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Ethnobiology is concerned with the social and cultural transformation of biological knowledge. Roy Ellen, who has worked among the Nuaulu people of eastern Indonesia for more than twenty years, argues here that ethnobiology is a key theoretical area of anthropological inquiry, because it relies on accessible ethnography to explain the inter-relationship between collective representations and cognitive processes. He demonstrates this through a detailed analysis of Nuaulu classification of animal knowledge: the relationship between animal words and animal categories; the construction of different categories and their relationship to one another; and the actual language of classification. The classifications are shown to be context bound and socially embedded, of practical importance to their users, and to reflect an interaction between culture, cognitive processes, and the material world. This is an innovative study which takes our understanding beyond the arid taxonomic abstraction characteristic of earlier work in the field.

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The cultural relations of classification

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Head of the clan Matoke and 'Lord of the Land' in the Nuaulu village of
Aihisuru; a characteristic pose in the **auwoti** dance: 2 January 1970.

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THE CULTURAL RELATIONS OF CLASSIFICATION

*An analysis of Nuaulu animal
categories from central Seram*

ROY ELLEN

The University of Kent at Canterbury



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To the memory of Ralph Bulmer

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Preface

This work comprises eight interconnected essays which address the main arguments, findings and implications of my research on Nuaulu animal classification conducted over a period of 22 years. Included also are 13 appendices which systematically list most Nuaulu animal terms in order of their phylogenetic glosses. The exigencies of academic publishing have prevented a more detailed treatment of each category and their immediate interconnections here, though this can be found in a companion volume, *Nuaulu ethnozoology: a systematic inventory*, produced by the Centre for Social Anthropology and Computing at the University of Kent at Canterbury. Wherever statements require further ethnographic expansion or elucidation in the text which follows, reference should be made to this volume. I have not generally cross-referenced between the two works since the possible ways in which the companion volume might be used as a back-up are potentially so numerous.

Some of the material included in this volume has previously appeared elsewhere, though it is generally used here in a revised and modified form. For permission to reproduce copyrighted text, I would like to thank the editors and publishers of the journals in which the following articles were printed: ‘Omniscience and ignorance: variation in Nuaulu knowledge, identification and classification of animals’ in *Language and Society*, 1979, 8: 337–64 (Chapter 5); ‘Species transformation and the expression of resemblance in Nuaulu ethnobiology’ in *Ethnos*, 1985, 50: 5–14 (Part 5 of Chapter 6); and ‘Ethnobiology, cognition and the structure of prehension: some general theoretical notes’ in the *Journal of Ethnobiology*, 1986, 6i: 83–98 (Chapter 8).

The various periods of fieldwork upon which the study is based have been conducted under the auspices of the Lembaga Ilmu Pengetahuan

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Indonesia (the Indonesian Academy of Sciences) in Jakarta, the staff of which have always been most generous and cooperative. The 1975 season was also conducted in cooperation with the Lembaga Biologi Nasional (The National Institute of Biology) and the Museum Zoologicum Bogoriense in Bogor, and I am particularly grateful for the sponsorship of Dr S. Kadarsan in this respect.

Financial support during 1969–71 came from a Social Science Research Council Studentship (No. S68.8243), augmented by grants from the London–Cornell Scheme for research in South and Southeast Asia and the Central Research Fund of the University of London. The 1973 phase was supported mainly by a Hayter Travel Grant. In 1975 I received a Social Science Research Council Award (HR3410.2) for research on ‘Nuauulu ethnobiology and ecology’, covering the period 1975–77. In both 1969–71 and 1973 audio-visual equipment was provided by the Central Research Fund of the University of London. Acknowledgements are also due to the British Academy, Nuffield Foundation and University of Kent at Canterbury whose assistance on a different project in the same area permitted three further brief visits to south Seram, in January 1981, June 1986 and February–March 1990.

Over the years my ethnozoological work has relied upon the generous help of a large number of specialists. Such support is still unusual in ethnographic research, although very necessary and relatively frequent in ethnobiology. In particular, I have been able to benefit from the expertise of the following staff of the Natural History Museum in London:

Department of Zoology: Mr John Edwards Hill and Mr P. D. Jenkins (Mammalia); Miss A. Grandison and Mr A. F. Stimson (Amphibia, Reptilia); Dr Alwyne Wheeler, Dr P. J. P. Whitehead and Mr O. A. Crimmen (Fish); Mr K. H. Hyatt, Mr F. R. Wanless, Mr Paul D. Hillyard (Arachnida and Myriapoda); F. G. Easton (Annelida); Mr R. W. Ingle and Dr Anthony A. Fincham (Crustacea); Ms K. M. Way, Mr F. Naggs and Mr J. F. Peake (Mollusca); and Dr E. N. Arnold.

Department of Entomology: David R. Ragge, Mrs Judith A. Marshall (Orthoptera), W. R. Dalling (Heteroptera), R. T. Thompson (Coleoptera), Kenneth G. V. Smith (Diptera), D. Morgan (Hymenoptera), Dr W. J. Knight (Hemiptera), Ms Julie Harvey (Library), and Ms Theresa Clay.

Sub-Department of Ornithology (Tring): Dr D. W. Snow, Dr P. J. K. Burton and Mr G. Galbraith.

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Other specimens were identified for me by the late Dr Serene in Paris, Mr J. Menzies and the staff of the Department of Biology at the University of Papua New Guinea in Port Moresby, and Dr Soenartono Adisoemato in Bogor. I am also grateful to the British Museum (Natural History) and the Biology Department of the University of Kent at Canterbury for the provision of collecting equipment and preservatives. Dr J. D. Kesby of the University of Kent and the late Dr C. M. N. White of Lytham St Annes were most helpful in providing informed comment on a number of queries. While this monograph is not an account of Nuauulu ethnobotany, the identification of plant species has been a necessary part of a broader understanding of Nuauulu relations with their fauna. I am consequently also indebted to Mr L. L. Forman of the Royal Botanic Gardens at Kew, and Dr Chang Kiaw Lan of the Botanic Gardens in Singapore.

Finally, I would like to thank the following in particular for their support during the various fieldwork phases: Tante Boya, the late Om Myos Sahetapy-Warella and Jan Resmol in Amboina, and the villagers of Rohua, Hahuwalan, Watane, Aihisuru, Bunara, and Sepa on Seram (not least of all Naupati and Saniau Matoke, Saite, Napwai and Komisi Somori, Hotena Nepane, and Unsa Sonawe). Since 1988 I have been able to draw on the work of Rosemary Bolton of the Summer Institute of Linguistics; it is her orthography which I adopt here in almost every instance, while her clarification of various details of nomenclature, semantics and grammar has been invaluable. Jane Pugh kindly modified some existing maps, Brian Durrans of the Museum of Mankind in London has facilitated access to Nuauulu artifacts, while G. A. Nagelkerke, Mrs L. van der Spree-Annyas and Gerrit Knaap have courteously handled a number of queries. Various chapters have benefitted from the critical comments of Paul Taylor, Jim Collins and David Reason, though none would necessarily approve of the final product in its entirety. The work was originally inspired by the various studies of Ralph Bulmer, who has also been a constant source of advice. This book is dedicated to his memory.

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Abbreviations

<i>alt</i>	alternatively
<i>AM</i>	Ambonese Malay
<i>arch</i>	archaic
<i>BM</i>	British Museum (Museum of Mankind), London
<i>CM</i>	Central Maluku
<i>cm</i>	centimeters
<i>D</i>	diameter
<i>H</i>	height
<i>incl</i>	including
<i>Ind</i>	Indonesian
<i>indet</i>	indeterminate
<i>kg</i>	kilograms
<i>L</i>	length
<i>lit</i>	literally
<i>m</i>	meters
<i>n</i>	noun
<i>nr</i>	near
<i>PAN</i>	Proto-Austronesian
<i>PCM</i>	Proto-Central Maluku
<i>prep</i>	preposition
<i>prob</i>	probably
<i>RB</i>	Rosemary Bolton; in acknowledgement of the source of a term or meaning
<i>sp (spp)</i>	species (plural)
♀	female
♂	male
?	uncertain determination
0	in a diagram indicates a covert category

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Reference to specimens in museums and private collections is indicated using round brackets as in the following example: (e.g. BM As. 1.177 and Ellen 1970.617). Other references are indicated using square brackets, to avoid any confusion.

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A note on orthography

As so much of my argument here hinges on the form and meaning of Nuauulu words, orthography is no insignificant matter. My own language materials are extensive, but unsystematic and linguistically unsophisticated. It is therefore a great pleasure, and something of a relief, to be able to draw upon the recent work of Rosemary Bolton [1990], work which at the time of writing is still in progress. The letters which she uses to represent Nuauulu speech sounds are phonemic, and include 11 consonants and five vowels composed of the following phonetic features:

Consonants

Glottal

Voiceless stops p t k

Fricatives s h

Nasals m n

Flaps r

Laterals l

Semi-vowels w y

Vowels

		Front	Back
		unrounded	rounded
<i>High</i>	close	i	u
<i>Mid</i>	half open	e	o
	open	a	

The Indonesian alphabet includes all Nuauulu phonemes and is used here without modification. Stress is unmarked in most regular cases and

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normally occurs on the penultimate syllable. Indigenous words appear in **boldface**. One consequence of my adopting this revised phonology and orthography, as alert readers may notice, is certain changes in the written appearance of some Nuaulu words (e.g. **totuwe** becomes **totue**). There is not as yet any Nuaulu consensus as to the proper way to write personal names, clans and places. To avoid confusion they usually appear here as in my earlier publications.