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**NEW ZEALAND ARCHAEOLOGICAL ASSOCIATION NEWSLETTER**



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ABSTRACTS FROM THESES,  
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Abstracts from one Ph.D. thesis and four M.A. theses in archaeology and material culture completed during the 1984 academic year are given below. Copies are held in the Department of Anthropology, University of Auckland, where they may be consulted. Xerox copies may be made available through the main library, Auckland University at cost, plus postage. These are subject to the usual restrictions applying to theses, namely the understanding that their use is for private research and not publication.

Ph.D. thesis

Simon Best, Lakeba: the Prehistory of a Fijian Island. Anthropology Department, Auckland University. 2 page abstract; xxvii, 684 (+99) pp., 39 plates, 211 figures, 48 tables, 16 appendices.

The following research was directed at establishing a comprehensive ceramic sequence for Lakeba, based on form and decoration, and to identify periods of change, or of accelerated rates of change, that occurred within the 3000 years of occupation. Other aspects of ceramics, notably those concerning the technology involved in constructing the vessels, together with economic and site settlement data, were used to further examine these processes.

Southern Lau sites were included in the settlement pattern data, and an attempt made to estimate the population history of the island at selected time periods.

Qualitative and quantitative assessments of imported material were attempted, concerned mainly with pottery temper, but also including tool rock material and a species of shellfish.

Spatial distribution of pottery within prehistoric sites was compared with that from a proto-historic settlement, in which the internal divisions and important house-mounds were known.

The recorded effects of the arrival of a group of potters was contrasted with the amount of ceramic evidence recovered for this event.

It was found that in general the ceramic form/decoration changes, on which much of the current prehistory of the area

is based, were accompanied on Lakeba by other major behavioural changes, some of which appear to represent influences from outside the region. On the other hand, while the social impact of the immigrant potters was considerable, their effect on the island's ceramics was minor compared to some of the earlier changes.

Warfare, as indicated by human remains in midden deposits, and inland hilltop sites chosen for their natural defences, appear to occur together over 1000 years prior to the appearance of the typical Fijian fortifications.

Pottery distribution within major sites in the last 1000 years appears to reflect social importance. A similar situation may exist for comparable spatial distribution in the first settlement on Lakeba.

The island's relationships to east and west are shown to change in degree several times during the 3000 years.

If the evidence from this one Lauan island is representative of the Fiji area as a whole, then underlying a basic physical and cultural continuity is a complex interplay of people and information, originating from both middle and long distance sources, which made a profound contribution to the lives of the Fijian people.

#### M.A. theses

Robert Brassey, An Analysis of some Lithic Artefact Assemblages from Pouerua, Northland. Anthropology Department, Auckland University. 2 page abstract; vii, 170 pp., 22 figures (incl. 9 plates), 10 tables, 2 appendices.

There has been widespread interest in the sources of lithic materials that were utilised for the manufacture of implements in prehistoric New Zealand. There has been little attempt, however, to explain why the ranges of sources represented in individual archaeological assemblages have been utilised. There are a number of problems which have arisen in this respect. Many assemblages recovered from New Zealand archaeological sites contain stone material which has been obtained from sources remote from the sites, even where apparently similar raw materials are available in closer proximity. Furthermore, most archaeological assemblages which have been studied contain apparently similar materials from more than one source. These problems are illustrated by reference to assemblages of lithic artefacts from Northland which have previously been studied, and a number of specific problems relating to the prehistoric utilisation of stone resources in this region identified.

In order to provide a basis from which to develop explanatory propositions in relation to these problems, an analysis is carried out on some assemblages of lithic artefacts recently recovered from six archaeological sites located in the area surrounding the Pouerua volcanic cone, in the inland Bay of Islands district. First, an attempt is made to reconstruct the prehistoric geological environment in the vicinity of the archaeological sites. The lithic materials represented in the assemblages are then identified, and the sources of these materials are discussed. The functions of the artefacts are then considered, and differences between the technological potential and limitations of the materials which have been utilised are outlined. Inter- and intra-assemblage variability in lithic raw material utilisation is then discussed.

A number of propositions, based on the results of this analysis, are advanced to explain the patterns of raw material utilisation in the Pouerua assemblages, and in the Northland region in general. Suggestions are made as to possible ways in which independent data might be used to test these propositions. Finally, some of the wider implications of this research is considered.

Dilys A Johns, Waterlogged Wood Conservation: an Investigation of Radiation-Induced Polymerisation of Monomers. Anthropology Department, Auckland University. 1 page abstract; ix, 110 pp., 17 plates, 3 figures, 3 tables, 6 appendices.

Positive action is urgently needed in New Zealand to ensure that artefacts from wet sites are conserved for posterity.

This study considers the conservation of waterlogged wood using two methods. Firstly, impregnation using two acrylic monomers, methyl methacrylate and 2-hydroxyethyl methacrylate and their subsequent polymerisation by gamma radiation. Secondly, impregnation using polyethylene glycols in aqueous solutions followed by freeze-drying.

Treated wood samples were assessed in terms of shrinkage, weight, and final surface condition.

2-hydroxyethyl methacrylate gave the most promising results in all experiments and a simplified impregnation technique using this monomer has been investigated.

Joan Maingay, Te Hue: People and a Plant. Anthropology Department, Auckland University. 1 page abstract; xiii, 330 pp. 65 plates, 13 figures, 6 tables, 4 appendices.

Te Hue, the bottle gourd Lagenaria siceraria, is one of the oldest and most widespread of cultivated plants. Products made from its hard fruit shell have been highly valued for thousands of years and in many parts of the world it has also provided food and medicine.

Modern research has largely ignored a plant which is no longer of economic value in the Western world. This thesis cannot entirely rectify previous neglect. It is an attempt to correlate scattered information on the gourd and to add a little to several branches of inquiry - on the plant's dissemination, cultivation, use and value. Beginning with a world-wide over-view it narrows down to the Eastern Pacific, and finally focusses on New Zealand where te hue was an important cultigen of prehistoric Maori people, and is still grown, though less extensively, today.

This is not a definitive plant report on the bottle gourd, it is intended as a basis for further research.

Nicholas Twohill, Industrial Archaeology of the Mount Zeehan Gold-Mining Property. Anthropology Department, Auckland University. 2 page abstract; xv, 340 pp., 71 plates, 9 figures, map, glossary.

In the middle and upper areas of the Pohue Valley on the Coromandel Peninsula, 37 sites, made up of portals, building terraces, roads, quarries, prospecting trenches, a battery, a midden, a tailings pit and a water race, are reminders of past industrialised gold extraction activities undertaken on the former Mount Zeehan property between 1891 and 1933. The historical research and field methodology of industrial archaeology provide a way of explaining these industrial relics. This thesis sets out to interpret the sites in the Pohue landscape by using the research tools of industrial archaeology.

The first chapter is introductory and reviews aspects of the development of industrial archaeology to date. The field can contribute to our knowledge of historic settlement in New Zealand. Industrial remains are manifestations of bygone commercial and political processes, and are to be studied within these contexts. Hence Australasian industrial archaeologists talk of boom-and-bust landscapes that characterise their region. Industrial remains in the landscape are to be seen as results of highly specific individual or corporate financial and political operations.

Accordingly, the second chapter contextualises the industrial remains of the Mount Zeehan property. Archaeological description and commercial history are "weaved" together in

the study of the present Pohue Valley landscape. Mining and description and commercial history are "weaved" together in the study of the present Pohue Valley landscape. Mining and milling were two production stages in the recovery of gold which occurred on the property, and their associated sites are identified by archaeological survey. The mine road down to the coast provided a link with the third stage of smelting. The history was compiled from written sources stored at National Archives, the Patent Office, Thames School of Mines, the Auckland and Thames libraries. Certain themes reoccur in the properties history. For instance, key personalities have a predominant influence; the availability of local and external capital; national and international economic fluctuations; the property's proximity to Auckland; and the sequence of extractive processes which promised successful recovery of gold from Mount Zeehan's refractory ore.

The third and concluding chapter uses a Marxist analysis, based on the concept of merchant capital, to demonstrate the relationship between the Mount Zeehan property and the world economy. Merchant capital was an agent of metropolitan industrial capital in the periphery during the nineteenth and early twentieth centuries. In New Zealand, the extractive industries, the eventual specialisation in agricultural produce and a society entirely geared to meet these trends were part and parcel of a society formed by merchant capital. The remains which can be seen on the Mount Zeehan property, and what occurred during the property's forty-two years of intermittent operations, it is argued, may be explained within a merchant capital framework.