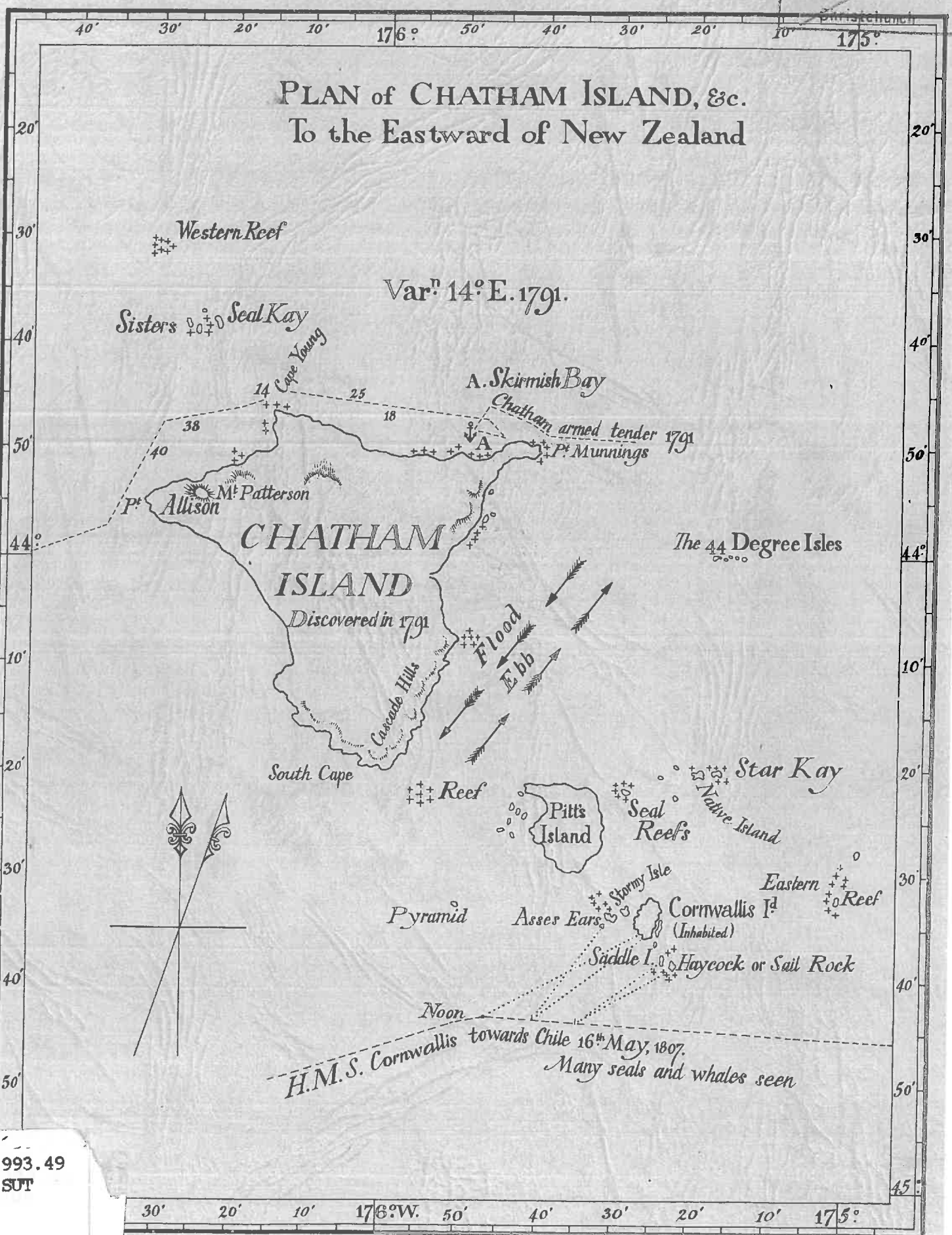


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Working Papers in Chatham Islands Archaeology 11

Archaeological Research in The Chatham Islands,
1973 - 1976: a review

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Earlier papers in the series are:

1. Smith, I.W.G. and P. Wernham.
"Survey of Archaeological Sites: Te Awapatiki to Hapupu, Hanson Bay, Chatham Islands". 1976.
2. Weiss, Dr B. (translated K.J. Dennison).
"More than Fifty Years on Chatham Island". 1976.
3. Park, G.S.
"The Dendroglyphs and Petroglyphs of the Chatham Islands". 1976.
4. Houghton, P.
"The Human Skeletal Material from Waihora (CH283)". 1976.
5. Sutton, D.G.
"An Alternative Research Strategy for the Study of Prehistoric Human Skeletal Remains". 1977.
6. Hamel, G.
"Vegetation and Archaeology on Chatham Island". 1977.
7. Smith, I.W.G.
"Prehistoric Fur Seal Exploitation on the Southwest Coast of Chatham Island". 1977.
8. Nugent, T.D.
"Prehistoric Shellfish Gathering at Waihora, Southwest Coast, Chatham Island". 1977.
9. Walters, M.
"An Examination of the Literary Evidence for the Existence of Discrete Groups of Moriori in the Chatham Islands in the 19th Century". 1977.
10. Sutton, D.G.
"The Archaeology of the Little Sister, Chatham Islands". 1977.

Further Titles are in preparation.

Foreword

This paper reviews the field and laboratory research conducted within the Chathams project, 1973 - 1976. The idea of a review paper grew quite naturally out of the drawing-together-of-strings stage in which the work now lies. The material included was drawn from my diaries and report to my supervisor, Professor C.F.W. Higham. Any omissions are therefore my fault entirely.

Some readers will regret the emphasis on the reconstruction of a synchronic view of prehistoric human behaviour feeling perhaps that a 'culture history' study would have been more appropriate. This point of view could draw support for the need to counter still current 19th century views of the origins of the Moriori, or from the history of archaeological research in the Chathams. The many ethnological enigma there might have persuaded some others to follow a culture history strategy. Others might argue that the need to fit the Chathams into the results of current archaeological research elsewhere in the Pacific should have persuaded us to have, as our first priority, the need to make statements about long term change.

Certainly, a principal point of departure between this and other Pacific island archaeological projects has been the concentration on the synchronic, forced upon us to an extent, but also the result of a positive decision. The grounds for that decision lie in three areas. First, in the importance of dated regional differences recognised

here since Golson's aspect and phase paper, published in 1959, and given major impetus recently by Foss Leach's (Ph.D., 1976) Wairarapa reconstruction. A second factor is the opinion that the examination of cultural origins must in future draw from a much wider range of evidence than the ethnological. This point of view necessitates adequate analysis of the general, non-artefactual material recovered during excavation. If the present suite of ambiguities which is our understanding of the origins of several important prehistoric cultures in the Pacific is the result of a century's contemplation of artefact forms the argument for alternative criteria needs little emphasis. Several developments which have spun off the recent analysis of excavated midden material in New Zealand and elsewhere may be useful in the longer term in formulating and interpreting statements of cultural distance.

A third factor which promoted the synchronic reconstruction is the opinion, expressed in this series before that,

"It is manifestly clear that good basic data may later yield useful comparative information; however, with inferior basic information, even elegant comparative studies will be of little value - in fact they may be positively erroneous and misleading."

(Working Paper 5:7)

In the case of the Chathams research the opinion has been followed that cultural criteria used for comparative

studies are best seen within the environmental, economic and cultural contexts in which they occurred. For this reason, a large amount of time has been spent on the reconstruction of relevant aspects of the environment at the time of occupation of the Waihora area sites.

I hope readers of the series find this number useful.

D.G. Sutton

Acting Editor

Archaeological Research in the Chatham Islands,
1973 - 1976: a review

Introduction:

The University of Otago Anthropology Department's programme of archaeological research in the Chatham Islands involved 5 periods of fieldwork between February, 1973 and September, 1976, and, to date, 22 months of laboratory analysis. This paper briefly describes each period of fieldwork and summarises laboratory analysis completed and in progress. Some attention is given to the development of the major emphases and research strategies of the Chathams Project. A more detailed discussion of objectives and strategies will be presented at a later date. Resulting papers, either in print or in preparation, are mentioned.

Site numbers in the text are Anthropology Department numbers; these records not yet having been placed in the N.Z.A.A. Offshore Islands Site Register. Place names in the text and figures are used after local usage and not N.Z.M.S. 240 (see Figure 1).

Initial Reconnaissance:

The first two periods of fieldwork were concerned with gaining an acquaintance with the surface archaeology of the Chathams and the logistical problems of working there.

In February, 1973 Foss Leach, Wally Jenks, Atholl Anderson and the writer undertook a month-long reconnaissance of Chatham Island. We looked at several

areas, made contact with local landowners and the Museum Committee, established our camp at Te One and considered some of the logistical problems. We budgeted the programme on the basis of this trip.

In May, 1974 a group of seven led by Foss Leach and the writer began an archaeological survey of Chatham Island. In a month we covered most of the coastline and the shores of the lagoon and the larger lakes.

We recorded site locations with 6-digit grid references using M.Z.M.S. 240 (1st Edition, 1969) and local landmarks. We also noted site area, depth and stratigraphy where apparent. The extent of exposure, future security and any notable features were also recorded.

We returned to Otago having found over 400 apparently prehistoric sites. Moreover, the distribution of sites did not appear to conform to patterns of site distribution in relatively similar areas of New Zealand, see for example Hamel (in preparation), Teal (1976) and Huffadine and Watson (1977).

Another remarkable feature of the landscape is the large number of shallow, specialized sites in relation to the few deep and complex sites involving a range of faunal and lithic material. The specialized sites are most strongly represented on the eastern and northern beaches where numerous 'tuatua middens' are exposed. This and other points will be discussed in the summary of the site survey presently being written up (Leach and Sutton, in preparation).

We were convinced that the available explanations of the site distribution are unsatisfactory. For instance Simmons has termed the specialized sites "single period midden sites" (1964: 51) and "single period temporary camps" (1964: 57). He concluded with the statement that,

"there appears to have been hunting and fishing activity along the coast in the summer, centred on the occurrence of blackfish, seal or large fish, and a complementary more permanent settlement along the lagoon shore in winter."

(Simmons, 1964: 51)

This opinion could not have been sustained without much more thorough analysis of site distribution and contents than appeared in Simmon's (1962, 1964) reports.

In a related effort Richards undertook a "literary survey and a geographical analysis" (1962:38) and concluded that,

"unlike the warring tribes with strongly defended villages which were prevalent throughout Polynesia, these "Moriors" lived together in fixed habitations only in winter and spent the summer in small family groups as wandering food-gatherers."

(Richards, 1962:39)

It appears that the results of Richards' (1962) geographical analysis were overextended to endorse the reconstruction of settlement patterns and economic activity suggested by the literary sources. These sources are most unsatisfactory. They are as Richards (1972:351-2) described them "dispersed,

derivative and comparatively recent in origin." They must be used with caution in view of the rate of Moriori population decline (Richards, 1962; Vol. 2 Graph B) and the scale of social and cultural breakdown which developed in the decades after 1800 A.D. (Richards, 1962: 40-63 ff).

Fieldwork: November, 1974 - March, 1975

Our archaeological fieldwork therefore began with few preconceptions about the Moriori and attempted to provide evidence from an alternative source; that is, the results of stratigraphical excavation and the study of dated site contents.

(a) Excavation

The first excavation begun was at the northern point of Lake Huro approximately half a mile north of the Te One Camp (see Figure 1). Graeme Mason excavated 50 square metres of a compact midden. Some evidence of structures was found. The material has not been examined since excavation.

Murray McIlwraith excavated sites on the eastern beach at Katiki North (CH 21) and Katiki South (CH 20) and on the rocky southwest coast at Pokiakio (CH 266), Ohinemamao (CH 273) and Te Ngaio (CH 277) (see Figure 1). These sites were chosen because they appeared to encompass the range of sites within the category of specialized midden. Second, they were chosen because they are located in entirely different habitats and we wanted to collect information about exploitation strategies in a range of ecological situations.

The writer excavated 215 square metres on the Waihora Mound Site, 2 km south of Point Durham (see Figure 1). This site is 120 metres in diameter and covers an ancient sand dune. It was excavated in 9 areas; 8 five by five metre areas and 1 five by three. These were laid out in 4 groups: I and II on a bird and sea mammal midden at the eastern or inland margin of the site; III and IV on a fish and shellfish midden in the centre of the mound; V and Vb on a fishbone midden at the edge of the deflated area north of area IV and areas VI, VII and VIII on the seaward margin only 20 metres from the edge of the boulder beach. The last group of adjacent areas was centred on three stone-lined hearths and expected to reveal posthole patterns of the controversial Moriori house. Wind erosion has allowed a view of whole site layout and we were therefore able to be very selective in laying out the excavation.

The excavation, posthole patterns et cetera and the analysis of the faunal material recovered will be discussed in the writer's doctoral dissertation (Sutton, in prep.).

(b) Complementary Research

Complementary research that summer included an initial survey of the Awapatiki-Hapupu section of the eastern beach by Wally Jenks and Hugh Eaton (n.d.), underwater surveys of marine food resources adjacent to each of the excavated sites by Murray McIlwraith and Tim Walsh (McIlwraith, 1976: 25-36) and Jenk's work on recent landsurface changes near the sites and on the history of the Nairn River-Huro estuary. A paper on this and other related research has

been submitted for inclusion in the Working Paper series (Jenks, n.d., pers. comm., 1977).

Work on the literary sources included translations of early German material by K.J. Dennison (1975) and J.F. Dennison (n.d.a., n.d.b) and a study of the literary evidence for subgroupings within the 19th century Moriori population by Muru Walters (1977). The latter is particularly interesting for the attention it focusses on the importance of Hiruwana Taputehara Maitara (1824 - 1901) as the principal source of all but a few of the historical accounts of the Moriori. There is still important research to be done in this area. As Richards (1972: 352) noted,

"A particularly critical, thorough and comprehensive analysis of many sources is therefore essential in order to separate the many borrowings from the few primary sources."

(c) Laboratory Research:

Laboratory research went on apace from March - November, 1975. The principal effort was McIlwraith's analysis of the shellfish from his 5 middens. He identified these to species level where possible, counted them by species and sampled the most frequently represented species for size distribution data. This research and an interpretation in terms of prehistoric shellfish gathering strategies has been presented as a Master's thesis (McIlwraith, 1976). The bird bone recovered was identified by Ron Scarlett (pers. comm., 1975) and later written up (Sutton and Marshall, n.d.). The identification of the small amount

of fish bone recovered is being undertaken (Leach, B.F., pers. comm., 1977). Excavated charcoal samples have been identified (Molloy, pers. comm., 1975) and since dated. Radiocarbon dates are in press (Sutton, n.d.).

Wallace (1976) developed a means of establishing the overall size of tuatua (Paphies subtriangulata) valves from measurements of the durable hinge area.

Initial work on the large quantity of material recovered from the Waihora site included sieving (4 mm), separation of landsnails and otoliths, the storage of fragile components, submission of charcoals for identification (Molloy, pers. comm., 1975), radiocarbon dating (Sutton, 1976) and the sorting of faunal components into categories from which species identifications and minimum numbers computations can proceed efficiently. This aspect of the research followed methods developed in the course of the Wairarapa Project by Foss Leach (1976).

One important result, which had a marked effect on the development of the project, was the clarification of the differences between the specialized and the broad-based sites. The latter are represented in our tiny sample by the Waihora material.

The specialized sites contain a small range of faunal material, commonly one component to the virtual exclusion of all others. Few if any artefacts are found and no evidence of structures is recovered. The degree of specialization within the faunal material is remarkable. At McIlwraith's (1976) 3 southwest coast middens 92% of the shellfish was represented by 3 species; Haliotis

iris, Cellana strigilis chathamensis and Cookia sulcata. This is particularly surprising in a collection involving a total minimum number of 32,431 molluscs. Moreover, a total of only 23 species were identified. By comparison, Nugent's (1977) study showed there to be a total minimum number of only 5563 shellfish in the Waihora excavation and that these were drawn from a much larger range of 56 species. Ninety-two percent of this sample was drawn from 9 species. In order of frequency these are; Melagraphia aethiops, Cellana strigilis chathamensis, Cookia sulcata, Haliotis australis, Haliotis iris, Haustrum haustorium, Turbo (Modelia) granosa, Zeacumantus subcarinatus and Paphies subtriangulata.

Complementary evidence of specialization comes from the bird bone recovered from McIlwraith's middens. A total minimum number of only 115 birds are represented in those 5 sites. A similarly small amount of fish bone and no sea mammal bone was recovered. In contrast inshore fish species and small petrels with some forest birds are represented in large numbers in the Waihora midden areas. Penguins are also numerous. A total of 30 Fur Seals are represented in the Waihora site (Smith, n.d.).

The same contrast is illustrated by the few artefacts in the specialized middens. Only a few flakes were found in these whereas a wide range of finished and other artefacts has been recovered from the Waihora site. This includes several finished adzes, 'chisels', clubs, barbed bone spear points, a small number of fish hooks, some fish-hook tabs in seal bone and a large number of stone flakes

in a range of materials.

The most obvious explanation of this evidence is that the specialized middens represent intensive, short-term but recurrent exploitation of single resources in situations from which they can be taken most economically, being more easily available in greater quantities than elsewhere. Similarly, the Waihora site may well represent a central place settlement; that is, a focus to which materials including technological raw materials and food-stuffs were taken from the specialized sites at which they were collected.

There is some biological information specific to the Chathams which supports the concept of localised situations in which specific foods would be concentrated and most easily taken. Hamel (1977) has recently divided Chathams vegetation into 4 categories relevant to this discussion. Her (ibid) schema is to be regarded as an abstract classification rather than a statement of things as they were. This classification is also tentative pending the completion of work on pollens, landsnails, charcoals and seeds mentioned elsewhere in this paper. Qualifications notwithstanding, the Hamel (1977) model can be applied to the area around the Waihora site (see Figure 2). A shoreline vegetation including salt-marsh turf, native sowthistle (Sonchus grandifolius), bush nettle (Urtica australis), daisy family weeds and some succulent species and native spinach (Tetragonia sp.) may have covered the boulder beach-shoreline area.

The peat swamps shown in Figure 2 may have carried a

bog shrubland vegetation including Juncus sp., the jointed rush (Leptocarpus similis) and the shrub dracophyllum (Dracophyllum paludosum). It is also possible that the major swamp species of the tableland (Sporadanthus traversii and Olearia semidentata) also occurred here. In addition, the considerable quantities of wood in the swamps behind Waihora, although undated, suggests the presence of tree species, presumably related to the tarahinau (Dracophyllum arboreum) forests of the tableland. Kelly's (1971) recent report on Chathams vegetation, including the inner tableland areas not visited by our expedition, is useful here.

The drier areas of the coastal terrace may have carried a mixed broadleaf forest, although its quality would vary significantly with aspect. Species present in such a forest would have included the tree myrsine (Myrsine chathamica), tree coprosma (Coprosma chathamica), lancewood (Pseudopanax chathamicum), tree ferns (Dicksonia squarrosa and D. fibrosa) with Hymenanthera chathamica and the karaka or kopi (Corynocarpus laevigatus) present in the more sheltered situations. Olearia chathamica and Hebe barkeri are suggested as forest margin species.

This tentative reconstruction describes a mosaic of vegetation types within a small area. Each of these small areas would have distinctive properties as a bird habitat. Many species including the Columbiformes, Psittaciformes and several of the Passeriformes would be found most commonly in the mixed broadleaf forest. Wetland birds, which include the Anseriformes, would be concentrated in

the swamps and in the Long Pond (see Figure 2). Shoreline birds, the shags, penguins and the Diomedea species, would be available from a number of situations along the coast. Several of the small petrels may have been found in considerable numbers at cliff-top or inland breeding colonies. The division of birds represented archaeologically by habitat types is discussed more fully by Sutton and Marshall (n.d.).

Just as the mosaic of vegetation in the area would have affected the availability of birds so coastal topography and other factors would have affected the distribution of reliable concentrations of seals. Smith (1977) has discussed this matter in some detail and postulated the presence of a seal breeding colony (see Figure 2) just north of the Waihora site.

In view of these considerations, the results of the analysis of McIlwraith's middens and the initial work on the Waihora material the overall orientation of the project changed. The writer recognised that most of our sites would be contemporary, at least in radiocarbon terms, and relate to the period 1500 - 1700 A.D.. The earlier of these dates is not to be taken as the date of first settlement of the Chathams (Sutton, in prep.), we simply failed to find or recognise earlier sites in our surveys. The concentration of dates in the later period of Chathams prehistory obviated any intention the writer might have had of constructing a diachronic view of Chathams prehistory. Instead the project concentrated on an attempt to explain in terms of synchronic human behaviour the differences

between the dissimilar but contemporary sites we had investigated. As mentioned above, the literature on relevant aspects of Chathams biology suggested that a range of foodstuffs, seen commonly within our sites, may have been available on a seasonally and spatially discontinuous cycle within single restricted areas such as that described in Figure 2.

In view of this argument, which was promoted initially at least by the logistical problems involved in running widely separated excavations, I decided to concentrate our efforts on the coastal terrace between Point Durham and Kauaeroa (see Figure 2). In the second and final excavation season we followed a three stage approach to that area. This involved:

- (i) a thorough survey of the coastal terrace from the sea to the inland terrace and from Point Durham to Kauaeroa (see Figures 2 and 3).
- (ii) the excavation of a small number of sites within that area.
- (iii) the reconstruction of a history of aspects of the physical environment relevant to man's occupation of the area.

Fieldwork: November, 1975 - March, 1976.

This began when we arrived in the Chathams, November, 1975.

(a) Durham Site Survey

We began the survey from the premise that the exposed sites are only a small portion of these in the area.

Accordingly a very large number of test pits were dug over all aspects of the terrain. They were laid out systematically and covered all the dry ground on Ridges I, II and III and the southern slope of Ridge IV (see Figure 2). The wet inner swamps were not searched exhaustively. These have been partially drained recently and were undoubtedly very wet when the Waihora site was occupied. Stream margins through the swamps, which are commonly harder than the surrounding ground were examined in detail. Broad strips around swamp margins were also investigated. We recorded a total of 81 sites. Thirty-five sites were defined in the initial survey.

Many of the sites discovered were similar in their degree of specialization to McIlwraith's (1976) rocky shore middens to the north. Many of the 'paua middens' on the boulder beach are very similar to the Ohinemamao (CH 273) and Te Ngaio (CH 277) middens, superficially at least. In short we had discovered in a microcosm around the Waihora site the same sort of dichotomy between specialized and broad-based sites suggested above for widely separated parts of the island. This allowed us to examine the nature of the relationship between these sites in detail.

(b) Excavation

The sites excavated are shown in Figure 2. The CHA site (no site number allocated yet) was a thin discontinuous midden on a low ridge in an unusual position on the exposed southwest aspect of Ridge III. It appeared to contain no sea mammal bone and no penguin material whereas

both are important in the coastal Waihora site. Carbonised karaka kernels were found and the taiko (Pterodroma magentae), Chathams Diving Petrel (Pelecanoides urinatrix chathamensis), and pigeon (Hemiphaga novaeseelandiae chathamensis) were identified by Ron Scarlett (pers. comm., 1976) in a small sample sent out to the Canterbury Museum from the excavation. This site, therefore, appeared to represent exploitation of the resources associated with the mixed broadleaf forest and little use of the marine or sea shore resources.

The CHB site was found in a more sheltered locality, although it is higher above sea level, on the south side of a former swamp on top of Ridge III. This is a larger site, 30 x 10 metres, apparently consisting of a scatter of flakes and charcoal above and to the sides of a dense, now compressed, midden dump which was originally on a wet swampy margin. We excavated 50 square metres of the midden. It contained a large quantity of fish, apparently from a species range of inshore fish similar to the Waihora material, and rocky shore shellfish. The bird bone sample sent out to Ron Scarlett (pers. comm., 1976) contained the species in the CHA sample with the addition of Dieffenbach's rail (Rallus philippensis dieffenbachi) and the Giant Rail (Diaphorapteryx hawkinsi). The species composition of the CHA and CHB bird bone assemblages, minimum numbers per species and the proportions of body parts represented for the most frequently represented species have been prepared by Sutton and Marshall (n.d.).

A small number of artefacts were found in the CHB

excavation. These included a few flakes, some bird bone awls and a schist club. No structures were found but these may have existed nearby. Large basalt stones reminiscent of the Waihora hearth stones were found in the midden.

The exploitation of resources associated with the mixed broadleaf forest is evidenced again. Marine resources are represented by the fish and shellfish. However neither seals nor penguins are present to any significant extent. Karaka kernels were found in the excavated material. Seed samples from this and other excavations have been submitted to Margaret Bulfin (pers. comm., 1976) for identification.

The CHC site was excavated because it is a highly specialized coastal midden containing bones of the New Zealand fur seal (Arctocephalus forsteri). We excavated 25% of the very uniform midden deposit and recovered bone representing a minimum number of 130 seals (Smith, 1977). This suggests a minimum number for the whole site of 520 animals. The age range represented suggests exploitation of a breeding colony with some emphasis on the taking of adults. All year round predation is suggested. The presence of adult male fur seals representing summer hunting and the presence of southern elephant seals (Mirounga leonina) and leopard seal (Hydrurga leptonyx) suggests hunting during the autumn and winter seasons (ibid.).

The only other excavation undertaken that summer involved the investigation of the scatter of human bone apparent on the surface between the Waihora site and the sea. A minimum number of 14 individuals were represented

of which only 4 were relatively intact burials when recovered.

(c) Complementary Research

The complementary research undertaken focussed on the study of aspects of environmental history in the area around Waihora. The study of vegetation was central.

As mentioned above Jill Hamel (1977) studied the ecology of contemporary vegetation on Chatham Island and attempted to isolate factors affecting the distributions of individual major plant species and to use this information in reconstructing a vegetation cover for the coastal terrace around Waihora at the time of the occupation of that site.

John Dodson and Bob Kirk worked together on palynology and holocene geomorphology in the study area. The pollen spectra have been prepared and Kirk suggests significant recent uplift in the area (Dodson and Kirk n.d.). In addition a paper describing a dated pollen spectrum from the Wishart Quarry Site (no site number allocated yet) 8 km north of Point Durham is being prepared (Dodson and Kirk, pers. comm., 1977).

A third aspect of the work on vegetation is Rod Wallace's (in prep.) examination of the feasibility of using landsnails as an aid in the reconstruction of vegetation in the immediate vicinity of sites from which death assemblages of snails are recovered archaeologically.

Sally Begg (in prep.) collected information on bush clearance in her study of the history of the Otonga Land Block, 1835-1935. This will be very useful as an indirect

description of vegetation in the study area at the time of European clearance, circa 1920 A.D..

The results of these researches will form the basis of the environmental reconstruction to be presented in the writer's doctoral dissertation (Sutton, in prep.).

A further important research problem involved an attempt to establish the sources of stone materials represented in the excavated collections, with special emphasis on the cherts. This was undertaken by Hamish Campbell. A manuscript on the results, which include definitions of the geological sources of the cherts, characterization of each and archaeological evidence of redistribution is being prepared for the Working Paper series (Campbell, H., in prep.).

A supplementary study of the basalt artefacts recovered is underway. Phil Moore (pers. comm., 1977) is examining petrological sections prepared by Hamish Campbell.

(d) Site Surveys

Two site surveys funded by the New Zealand Historic Places Trust filled in some of the gaps in our initial survey. These were a resurvey of the Awapatiki-Hapupu section of the eastern beach (Smith and Wernham, 1976) and a survey of Pitt Island (Harré, Hurst and Sutton, in prep.). A survey of the condition of the petroglyphs and dendroglyphs was commissioned by the Trust and carried out by Stuart Park (1976).

Two reports of archaeological sites on islets in the Chathams group further complement the initial survey.

Hamish Campbell (pers. comm., 1976) was able to visit Star Keys and found cultural flakes there and a source of a workable stone material. Tony Billing (pers. comm., 1976) found prehistoric middens on Mangere from which a small sample of bird bone was identified by Ron Scarlett (pers. comm., 1977). More recently Hamish Campbell (pers. comm., 1977) has been on the Forty-Fours but was unable to find any archaeological evidence there. These reports will be included in the Leach and Sutton (in prep.) paper.

John Campbell undertook an initial underwater survey of historic shipwrecks in the Chathams, December, 1975. This has been followed up with a more extensive survey, December, 1976 - January, 1977. A report is in preparation for the Working Paper Series (Campbell, J., pers. comm., 1977).

Laboratory Analysis: March 1976 - 1977

Laboratory analysis continued after our return. This included Houghton's (1976) analysis of the Waihora human material, Smith's (1977, n.d.) analyses of the CHC and Waihora sea mammal bone, Wallace's (in prep.) identifications of several complex landsnail assemblages. The latter were either recovered archaeologically or collected from vegetation quadrates described by Jill Hamel (n.d.). The field collection of contemporary snail samples was undertaken by Peter Cresswell in January and February 1976. These samples have since been studied by Wallace and compared with Hamel's (n.d.) descriptions of the vegetation in the quadrates from which they were taken.

The resulting vegetation-landsnail correlations will be used to reconstruct vegetation in the vicinity of our excavated sites.

The writer continued the sorting of the Waihora material and the identification of the fish bone from that site. Ron Scarlett and Yvonne Marshall worked together on the CHA and CHB bird bone after the identification of the CHC sample (Scarlett, 1976; Smith, 1977). Murray Efford (1976) included a very small sample of the Waihora rat mandibles in his recent morphometric study of Rattus exulans.

Nugent's analysis of the Waihora shellfish was one of the most demanding tasks completed during this period. Assistance with identifications was given by Prof. Morton, Dr Alan Beu and Dr Frank Climo. A paper on the species identified is being prepared (Mason, pers. comm., 1977).

Foss Leach was able to undertake neutron activation analysis on some obsidian flakes from the Chathams. At present these are unable to be accurately assigned to source, but preliminary results suggest either Rapanui or Mayor Island. These results throw doubt on an earlier interpretation that other Chathams material analysed by XRF derives from Mayor Island (Leach, 1973). This is an important problem and its wider implications have been discussed recently by Ward (n.d.).

The most recent addition to this dossier of work completed is Jenny Cave's (1976) study of the Waihora bird bone awls. A manuscript has been submitted for inclusion in the Working Papers series (Cave, pers. comm., 1977).

Fieldwork: September, 1976

The fifth and final period of fieldwork involved a trip to the Little Sister (see Figure 1) by the writer and C.J.R. Robertson. A survey of this small, bleak islet revealed stone-faced terraces, occupied overhangs, deflated firesites and numerous cultural flakes. A report has been prepared (Sutton, 1977). The evidence found appears to relate to the prehistoric exploitation of the Northern Royal albatross (Diomedea epomophora sanfordi) colony there. Radiocarbon dates and charcoal identifications will be available from three small excavations.

Conclusion:

This paper describes in summary form the structure and content of archaeological research in the Chatham Islands, 1973 to the present. Laboratory research is continuing. Results are coming to hand and will do so more quickly as analyses are completed and reports written.

Note:

Botanical names used above are after Alland (1961) and Moore and Edgar (1970); bird names are after Kinsky (1970); shellfish names are after Powell (1976) and sea mammal names are after Gaskin (1972). My thanks are due to Murray Webb and Martin Fisher for their help with the illustrations and to Ian Smith, Jill Hamel, Foss Leach and Yvonne Marshall for their comments on successive drafts. I would also like to acknowledge Liz Moore's help in distributing Working Papers. Long may it continue!

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FIGURE 1: Location Map

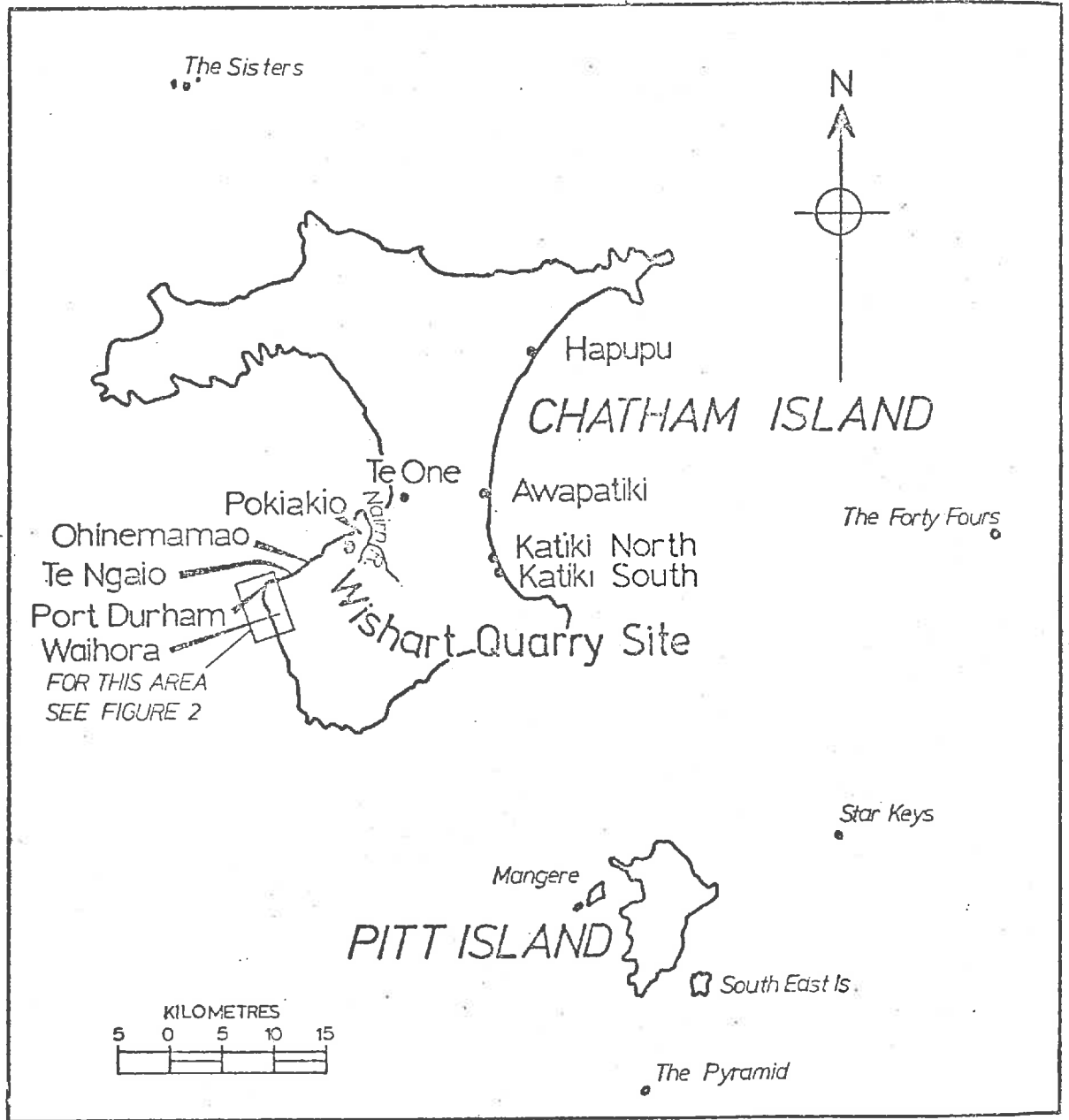


Figure 2: Study Area: Landscape and site distribution

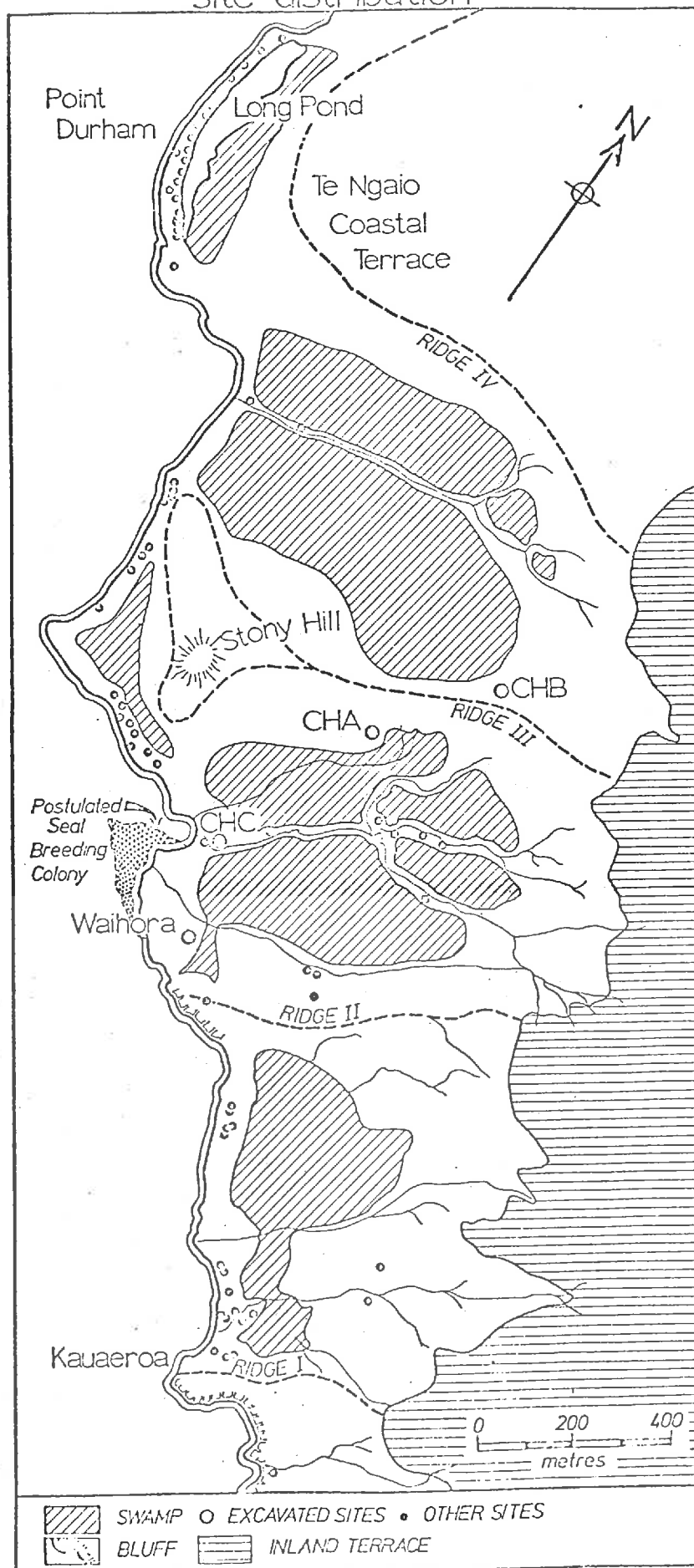


Figure 3: Schematic Section through Coastal Terrace

