



NEW ZEALAND
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NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER



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THE ROLE OF FORTIFICATIONS IN NEW ZEALAND PREHISTORY

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In a geographic sense, the role of fortification in New Zealand Prehistory is insignificant. Throughout extensive but formerly occupied parts of the South Island there are hardly any defended sites at all, while in the central area of the North Island they are equally rare. We, like Pitt-Rivers, should heed Huxley's remark that "That which is important is that which is persistent" (Pitt-Rivers, W., 1898).

Even where fortifications are relatively abundant, we should guard against over-emphasising their significance, which might well reflect relative ease of discovery. It is perhaps necessary to assert that fortifications should not be seen only in their own context but, rather, as one facet of the prehistoric occupation of the North Island. Thus, Shawcross has shown that there is another side to the coin: the lowland settlement of Ngaroto cannot be sui generis, and its occupation needs to be tied in with the economic role of the fortified sites (Shawcross, W., 1967).

The need to assess the role of individual prehistoric sites in relation to other contemporary varieties of monument is well illustrated by referring to numerous examples in other parts of the world. Thus, at Figcheldean Down, Applebaum considered a whole complex of enclosures, fields and a hill fort, as part of one functioning economic system (Applebaum, S., 1954: 103). One might also cite the diversity of sites occupied by the Plains Indians, or the possibility that shielings integrated with the agricultural pursuits of Neolithic Swiss farmers.

A slight feeling of scepticism towards the preoccupation with classification, which marked the earlier part of the conference may, therefore, be forgiven, for classification per se is an arid exercise indeed, just as the concentration on one variety of field monument to the exclusion of others can be dangerously misleading. Surely, what a site was used for, what its function was relative to a prehistoric way of life, are ultimately more relevant to our problems as prehistorians than the sub-division of a given class of artefacts into types 1, 2 and 3, or, still worse, the division of an organic human

culture into neat little sub-divisions like "Eastern 1st A" or "Western 3rd B". Buist has shown the way in his preliminary, and admittedly speculative, interpretation where he sub-divides fortified sites into "gun-fighters' pa", and "food pa" (Buist, A. G., 1967).

Sufficient pa have now been discovered, particularly in Taranaki, to reveal that their distribution was riverine and coastal. We also know that the word pa has been used loosely to describe a complex of sites which were probably used for different purposes. Thus Leahy has described one site which looks uncommonly like a prehistoric arsenal (Leahy, A., 1967), and Buist has referred to certain sites which "served fishing grounds" (Buist, A. G., 1967). Some are so huge as to look like tribal capitals and concentrations of considerable power. Some might have been no more than defended signal stations.

Our problem is to order these monuments both temporally and functionally, so that their true role in the prehistoric settlement of a given area can be determined. Groube has already grasped the nettle of his recent provocative analyses of settlement patterns in New Zealand prehistory (Groube, L., 1965). Nevertheless, the relevance of related research methods cannot be over-stressed.

One of the problems besetting the student of Iron Age Hillforts in Europe is the lack of any knowledge of the digging and earth-moving tools which were available. Much of this information is known for the New Zealand situation, and it should be possible to determine within tolerable limits, the expenditure in labour necessary to construct pa of different sizes and types. It should be remembered, of course, that the labour force involved would have been economically unproductive while engaged in construction work.

Perhaps one of the most surprising features of Caesar's description of the Celtic oppida is that those banked and ditched structures were often concealed in woodland. Not only in regard to pa, but also to other occupied sites, therefore, the need for analyses of pollen is of crucial importance. Clearly the arrival of a group of agriculturalists in New Zealand would have exercised a profound effect upon the surrounding environment, while the environment as it was during the occupation period might clearly be relevant to the functional interpretation of the site itself. As a question of urgency, therefore, we must become familiar with taking pollen samples, and encourage palynologists to become interested in this type of problem.

Groube has mentioned the presence of wood in the hearths found in certain pa. Again, therefore, an analysis of this wood may be expected to enlighten us on some aspects of the environment at the site during its period of use.

In an attempt to assess the role of pa in New Zealand prehistory, all finds from these sites should be subject to scrutiny. Pollen and wood have been mentioned. Faunal remains too may yield relevant information. Are there any at all? There are at the pa at Karitane, near Dunedin, and these reveal that the mud flats bordering the Waikouaiti River were exploited for shellfish, coasts for sea birds, fish and seal, and bush for small birds (Clark, W. and Higham, C.). Is there any evidence that seal flesh or fish were taken to inland pa? Shawcross has noted that dried schnapper were removed from Galatea Bay (Shawcross, W., in press): might these fish bones recur at inland pa? Any scarcity of bone remains at these enclosed sites will necessarily influence assessment of the latter's role.

If it is assumed that one function of certain pa was to protect kumara, can it be further assumed that such pa were built near the kumara fields? If they were, then what is known of the effect of kumara cultivation on soil fertility? Was field rotation practised, or was an area exploited until the soil was exhausted, and then the focus of agricultural activity moved to a new area, necessitating the construction of a new pa? If so, then the great number of pa in certain areas may reflect a system of shifting agriculture.

Particularly in marginal areas, the choice of fields for kumara cultivation must have been critical. There exists no Swiss Lake Village which does not command both well insolated and drained soils, and a favourable sunny aspect. If similar conditions apply in New Zealand, then an analysis of the aspect of the terrain within proximity of the pa, and the local degree of insolation are of considerable interpretative importance.

What is needed then, is the setting of pa into their total environmental situation, as far as it can be established. There follows the natural step of an areal approach in which comparisons are made with related sites within a given zone, be it political or ecological, and with all other manifestations of prehistoric activity. Perhaps the most desirable result from such an approach would be the breaking down of the generic term pa into realistic economic categories, for surely the object of any classification of prehistoric artefacts is to sub-divide in terms which would have appeared realistic to prehistoric people themselves. In the context of this statement, the subdivision of pa on the presence or absence of kumara pits might be more realistic than on the basis of particular techniques of defensive architecture evolved to suit a given topographic situation.

In his consideration of the economic basis of Prehistoric Europe, Clark pioneered a way of thinking in which cultural development in any

area should be integrated with an assessment of the total environmental resources available (Clark, J. G. D., 1952). Here in New Zealand is a classic example of this process in action, for the ecological conditions of the coastal regions of the North Island called into being a way of life and, consequently, a material culture which in time diverged so markedly from that of the South that we are able to discern a new "Culture" in the terminology of Childe. Moreover, the internecine feuding between the Northern tribes, particularly that recorded in recent legend and history, illustrates the methods whereby culture change in other regions may well have taken place.

In Western Europe, for example, one can trace at least three times when a particular culture came to dominate over a wide territory. The Danubian 1 Culture saw the introduction of Brandwirtschaft to an extensive area populated by hunters and fishers. Subsequently the Corded Ware Culture and the Urnfield Culture settlements were distributed over equally extensive regions.

Although the study of economic prehistory in Europe is in its infancy, it has been established that those three cultures were innovators in an economic sense: the Danubians brought agriculture and stock rearing, the Corded Ware people developed increased agricultural productivity by adopting the ox-drawn ard, and the Urnfield Culture employed the plough and cleared increased areas of forest with the aid of their heavy metal axes (Higham, C.).

This digression serves to emphasise an important, indeed basic, archaeological principal, namely, that an economically advanced people have a greater chance to dominate and expand than have an economically weak people. In New Zealand, as in Europe, therefore, we must look to the development of an increasingly effective symbiosis between technology, flora and fauna for the basic reasons behind the evolution of defensive systems and their role during the prehistoric period.

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40TH A.N.Z.A.A.S. CONGRESS

CHRISTCHURCH

24-31 January 1968

The presidential address "Anthropology at the Crossroads" will be given by Professor J. Pouwer of Victoria University of Wellington. A major symposium on South-West Pacific Prehistory will occupy three half days (dealing with New Zealand, Polynesia, Melanesia and Micronesia) and other symposia will be on Social Change in the South-West Pacific and on Educational Needs and Problems of the Maori Community.

Miscellaneous papers will describe recent archaeological field work in Northern Melanesia, New Guinea, Fiji, N.S.W., Minlacowie, Wellington and Canterbury. Other miscellaneous papers will be on radiocarbon dating errors, adze typology, flake stone industries, linguistics and social science subjects.

Full particulars on the Congress may be obtained from:

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