



Book Reviews

MOLLUSCS IN ARCHAEOLOGY: METHODS, APPROACHES AND APPLICATIONS EDITED BY MICHAEL J. ALLEN

Studying Scientific Archaeology 3. Oxford: Oxbow Books, 2017. 434pp; 103 colour and b&w figs, 13 tables, pb, ISBN 978-1-78570-608-0, £25.00

This new book on *Molluscs in Archaeology* in the Oxbow Studying Scientific Archaeology series is a very welcome addition to the palaeo-environmental literature for archaeology. It is an excellent, up to date, practical and useful reference book.

The volume is divided up into five sections: palaeo-environments, environment and land-use; palaeo-environmental reconstruction in Europe, the Mediterranean and Near East; marine, food and diet; artefacts; and science and shells. It covers a huge range of material, both land, wetland and marine molluscs, ecological and artefactual studies. Each chapter is well illustrated, with many colour maps and photographs, with relevant references in each. In several cases, the most relevant set of reference books is given in text boxes, such as on the second page of Allen's Chapter 1 and in Somerville *et al's* chapter on marine molluscs in Chapter 13. This is a valuable book for beginners in the subject, as well as the wider archaeological audience and 'old hands' specialists.

The first part of this book begins with two excellent and detailed chapters by Mike Allen. These are essential 'must-reads' for any one aiming to understand the role of molluscan analysis in archaeology and to be a practitioner in this branch of environmental archaeology. In these two chapters Mike sets out the how and why, as well as the importance of studying molluscan faunas on archaeological sites. There are some excellent schematic figures of representative molluscan ecologies and the formation of the fossil assemblage. There is the occasional editing error with the odd missing reference. Chapter 3 by Matt Law explains the types of numerical approaches that can be applied to land snail palaeo-ecology. These surprisingly can be quite controversial (as I know from my own PhD *viva* in 1983), but diversity/richness/evenness/heterogeneity indices are essential tools in demonstrating how environmental change is represented and how to explore the diversity of taxa in different environments. The next three chapters on coastal, dune and cave habitats all demonstrate the importance of taphonomy in shaping interpretations. The next two chapters on wetland and alluvial river valley habitats are especially important today, given the emphasis on large scale commercially driven archaeological projects in river valleys, especially in the UK. These types of habitat regularly bury significant earlier prehistoric landscapes that become flooded through riverine and alluvial processes, and therefore often have great preservation of the prehistoric to Roman archaeological records. O'Connor gives some excellent ecological summaries and groupings by species and habitat indicators with examples that will be very useful to other specialists.

In Part II, Mike Allen gives excellent accounts of his seminal work in the chalklands of southern England, following in the footsteps of JG Evans. Briefer looks at landscapes in Malta and the Iron Gates area of the Danube follow, and then on to land mollusc middens found in many locations around the Mediterranean coast. It is clear that in many parts of Europe the sub-discipline of molluscan analysis in archaeology is not as well developed as it is in Britain, and there has traditionally been more of an emphasis on the human use of shells rather than deciphering past environmental conditions. Hopefully, this imbalance will begin to become better addressed by new practitioners in the near future.

In Part III, there are excellent summary chapters on marine molluscs, oysters and shell middens, before turning to shells used as ornaments and as raw materials for artefact production and purple dyes in Part IV. In some cases such as the analysis of oysters in coastal middens, new techniques are being advanced for the identification of protein and chemical compositions of the shells. These types of new study should add to the growing database on deciphering sea level changes and climate change over time as well as the impact of industrialisation and pollution on sea water quality.

Part V delves into various scientific applications, especially the use of radiocarbon and stable isotope studies of shells. Excellent basic explanations are given of each approach, and the importance for climatic indications is reinforced. This section could probably have done with some more case study additions to it. Also, there is no final summing up section by the editor, which would have been useful to discuss 'where to from here' in terms of this developing subject area and sub-discipline within archaeology.

Essentially this is a new combined version of JG Evans' *Land Snails in Archaeology* (1972; Seminar Press) which was my 'specialist bible' for over 20 years whilst I was writing molluscan reports for archaeological projects in the fens of East Anglia, and more recently Paul Davies' *Snails: Archaeology and Landscape Change* (1998; Oxbow Books). Nonetheless, both of these essential reference books were biased to environmental and archaeological settings particularly in the British Isles, whereas this new book takes a much wider remit across Europe and beyond. As Geoff Bailey says on the back cover of this book – 'particular strengths of this volume are that it integrates studies of terrestrial and marine molluscs . . . , and covers a wide range of themes ranging from palaeo-environmental and palaeoeconomic topics to the use of molluscs as sources of information about technology, symbolism, dating and diet.'

This book is a great testament to the life-long passion and commitment of Mike Allen in the subject of molluscan analysis in archaeology. It ably demonstrates that this sub-discipline of palaeo-environmental scientific application and research is very healthy with a wide range of specialists currently available. Nonetheless, one wonders where the next generations of molluscan specialists will come from to take on the growing volume of archaeological project work, especially that now being generated by commercial development funded archaeological sites and landscapes in the UK.

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