may have influenced sailing in winter months. Ship design and technology, port facilities and maritime economics and organisation changed during the period under discussion and should have been included in the analysis, which clearly needed to be more nuanced.

Maps, diagrams and images are located at the rear of the book. Some of the maps are indecipherable, which is disappointing for a text of this price. It would have been helpful to have the illustrations in the text where they would be easier to consult while reading. There is no map of port locations, which is surprising given their importance as safe havens.

The above comments tend to indicate that the book is somewhat out-of-date; indeed a scan of the bibliography reveals only 23 references dating after 2000 and nothing later than 2010. There are a few French and German language references but Italian literature, which is substantial and important for ancient shipping, is missing altogether. Omissions aside, this book has valuable textual analysis and useful material on climate and navigation that will influence debate about Graeco-Roman maritime traditions for some time to come.

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