The papers in this volume, influenced to varying degrees by the work of the late Su Solomon, an innovative taphonomic thinker in Australian archaeology, reflect increasing diversity in the broad field of environmental archaeology. Papers range widely, across eastern and northern Australia and across the Pacific to Mexico. The common thread is palaeoecological or zooarchaeological research by Australian-based researchers.

Following the editors’ introduction to Solomon’s work and her most significant contributions to the discipline, the paper by Lopez et al. neatly combines archaeological, palaeopathological and isotope studies of Mayan human remains to show that Mayan social class in the Chiapas region correlated with better dental health and the proportion of protein in the diet. This is confirmation of a regional trend. However, differences between the two are not as great as might have been thought, and that the accumulating agents are probably more important. Although the present sample is too small to be conclusive, this study is part of a continuing continent-wide comparison which will be valuable because there are so few taphonomic studies of Australian conditions.

In the third set of experiments presented, Westaway’s offerings of dead pigs to captive crocodiles provide data on the types of punctured and scored bones that may be recognised archaeologically, and so help distinguish human and crocodile contributions in bone accumulations in tropical and sub-tropical regions. These data have wide potential use throughout the regions of Sunda and Sahul that were first traversed by early and late humans. Again, this paper is part of continuing research that will broaden, in this case, to include feeding experiments by a variety of crocodilians to assess the impacts of different feeding behaviour.

Faulkner’s paper, featuring archaeological rather than experimental data, notes that in northern Australia throughout the late Holocene, regional and local environmental changes are broadly reflected in the chronological sequences of shell midden. The shellfish that Aboriginal people gathered were generally dominated by a single species according to what was locally available, suggesting shellfish procurement was a highly flexible practice.

The paper by Robins and Robins presents an innovative study of ants as agents of bioturbation, inspired by discovery of intrusive materials in a well-stratified and not obviously disturbed deposit in southeastern Queensland. Their observations of a sand-filled ant farm conducted over 26 months showed considerable vertical and horizontal movement of experimental modern artefacts. This work highlights the benefits of interdisciplinary collaboration and well-designed experimentation. Archaeologists need to be aware of issues of scale; some of these disturbance effects may not matter for traditional studies of large, less mobile objects such as macrofossils and the larger flaked stone artefacts, but more technical analyses based on sand grains, microdebitage, microfauna, molecular remains, etc, will need to allow for such impacts.

Martin’s paper on Aboriginal earth mounds on the Murray Riverine Plain completes the volume. These mounds provide evidence of plant processing and consumption (through macrofossils and impressions in clay), of hearth firing and re-firing, and faunal remains and macroscopic charcoal. The excellent preservation of all these materials in these deposits,
comparable to rockshelter and midden deposits, allows Martin to examine Aboriginal exploitation and management of wetland areas, and points to a highly rewarding study region, since there are all too few site types that offer both good preservation and wide regional distribution.

These eight papers are too few in number to adequately represent the current range and diversity in Australian zooarchaeology and palaeoecology, but they do showcase some of the exciting new research in this field, and provide a useful guide to the wider literature. Besides several new approaches to the traditional areas of diet and economy, this volume also shows that zooarchaeology and palaeoecology have great potential to contribute answers to major research questions for the region, from the first human occupation of the continent, to the nature of the deposits we study and the human influence on the Australian landscape.

**AN INTRODUCTION TO LANDSCAPE**

*Peter J. Howard*

Ashgate, Farnham, 2011, xii + 322 pp, ISBN 9781409403852

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Peter Howard's *An Introduction to Landscape* offers a generalised discussion of landscape that can be broadly condensed into three main themes. Firstly, the book discusses how 'landscape' as a theoretical construct has been the subject of intensive debate and scrutiny across many academic disciplines. Secondly, how the general public, as 'insiders' largely unaware of the aforementioned debates, hold an intense, visceral and emotional connection to their landscapes, however defined. Thirdly, the book reviews how political structures charged with managing heritage and environment are faced with the task of balancing the rather wild array of approaches, agendas and definitions resulting from the previous two themes in order to manage and conserve the landscape effectively. An ambitious book, *An Introduction to Landscape* attempts to cover a vast interdisciplinary maze with erudition; and many readers, both students of landscape-related disciplines and the general reader who is seeking better to understand the physical world around them and how it has been represented, will find many thought-provoking and stimulating ideas here. This said, however, as a formal introductory textbook the book suffers from a somewhat unclear structure, sparse referencing and some misleading generalisations with which many disciplinary specialists will take issue. The cumulative result is that many readers will be as frustrated with the book as they are informed by the impressive breadth of content on display here.

Landscape is a concept which has been employed in a remarkably heterogeneous manner by a host of subject areas concerned with the interplay between the physical environment, nature, culture, time and cognition. For this reason, writing a generalised introduction summarising the combined approaches to landscape of all these disciplines is not a simple task. Many of the discussions arising from these subjects have revolved around the question of defining what landscape actually is and Howard, quite properly, takes this question as his point of departure. In doing so, he examines several strands of landscape characterisation. The first two chapters of the book attempt to outline the divergences between academic and popular uses of landscape. The latter gives a discussion of landscape as picture in an art-historical context, with landscape considered as an evolving aesthetic representation which mirrored intellectual movements in art, from the beautiful to the abstract. The former sees landscape as a *way of seeing*: a social and cultural product projected onto the land (Cosgrove 1984:1). The relationships between, and contradictions arising from, these themes are referenced repeatedly as Howard goes on to discuss other strands of landscape characterisation, for example, landscape as scale: the idea that a landscape, in order to properly be considered as such, must inherently feature an element of both distance and scale. Where a remote mountain range is landscape, the view from a suburban house is not.

Of these themes, the 'landscape as culture' principle is likely to be most familiar to archaeologists. Here Howard outlines the associated development of ideas of landscape from within cultural geography and landscape history and discusses how these ideas were subsequently appropriated into the archaeological discourse. Howard's discussion of the development of landscape archaeology appears largely situated within the empiricist English landscape history tradition pioneered in the UK by Hoskins (1955) and carried forward by Aston (1985), Muir (2000) and others. Of course, with an overview textbook of such a wide nature, the discussion is necessarily brief, but the study of cultural landscapes in an archaeological context has developed a complexity that I feel does not receive sufficient justice here. For example, where Howard sees a shift in chronological focus, when archaeology became 'less fixated on the prehistoric past and turned its attention to the medieval and much more modern periods', in actuality this is more reflective of a duality of approaches within landscape archaeology that have separated the largely aetheoretical positions of the English landscape history tradition of Hoskins and Aston from the intensively theoretical landscape-based concepts of Ashmore and Knapp (1999), Ingold (1993) or Cosgrove and Daniels (2007). The emergence of landscape archaeology, at least in the UK, was characterised not by a shift away from prehistory but instead by a branching into two separate intellectual traditions (Johnson 2007:2). Certainly if one is looking exclusively for an introduction to the development of landscape in an archaeological context, this book compares poorly to existing literature (see Johnson 2007; David and Thomas 2010).

Howard appears to share the inherent scepticism of the English landscape history tradition for quantitative methodologies. One result of this scepticism is that, in many ways, the text is highly personal, emotional and liberally annotated with anecdotes from the author's own experiences interacting with the landscape.