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ABSTRACTS FROM THESES AND DISSERTATIONS ANTHROPOLOGY DEPARTMENT UNIVERSITY OF AUCKLAND 1999-2000

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Abstracts from three B.A. [Hons] dissertations, four M.A. theses, three M.A. dissertations, and one Ph.D. thesis in archaeology completed during the period late 1999 to early 2000 are given below. Copies are held in the Department of Anthropology, University of Auckland, where they may be consulted in the Piddington Room. Xerox or microfiche copies may be made available through the General Library, University of Auckland, at cost, plus GST and postage. These are subject to the usual restrictions applying to theses and dissertations, namely the understanding that their use is for private research and not publication.

B.A. [Hons] DISSERTATIONS -1999

Jonathan P.D. CARPENTER. B.A. Hons dissertation. 1999. *The Archaeological Landscape of Kawau Island*. Anthropology Department, University of Auckland. 1 page abstract, (vii) 104 pp., 27 figures [including 20 col.], 3 plates [including 2 col.], 16 tables, 2 appendices.

Kawau Island is a medium sized island in New Zealand's Hauraki Gulf. Like many of the other Gulf islands, it has a well preserved and interesting surface archaeological record produced by the activities of New Zealand's first people, the Maori and their Polynesian ancestors, over many hundreds of years. This surface record can be usefully examined through settlement pattern and landscape approaches to archaeology.

After outlining Kawau's environmental and historical background, environmental data and details of all the prehistoric archaeological sites were

integrated into a Geographic Information System (GIS) database. The relationships between prehistoric sites and a number of environmental variables were then examined.

The dissertation lays the foundation for further examination of the prehistoric archaeology of Kawau Island and also fills in a gap in the knowledge of Hauraki Gulf archaeology.

Justin I. SHINER. B.A. Hons dissertation. 1999. *Stone Artefact Assemblage Composition at Stud Creek, Sturt National Park, New South Wales, Australia*. Anthropology Department, University of Auckland. 1 page abstract, (x) 102 pp., 27 figures [including 3 col.], 13 tables, 2 appendices.

This dissertation presents an analysis of the composition of the Stud 1 and Stud 2 lithic assemblages from the Sturt National Park in northwestern New South Wales, Australia. The objective of this analysis is to investigate patterning in the structure of lithic assemblages from the surface archaeological record. It is argued that the Stud Creek lithic assemblages are palimpsests which have accumulated from an unknown number of behavioural events within the last 4,000 years. They are regarded as time-averaged records of human behaviour whose interpretation is beyond the scope of ethnographic scales of explanation. However, they have the potential to inform about the long-term processes that structure the archaeological record at Stud Creek.

To analyse the composition of the Stud Creek assemblages, the concepts of curation, artefact use life, occupation duration and the intensity of raw material utilisation are used to examine artefact discard as a time-dependent process. Heavily curated artefacts with long use lives have a lower probability of discard than lightly curated artefacts with short lives. As occupation duration increases, so does the intensity of raw material utilisation. An assemblage from an intensively occupied place will contain a high proportion of curated artefacts and have evidence of an intensive utilisation of raw materials, i.e., heavily reduced cores. By analysing assemblage composition from this perspective, it is possible to examine long-term use of the landscape by Aboriginal people.

Applying these concepts to the Stud Creek location indicates that this is a place where Aboriginal people spent enough time to discard heavily curated tools and intensively utilise non-clast silcrete. It is concluded that Stud Creek represents a "persistent place" because it was abandoned and re-occupied on many

occasions. However, these visits were most likely fleeting and sporadic in nature.

Katherine A. SZABO. B.A. Hons dissertation. 1999. *Shellfish Gathering and Foraging Behaviour: An Investigation Into Optimality and Mollusc Remains from Prehistoric Motutapu Island*. Anthropology Department, University of Auckland. 1 page abstract, (vii) 63 pp., 12 figures, 5 tables.

Optimal foraging theory has been developed over the last three decades to investigate decision making and behaviour in animals. Based on neo-Darwinian principles, it is assumed that greater efficiency in area such as food procurement will enhance reproductive fitness. It is well recognised that human behaviour is motivated by both biological and cultural factors, and thus optimal foraging theory can be seen as a heuristic device that isolates cultural motivations for behaviour by accounting for the purely biological.

This study attempts to gain insight into changes in shellfish gathering patterns on Motutapu Island by applying optimal foraging theory to the investigation of molluscan assemblages from three sites - one 'Archaic' [R10/24] and two 'Classic' [R10/497 and R10/494]. Through the reconstruction of the palaeoenvironment for each site, different gathering strategy sets can be considered and the most optimal strategy isolated. Through a comparison of the proposed optimal strategy and the actual remains represented in each assemblage, insight can be gained into how far people were motivated by biological concerns. Results show that 'Archaic' residents of Motutapu Island were exploiting shellfish in a manner congruent with the optimal model. The 'Classic' assemblage show a divergence from the hypothesised optimal shell-gathering strategy, meaning that factors other than the purely biological were influencing decision making. This discovery has major implications for settlement patterns on Motutapu, and the function of the island in prehistory.

M.A. THESES - 1999

Mark D. McCOY. M.A. thesis. 1999. *Agricultural Intensification and Land Tenure in Prehistoric Hawai'i*. Anthropology Department, University of Auckland. 1 page abstract, (xi) 148 pp., 89 figures, 24 tables, appendix.

The creation of plots in the north Kohala dryland agricultural field system on the island of Hawai'i is documented through identifying and ordering superimposed construction of field walls and trails. Two recently surveyed

portions of the fields (Kahua and Kehena Study Areas) are divided into relative chronologies of construction similar to the existing chronology from the Detailed Study Area of Lapakahi. All three relative chronologies are generalised into four chronological stages.

Stone and earthen walls improved land for agricultural use by acting as windbreaks, inhibiting erosion, and slowing evapotranspiration. The addition of walls to a given area of the fields constituted an investment of capital into permanent infrastructure to increase the productivity of the landscape. Two pathways of this kind of capital intensification are found in the chronologies. One relies mainly on the intensification of a given area after early, rapid expansion (e.g., Kehena and Lapakahi), the other incorporates expansion along with intensification (e.g., Kahua).

Trails acted both as transportation routes between the coastal and upland zones, and as boundaries between ethnohistorically known traditional land units called *ahupua'a*. In the first stage, prior to the creation of the *ahupua'a*'s boundary trails, field plots were large. At this stage, the ancestral land tenure system in which lineage lands were held in common with some level of chiefly controls, was in place. In the next stage, *ahupua'a*'s boundaries were created. At this stage there is a dichotomy between large plots and small plots within narrow strips of *ko'ele* lands (chiefly farms). These changes mark a shift to the territorial land tenure system in which the elite held exclusive control over all lands. In the following stages, the landscape is divided into many small, standardised plots which facilitated the management of production. Overall, the elite may have underwritten capital investment in the fields to increase their income from the taxation of production.

Bridget MOSLEY. M.A. thesis. 1999. *Problems in Providing for Cultural Concepts Through Legislation. Wahi Tapu as Cultural Heritage*. Anthropology Department, University of Auckland. 1 page abstract, (viii) 163 pp., 5 figures [including 1 col.], glossary, list of abbreviations, 2 appendices.

There have been a number of attempts to define *wahi tapu* in New Zealand legislation and to set out administrative procedures for their management. This thesis looks at the provision made for the protection of *wahi tapu* within heritage legislation in New Zealand and the issues which arise when cultural concepts such as *wahi tapu* are placed within a legislative and administrative context.

Statements made by Maori authorities about *wahi tapu* are compared with the wording of statutes, interpretations made by the courts, and planning decisions. The circumstances which arose when two local authorities attempted to provide for places of significance to Maori within their proposed district plans are used as case studies. The public submissions on the plans are analysed. Concept of private interest and the public good are discussed in relation to the management of heritage places.

Many *wahi tapu* may also be identified as archaeological sites and consequently, different values may be attached to a single place. Analysis demonstrates that a high degree of overlap between archaeological and Maori values is assumed. As a result, decisions are made which attempt to mitigate the effects of development on the physical aspects of the place, rather than providing for the cultural and spiritual relationship between people and the place, which is stated to be a matter of national importance under the Resource Management Act.

Takuya NAGAOKA. M.A. thesis. 1999. **Hope Pukerane: A Study of Religious Sites in Roviana, New Georgia, Solomon Islands.** Anthropology Department, University of Auckland. 1 page abstract, (x) 206 pp., 55 figures [including 3 col.], 24 tables, appendix.

This thesis focuses on religious sites, one of the poorly explored fields in Melanesian archaeology, in the Solomon Islands. The study is conducted at two scales of analysis: the entire Solomon Islands, and the Roviana region of the New Georgia group.

At the broader scale, the variability of religious sites in the Solomon Islands is investigated to examine the nature of their diversity. Depending on the degree of similarity among religious sites, it is possible to delineate four levels of cultural areas: language area, major island, interaction system, and island group. Three mechanisms - origin, interaction, and internal differentiation - functioned differently at each level to create this cultural pattern. Their comparison, including the cultural and linguistic information surrounding the sites, provides a fruitful result.

Based on the field data, religious sites on Roviana are analysed along two dimensions: typology and spatial patterning. The typological analysis illustrates a temporal change in shrine form and content during the 15th century. Available radiocarbon dates and ethnohistoric information suggest an early type of shrine

was constructed from at least 1300 A.D. to 1400 AD, and the later type shrines were built from 1400 A.D. to the turn of this century. Spatial data of religious sites is analysed at three scales: micro, semi-macro, and macro level. At each level, different mechanisms were involved in the spatial organisation.

Further, the function of two types of religious sites in each period is explored with the help of ethnohistoric and ethnographic information. A dynamic transformation in the religious system, which is manifested in the change in the shrine assemblage, is interpreted as part of a socio-political change after the coastal dispersal of inland tribes in the late prehistoric period. This study demonstrates religious sites provide useful information to shed light on socio-political and ideological aspects of past society.

M.A. THESIS - 2000

McCracken, Elisabeth H.M. M.A. thesis. 2000. *Fragments of Headhunters: The Pattern and Causes of Depopulation in the New Georgia Group, Western Solomon Islands*. Anthropology Department, University of Auckland. 1 page abstract, (vi) 111 pp., 5 figures, 4 maps, 11 tables.

This thesis investigates the pattern and causes of population decline in the New Georgia Group, Western Solomon Islands from 1788-1931. The aim is to explain the rate, scale and timing of depopulation and to explore the causes of the differential pattern of population decline within the group.

A model which incorporates data and theories from epidemiology and anthropology is proposed. This is a two part model which allows the examination of general causes in population decline and the assessment of the local factors which contributed to the particular pattern of depopulation in a given locality. It thus contextualises the process of depopulation within a particular environmental, social and historic milieu, and therefore provides more comprehensive explanations.

This thesis combines historic and archaeological data about depopulation in the New Georgia Group. The inclusion of archaeological data contributes a record of pre-contact population and enables a more accurate and detailed analysis of the trajectory of population change.

It is conservatively estimated that the population of the New Georgia Group declined by at least 50% between 1788-1931. The major cause of this decline

was the introduction of European diseases and the practice of head-hunting. Differences in the patterning of population decline within the group are largely attributable to social organisation, settlement patterns and population movement.

M.A. DISSERTATION - 1999

David Francis GARDNER. M.A. dissertation. 1999. "*Conversations with Papa Tom*" (*Pa Tuterangi Ariki - Sir Thomas Davis, K.B.E., M.D.*). *The Construction and Voyages of the Two Replica (Pahi) Canoes of the Southern Cook Islands, Rarotonga. The Takitimu and the Te-au-o-Tonga.* Anthropology Department, University of Auckland. 2 page abstract, (xxxviii) 749 pp., 115 figures [including 1 col.], 18 maps, 117 plates [including 1 col.], 17 tables, 14 appendices.

This dissertation focuses on the building of two replica canoes (*pahi*) from the Southern Cook Islands, namely the *Takitumu*, a Samoan *ali'ia* class vessel and a one-third in scale from oral history accounts of the original vessel, and secondly, the *Te-au-o-Tonga*, a Tipairua class of vessel, based on a design from Tahiti and the Tuamotu Archipelago.

These two vessels are found in Cook Island oral histories and were instrumental in bringing the earliest colonists to live permanently on the island of Rarotonga as well as carrying the founder populations of other Southern Cook Islands. *Takitumu* is also of major importance to the colonisation theory and founder populations of Aotearoa/New Zealand, with the crew of the highly sacred vessel bringing the first immigrants to New Zealand's shores.

While it is outside the scope of this dissertation to examine these two original vessels in depth, interpretation of the voyaging traditions of both these vessels in relation to Cook Island society, as well as voyages made by these two new vessels, is made.

This dissertation explains through text, figures, plans and plates, the building sequences of these two replica vessels. It describes how and why they came into reality and continues on to relate and explain some of the social impact of various ceremonies linked to the past which were used by the present population.

M.A. DISSERTATIONS - 2000

Natasha A. LYNCH. *Culture Change and Development in New Zealand Archaeology and Art History: An Interdisciplinary Approach*. Anthropology Department, University of Auckland. 1 page abstract, (v) 62 pp., 3 plates, 7 tables, appendix.

The explanation of prehistoric culture change and the factors which triggered the development of art styles from early East Polynesian forms to those observed at European contact remains a problem for New Zealand archaeology. The development of Maori art is also a problem for art historians. In this dissertation, the author demonstrates a series of theoretical parallels in the attempts made by archaeologists and art historians to explain culture change and the development of Maori art forms. This study attempts to align theoretical facets of both disciplines and proposes an interdisciplinary approach to further stimulate interaction between the two.

Past archaeological attempts at explaining culture change have included the construction of unilineal developmental sequences, in the form of evolutionary based models, two and three phase models and regional assessments. Currently archaeological research attempts to explain the development of pre-European Maori culture in terms of a rapid economic transformation, rather than a series of developmental stages.

The study of Maori art objects in art history is a relatively new development, one that has occurred only since the elevation of selected artefacts to an art status approximately two decades ago. Art historical theories for the development of Maori art have also included developmental sequences and regional examinations. Generally, contemporary art history ignores the development of art in Maori prehistory altogether, opting instead for analysis of art produced during later Maori culture change (from European contact). The specifics of both disciplines' analyses are dissimilar, but parallels are evident in their similar theoretical constructions, which present change in a series of stages, and the fact that both study art objects and artefacts including wooden carvings, weapons, and ornaments.

Neither discipline has provided satisfactory explanations for the developmental questions which remain, and the author argues that their success has been limited by the fact that neither field fully factored in the other's theoretical considerations. The use of developmental sequences to explain New Zealand

prehistory is critiqued, and support is given to a recent archaeological proposition that the material culture is incompatible to a unilineal development scheme. Accordingly, through a detailed investigation of the compatibilities of both fields, it is proposed that an adequate explanation of culture change and the development of art may be reached through a synthesis of the two disciplines' approaches.

Mica C. PLOWMAN. M.A. dissertation. 2000. *The Archaeological Use of Historic Ceramics as Indicators of Status and Class: His Majesty's Theatre Ceramic Assemblage - A Case Study*. Anthropology Department, University of Auckland. 1 page abstract, (viii) 262 pp., 39 [including 24 col.] figures, 11 tables, 3 appendices [including 59 pages in colour, 9 tables].

This dissertation combines the use of refined historic ceramics as archaeological indicators of social group membership or socio-economic status. Several American based studies and the methodologies they present for relating ceramic data to documentary evidence of socio-economic position are reviewed and critically discussed. Although these studies have succeeded in correlating variation in ceramic attribute patterning with socio-economic level, the results are often ambiguous or contradictory. They identify a range of complex variables other than economic position that operate to influence the composition of ceramic assemblages, emphasising the need for data relating to household structure, duration of the period of observation and patterns of local ceramic supply as important factors influencing the proportion and type of ceramics encountered on historic sites.

This research also presents and discusses the findings from archival research of Auckland newspaper advertising that was undertaken to understand aspects of ceramic supply in 19th century Auckland. This data highlights the limited utility of the proportional artefact measures identified in the American literature for distinguishing patterns of 19th century socio-economic stratification among ceramic assemblages from New Zealand's historic archaeological sites.

The ceramic assemblages from His Majesty's Theatre site were analysed utilising the information gleaned from the archival newspapers and the American studies. The principal aim of this analysis was to identify possible differences between these assemblages and to determine whether these differences could be explained in terms of socio-cultural or status distinctions. The results of this analysis substantiate the conclusions the author has drawn from the American studies and archival data by demonstrating that in the

absence of sufficient contextual data relating to archaeological site occupations, basic proportional measures are essentially descriptive devices that have limited interpretive value.

Ph.D THESIS - 2000

Toru YAMAGUCHI. Ph.D. thesis. 2000. *Cook Island Ceremonial Structures - Diversity of Marae and Variety of Meanings*. Anthropology Department, University of Auckland. 2 page abstract, (xv) 319 pp., 73 figures [including 16 col.], 10 tables, 2 appendices.

Ethnographic accounts recorded from a number of its islands illustrate that *marae* or ceremonial structures in East Polynesia are richly polysemic, their significance spreading out in an embarrassment of directions. Yet it is fair to say that archaeologists have hardly approached the great variety of meanings encoded in *marae*. Most previous studies have generally constrained inquiring into the local characteristics of ceremonial structures in order to build general models of social evolution. Critical reconsideration of these insights provides a new perspective derived from contextual archaeology. The principal aim of this study, therefore, is to interpret a variety of local meanings encoded in *marae* in the Cook Islands in accordance with this new perspective. For this purpose, the author documents the considerable diversity of ceremonial structures in this island group, mainly on the basis of data which were collected during the 1985, the 1989-1991, and the 1995-1996 Keio University Expeditions to the Cook Island Group, including the author's own 1995 research in Tongareva Atoll.

It would, however, be impossible to interpret all the meanings encoded in Cook Island ceremonial structures. Therefore, the author focuses on the concept of cultural landscape. It is a product which has been formed by interaction between a local culture and a local environment or by human imposition of local meanings onto a local environment. Seen in this light, the construction of ceremonial structures can be viewed as a physical action of such and event. The concept of cultural landscape, therefore, involves taking up the issue of why *marae* provided with particular morphological characteristics exist in a particular locale. Data related to this issue include the morphology and configuration of elements comprising a *marae*, the configuration of these elements, orientation, and the various features related to its location. They also include the spatial associations with other architectural features, and more general aspects of the cultural context. Comparison of these visible

characteristics among *marae* - along with ethnographic accounts - provide suitable contexts relevant to examining various sets of meaning encoded in each *marae*.

The substantive research includes three case studies. The first of them demonstrates that *marae* are intimately related to certain aspects of the Tongarevan prehistoric society in the Northern Cook Islands including economic, social and political, as well as ideological and cosmological factors. It is also noteworthy that every *marae* does not necessarily share the same set of meanings. This reflects a situation in which *marae* turn out to be associated with various socio-political levels – ranging from households to the entire atoll – formed within a society that is segmentary in nature. *Marae* thus carry a variety of meanings peculiar to each social unit at various levels, as well as serving as territorial markers at a main socio-political level, that of the level of the largest and most stable social units called *huaanga*.

The perspective developed in the analysis of the Tongareva case – ceremonial structures are richly polysemic – is also the analytical base of the next two case studies of religious structures of Rarotonga and Mangaia in the Southern Cook Islands. The comparison between the three islands, however, provides still another viewpoint. *Marae* in the islands exhibit homogeneous or heterogeneous patterns in morphology and location, but these are not directly related to the degrees of socio-political complexity. This suggests that the realisation of local meanings which vary relative to islands must be examined in detail before linking ceremonial structures too facilely with political hegemony or social evolution in some overall framework.

The above perspective derived from the three case studies leads to a reconsideration of the diversity of ceremonial structures in the Cook Island Group and throughout East Polynesia. First, the diversity can be observed most directly in the Cook Islands. This is quite sufficient to cause a revision of the prevailing image that East Polynesian ceremonial structures all share basic morphological elements. If the aim is not constructing a general model of ceremonial structures, but instead scrutinising their diversity, it becomes necessary to refer to sets of local meanings varying not only within each island but also within each *marae*. The author believes this may prove to be an effective approach for a new range of *marae* studies. Moreover, it would also contribute to the development of a more recent perspective designated 'landscape archaeology' which aims at approaching various aspects of the built environment including the physical, social, economic and ideological.