researched sites to the often-scanty existing body of information on the archaeology of Fiji. Secondly, the book is valuable as an additional comparative source of information on the archaeology of the region, specifically regarding the Lapita period and the early post-Lapita occupations. This publication is also available electronically through the ANU e-press (see website address above).


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New Directions in Archaeological Science is a collection of papers presented at the 8th Australian Archaeometry Conference in 2005. Many of these are examples of methodological innovations being developed in, or adapted to, Australasian sites, and those developed elsewhere possess appeal for archaeologists working in the region.

The research presented in the first three chapters was conducted as part of the Western New South Wales Archaeological Programme, where long-term erosion and deflated stratigraphic profiles have left the landscape a palimpsest of geological and archaeological surfaces. Holdaway, Fanning and Littleton address discrepancies between radiocarbon frequencies from heat-retainer hearths and human burials in evaluating rates of occupation. Many archaeological studies employ a single method for establishing population change and duration of use, such as feature counts or radiocarbon frequencies. The findings of this method highlight the difficulties in using artefact frequencies in surface deposits as a proxy for population, emphasising that items not intentionally interred face a greater likelihood of destruction, a likelihood that increases over time. Heat-retainer hearths are an informative feature of sites in the region and, considering the variable rates of erosion these are exposed to, proper identification of hearths is important. Fanning, Holdaway and Phillips provide a method for reducing observer error in identifying these features by using palaeomagnetics in Chapter 2, while Rhodes et al. discuss the advantages and limitations of using luminescence dating techniques on hearths in Chapter 13. Stiner’s approach to duration in Chapter 3, where he views archaeological accumulations as “persistent places” rather than permanent versus temporary occupations in spatially-defined sites, recognises that use duration is not always an archaeologically visible attribute. This distinction is important when interpreting behavioural patterns in surface deposits. While these approaches are appropriately tailored to the landscape and archaeological record of western New South Wales, their applicability to other areas, particularly those where surface deposits are a prominent feature, is clear.

Surface deposits are also addressed in Chapter 4, where Bolton applies survey and GIS methods for recording features in West Australian historic sites. This approach is favoured owing to its non-destructive nature and its ability to provide coverage of artefact concentrations to help define activity areas. The author draws a parallel
between the difficulties of establishing chronology in surface deposits in prehistoric and historic sites, noting the time lag between an item’s construction and use. Despite this, a chronological sequence was able to be obtained by artefact seriation. In the following chapter, Prendergast, Bowler and Cupper focus on environmental changes in the Victorian Murray River Valley as evidenced through geomorphological change from the late Pleistocene. Discernible changes in fluvial regimes led to shifting resource availability, which has important implications for the distribution of archaeological materials within the region.

In Chapters 6 through 8, a series of methods are presented which relate to the use of microbotanical remains in archaeological contexts. Weston applies a protein-based dye for use in the identification of damaged starch grains, which are essential for differentiating between processed and raw starches. In the experimental realm, Haslam presents a study of how starch grains might become distributed within cultural sediments. The author constructs a special chamber for starch-containing soils, and subjects them to disturbances typical of an archaeological deposit. The importance of site formation to archaeological interpretation is evidenced in several chapters here, emphasising that understanding of the mechanics of post-depositional processes is vital. Following this, Crowther addresses problems in discriminating between culturally-significant raphides and naturally-occurring microscopic structures of similar appearance and behaviour. These methodological papers segue agreeably into Chapters 9 and 10. The former uses macrobotanical remains and charcoal analysis to recreate vegetation patterns near the Aras River valley in Turkey. In the latter, Denham, Haberle and Pierret review the methods, including microfossil analysis, applied in the ongoing research of prehistoric agriculture at Kuk Swamp in the New Guinea Highlands.

The next two chapters focus on dating marine shell. Petchey identifies difficulties with accounting for marine $^{14}$C reservoir, specifically geographic and temporal variability in $\Delta R$ values, as well as differences between species. Irregularities found between samples from regions around the Pacific lead the author to the recommend that future studies should calibrate samples using $\Delta R$ values from a local source. This is exemplified in Chapter 12, in which Bourke and Hua evaluate the reservoir effect at Beagle Gulf in Northern Territory. Chapters 14 and 15 focus on ceramics: Craig, Grave and Glover employ chromatography and mass spectrometry to evaluate fatty residues on Turkish pottery samples, while Grave examines the role of firing temperatures in the interpretation of stoneware production. Herries provides a review of archaeomagnetic methods for use in dating as well as reconstructing behaviours and palaeoclimates in Chapter 16 with examples from South Africa, while Macgregor reviews conservation methods of Australian megafaunal remains in the final chapter.

There are two critiques that I feel should be made, both concerning aesthetics. First, it should be noted that there are several places where editing seems to be lacking. Examples include repeated typographical errors in the foreword and some rather glaring alignment issues in Chapters 9 through 12, but nearly every chapter features some problem which could have been prevented by more thorough editing. There are a number of very valuable studies presented in this book, and it is unfortunate that the editing seems to have been done so hastily. The second criticism is only slightly more substantial: the title is misleading. New Directions in Archaeological Science
suggests that the reader is going to be exposed to recent methodological developments, but several of the studies here do not represent new avenues of inquiry. An example is Chapter 9 on macrobotanical materials and wood charcoal identification as a means of reconstructing palaeoenvironments. This approach has been used to good effect in this instance, as the authors correctly point out, by filling in a knowledge gap for the area. However, these types of studies have been conducted for well over 25 years, and their continued use reflects successful adoption rather than experimental innovation. Obviously, a title along the lines of “Research in Archaeometrics Continues” does not have the same impact on potential readers as “New Directions”; however, this text is a conference proceedings rather than a review of cutting-edge methodologies, and it should be labelled as such.

This is not to say, of course, that there are not some pioneering studies included. Weston’s use of Congo Red stain on starch grains and Grave’s evaluation of temperature in ceramic provenance studies, for instance, are clearly efforts to expand the methodological envelope. Nor should it be implied that those studies presented here that use well-established methodologies are of any less value to our understanding of the areas to which they are applied. The contents of this volume present a valuable record of science-driven archaeology being conducted in Australasia and beyond.


ELDON YELLOWHORN
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Bridging the Divide, is so-called because between the global, secular phenomenon of ancient times and the local, idiosyncratic manifestations of our ancestors is the enigma we confront because of our fascination with the past. Therefore, fifteen authors, eight men and seven women, predominantly from the Southern Hemisphere, accept the challenge and contribute 12 chapters that together narrate their observations about this encounter between archaeology and indigenous peoples—four of the contributors self-identify as such. This volume began as a conference session sponsored by the World Archaeological Congress in 2005, and, like similar edited volumes focusing on North America, such as Native Americans and Archaeologists: Stepping Stones to Common Ground (1997) and At A Crossroads: Archaeology and First Peoples in Canada (1997), it brings together researchers whose work routinely involves engaging indigenous communities and, to a lesser extent, researchers whose voices articulate that experience from the first person perspective. The unifying objective is to advance the dialogue between two groups whose common interest compels them to interact.

Right from the early pages familiar refrains arise about the nature of archaeological work and its impact on indigenous people that resonate well into the Northern Hemisphere. The case of Solomon Islands, for example, demonstrates well how archaeological thought collides with long held worldviews such that a heritage ethic in