

Cambridge University Press  
978-0-521-29959-6 - Living Archaeology  
R. A. Gould  
Frontmatter  
[More information](#)

---

*NEW STUDIES IN ARCHAEOLOGY*

---

# Living archaeology

Cambridge University Press  
978-0-521-29959-6 - Living Archaeology  
R. A. Gould  
Frontmatter  
[More information](#)

---

*NEW STUDIES IN ARCHAEOLOGY*

---

Ian Hodder and Clive Orton: *Spatial Analysis in Archaeology*  
Kenneth Hudson: *World Industrial Archaeology*  
Keith Muckelroy: *Maritime Archaeology*

Cambridge University Press  
978-0-521-29959-6 - Living Archaeology  
R. A. Gould  
Frontmatter  
[More information](#)

---

# Living archaeology

**R. A. GOULD**  
*Professor of Anthropology*  
*University of Hawaii at Manoa*

CAMBRIDGE UNIVERSITY PRESS  
CAMBRIDGE  
LONDON • NEW YORK • NEW ROCHELLE  
MELBOURNE • SYDNEY

Cambridge University Press  
978-0-521-29959-6 - Living Archaeology  
R. A. Gould  
Frontmatter  
[More information](#)

---

CAMBRIDGE UNIVERSITY PRESS  
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi

Cambridge University Press  
The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

[www.cambridge.org](http://www.cambridge.org)  
Information on this title: [www.cambridge.org/9780521299596](http://www.cambridge.org/9780521299596)

© Cambridge University Press 1980

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 1980  
Re-issued in this digitally printed version 2009

*A catalogue record for this publication is available from the British Library*

*Library of Congress Cataloguing in Publication data*

Gould, Richard A

Living archaeology.

(New studies in archaeology)

Bibliography: p.

Includes index.

1. Ethnoarchaeology.
2. Australian aborigines – Australia – Western Desert.
3. Australia – Antiquities.

I. Title. II. Series.

CC79.E85G68 930'.1 79–20788

ISBN 978-0-521-23093-3 hardback  
ISBN 978-0-521-29959-6 paperback

Cambridge University Press  
978-0-521-29959-6 - Living Archaeology  
R. A. Gould  
Frontmatter  
[More information](#)

---

Dedicated to Betsy,  
Who was always there . . .

## Contents

<i>Preface</i>	<i>page</i> ix
<i>Acknowledgments</i>	xiii
Introduction: archaeology and the totality of human behavior	1
1 Tikatika	6
As it was . . . Tikatika: December 26, 1966	7
As it was . . . Tikatika: May 22, 1967	23
2 Beyond analogy	29
Analogy's last hurrah	29
Law and disorder	36
Suffering from irregularity?	39
Culture with a capital "K"	42
The error of guilt by association	45
3 Behavior and adaptation	48
The "ecological connection"	48
The Australian "bull's-eye"	53
The Australian desert adaptation	60
4 Other adaptive models in Aboriginal Australia	88
The shell game	89
Facilities management	94
Moth-hunters and macrozamia collectors	97
"Special staples" and "Thomson's Paradox" in Aboriginal Australia	104
Some general propositions about Aboriginal subsistence	108
5 The anthropology of human residues	113
Alternatives to heaven	113
The linguistic metaphor	115
Toward a grammar of Aboriginal lithic technology	121
The search for an "archaeological signature"	137

viii	<i>Contents</i>	
6	The materialist approach in living archaeology	138
	Argument by anomaly	138
	Righteous rocks and the Western Desert Aborigines	141
	Materialist approaches to human behavior	159
7	The importance of being different	161
	Extending the anomaly	162
	A different desert	164
	The James Range East site complex	168
8	Explaining the differences	186
	Paleoecological correlations and explanations	186
	Of kangaroos and men in the Australian desert	188
	Differences that make a difference	195
9	Antipodean anomalies	204
	Access to axes	206
	Tasmania: A land-bridge too far?	212
	Toward a “signature” in shells	220
	Burke’s Cave and beyond	225
10	Surprise package	229
	Three personal experiences	229
	The question of canine commensalism	238
	Without waterbags	247
	What now?	250
	<i>Notes</i>	253
	<i>Bibliography</i>	255
	<i>Index</i>	265

## Preface

This book is an extended essay about an idea whose time has come. There has been a surge of interest during the last few years in the relationship between ethnographic observations of living, human societies and the materials studied by archaeologists. On the one hand, there are books like *Ethnoarchaeology* (1974), edited by Christopher B. Donnan and C. William Clewlow, and *Explorations in Ethnoarchaeology* (1978), edited by the author of this book, in which a number of scholars offer a variety of differing approaches. While it is possible to infer a degree of unanimity in these studies, their very diversity of geographical and topical subjects makes the current status of ethnoarchaeology anything but self-evident.

On the other hand, there are also some admirable new studies that describe and analyze particular contemporary societies from an ethnoarchaeological point of view at a level of detail never before achieved. Foremost among these studies are *Archaeological Approaches to the Present* (1977) by John E. Yellen, and *Nunamiut Ethnoarchaeology* (1978) by Lewis R. Binford, which deal with the !Kung Bushmen of the Kalahari Desert and the Nunamiut Eskimo of Alaska, respectively. Each is a detailed case study stressing particular aspects of hunter-gatherer ethnography in relation to material remains that can be looked at archaeologically. Yellen's study emphasizes !Kung residential patterning in relation to various activities and their physical residues, while Binford's work examines Nunamiut hunting and butchering of game and relates his findings to the larger body of literature on faunal analysis in archaeology.

Both kinds of books give ample evidence of the increasing tempo of efforts in ethnoarchaeological research today. But neither kind represents an attempt to present a unified theory of ethnoarchaeology. For this purpose I realized that it would be better for a single author to draw together materials from a single general region and cultural tradition—in this case, the Australian Aborigines—and use these materials to demonstrate the general principles of this unified theory. So this is also a book about Australian Aborigines and the



x *Preface*

more recent, innovative aspects of ethnoarchaeological work being done in Australia. The Australian materials are intended to serve as a case study in ethnoarchaeological theory, with the expectation that readers who find these ideas useful will be encouraged to try them out in their own particular areas of expertise.

I chose to title this book, *Living Archaeology* in order to emphasize the active element in ethnoarchaeological research, namely, how one thinks about and actually encounters the linkages between behavior and material residues in the context of living, contemporary human societies. These actions, in turn, imply some effort toward organizing this body of experience into a set of consistent applications to the kinds of problems that archaeologists commonly encounter when excavating and analyzing their data. Living archaeology, in other words, is not being proposed as a new kind of ethnoarchaeology, nor is it presented as an alternative to ethnoarchaeology. It is simply ethnoarchaeology in the active voice.

Before setting out to construct a unified theory of ethnoarchaeology, my first priority was to deal with some of the problems that have beset many earlier efforts to discover reliable and consistent relationships between ethnographic and archaeological data. A look at a fairly typical day in the life of an Australian Desert Aborigine group at Tikatika, a habitation base camp in the Western Desert where Aborigines were still living off the land under more or less traditional circumstances in 1966–67, suggests the wealth of social, verbal, and ideational interaction that takes place under such conditions. These would be difficult, if not impossible, to infer by means of direct attempts to recover the “archaeological” by-products of such nonmaterial behavior. Recognition of these difficulties is enhanced by the ambiguities produced in the archaeological record after the abandonment of this campsite, as revealed by a simple mapping study of this site five months later.

One kind of direct approach to the use of ethnographic observations as a way of “explaining” archaeological findings is the use of analogy. Here is an idea whose time has *gone*. An effort is mounted here to mop up the intellectual wreckage this concept has produced in ethnoarchaeology. For some scholars, this may seem unnecessary, since the argument by analogy has already fallen into disrepute among many if not most ethnoarchaeologists. But a critical review of this concept and its applications is needed here if we are to reconstitute our approach on a more satisfying and convincing basis.

The first element of any convincing approach to ethnoarchaeology involves establishing a basis for uniformitarianist kinds of generalizations about human behavior that are not subject to alteration or amendment through symbolic or ideational manipulations by the human beings we propose to study. Here the discussion turns to

ecology as one area of study that has produced general principles of a uniformitarianist nature that can be used to understand and explain important aspects of human behavior. By looking first at the general relations between ecological variables and particular adaptive responses by human beings in specific societies, we can establish a baseline against which to measure the effects of symbolic and ideational variables in such situations. So at this point the discussion centers on the geography and ecology of Australia as a theater for human adaptation, turning first to arid Australia, where extreme conditions prevail that have always made human settlement difficult and risky, and turning then to other, more benign habitats in Australia, where we have new evidence for a variety of remarkable human adaptations.

Using this generalizing approach, we can take a closer look at certain material aspects of Australian Aborigine behavior and ask how or to what extent these can serve as the basis for archaeological signatures of adaptive behavior. Here I chose to emphasize stone technology because this is one aspect of traditional Western Desert Aborigine material culture that was still functioning and was pretty much intact when these field studies were made. But I could just as easily and usefully have studied other aspects of Aborigine behavior in relation to materials such as faunal remains, domestic architecture, settlement characteristics, and even the recycling and discard of cars, tin cans, cloth, and other European-introduced items.

From this detailed treatment of the relationship between Aborigine lithic technology and adaptive behavior in the Western Desert of Australia, there emerges a clear and convincing alternative to the argument by analogy—namely, the *argument by anomaly*. The remainder of the book develops this approach and applies it to archaeological and ethnographic findings in other parts of Australia. Only by looking for and recognizing anomalies to general patterns of conformity to utilitarian expectations in human behavior can we reliably infer when and under what conditions symbolic and ideational factors make a difference in the ways people actually behave. It is this contrast between actual as opposed to anticipated human behavior that characterizes ethnoarchaeology at its best, and Western Desert and other Australian examples are used to demonstrate how the argument by anomaly effectively confronts and explains complexities of human behavior in relation to the procurement, manufacture or processing, use, and discard of materials. The principal argument here is that ethnoarchaeologists are concerned with observing and explaining the totality of human behavior relating to material residues, which means they must embrace a philosophy of science that includes both a search for and a use of general principles with a recognition of idiosyncrasies and deviations from those

xii      *Preface*

principles. In short, human beings are not particles or inanimate entities whose behavior can be explained solely in relation to general laws like those used in the physical and natural sciences. If ethnoarchaeology is to be a viable part of social science, the search for general laws must be combined with a willingness to recognize the importance of anomalies and to use such anomalies as a primary tool for discovering behavioral relationships that may have no counterpart in any contemporary or known historic human societies.

If all this seems pretty abstract, let me reassure the reader that these general principles are demonstrated in relation to specific cases that show how such an approach can do much to enliven our view of archaeology. In particular, there have been studies in Australia during the last few years that range from the enigmatic abandonment of fishing by prehistoric Tasmanians to the archaeological and ethnohistoric reconstruction of a remarkable adaptation by Aborigines in the eastern highlands of Australia to moth hunting as part of their primary subsistence behavior; these studies all serve to illustrate aspects of this approach as well as to pose special problems in ethnoarchaeological explanation. The final part of this book extends the argument by anomaly into areas outside Australia in a brief, trial effort to show the wider applicability of this approach. It also ventures into areas of Aborigine behavior which *remain* anomalous and will require further study, such as the apparently inexplicable absence of skin waterbags in the Western Desert of Australia. The purpose of this last part of the book is to say, essentially, that while we do not yet know all the answers, we do at least have an approach that will direct our attention to the right questions.

R. A. G.

## Acknowledgments

The ideas presented in this book represent products of research carried out over the last twelve years, and I wish to thank those funding organizations and other institutions that supported this research at various stages along the way. Initial ethnographic fieldwork in the Western Desert of Australia in 1966–7 was funded by the Social Science Research Council (New York) and in 1969–70 by the Frederick G. Voss Anthropology and Archaeology Fund (Department of Anthropology, American Museum of Natural History, New York), with supplemental assistance in the form of a Landrover furnished on both occasions by the Australian Institute of Aboriginal Studies (Canberra). Fieldwork in the Central Desert of Australia in 1973–4 was supported by the National Science Foundation (Research Grant No. BNS 73-09088-A02). Finally, archival studies of unpublished manuscripts and dissertations on Australian prehistory and ethnoarchaeology were facilitated by a Visiting Fellowship at the Department of Prehistory, Research School of Pacific Studies (The Australian National University, Canberra) in 1977.

Other institutional affiliations have also done much to assist in the preparation of this book. The Department of Anthropology, University of Western Australia (Nedlands), the Western Australian Museum (Perth), and the South Australian Museum (Adelaide) all helped in various ways and did much to ensure the success of these studies. The actual writing was done while I was a Visiting Fellow at Corpus Christi College, Cambridge University, in 1977–8, and valuable assistance in typing the manuscript and preparation of tables was furnished by the Social Science Research Institute (University of Hawaii, Honolulu). I am grateful to all of these funding agencies and scholarly institutions for their many services and valuable support.

In undertaking this book, I sought the advice of scholars in different parts of the world, many of whom are acknowledged by name in the text together with the particular ideas they proposed. Others, however, made general suggestions which were not specifically mentioned in the text but were important, nevertheless. Worthy of special

xiv      *Acknowledgments*

mention in this regard are the late Prof. N. W. G. Macintosh (Department of Anatomy, University of Sydney) and the late Dr. Charles P. Mountford (The South Australian Museum, Adelaide) as well as Dr. Norman B. Tindale (The South Australian Museum, Adelaide), Prof. Ronald M. Berndt and Dr. Catherine H. Berndt (University of Western Australia, Nedlands), Dr. Robert Tonkinson (University of Oregon, Eugene), Dr. Nicolas Peterson (Australian National University, Canberra), M. E. Lofgren (The Western Australian Museum, Perth), and Cecil J. Hackett, M.D. (Royal Society of Medicine, London) for their expertise and advice about traditional behavior among Australian Aborigines. Special thanks go to Dr. Hackett for allowing me to read his unpublished notes and diaries of field trips into the Western Desert during the 1930s. With regard to advice on various aspects of Australian prehistory, I wish to thank Prof. D. J. Mulvaney, J. M. Bowler, F. W. Shawcross, and Michael McIntyre (Australian National University, Canberra), R. V. S. Wright (University of Sydney, N.S.W.), Graeme Pretty (The South Australian Museum, Adelaide), Charles Dortch (The Western Australian Museum, Perth), Dr. P. J. Coutts (Victoria Archaeological Survey, Melbourne), Dr. D. R. Horton (Australian Institute of Aboriginal Studies, Canberra), F. P. Dickson (Macquarie University, North Ryde, N.S.W.), R. J. Lampert (The Australian Museum, Sydney), Prof. V. R. Kabo (Institute of Ethnography, Academy of Science, Moscow, U.S.S.R.), Sandra Bowdler (University of New England, N.S.W.), and Dr. Geoffry Bailey (Department of Archaeology, Cambridge University, England).

Useful suggestions about ethnoarchaeology in general were provided by numerous individuals, including Dr. Paul Mellars and Robin Torrance (University of Sheffield, England), Prof. G. Connah (University of New England, N.S.W.), Prof. C. B. M. McBurney (Department of Archaeology, Cambridge University, England), Dr. P. Bion Griffin (University of Hawaii, Honolulu), Dr. Michael Schiffer (University of Arizona, Tucson), Dr. Karl L. Hutterer, (University of Michigan, Ann Arbor), Dr. Mark P. Leone (University of Maryland, College Park), Dr. Michael Stanislawski (Museum of New Mexico, Santa Fe), Dr. Douglas Schwartz (School of American Research, Santa Fe), Dr. Ari Siirinen (National Board of Antiquities and Historical Monuments, Helsinki, Finland), Dr. D. T. Bayard (University of Otago, Dunedin, New Zealand), and Dr. Peter Gathercole (Museum of Archaeology and Ethnology, Cambridge University, England). I am grateful for the many excellent suggestions offered by these individuals and those mentioned in the text, although I remain entirely responsible for the views presented in this book.

Others have played an important part in assisting with various expertise and help in preparing this book. Special thanks go to Peter

*Acknowledgments*

xv

Latz (Arid Zone Research Institute, Alice Springs, N.T.) for his advice on fire ecology and botany in the Central Desert, to Dr. Douglas Haynes (Western Mining Corporation Pty. Ltd., Canberra) for expertise on the geology of the Warburton Ranges area, to Mr. Arthur Court (Director), Dr. Ian Telford, and Dr. Michael Crisp (Herbarium, Canberra Botanic Gardens, A.C.T.) for their advice on the botany of various Australian plants, to Ms. Clare Davies-Jones (Cambridge University Press, Trumpington St., Cambridge) for her sound criticism of the manuscript as it was being written, and to Mr. Nicholas Amorosi (American Museum of Anthropology, New York) for drawing the illustrations in Figs. 2, 3, and 5. It is no easy matter to produce a book of this scope, and I am grateful for the competent advice and help these individuals and institutions provided.

Finally, I wish to thank the Australian Institute of Aboriginal Studies (Canberra) for permitting me to cite some of the data and conclusions in Chapter 5 (including Tables 8–10) that I published earlier in a paper titled “Ethno-archaeology; or, where do models come from?” appearing in *Stone tools as cultural markers*, edited by R. V. S. Wright, 1977. Thanks, too, to the American Museum of Natural History for allowing me to recycle data and ideas about Puntutjarpa Rockshelter that first appeared in “Puntutjarpa Rockshelter and the Australian desert culture,” *Anthropological Papers of the American Museum of Natural History*, 54(1977), and to Robert S. O. Harding and Geza Teleki, editors of *Omnivorous primates: Gathering and hunting in human evolution* (Columbia University Press, New York, in press), for letting me develop ideas about home bases and fire (or the lack of it) that first appeared in my paper in this volume, titled “To have and have not: The ecology of food-sharing behavior among contemporary hunter-gatherers and early hominids.” Similar thanks go to *The American Anthropologist*, for permitting me to reuse some of the data and ideas that appeared in my paper, “The anthropology of human residues,” 80 (1978).