# Archaeology of Oceania: Australia and the Pacific Islands

Edited by
Ian Lilley



# Archaeology of Oceania

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Ian Lilley



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## Series Editors' Preface

This series was conceived as a collection of books designed to cover central areas of undergraduate archaeological teaching. Each volume in the series, edited by experts in the area, includes newly commissioned articles written by archaeologists actively engaged in research. By commissioning new articles, the series combines one of the best features of readers, the presentation of multiple approaches to archaeology, with the virtues of a text conceived from the beginning as intended for a specific audience. While the model reader for the series is conceived of as an upper-division undergraduate, the inclusion in the volumes of researchers actively engaged in work today will also make these volumes valuable for more advanced researchers who want a rapid introduction to contemporary issues in specific subfields of global archaeology.

Each volume in the series will include an extensive introduction by the volume editor that will set the scene in terms of thematic or geographic focus. Individual volumes, and the series as a whole, exemplify a wide range of approaches in contemporary archaeology. The volumes uniformly engage with issues of contemporary interest, interweaving social, political, and ethical themes. We contend that it is no longer tenable to teach the archaeology of vast swaths of the globe without acknowledging the political implications of working in foreign countries and the responsibilities archaeologists incur by writing and presenting other people's pasts. The volumes in this series will not sacrifice theoretical sophistication for accessibility. We are committed to the idea that usable teaching texts need not lack ambition.

Blackwell Studies in Global Archaeology aims to immerse readers in fundamental archaeological ideas and concepts, but also to illuminate more advanced concepts, exposing readers to some of the most exciting contemporary developments in the field.



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Jo McDonald is a cultural heritage management consultant based in Sydney, Australia. Her consulting work focuses on archaeology and rock art in southeastern Australia but has also involved a Native Title claim in Central Australia. Her Ph.D. dissertation examined the extensive rock art assemblages around Sydney. She has published many papers and several books on this art and her doctoral thesis will soon appear as a *Terra Australis* monograph. Her current research focus is on Australia's Western Desert, where she is involved in a project to date the region's engraved and pigment art. She is also currently working on the scientific values assessment report for the World Heritage nomination of the Dampier Archipelago in northwestern Australia.

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Christophe Sand, Jacques Bole, and André Ouetcho created the Department of Archaeology in the New Caledonia Museum in 1991. They have conducted numerous projects on the prehistory and colonial history of the archipelago, while also carrying out archaeological programs in Fiji. Promoting awareness of New Caledonia's history amongst the population of New Caledonia, the team's research themes have over the years led to work on topics linked to first settlement (Lapita) sites, prehistoric cultural dynamics, intensification processes during the last millennium before European contact, and the consequences of European settlement in the Pacific.

**Peter Sheppard** is Head of the Department of Anthropology at the University of Auckland in New Zealand. He started in Auckland as a Postdoctoral Fellow researching geoarchaeological sourcing of chert and obsidian in Lapita assemblages from the Solomon Islands. He expanded this interest to include Oceanic basalts from Samoa and the Cook Islands after he was appointed to teach in Archaeological Science, including geoarchaeology. He now leads major multidisciplinary projects among both Oceanic Austronesian and non-Austronesian societies in the Central Solomons. These projects focus on processes of social transformation in this region and more generally through the Solomons.

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**Peter Veth** has carried out research within the arid zone of Australia for over 20 years. His work has focused on the dynamism and flexibility inherent in huntergatherer adaptations to "marginal" environments. He has published collaboratively on issues concerning the emergence of desert societies, their symbolic, graphic and language systems, and also their totemic geography. Recently he co-edited the first review of the emergence of desert hunter-gatherer groups in the 2004 Blackwell volume *Desert Peoples* (with Peter Hiscock and Mike Smith). Peter is Director of Research at the Australian Institute of Aboriginal and Torres Strait Islander Studies and holds an Adjunct Senior Research Fellowship at the Australian National University.

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# Acknowledgments

This volume had an extended gestation. It allowed us to take advantage of a great deal of new information which appeared in 2003–2004 but made the process a long one for many of those involved. I would like to thank the contributors who patiently saw it through from the beginning as well as those who came on board, often at short notice, as things progressed. Thanks, too, to Jane Huber, Emily Martin and the other staff at Blackwell, as well as the series editors Lynn Meskell and Rosemary Joyce, for their help and cheerful forbearance. Michael Williams, Director of the Aboriginal and Torres Strait Islander Studies Unit in the University of Queensland, offered a conducive atmosphere in which to work. Sean Ulm, the Unit's Senior Researcher, graciously provided skilled assistance with the illustrations and Simon Haberle of Monash University supplied our up-to-the-minute environmental data.



# Archaeology in Oceania: Themes and Issues

Ian Lilley

#### Introduction

The archaeology of Oceania is shaped by five overlapping themes: colonization, interaction, cultural diversification, environmental change, and, on a different but no less fundamental plane, contemporary politics. The participants in this volume examine aspects of these themes as they played and continue to play out across the region. Our goal is to introduce you to the diversity of current approaches to the intellectual and technical challenges of archaeology in Australia and the Pacific Islands. In this chapter I define central terms, sketch the thematic background against which the other contributions are set and fill in some of the key details that a wide-ranging but selective survey of this sort inevitably misses.

#### Scope

We canvas cross-cultural entanglement and colonial heritage but deal primarily with pre-European (i.e., pre-contact, prehistoric) archaeology. While the division between prehistoric and text-aided (i.e., historical) archaeology is a false one that is being undermined in Oceania as much as anywhere (e.g., Clarke and Patterson 2003; Kirch and Sahlins 1992; Torrence and Clarke 2000), their integration is still too far off for us to present them here seamlessly joined. Our focus is also specifically archaeological. Thus while the findings of research into human biology, historical linguistics, and paleoenvironmental change are critical to understanding many of the issues in focus, they will only be outlined rather than detailed. Finally, the book shows where early to mid-career researchers from a range of backgrounds are taking archaeology in Oceania. You will be directed to major syntheses by established scholars for detailed references to past research. Here you will read about new discoveries, conceptual innovations, and the dynamics of postcolonial

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realpolitik. As you read, bear in mind that most of Oceania remains under-researched, with many regions lacking reliable basic chronologies let alone more sophisticated study. This introduces some unevenness to the volume. Some chapters provide detailed treatments of specific issues arising from intensive, long-term research, but others concern the simple questions that are asked at the earliest stages of investigation. Some of the perspectives challenge orthodox models. This means a few contributions are much longer than the others, owing to the need to clear their conceptual and technical paths. All describe works very much in progress – something underlined by the number of references to unpublished Masters, Ph.D. and even Honors dissertations – and emphasize that as yet there is little settled knowledge in the archaeology of Oceania.

The work is divided broadly by geography and time. Chapters 2–6 cover Australia, beginning with the Pleistocene after initial colonization and ending with European contact. Chapters 7–15 address issues in Pacific archaeology, first in Melanesia, then Polynesia and finally Micronesia. The last section, chapters 16–18, addresses the contemporary politics of archaeology and cultural heritage.

#### Definition of terms

We include Australia as well as the other islands of the Pacific in "Oceania" (Figure 1.1). Some writers exclude Australia (e.g., Kirch 2000:5), but our definition has long been used by the region's premier professional journal *Archaeology in Oceania*. As the journal's editor has noted, Pleistocene low sea-levels joined Australia and New Guinea (and Tasmania) as dry land for at least eighty percent of the region's human history (White with O'Connell 1982). One thus cannot consider this very large part of Oceanic archaeology without Australia, or vice versa.

This basic fact is acknowledged in most general texts on one or the other topic. Yet no one has ever dealt with the postglacial histories of Australia and the rest of Oceania in the same volume except in the most generalized global works. The Holocene histories of Australia and the Pacific differed significantly but they were not unconnected. As discussed below, new evidence from Torres Strait is beginning to tie Australia to late Holocene developments in Island Melanesia and the wider Pacific as well as mainland New Guinea in ways unimagined by most Australian and Pacific archaeologists until now. Like the shared Pleistocene history, the fascinating possibilities surrounding more recent links such as these strengthen the case for treating Australia and the Pacific in the same volume rather than continuing to promote their separation.

Other terms which need to be defined are "Melanesia" (the "black islands"), "Micronesia" (the "small islands"), and "Polynesia" (the "many islands") (Figure 1.1). Melanesia includes mainland New Guinea and, excluding Micronesian Nauru, all of the islands south of the equator out to and including Fiji in the east and New Caledonia in the south. "Island Melanesia" refers to Melanesia without mainland New Guinea. The Indonesian province of Papua covers the western half

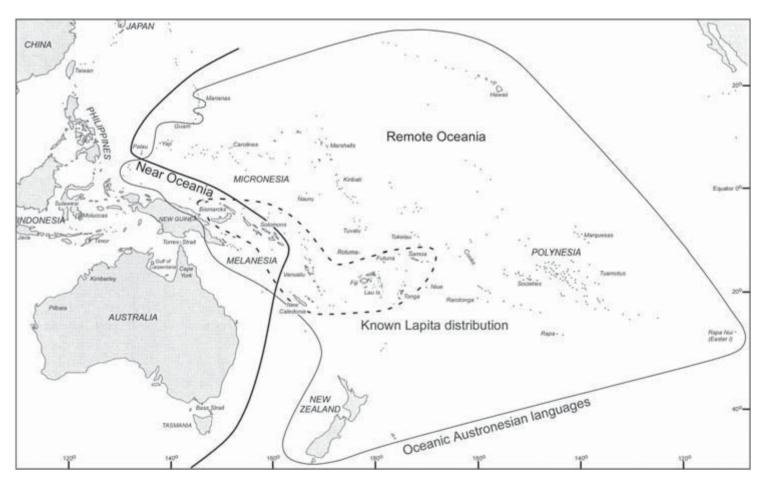


Figure I.I Oceania

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of New Guinea. The eastern half comprises the mainland provinces of Papua New Guinea, which also includes the islands of the Bismarck Archipelago and northern Solomons (Figure 9.1). Micronesia includes all the islands north of or straddling the equator between Palau and the Marianas in the west and the Marshalls and Kiribati in the east. "Triangle Polynesia" encompasses the area between Hawai'i, Aotearoa/New Zealand, and Rapa Nui/Easter Island, including Tuvalu (Figures 12.1, 13.1, 14.1). It subsumes "West Polynesia," formed by Tuvalu, Tonga, and Samoa, and "East Polynesia," which covers all of the remainder. New Zealand and nearby islands are increasingly separated as "South Polynesia," as is the case in this chapter. The "Polynesian Outliers" are Polynesian communities in Melanesia and Micronesia resulting from recent westerly back-migration, while the "Mystery Islands," not discussed further, are those with signs of prehistoric use which were unpopulated when first found by Europeans (e.g., Di Piazza and Pearthree 2001).

For reasons detailed in Walter and Sheppard's chapter, archaeologists often replace the Melanesia–Micronesia–Polynesia schema with the terms "Near Oceania" and "Remote Oceania" (Figure 1.1). Near Oceania encompasses the area first settled in the Pleistocene: Greater Australia and Melanesia to the end of the main Solomon Islands chain (i.e., excluding the remote southeasterly islands encompassed by the modern state of Solomon Islands). Remote Oceania takes in all of Triangle Polynesia and all of Micronesia. Neither set of terms is entirely satisfactory, as witnessed for instance by the distribution of the Polynesian Outliers across both Near and Remote Oceania as well as both Melanesia and Micronesia. All the terms have their uses nonetheless, and so all will be used in this volume as appropriate.

Note that archipelagoes and island groups are often referred to by the plural of their name (e.g., "the Bismarcks" and "the Loyalties" for the Bismarck Archipelago and the Loyalty Islands respectively), but not when the name designates a modern state (e.g., Fiji, Samoa, Tonga).

#### Dates

Archaeology in Oceania is heavily reliant on absolute dating, primarily by radio-carbon, and "chronometric hygiene" – careful assessment of the technical soundness of dates themselves and of the taphonomic integrity of their stratigraphic associations with archaeological material – is a constant concern (e.g., Spriggs 2001). Here the abbreviation "B.P." ("before present," technically 1950) is used interchangeably with "years ago" to indicate generalized chronologies. The term "cal B.P." is used to signify that a radiocarbon or other absolute determination has been calibrated to calendar years and is used to indicate exact chronologies. Uncalibrated dates over about 20,000 B.P. cannot yet be reliably calibrated. To complicate matters, some contributors use A.D./B.C. dates, according to local practice. The abbreviation "AMS" refers to accelerator mass-spectrometer radiocarbon dating, which allows highly accurate determinations on minute samples.

### Thematic Setting and Non-Archaeological Background

The backbone of Oceania's human history was formed by three phases of colonization. The first occurred in the late Pleistocene, when modern humans pushed out from Southeast Asia into the realm of "Greater Australia" and beyond into the Bismarck and Solomon Islands archipelagoes. Greater Australia is the continent otherwise known as Sahul, which formed when lowered sea levels joined Australia, New Guinea, and Tasmania. On the other side of the world, other modern people were edging into Ice Age Europe at about this time. The initial move into the Antipodes was a momentous shift in the course of human affairs. It saw people island-hop across a substantial sea barrier between an Old World which had been inhabited by hominids for thousands of millennia, and a truly naïve new world with an ancient marsupial fauna where there was no possibility for human progenitors to have evolved. The second foundational colonization began more than 2,000 generations later. From around 3,500 years ago, seafaring pottery-making farmers in the Bismarcks created the "Lapita phenomenon" and became the first people to occupy Remote Oceania, the last uninhabited part of the globe other than Antarctica (Figure 16.2). The final phase of colonization was signaled by the appearance of Europeans within the last 500 years. We are still in this final phase, in the sense that colonialism and its aftermath have fostered continuing large-scale migration not only to but also within and from Oceania, all of which have substantive archaeological consequences as well as profound social and political implications for archaeological praxis.

Oceanic archaeology aims to discover who was involved in these dispersals, how, where, and when they undertook their journeys, and how, where, when, and why their lives then changed through time and space. Interaction and its opposite, isolation, are core explanatory tools in this endeavor because these processes were vitally important throughout the region. When Europeans began exploring Australia, for instance, complex "chains of connection" (Mulvaney 1976) linked Aboriginal communities down-the-line from one side of the continent to the other, and joined it to Asia and the Pacific across the Arafura Sea and Torres Strait. Similarly, inter-communal links facilitated the initial colonization of the Pacific and then waxed and waned as people adjusted to the social and physical exigencies of life in their often far-flung islands. The complex maritime and highlands exchange systems of Melanesia have long compelled attention from anthropologists, as have the maritime "empires" that arose in Tonga and Yap. As Clarke and Frederickson's chapter makes clear, more recent relationships between indigenous peoples throughout Oceania and European and other non-indigenous colonizers have produced intricate patterns of cultural and biological entanglement with which we are only beginning to come to grips, in terms of their contemporary political ramifications as well as their material manifestations in the archaeological record.

Variation in the importance of interaction is one of several major strands of divergence through time and space in the economic and sociopolitical patterns of Oceania. Australia and the rest of Near Oceania started to diverge very soon after

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initial colonization, as revealed by O'Connor and Veth's chapter on Australia and Leavesley's contribution on the Bismarcks. The early Holocene saw agriculture arise in New Guinea but not in Australia, as Denham details below, even though the two were joined by dry land at the time. Early to mid-Holocene change in the Bismarcks is taken up by Pavlides. The mid- to late Holocene saw quite different patterns of change unfold in Australia and the Pacific. The former are described by David, Hiscock, and McDonald and Veth, while all the remaining Pacific chapters deal with such matters by definition. Toward the end of prehistory, complex state-like polities emerged in some archipelagoes in the Pacific at the same time that politically much simpler societies were being maintained elsewhere in the region. Some of the results of this process are canvassed in the contributions of Ladefoged and Graves, Millerstrom, and Rainbird.

Environmental change – including human environmental impact – threads through the other main themes as debate continues about issues such as the causal relationships between environmental and cultural variation, faunal exterminations, erosion from land-clearing and the long-term effects of regular burning-off by foragers and agriculturalists alike (e.g., Dodson 1992). Humanly induced as well as natural environmental shifts also have an impact on the practical side of doing archaeology in a way the other themes generally do not. Past cultural variation of any sort will affect what archaeological remains are found and where, but natural events and the environmental impacts of human activity can sometimes determine whether archaeological remains can be found at all. Landforms can subside beneath the sea owing to tectonic activity, while erosion from land-clearing can deeply bury early landscapes. For these reasons, archaeologists in Oceania often have to assess very carefully whether an apparent absence of evidence for human activity really is evidence for an absence of people.

These four substantive themes are investigated in a dynamic and sometimes volatile social and political milieu. This is the flipside of one of Oceania's great methodological advantages for archaeologists: direct "ethnoarchaeological" contact with the descendants of the people who created the sites we investigate, as elaborated in Conte's chapter. As it should, ethically speaking, access to the archaeological record now generally requires the permission of these descendants, who remain traditional or customary landowners throughout the region, as well as approval from government authorities. Either or both can and do deny such access for a variety of reasons, not least of which is that native peoples are tired of being the focus of Western scholarly scrutiny, which is often viewed as having little or no practical benefit for the communities under the microscope. One such moratorium, covering the entire archipelago of Vanuatu, lasted a decade and of course had a marked effect on the progress of archaeological research in the region.

Questions of cultural continuity and change – archaeology's "core business" – are particularly sensitive. This is especially so where they bear on identity-based access to land and other resources in contexts where vested interests seek to restrict or eliminate that access by unraveling identity claims. There is thus a swirling "politics of change" in Oceania, notably but not exclusively in settler societies such as Australia, New Caledonia, and New Zealand, the ethics of which can be more dif-

ficult for archaeologists to negotiate than the matters of archaeological theory and practice that are entailed. Different facets of the scene are surveyed at the end of the volume by Sand, Bole, and Ouetcho, Smith, and a combined contribution by Cauchois, Dugay-Grist, and Mandui.

To a large extent the themes that structure archaeology in Oceania are the same as those that connect archaeology everywhere: They concern elemental issues in our global professional conversation. Indeed, in Oceania these themes encompass almost the full gamut of change witnessed by archaeologists elsewhere, excluding only the evolution of modern humans at one end of the spectrum and the advent of true states and urbanism at the other. Yet it is critical to bear in mind that investigations such as those detailed in this book show very clearly that these themes often did not play out in Oceania in the ways that Old World understandings would predict they "should" have. Thus rather than witness the adoption of agriculture following the last glaciation, as global models of cultural change suggest it ought to have done, Australia remained a "continent of hunter-gatherers" until European colonization in the 18th century A.D. owing to the continual though often subtle accommodations people made with nature and with each other to maintain their lives as foragers. While there are undoubtedly some profound differences between foragers and agriculturalists, especially in the ways in which they view their physical environments, people in Australia managed their resources in often sophisticated ways not unlike some of those used by agriculturalists. Not least amongst these mechanisms were the interaction networks mentioned above, which rivaled in complexity those in Melanesia such as the famed "kula ring" which so fascinated early ethnographers such as Malinowski.

In this connection, it is pertinent to point out that despite modern scholarly expectations to the contrary, the Pleistocene foragers described in Pavlides's chapter were also able to live deep within primary rain forest in Melanesia without access to agricultural produce. In a similar vein, Polynesian agriculturalists took up foraging when they settled the South Island of New Zealand, where their tropical crops could not be sustained even with the major adjustments which allowed cropping on the North Island. Just as our visions of foragers and agriculturalists are being blurred in these ways, so, too, conventional wisdom concerning variation in sociopolitical organization is being challenged. Spanning about a quarter of the Earth's circumference, the colonization of the widely spread islands of Remote Oceania was one of the truly astounding feats of human history. It ultimately resulted in the rise of the Polynesian chiefdoms, the most complex of which can properly be described as proto-states. It has conventionally been thought that Melanesia differed in kind from Polynesia in this respect, in that it had intrinsically less complex sociopolitical systems, but just as cultural anthropology has elided the boundaries between supposedly stereotypical Melanesian big-men and Polynesian chiefs, so archaeology is now finding evidence for monumental structures in Melanesia akin to those in Polynesia.

Walter and Sheppard's pivotal contribution considers the last matter at some length to set the scene for the rest of the Pacific chapters (see especially Sand et al., this volume). The point to be made here is that human history in Oceania

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often took the poet Frost's "road less traveled." This is of great significance theoretically as well as practically speaking, because a good deal of the social theory underlying the interpretation of Old World archaeological patterns was founded on prearchaeological and usually ahistorical ethnographic understandings of cultural patterns in Oceania. This means that archaeology in Oceania is in a strong position to contribute to wider debates concerning the human condition over the long term.

#### **Environmental setting and history**

Near Oceania exhibits considerable environmental variation through space, especially in relation to the remote Pacific. Australia is the world's largest island and the driest and flattest continent. It has a vast arid to semi-arid core fringed by better-watered (indeed in places extremely wet) country across the far north, along the east and southeast coasts and in the far southwest. The north has hot, wet summers (November through January) and cool, dry winters, while the south has a "Mediterranean" climate with hot, dry summers and cool, wet winters. Much of the continent comprises low plateaux, with the principal mountain range running down the east coast. The mountains are highest in the southeast, but rise only to about 2,000 meters. The arid and semi-arid core is characterized by shrublands and grasslands merging around the edges with open woodland which in turn merges with mostly open forest but also small areas of closed forest on the coastal fringes. There are alpine areas in the highest mountains, which see seasonal snowfalls.

Tasmania is like southeastern Australia but more rugged, colder, and wetter. The west coast is windy, topographically difficult and densely forested, but the east is more sheltered and open. New Guinea is another of the world's largest islands. Bordering the equator, it is clothed for the most part in dense tropical rain forest, though there are large areas of swampland associated with major river systems flowing through low-lying coastal areas as well as extensive alpine regions and even glaciers in the east—west trending mountain spine of the island, which rises up to about 5,000 meters. The larger high islands of the Bismarcks and Solomons are much like scaled-down versions of New Guinea, though without the very high central mountains and with less abundant and varied flora and fauna. The low coral islands differ little from those in Remote Oceania, described below, though their marine environments are generally much richer.

Paleoenvironmental change has been substantial during the time people have lived in Near Oceania (Dodson et al. 2004; Mulvaney and Kamminga 1999: 103–129). In brief, temperatures and sea levels were like those which obtain today at about 120,000 years ago but then began falling. When people first settled Sahul the sea level was perhaps 30 meters lower than today, the climate was mild and wet, and many now-dry lakes were full. Temperatures, precipitation, and sea levels started falling dramatically from about 35,000 years ago until the Last Glacial Maximum (LGM) 25,000–12,000 years ago. Average sea-surface temperatures in