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A PRELIMINARY EXAMINATION OF PREHISTORIC COASTAL SETTLEMENT AT NELSON BAY, WEST COAST OF TASMANIA

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The survey

This paper describes the results and interpretations of a preliminary survey of archaeological sites on the west coast of Tasmania undertaken as part of a PhD project into the prehistory of the area.

During June/July 1977 I spent four weeks on the west coast of Tasmania surveying the area for archaeological sites. The purpose of this preliminary fieldwork was to familiarise myself with the archaeology of the area prior to formulating a more specific research proposal.
To this extent, I made a superficial examination of the coastal strip between West Point and Temma (Fig.1), an area that has been described by earlier workers (Legge 1927; Jones 1947; Jones 1966), eventually choosing for a more detailed study a relatively uneroded area approximately 8 km south of the Arthur River mouth.

This survey area was bounded in the west by the coast, in the east by the Marraway-Temma road, in the north by the Sundown Creek, and in the south by the Nelson River. Thus defined, the area measured approximately 2.75 km N-S by 2.0 km E-W.

In gross terms the landform (Fig.2) consisted of an embayed rocky coastline, inland of which a marine bench extended easterly until broken by the Tertiary shoreline some 3 km from the coast. Separating this marine bench from the coastline was a series of high dunes, up to 25 m high, fronted, in places, by smaller foreshore dunes. Behind these dunes, run-off from the flat hinterland backed up and formed swamps. In the northwest the rock strata making up the coast continued inland in a southeasterly direction forming a parallel series of open ridges and bog-filled gullies.

The vegetation was closely related to the topography. In general, heathland formed on the marine bench, whilst the dunes and foreshore, with one exception, were covered in low grass brought about by grazing and fires; the exception to this being found in the extreme southwest where the dunes were covered in a thick eucalypt and banksia scrub. The swamps behind the dunes were surrounded by tea-tree whilst the bogs in the northern gullies were of the more open type.

Survey methods

It must be noted that the topography and vegetation influenced to a great extent the archaeological visibility and therefore the survey methods. In reconnoitring the area for sites, I employed two survey methods.

In areas of thick ground cover, e.g. the heathland plain and southwest scrub, I followed each individual 4-wheel drive track in from the main road. These tracks had cut through the vegetation and topsoil to expose archaeological remains.

In areas of open vegetation near the coast I conducted a 'search and rescue' type square search to pick up sites.

As a control I spent a couple of days walking the heathlands and thick scrub areas away from the tracks to see if sites were visible. They were not.

At each site I plotted its position and extent and cored it with a 0.5 cm probe to arrive at some estimate of depth. I noted, where erosion allowed me to, the gross relative frequencies of shell types. I made, with one exception, a complete surface collection of all stone artefacts and debitage. The exception being an area of a wind blow where the artefacts were so rich that it would have been impracticable with the limited manpower available to collect them, and where a more sophisticated recovery procedure would have had to be devised to do the site justice.
FIGURE 1 Northwest Tasmania and the Nelson Bay survey area
Finally I obtained, from a badly eroded foreshore midden, approximately 125 kg of midden sample in order to test the feasibility and applicability of froth-flotation recovery methods on west coast middens.

Survey results

The results of my fieldwork are summarised in Figure 3. I found 139 'point sites'. Point sites I define as being localities where midden debris and/or stone debitage was observed but which do not in themselves necessarily represent actual individual habitation sites.

For instance, most of these so-called point sites compose the long linear midden in the southwest of the survey area. A number also represent single artefact/debitage occurrences or small dumps of a few shells only.

In fact there were 23 habitation sites found in the survey area. Of these 23 sites I recognise, albeit at present on a purely subjective basis, five types of middens. These are as follows:

1. Linear middens. There are two examples of these – one in the north, the other in the south of the survey area. They are confined almost totally to the high dune areas and extend in a thin layer over a wide area – the southern example is believed to be over 1.5 km by 0.7 km in extent, and ranging from 1-15 cm thick.

2. Large 'West Point type' middens. As the name implies these middens were similar to the West Point example (Jones 1966), being dome-shaped and having depressions on their summits that are believed to be the remains of hut shelters; the whole midden usually being sited at a vantage point on a low dune. There were two examples of these middens in the area, both on the northern dune system, and each with a single hut depression.

3. Small midden dumps. These were dome-shaped midden deposits 1-3 m in diameter and 20-30 cm high, found always in the lee of large dunes. Twelve were noted occurring in groups of five, four, and two, with one singleton.

4. Medium size middens. These middens, in size, lay between the small dumps and the larger West Point types. There are five of this type. One of these, the most southerly, was a midden backed up behind a raised rock ridge near the beach. This could be considered as either a linear midden which has survived erosion because of the protection afforded by the rocky ridge or alternatively as a manifestation of conscious sheltering by man in the lee of the rock.

5. 'Doughnut' middens. These are toroid in shape up to 13 m in diameter with a depression in the centre about 5 m in diameter. The cross-section height of the toroid being up to 40 cm.
FIGURE 3  Nelson Bay survey area: archaeological sites

NELSON BAY

Linear midden
• West Point type midden
• Medium size midden

▲ Dump middens
● Spot finds
○ 'Doughnut' middens

500 metres

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were two of these middens situated within 50 m of each other, sitting immediately on the surface of the westerly side of the southern dune system. One of the two was not a closed toroid but could be likened to a horse-shoe in shape. It has been suggested by an earlier worker (Jones 1947) that these depressions may represent the remains of hut shelters.

Besides the midden sites mentioned above, two other phenomena of interest were noted, namely a possible native well in the north of the survey area and the well known Aboriginal rock engravings at the mouth of the Sundown Creek (Stockton 1976).

On a more subjective note, a couple of other interesting observations were made. Firstly, as one traverses inland a change in relative frequencies of shell species occurs. Near the coast, warreners, abalone and limpets were noted, with mussels predominating. Within 40 m of the beachline mussels all but disappear, followed, as one moves inland, by the absence of abalone and limpets, until 100 m from the beachline only warreners can be found. Secondly, there seems to be a gradation in the type of stone material as one traverses from north to south. In the north, the stone material consists mainly of black chert, whilst in the south spongolyte (Sutherland 1972) is more common.

Survey interpretations

The Nelson Bay middens offer interesting evidence for a range of settlement activity undertaken by man in the area. In order to devise an excavation strategy to examine this activity the following working hypothesis is offered.

I consider the 'doughnut' middens to be the key sites in the area. They most likely represent short stay habitation in hut shelters built over depressions, the ring of midden being formed either by a conscious or unconscious revetting of the hut structure with refuse. In addition the huts may have acted as 'stencils' around which refuse was deposited over a length of time, either by natural agencies or by the general foraging and disposal activities of successive human groups revisiting the area.

In conjunction with the 'doughnut' midden, the small dumps found in the lee of the large dunes are also likely to represent short stay activities of an even shorter period than the 'doughnut' middens. They probably represent more specialised activities such as men's camps or shelter camps occupied during bad weather.

I suggest that the 'doughnut' and dump middens are the common denominators of all other middens on the west coast. Thus the man/land relationship can be seen in the comparatively simple terms of hut shelters and their associated middens near the coast, together with ancillary specialised sites inland of these main habitation sites. The larger linear and West Point types can then be seen as more complicated manifestations of these smaller units.

In the case of the linear middens, these may be the result of the successive visits over many years of extended camps to preferred area. Each time the area is visited the camps are displaced from
the earlier ones through a desire for a clean living area. Through time the midden spreads across the landscape, being composed of successive camp sites abutting each other. Obviously there will be a great deal of blurring, brought about by overlapping of middens, smoothing out of older debris, redeposition, and so on and this may explain the variation in thickness of the deposit within the linear midden as a whole.

In the case of the West Point type middens, these can be thought of as successive building and rebuilding of hut shelters at a favoured site over a considerable period, with concomitant disturbance of previous material, thus producing the characteristic mounds; the depressions on their summits representing the last period of occupation.

How and why a variety of sites arise is impossible to answer at the present. However, a number of suggestions can be offered.

For instance, let us first assume all the sites within the area are roughly contemporary. If that is so then it could be suggested that the site shape and size are a response to seasonal stimuli. The West Point type middens may represent seal kill sites in summer; the middens composed of localised, thickly built up deposits caused by the recurring long term habitation of a favourite area, be it near a specific seal beach, the top of a natural vantage point, or whatever. Conversely the large linear middens represent a more spaced out food gathering strategy during the rest of the year when resources are less concentrated and people had to forage along the coastline. Interspersed within these two strategies might be the occasional sheltered meal taking place behind the dunes in response to stormy weather, men's business, etc.

An opposite view could be taken if we assume a non-contemporaneity, in which sites changed through time in response to a changing environment. For instance on the basis of a preponderance of chert artefacts the northern linear middens could represent an early short term repeated occupancy of the area. This is based on the assumption that tool kits made from chert, in general, are earlier than spongolyte ones (Jones 1966). Seal hunting then came into fashion and West Point type middens started to appear. Seals eventually lost their importance and the hunting reverted to a more spread out strategy as evidenced by the southern linear middens which can be considered, on the basis of a predominantly spongolyte tool kit, to be a later phenomenon.

Excavation strategy

Following on from this working hypothesis an excavation strategy can be formulated in which sites of increasing complexity can be successively examined.

In the first instance it would seem that the 'doughnut' middens would most repay study. Not only are they small and therefore comparatively easy to excavate but more importantly they offer well defined parameters in which to reconstruct the activities of a group of west coast inhabitants during a very short period of time.
Similarly the dump middens also offer a short 'time-window' into the lives of the prehistoric inhabitants, though these sites, being of a more specialised nature than the 'doughnuts' could best be examined after the general nature of the 'doughnut' middens are understood.

The linear middens offer a higher state of complexity if one assumes they are the product of an amalgam of successive 'doughnuts'. Nevertheless, if a large enough area was opened up, it should be possible for individual camp sites to be identified on the basis of artefact distribution and contemporaneity.

The West Point type midden, with their complicated palimpsest of successive occupation, disturbance and likely reversed stratigraphy, are the most difficult to come to terms with and it would be advisable, until a better understanding is gained of their constituent units, that they should be left undisturbed.

Conclusion

To summarise it is postulated that the 'doughnut' and dump middens are the common denominators of all other middens on the west coast. By excavation of a number of these smaller middens, more accurate answers to problems associated with Tasmanian Aborigines, such as their day to day living, may be gained. They lend themselves to total excavation through open-area methods, a far more efficient method in terms of information retrieval than the sondages of previous researchers in the field. Having excavated these smaller middens, problem orientated research strategies can then be evolved to tackle the larger, more complex sites.

Obviously the research strategy I have outlined here cannot be encompassed by a single PhD project. Nevertheless, I feel that concentrating on the analysis of evidence provided by one of the 'doughnut' middens will be well repaid, not only because of the intrinsic value of studying these sites in their own right, but because these sites hopefully will increase the understanding of the more complex middens that have already been excavated (Bowdler 1974; Jones 1966, 1971).

References


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Archived at Flinders University: dspace.flinders.edu.au
ARE THERE PREHISTORIC SHELL MIDDENS ON ROTTNEST ISLAND?

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In August 1973, during a one-day bike and bus tour of Rottnest Island, we observed a number of different types of shell bed. The most massive of these were seen around the lakes at the eastern end of the island and there is no doubt that these are natural marine shell beds. However elsewhere shelly deposits were seen whose origin we could not determine with certainty. A number of midden-like lenses of shell were exposed in road sections, particularly along the north side of the island. Several thin scatters of shell, some associated with bird bone, were seen at the western end of the island. Most of these were exposed in blowouts, either in situ or deflated, but in one instance shell and bird bone were found inside a small shelter formed in aeolian calcarenite. All of these deposits displayed some of the characteristics of Aboriginal shell middens; nevertheless we would perhaps have dismissed this origin but for the discovery of a particularly extensive deposit on a small promontory just west of Parker Point (Fig.1).

This promontory consists of a bench, about 200 m² and 1-3 m above the water, cut into aeolian calcarenite. The shell deposit covers the back half of this bench. On the basis of criteria