

DISPERSAL OF ACTIVITIES—THE EAST TASMANIAN ABORIGINAL SITES

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(With two diagrams)

ABSTRACT

The archaeological evidence both from excavated sites and field survey suggests a significant division in the prehistoric economic organisation of the Tasmanian Aborigines of the East and West/North West habitats of the island. A nomadic organisation is interpreted for the Eastern sites, and a semi-sedentary or seasonally-sedentary organisation for the West and North-West coastal sites.

INTRODUCTION

Here is a scheme based on field survey and excavation for organising and interpreting the archaeological sites of Eastern Tasmania. Three types of site are distinguished and shown to be related spatially and in function. These are shell middens, open inland camps, and the quarries. As a group they are compared with the dominant sites in the West and North-West and shown to be significantly different. These differences are interpreted as reflecting the peculiarities of the separate habitats of East and West (including North-West) Tasmania.

These differences in East and West sites were first noticed by myself during field surveys carried out in 1967 and demonstrated by excavation of two chosen sites (December 1967-February 1968).

Eastern Tasmania I distinguish as the eastern half of the island corresponding to the sclerophyll forest area (shown in diag. 1), with the exception of the coastal heath strip along the North-East coast and in the North-East corner, with an extension on to the lakes area of the Central Plateau demarked as mountain moorland. The West refers to the basically narrow coastal strip predominantly of sedgeland checked by rain forest with large stretches of sedgeland in the South-West. Together with it I include the North-West coast as an extension of the narrow coastal strip probably originally of predominant coastal heath checked by rain forest (shown as 'cleared land' in diag. 1). Most of the East is cut off from the West by large tracts of rain forest, the two habitats meeting coastally in the mid-north and in the extreme south.

THE MIDDENS

Two major types of midden distinguishable in shell-composition and habitat predominate along the East and South-East coasts, the bay estuarine and the open coastal rocky-platform types. Each midden appears to closely reflect the structure

of the economically obtainable⁽¹⁾ shell population in the immediately related habitat, with few other extraneous features associated. From Great Oyster Bay south the coastline is broken and indented in series of protected bays, and here and in the estuaries the bay-estuarine type predominates. From field surveys it appears to directly correspond to the distribution of the living and historically recorded shell populations. The two shell species that compose the bulk of these middens are the Tasmanian mud oyster (*Ostrea angasi* Sowerby, 1871) and mussel (*Mytilus planulatus* Lamarck, 1819) and they occur together in differing ratios or independently according to the structure of the associated shell populations. North of Great Oyster Bay as far as Eddystone Point the dominant midden is of the second type directly associated with shell populations sharing the exposed rock-platform habitats that make up most of this coastline. The dominant species in association here are the *Subrinella undulata* Solander, 1786 and a species of Abalone (*Notohaliotis ruber* Leach, 1814). Location and morphology (as well as shell composition) of the middens along these coasts is governed by that of the obtainable shell populations immediately associated. The middens have been accumulated directly on the coastline with few exceptions⁽²⁾ within a few feet of the mollusc habitats.

The total compositions of all midden types in the area appear to be predominantly of shell with low proportions of, terrestrial and marine faunal remains, definable stone implements, flaking floors, or structural features. Large sample excavations on one midden in the Little Swanport estuary⁽³⁾ have verified this observation. The ratio of the midden's contents heavily reflect that of the oyster/mussel population immediately associated⁽⁴⁾. All other traits are very poorly represented. Few terrestrial and coastal-marine faunal remains are present. The frequency of stone artifacts is very low and all appear imported. No flaking floors were found and the existence of any primary flakes is dubious. Apart from local igneous stone lumps present the use of stone artifacts seems minimal, and negligible numbers of flakes with secondary retouch are present. Except for one possible post-hole and a matrix of ashy hearth lenses no other non-shell structure was apparent. The interpretation is of a specialised oyster-fishing dump with little other activity reflected archaeologically.

Contemporary ethnographic descriptions of open coastal shell middens in the South-East (Hiatt,

1967, pp. 127-128) show a strict exploitation of the immediate coastal habitat, the diet at these sites repeatedly consisting of shell-fish, sea and land vegetable (immediately procurable), crustacea, and fresh water. The open coastal factor of crustacea (usually crayfish) which share this habitat could be expected to be found archaeologically on open coastal middens and perhaps proportionally. In the estuarine Little Swanport midden they were present but in low numbers. For these reasons the ecological interpretation of the specialised shell dump can be extended to all such middens, estuarine or coastal, in this area. By plotting the volume, density, and extent of these midden concentrations (diag. 1) the importance of certain coastal areas as foci⁽⁶⁾ of economic exploitation and activity can be noticed. This applies to the entire Tasmanian coastline.

It appears that the East coast was occupied primarily for marine exploitation. Old dates from South-East coast middens fall within the range of c. 6,000-8,700 B.P. (Reber, 1965, pp. 264-67; 1967, pp. 435-436) corresponding to the approximate age of the present coastline and therefore of the shell beds.

INLAND CAMPS

The East is a blanket of artifacts and artifact assemblages stretching from the coast to moorland over 3,000 feet on the Central Plateau. Implement scatters are detected in ploughed fields, along the eroded perimeters of inland lakes and marshes, and are stratified in sedimentary deposits alongside water-courses. The entire Eastern habitat appears to have been under Aboriginal occupation. Ethnographic verification exists in support of the archaeological evidence (Hiatt, 1968, pp. 190-205). Two major types of archaeological sites have been recognised, stratified deposits in rock shelters and lunettes (fossil inland dunes). Rock shelters and overhangs are commonest in the sandstone outcrops which occur throughout the East, and are prominent in weathered faces along old water courses⁽⁶⁾. The lunette sites, their geomorphological and their temporal significance, have been discussed by Jones⁽⁷⁾.

Crown Lagoon⁽⁸⁾, a lunette site, was excavated by myself this year. It is situated approximately sixteen air-miles west of the excavated Little Swanport midden on the same river system and 2,000 feet higher up. The cultural deposit lies beneath the modern dune surface in an ancient soil profile⁽⁹⁾ within the top two and a half feet of the lunette. Its contents provided a stone assemblage of wide range including flaking floors of cores, finished implements (basically similar to those from Little Swanport), with large numbers of flakes showing secondary retouch and a bulk of primary flakes and chips. With these were sandstone pieces showing use-markings and grooves (interpreted as abrasive tools), grinding stones and pounders, and large stone lumps. All stone material must have been carried onto the dune and included a large range of parent materials suggesting importation from a sizeable range of quarry-sites. The stone was associated throughout with poorly preserved bone material, some identifiable as marsupial, and with a series of small hearth pits dug in sand. The interpretation is of an 'inland camp' plausibly

associated with the lake or marsh in front and showing the manufacture, use and resharpening⁽¹⁰⁾ of stone implements on the site, in association with faunal evidence, the hearths, and the grinding equipment inferring the eating of vegetables⁽¹¹⁾. This interpretation has been extended to those inland sites, both stratified, eroded and surface, which show a similar assemblage of stone types. Such are the lunettes in the Midlands (as at Grimes Lagoon and Lake Dulverton) and the erosion scatters round the lakes of the Central Plateau detected as far west as Lake Augusta.

THE QUARRIES

The most common stone material used in the East for manufacturing flaked stone tools was of fine-grained siliceous rocks predominantly from Jurassic and Tertiary chert-hornfels (metamorphosed mudstones and sediments). The area where this material occurs is shown in diag. 2 and appears to correspond broadly to the extent of the sclerophyll East. Here the material outcrops ubiquitously and abundantly, and a distribution of the quarries could be expected to coincide. The plotting of certain known quarries⁽¹²⁾ reflects this. The quarries' composition is predominantly of used cores and primary waste flakes with few finished implements. This infers that the quarry site was used for the initial manufacturing of the stone implements which were then carried off the site presumably for use elsewhere. Quarries often occur fortuitously in close proximity to occupation sites as in the Little Swanport estuary, Oyster Cove (D'Entrecasteaux Channel), Long Point and Piccaninny Point.

INTERPRETATION

The three types of site described show basic dissimilarities in their function, in stone implement manufacture and use, and in the exploitation of the immediate habitat. Coastal shell middens (including estuarine) reflect a predominant coastal (or estuarine) exploitation with terrestrial features very poorly represented. Inland camps produce in proportion a totally different assemblage of stone types⁽¹³⁾, and the quarries reflect primary stone implement manufacture. The three sites are highly specialised, limited in function and interdependent, and this is interpreted as reflecting the cultural interdependence of two distinct habitats, the coast and the sclerophyll hinterland.

THE WEST AND NORTH-WEST

Archaeological sites along the West coast are predominantly coastal with few sites reported inland (map, Bryden & Ellis, 1965, p. 38). These shell middens are more complex than those in the East with extra traits associated. One major characteristic is the varying degree to which they reflect the exploitation of both coast and hinterland⁽¹⁴⁾. West Point can be seen as a stabilised base camp at which all the activities represented in the three Eastern sites (except initial rock quarrying) are centralized. These include flaking floors showing primary and secondary implement manufacture and use, and large proportions of grinding and pounding stones (Jones, 1966, p. 6). Added characteristics are well-constructed stone hearths and a cluster of pit depressions conforming to ethnographic West coast

examples of substantial huts and hut clusters (Robinson, March 26, 1830, June 2, 1830, June 6, 1830). These traits are found on other middens down the West coast. The West Point midden accumulated rapidly in hundreds not thousands of years (as in the East and the North-West sites)⁽⁴⁵⁾. From Jones' evidence (Jones, 1966, p. 7; 1967, p. 363), the interpretation here is of high density concentration at the site for significant time periods dependent on the midden's association with the seasonal breeding and moulting of nearby seal colonies. South of West Point equivalent midden volume is found with seal bones associated (diag. 1) detected south to Sloop Point⁽⁴⁶⁾ and ethnographically to Cox's Bight (Robinson, Feb. 10, 1830) and the South-West (Robinson, July 15, Dec. 15, 1831). The peculiarities of West Point, its proximity to faunally productive coastal heath⁽⁴⁷⁾ (reflected in the high proportions of terrestrial faunal evidence, Jones, 1966, p. 7) and its rapid accumulation might not apply to all West coast middens, most of which have hinterlands of inferior sedgeland⁽⁴⁸⁾. The North-West sites (three excavated by Jones, 1966, pp. 2-6) reflect certain major West coast features; over time⁽⁴⁹⁾ an increasing orientation towards both coastal and terrestrial exploitation, and an important dependence on seal. Their premium⁽⁵⁰⁾ value lies in their location and their protection-value as caves and shelters. The latter could explain certain specialised features such as the selection in seal carcass evidence present (Jones, 1967, p. 362) and their association with open shell midden dumps nearby.

CONCLUSIONS

This Western group of sites does not conform to the definition of the shell dumps as used for the sites in the East. Their eclectic compositions indicate exploitation of dual habitats, and their coastal location infers a premium value dependent on the superiority of the coastal habitat for exploitation. The key here would be the seal factor, undetected in the East, which would provide the imbalance between coast and hinterland habitats. From midden evidence comparison between East and West coastal habitats indicates the overall greater attraction of the West. Comparison between terrestrial zones shows the largest range of faunal species and numbers in the sclerophyll⁽⁵¹⁾, the coastal heath as an area rich in mammals and birds⁽⁵²⁾, and the sedgeland as a poor faunal habitat⁽⁵³⁾. The content and location of the excavated sites and the field evidence, within limits, appear to reflect these differences (though sites associated with sedgeland are still to be tested). A broad interpretation suggests the interplay between two balanced habitats in the East, the coast and the sclerophyll forest, and between a dominant coast with productive hinterland in the North-West, and inferior hinterland for a significant area of the West coast. The archaeological evidence suggests that Aboriginal economic organisation in the East fits a nomadic non-sedentary pattern incorporating a number of dispersed limited-activity sites; in the West a semi-sedentary or seasonally sedentary organisation with coastal bases⁽⁵⁴⁾. In support there is ethnographic evidence of house-type differences in size, durability, and numerical concentration between the two areas

which need not necessarily only reflect climatic differences (Hiatt, 1968, pp. 201-202).

Hiatt provides much evidence for extensive and continual occupation of all major habitats with the exception of the rain forest, and for the concurrent exploitation of both habitats, coast and inland, in both regions East and West (Hiatt, 1968, pp. 190-205). This satisfies the conclusions based on the archaeological evidence. Her data is ethnographic and she deals with a time period during which the Aboriginal occupation pattern had already been severely disrupted by European settlement and enterprise and was continuing to be broken down. The archaeological evidence is almost wholly pre-contact and pre-historic. From her data she concludes that she can detect no marked differences between the economies of the East and the West (1968, p. 218). The archaeological evidence allows the suggestion of a definite division in the economic organisation employed in the two areas. Also Hiatt fails to distinguish between the exploitable potential of the differing terrestrial habitats and its significance in their relationship to the coastal habitats.

CRITICISM AND COMMENTS

In selecting data for the scheme put forward above certain restrictions on the material were necessary. In the West only the more conspicuous coastal sites were considered although this itself is telling. In both areas generalisations were made from only six excavated sites but evidence also included that of extensive field surveys. Numerical analysis is now needed to describe many of the conclusions reached, such as the differing ratios of contents between East and West/North-West sites. The factor of time and its effect has been played down to heighten important spatial and functional relationships. Contemporaneity between Eastern sites (whether completely accurate or not) is assumed as no cultural differences over time detected in the excavated sites seem to affect it. Omission is made of the anthropogenic nature of the vegetation and its effects (Jackson, 1965, pp. 30-35; 1968, pp. 50-55; Jones, 1968 (unpublished), sec. c). So too are the cultural changes over time detected at Rocky Cape (Jones, 1966, pp. 2-6, 9) and identified at Little Swanport during its excavation. These are the existence of evidence for fishing and worked bone tools in the basal layers of the sites. This now appears as a Tasmania-wide phenomenon. If it holds true for all the East it would indicate a drop in the premium value of Eastern coastal sites over time, as fishing does not appear to have been replaced by any equivalent food source. And for the whole island it would place a limit on the maximum size of subsequent Aboriginal population.

NOTE ON THE NORTH-EAST

The distinction has already been made between the sclerophyll East and the North-East coast and North-East corner which is a strip of coastal heath behind extensive dunes. Middens at Eddystone Point and further north at Cobler Rocks and Cape Naturaliste have features which tend to associate them with the North-Western sites and perhaps West coast sites in similar vegetation belts.

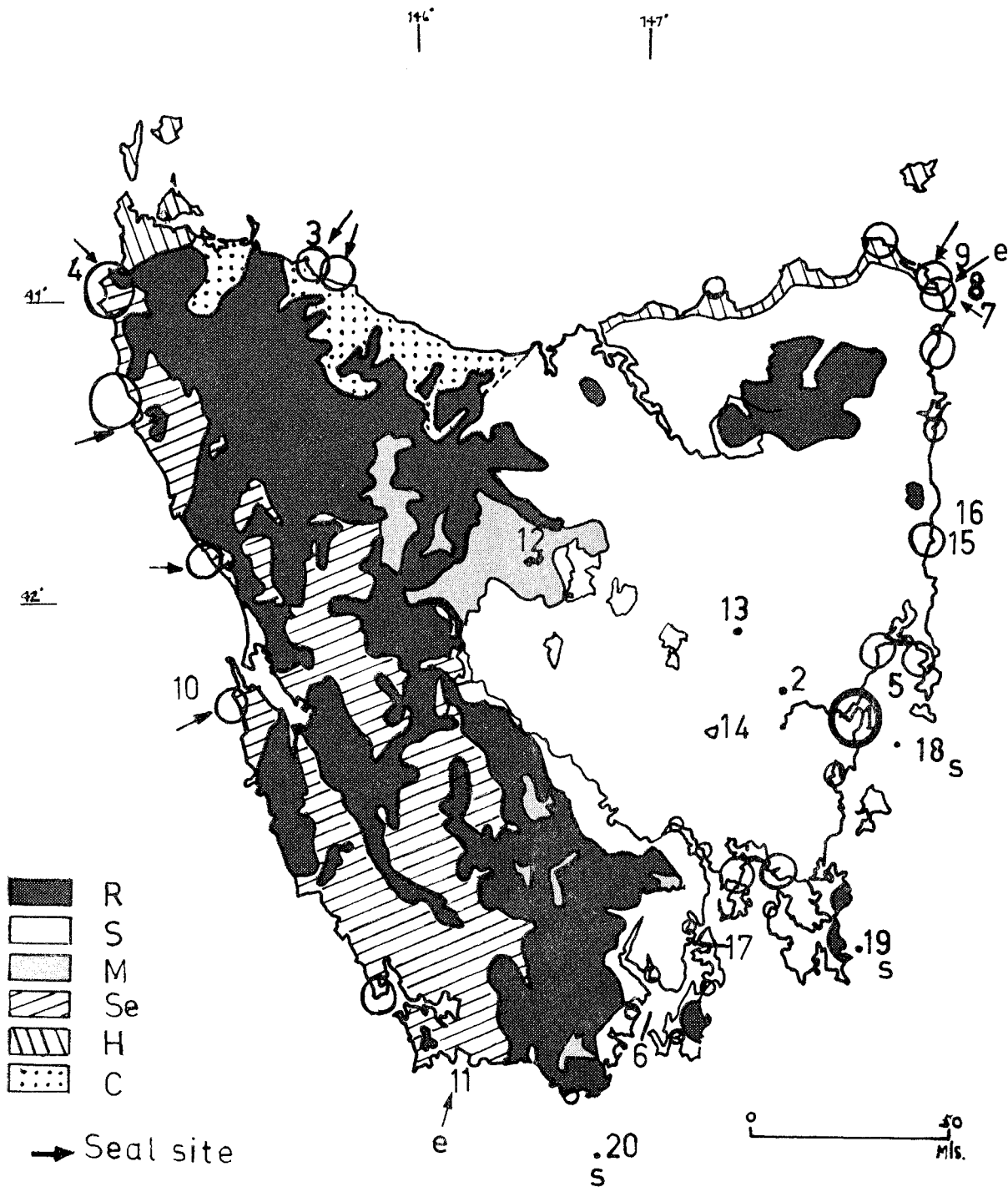


DIAGRAM 1.

Major Vegetation Zones—R, Rain Forest; S, Sclerophyll Forest; M, Moorland; Se, Sedgeland; H, Coastal Heath; C, Cleared Land.

e = ethnographic seal sighting.

s = present day seal colonies.

Sites mentioned in the text—(1) Little Swanport; (2) Crown Lagoon; (3) Rocky Cape; (4) West Point; (5) Great Oyster Bay; (6) D'Entrecasteaux Channel; (7) Eddystone

Point; (8) Cobler Rocks; (9) Cape Naturaliste; (10) Sloop Point; (11) Cox's Bight; (12) Lake Augusta; (13) Grime's Lagoon; (14) Lake Dulverton; (15) Long Point; (16) Piccaninny Point; (17) Oyster Cove; (18) Iles Des Phoques; (19) Hippolyte Rocks; (20) Pedra Branca. O—Circles denote shell midden concentrations and their comparative size.

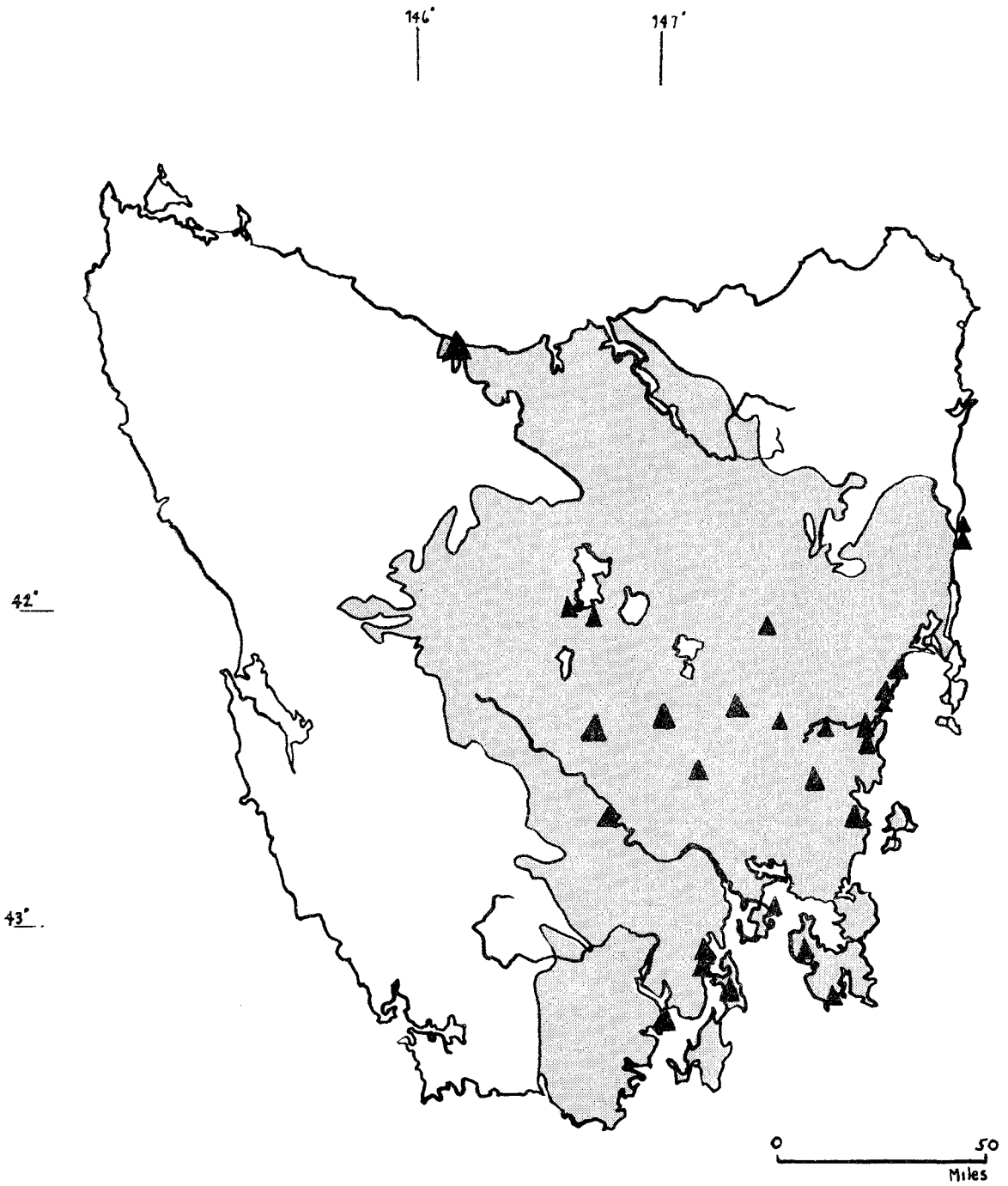


DIAGRAM 2.—Aboriginal Quarry Sites and Their Likely Distribution. Quarries are indicated by a triangle and plotted against the major outcrop area of chert-hornfels (shaded); this is the most commonly used material for flaked tools in Eastern Tasmania.

Associated with these are significant quantities of marsupial and seal bone in deposits visibly up to five feet thick. This evidence corresponds to a note by Kelly (1920, p. 174) in January 1816 of a seal colony at George's Rocks which lie immediately off the coast between Eddystone Point and Cobler Rocks. Large numbers of Aborigines are associated with the seals and with kangaroo in this description, but as Hiatt warns (Hiatt, 1968, pp. 199, 201) this incident is one provoked by European intervention. Excavation is needed to determine whether this North-East corner corresponds to the later Rocky Cape or West Point model.

Diagram 1 reveals a pattern of Aboriginal sealing with a West/North-West distribution from Cox's Bight to Eddystone Point. This is more extensive than the present distribution centered in Bass Strait with fringe colonies off the main of South-East Tasmania at Isle Des Phoques, Hippolyte Rocks and Pedra Branca⁽²⁰⁾. Evidence for Aboriginal association with South-East sealing colonies has yet to be detected archaeologically.

NOTES

(¹) This would be determined both by biological and cultural factors involving shell-fishing and its organisation.

(²) One such exception is a rock-shelter on the Tasman Peninsula two to three miles inland between Roaring Beach and Satwater River and a few hundred feet above sea level where up to eight species of coastal shell were recognised.

(³) The excavation material is currently under process of analysis. (The large volume of shell in this estuary and its middens were reported by Taylor, A. J., in 1891.)

(⁴) These oyster beds were commercially extinguished by 1882. Report to Fisheries Royal Commission of Tasmania, 1883, p. 83.) Up till then the centre of the Tasmanian Oyster Industry had been Great Oyster Bay.

(⁵) The definition of focus (foci) here is a comparative convergence or concentration of activity at one site or one locality.

(⁶) Jones, R., 1965, p. 198; Fig. I, p. 4.

(⁷) 1968, 'Geographical Background to the Arrival of Man in Australia and Tasmania'. Sec. c. 'The Arrival of Man in Tasmania'.

(⁸) The excavation material is currently in the process of analysis. The site has been referred to before (Jones, 1967, p. 362).

(⁹) This has been verified by A. Goede, Department of Geography, University of Tasmania.

(¹⁰) A characteristic flake with a blunted retouched edge interpreted as a rejuvenation flake was common throughout the site.

(¹¹) The association of the grinding stones with the pounders was archaeologically verified during excavations at Rocky Cape in 1967 (Jones, R., and Lourandos, H., unpublished). Its use is deduced from Australian analogies.

(¹²) Such quarries as those at St Peter's Pass, Bothwell and Oyster Cove (Channel).

(¹³) This does not infer a different stone typology.

(¹⁴) Differences over time have been neglected here. The early half of the Rocky Cape sequence with a heavy reliance on coastal exploitation and its later change has been interpreted as adaptation to a modified habitat (Jones, 1966, pp. 8-9).

(¹⁵) Jones gives a basal date of $1,850 \pm 80$ B.P. and a top date of $1,330 \pm 80$ B.P. for West Point (Jones, 1967, p. 363). Basal date for Rocky Cape South is between 7,500 and 8,000 B.P. (Jones, 1967, p. 362).

(¹⁶) Via personal communication from Mr P. Sims.

(¹⁷) Guller, 1965, p. 37.

(¹⁸) *ibid.*

(¹⁹) See footnote (¹⁴) above.

(²⁰) 'Premium' is a term borrowed from animal ecology and here it is modified to mean a scale of competition between sites in their selection by a human culture.

(²¹) op-cit footnote (¹⁷).

(²²) op-cit footnote (¹⁸).

(²³) op-cit footnote (¹⁸).

(²⁴) These arguments have often been suggested but without verification. See Hiatt (1968, p. 202) and her comments on the issue.

(²⁵) Via personal communications with Dr J. L. Davies, Department of Geography, University of Tasmania.

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