

ABORIGINAL LAND USE ON TASMAN PENINSULA

by D. Gaughwin

Department of Archaeology, La Trobe University

(with five tables, two text-figures and one plate)

The results of an archaeological reconnaissance of Tasman Peninsula are summarised, eight radiocarbon dates are reported and a preliminary outline of Aboriginal land use patterns is presented.

Key Words: Tasman Peninsula, Tasmania, Aboriginal occupation, archaeological survey.

From SMITH, S.J. (Ed.), 1989: *IS HISTORY ENOUGH? PAST, PRESENT AND FUTURE USE OF THE RESOURCES OF TASMAN PENINSULA*. Royal Society of Tasmania, Hobart: 89–96.

INTRODUCTION

The title of the symposium, “Past, present and future use of the resources of the Tasman Peninsula”, is particularly relevant to prehistoric Aboriginal archaeology which relies on extant evidence to reconstruct past patterns of Aboriginal use of the region. Our knowledge of the nature of Aboriginal occupation is almost entirely dependent upon the information that can be retrieved from former campsites and the rubbish discarded there. Only those sites that have survived into the present can contribute to the database. This paper outlines a preliminary interpretation of Aboriginal land use based on the results of a survey of parts of Tasman Peninsula and previously unpublished radiocarbon dates for four coastal sites.

Archaeologists make several assumptions in determining prehistoric patterns of land use. Firstly, we assume that sites are not randomly placed across the landscape but, rather, each site represents a choice made by a group of Aboriginal people who knew their country well. Secondly, it is thought that these choices were made, in part at least, in order to satisfy some basic human needs; shelter, freshwater, food, firewood, stone and other raw materials for tool-making. Thirdly, it is assumed that these needs are met directly by the environment, and therefore by understanding that environment it is possible to reconstruct why choices of site locations were made. The accumulation of such understanding should lead to hypotheses about overall land use of Tasman Peninsula.

Little is known of Aboriginal lifeways on the east coast from the historic accounts of the recent past. Several summaries are available which present the known information (Jones 1974, Brown 1986). These indicate that Tasman Peninsula was in the territory of the Oyster Bay Tribe, with the local residence of one band situated at Eaglehawk Neck. It is likely that this band, of perhaps fifty persons, exploited Tasman Peninsula. Given the paucity of historical evidence we must rely on archaeological techniques to attempt to discover the nature of this exploitation.

Tasman Peninsula is a very good area in which to explore patterns of Aboriginal land use, as it has quite high diversity of landscapes within a relatively small area. There is a variety of “ecological niches”, each with different potential for human occupation and exploitation. The configuration means that coastal types ranging from the very exposed and rugged through to sheltered are present. Inland there is a variety of terrain, vegetation and soil types. There is good potential for locating sites inland as many parts of the eastern half are comprised of sandstone which, when eroded, forms caves. Frequently, these caves or rockshelters were camp sites of Aboriginal people and the evidence of occupation can be observed on the surface. Similarly, the coastal margins provide good surface visibility due to wind erosion. Nevertheless, visibility differences affect the archaeological record at any one time.

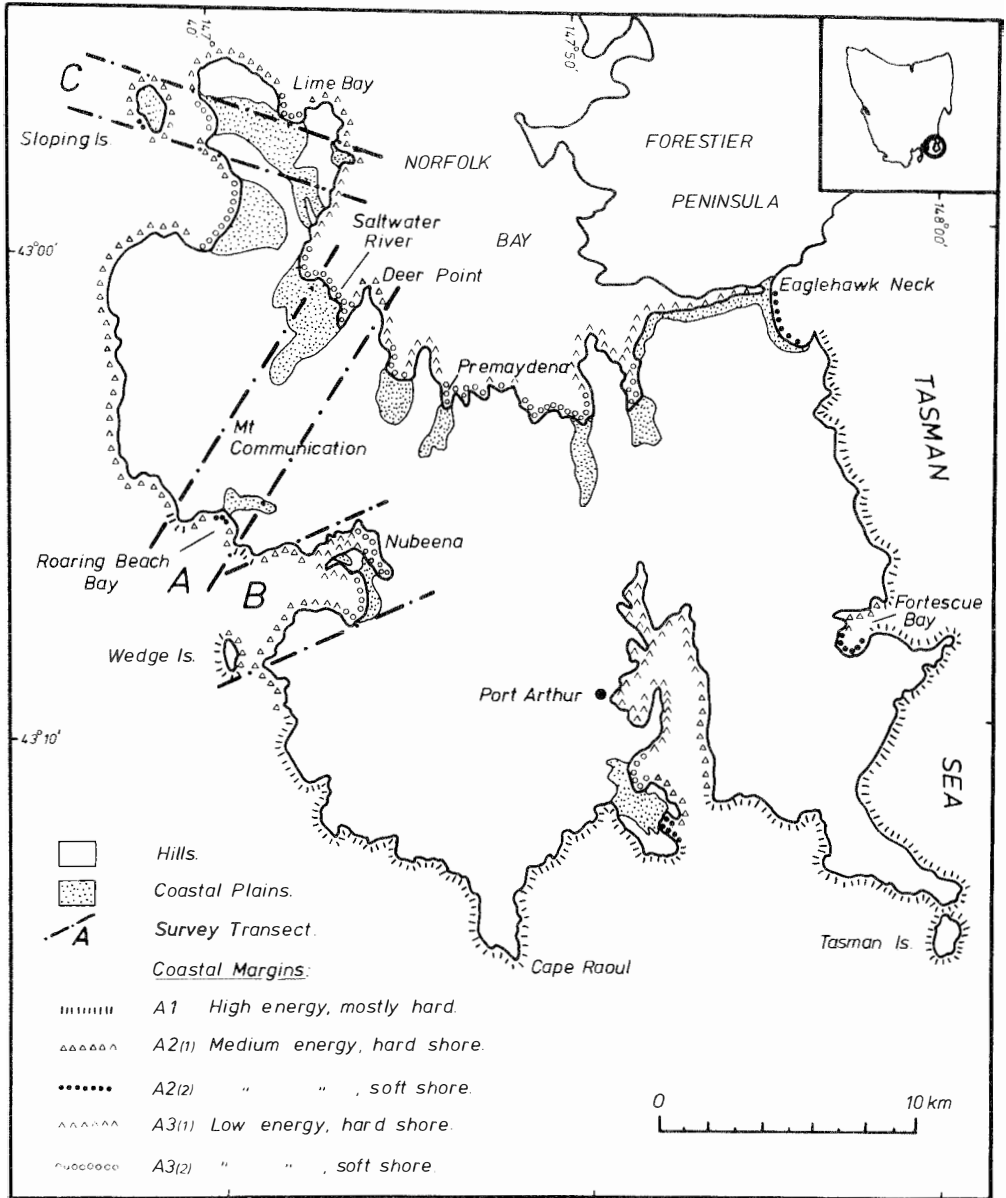


FIG. 1 — Tasman Peninsula showing transects and land units.

METHODS

In February 1984 a field survey of parts of the peninsula was undertaken (Gaughwin 1985). The survey was conducted within three transects which were designed to sample a variety of landforms, including offshore islands, a number of different coast types, inland plains, swamps and sandstone ridge country. Coverage within the transects was variable, primarily due to variations in ground visibility. Figure 1 indicates the transects, with the hatching on figure 2 showing those areas considered effectively surveyed.

Sites were recorded within three major analytical units: the Coastal Margins (Unit A), the Coastal Plains (Unit B), and the Hills (Unit C). These were divided into a number of sub-units, such as, "high energy, hard shore coastal margin". These units are regarded as broadly homogeneous in terms of the resources available within them and hence their potential for human use. They are illustrated on figure 1 and the resources likely to be present are listed in table 1. The survey located and recorded 72 sites (fig. 2). Analysis of these sites has been published in detail (Gaughwin 1985) and will only be outlined here.

RESULTS AND DISCUSSION

Coastal Margins

The greatest number of sites (78%) were located on the various coastal types (table 2). Shell middens were the most common site type although, interestingly, a large number of shell and lithic scatters were also recorded (table 3). The sites were evenly distributed between medium- and low-energy shores but there was a clear preference for either hard shores or those of a mixed type where both rockplatform and soft, sand or mud, shores were available within a few hundred metres of the site. This preference was further reflected in the shell content of the sites, where rockplatform species including oysters, mussels and warrener, predominated on both medium- and low-energy coasts. That more sites were associated with sandstone shores is explained by the greater availability of marine resources on these flat and differentially weathered platforms than on dolerite boulder beaches. Artifacts manufactured from cherty hornfels were commonly found in sites on medium energy coasts where some sites had large quantities of chipped stone, with thousands of pieces recorded on the surface in several areas. No stone

TABLE 1
The Land Units

Land unit	Likely resources
UNIT A: COASTAL MARGINS	
A1 High energy - hard shore	Rock platform shellfish, crustaceans, fish, seabirds, (?)seals, seaweed
A2 Medium energy - hard shore: sandstone dolerite	Rock platform shellfish, crustaceans, fish, seabirds, seaweed, edible plants, cherty hornfels, fresh water
A2 Medium energy - soft shore: sand	Shellfish, fish, edible plants, fresh water
A3 Low energy - hard shore: sandstone dolerite	Shellfish, crustaceans, fish, seaweed, edible plants, fresh water
A3 Low energy - soft shore: sand sand and mud	Shellfish, fish, edible plants, fresh water
UNIT B: COASTAL PLAINS	
B1 Well drained soils	Mammals, birds, reptiles, edible plants
B2 Wetlands, swamps, lagoons	Mammals, waterfowl, eels, edible plants, fresh water
UNIT C: HILLS	
C1 Steep and rocky	Mammals, birds, reptiles, edible plants, cherty
C2 Undulating	hornfels

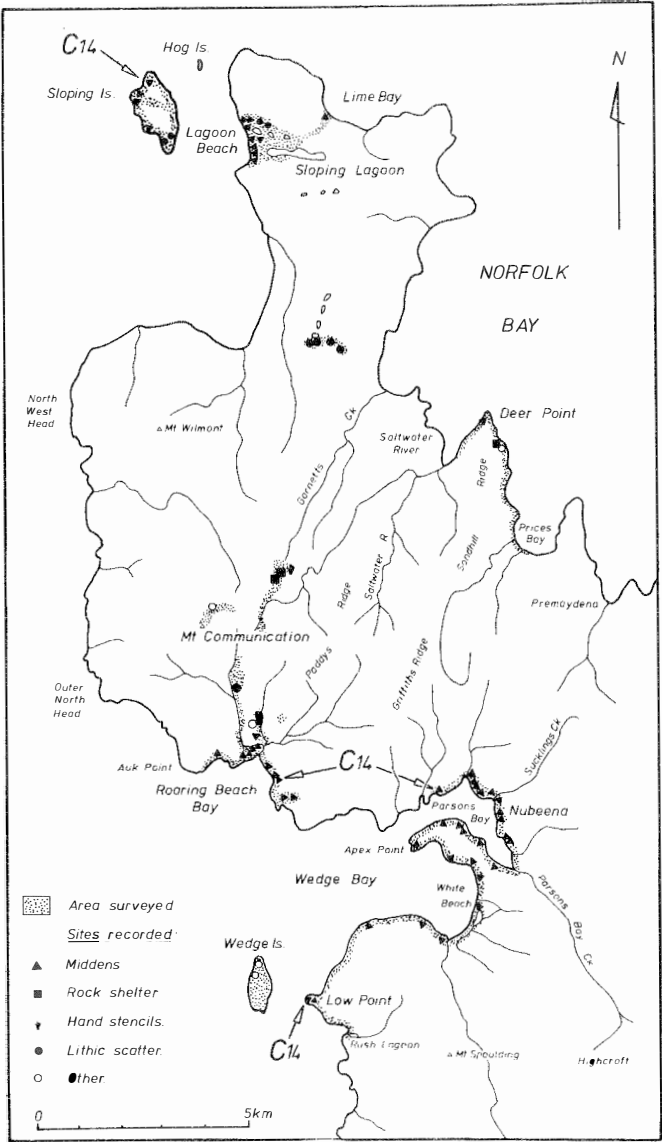


FIG. 2 — Site locations and areas surveyed on Tasman Peninsula.

TABLE 2
Distribution of Aboriginal Sites with Respect to Land Units

Sub-units	No. of sites	Sub-units	No. of sites
UNIT A: COASTAL MARGINS		UNIT B: COASTAL PLAINS	
A1 High energy — hard shore	0	B1 Well drained soils	8
A2 Medium energy — hard shore:		B2 Swamps etc.	0
sandstone	6	<i>Total plains</i>	8 (11%)
dolerite	5		
A2 Medium energy — soft shore:			
sand	6		
A2 Medium energy — mixed shore:			
sandstone/sand	11	UNIT C: HILLS	
dolerite/sand	3		
A3 Low energy — hard shore:		C1 Valley floor	1
sandstone	4	C2 Slopes, sides	1
dolerite	3	C3 Ridge, hilltops	0
A3 Low energy — soft shore:		<i>Total hills</i>	2 (3%)
sand	0		
sand and mud	3		
A3 Low energy — mixed shore:			
sandstone/sand	0	OTHER	
sandstone/sand and mud	10		
dolerite/sand	1	Mixed inland (units B and C)	6 (8%)
dolerite/sand and mud	4		
<i>Total coast</i>	56 (78%)		

artifacts were recorded in the oyster sites at low energy coasts.

Five islands, Dart, Hog, King George, Sloping and Wedge, were surveyed. Six sites were recorded on Sloping Island, all of which were lithic scatters associated with varying amounts of shell. The only other cultural material observed on the islands, was two isolated artifacts found on Wedge Island. Apparently, with the exception of Sloping Island, use of these offshore islands was minor. I have argued elsewhere that this may be due to the limited range of resources compared to the mainland. Sloping Island is the exception as not only are large numbers of muttonbirds present, but some good sources of cherty hornfels are found on the beaches of the northwest coast. The availability of both of these resources seems to have made the 1.5 km voyage to this island more attractive.

Coastal Plains

The eight sites on the coastal plains were on well drained soils adjacent to wetlands. All of these sites contained cherty hornfels stone artifacts including

both flaked material with retouch and many cores. Small quantities of shell were found in these sites. Given the low levels of ground visibility and hence the low number of sites recovered in this unit, it is not possible to suggest specific uses of the coastal plains at this stage.

TABLE 3
Relative Abundance of Different Types of Aboriginal Sites

Site types	No. of sites	%
Large shell midden	5	7
Linear midden	11	15
Partly deflated midden	8	11
Deflated midden	19	26
Shell and lithic scatter	10	14
Rockshelter with cultural material	5	7
Lithic scatter	9	13

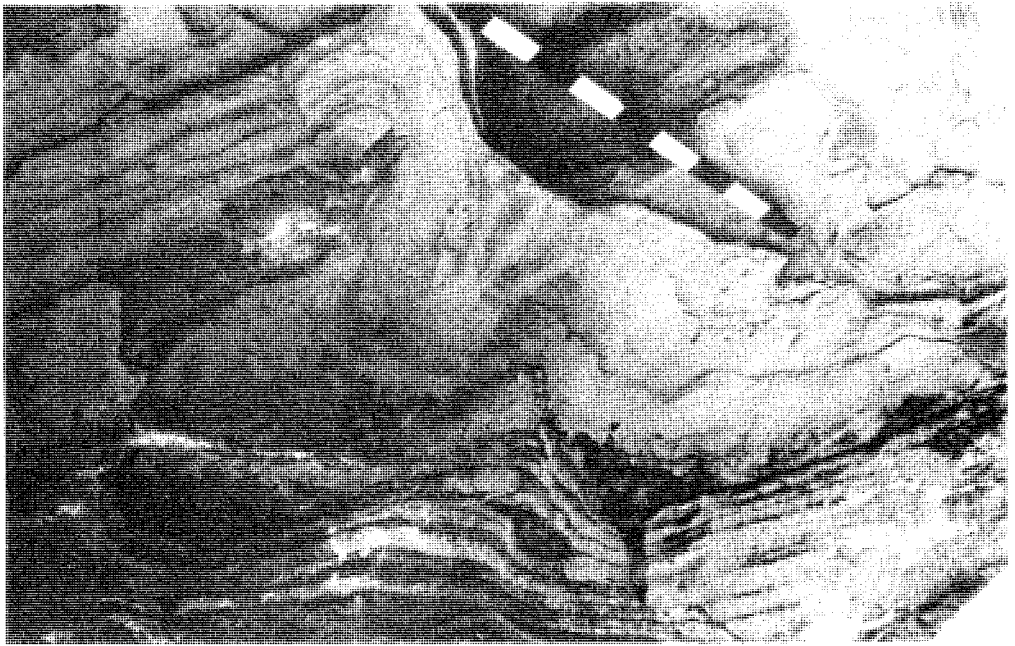


PLATE 1

Aboriginal hand stencils on rockshelter wall, Tasman Peninsula.

Hills

Caves provided the best opportunity to locate sites in the otherwise wooded or grassed hills. Thirty were inspected with five showing surface evidence of cultural material. All these were at the base of the sandstone ridges near the freshwater sources of the valley floors. Another six shelters have archaeological potential in that, although no cultural material was observed, their shape and level floors make them suitable for occupation. The cultural material in the recorded sites included flaked stone, small quantities of shell and art. One large west-facing cave near the valley floor, close to a freshwater lagoon, has three red-ochre hand stencils grouped together on the sloping rear wall. The stencils are faded and the colour appears as stains. While the sandstone in this cave appears to be much more stable than most others inspected, the surface is exfoliating and consequently the survival of the art is threatened (plate 1).

Previous models of land use on the east coast of Tasmania (Lourandos 1968, 1977; Stockton 1982) have suggested that coastal sites were primarily for shellfishing while inland sites were hunting camps.

The results of this survey, by contrast, indicate a much more complicated pattern of site location. Almost all the midden sites on medium-energy coasts, while containing large quantities of rockplatform shellfish, also had large amounts of chipped stone indicating that a wider range of activities was undertaken at these sites. The oyster middens on low-energy coasts, on the other hand, do not appear to have stone artifacts and are therefore likely to be limited activity sites similar to other low-energy sites on the east coast.

Utilisation of the coast relative to inland areas was investigated in the study. One of the useful indicators of the use of the coast is the presence of marine shells in sites. It was, therefore, interesting to find shellfish remains in sites inland as well as on the coast. Transect A provided the best evidence. Here large lithic scatters with low densities of shell were recorded within 100 m of the shell middens at Roaring Beach. Further inland, rockshelters at 800 m and up to 4 km from any coast have shells visible on the surface indicating that, when favourable inland campsites were available, a broad ranging set of foods, including marine, were transported over long distances. From this it seems clear that the coastal

margin and inland sites were closely associated in an overall strategy of land use, the actual nature of which is not yet understood.

The above results allow a pattern of land use to be suggested for the coastal margins. It is, however, important to know whether the archaeological record observed today is the result of a single strategy or represents a palimpsest of different strategies,

changing through time. In order to determine the chronological relationship between the coastal margin sites the author returned to Tasman Peninsula in February 1985 to collect carbon samples. The sites selected were from, and are representative of, four different coastal landforms as summarised in table 4 (see fig. 2 for the locations). A minimal amount of disturbance was necessary to collect the samples as

TABLE 4
Sites with Radiocarbon Dates

Site name/ grid reference	Site type	Contents	Location
Nubeena 1 8411-593283	Shell midden	Oyster shells, few mussels	Low sandstone cliff, low energy, hard sandstone shore
Roaring Beach 1 8411-550286	Shell midden	Rockplatform shells, chipped stone	Headland, medium energy, mixed sandstone shore
Low Point 1 8411-556234	Lithic scatter and shell midden	Rockplatform shells, chipped stone	Low point, medium energy, mixed dolerite shore
Sloping Island 2 8412-521449	Lithic scatter and shell midden	Rockplatform shells, chipped stone	Sandsheet, medium energy, hard sandstone shore

TABLE 5
Radiocarbon Dates from Aboriginal Sites on Tasman Peninsula

Site	Total area (m)	Depth (cm)	Material dated	Age (years BP)	ANU Lab.No.
Nubeena 1	35x37.5	15	charcoal	730±140	4824
		30	charcoal	1540±210	4823
Roaring Beach 1	20.5x80	20	charcoal	1180±190	4820
		30	shell	2890±70	4821
		35	shell	3350±50	4822
Low Point 1	24x30	12	charcoal	1750±180	4818
		40	charcoal	5400±310	4819
Sloping Island 1	1x1 (midden area only)	25	shell	2650±70	4825

all were taken from eroding sites. The sections exposed by erosion were cleaned back and the samples then taken by sieving each layer. Charcoal was collected where possible, shells when there was insufficient charcoal for an adequate sample. The shell dates have not been corrected for the "marine reservoir effect" and approximately 450 years should be subtracted from these (Head *et al.* 1983).

These dates (table 5) add to the sketchy understanding of Aboriginal land use on the coastal margins of the peninsula by providing a chronology. Although the sample of dates is small, some suggestions can still be made. If the sea reached its present level at about 6000 years ago (Chappell & Thom 1977), then the date of c.5400 years ago for Low Point indicates marine resources were being used quite soon after. There is a long and more or less continuous use of these coastlines. This repeated use of all the sites suggests a well regulated pattern of land use in the area, with perhaps more sites being used in the last 3000 years. The tendency for the low energy site, Nubeena 1, to be occupied later may be the result of the small sample of sites dated. The date for Sloping Island is interesting as it is at this time that Hunter Island was reoccupied. Both Vanderwal (1978) and Bowdler (1984) have argued for an expansion of the Aboriginal Tasmanian world in that period, with many offshore islands being incorporated into the system. Such changes in Aboriginal systems can be further investigated in this region, given the age range of the dated sites. Furthermore, synchronic patterns of this site use may be investigated in order to understand how the land was used at any one period.

CONCLUSION

Previous researchers have tended to look at patterns of Aboriginal land use in Tasmania from the perspective of the island as a whole or by comparing the east and west coasts as if these were appropriate analytical units (see Vanderwal & Horton 1984 and Bowdler 1984 for exceptions). Undoubtedly, however, the details of the complexity of local adaptations have been overlooked by investigating such a broad canvas. Consequently, it is now time to begin looking for regional patterns in Tasmania. The preliminary results from the peninsula illustrate its potential for a detailed study of the land use systems of a single Aboriginal band and provide a valuable counterbalance for the broad generalisations of previous researchers in Tasmania. It is therefore important that these sites be managed in the present so that we can have greater understanding of the past in the future.

ACKNOWLEDGEMENTS

I would like to acknowledge the field assistance of Jane Rider, Robyn Sim and Daryl West and the continued assistance of the Port Arthur Conservation Project, especially Dr Brian Egloff. Dr Caroline Bird commented on a previous draft. This work was carried out with the co-operation of the Tasmanian Aboriginal Centre. The fieldwork was funded by a La Trobe University grant.

REFERENCES

- BOWDLER, S., 1984: Hunter Hill Hunter Island. *Terra Australis* 8. Department of Prehistory, Research School of Pacific Studies, Australian National University, Canberra.
- BROWN, S., 1986: Aboriginal archaeological resources in south east Tasmania. *Occas. Pap. Tasm. Natl Pks Wildl. Serv.* 12.
- CHAPPELL, J. & THOM, B.G., 1977: Sea levels and coasts. In Allen, J., Golson, J. & Jones, R. (Eds): *SUNDA AND SAHUL: PREHISTORIC STUDIES IN SOUTH EAST ASIA, MELANESIA AND AUSTRALIA*. Academic Press, London: 275–291.
- GAUGHWIN, D., 1985: An archaeological reconnaissance of the Tasman Peninsula, February 1984. *Aust. Archaeol.* 20: 38–57.
- HEAD, J., JONES, R. & ALLEN, J., 1983: Calculation of the "marine reservoir effect" from the dating of shell-charcoal paired samples from an Aboriginal midden on Great Glennie Island, Bass Strait. *Aust. Archaeol.* 17: 99–112.
- JONES, R., 1974: Tasmanian Tribes. In Tindale, N.B. (Ed.): *ABORIGINAL TRIBES OF AUSTRALIA*. University of California Press, Berkeley: 317–356.
- LOURANDOS, H., 1968: Dispersal of activities: the east Tasmanian sites. *Pap. Proc. R. Soc. Tasm.* 102(2): 41–46.
- LOURANDOS, H., 1977: Stone tools, settlement, adaptation: a Tasmanian example. In Wright, R.V.S. (Ed.): *STONE TOOLS AS CULTURAL MARKERS*. Australian Institute of Aboriginal Studies, Canberra: 219–224.
- STOCKTON, J., 1983: *The prehistoric geography of northwest Tasmania*. Unpubl. Ph.D. thesis, Aust. Natl Univ., Canberra.
- VANDERWAL, R., 1978: Adaptive technology in southwest Tasmania. *Aust. Archaeol.* 8: 107–127.
- VANDERWAL, R. & HORTON, D., 1984: Coastal southwest Tasmania. *Terra Australis* 9. Department of Prehistory, Research School of Pacific Studies, Aust. Natl Univ., Canberra.