

NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION

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# THE FIRST THOUSAND YEARS

Regional Perspectives in New Zealand Archaeology

Edited by Nigel Prickett



## FIORDLAND

### Peter Coutts

Western Southland can be conveniently divided into three regions: the coastal and inland plains, the mountains, and coastal Fiordland (Fig.9.1).<sup>1</sup> The coastal and inland plains are bounded by Foveaux Strait in the south, the Eyre Mountains in the north and the Fiordland mountains in the west. The inland plains, clothed in tall tussock grassland, were relatively inhospitable environments for human habitation. In contrast, the coastal plains were clothed in podocarp and mixed hardwood forests and were much richer in food and other resources. It is therefore not surprising to find that many more archaeological sites and a greater range of them have been found in the coastal plans area, and more particularly on the coast itself.



To the west the mountains form an effective barrier between the east and west coasts of Southland. Whilst the mountains themselves were probably never important economically in the context of Maori settlement in southern New Zealand, a number of important rivers rise there which flow through the inland and coastal plains to the sea. Some of these rivers drain large lake systems which are rich in seasonal food resources and which attracted Maoris to these areas during the late prehistoric period.<sup>2</sup> Many archaeological sites are found along the river valleys, suggesting that these were the major routes between the coast and the interior.<sup>3</sup>

Coastal Fiordland consists of an extensive series of glacial-cut fiords (Fig.9.2). The mountains rise sharply from the sea and there are few beaches or areas along the foreshore suitable for landing seacraft. Many of the fiords are dotted with habitable islands and in the extreme north where the lower Hollyford River enters the ocean at Martins Bay, the coastal strip is protected by mobile sand dunes.

Coastal Fiordland has a distinctive climatic regime, characterised by high monthly rainfalls.<sup>4</sup> Winds build up quickly in the Sounds and are funnelled down them with great force, endangering all watercraft in their path. Temperatures range from extremely cold in winter to fiercely hot in summer. These climatic characteristics can make many parts of the coast unpleasant for human habitation, even when protective clothing is worn. The coastal environments do, however, offer a variety of potentially economic plants to a Maori population. They also have a wide variety of animals, including shellfish, forest and water birds, rat, crayfish and a variety of fish and seals.<sup>5</sup> Numerous rock types are also found in coastal Fiordland,<sup>6</sup> though, with one exception, we do not know whether the Maori used them to any great extent.

It is partly a result of the fact that western Southland is far from universities and major museums that little work has been done in the region. Before 1968 our total knowledge amounted to accidental discoveries made by local fishermen who occasionally stumbled across Maori sites, descriptions of some sites in the vicinity

#### Archaeological exploration

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9.1 Fiordland. Numbered archaeological sites and other locations are: 1. Anita Bay; 2. Takahe Valley; 3. Cascade Cove; 4. Southport; 5. Cuttle Cove; 6. Sandhill Point; 7. Port Craig; 8. Pahia; 9. Wakapatu.

of Martins Bay published by the geologists Wellman and Wilson,<sup>7</sup> fragmentary information about the contents of a rock shelter at Cascade Cove, Dusky Sound, excavated by two amateur archaeologists (Neil and Charles Begg),<sup>8</sup> excavation of a small rock shelter in Takahe Valley near Lake Te Anau,<sup>9</sup> the study of a unique and well-preserved burial at Lake Hauroko north-west of Sandhill Point,<sup>10</sup> and information obtained from the excavation of a 13th century habitation site at Wakapatu near Pahia on the coast.<sup>11</sup>



9.2 The typical Fiordland environment of sheltered water, flanked by precipitous forested slopes with few landing places, which rise to exposed alpine grassland and rock as much as 2000 m above the sound. This picture is of Wet Jacket Arm, Dusky Sound (N. Prickett).

Another type of information, however, is available from ethnographic sources. Captain Cook landed in Dusky Sound in 1773 and he and his officers have provided us with descriptions of the Sound and its inhabitants.<sup>12</sup> Later records again describe the Maori of Dusky Sound,<sup>13</sup> and there are early 19th century accounts of aspects of Maori occupation around Chalky and Preservation Inlets,<sup>14</sup> at Martins Bay<sup>15</sup> and Lakes Te Anau and Manapouri.<sup>16</sup>

The author's own archaeological studies in western Southland commenced in 1968 and continued until 1971. Six major study areas were surveyed: Martins Bay,<sup>17</sup> Milford Sound,<sup>18</sup> Breaksea and Dusky Sounds,<sup>19</sup> Chalky and Preservation Inlets,<sup>20</sup> Sandhill Point and Port Craig<sup>21</sup> and Lakes Te Anau and Manapouri.<sup>22</sup>

Many of the coastal sites are situated within mobile dunes which periodically erode and bury archaeological sites. At Port Craig, Breaksea and Dusky Sounds, and Chalky and Preservation Inlets, however, most of the sites are in caves or under rocky overhangs. Preservation conditions are excellent in most of these places but especially in the caves at Southport, Chalky Inlet, where remarkable assemblages have survived. These include piles of woodchips, ropes, feathers, twigs, cloak fragments, seal and bird skins, berry fruits, plant fibres, European fabrics, bones and shells.<sup>23</sup> Since many of these materials do not normally survive in archaeological contexts, these sites provide a much fuller picture of Maori economy and material culture than can be obtained anywhere else in western Southland.

Unfortunately the chronology of the sites studied in each area is not secure.<sup>24</sup> Some of them have been radiocarbon dated, others have been assigned ages on the basis of material which appears in the assemblages. Still others, including the few sites located in the Te Anau and Manapouri area, have not been dated at all. In many instances, however, it is possible to assign the layers within the excavated sites to three arbitrary archaeological periods: mid-prehistoric (about A.D. 1000-1400), late prehistoric (about A.D. 1400-1773) and post-contact (after 1773). The time marker 1773, the date of Cook's arrival at Dusky Sound, can be used to signify the boundary between the prehistoric period and the start of contact between Maori and Europeans in the Foveaux Strait area. The majority of archaeological layers fall within the late prehistoric or post-contact period, but in each study area there are periods which are not adequately represented. For example, at Sandhill Point, Port Craig, Dusky and Breaksea Sounds, Martins Bay and Anita Bay, nearly all the layers belong to the late prehistoric period. At Southport most of the major archaeological horizons belong to the post-contact period and date from between 1820 and 1850. Consequently, to assess and compare data from different areas it is necessary to pool assemblages from broadly contemporaneous archaeological horizons.25

Almost all the detailed archaeological evidence derives from site surveys and excavations in coastal Fiordland, so although sites in this area are not typical for the study region as a whole, it is realistic to concentrate on this material. Consequently it is not possible as yet to construct a reliable time-space model of Maori culture for the region as a whole. In these circumstances the following procedure has been adopted: firstly, important results from research conducted in each of the study areas are outlined, and following this, the implications of this evidence for the construction of a regional model are discussed.

Martins Bay

At Martins Bay there is no archaeological evidence of permanent settlements, villages or workshop activities.<sup>26</sup> The evidence is of spasmodic occupation by small groups during the late prehistoric period.

Excavations were confined to a single area and yielded little in the way of artefactual evidence. Semi-circular shelters, rubbish dumps and associated hearths and ovens, which seem to be typical for the whole area were uncovered. The field **survey located the remains of numerous** *in situ* ovens and hearths and a number of small shell dumps situated in the swales of massive sand dunes. The inhabitants of these sites collected shellfish from the nearby lagoon, hunted forest ground birds, fished and killed and butchered dogs.

Studies of Martins Bay artefacts in museum collections indicate a variety of implements, some of considerable antiquity. Many of the tools were made from Southland material, hinting at the origin of some of the travellers.

In 1863 a Maori family which had been living in relative isolation for five years was observed at Martins Bay.<sup>27</sup> They led a semi-sedentary existence, living near the main lagoon at the Bay. They grew potatoes which they supplemented with fern root, fish and birds, including kiwi, morepork and kakapo. Occasionally they made visits to Lake Alabaster for eels. The girls in the family appeared to do all the

foraging, birding and fishing. Fishing nets are mentioned. Several dilapidated huts were observed around the Lower Hollyford. These huts were associated with small abandoned patches of cleared bush which Hector concluded had been used for growing potatoes. The family was well clothed (although in a state of 'semee-nudity'), the women being dressed in traditional 'flax mats'. They possessed a damaged canoe which could accommodate a maximum of four people. Other items of material culture are not described.

Anita Bay, Milford Sound, has one of the two known sources of bowenite in the South Island.<sup>28</sup> A field survey in this area turned up little archaeological evidence: a number of ovens and a few stone tools.<sup>29</sup> Likewise the archaeological evidence from elsewhere in Milford Sound is sparse. A small site excavated on the Arthur River was a transient Maori camp with evidence of fishing, birding and gathering activities. Other probable transient campsites were observed by travellers during the 19th century further up the Arthur River.

Studies of bowenite artefacts from Milford Sound in museums and private collections indicate that they were widely dispersed around the South Island, though not common. Bowenite was used to make a variety of objects, including ornaments, small thin adzes, chisels, gouges and lure-hook shanks, and occasional patu.<sup>30</sup>

Archaic tool types found in the past suggest that Milford Sound has been visited over a long period of time.<sup>31</sup> Moreover, like those at Martins Bay, some of the tools are made from materials found in Southland, suggesting that visiting groups had affinities with that area.

Field surveys in these areas reveal the presence of sites over a wide area, including some on islands in the lakes indicating that canoes or rafts were used locally. The remains of large eel channels have been located, which give some insight into Maori economy and the supportive social organisation. The presence of debarked trees around the lakes points to the manufacture of bark bags for preserving birds and eels. Large ovens are located in the grassland areas and many others have been observed by locals, suggesting that Maoris at one time caught birds, probably moa, or dug up cabbage tree roots which they cooked locally. Duff's work in the Takahe Valley indicates that Maori penetrated the



9.3 Takahe Valley (N. Prickett).

Milford Sound

Lakes Te Anau and Manapouri



9.4 Occupied rock shelter below limestone cliffs in Takahe Valley (N. Prickett).

mountains from this area to hunt takahe and the small bush moa  $(Megalapteryx)^{32}$  (Figs 9.3 and 9.4).

Dusky and Breaksea Sounds Captain Cook arrived in Dusky Sound in 1773 and observed three or four families.<sup>33</sup> He saw semi-circular huts made from sticks, bark and flax that were unlike those in use in eastern Southland during the early 1820s. Most of the huts had outside fireplaces, though these are not described in detail. Their design and construction probably resulted from a need to adapt to local environmental conditions.

From Cook's journals it is clear that the local inhabitants foraged over a wide area. Food-getting was carried out by family groups equipped with a variety of hunting and fishing implements including double canoes and rafts, two-piece and one-piece fish hooks made of bone and wood, fishing lines made from flax of 2, 3 and 4-ply cords and others plaited like the lash of a whip, small fishing nets made from flax, and spears.<sup>34</sup> From Cook's journals, therefore, it may be interred that fishing was a major activity. No stores of preserved foods, smoke racks to preserve food, or whata are mentioned. Nephrite adzes, axes and chisels were observed, and according to Wales, they were multi-purpose tools, used as axes or adzes.<sup>35</sup>

Maoris were present at Disappointment Cove in November 1792 and were probably frequent visitors to the area in the first decade of the 19th century when the European sealing industry was at its peak.<sup>36</sup> Late 18th and 19th century observers described Maori sites in several widely separated areas.<sup>37</sup> These were semi-circular huts with exterior fireplaces and shell dumps, and were occasionally associated with artefacts made from iron. It is likely that Maori expeditions to the Sounds became less frequent after 1810 as European sealing activities shifted from this area to the Stewart Island region.

Several post-contact archaeological sites have been investigated in Dusky and Breaksea Sounds and evidence from them complements that of ethnographic sources.<sup>38</sup> From the disposition of the archaeological sites it can be inferred that Maoris penetrated well up the Sounds where they sometimes camped under rocky overhangs. Analysis of the midden refuse at such sites leads to the conclusion that they were occupied during summer months and that foraging periods lasted from a few weeks to a few months. It can be assumed that people journeyed up the Sounds on rafts or in canoes. The evidence also suggests that they brought dogs with them, which were sometimes killed when meat and raw materials were required.

The economy was based on fishing, and a variety of fishing techniques can be inferred.<sup>39</sup> It is likely that most of the fish were caught in the inshore rock platform areas with hook and line. Some fishing gear was manufactured at the sites from bone, and possibly from shell and wood. Shellfish were gathered locally. Bird remains found at the sites include several ground and other forest species and water birds.

Bone and shell was worked but remains of cutting, grinding, drilling and polishing tools have not been found. Moreover, there are no flakes, adzes or adze fragments. Indeed, evidence for industrial activity is minimal, and the use of inefficient materials such as mussel shells indicates a shortage of suitable raw materials. Not all the manufacturing activities are associated with food procurement. The presence of an occasional needle, cloak-pin and neck pendant implies that items of clothing and auxiliary gear such as kits were made and repaired.

The archaeological evidence from each of four prehistoric sites investigated suggests comparable economic strategies were employed and that they were similar to those deduced from the post-contact archaeological evidence.<sup>40</sup> The economies were based on the exploitation of local resources, particularly fish, with some shellfish collecting and bird hunting. At one site there is evidence that people hunted the small bush moa (Fig.9.5). Variations in the proportions of predominant species can be attributed to differences in local availability and seasonal abundance. There is no evidence from any of the sites to indicate food preservation.



9.5 Midden site in Breaksea Sound. The lower levels contained evidence that the Maori here hunted moa (P. Coutts).

The settlement patterns, as characterised by length of occupation, seasonality, inferred activities and economies, are broadly similar for both the post-contact and late prehistoric periods. Where evidence allows a comparison, material culture and associated technologies have common features. The major differences appear to be the absence of stone flakes, adzes and chisels in the post-

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contact layers, the presence of a larger type of two-piece bait-hook point in prehistoric assemblages, and evidence of cannibalism and exploitation of the small bush moa in some of the prehistoric layers.

Chalky and Preservation Inlets Several rich cave sites have been discovered in Chalky and Preservation Inlets, although all are badly disturbed (Fig.9.6). During the post-contact period the sites were occupied intermittently, mainly during the spring and autumn months by family groups. Food gathering activities would have been divided between the sexes with men doing the fishing and women collecting the shellfish, crayfish, sea urchin and forest foods. The Maori brought some equipment with them when they came to Fiordland. This included adzes and chisels (both steel and stone), containers such as gourds, fishing gear (including nets and fishing lines), clothing, fire-making sundries and weapons.



9.6 Southport, Chalky Inlet, is clothed in heavy forest. The area is honeycombed with small caves which were used by the Maori during expeditions from the Foveaux Strait region (P. Coutts).

The inhabitants of the caves exploited forest plants and trees. Leaves, twigs and tree fern were brought into the caves to line living areas. Branches of trees such as totara and rimu were cut and brought back to provide raw materials for wood-working. Plants including cabbage tree (*Cordyline*), flax (*Phormium*) and supplejack (*Rhipogonum*) were collected for manufacturing ropes, nets and baskets, and possibly for food. Berries were gathered from trees such as the miro.

Ropes made from unprepared or stripped fibres were found. Very few were dressed. The majority are 3-ply flat plaits, though the *Cocus* ropes are round and multi-plyed. Most examples of basket work found at the Southport sites have simple chequered patterns with 3-ply plaited rims (Fig.9.7). They are made from unprepared, wide strips of fibrous leaves and are similar in construction to baskets which are still being used today.

Forest birds and native rat were sometimes hunted, but these are poorly represented at the sites. The high proportion of broken crania amongst the remains of forest ground birds suggests they were usually killed with clubs. The forest birds were probably hunted for their feathers, as there are few skeletal remains in the archaeological deposits but many feathers.



9.7 Flax kit recovered from a Southport site (P. Coutts).



9.8 Wooden artefacts from Southport sites, including partly made net floats and items that have been drilled and snapped (P. Coutts).

The foreshore and harbour areas were major sources of food and raw materials. Shellfish were dug from the extensive mud flats on the south-west side of Southport harbour and gathered from rock platform habitats outside. The target species were those that could be collected in the greatest numbers for the maximum energy return. Sea urchins were also gathered, perhaps incidently while harvesting shellfish. Many species of water birds could be captured in these areas. Local waterworn pebbles were collected and used as hammerstones and sinkers, and crude adzes were also manufactured from them.

The sea, however, was by far the richest source of food, and fishing is the principal subsistence activity reflected in the archaeological remains. The fishermen appear to have concentrated on exploiting the shallow inshore rock platform areas where they caught mainly spotty. Nets were used with stone sinkers and wooden floats. Much of this equipment was made or repaired locally (Fig.9.8). In deeper water groper and ling were captured with long lines and two-piece bait-hooks (Fig.9.9), and barracouta and mackerel were sometimes caught by trolling with lure hooks<sup>41</sup> (Fig.9.10). Crayfish was another reliable food and seals were taken occasionally. The seals appear to have been butchered at the kill sites, since only some parts of them are found in the middens.

Inside the caves people slept and worked in defined areas and threw refuse into heaps. Great numbers of burnt waterworn pebbles at most sites indicate that the oven was the preferred method of cooking. Open hearths were used and consisted of shallow pits lined with a few large slabs of rock.

Industrial activities were carried out in the living areas of the caves. Woodworking was one such activity identified from the large piles of woodchips. The range of artefacts being manufactured was much greater than those that could be identified. Among the identified items were fish hook spreaders, barracouta lure-



9.9 One and two piece fishhooks from Fiordland sites, made from wood (1-8), shell (9-12) and bone (13-20).



9.10 Wooden barracouta lure-hook shanks broken during manufacture — from a site at Southport, Chalky Inlet (P. Coutts).

hook shanks and points, one-piece fish hooks, net floats, two-piece bait-hook shanks and a small human head (Fig.9.11). It is clear that, after hunting and gathering, woodworking was the next most important activity at most of the sites. Both steel and stone tools were used to work the timber. These were adzes and chisels and there is some evidence for the presence of side-hafted implements. Two types of chisels were used: a hafted tool with a wooden handle, and an unhafted type which was hit directly with a mallet. There is also a possibility that bone chisels were used on timber. Numbers of paua shells were kept aside in the living areas where they were cut into various shapes, probably to inlay wooden artefacts.<sup>42</sup> Some bone and ivory working was carried out (Fig.9.12). Material was used from a variety of species, principally mammal and predominantly dog. Dogs were butchered for their long bones and mandibles, using a prescribed method of butchering.<sup>43</sup> Barracouta lure-hook points were made from dog mandibles, while the long bones were used to make a variety of implements. One-piece rotating bait-hooks and two-piece bait-hook points were made from bone. Cloakpins, polished bone points and needles were made from mammal bones (Fig.9.13). A whalebone patu was found.

Some items of clothing and personal adornment were made. These include simple wooden and bone combs, bone and ivory cloak-pins (or pendants) and possibly necklaces or toggles. The presence of cloak fragments (Fig.9.14), numerous feathers and dog and seal skin tags suggest that if cloaks were not



<sup>9.11</sup> Wooden 'god stick' excavated at Southport, Chalky Inlet (P. Coutts).

made locally, they were at least repaired there, or the raw materials were collected locally to be taken away elsewhere. Some of the needles and ground bone points may have been associated with these activities. One possible innovation was the manufacture of sealskin slippers, a type of footwear known to have been adopted by the Canterbury Maori during the post-contact period. Several kit fragments have been found. Some are made from narrow strips of raw flax in twill work, and one from sewn hide. Traditionally, kits were used by Maoris to carry ornaments, fish hooks and similar items.

In addition to the artefacts already described, the sites yielded a number of miscellaneous objects of European origin, including steel adzes and axes, glass beads, clay pipes, iron nails and other fragments of metal, glass bottles and articles of clothing, a small section of a 'Brown Bess' musket and some musket balls; all popular trade items during the first half of the 19th century. Some of the items were probably obtained from European sealers or whalers. It seems unlikely that the Maori would have brought these goods all the way from Foveaux Strait only to discard them at Southport, particularly artefacts such as ink bottles, quills, corks, *Cocus* ropes and pieces of non-indigenous timbers. Local trade is also a convenient explanation for the presence of pig and European dog in some of the archaeological deposits.

Archaeological evidence indicates that during the post-contract period the Southport sites were occupied by a transient population possessing an essentially indigenous culture with a number of intrusive elements. While they may have



9.12 Bone artefacts from Southport sites: whalebone paua 'flicks' (1-4), broken bird spear point (5), and broken whalebone harpoon head (6).



9.13 Bone and ivory artefacts from Fiordland sites: needles (1.5), and cloak pins or pendants (6.7).

been in the process of adopting some items of European material culture such as steel adzes, 'strike-a-lights' and iron nails, the indigenous counterparts had not yet been discarded. The presence of stone tools suggests that steel tools were not commonplace. Indigenous fishing gear was still in use, but was modified or replaced later in the post-contact period. The Maori who came to Southport traded with northern areas to obtain nephrite, gourds and nikau palm, and the presence of bowenite and Riverton green argillite suggests that the occupants of the Southport sites came from, or at least had contacts with the coastal areas of Foveaux Strait. Consequently, at most of the Southport sites the culture is indicative of an intermediate phase of contact; a period when the Maori had already established relationships with Europeans, but when European trade goods were still in short supply and great demand.

It can confidently be assumed that there were considerable sealing operations in the area between 1800 and 1820. Moreover, Chalky Inlet was preferred to Preservation Inlet for anchorage, and Southport was one of two harbours in Chalky Inlet frequented by sealing vessels.<sup>44</sup>

Although the intensity of sealing declined markedly during the next decade, the industry managed to continue intermittently for another 15 years. It is known that

relationships between sealers and Maoris were poor during the first few years of the 1820s and that in November 1822 Maoris were at Chalky and Preservation Inlets hunting European sealers.<sup>45</sup> At that time, the main Maori base camp appears to have been located at the mouth of the Windsor River further east, from where Maoris travelled in cances with their families and dogs.

During the next few years relations between Maori and European gradually improved. In 1829, the first whaling station in southern New Zealand was established at Cuttle Cove in Preservation Inlet and it continued to operate until about 1838.<sup>46</sup> Little is known about the station, except that it was a fairly large establishment, employing over fifty men including some Maoris.



9.14 Cloak fragment made of dressed Cordyline fibres - from a Southport site (P. Coutts).

Traditionally this was a staging area to Fiordland and an area renowned for barracouta fishing. Field surveys have located several late prehistoric fishing camps that were occupied by transient populations during the spring and summer months.<sup>47</sup> A predominantly fish diet was supplemented with a variety of shellfish collected from the nearby rock platforms. While at these camps, the inhabitants worked local raw materials such as whalebone and *Cookia* shells, and dogs were sometimes killed and their mandibles used to make barracouta lurehook points. Local industrial activity appears to have been linked with subsistence activities such as fishing and bird spearing.

Some of the tools were made from Riverton argillite, and flakes made from North Island obsidian are present. Other tools were made from West Coast nephrite. Local pebbles of metaquartzite were used as hammerstones, oven stones and sinkers. The range of materials present gives some indication of the extent of the trade networks which must have existed.

The prehistoric and post-contact economies appear to be similar at Sandhill

Sandhill Point and Port Craig Point (based on present evidence) but no artefacts were recovered from the postcontact layers. There is some evidence of an earlier prehistoric component in this area. This is not unexpected as Sandhill Point lies within twelve hours walk of a string of sites which were located along the seaboard of Foveaux Strait and which have early dates.

#### Conclusions

Archaeological and ethnographic information relating to western Southland and particularly coastal Fiordland cannot be used to construct a coherent regional framework except at a very general level. This is because suitable information for reliably comparing the archaeological phases at the various sites is not yet available. However, present information enables us to make a number of generalisations for both post-contact and prehistoric sites in coastal Fiordland.

The economic strategy continued essentially the same. It focused on the exploitation of local resources, particularly fish and shellfish supplemented with whatever else was available at the time. Some specialisation is indicated at Sandhill Point where there was an emphasis on barracouta fishing, and during the early prehistoric period the presence of a bone harpoon at one of the sites indicates that a specialised fishing technology was used. A range of technologies is evident, reflecting the diverse economic strategies employed.

Coastal Fiordland was frequented during the warmer months of the year, though winter occupation cannot be ruled out. This should be emphasised, as studies of the weather patterns in the area suggest that the best time of the year to make sea voyages to and from Fiordland is during winter time.<sup>48</sup>

Most sites appear to be temporary camp sites and although many have evidence of industrial activities, these are mostly concerned with the production and maintenance of equipment for hunting and gathering. Family groups who voyaged to the area in canoes, brought dogs and other vital equipment with them. However, there was a strong emphasis on use of local materials such as waterworn pebbles, shell, wood, bone and plant fibres.

There is no convincing archaeological evidence that preserved foods were taken to the area or that food was preserved in any of the areas studied during the prehistoric periods. However, food was stored during the post-contact period at Martins Bay where a number of whata were observed in the second half of the 19th century.<sup>49</sup> Semi-circular huts made from tree fern were sometimes built, or caves or rock shelters used.

The presence of various imported materials suggests that Maoris occupying these sites had access to extensive trade and exchange networks. During both the post-contact and prehistoric periods these networks extended to Milford Sound and Westland, the North Island and various areas of Southland.

There is evidence for the late survival and exploitation of the small bush moa at one of the Southport sites, one of the Breaksea Sound sites, and at a site in Takahe Valley above Lake Te Anau.

While there is some data indicating that coastal Fiordland was being exploited as early as A.D. 1200, most of the radiocarbon dates are much later, suggesting occupation from A.D. 1200 until the late 18th century. Indeed present archaeological evidence indicates that there was little Maori interest in the area until the late prehistoric period. Even inland, where Archaic adzes have been found occasionally around Lakes Te Anau and Manapouri, the only site that has been excavated and reported in detail is a late prehistoric site.<sup>50</sup> The late dates are in contrast with those available for larger settlements situated along the coastline to the east in places such as Wakapatu,<sup>51</sup> Pahia,<sup>52</sup> Riverton,<sup>53</sup> Tiwai Point,<sup>54</sup> Pounawea and Papatowai,<sup>55</sup> where many of the sites have yielded evidence for regular exploitation of moa.

The artefacts in the prehistoric and post-contact assemblages from the coastal

sites are basically the same. The indigenous elements continue into the postcontact period but are supplemented by introduced artefacts. Judged on the archaeological evidence, the results of contacts with Europeans in this area appear to have been slight.

It is still not clear why the Maoris went to coastal Fiordland or how often these expeditions took place. Hunting and gathering is one possibility; at Southport it took the form of birding and feather collecting, at Sandhill Point emphasis was on fishing for barracouta. There is the possibility that they may have come to the area to collect other raw material such as bowenite, whalebone and bird bone. Finally, during the post-contact period it is possible they went there to trade with European sealers and whalers.

The situation is a little clearer for the inland plains area. During the early prehistoric period, expeditions were probably mounted to hunt the moa, as seems to have been the case at Hawksburn in central Otago.<sup>56</sup> During the later prehistoric period, if Maori traditions are any guide, the Lakes were visited regularly to hunt birds and fish for eels, and from these areas expeditions were sent overland to the West Coast to gather greenstone.

With the coming of Europeans and the introduction of iron and steel, the demand for greenstone declined. Moreover, Maori settlement patterns along the seaboard of Foveaux Strait changed significantly and focused on areas adjacent to European settlements where opportunities for trade existed.<sup>57</sup> These developments led to a decline in journeys to the interior lakes and from there to the West Coast.

While there are no detailed descriptions of early post-contact Maori culture for the Foveaux Strait area it is possible to generate a rough picture from historical sources for the period 1820 to 1830. At that time the Maoris lived collectively in permanent villages dotting the coastlines of Southland, Ruapuke and Stewart Islands. Although these villages had already come under the influence of Europeans, they retained much of their traditional culture. Potatoes were grown, pigs were raised, and the Maori was keen to trade with Europeans for items such as knives, fish hooks, nails, hatchets, glass beads and other trinkets. Otherwise people still wore traditional costumes; made ropes from flax, fish hooks from bone, fire by the fire stick/plough method; used ovens and red ochre; used double canoes decorated with carvings; practised cannibalism; and lined their sleeping areas with fern. There was a strict division of labour between the sexes, the men doing the hunting and fishing, the women collecting, cooking and manufacturing ropes and mats. Moreover, it is known that expeditions were made to coastal Fiordland from villages such as Pahia to hunt seals and birds and that these journeys sometimes took place in winter as well as summer.

The post-contact evidence available from the Fiordland region is consistent with and reflects various aspects of this model for the Foveaux Strait Maori. Consequently in erecting a regional model for Southland, it would be appropriate to include a consideration of the evidence from Fiordland as well. The obvious continuity between prehistoric and post-contact assemblages in the coastal areas of Fiordland, imply that the post-contact connection between Fiordland and the Foveaux Strait area may have existed during the late prehistoric period as well.

A great deal more archaeological work is required in the Fiordland and the Foveaux Strait regions before this very fragmented picture of Maori culture can be improved. It would help if village sites in Foveaux Strait were investigated, while the question of where the Maori wintered over in this region needs to be examined as a matter of priority.

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#### Notes

- 1. After McLintock, 1959.
- 2. Coutts, 1970b.
- 3. Bathgate, 1969a.
- 4. McLintock, 1959.
- 5. See Bathgate, 1969a; Beattie, 1954; and Coutts, 1969a.
- 6. Coutts, 1971a.
- 7. Wellman and Wilson, 1964.
- 8. Begg and Begg, 1966.
- 9. Duff, 1952 and 1956a.
- 10. Trotter, 1972d.
- 11. Higham, 1968 and 1976.
- 12. See Coutts, 1969a, for an analysis of this material.
- 13. References in Coutts, 1969a.
- Coutts, 1969d; McNab, 1907; excellent documentation will be found in Begg and Begg, 1973.
- 15. Coutts, 1971b.
- 16. Coutts, 1969c and 1970b.
- 17. Coutts, 1971b.
- 18. Coutts, 1971a.
- 19. Coutts, 1977.
- 20. Coutts, 1969b and 1972a.
- 21. Coutts, 1970a and 1972a.
- 22. Coutts, 1969c and 1970b.
- 23. Coutts, 1969b and 1972a.
- For a full discussion of the problem in relation to the Fiordland sites, see Coutts, 1972a, Vol. 1, p. 62, and 1972b.
- 25. The limitations of this approach are discussed in Coutts, 1972a, Vol. 1, p. 272.
- 26. Coutts, 1971b.
- 27. Alabaster, 1863; and Hector, 1864.
- 28. There are four areas where the Maori traditionally obtained greenstone in the South Island: Anita Bay (Te Horo), Milford Sound; a place near Milford Sound (Piopiotahi); the Dart River valley; and areas along the Taramakau and Arahura Rivers in Westland. See Chapman, 1892, p. 39; Maori names are from Beattie, 1920, p. 50.
- 29. Coutts, 1971a.
- 30. Coutts, 1971a, pp. 63-64.
- 31. Coutts, 1971a, Table 4.
- 32. Duff, 1952 and 1956a.
- 33. Beaglehole, 1961.
- 34. Coutts, 1969a.
- 35. Coutts, 1969a, p. 193.
- 36. McNab, 1907, p. 321.
- 37. Coutts, 1969a, p. 193.
- 38. Coutts, 1972a, Vol. 1, Chapter 12, and 1977.
- 39. Coutts, 1975a.
- 40. Coutts, 1972a, Vol. 1, Chapter 13, and 1977.
- 41. Coutts, 1975a.
- 42. Coutts, 1975b.
- 43. Coutts and Jurisich, 1973.
- 44. McNab, 1907, p. 224.
- 45. McNab, 1907, pp. 200 and 252; see Begg and Begg, 1973, for source documents.
- 46. Begg and Begg, 1973, p. 150.

- 47. Coutts, 1970a, and 1972a, Vol. 1, Chapter 14.
- 48. Coutts, 1972a, Vol. 1, p. 12.
- 49. Coutts, 1971b, p. 176.
- 50. Duff, 1952.
- 51. Higham, 1968 and 1976.
- 52. Simmons, 1973, p. 2.
- 53. Leach, 1969.
- 54. Park, 1969.
- 55. See Hamel, this volume. 55. See name, die 56. Anderson, 1979. 57. Coutts, 1969d.