



NEW ZEALAND  
ARCHAEOLOGICAL  
ASSOCIATION

**NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER**



This document is made available by The New Zealand Archaeological Association under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

To view a copy of this license, visit  
<http://creativecommons.org/licenses/by-nc-sa/4.0/>.

R. Green and W. Shawcross.

ABSTRACT

The following article is condensed from the two papers presented by Green and Shawcross at the New Zealand Archaeological Association Conference at Christchurch on August 15th, 1962. Some alterations have been made, but the original themes have been retained. Shawcross showed that the assemblages at present used as a basis for interpretation are incapable of explaining the finer details of a thousand years of Prehistory, in an area of this size. Green provided the creative side of the discussion, by demonstrating a scheme in which a wide variety of evidence may be handled in a way which both illustrates and conforms with the changing patterns of prehistoric settlement in the Auckland Province.

PART I

A serious problem in New Zealand prehistory has been the difficulty of determining, within close limits, the age of a site or assemblage of artifacts. This problem is accentuated by the relatively short period of occupation and may be contrasted with archaeology in other areas of the world, where well-tried techniques, particularly the study of pottery, are available. Such a study not only indicates age but also relationships in cultural terms. The ideal is to find artifacts which show precisely when and by whom they were made, though, in practice, these properties are found in a decreasing scale of values.

In New Zealand the following techniques have been used:

(1) Traditional History, (2) Palaeontology, (3) Adze, ornament and fish-hook typology, and recently (4) C14. Of these, the fourth does not concern this discussion because carbon tells nothing of cultural relationships. Instead, emphasis will be placed upon the third.

(1) Traditional History has an important position in the scholarship of this country, and it is probably not unfair to say that it was used more extensively as a technique of age determination at a time when archaeological techniques were undeveloped. However, it can be applied only with caution to strictly archaeological sources of evidence, and is, itself, likely to benefit much from the findings of archaeology. (Golson, 1960:380).

(2) Palaeontology has been used since the pioneering work of von Haast. The most generally employed study has been of the genera of moas, whose dates of extinction are important to the archaeologist. Some confusion developed among the early workers through the assumption that the race became extinct at the same time as certain well-known, Old World pleistocene mammals, though this is never explicitly stated. (von Haast, 1872:66). An important, and fairly unusual application of palaeontological evidence has been the extension of the moa into a cultural term, although, here too, there is an Old World precedent. (Upper Palaeolithic "Mammoth Hunters"). The theoretical weakness of such an extension is that where there is the possibility of one cultural

unit existing at the same, or at different times, it will be difficult to demonstrate the absolutely exclusive relationship between a culture and an animal. In short, evidence for mca hunting may be useful in general cultural terms, but less so specifically. On the other hand, R. Scarlett's systematic study (described at the Conference) shows the true value of palaeontology for the estimation of the age of a site. Present trends suggest that here also archaeology will help to solve the problems of the mca as much as the converse.

(3) More recent deductions have been based upon material culture. (Duff, 1956; Golson, 1959). While some practice of archaeology has existed here for the best part of a century, the main emphasis has been on making collections of polished stone adzes, fishing gear, ornaments and other art forms. Field archaeology, in the sense defined by O.G.S. Crawford. (Crawford, 1960:36) has been practised on a much more limited scale. There is one outstanding exception, the study of the fortified Pa by Best. The results of all of these studies, based largely upon material culture, may be schematically summarized in the diagram drawn from various sources.

This diagram illustrates the generally held idea of two successive and sharply-contrasted cultural units. The time scale has been calibrated from calculations based upon the generations recorded in traditional history and by C14. Its cultural divisions derive from a number of assemblages and also upon inferred associations. Assemblages are the basis of any archaeological study and it is therefore desirable to base archaeological deductions upon reliable assemblages, which, in turn, can only be made available by precise techniques. In constructing the prehistory of New Zealand the number of reliable assemblages are found to be surprisingly few, although to some extent this has been masked by the richness of mixed collections.

The early cultural unit, A - H, is typified by the true assemblage from WAIRAU BAR, where, using the diagram, there are all of the elements typical of the early cultural stage. The later cultural stage is far less satisfactorily typified by Ethnographic records and by collections, such as that made from ORUARANGI PA, where there are the following associated elements, F.G.I.J.K.L. M.N.O.P. This suggests that the distinction between the two assemblages is very clear: overlap occurring in only two instances, E - the dog and - F - shellfishing, or among occasional survivals. Actually, as Golson has pointed out, some ten elements (Golson, 1959:62) are found to overlap between the two periods. Also, the distinction between the two assemblages is probably emphasized by a direct separation of 300 miles and considerable local ecological differences. Their relative ages are not defined upon strictly stratigraphic evidence, but inferred from the association of the one with an extinct fauna while many of the features of the other assemblage are recorded by early European observers.

1800					F	G	H	I	J	K	L	M	N	O	
1700					E	F	G	H	I	J	K	L	M	N	O
1600					E	F	G	H	I	J	K	L	M	N	O
1500	B		D	?	F	G	H	I	J	K	L	M	N	O	
1400	B		D	?	F	G	H	I	J	K	L	M			
1300	A	B	C	D	E	F	G	H	I	J	K	L			
1200	A	B	C	D	E	F	G	H							
1100	A	B	C	D	E	F	G	H							
1000	A	B	C	D	E	F	G	H							
900	A	B	C	D	E	F	G	H							
	Moss														
	E. Polynesian	Adzes													
	"	"	ornaments												
	"	"	" fishing gear												
			Harpoons												
			Dogs												
			Shell fishing												
			Original settlers												
			Later settlers												
			2B. adzes												
			Maori fishing												
			Gear												
			Agriculture												
			Houses												
			Greenstone ornaments												
			Weapons												

The diagram demonstrates the prevalent idea of two cultural units broadly, but not precisely, synonymous with two periods of time. In other words, assemblages can either be A - H and early or E - O and late although this is qualified by discoveries in various areas of the late survival of some of the elements of the A - H assemblage. It is quite likely that, in broad terms, this scheme is true and there is no reason why the general public should not be using phrases like "Moa-Hunter" and "Classic Maori" fifty years hence. But, whatever the validity of the cultural units, two successive stages are insufficient for a more precise study of a thousand or more years of time. More seriously, it leads to the assumption that all the important cultural changes in New Zealand occurred in the brief transitional interval between the earlier and later stage and not as a series of steps over the entire sequence of more than a thousand years.

On inspection, there appears to be an archaeological tyranny of the many by the few. This has created a kind of cultural 'no-man's land' lying, in theory, between the two great periods, but not possessing any artifacts by which it might be recognized. The use of the word 'tyranny' is intentional: assemblages have had their ages determined through the possession of a limited number of elements, notably A and B or I, M, and O. Around one or other of these sets, new elements have been added by association or through assumed relationships. The result is cumulative - the choice of only two stages

ensuring that all elements go towards further selling either one set or the other. If the tyranny continues the significance of new elements, for which the original evidence was or still is poor, is lost, even when this evidence comes to hand. One typical effect has been to give the F - P stage a monopoly on houses and agriculture.

An interesting feature is that many of the tyrant elements, for example, B.C.D.E.J.K.N. and O., are the ones to be found in collectors' curio cabinets. This suggests that the tyranny stems from the attempts to impose some order upon and create a chronology out of the selectively gathered and mixed collections of curios. This practice has a precedent - C.J. Thomson devised the famous "Three Ages System" in 1819 for precisely such collections of material (G.E. Daniel, 1950:41). However, poorly localised collections need no longer provide the sole basis for chronology. Developed techniques demonstrate that structures, such as pits and fortifications, have considerable variability throughout time. (J. Golson, 1961:16); (W. Ambrose, 1962:56); (H. Parker, 1962:11). The same techniques are advancing more refined studies of artifacts, raw materials, and faunal and floral evidence. It is probable that the present expansion of research is capable of giving a far more precise record of the stages through which Polynesian New Zealand culture undoubtedly developed, until it was swamped by the intrusive European culture.

This expansion of research will also have another effect, which is the definition of regional developments within the broader outline. This possibility was demonstrated as long ago as 1921 (Skinner, H.D. 1921:71), and while understood, has been masked by the use of a too limited set of elements, largely from selected collections, to allow for the definition of regional divisions as well as those of chronology.

To conclude this Part - The nature of the artifacts selected for study and the conditions under which all but a few samples have been gathered, has caused research to be dissipated upon broad generalizations, both in terms of culture and of time. As these restrictions need no longer apply, we may turn to a more precise exploration of prehistory.

## PART II

The theoretical framework within which one may place stratigraphically excavated materials has not been widely discussed among New Zealand archaeologists. As a consequence, until recently only a limited number of concepts have been applied to the analysis of data from a site. Primary contributions of conceptual schemes to which true assemblages from archaeological sites may be assigned are those of Duff (1951, 1956), Golson (1959:62) and Duff, at the 1962 Conference. These are recent and only reveal a limited number of alternative formulations. The successive refinements which each exhibits over its predecessor is made possible largely by the application of increasingly

sophisticated techniques of excavation among all members of the association, as was so evident at this last Conference. However, if members are prepared to take the trouble to apply modern techniques of investigation, then it is equally necessary and logical that they should apply a more refined set of concepts to the analysis of those materials they have so painstakingly won from the soil. Such possibilities present themselves within the concepts of phase, aspect, and component as defined by Golson (1959:62).

As has already been discussed above, Duff and Golson have isolated the main technological aspects of culture which reflect a major subdivision of the cultural history of New Zealand. Following Willey and Phillips (1958) we prefer to call these maximal units cultures, labelling one Maori culture; the other New Zealand Eastern Polynesian culture, for which the term Archaic may serve as a shorthand designation. Accumulating evidence tends to show that assemblages of archaic Eastern Polynesian culture in New Zealand are generally, but not invariably, associated with different degrees of economic dependence on the moa.

What our evidence does not as yet demonstrate is the precise nature of the articulation between these two cultures. Thus some see Maori culture as the product of evolution from New Zealand Eastern Polynesian culture under the stimulus of adaptation to a new and rapidly modified environment, while others believe the two cultures may have separate origins (pre-fleet and fleet). In the first case we should expect never to find sites with traits deriving an intruding culture different from those of its predecessor; in the second case we must find sites in some area of New Zealand in which this new culture intrudes and comes eventually either to replace or dominate its predecessor. To date, neither of these expectations have been fulfilled, and we are left with the alternative that Maori culture may be the result of some innovations in isolation combined with sporadic trait unit intrusions as the result of landfalls by occasional canoes. In the course of time these additions modified the original New Zealand Eastern Polynesian culture into that which we call Maori culture.

Both Maori and New Zealand Eastern Polynesian culture have gone through several stages or phases of development. But neither Duff's original Moa-hunter nor Golson's Archaic satisfactorily defines these minimal archaeological units, although such units may be demonstrated by several known sequences of sites. In the North Island Golson's Archaic may be shown to embrace at least two phases (Parker's Archaic A and B), while in the South Island Lockertie's (1959:75) evidence shows that Moa-hunter definitely goes through several stages of economic change which are reflected in quantitative if not qualitative changes in the technology as well. Our task now is to investigate the nature of these minimal stages in every region of New Zealand from the point of view of changes both through time and difference from region to region. The changes through time we call phases, the variation of any one phase from region to region are aspects, while the different site assemblages for a single period of time within a region are components which together make up the regional aspect.



Within any region of New Zealand at a given period of time one finds various types of sites which represent all the activities carried out by a community: i.e. a set of beach midden components, a set of dwelling components, a set of burial components, a set of quarry components, etc. Together, these make up the regional aspect and may be designated by a local name to distinguish them from other aspects. An aspect then is an assemblage of types composed from a number of site components and defined in such a way that the events represented by the total assemblage cluster sufficiently closely in time to permit the inference that no marked change took place between the first and last events implied (Spaulding, 1960:23, 37). In regional sequences aspects occur during given periods of time, and in this respect differ from phases and cultures which do not appear everywhere at precisely the same period of time. Aspects define regional periods, but phases and cultures define inter-regional stages of cultural development and as Childs (1935:1) and many others have insisted, the two must not be confused.

Because various regions may be expected to exhibit similar stages of development recurring in the same general order, although not necessarily at exactly the same time, those aspects which exhibit parallel developments may be grouped together into phases. We have defined here phases for the Auckland Province of the North Island of New Zealand. There is some evidence they hold for the Taranaki region as well. (Buist and Parker, 1962, N.Z.A.A. Conference.) On the other hand it may be that after the Settlement and Development Phases, the South Island did not again participate in parallel developments until the Classic and Early European Maori Phases. If prehistory in the South Island pursued a separate course without the development of agriculture and permanent settlement until this was intruded from the north or brought about by contact with the European, it is an important theoretical point and deserves recognition by the definition of separate aspects and phases which will characterize these developments.

Before defining phases for the Auckland Province, a word should be said about how to distinguish successive phases or aspects. They are not defined from the first to the last appearance of a trait or group of traits, but from the first appearance of a trait or group of traits to the first appearance of a new group of traits which serves to identify the next phase. The first type of definition will always prove ambiguous, the second not only allows one to clearly assign an aspect to its proper position, but also to provide further subdivisions, should these prove desirable. (Spaulding, 1960:337).

For instance, in the present scheme the first phase is defined by the following cluster of traits, A - D, or from the first appearance of A to the first appearance of E, and after the appearance of E and an associated cluster of traits, to the first appearance of H and its associated traits. To illustrate, when man first arrived in New Zealand he began his initial adaptation of Eastern Polynesian forms of technology to local environmental conditions -

(A), he obtained obsidian from the Mayor Island source but otherwise employed local materials (B), he lived in camp-type settlements (C), and wherever possible hunted a full range of moa and otherwise exploited an environment previously untouched by man (D). With the first appearance of one type of permanent dwelling associated with semi-permanent settlement (E), we enter a new phase in which trade in other sources of obsidian and materials like argillite appears (F), and probably in certain areas an introductory stage of agriculture and storage (G) begins. A change in the type of dwellings (H), and of storage pits (I) and perhaps the introduction of kumara (J), mark the next phase. Note that while each aspect or phase is defined by the first appearance of qualitatively new types of evidence, some of the initial criteria may persist or are modified only by quantitative changes. Thus moa continue to be hunted in all three phases but only in the first does one encounter sites with a wide range of species and genera; in later phases its economic importance declines as that of agriculture increases. It serves only in the first phase as one among several criteria that may legitimately be used to identify sites of that stage. Even here, however, ecological considerations between different regions mean that in some moa may not be present or are available only in limited numbers, so that other criteria must then serve to identify an aspect's position. The same is true for other criteria.

As it is planned to present elsewhere the detailed paper in which this sequence of phases has been developed, the outline that follows here merely summarizes that presentation. In that paper the various regional aspects are defined and site components are assigned to their relevant aspects and phases. They will not be discussed here.

#### SUMMARY OF THE CULTURAL SEQUENCE OF THE AUCKLAND PROVINCE:

##### Early European Maori Phase (1st half of 19th century).

- Climate - at the end of this phase a return toward a slightly warmer and drier climate.
- Culture - a fusion but with the Maori culture still dominant over the intrusive European elements.
- Economy - the introduction of European crops, importance of whaling and Maori agriculture for European markets.
- Settlement Type - differentiated Simple Nuclear Centred Pa of a wide variety of types, the introduction of new pa types based on warfare, or as the result of changes wrought by the new economy.
- Ecological Orientation -  
 an already much modified New Zealand environment now further changed by new tools, crops, and techniques more efficient in exploiting both old and new ecological situations.



Classic Maori Phase (circa 1650 - 1800 A.D.)

- Climate - somewhat cooler and damper than today.
- Culture - Maori (in the general sense defined by Duff 1956:13 and in the archaeological sense as defined by Golson 1959).
- Economy - an intensive form of systematic agriculture able to support a large population; the development of specialized agricultural techniques and forms of storage, numerous rua.
- Settlement Type - differentiated Simple Nuclear Centred Pa reflecting social segmentation and stratification, an increase in specialized activities and structures for them, and the creation of elaborate defensive systems and of new types of pa.

## Ecological Orientation -

Ecological variations in availability of basic resources gives rise to considerable differences between regions; primary forest vegetation removed to extent that agricultural techniques rendered it profitable; agriculture and mudflat shell-fish and fishing predominating.

Village Maori Phase (circa 1450 - 1650 A.D.).

- Climate - somewhat cooler and damper than today.
- Culture - a 'transitional' or 'proto' form of Maori.
- Economy - Systematic agriculture generally based on the kumara associated with numbers of semi-subterranean storage structures of several types.
- Settlement Type - Semi-permanent Sedentary Pa that are established in successive locations, each for a period of years; a pattern to structures in the community but little evidence for differentiation; use of ditch, bank, and/or palisade defensive systems.

## Ecological Orientation -

midden deposition in quantity in restricted areas of settlement or on beaches, with mudflat species predominating; manufacturing activities taking place in areas other than middens and central areas of settlements; environment sufficiently modified by man that former avi-fauna and many sea mammals are no longer available or do not form a mainstay in the diet except in marginal regions.

Experimental Phase (circa 1350 - 1450 A.D.).

- Climate - first deterioration of climate toward a cooler and damper phase.
- Culture - a late or 'Archaic' stage in the development of New Zealand Eastern Polynesian culture.
- Economy - Experimental stage in the development of agriculture in New Zealand, probably with kumara present; few species of moa remaining or hunted except inland; more use of mudflat species of shell-fish than formerly, and a postulated increased dependence on agricultural products.
- Settlement Type - Central-Based Wandering with a semi-permanent settlement in which the structures for dwelling and storage are in separate areas; burials usually occur in area of site.

## Ecological Orientation -

environment now sufficiently modified by man that few moa are left and sea mammals are of decreasing importance, except in particular areas. This necessitates an increased ability to 'live into' or exploit this new or 'non-tropical' environment and to increased dependence on agriculture.

Developmental Phase (circa 1100 - 1350 A.D.).

- Climate - slightly warmer and drier than today.
- Culture - New Zealand Eastern Polynesian, or in terms of material culture, the Archaic of Golson (1959) or the Moa-hunter of Duff (1956).
- Economy - Intensive exploitation of selected species of moa and remaining avi-fauna, according to the modified ecological conditions brought about by man. The Introductory stage of agriculture (initially perhaps without kumara), and a heavy exploitation of the marine environment, especially sea mammals, fish and rocky-shore shell-fish.
- Settlement Type - Central-Based Wandering with semi-permanent settlements in which storage facilities are directly attached to dwellings; burials associated with middens in which evidence for manufacturing, shell-fishing and fishing all occur; the first site components restricted to a specialized activity appear.

Ecological Orientation -

successful adaptation to the New Zealand environment evident in creation of artifacts of an archaic Eastern Polynesian form superbly rendered in new mediums; use of a full range of materials, many of them widely traded throughout the country. Initial modification of that environment evident in fact that fauna from a number of originally juxtaposed ecological niches no longer occur in one site, but in several, with those on the coast exploiting more heavily the open sea than the sheltered lagoon and tidal river mouths situations.

Settlement Phase (circa 900 - 1100 A.D.).

Climate - slightly warmer and drier than today.

Culture - initial adaptation of a tropical Eastern Polynesian culture to a New Zealand environment.

Economy - no evidence for agriculture, due perhaps to likelihood that initial introductions of tropical plants may have failed.

Instead, primary dependence on the hunting of a full range of a now extinct avi-fauna including most species of moa; an equally heavy use of sea mammals, fish, and the rocky-shore shell-fish found in abundance and of large size.

Settlement Type - a combination initially of Free and later of Restricted Wandering in which the camp type of settlement dominates, usually with limited evidence of structures and no burials in the site, but a full range of other activities in evidence.

Ecological Orientation -

a full exploitation of the fauna of a then unmodified environment of closely juxtaposed ecological niches; generally oriented toward the coast and utilizing a restricted range of materials for tool manufacture, most materials being of local origin. Inland sites of this phase are generally later and show a slightly different ecological orientation.

NOTE:

1. Phases are stages of development and may occur in different regions at different periods of time, so the time scale supplied here is only approximate.
2. Definitions of the stages, Introductory, Experimental and Systematic, through which New Zealand agriculture passed are based on Yen (1961).

5. Definitions of the settlement patterns, stages of Free and Restricted Wandering, Central-Based Wandering, Semi-Permanent Sedentary, and Simple Nuclear Centred, are based on Beardsley et. al. (1956).

R. C. Green  
University of Auckland.

#### BIBLIOGRAPHY

Ambrose, W., 1962. "Further Investigations at Kauri Point", N.Z. Arch. Assoc. Newsletter, v.5, No. 1: 56-57.

Beardsley, R.K., et al., 1956, "Functional Evolutionary Implications of Community Patterning", in "Seminars in Archaeology: 1955", Amer. Antiquity, v.22, No. 2 Part 2: 133-157.

Childe, V.G., 1935. "Changing Methods and Aims in Prehistory", Proceedings of the Prehistoric Soc., v.1, No. 1: 1-15.

Crawford, O.G.S., 1960. Archaeology in the Field, London.

Daniel, G.E., 1952. A Hundred Years of Archaeology, London.

Duff, R., 1951 (1st Ed.), 1956 (2nd Ed.). The Moa-hunter Period of Maori Culture, Wgtn.

Golson, J., 1959. "Cultural Change in Prehistoric New Zealand" in Anthropology in the South Seas, Ed. J.D. Freeman and W.R. Geddes, 29-74, New Plymouth.

----- 1960. "Archaeology, Tradition, and Myth in New Zealand Prehistory", Journal of the Polynesian Society, v. 69: 380-402.

----- 1961. "Investigations at Kauri Point, Katikati", N.Z. Arch. Assoc. Newsletter, v.4, No. 2: 13-41.

Haast, J. von. 1872. "Moas and Moa-hunters", Trans. of N.Z. Inst., v.4: 66-107.

Lockerbie, L., 1959. "From Moa-hunter to Classic Maori in Southern New Zealand" in Anthropology in the South Seas, Ed. J.D. Freeman and W.R. Geddes, 75-110, New Plymouth.

Parker, R.H. and Buist, A.G., 1961. "Urenui Excavation - Preliminary Report", N.Z. Arch. Assoc. Newsletter, v. 4, No. 4: 11-14.

Skinner, H.D., 1921. "Cultural Areas in New Zealand", Jour. of the Polynesian Soc., v. 30: 71-78.

Spaulding, A.L., 1960. "The Dimensions of Archaeology", in Essays in the Science of Culture, Ed. G.E. Dole and R.L. Carniero, 437-456, New York.

Willey, G.R. and Phillips, P., 1958. Method and Theory in American Archaeology, Chicago.

Yen, D.E., 1961. "The Adaptation of Kumara by the New Zealand Maori", Jour. of the Poly. Soc., v. 70: 338-348.