

ARCHAEOLOGY IN NEW ZEALAND



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ABSTRACTS FROM THESES,

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Dorothy Brown Department of Anthropology University of Auckland

Abstracts from three M.A. theses in archaeology completed during the period mid 1988 and early 1989 are given below. Copies are held in the Department of Anthropology, University of Auckland, where they may be consulted in the Piddington Room. Xerox copies may be made available through the Main Library, Auckland University, at cost, plus GST and postage. These are subject to the usual restrictions applying to theses, namely the understanding that their use is for private research and not publication.

Alexandra A. Brewis, <u>Palaeodemographic Models for New Zealand</u>. 1988. Anthropology Department, University of Auckland. 2 page abstract; (viii)133 pp., 17 figures, 15 tables, 4 appendices.

A series of palaeodemographic models are developed for New Zealand using computer and statistical approaches to overcome the identified non-representativeness of available skeletal samples.

Life table based analysis shows that pre-historic Maori infant mortality was in the range of 150 to 300 per thousand, which is much higher than indicated in the available skeletal samples. Mortality in pre-historic New Zealand was especially high for both sexes between 20 and 35 years of age. This pattern is shown to have existed in other pre-contact Polynesian populations.

Change in population size in pre-historic New Zealand was within the limits of a third to one per cent growth per annum. The commonly held logistic model of population growth is tested and found to be inconsistent with the available ethnohistorical, ecological, and osteological evidence. The exponential model is posited as a better approximation of the real growth function.

A model of pre-historic Maori fertility is developed using computer simulation. The results are compared to those of osteologically based analyses. Parity estimates of around 3.6 to 3.9 births per woman derived from the computer based approach are very close to those determined osteologically. The simulation approach indicates that total fertility was 5 to 6 and that the closed interval between births was, on average, 35 to 40 months in duration. These three palaeodemographic models are considered in combination to derive a stable age distribution, dependency ratios and the generational structure under different rates of growth. Birth and death rates are calculated.

The role of demographic variables in culture change in pre-contact Polynesia, and especially New Zealand, is examined in relation to demographic models developed here.

Andrew Crosby, <u>Beqa: Archaeology, Structure and History in</u> <u>Fiji</u>. 1988. Anthropology Department, University of Auckland. 1 page abstract; (viii)267(1) pp., 28 plates, 58 figures, 6 tables, appendix.

This thesis investigates the relationship between structure, history and material culture in the Fijian archaeological record. Specifically, it investigates the archaeology of a region, Beqa Island, concentrating on the modern, historical, and late pre-historic periods.

Field research was conducted in two spheres: archaeology and ethnography. The results are presented separately according to the nature of the data, but considered together in the Discussion and Conclusion. The theoretical and methodological glue is the common recognition of structural principles of socio-political organisation.

The archaeology describes and orders the surface attributes of settlements within a controlled chronological framework. The results of surface surveys and limited excavations are presented and a typology of sites is constructed for the island's entire occupation period. Chronological control was achieved through the generation of an island specific ceramic seriation through the use of numerical taxonomy.

The ethnography focuses on one issue: the symbolic conceptualisation of the island's socio-political groupings. The modern and historically documented socio-political groups are first described "as they are" and then "as they are seen to be" - symbolically. The symbolic descriptions are gained largely from oral histories which are currently and historically told on the island. Taking the oral histories and the groups together, a conceptual structure of socio-political organisation is demonstrated.

This structure has interpretive relevance for the archaeological settlement attributes. In the Discussion, the site types are re-analysed for external and internal settlement patterns. Because many of the key symbolic features of the oral accounts are spatial, the translation of the symbolic principles of socio-political organisation into settlement pattern correlates is relatively straightforward. It is found that the Beqa archaeological record can be interpreted in terms of symbolic expressions of social structure.

Suzanne C. Short, <u>Undefended Settlement Sites in New Zealand</u> <u>Archaeology</u>. 1989. Anthropology Department, University of Auckland. 1 page abstract; (v)78(40) pp., 4 figures, 8 tables, 2 appendices.

Although the settlement pattern method has been applied in New Zealand for some time now there has been little progress made with reconstruction. Processes of survey and site selection for excavation have made application of the method difficult. The ethnographical model developed by Groube has encouraged the application of a normative approach to settlement archaeology which does not account for the variability identified archaeologically. While field methods have been used to explain inconsistencies in the excavation data it is evident that this is not always the case. An attempt was made to investigate the variability within one site type, the undefended settlement site, and demonstrate that an ideal site does not exist. Explanations for the site types identified are offered.

The concept of <u>tapu</u> is also often used, by way of analogy, to interpret spatial separation of activity areas on settlement sites. Archaeological evidence from within undefended settlements to support such interpretation was not found. A recent re-evaluation of <u>tapu</u> needs to be considered with regard to use in archaeological interpretation.

The future success of settlement archaeology will depend not only on improved methods of data collection but continual evaluation of models utilised.