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PREHISTORY IN NEW ZEALAND: THE FIRST MACMILLAN BROWN LECTURE, 1959

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Professor J. Macmillan Brown, commemorated in the lectures I have the honour to give this year, was one of those remarkable “amateurs” with whom the study of Pacific culture history began. His earliest ethnological work *Maori and Polynesian*, whose theme of the peopling of the islands of the tropical South Pacific and of New Zealand it is my aim to review in the light of half a century of research, was published in 1907, contemporary with the studies of Percy Smith and Elsdon Best. These largely part-time ethnologists belong to the heroic age of Polynesian studies: dedicated, energetic and self-confident, their reading voluminous, their pens fluent, and the horizons of their scholastic exploration unbounded.

Today the field of Pacific culture history has been claimed by the professional, rather belatedly in comparison with other culture areas of the world. And the professional has become a specialist, who has lowered his sights and narrowed his field of academic fire.

I shall in the course of these lectures make large and particular claims for the specialism whose recent results it is my main purpose to describe. After all, the peopling of the Pacific is an historical problem and archaeology is a method of historical research, the only one, moreover, applicable to the situation where the evidences are largely confined to the material relics of non-literate peoples.

In a very real sense Pacific archaeology was born in New Zealand, and specifically here in the South Island. The main figure was Julius von Haast, employing the methods and concepts of European archaeology at a time when European archaeology itself was in its pioneering stage. The sites associated with his name, Rakaia, Waitaki, Shag River, and Moa Bone Point Cave, Sumner, are sites important in New Zealand archaeology still.

But archaeological research into New Zealand prehistory was accompanied and soon over-shadowed by the collection and interpretation of

Maori traditions, which seemed to offer a much more direct solution of the problem of origins to which early workers largely confined themselves. Indeed, when archaeological work began again in New Zealand, in the 1920s, under the inspiration of Dr. H.D. Skinner, the historical questions it felt called upon to answer were precisely those posed by a generation of intense traditional work. The influence of tradition is even today pervasive in New Zealand archaeological effort and New Zealand archaeologists still feel it is necessary to fit their discoveries into the framework provided by traditional research.

This conditional status of New Zealand archaeological research is unfortunate and, if persisted in, will prove disastrous. But, given the situation as it is, I suppose that it has been inevitable. After all, what every New Zealand schoolboy knows about New Zealand prehistory and consequently, the child being father to the man, what every New Zealand adult knows is *precisely* the traditional story: Kupe AD 950, Toi 1150, the Fleet 1350, and between Kupe and Toi the arrival of the allegedly non-Polynesian Maruiwi, popularly known as the Moriori and still popularly identified with the aboriginal inhabitants of the Chatham Islands. How far the latter belief survives in the more archaeologically awake South Island I do not know, but it is very persistent in unenlightened regions further north.

What is insufficiently realised, I think by professionals and scholars as much as anyone, is that the traditional story is as much a reconstruction as any archaeological theory is. This has been very clearly demonstrated in the case of the Maruiwi tradition, where moreover the basic sources appear to be suspect and their interpretation, particularly the characterisation of the Maruiwi as Melanesian and their identification with the Moriori of the Chathams, quite unwarranted, even in the terms of the suspect traditions themselves. Similar criticism can be made of the Kupe, Toi and Fleet succession. Not a single reliable Maori tradition gives the story in quite this connected way. By some tribes Kupe is acknowledged as the discoverer of New Zealand and Toi is not known. For others Toi is the discoverer. With some tribes traditions of an ancestral canoe are well developed, with others they are unimportant, and with still others apparently absent. It was a piece of scholarly but by no means unexceptionable historical reconstruction by a Pakeha, Percy Smith, to make of this material a consistent story, equipped with calendar dates, that is now accepted as though it formed an integral part of the traditional lore of the New Zealand Maori.

I shall not appeal therefore to traditional evidence to explain the archaeological data which it is now my purpose to assemble for you. But, I must hasten to add, this is not due to any hostility to the use of tradition for purposes of prehistoric enlightenment but a belief, shared I am sure by most traditional

scholars themselves, that the results they have achieved which are relevant to our present purposes are minimal.

Before looking at what a generation of archaeological research has made of New Zealand prehistory, let us look at the nature of archaeological evidence itself. Archaeology concerns itself with all surviving traces of past activity. In the main these consist of artefacts of durable material, but they also comprise those features of the cultural landscape, sometimes called field monuments, which have effected well-nigh permanent changes in topography, like the ditches and terraces of Maori pa, or, like costal shell middens, are brought to light in the course of natural erosion or human activity. The archaeologist, like any other scientist, is concerned with the regularities exhibited by his data and, because of the nature of these data, which comes to him with neither date, authorship nor often function given, the regularities he seeks are regularities of shape. Amongst his mass of individual artefacts the archaeologist looks for *types* of artefact and typological study and classification constitute a great part of his work.

Beyond this the archaeological method proceeds by isolating from the body of prehistoric data emanating from a particular region those types, whether they be artefacts, house plans or burial sites, that in the course of systematic excavation are regularly found together and, being found together regularly, are considered to belong together. They belong together in the sense that they were made, used or performed by the same people at the same time. They constitute fossilised patterns of behaviour approved by a particular society for its members and the differences between the types constituting any one archaeological assemblage and those constituting any other may be due to the different cultural traditions to which the societies concerned belong.

The archaeologist's first job is to organise his material into assemblages of types that belong together. Such assemblages, which as we have seen are looked upon as representing functioning communities in the past, are thought of in archaeological terminology as "cultures." Once his material has been thus meaningfully organised, the archaeologist can then proceed to explore the internal dimensions of his "cultures" and, further, the nature of the relationships between one culture and another. But before this can be done, he must have accomplished the basic task of culture definition.

New Zealand archaeology is still in the stage of defining its basic units or cultures. Strictly speaking exploration of the relationships between these basic units is premature and certainly must remain imprecise. However, some attempt to do so will be made here, because the problem is one of the most important ones in New Zealand culture history and its more precise formulation may have a salutary effect upon the strategy of future research.

At present two distinct cultures are in course of definition in New Zealand prehistory. One of these is being defined archaeologically, by excavation, hitherto confined to the South Island of New Zealand. We know it is early in the story of New Zealand settlement because it is found regularly associated with the bones of the moa, which its adherents hunted to extinction. It is therefore commonly known as the Moahunter culture and the people belonging to it as Moahunters.

The appellation is striking but unfortunate, because the *distinctive* thing about the Moahunters is, not that they hunted the moa, but that they possessed fashions in adze, ornament and fishhook manufacture which betray the origins of their ancestors in Eastern Polynesia. In this sense there were Moahunters in New Zealand who never saw a moa.

Yet culturally these people are identical with those who did. A common term is necessary to express this identity. In order to avoid confusion, I shall continue to use the term Moahunter to apply to people who, whether they hunted the moa or not, possessed the features I am now about to describe.

Our best definition of Moahunter culture comes from the site of Wairau Bar, near Blenheim, published by Dr. Duff of the Canterbury Museum. The rich material from this site was found in circumstances which suggest that it all belongs together, as a true archaeological assemblage defining the activities of a homogenous society. This is particularly true of a number of graves on the site where a great quantity and variety of artefacts were buried as funeral offerings for the dead.

Figure 1 shows the major items from the Wairau assemblage. These are the types into which the many individual specimens can be organised.

These same types are known from sites in Otago where they have been excavated from deposits containing the bones of moa cooked for food. Moahunter culture in Otago is not, as may be expected, identical with Moahunter culture in Marlborough, but the differences exhibited are variations on a common theme.

Some types of Otago Moahunter culture, from Shag Point, Papatowai and Little Papanui, are shown in Figure 2, slightly different from the Wairau standard.

The early date argued for Moahunter culture because of the circumstances of its association with a bird, traditions of which were extremely imprecise when Europeans sought them from 19th century Maori, has been abundantly confirmed by recent radiocarbon datings:

Wairau Bar	AD 1015 ± 110 (Yale radiocarbon laboratory)
	AD 1225 ± 50 (Wellington radiocarbon laboratory)
Papatowai	AD 1185 ± 30 through to and beyond AD 1490 ± 50
Pounawea	AD 1140 ± 60 through to AD 1660 ± 60
Hinahina	AD 1210 ± 75

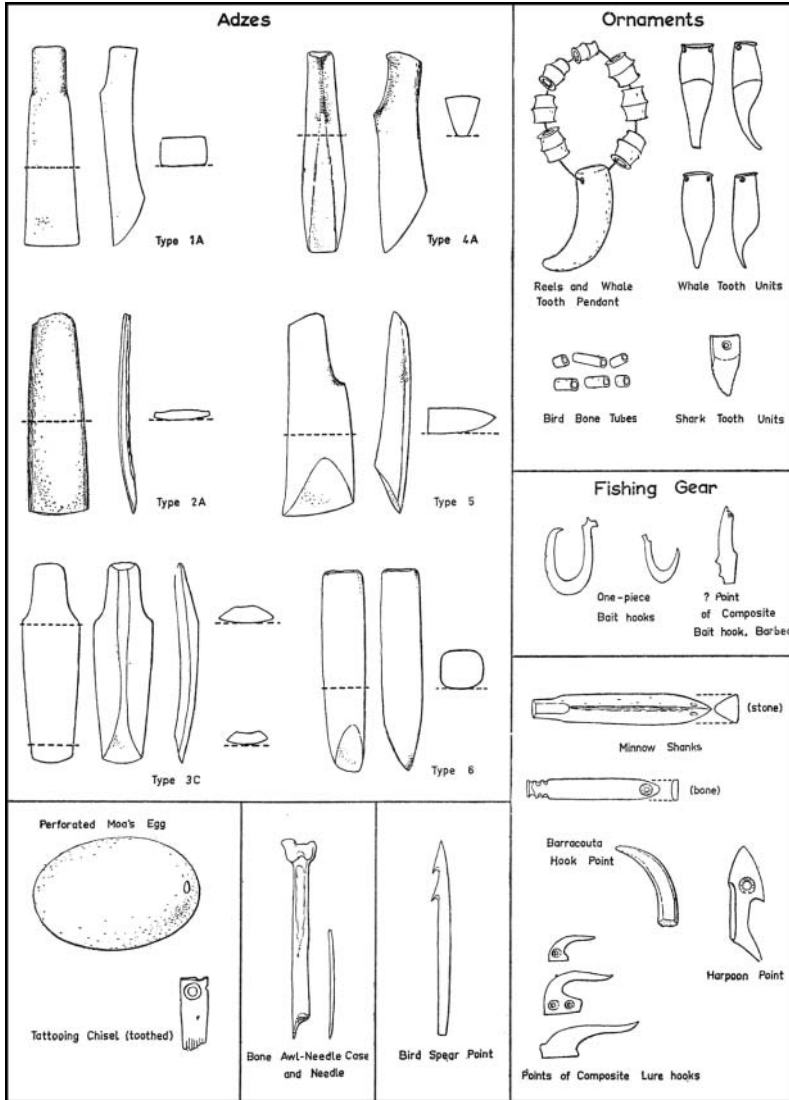


Figure 1. The Wairau Bar Moahunter assemblage.¹

¹ All figures are taken from Golson, J., 1959. Culture change in prehistoric New Zealand. In J.D. Freeman and W.R. Geddes (eds) *Anthropology in the South Seas: Essays presented to H.D. Skinner*, 29-74. Thomas Avery and Sons, New Plymouth.

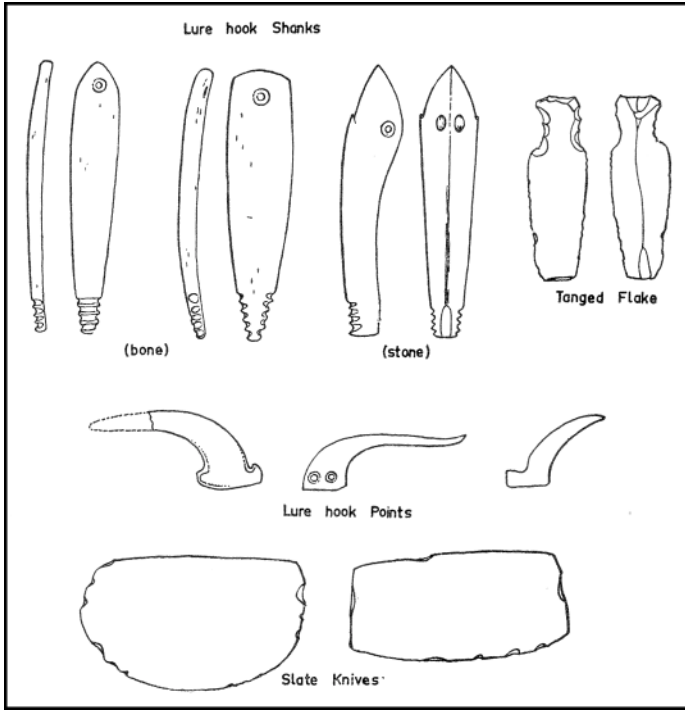


Figure 2. The Murihiku Moahunter assemblage.

The most remarkable recent South Island advances in this respect have been made by Mr. Lockerbie at his South Island sites of Papatowai, Pounaweia and Hinahina. At these stratified sites of considerable depth he has been able to demonstrate in the earliest layers the contemporaneity of Polynesian man with every genus of moa known to the taxonomist, including the giant *Dinornis*. The later layers become progressively poorer in moa remains until the topmost layers, containing no moa bones at all, reflect in their abundant molluscan remains the sad but inevitable change in the subsistence basis of South Otago settlement.

The passing of the halcyon days of moahunting that is evidenced in these South Otago sites must have had important effects upon the culture and the numbers of South Otago Polynesians. An important field of research here awaits Otago archaeologists now that the main lines of development have been drawn.

Meanwhile the archaeological work just described has important implications for zoologists concerned with the problem of the extinction of the

moa. Some students, like Dr. Falla of the Dominion Museum, have in the past appealed to climatic change and the operation of genetic factors. Others, like Dr. Fleming of Geological Survey, have insisted that the only environmental change of sufficient magnitude to explain the disappearance of a whole avifauna well established in New Zealand for many thousands of years was the entry of man, the first mammalian predator the moa ever met. The South Otago evidence tips the balance of probability definitely in Dr. Fleming's favour. Recent work in other parts of the country lends strong additional support. *Dinornis*, the key genus in this respect, has been found in what appear to be definite primary associations with cultural remains, by Dr. Blake Palmer at Seacliff, by Miss Davis and Mr. Palmer at Makara near Wellington, and by Mr. Green at Tairua on the Coromandel coast.

The hypothesis that linked the disappearance of the moa with climatic change was framed at a time when contemporaneity with man was denied for any of the moa genera except *Emeus crassus* and particularly *Euryapteryx gravis*. These claims were made on the basis of the Wairau Bar and North Canterbury evidence, where indeed this appears to be the case. The singular absence of other types of moa from archaeological sites in this part of the country is a problem worthy of future investigation.

As we have seen the moa appears to be contemporary with man in some parts of the North Island. Whether this was generally the case or not, the culture we call Moahunter was certainly widely distributed in that island. We can say this, even though archaeological work in the North Island is much more recent in inception than in the South, because of the presence in North Island museum and private collections of adzes, ornaments and fishing gear of the type which excavation in the South Island has shown to be distinctive of Moahunter culture.

Figure 3 shows the distribution of Moahunter adzes in the North Island with a notable concentration of finds in the region of the Hauraki Gulf and the Coromandel Peninsula.

Excavations have taken place at three main points, two near Mercury Bay and one in the Hauraki Gulf. The artefactual evidences they have produced, mainly adzes and fishing gear, are of regular Moahunter type.

The implications of these North Island excavations I shall explore at a later stage, when we have discussed the second culture in New Zealand prehistory, which is best represented in the North Island.

This culture is known as Classic Maori and it is the culture that was possessed by the inhabitants of New Zealand when Captain Cook initiated the period of regular European contact. Since this culture falls within the scope of historical description, we obviously know far more about it than we ever shall about the culture of the truly prehistoric Moahunter, many aspects of which, failing to receive material embodiment, are lost to us for ever.

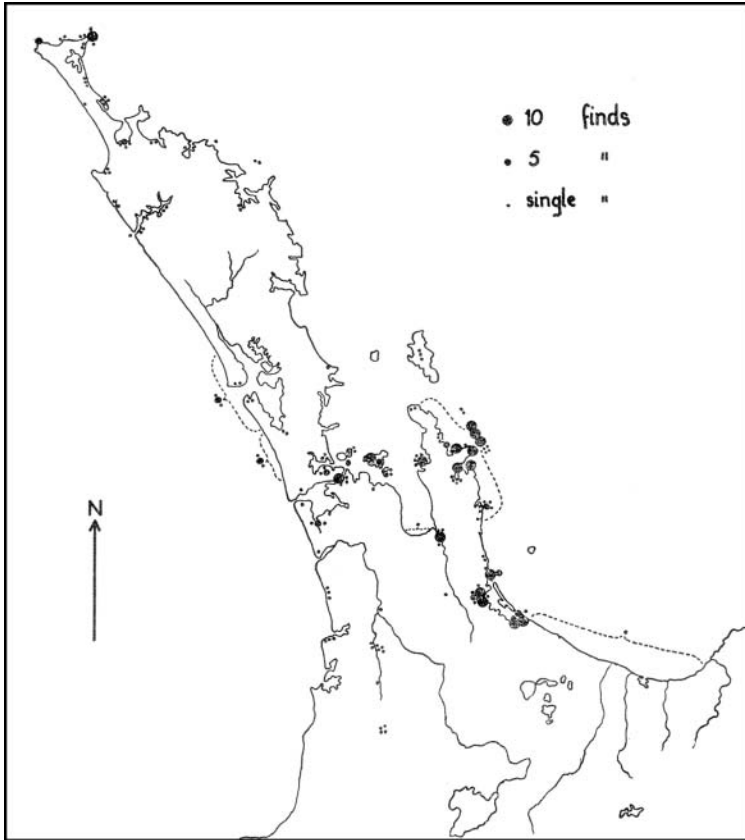


Figure 3. Distribution of Moahunter adzes in the Auckland Province.

Archaeologically, however, we know less about Classic Maori culture than about the Moahunters because the assemblages of types which for the archaeologist would constitute this culture have never been defined. Less excavation has been done on Classic Maori sites than on Moahunter ones and with fewer results.

Some approximation to the artefactual component of Classic Maori culture can be achieved by a study of the illustrations done by early voyagers, of the collections of implements made by them and of the specimens of Maori workmanship in the new materials of bronze and iron introduced by Europeans.

Figures 4a and 4b show the types of artefact in use at European contact, employing the evidences just described.

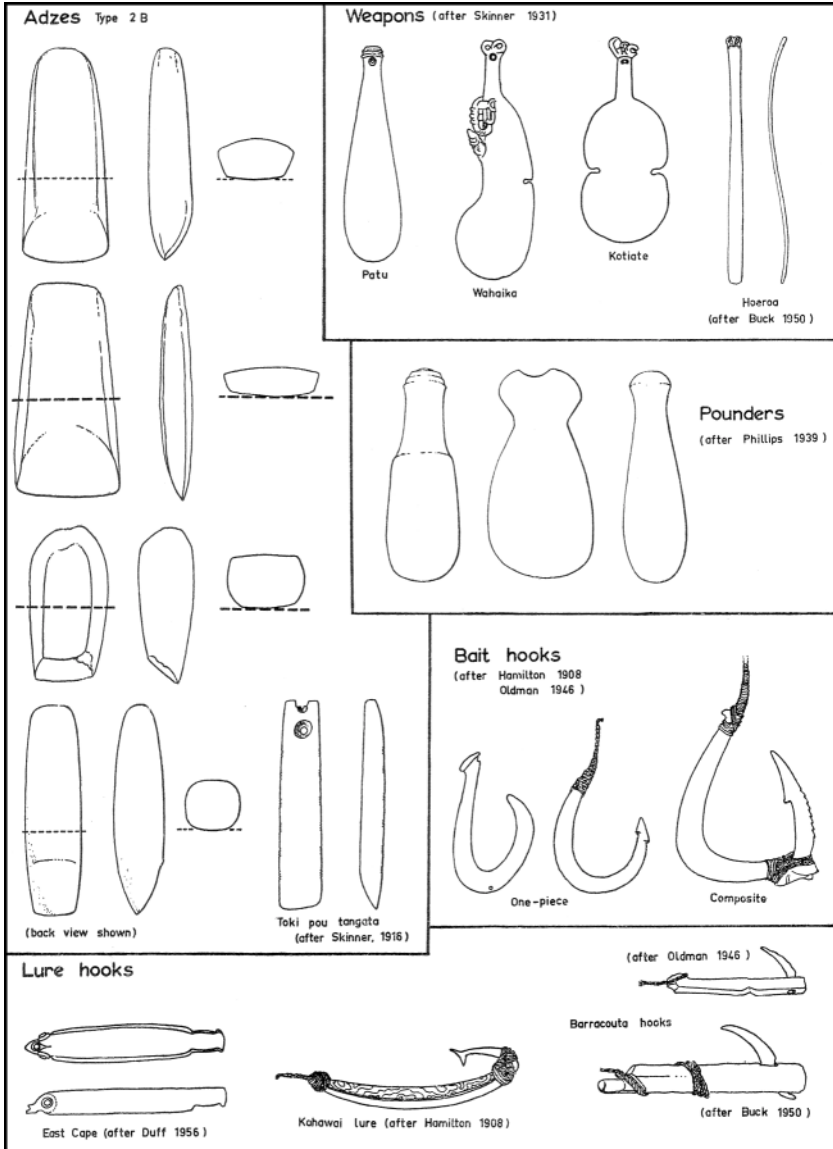


Figure 4a. Classic Maori types.

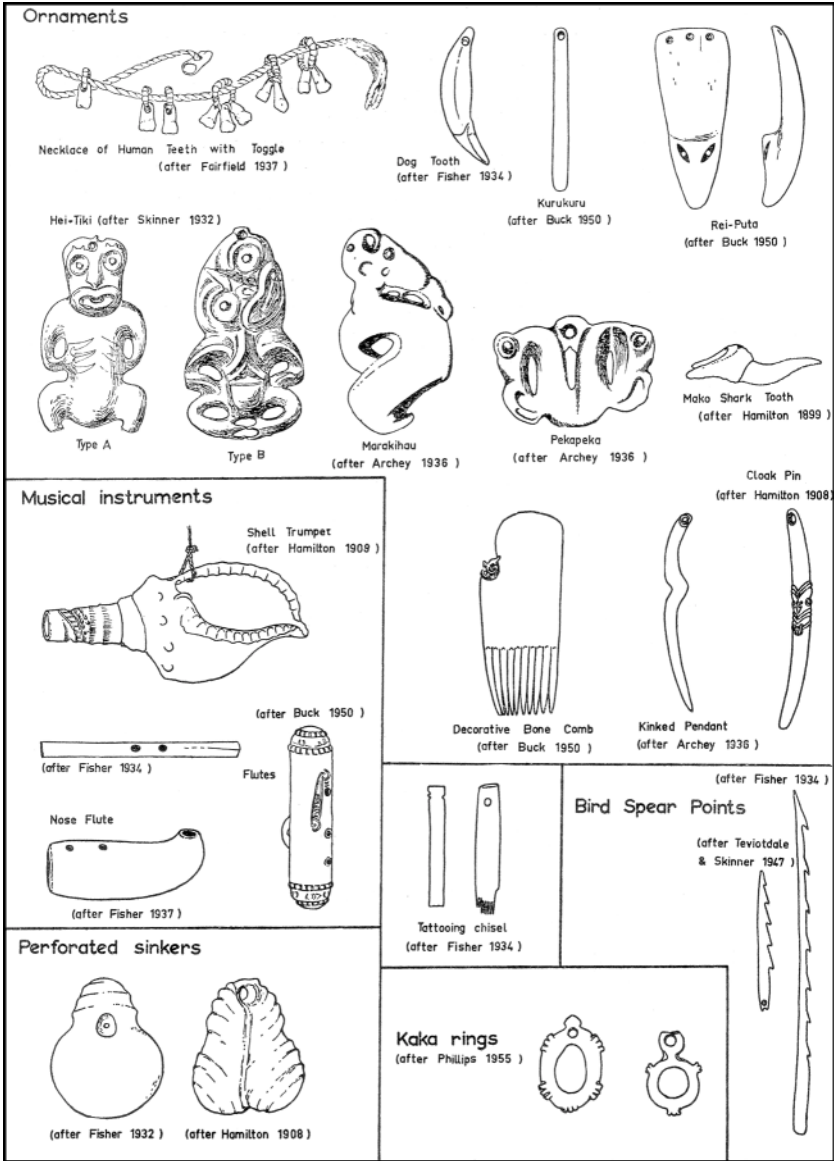


Figure 4b. Classic Maori types.

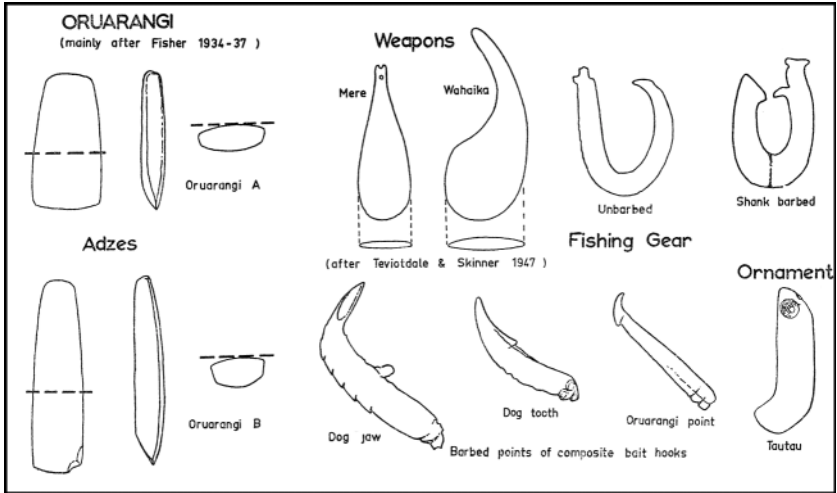


Figure 5. Excavated material from Oruarangi.

Most of the types attributed to Classic Maori have been found at the rich swamp pa at Oruarangi, in the Hauraki Plains, near Thames. The site was apparently occupied by Ngati Maru right up to European times because musket balls and pottery were found there. According to tradition the pa is old and Ngati Maru were not its original inhabitants. Since the history of the site is probably long and complex, the fact that the excavations were conducted with no regard to the stratigraphic position of artefacts means that we cannot be sure that the material recovered there belongs to the same cultural assemblage. Indeed, three or four adzes and two reel necklaces look definitely out of place and would normally be attributed to Moahunters.

Figure 5 shows some of the material from the Oruarangi excavations. Excavations is hardly the proper word. The site was dug on a tremendous scale and in most unsavoury circumstances by a private collector and an army of unemployed workmen.

Classic Maori sites in the South Island are probably to be linked with traditionally remembered invasions of the Ngati Tahu. The best known of these sites is that at Murdering Beach, plausibly identified with the village burned down by the sealer Kelley in 1817. The site has produced an incredible amount of greenstone and, as the scene of the Otago Museum's most continuous archaeological effort, a considerable body of archaeological material recovered there is now in the museum collections. On the other hand it enjoys the dubious

distinction of being the most thoroughly fossicked site in the whole of New Zealand and artefacts from Murdering Beach are scattered far and wide. All this has added immeasurably to Dr. Skinner's difficulties in writing up the data. The site is, however, a vital one for our understanding of the latest phase of Maori culture in the southernmost districts of New Zealand.

By now I think it should be clear that between the material equipment of the Moahunters, the early inhabitants of New Zealand, and that of the Classic Maori of the time of Captain Cook there are a number of significant differences.

We can catalogue these differences in the following way:

- (1) the varied Moahunter *adze kit*, gripped implements of varied cross-section, is replaced by a standardised adze type, quadrangular in cross-section, ungripped, and polished all over.
- (2) the *barb* appears on fishhooks, typically in the form of the barbed bone point attached to a shank of bone or wood.
- (3) the minnow lure gives way to the kahawai lure
- (4) necklaces are replaced by single pendants. The hei tiki in greenstone and the rei puta of whale ivory are the most common breast pendants and there are a variety of greenstone ear pendants.
- (5) weapons of the patu type appear.

To this catalogue it is usual to add two more features which we have not hitherto discussed:

- (6) the fortified pa is attributed to Classic Maori culture.
- (7) agriculture is said to have been unknown to Moahunter culture.

The first question to be asked is, of course, how far are these differences more apparent than real?

Our knowledge of the Moahunters is still in some areas of culture imprecise:

- (1) thus far so little excavation on fortified pa of any type has been done that we cannot with any confidence assert that the pa was unknown in Moahunter culture. The contention that it was unknown is a deduction from the observation that since weapons are unknown in Moahunter contexts, warfare as an institution was not developed.
- (2) it is indeed true that from Moahunter sites so far excavated stone weapons of the patu type have been most unaccountably absent. The only possible exception up to date is a whale bone patu found in a grave in Horowhenua in circumstances that suggest it may be Moahunter.
- (3) the denial of knowledge of agriculture to the Moahunter rests on shakier foundations. The situation of Moahunter camp sites is said always to be in conditions unfavourable to agriculture, and traditional evidence is invoked to the effect that food plants first came to New Zealand with the

14th century Fleet and that previous inhabitants, lacking cultivated plants, were woodeaters. We can dismiss the traditional evidence as inapplicable. The argument from geography is equally unacceptable in that the Moahunter camp sites to which reference is made are all in the South Island and in the South Island Polynesian agriculture was marginal. Indeed, some of the Moahunter sites invoked are in Otago which lies outside the limits of Maori agriculture altogether.

These statements about Maori agriculture in the South Island are based on the evaluation by Best and others of data from the time of European contact. Best accepts Banks Peninsula as the probable southern limit of kumara cultivation. Claims have been made for a more southerly boundary—at least as far south as Temuka—but the archaeological evidence of alleged kumara pits on which this claim is based I have never seen or heard adequately described.

If the climatologists are right, however, there was a time within the period of human occupation in New Zealand when kumara could have been grown not only at Temuka, but at Bluff, had the kumara indeed been present. Studies of soils in Canterbury by Raeside, of remnant podocarp forest in Southland by Holloway, and of pollen trapped at various levels of the moa swamp at Pyramid Valley in North Canterbury by Harris have convinced these scholars that there was a time not too far distant when New Zealand's climate was warmer and moister than it is today. Holloway estimates a date of AD 1200–1300 for the change from that climate to the present one, on the basis of age determinations of his remnant podocarp trees, and this date, arrived at from New Zealand evidence, accords well with dates for a recent climatic change adduced by workers in other parts of the world, particularly Europe and America. It is hard, of course, to estimate by just how much the mean annual temperature was higher than it is today, but Holloway hazards the figure of 5° F, which would certainly have allowed kumara cultivation throughout the whole of New Zealand at a time when we know from radiocarbon dates that Polynesian man was already well established here.

Admittedly Polynesian agriculture, with its simple equipment of tools in wood, is of a kind to leave little impress on the archaeological record. Yet the archaeological evidence we might expect, particularly rectangular pits for kumara storage, seem to be absent in the Otago region. Could the Moahunters then have known agriculture?

A number of factors must be taken into consideration in this respect:

- (1) the climatological conclusions we take very much on trust: they require as much validation as the cultural ones.
- (2) it is possible that the abundance of moa in the South Island caused moahunting to become the predominant subsistence activity of a people initially agricultural in bent.



Figure 6. Rectangular pits with drains, Sarah's Gully, Mercury Bay.

- (3) most importantly we have indirect evidence from a Moahunter site in the North Island, Sarah's Gully, near Mercury Bay, dated by radiocarbon at 1300–1350, that agriculture was practised.

Figure 6 shows in what that evidence consists: shallow rectangular pits, too small for anything but storage. Historical evidence from the time of European contact suggests that such underground storage was reserved for kumara.

A number of other distinctions between Moahunter and Classic Maori culture need to be discussed:

- (1) take the barb on fishhooks, and particularly the barbed bone point of the two piece or composite hook. Are they really absent from Moahunter contexts? They certainly are from the standard Moahunter sites at Wairau Bar and Papatowai, and also from our three North Island sites. The Shag River site has indeed produced a number of barbed bone points, but unfortunately in contexts that are not unequivocally Moahunter.

The site at Kings Rock in South Otago has produced a number of similar barbed bone points in association with Moahunter artefacts and moa bones, but the moa and perhaps Moahunter culture survived so long in this part of the country that we cannot be sure but that the barbed point is not a late intrusion from further north.

- (2) Ornaments constitute probably the greatest point of difference between Moahunter and Classic Maori. An increased exploitation of greenstone may be responsible for some of the simpler ear pendants produced, but the more complex forms have close links with Classic Maori wood carving motifs. Maori decorative art, in carving, tattooing and rafter patterns, with its curvilinear motifs and use of the human figure, provides a tremendous contrast with the Polynesian norm. Yet what of Moahunter decorative art? Of this we know little. Certainly of the antique examples of woodcarving recovered from swamps there is none that we can be sure come from a Moahunter's hand.
- (3) Our best evidence for the relationship between Moahunter and Classic Maori undoubtedly rests in the adze which is abundantly represented from both cultures. Despite the great superficial difference between the Moahunter adze kit and the more restricted one of Classic Maori culture, it is possible to construct a series by which one developed into the other by using hypothetically intermediate specimens present in Museum collections. But the series remains an academic construct, because the reality of the succession has not been demonstrated by the discovery by excavation of the relevant adzes in the correct chronological position.

This cursory review of the evidence will serve at least to show that the data are at present too few and in important respects too imprecise for us to come to any firm conclusion about the relationships of Moahunter and Classic Maori.

The alternative explanations that can be offered for the phenomena that confront us are of course always in our minds:

- (1) are the differences between Moahunter and Classic Maori the result of the slow adaptation of the original Eastern Polynesian culture in total isolation in a new environment offering new opportunities and presenting new challenges, or
- (2) are they due to fresh migrations into New Zealand after the Moahunters had become established? And if so, from where in the Pacific did those migrations take their start?

Maori traditions, as we have seen, would lend support to the latter alternative. But to be convinced of the truth of this proposition the archaeologist would need to be shown that the features of Classic Maori culture allegedly

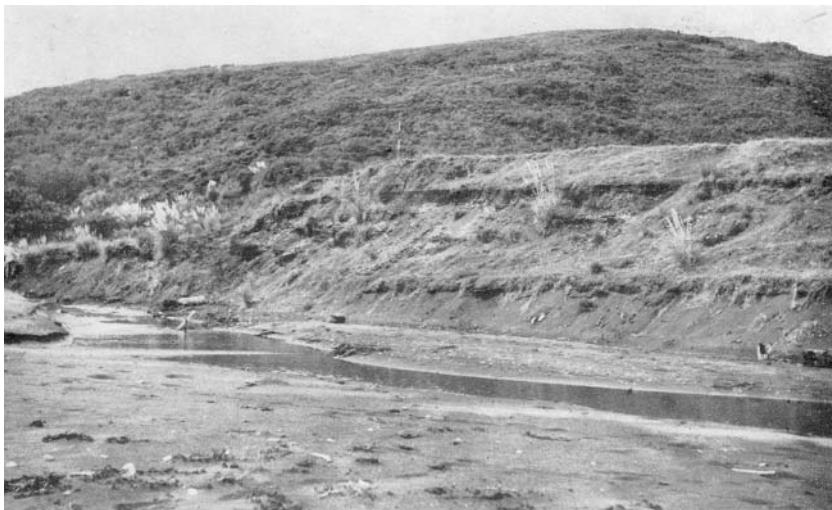


Figure 7. The eroded dune face, Pig Bay, Motutapu, before excavation.

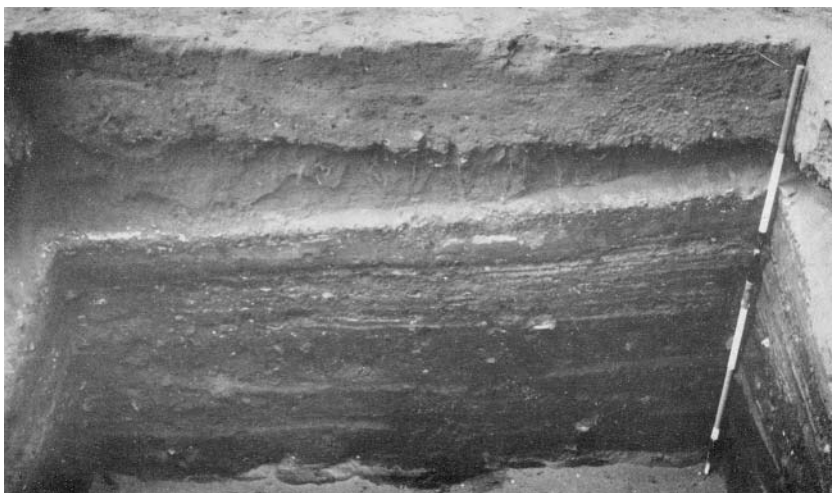


Figure 8. Excavated section, Pig Bay, Motutapu. The light bands are flood levels and the cultural material was stratified between them.

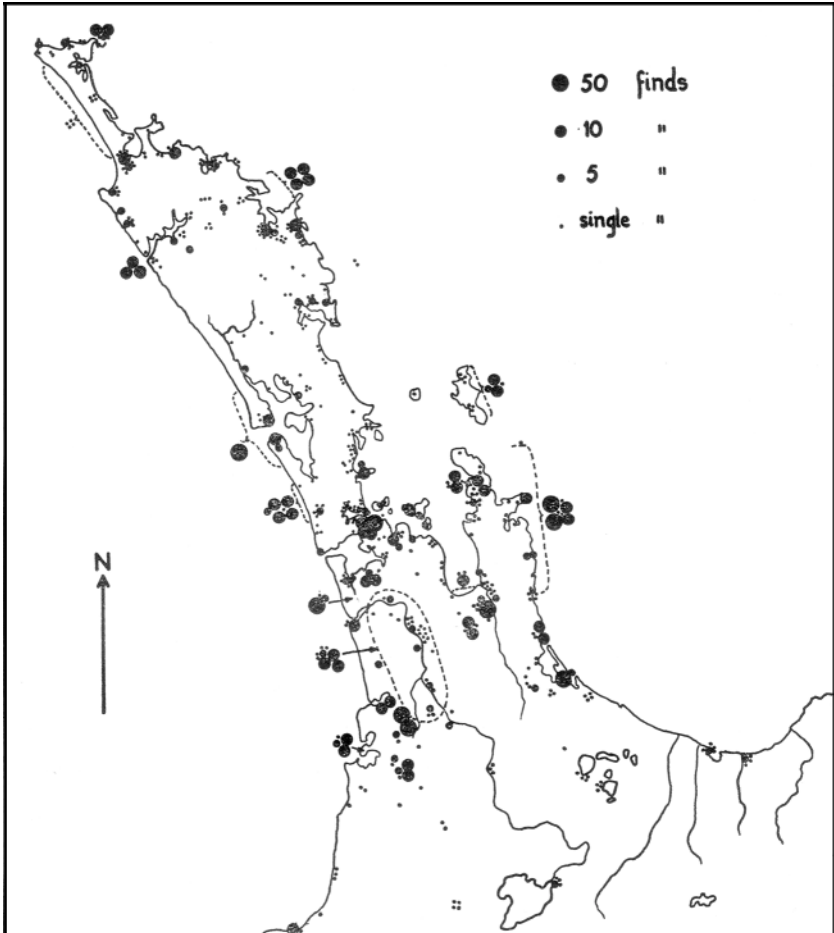


Figure 9. Distribution of Classic Maori adzes (Type 2B) in the Auckland Province.

brought into New Zealand by migration from overseas existed in some area of the Pacific from which they could be brought. This is I am afraid something that just cannot at present be done, due to inadequate archaeological exploration of tropical Polynesia. The most we can say is that nobody today believes the old theory that the new features in Classic Maori culture came from Melanesia.

The final consideration that I want to put before you tonight concerns chronology:

- (1) we know that Classic Maori culture is late, in the sense that it was in existence when Europeans came to New Zealand. But we have no evidence as to how early it began. In the South Island certainly it is later than Moahunter culture and its distinctive artefacts have not yet been found in association with moa bones. But for the North Island we lack information of this kind.
- (2) at the same time the radiocarbon dates show a well established Moahunter settlement of New Zealand, all the way from Auckland to Bluff, by AD 1200–1300. The initial settlement of Eastern Polynesia must therefore be put well back in the first millennium AD.

How long did Moahunter culture last? On many grounds we suspect a late survival in the South Island. More surprising has been the demonstration in recent excavations in the North island of a late survival of Moahunter culture in the Auckland district.

Figures 7 and 8 show a section through deposits on the north coast of Motutapu Island, next to the island volcano of Rangitoto in the Hauraki Gulf. Settlement took place after the Rangitoto eruption, dated to AD 1200, and petered out at a level dated around about AD 1675. All the occupation is Moahunter, though not a piece of moa bone was found on the site. The adzes and fishhooks from top to bottom are of Moahunter type, without a trace of Classic Maori in them.

Yet Figure 9, the distribution of Classic Maori adzes in the Auckland province, shows Auckland district very productive of them.

Did all this Classic Maori occupation of the Auckland Isthmus take place in the space of the 18th century, because when Europeans first visited Tamaki in 1820 the isthmus was largely uninhabited?

To discover the genesis of Classic Maori culture it is obvious we have to look elsewhere, to Waikato or to North Auckland. The study of Classic Maori culture becomes therefore one of the most urgent problems in New Zealand prehistory. Without it the questions I have explored with you today cannot be answered.