THE SEA PEOPLE

Late Holocene maritime specialisation in the Whitsunday Islands, central Queensland

Bryce Barker

Editorial team: Jack Golson and Sue O'Connor

Cover: Looking south-east from the South Molle Island Aboriginal quarry over Planton Island to Whitsunday Island. Photograph by L. Lamb.

Back cover map: *Hollandia Nova*. Thevenot 1663 by courtesy of the National Library of Australia. Reprinted with permission of the National Library of Australia.

© Publication and format Pandanus Books, 2004.

Published by Pandanus Books in association with the Centre for Archaeological Research and the Department of Archaeology and Natural History, The Australian National University.

Copyright of the text remains with the contributors/authors, 2004. This book is copyright in all countries subscribing to the Berne convention. Apart from any fair dealing for the purpose of private study, research, criticism or review, as permitted under the *Copyright Act*, no part may be reproduced by any process without written permission. Inquiries should be made to the publisher.

Typeset in Palatino 10.5pt on 14pt by Pandanus Books and printed by Elect Printing, Canberra .

National Library of Australia Cataloguing-in-Publication entry

Barker, Bryce

The Sea People: late Holocene maritime specialisation in the Whitsunday Islands, central Queensland

Bibliography ISSN 0725-9018 ISBN 1 74076 092 1

1. Archaeology — Queensland — Whitsunday Islands. 2. Aboriginal Australians — Queensland — Whitsunday Islands — Antiquities. I. Australian National University. Research School of Pacific and Asian Studies. II. Title. (Series: Terra Australis; 20).

930.1099436

www.pandanusbooks.com.au

Pandanus Books are distributed by UNIREPS, UNSW, Sydney NSW 2052 Ph 02 9664 0999 Fax 02 9664 5420

Editorial Team: Jack Golson and Sue O'Connor

Production: Ian Templeman, Duncan Beard, Justine Molony and Emily Brissenden

Contents

F	oreword	ix
P	reface and Acknowledgements	xviii
A	note on dates	xix
1	The Research Question	1
2	Prehistoric Coastal Use and Models of Holocene Change	5
	Marine resources and the environment	5
	Significance of shellfish	6
	Significance of fish	7
	Other marine resources	8
	Coastal archaeology in Australia	9
	Regional differences	9
	Chronological differences	11
	Holocene coastal use	12
	Environmental models	12
	Post-depositional factors	14
	Technological models	15
	Population models	16
	Social models for change	18
	Chronology and explanation	20
	Conclusion	22
3	Ethnographic and Ethnohistorical Background	25
	Reconstructing 'tribal' boundaries	26
	Defining Ngaro territory	28
	Conclusion	32
	Estimates of population size	32
	Trade and regional interaction	34
	Resource use	34
	Turtle	35

	Dugong	37
	Other	37
	Canoes and technology	38
	Outrigger canoes	38
	Bark canoes	39
	Discussion	41
	Other material culture	42
	Other northern coastal observations	42
	Discussion	44
4	Palaeoenvironments	45
	Palaeoenvironments in northern Australia	46
	Palynological evidence	46
	Chenier research	47
	Other research	48
	Discussion	49
	Holocene sea levels in northern Australia	49
	10,000 bp to 6000 bp	49
	6000 bp to the present	52
	Discussion	53
5		55
	The survey strategy	55
	The surveys	56
	The results	56
	Discussion	56
	Excavation procedures	57
	Analysis of cultural material	58
	Methods of quantification	58
	Shellfish	59
	Bone	60
	Plant material	62
	Land snails	62
	Stone artefacts	63
6	Nara Inlet 1, Hook Island	65
	Regional description	65
	Nara Inlet 1	66
	Stratigraphic description	67
	Chronology	67
	Cultural phases	68
	Analysis of cultural material	69
	Shellfish	69 75
	Barnacles	75 75
	Fish	75 77
	Crustaceans Marina turtle	77 70
	Marine turtle	79 79
	Other marine fauna Terrestrial fauna	79 79
	Plant material	79 81
	Land snails	82
	Land Statis	02

	Lithic artefacts	82
	Non-lithic artefacts	83
	Charcoal	85
	Discussion	85
	Shellfish	86
	Fish	86
	Turtle and whale	87
	Crustaceans	87
	Terrestrial fauna	87
	Meat weights	88
	Stone artefacts	88
	Conclusion	89
7	Nara Inlet Art Site, Hook Island	91
	Regional description	91
	Nara Inlet Art Site	91
	Stratigraphic description	93
	Chronology	94
	Analysis of cultural material	94
	Shellfish	94
	Barnacles	98
	Fish	99
	Crustaceans	100
	Marine turtle	100
	Other marine fauna	101
	Terrestrial fauna	101
	Plant material	101
	Land snails	102
	Lithic artefacts	102
	Non-lithic artefacts	102
	Other cultural material	102
	Rock art and ochre	102
	Discussion	103
8	Border Island	105
	Regional description	105
	Border Island 1	105
	Stratigraphic description	106
	Chronology	107
	Analysis of cultural material	109
	Shellfish	109
	Barnacles	112
	Fish	112
	Crustaceans	113
	Marine turtle	113
	Terrestrial fauna	113
	Plant material	113
	Other cultural material	114
	Stone artefacts	114
	Other artefacts	114
	Discussion	114

9 I	Hill Inlet, Whitsunday Island	117
F	Regional description	117
F	Hill Inlet Rock Shelter 1	118
	Stratigraphic description	118
	Chronology	119
A	Analysis of cultural material	120
	Shellfish	120
	Fish	123
	Crustaceans	124
	Other marine fauna	124
	Terrestrial fauna	124
	Plant material	125
	Land snails	125
	Stone artefacts	125
	Non-lithic artefacts	127
I	Discussion	127
10 7	The South Molle Island Quarry	131
9	Site description	131
ŀ	Historical accounts of Aboriginal activity on South Molle	134
(Other raw material sources	135
I	Distribution of black tuff	135
	Petrographic analysis	137
	Discussion	138
(Conclusion	138
11 7	The Archaeology: A Synthesis	139
	liming of occupation	139
5	Subsistence and economy	140
	The relative importance of dietary resources	140
	Changes in subsistence	143
	Conclusion	143
5	Settlement pattern	143
	Technology	145
(Conclusion	146
12 7	Towards a Prehistory of the Whitsunday Islands	147
	Holocene change and the Whitsunday Islanders	147
	Archaeological patterns of change	147
	The Whitsunday Islands and models of coastal occupation	148
	A model for change in the Whitsunday Islands	150
(Conclusion	151
D ₀ 4	erences	153
Kel	CICICCS	133

List of Figures

1.1	Central Queensland coast: the Whitsunday region, showing excavated sites	XX
3.1	Central Queensland coast: the Whitsunday region, showing Ngaro tribal boundary	27
3.2	Central Queensland coast: 'tribal' boundaries	29
4.1	Synthesis of late Pleistocene and early Holocene sea-level data: sea-level curves	
	for (a) SE Australia and (b) NE Australia	51
4.2	Whitsunday region: coastline at 10,000 BP, –30m contour	54
4.3	Whitsunday region: coastline at 8000 BP, –12m contour	54
6.1	Hook Island	66
6.2	Nara Inlet 1: site map	67
6.3	Nara Inlet 1: stratigraphic sections	68
6.4	Nara Inlet 1: sedimentation rates	69
6.5	Nara Inlet 1: discard rates of shell	69
6.6	Nara Inlet 1: discard rates of Nerita undata	70
6.7	Nara Inlet 1: changes in average shell size of Nerita undata	70
6.8	Nara Inlet 1: discard rates of Monodonta labio	71
6.9	Nara Inlet 1: discard rates of Lunella cinerea	71
6.10	Nara Inlet 1: discard rates of <i>Thais kieneri</i>	72
6.11	Nara Inlet 1: discard rates of Acanthopleura gemmata	72
	Nara Inlet 1: discard rates of Saccostrea cucullata	74
6.13	Nara Inlet 1: discard rates of Trichomya hirsuta	74
	Nara Inlet 1: discard rates of <i>Pinctada fucata</i>	75
	Nara Inlet 1: discard rates of Melina ephippium	75
	Nara Inlet 1: discard rates of Asaphis deflorata	75
6.17	Nara Inlet 1: discard rates of fish bone	76
6.18	Nara Inlet 1: discard rates of crab shell	78
6.19	Nara Inlet 1: discard rates of terrestrial bone	80
6.20	Nara Inlet 1: discard rates of stone artefacts	83
6.21	Nara Inlet 1: discard rates of charcoal	85
7.1	Nara Inlet Art Site: site map	92
7.2	Nara Inlet Art Site: stratigraphic section	93
8.1	Border Island 1: stratigraphic section	107
8.2	Border Island 1: discard rates of shell	108
8.3	Border Island 1: discard rates of Nerita undata	108
8.4	Border Island 1: discard rates of Monodonta labio	108
8.5	Border Island 1: discard rates of Lunella cinerea	108
8.6	Border Island 1: discard rates of Acanthopleura gemmata	108
8.7	Border Island 1: discard rates of Saccostrea cucullata	109
8.8	Border Island 1: discard rates of fish bone	109
8.9	Border Island 1: discard rates of turtle bone	109
8.10	Border Island 1: discard rates of charcoal	109
8.11	Border Island 1: discard rates of stone artefacts	109
9.1	Whitsunday Island	118
9.2	Hill Inlet Rock Shelter 1: site map	119
9.3	Hill Inlet Rock Shelter 1: stratigraphic section	119
9.4	Hill Inlet Rock Shelter 1: distribution of charcoal and burnt bone in	
	relation to that of fish bone	128
9.5	Hill Inlet Rock Shelter 1: changes in average shell size of Saccostrea cucullata	129
10.1	South Molle Island quarry	133

10.2	Juan knife	135
10.3	Whitsunday region: distribution of quarry sources and artefact raw materials	136
List	of Plates	
3.1	Central Queensland coast: outrigger canoe	38
3.2	Central Queensland coast: three-piece bark canoes	40
3.3	Central Queensland coast: (a) one-piece and (b) three-piece bark canoes	41
6.1	Nara Inlet, Hook Island	66
6.2	Nara Inlet 1 rock shelter	67
6.3	Nara Inlet 1: cut <i>Eretmochelys imbricata</i> shell	84
6.4	Nara Inlet 1: wooden bipoint	84
6.5	Nara Inlet 1: cut bivalve shell	84
6.6	Nara Inlet 1: shell fish-hook blank	84
6.7	Nara Inlet 1: knotted grass string	85
7.1	Nara Inlet Art Site: view of excavation	92
7.2	Nara Inlet Art Site: rock art from main panel	103
8.1	Border Island	106
8.2	Border Island: detail of Cateran Bay, location of Border Island 1	106
8.3	Border Island 1: view of excavation	106
9.1	Hill Inlet, Whitsunday Island	118
10.1	South Molle Island: view of quarried ridge	132
10.2	South Molle Island quarry: (a) mined pit; (b) eastern slope of quarry;	
	(c) flakes and hammerstones; (d) tuff substrate	132
List o	of Tables	
3.1	Whitsunday Islands: historical sightings of island occupation	32
3.2	Central Queensland coast: historical accounts of subsistence activity	36
3.3	Central Queensland coast: historical accounts of canoe sightings	39
4.1	Timing of stillstands relating to specific shorelines across the continental	
	shelf, central Great Barrier Reef	52
4.2	Mid- to late Holocene emergence in tropical Queensland	53
4.3	Mean sea levels between 10,000 BP and 8000 BP in north-eastern Australia	53
5.1	Whitsunday region: sites recorded, by geographical zone	57
5.2	Meat weights of modern shellfish	60
6.1	Nara Inlet 1: radiocarbon dates	68
6.2	Nara Inlet 1: shellfish data for Nerita undata	70
6.3	Nara Inlet 1: shellfish data for Monodonta labio	71
6.4	Nara Inlet 1: shellfish data for Lunella cinerea	72
6.5	Nara Inlet 1: shellfish data for <i>Thais kieneri</i>	72
6.6	Nara Inlet 1: shellfish data for Acanthopleura gemmata	73
6.7	Nara Inlet 1: shellfish data for Saccostrea cucullata	73
6.8	Nara Inlet 1: shellfish data for <i>Trichomya hirsuta</i>	74
6.9	Nara Inlet 1: shellfish data for Pinctada fucata and Melina ephippium	75
6.10	Nara Inlet 1: stratigraphic distribution of fish families	77
6.11	Nara Inlet 1: stratigraphic distribution of crabs	78
6.12	Nara Inlet 1: stratigraphic distribution of terrestrial fauna	81
6.13	Nara Inlet 1: stratigraphic distribution of edible plants	82
6.14	Nara Inlet 1: stratigraphic distribution of non-lithic artefacts	83
6.15	Nara Inlet 1: total estimated meat weights	88
7.1	Nara Inlet Art Site: radiocarbon date	94
7.2	Nara Inlet Art Site: shellfish data for three nerites	95

7.3	Nara Inlet Art Site: shellfish data for Monodonta labio	95
7.4	Nara Inlet Art Site: shellfish data for Lunella cinerea	96
7.5	Nara Inlet Art Site: shellfish data for Thais kieneri	96
7.6	Nara Inlet Art Site: shellfish data for Acanthopleura gemmata	96
7.7	Nara Inlet Art Site: shellfish data for Saccostrea cucullata	97
7.8	Nara Inlet Art Site: shellfish data for Trichomya hirsuta	97
7.9	Nara Inlet Art Site: shellfish data for Geloina coaxans	98
7.10	Nara Inlet Art Site: stratigraphic distribution of shellfish	98
7.11	Nara Inlet Art Site: stratigraphic distribution of other cultural material	99
7.12	Nara Inlet Art Site: stratigraphic distribution of crustaceans	100
7.13	Nara Inlet Art Site: stratigraphic distribution of edible plants	102
8.1	Border Island 1: radiocarbon dates	107
8.2	Border Island 1: shellfish data for three nerites	110
8.3	Border Island 1: shellfish data for Monodonta labio	110
8.4	Border Island 1: shellfish data for Lunella cinerea	111
8.5	Border Island 1: shellfish data for <i>Thais kieneri</i>	111
8.6	Border Island 1: shellfish data for Acanthopleura gemmata	111
8.7	Border Island 1: shellfish data for Saccostrea cucullata	112
8.8	Border Island 1: stratigraphic distribution of fish families	112
9.1	Hill Inlet Rock Shelter 1: radiocarbon date	119
9.2	Hill Inlet Rock Shelter 1: shellfish data for Nerita undata	120
9.3	Hill Inlet Rock Shelter 1: shellfish data for Monodonta labio	121
9.4	Hill Inlet Rock Shelter 1: shellfish data for Lunella cinerea	121
9.5	Hill Inlet Rock Shelter 1: shellfish data for <i>Thais kieneri</i>	121
9.6	Hill Inlet Rock Shelter 1: shellfish data for <i>Acanthopleura gemmata</i>	122
9.7	Hill Inlet Rock Shelter 1: shellfish data for Saccostrea cucullata	122
9.8	Hill Inlet Rock Shelter 1: shellfish data for Trichomya hirsuta	122
9.9	Hill Inlet Rock Shelter 1: shellfish data for Geloina coaxans	123
9.10	Hill Inlet Rock Shelter 1: stratigraphic distribution of fish families	123
9.11	Hill Inlet Rock Shelter 1: stratigraphic distribution of crabs	124
9.12	Hill Inlet Rock Shelter 1: stratigraphic distribution of terrestrial fauna	124
9.13	Hill Inlet Rock Shelter 1: stratigraphic distribution of land snails	126
9.14	Hill Inlet Rock Shelter 1: attributes of stone artefacts	126
9.15	Hill Inlet Rock Shelter 1: stratigraphic discard of cultural material	128
10.1	Discard of artefacts of South Molle Island stone at Nara Inlet 1 and Border Island 1	134
10.2	Whitsunday region: geographical distribution of artefact raw materials	136
10.3	Whitsunday region: petrographic description of selected artefacts	137
11.1	Occupation dates for hinterland sites Townsville to Cape Upstart	140
11.2	The relative importance of dietary resources at the investigated sites	141
11.3	The geographical location of sites in the Whitsunday region	144