

## THE WHITSUNDAY ISLANDS: INITIAL HISTORICAL AND ARCHAEOLOGICAL OBSERVATIONS AND IMPLICATIONS FOR FUTURE WORK

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### INTRODUCTION

The Cumberland and Northumberland Island Groups, more commonly known as the Whitsunday Islands, form the largest offshore island chain on the east coast of Australia. Between 20° S and 21° S latitudes there are 37 large islands ranging in size from 10,931ha (Whitsunday Island) to 100ha and a further 96 islands less than 100ha in size. Combined they cover an area of 35,296ha or 3,529km<sup>2</sup> (Figure 1). Some of these were surveyed for archaeological sites in September, 1982, as part of a continuing investigation of islands off the Queensland coast (Rowland 1980, 1982a and 1984).

These investigations have focused on aspects of island biogeographical theory. Islands range from being isolated to semi-isolated, are often of limited size and hence support small populations. From an archaeological viewpoint they are therefore both theoretically and methodologically useful areas of study. On small islands it is easy to map environmental variables and locate a high percentage of sites. Theoretically, islands are useful for developing models of human adaptation. For example, one can investigate the degree of externally versus internally directed change, group selection in small populations and particular adaptive strategies that arise in response to resource limitations. The two most important variables in island biogeographical theory are area (i.e. island size) and distance (i.e. from mainland or other islands).

To date, a number of trends in population numbers and settlement patterns, in resource use and in the extent of contact with mainland areas have been established for the Keppel Islands (Rowland 1980, 1982a) and for the Percy Islands (Rowland 1984). The archaeological survey of the Whitsunday Islands and an analysis of historic records relating to Aboriginal occupation of the islands at the time of European contact was undertaken to further investigate these trends which are outlined below.

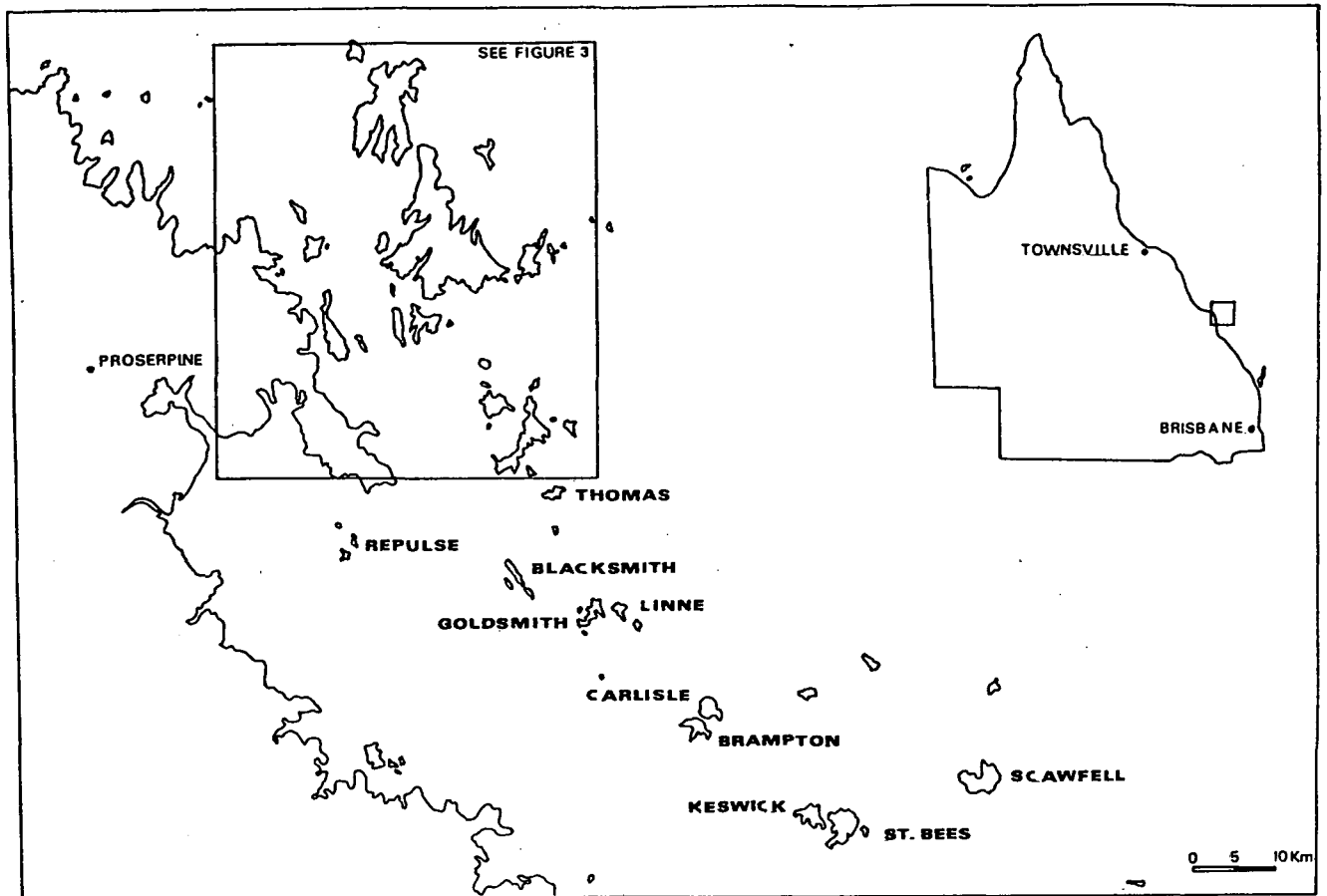


Figure 1. The Whitsunday Islands: Island Distribution Between Latitudes 21° and 20° South.

#### ENVIRONMENT

The islands and ranges of the Whitsunday area comprise steep hills and mountains of resistant Whitsunday Volcanics and related granites which are bordered by rocky outcrops if exposed to south-easterly swells, or mangrove fringed coasts if protected by islands or headlands. Small bay heads on rocky sections of the coast are infilled with marine deposits in the form of beach ridges and sand dunes but these are small and limited when compared with dunal systems on, for example, the Percy and Keppel Islands (Paine 1972: 6-9).

The climate of the Whitsundays is tropical, with mild dry winters and hot wet summers. The average rainfall at Proserpine is 1,826mm of which 70% falls in the summer (December to March), and only 16% from May to October. MacKay, just south of the area on the coastal plain has a maximum temperature of 30°C and a minimum of 23°C in summer and a maximum/minimum of 22°/13°C in winter. Frosts are rare throughout the area (Paine 1972).

Island vegetation is quite similar to that on the mainland with vine forests and thickets, acacia woodland and some grassland, but there is considerable variation among the islands (Rogers 1952). Some of the larger islands in the north support rainforest but many of the smaller

ones are only lightly timbered. No detailed studies of the native fauna of the islands are available; however, there is little doubt that introduced fauna have substantially affected island environments. For example, goats, rabbits and coconuts, which were placed on many of the islands in the 1890's, have significantly altered vegetation patterns. Lindeman Island is estimated to have had a population of 3,000 sheep and goats in the 1920's. On Whitsunday Island, dogs left behind following the abandonment of a sawmill established in the 1890's, are said to have been responsible for killing off most of the native fauna (Lamond 1960).

Available coastal resources around the Whitsunday Islands are enhanced by the fact that the islands fall within an area marked by high tidal ranges (3.84m in Whitsunday Passage) (Pickard et al 1977). Studies of fine scale currents in Cid Harbour indicate that current regimen is dominated by strong tidal race to the south through the Whitsunday Passage toward Broadsound. However, headlands and embayments within the harbour generate sharp sheer zones, gyres, eddy systems, edge effects, convergences and divergences and these dominate the fine-scale current patterns (Hammer and Hauri 1977). Winds, tides and currents would have played an important part in Aboriginal use of these islands but insufficient information is currently available to determine what effect these factors would have had on Aboriginal access to the islands.

#### EUROPEAN COASTAL EXPLORATION AND DISCOVERY

Captain James Cook named the islands of the Whitsunday Group on the 4th June, 1770. Fearing the shallow water, shoals and currents, he moved quickly through the passage and did not describe the islands in detail. He did, however, make one significant observation:

On a sandy beach upon one of the Islands we saw two people and a canoe with an outrigger that appeared to be both larger and differently built to any we had seen upon the coast (Beagle-hole 1955, Vol. 1:337) (Emphasis added).

Captain William Brampton passed through the area in 1793 followed by Captain Campbell on the *Deptford* in 1797 and Captain Swan on the *Eliza* in 1798 (Ling Roth 1908:1-11), but any observations these explorers may have made have not been located.

Mathew Flinders (1814, Vol.2:94) noted campfires on Whitsunday Island in 1802. Captain Murray on the *Lady Nelson* noted similar campfires along with turtle shells and the marks of natives of "ancient date" on a number of the islands (Lee 1915:184). On returning south, Murray recovered a canoe from one of the islands deeming it, "not much superior in structure from those of the natives of Sydney" (Lee 1915:201).

Captain Phillip King passed through the Whitsunday Passage in 1819 and 1820 and saw evidence of Aboriginal fires on a number of the islands (King 1827, Vol.1:186-7, 361). Stokes (1846: Vol 1:327-329) passed the Islands in June 1839 but made no significant observations.

In 1843 Captain Blackwood of the *Fly* spent a month at Port Bowen and Port Molle examining their potential as harbours. Jukes (1847: Vol

1:22-51), the ship's botanist, met with Aborigines on a number of occasions but provided few useful descriptions of them. However, the artist on board, Edwin Augustus Porcher, has provided interesting evidence in the form of a water colour painting of a single outrigger canoe at Cape Hillsborough (Figure 2). According to Du Rietz (1984:32 and pers comm 1985, Department of Prehistory and Anthropology, A.N.U.), who has assessed Porcher's overall work, this painting is an accurate representation of what Porcher actually saw. Thus, it adds further substance to Cook's 1770 claim of sighting an outrigger on one of the Whitsunday Islands.

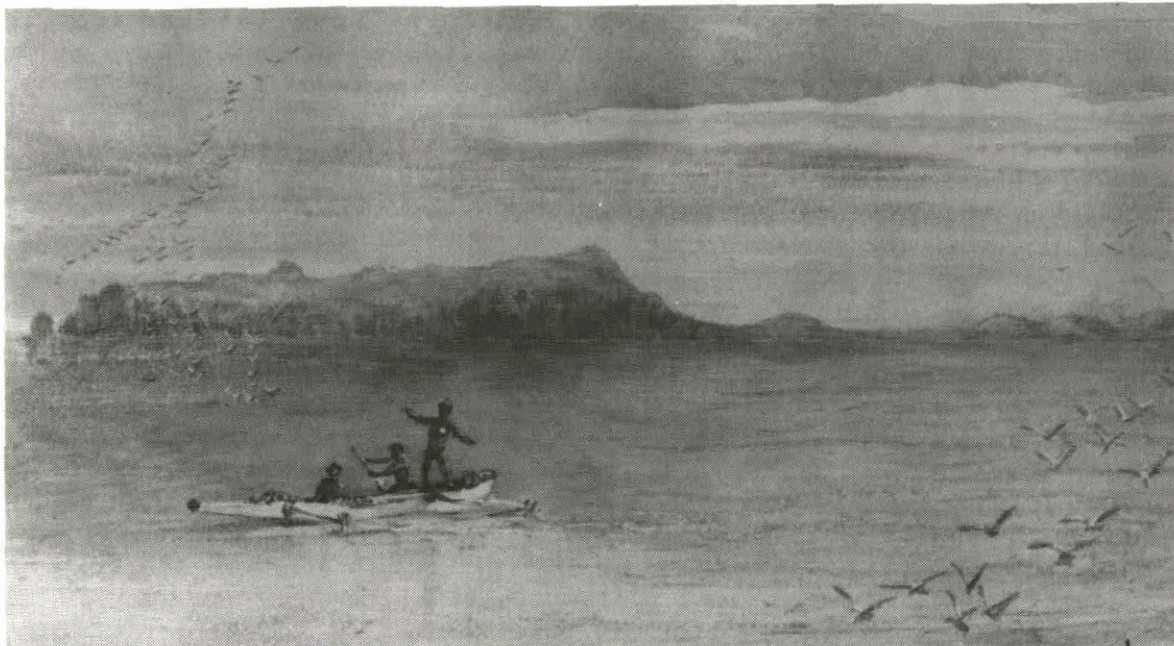


Figure 2. Outrigger canoe at Cape Hillsborough 1843 (Painting by Edwin Augustus Porcher (Pictorial Collection, Australian National Library - R5073).

In December 1847, the *Rattlesnake* commanded by Captain Owen Stanley was in the Whitsunday Passage when "a small bark canoe with two natives" approached the ship (McGillivray 1852: Vol 1:65) but no contact was made.

In sum, despite over 70 years of coastal exploration and quite frequent contact with Aboriginal groups, few useful descriptions of these people are extant. Nevertheless, it is apparent that many islands of the Northumberland and Cumberland Groups were occupied or visited by Aborigines in the past. Sightings were made at various times of the year so that no obvious seasonal pattern of occupation is apparent. Two outrigger canoes were sighted during this period though small non-descript bark canoes were also in use.

#### OVERLAND SETTLEMENT AND CONTACT

Overland movement into the Mackay-Proserpine-Bowen area occurred relatively late, perhaps due to the fact that the concealed entrance of the Pioneer River hid the potential of the Mackay district from those who sailed by (Kerr 1980:35). To the south, Rockhampton consisted of

only two buildings in 1857 (Pike 1978:55) but pastoral stations had become established from 1853 onwards and a gradual northward movement began. Bowen and Townsville were settled in the early 1860's, from which date a steamer ran regularly between Rockhampton and these northern ports (Bird 1904:127-129). In 1860 John Mackay discovered the Pioneer River and in 1861 established a station at Greenmount. In 1862 the Kennedy Division of the Native Police was established and in 1863 the Pioneer River was officially proclaimed a port of entry (Kerr 1980:41).

Thus, European impact on local Aboriginal populations from the 1860's onwards must have occurred both rapidly and dramatically, though details are scanty. By 1871 a temporary reserve of 5,698ha had been gazetted to support the remaining Aboriginal population (Kerr 1980). Despite this, it is apparent that Aboriginal groups, particularly on the islands, defended themselves against the invaders and developed a reputation for being fiercely independent. For example, Mrs. Dominic Daly (1887:31), noted that the inhabitants of the area "bear an evil reputation" and Delamothe (n.d.) describes resistance in the area as the most tenacious ever put up by an Aboriginal community. He could recall no other region of the continent where, over a period of 10 years or more, numbers of Europeans killed or wounded exceeded the number of Aboriginal casualties. Reports of attacks made on ships in the area tend to support Delamothe's view as do reports of outrigger canoes in the area.

In 1859 the **Santa Barbara** after discovering Port Denison (Bowen), landed at Stone Island in Edgecumbe Bay where the Aboriginal inhabitants, though initially friendly, subsequently attacked the ship and forcing it into a hasty retreat (Delamothe nd; Rhodes 1937: Vol. 2). In 1860 four people from the **Caroline** were killed by Aborigines at Homestead Bay on St. Bees (Busuttin Windsor 1982:12) and in August 1861 two Europeans from the ketch **Ellida** which landed on Shaw Island were killed by a group of Aborigines. The Aborigines then almost took control of the ship but:

by the time the first outrigger was launched and manned, the **Ellida** was ready for sea. Having recovered the sole survivor in the boat, the ketch slipped out of the bay the outriggers in vain pursuit (Anon 1971) (emphasis added).

Rhodes (1937:58) also describes this incident suggesting that the "**Ellida** managed by a bare margin to keep ahead of two canoes filled with yelling natives" (emphasis added).

When the **Dundas** took shelter in the same bay six months later, Aborigines boarded her at night and killed all but the Captain who managed to get the ketch back to Bowen. On the 8th February, 1864 the schooner **Nightingale**, after being washed ashore on Long Island, was chased off by Aborigines in canoes that came out from Lindeman Island. Two days later the schooner **Eva** was driven on to South Molle Island where those on board were attacked by Aborigines before being rescued by a passing ship. In August 1878, Captain Alexander McIvor, three crew and a cook on the schooner **Louisa Maria** became beached on one of the Whitsunday Islands. They were attacked by Aborigines who gained control of the ship and "after passing the schooner's sails down into their canoes (of which there were about six or eight) set the vessel ablaze" (McIvor 1878:2) (emphasis added).

These attacks on European ships brought harsh retaliation from the Native Police (Rhodes 1937:100; Coppinger 1883:185-193). For example, Robertson (1928:157) recalled that, in 1882 when anchoring off Flat Island on the S.S. Barrabal, the Native Police automatically pointed their rifles in the direction of the local Aborigines who were only saved by the fact that the guns contained no ammunition.

Apart from the depredations of the Native Police, the inhabitants also suffered at the hands of recruiters for the Torres Strait pearling industry. Loos (1982:141) notes that certain places like the Whitsunday Isles by 1876 had developed a reputation for "particularly intelligent natives who understood what was requested of them".

Attacks on the stability of Aboriginal culture in this area came from many quarters. Ling Roth (1908:81) even reports that a collector from the Godefroy Museum of Hamburg (1863 to 1873) made several ineffectual efforts to induce squatters to shoot an Aboriginal so she could send the skeleton to the Museum!

#### ABORIGINES OF THE CUMBERLAND AND NORTHUMBERLAND ISLANDS

Whereas there exist detailed descriptions of the Keppel Islanders (see Rowland 1980, 1982a) there is no such information available for the Whitsunday Islands. Henry Lamond, who lived on South Molle from 1927, provides two of the most useful published descriptions (Lamond 1953, 1960). He obtained his information from "Percy" who it is claimed was the last member of the Whitsunday Tribe. According to "Percy" the Whitsunday Islanders lived permanently only on Whitsunday Island itself and never numbered more than 100. The population was stable with occasional defections to the mainland but with no increases from that direction. The group's main camp was opposite Cid Island, one of the few flat areas on the island which provided water, a sheltered bay and abundant game (including wallabies, possums, a few koalas and plentiful fish). At the appropriate season (not defined by Lamond) the islanders went to Long Island for turtle, to West Molle for Torres Strait Pidgeons, and in summer to South Molle (which they called Whyrriba) for tomahawk stone. Their canoes are described as follows:

(Their) ends were shaped, caulked with gum and one thing and another to make them watertight, a stick or two in the shape of thwarts to keep them spread and in the proper shape. A fairly big one may have been about 10 feet long. Its beam would have been at least 4 feet. With a couple of paddles on each side that thing, particularly if aided by a 4km tide, would just skim over the water to eat up the miles (Lamond 1960:35).

Lach Nicolson, who resided on Lindeman Island from 1920, also claimed to have met with one of the last members of the Whitsunday group, a man named Billy Moogra, who gave the name for Lindeman Island as Yara-Kimba, meaning snapper-bream. The diet of these people included turtle, dugong, flying foxes, birds, yams, wild cherries, Burdekin plums, damson trees, trochus shell, baler shell, green ant and cockatoo apples (Thora Nicolson, Lindeman Island, 1982, pers. comm.).

Tindale (1975:182) gives the name **Nagro** [alt. **Ngalangi**, **Googaburra** (a horde name)] to those people occupying the Whitsunday Islands and notes that they ranged over the Cumberland Islands, to the mainland at Cape Conway, and on to the mountains east of Proserpine. They exploited islands and reefs from St. Bees to Hayman Island, a distance of over 100km, in sewn ironbark canoes called **Winta**.

More details about Aborigines in this area can only be deduced from second-hand accounts and from a wide geographical area, particularly the mainland coast. At European settlement it is estimated that 500 Aborigines lived within easy reach of Port Denison (Bowen) and several thousand to the north, south and west of the town (Delamothe n.d.). In 1881, large encampments were noted on the outskirts of Port Denison. The people had nullas, waddy shields, huge wooden swords, two types of boomerang and spears but no throwing sticks (Coppinger 1883:185-193). By 1900 however, only 200 males and females attended the last recorded corroboree in the area (Delamothe n.d.). Ling Roth (1908), who obtained his information from George Bridgeman, notes that the Mackay people had double pointed nullas, wooden swords and shields, and wore fragments of nautilus around the forehead and large breast-plates. Four tribes were recorded within 80km of Port Mackay: **Yuipera** of the town, **Kungalburra** between Port Mackay and Broadsound, **Tooginburra** to the west and **Googaburra** on the Islands. Between 1860 and 1870 about half this population was either shot by Native Police or succumbed to European diseases (Bridgeman and Bucas in Curr 1887:44-45; Mathews 1898:334).

The **Bumbarra** tribe extended from about Port Denison (Bowen) to Cape Gloucester and inland to the Proserpine River (Shea in Curr 1887:4-5). Adornments of this group included opossum cloaks, objects made of the skin of kangaroos, pieces of shell attached to hair by means of beeswax and necklaces made of stems of grass cut into short lengths and boomerangs. The woomera was not used though the **Bumbarra** had a word for it and it was used by neighbouring tribes. Canoes were made of pieces of bark stripped from the ironbark tree, sewn together and rendered watertight by smearing with pine gum (Delamothe n.d.).

Bartley (1896:329-333) confirms that along the entire coast from Rockhampton to Mackay, the woomera was not used though boomerangs and nullas were. The people of the coast were, according to Bartley, expert fishermen who used a purse net formed of two wooden semi-circles hinged at the ends. Of their canoes he notes that they were made:

from a large sheet of bark, which was first flattened out, smooth side downwards. Then the rough outside was trimmed down, and the trimmings, with a quantity of dried leaves were spread evenly over the outside surface, and set on fire. When the sheet of bark was softened, by the heat, the canoes were turned up, each end was doubled on itself, holes were made with shark's tooth awl, they were sewn with withes, and the canoe was made. In these little cockle shells, the blacks were accustomed to cross over from the mainland to the Percy and Northumberland Islands and even to the Barrier Reef (Bartley 1896:333).

General surveys of material cultural items from the region reveal some further distinctive features. For example, while three-pronged spear heads were used to the north, from the Whitsunday Islands south-

wards as far as the Keppel Islands, single barbs and double barbs were used (Roth 1904(7):238-239; Massola 1964:203 and Fig.1:206). Three-piece sewn bark canoes were also known for this area (Davidson 1935:137). A stone axe collected from Whitsunday Island (Virchow 1884) has few parallels to Australian axes but is similar to axes from New Guinea. Whether this axe can be reliably attributed to the prehistoric period is however open to debate.

Waisted blades are an unusual feature of mainland regions adjacent to the islands (McCarthy 1949, Lampert 1983). They have been found in a very restricted geographical area, i.e. mainly in the Mt. Jukes-Seaforth area 70km north of Mackay and at Cattle Creek Valley west of Mackay in an area between open forest and rainforest. Lampert (1983:149) proposes that they were probably used in exploiting some product of the rainforest and, although they are similar in form to those from Kangaroo Island and New Guinea, he argues they were independently invented in each area to meet specific needs.

#### ARCHAEOLOGICAL SURVEY

Few systematic archaeological surveys of the Queensland coastline have been undertaken and only in recent years have investigations begun on the central Queensland coast. A detailed archaeological study of the Keppel Islands 400km south of the present study area was begun in 1978 (Rowland 1980, 1981, 1982a, 1982b) and extended to a brief survey of Stockyard Point on the adjacent mainland (Rowland 1982c) and a detailed survey of North Percy Island 200km to the south in the Northumberland group (Rowland 1984). Surveys of Wild Duck Island (Morwood 1982) and islands in the Duke group (Border 1985) have begun to add to the picture of island exploitation in this region.

Prior to the present survey none of the Whitsunday Islands or any area of the adjacent coast had been systematically surveyed. Although some sites are recorded on the Archaeology Branch (Department of Community Services) Brisbane Site Files, these are random recordings accumulated over the years and they are poorly described (Figure 3). An art site at Nara Inlet (HJ/A1) and a quarry on South Molle (HJ/A3) are well known locally. The art site is mentioned in yachting guides to the Whitsunday's (Colfelt and Bradley 1980:86), has been visited for a long time (Marshall 1935) and was reported to the Government in 1958 by the South Molle Tourist Resort. Aboriginal shelters at Butterfly Bay, Hook Island are also known to the yachting fraternity (Colfelt and Bradley 1980:75) and have been referred to in more general publications (Outridge et al 1983). The quarry on South Molle was noted by Roth (1904:7-19) in his discussion of stone axe production in this area. Other sites are also mentioned in the literature. For example, Aboriginal occupation is reported for Carlisle's Salt Lake Bay on Brampton Island and on the northern side of St. Bees there are reportedly caves containing deep layers of ash inland of a stone fish trap (Busuttin-Windsor 1982:162).

#### ARCHAEOLOGICAL SURVEY - RESULTS

Some islands in the Whitsunday group were briefly surveyed in September (12-26th) 1982. Systematic survey was not envisaged because

of the difficulty of obtaining access to individual islands. A base camp was established on Lindeman Island and this and Seaforth Island were the only islands systematically surveyed. Access to other islands was dependent on the goodwill and scheduling of the Lindeman Island tourist boat operator.

Only one locality on Lindeman Island revealed evidence of Aboriginal occupation and this was sparse. The site was at Plantation Beach on the south east side of the island. Amorphous stone flakes formed a sparse scatter down the lee side of a sand ridge and on to a small broad (200-300m) beach plain in the western portion of the beach. An auger hole revealed occupation deposits to a depth of 5-10cm which included chitons, landsnails, two types of oyster (C. amasa and Ostrea sp.), Nerita sps., Mussels and Donax sp.

The Nara Inlet site on Hook Island was briefly visited. This is a shelter, approximately 30m A.S.L., 10.05m long, 6.15m deep and 1.85m high, with a small pillar dividing it near the centre. Some 60 motifs coloured red, orange, yellow, white and black, were present on the back and side walls as well as the pillar. Motifs were predominately geometric and include cross-hatched figures, vertical and horizontal lines, zig-zag lines, circles, crosses, theta signs and arrows. A number of instances of superimposition were noted. At least two of the figures have been "touched up", apparent testimony to frequent tourist visits. The floor of the shelter exhibited at least two species of oyster (C. amasa, O. angasi), Anadara sp., Mondonta sp., Perna sp., Nerita sp., chiton, landsnail and crab. Stone artefacts were rare. The depth of the deposit was not determined.

A shelter on the opposite side of Nara Inlet was also briefly investigated. It was 10m A.S.L., 8.4m long, 4.8m deep and approximately 2.35m in height. The floor contained a substantial occupation deposit composed predominately of oyster shell but included a wide range of other shellfish species and some fine-grained artefactual stone.

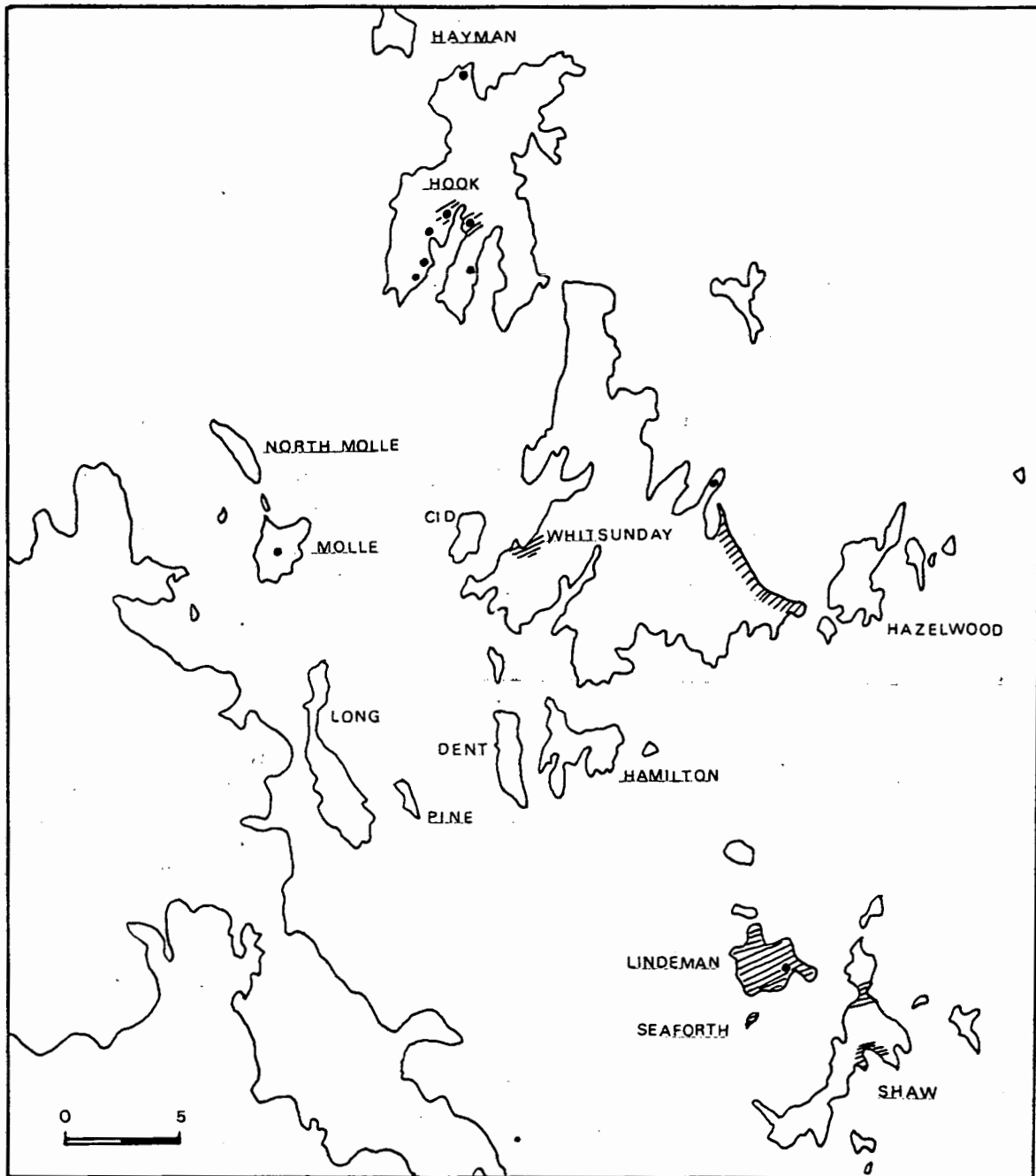
Other areas surveyed on Whitsunday Island included the extensive and unique dunal complex (Paine 1972:18-22) known as Whitehaven Beach, Cook's Monument and Sawmill Bay where Lamond indicated the Islanders had their main camp. Also surveyed was Narrow Neck Beach, on Shaw Island and Neds Bay on Seaforth Island. No evidence of Aboriginal occupation was found at any of these localities.

A more detailed description of the art at Nara Inlet has been undertaken since our visit (Walsh 1984). Walsh notes that the predominant net and grid motifs at this site bear a close resemblance to those from Central Queensland and are dissimilar to the figurative examples of birds, turtles and other animals found on Dunk Island to the north. At Refuge Bay, Walsh recorded a site with composite stencil art, a type otherwise largely unknown outside the Queensland Sandstone Belt.

Two other sites have been subsequently recorded. One is at Macona Inlet and the other at Gulnare Inlet. Both are shelters containing oyster shells, and one contained deep layers indicative of long usage (J. Beckingham, 1982, pers comm).

Although this survey of the Whitsunday Islands was limited and unsystematic, the evidence obtained from it, together with that from

historical and environmental sources, enables some significant conclusions about Aboriginal occupation of the study area.



**Figure 3. Whitsunday Islands - site locations and survey areas. Hatching indicates areas surveyed in 1983. Site locations include those on file at the Archaeology Branch, Dept. of Community Services, Brisbane.**

## SITE TYPES AND SITE LOCATIONS

Islands of the Keppel and Percy Groups are surrounded by well-developed coastal dune systems which contain substantial occupation deposits. The Whitsunday Islands by comparison have drowned coastlines with little dunal formation and only one site has been located in such a context to date (Plantation Beach, Lindeman Island). In contrast a number, of rock shelters have been located on these islands, particularly in the inlets on Hook and Whitsunday Islands, and these contain substantial occupational deposits. Superficially, the deposits appear to be shell middens transferred from their common dunal setting to rock-shelters. Depth of deposit appears substantial and preservation also appears good. This type of site is likely to be present on other islands to the north, within the shelter of the Great Barrier Reef. Here high rainfall and temperature militate against the preservation of open sites and wind blown dunal sands, which provide a preservative capping for such sites, are either absent or greatly reduced. More recent work on Dunk Island supports this contention (Rowland in prep.).

## POPULATION NUMBERS AND DISTRIBUTIONS

Whitsunday Island was apparently the only island permanently occupied (Lamond 1960). A population of no more than 100 gives a density of 1 person per 98ha. This is higher than expected for most hunter-gatherer groups and is far higher than, for example, Radcliffe-Brown's (1930) estimate of 1 person per 1735ha for Queensland as a whole. However, a case may be put for high population densities on these islands. For example, the population density of the Keppel Islands has been estimated at 1 person per 26ha (Rowland 1980), for Sunday Island as 1 person per 32ha (Bird 1910:454) and for Dunk Island as 1 person per 30ha (Banfield 1908:12). A territory on the seashore is said to afford an advantage of a factor between three and four compared with mainland areas (Tindale 1974:112). This appears to be the case with these islands. Throughout the Central Queensland coastal area, tide ranges are extremely high, further enlarging the potential coastal food resource base (Rowland 1980). Support for high population densities on these islands is contained in a letter from Gregory to the Chief Commission of Lands:

These islands are however more densely inhabited by the Aborigines than any similar area on the mainland (Gregory 1861).

High population densities on offshore islands are not unusual and indeed on some Torres Strait Islands (Harris 1979) and Pacific Islands (Bayliss-Smith 1974, 1977) they are highest on the smallest islands. This apparently ironic situation has to do with the relationship between length of coastline relative to island area (Erickson and Beckerman 1975; Jones 1977:361-364) and is worthy of further investigation in the Whitsunday region where the number and range of islands is considerable.

## WATERCRAFT

Observations by Cook, Porcher and others of outrigger canoes in use within the vicinity of the Whitsunday Islands have a number of implications which I discuss elsewhere (Rowland in press). Suffice it here

to note that I have viewed this evidence of outrigger canoes as indicative of a more southerly influence of external cultural contacts that has been previously noted. Hence in this area and further south to the Keppel Islands both environmental factors (Rowland 1983) and cultural diffusion need to be considered in explanations of change in the archaeological record.

## CONCLUSIONS

The results of this historical overview and brief archaeological survey of the Whitsunday Islands allow a number of interesting conclusions to be reached which have a number implications for future work.

Firstly, although intensive European contact in this area appears to be relatively late, its impact on the local Aboriginal populations was rapid and devastating. Nevertheless, historical accounts indicate that these Aborigines put up a fierce resistance to the European invasion. This adds to increasing evidence from around Australia that Aboriginal populations were not passive responders to European incursion (Reynolds 1981).

Secondly, limited evidence for the use of outriggers in this area suggests that diffusion of ideas from the north may have extended at least this far down the coast. I suggest elsewhere (Rowland, in press) that a number of material culture items of Papuo-Melanesian origin were finding their way down the coast, particularly items relating to coastal resource exploitation. This would have important implications for the analysis of archaeological materials recovered from the islands.

Thirdly, the Whitsunday group comprises a large number of islands of different sizes which vary considerably in distance from the mainland. They would not have been occupied as islands as such until after about 5,000 years ago. Thus they hold considerable potential for elucidating aspects of mid-Holocene human coastal adaptation, and for further testing aspects of island biogeographical models of human adaptation (cf. Rowland 1980).

Fourthly, observations by early coastal explorers suggest that most of the larger islands in the Whitsunday group were occupied, and there is no apparent seasonal pattern to this occupation. On the contrary there is a strong suggestion that occupation was permanent. This is comparable to evidence from the Keppel Islands where permanent occupation seems to have occurred after 700 BP. Within the last 700 years inter-island contact would appear to have been more common than island-mainland contact. This might also be the case on the Whitsundays though Tindale (1974) indicates some exploitation of mainland fringes. The timing of these events and the possible permanency of occupation has important implications for the discussion of intensification. The high population densities can be seen from two points of view, either as a late expansion and population increase or simply as a response to the spatially, well-packaged resources of a small island environment which does not require a great increase in population numbers.

Fifthly, unlike the Keppel and Percy Islands, dunal systems on the Whitsunday Islands are poorly developed and few sites have been found in such locations. However, several rockshelter sites have been located

which contain substantial occupation deposits. These will become a focus of excavation as they should be unaffected by erosional processes normally associated with dunal deposits.

Sixthly, unlike the Keppel Islands, a number of the shelters contain substantial bodies of art which will add an extra dimension to archaeological interpretation.

Finally, as the Whitsunday Islands contain areas of rainforest and vineforest, further investigation of Aboriginal adaptation to such resources may provide an interesting contrast to results from the Keppel Islands. For now, attention has shifted to other Islands (e.g. Dunk) in order to obtain a broader overview, but in the future more intensive investigations of the shelters on Whitsunday Island will be undertaken.

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