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**ABSTRACTS FROM THESES, DEPARTMENT OF ANTHROPOLOGY
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Abstracts from all Ph.D., M.A., and B.A.(Hons) theses in archaeology completed in the period 1991-1992 are given below. Copies are held in the Department of Anthropology, University of Otago, where they may be consulted in the Departmental Library. Xerox copies may be obtained through the Librarian, Anthropology Department at cost, plus GST and postage. These are subject to the usual restriction applying to theses, namely the understanding that their use is for private research and not publication.

1992

Richard J. McGovern-Wilson, The Taphonomy of Big-Game Hunting in Prehistoric New Zealand. Ph.D. thesis, Anthropology Department, Otago University. 1 page abstract, xx, 419 pp., 135 figures, 59 tables, 5 appendices (on disk in end pocket).

This thesis examines patterns of bone remains from big-game hunting in New Zealand archaeological sites, and the origins of these patterns, from a taphonomic viewpoint. Taphonomy, as a subdiscipline within archaeology, focuses on the events that impact upon bone remains, in the time between an animal's death and the point of analysis, and the effect of these events on the retrieval of information about the past. In spite of the importance of taphonomy to a fuller understanding of bone deposition, there has been relatively little work undertaken in this field in New Zealand, to date.

The thesis examines the effects of two taphonomic agents, weathering (in particular subsurface, as opposed to subaerial weathering) and burning, on moa and seal remains from 17 big-game hunting sites throughout New Zealand. To establish a baseline for understanding the effects of weathering in the temperate climate zone, I conducted a three-year experiment whereby bones were exposed to a range of different weathering situations. The results suggest that subsurface weathering processes begin almost immediately with microorganisms within the soil quickly breaking down the soft tissue. An objective scale was developed for measuring the degree of weathering a bone has undergone, based on the prevalence of markers such as cracking of the diaphysis, the exposure of the underlying cancellous bone and, in the long-term, the large-scale flaking of cortical bone.

The analysis of these New Zealand wide archaeological collections provides evidence that, in the sites which I examined, taphonomic agents probably played an insignificant role in determining the fate of bones of big-game species. The taphonomic re-analysis did not alter the interpretation of the prehistory of those sites, and has not altered the interpretation of big-game hunting. The weathering of bone cannot be correlated with soil type, geographic region or with chronological age.

There are two environmental zones which are exceptions to this. Firstly, areas of the North Island Volcanic Plateau and the West Coast of the South Island, where the high rainfall levels coupled with high soil acidity (pH <4.5) act to breakdown bone at such a rate that it does not survive to be recovered by archaeologists. Secondly, the inland basins of the South Island where pronounced freeze-thaw patterns work to destroy bone remains, which have been deposited in a landscape where soil deposition is negligible and the only protection provided to bones comes from the deposition of silt during the periodic flooding of streams or rivers, within a few decades.

Nancy G. Tayles, The People of Khok Phanom Di: Health as Evidence of Adaptation in a Prehistoric Southeast Asian Population. Ph.D. thesis, Anthropology Department, Otago University. 2 page abstract, xxiv, 352 pp., 79 figures, 121 tables, 5 appendices.

Skeletal remains of prehistoric Southeast Asians have been recovered from numerous sites, particularly in the modern state of Thailand. Despite the availability of this material, relatively little is known about the people represented by the skeletons. Most research has concentrated on trying to establish the genetic relationships of the populations, using the metric and non-metric characteristics of the phenotype. The skeleton has the potential to provide evidence not only of genetics but also of phenotypic response to the environment. The quality of nutrition, exposure to disease and the pattern of physical activities can all be reflected in the skeletons. This information can be converted into a representation of the living people and their adaptation to the environment.

In 1985 a series of 154 skeletons were recovered from an excavation of the 4000 year old site of Khok Phanom Di, in Central Thailand. The skeletons were largely complete and the bone in excellent condition. A wealth of information on the environment and culture has been recovered from the site and its environs. The skeletal remains have provided an opportunity for a detailed case study of the adaptation of a prehistoric population living in a coastal environment in Southeast Asia. State of health is a reflection of both genetics and environment and has been used as the measure of adaptation. General evidence of health has been combined with evidence of disease in making an assessment of the biological success of the population.

The people of Khok Phanom Di appear to have suffered high morbidity in childhood, with almost universal episodes of growth disruption and high infant mortality. Evidence of diet from plant and animal remains indicates that food was probably plentiful and varied, which suggests that disease rather than poor nutrition was responsible for this infant and childhood morbidity and mortality. Evidence of anaemia was common and the severity of the skeletal response in some individuals suggests that it was of genetic origin. There are several genetic anaemias common in Southeast Asia today. Such deleterious genes are believed to have survived in these populations, despite the severity of the anaemia, through a comparative advantage to carriers of the gene in malarial environments. This suggests that both malaria and the haemoglobinopathy were implicated in the poor health and high mortality during childhood of the people of Khok Phanom Di. Tropical environments encourage potential pathogens to flourish and in addition to malaria other parasites may have contributed to childhood ill health. After the vulnerable period of childhood, adults were able to maintain good bone structure and reproduce the population despite the high cost of infant deaths. Degeneration of the limb joints and the spine was common and probably indicates a physically active life. Dental pathology was also common and this source of infection may have contributed to a short adult lifespan.

There are multiple sources of evidence of environmental changes over time which coincide with changes in the pattern of morbidity and mortality in the population. Infant mortality reduced but the health of children and adults deteriorated. The absence of adult burials in the upper levels of the burial ground and the discontinuation of the use of the excavation area for internments may signal the emigration of at least some of the population or indicate a change in social behaviour in response to the environmental changes.

There is evidence that the people of Khok Phanom Di had the energy and creativity to make full use of the wealth of natural resources available to them in maintaining crops of domesticated rice, developing a highly skilled ceramic technology and maintaining contact with a wide trade network. Although their health appears to have been rather poor in comparison with other prehistoric populations, the richness of their culture shows that they were nevertheless successful in adapting to a potentially lethal malarial environment.

The suggestion of the presence of one of the haemoglobinopathies in prehistoric Southeast Asian populations is not new, but the skeletons of the people of Khok Phanom Di have provided the first firm evidence of the antiquity of the genes. They indicate that both the malarial parasite and the human genetic response have probably had a long-standing and profound influence on the lives of the people of Southeast Asia.

University. 1 page abstract, xiii, 240 pp., 83 figures, 15 tables, 2 appendices.

Shore whaling represents the earliest period of European settlement in the lower South Island. While the history of whaling has been well documented, little systematic work has been carried out on the archaeology of whaling. A site survey was undertaken to establish a basis for any further investigation of shore whaling in the area. This initial brief was extended to include analysing an 1844 survey that included the Otakou station and an excavation of the Wellers Rock try-works at Otakou.

Joss Debreceeny, A Reference Collection of Historic Ceramics in New Zealand, and a Study of the Ceramic Assemblage from the United States Hotel, Nokomai. B.A.(Hons) dissertation, Anthropology Department, Otago University. 105pp., 5 figures, 7 tables, 5 appendices.

This dissertation consists of a study of the ceramic assemblage from the United States Hotel, located at the township of Nokomai, in northern Southland. The study of the ceramics has concentrated on a complete description of the ceramics, for two reasons. Firstly, with the intention of resolving some problems that have occurred in the study of historic ceramics in New Zealand in the past. And secondly, because the United States Hotel had only a very short time span, it was hoped that the assemblage could be used to begin a process of defining the types of patterns and wares found in historic New Zealand within specific timeframes. As a part of this, the United States assemblage has been compared with other sites, and has been used as the basis of a Reference Collection of Historic Ceramics for the Department of Anthropology at the University of Otago. This Reference Collection is described in Appendix 2.

The need for reference collections and comparative data in New Zealand historic archaeology has been pointed out for some time, but little has been done to fulfil these needs. At a time when a consideration of the theoretical and methodological basis of historical archaeology is being reconsidered by the Dunedin Historic Archaeology Project, it is perhaps unfortunate that this basic construction of properly described and classified data sets has not been achieved before.

This dissertation has also considered the methodological problems involved in sorting and describing a ceramic assemblage. In addition, the nature of the United States assemblage is examined, in order to gain social information about the Hotel, and the township of Nokomai.

Linda Kivimaki Price, Acquisition and Exchange Policies of the Otago and Canterbury Museums in the Late Nineteenth and Early Twentieth Centuries: A Case Study. B.A.(Hons) dissertation, Anthropology Department, Otago University.

65pp., 2 appendices.

Prominent among recent museology scholarship is the debate on the subject who owns the past? Whether the past, as a concept, can ever be owned by anybody, whether it is a shared heritage which must therefore belong to everyone, or whether it is the particular preserve of one specific group of people who have 'First Nation' status, depends on the political perspective of those involved in the debate.

This paper reviews the current formal acquisition and exchange policies of several museums in New Zealand and America. The review was then used as a baseline for comparison with the acquisition and exchange practices employed by three influential New Zealand museum curators: J.F.J. Haast and F.W. Hutton, the curators of the first museums in Canterbury and Otago, and H.D. Skinner, who was the first curator of Ethnology, appointed at Otago in 1919.

This case study of a number of acquisitions and exchanges made by these early curators focused on their aims and motivations as revealed by archival records. The paper addresses questions such as were these curators too eager to exchange Maori artefacts with overseas museums? or do their policies warrant criticism today?

It is inappropriate to judge the actions of people in the past on the basis of changed values of the present day. The questions can be satisfactorily resolved only by an examination of the contemporary scene in which these actors played and an assessment of their integrity within that scene.

Andrew W. S. Robertson, A Report on the Vaito'otia-Fa'ahia Site, Huahine Island, French Polynesia: With Emphasis on Geomorphological Problems. B.A.(Hons) dissertation, Anthropology Department, Otago University. 1 page abstract, iii, 40 pp., 3 figures, 1 table.

The excavations at Vaito'otia and Fa'ahia on Huahine Island, French Polynesia, have revealed a most important site. Its waterlogged nature has enabled good preservation of many perishable materials, otherwise unknown in early sites in this region. The literature related to this site is limited to mostly preliminary reports for each excavation session. This study therefore attempts to collate the various data into one report in the aim of providing an overview of the entire site. An hypothesis involving tidal waves or violent flooding engulfing the site and forcing its abandonment was proposed by the original excavators. The evidence for this is re-examined and a different, more gentle and progressive geomorphological model for the site is proposed. A brief summary of the features, artefacts and faunal materials recovered in the site is given and finally an interpretation on the nature of the occupation is offered.