

# Archaeology

## Completed BA (Hons) and PGDipArts Dissertations

2021

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**Beens, Nève Maria (2021) *Archaeological Shellfish Exploitation in the Port Moresby Region of Papua New Guinea***

This dissertation examines the archaeological exploitation of shellfish in the Port Moresby region of Papua New Guinea. Six key sites are examined from this area. It provides a critical review of the current archaeological evidence available in the literature on the types of shell exploited for subsistence and artefacts as well as what artefacts were created with these shells. It achieves this by delving into the top species of molluscan taxa used for subsistence in the archaeological record from each of the key sites. The recording of top species will be repeated for the artefactual shell at each site. The artefact types found at each site are also recorded. The information on shell recorded from the sites is then used to relate the subsistence and artefact data back to the wider cultural complex and sequence of the Southern Papuan Coast. The research undertaken implies that archaeological shellfish exploitation in the Port Moresby region of Papua New Guinea at each of the individual sites was a part of a wider interconnected cultural tradition of shared ideas and trade. The shellfish exploitation is then critiqued and recommendations for future research is provided.

**Cheetham, Bradean (2021) *Back to the rules: an argument for centralized Pa typology.***

This dissertation presents a discussion of the issues surrounding the recording and understanding of Pa with a focus on Kaipara and Taupo Pa. The history of discussion surrounding Pa has been plagued with problems and the current state of site recording has not helped in the matter. NZAA's Archsite (2009) has Pa listed as a site type which sites can be recorded as however NZAA's site recording handbook does not acknowledge or prescribe a centralized definition of Pa. In this dissertation I argue that this lack of consensus and leadership on the part of governing bodies has stagnated the conversation surrounding archaeology and compromised the quality of data available for archaeologists to work with. This dissertation suggests that based on the level of consistency which can be observed within Pa in the Kaipara and Taupo regions there is no reason that a centralized typology and effective standards of quality should not be instituted when recording sites and assigning them categories.

Extensive literature review is used to discuss the complex history of this subject and exploration of site records on Archsite (2009). The literature review covers the two hundred years of discussions which have been had surrounding the form and function of pa and the typologies which have been engineered in the past to try and bring order to the discussion of Pa sites. The

latter sections cover the highly variable quality of information available about Pa on Archsite (2009) and the consistent variables which can be observed between Pa as a basis for the development of explicit Pa typologies.

**Dixon, Jordan (2021) *Ornament and Oratory in Far Eastern Oceania: An Analysis of Ornament relating to the Development of East Polynesian Societies***

This dissertation examines the ornaments worn and utilized in East Polynesia for the purpose of developing and maintaining power structures. Through this analysis linkages are made between the trajectory of societal development and the underlying messages surrounding ornaments worn by the ruling classes.

The purpose of attempting to create this new framework is to support already prevalent theories concerning the structures of these societies.

Three contexts are analysed in this dissertation: The Marquesas, Hawai'i and New Zealand. The first of which is located in Central East Polynesia, and a probable site from which colonists from Hawai'i and New Zealand first originated. The Marquesas were also colonised around the same time as the Society Islands with frequent contact between island groups. As a result, the colonists from all three contexts would have come from the same or a similar origin point with identical power structures. Of the three contexts, three ornament types are analysed for their messages and purpose to the wearer and its society.

To be demonstrated in the discussion, the main differences between the island groups lie in their religious and ritual practices. This is supported through messaging relating to the right to rule by a chief or any other ruling elite such as the *tau'a* of the Marquesas.

**Filippi, Adelie (2021) *Polynesia Under the Microscope: A Review of Microbotanical Analysis as Applied to the Archaeology of Polynesian Crop Species***

Botanical analysis is becoming an ever more crucial component of archaeological studies in the modern era, and a key subset of this that has been gaining traction in recent decades is microbotanical analysis. Study of microscopic plant materials such as pollen, phytoliths, starch, and calcium oxalate can provide a direct and crucial line of evidence for examining ancient human-plant interactions. Polynesia is a key area of interest for such research, its recent colonization history and diverse, disparate island landscapes providing a unique opportunity to study the dispersal and adaptation of set agricultural species and traditions through a set of new and sometimes marginal environments. This dissertation provides a review of the use of microbotanical techniques in Polynesia, examining the contributions that pollen, phytolith, starch, and calcium oxalate analysis have made to the study of Polynesian agriculture and assessing the merits, flaws, and limitations of each technique.

**Hickford, Madison Paige (2021) *As Above, So Below. A close study of the materialisations of death of the Port Chalmers Old Cemetery***

Hidden away above the portside town, The Port Chalmers Old Cemetery reflects the ideas surrounding death held by the Port Chalmers community of the mid-to-late 19th century and the early 20th century. The recording and

analysis of specific burial attributes revealed how these ideas are materialised by the cemetery through its layout, location, burial enclosures, and markers such as the headstones. The analysis of these attributes revealed some of the most common choices being made by the community in the burial and commemoration of the deceased. Discussion of these choices aimed to reveal why they were made and what they may have meant to members of the Port Chalmers community. A key idea identified in the establishment of the cemetery was status, influenced by wealth, and is subsequently seen in the materialisations of the cemetery.

**Lee, Latisha Desiree (2021) *Soil, Pits, and Southern Adaptation: A Review of Neolithic Polynesian Crop Production across Northern Te Waipounamu***

Neolithic horticulture played an important role in precontact Pacific Island life and directly influenced the development of social complexity. The importance of Neolithic horticulture can be reflected in the translocation of tropical cultigens from eastern Polynesia, and their successful adaptation to suit New Zealand's highly variable climate, as indicated by the archaeological evidence left behind. This dissertation examines archaeological studies of Neolithic horticulture at Oceania's southernmost margins of production. It provides a critical review of published literature and archaeological field evidence for Neolithic Polynesian crop production spread across northern Te Waipounamu. It raises important problems that are hindering this subject including a lack of clarity surrounding the introduction and dispersal of tropical cultigens across New Zealand, and the ambiguity still surrounding archaeological evidence of Neolithic horticulture. In addition, this dissertation seeks to understand when, where, and how Polynesian crops were established across New Zealand's cool southern margins of production. This will be achieved by using an environmental perspective and considering factors such as local soil types, local environmental aspects, and climate. Published radiocarbon dates were compiled and updated against the most recent 2020 curves. A Bayesian model was further used to test the dates from Triangle Flat, western Golden Bay. The research of this dissertation assessed how archaeologically recorded Neolithic horticultural sites were distributed across southern margins of production. This in turn, helped to better understand settlement patterns, southern adaptation, and the exploitation of suitable environments.

**Sadlier, Renée (2021) *Sustained Engagement: A Critical Review of the Intersection of History and Archaeology in the study of Cultural Engagements in the Bay of Islands 1815-1840.***

The erasure of indigenous histories is a growing concern within the academic fields of history and archaeology. Although these disciplines function individually to offer important insights into colonial engagement and culture change, an interdisciplinary approach which draws upon methodologies from both history and archaeology may provide a more sufficient understanding. The interpretation of colonial pasts through documentary sources alone can lead to misrepresentation of cultural engagements and erasure of indigenous perspectives. This study reviews the discrete bodies of knowledge from

history and archaeology in reference to the case study: the Bay of Islands from 1815 to 1840. This study finds that our understanding of the Bay of Islands during this period is predominantly informed by historical sources, and that there is a substantial gap in the archaeological literature. This study also finds that history is heavily reliant on the documentary sources of European missionaries. This study recommends that further archaeological enquiry relating to the case study would benefit future collaborative approaches. Together, history and archaeology offer the opportunity to gain a more nuanced perspective of cultural engagement during the period of sustained European contact.

## 2020

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**Baker-Anderson, Sabre (2020) *New Archaeozoology techniques and their potential application in New Zealand***

This dissertation examines the new revolutionary techniques that are now being used in archaeozoological studies around the world. Developments in ancient DNA techniques, Zooarchaeology by Mass Spectrometry, geochemical analyses, and 3-Dimensional techniques have created new research opportunities in archaeozoology that were not possible before and have allowed for a wider range of past human patterns and behaviours to be analysed. The potential of using these techniques to study diet, hunting and mobility patterns, human impacts on domesticated animals, ritual practises and obtaining finer seasonal resolution is demonstrated by examining the application of these techniques on the faunal assemblage of Wairau Bar. There is also potential for these techniques to shed light on the colonisation processes of Wairau Bar.

**Muller-Murchie, LilliKoko (2020) *Climatic and Human Impacts on Bats during the late-Pleistocene to mid-Holocene in the Highlands of Papua New Guinea.***

Bats (Order: Chiroptera) are overlooked as bioindicator proxies within both the archaeological record and other disciplines. This is evident within the limited literature using them as bioindicators, instead using either extinct megafauna or floral species. This study aims to determine the implementation of bats as a proxy bioindicator species, within both the highlands of Papua New Guinea and international archaeological sites. To test the hypothesis that bats are good bioindicator proxies for environmental change, a detailed review of three sites faunal assemblages encompassing the Terminal Pleistocene to mid-Holocene, Kiowa, Yuku and Nombe's will be conducted. Evaluating the impacts of both climatic and human induced change upon the New Guinea prehistoric bat populations. As well as determining the usage of bats as bioindicators. The results suggest that bats should be implemented as bioindicator proxies throughout the archaeological literature for both climatic and human induced change.

**Warne, Oliver (2020) *The Application of Soil and Sediment Chemical***

### ***Analysis to Archaeological Investigations in New Zealand.***

The chemical analysis of archaeological soils and sediments is an underutilised resource in investigations of the Polynesian settlement of New Zealand. Through a targeted literature review and the application of chemical analysis to case studies, including original analysis of previously unpublished data, this study aims to show the effectiveness of soil and sediment element identification as a tool for minimally invasive data collection. Archaeological studies of the domestic context show that it is possible to identify specific features using multielement analysis allowing for targeted excavations and interpretations about the functional areas of a site. An examination of agricultural soil studies demonstrate that it is possible to identify the location and the potential suitability of soils for agriculture. Pollen core studies are an established technique for environmental analysis in archaeology but an examination of the elemental concentrations from the same cores are able to reveal more data than traditional methods alone. The potential applications for the techniques discussed in this dissertation include the ability to target features during excavation using chemical data, identifying and analysing garden soils and investigating and timing sedimentological evidence of human settlement and impact on the environment.

## 2019

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### **Benham, Rebecca Waikuini (2019) *A Tree Known By Its Fruits: Applying Experimental Data to Archaeological Kōpi Samples to Compare Research Zones.***

The importance of the Kōpi tree *Corynocarpus laevigatus* (Māori Karaka) to Moriori has been contested. Kōpi is recognised for its cultural importance through the evidence of carved trees (rākau momori), but the significance of the fruit as a food source is not as easily seen or accepted. This research will add to our current understanding of kōpi importance in the diet of Moriori by comparing carbonised kōpi samples from three different research zones on Rēkohu (Chatham Islands). These are Point Durham, Lake Huro, and Kairae and Taia Historic Reserves. This research applies experimental archaeology by mimicking the cooking and steeping process Moriori undertook to detoxify the kernels. The experimental samples were carbonised and analysed for physiological changes in size. The results of the experimental research are used to bridge the divide between fresh kōpi fruit and the carbonised archaeological samples by creating ratios of size loss. The ratios are then applied to the archaeological samples to reconstruct theoretical drupe sizes of the specimens before carbonisation. This exercise provided for a comparison of the size of kōpi fruit between selected Rēkohu regions, and karaka data from mainland New Zealand. By comparing the sizes of kōpi from these zones the author will identify any patterns which will add to our current understanding of arboriculture or agroforestry in Moriori society. This study identifies kōpi seeds are comparable in size from sites of leeward and more challenging windward environments. Smaller kōpi are identified from the inland Lake Huro side, possibly reflecting

differences in environment, or management practices.

**Bluck, George (2019) *The Hungry, Hungry Pa: An examination of the ecological model for the arising of socio-political complexity in Hawke's Bay, New Zealand.***

This thesis is an investigation into the rise of socio-political complexity in Hawke's Bay, New Zealand. Archaeologists do not fully understand the role that pa and open site type's play in both relation to themselves and to the geography of the local region, such as rivers and lakes. There are currently three main theories to describe the arising of socio-political complexity that have been proposed by Timothy Earle (1991). These are coercive physical power, economics and ideology. Mark Allen (1994) investigated the Mid-Hawke's Bay region through the surveying and excavation of pa and related this archaeological data to the ethno-history, ecology of the local iwi and environment. The economic theory was used to create an ecological model based off intensive kumara production for the arising of socio-political complexity of the local chiefdoms. However, Allen noted that ecology did not fully account for the rise of complexity of the local chiefdoms. The claim of this thesis is that there must be another theory or more than one model for the rising of complexity amongst the chiefdoms of Hawke's Bay. The author of this thesis sets out to test the validity Allen's (1994) ecological model. This analysis was achieved through the utilisation of GIS (Geographic Information Systems). By creating maps, it enabled a near analysis to compare distances between different site types, pa and pit/terrace raster points (obtained from Archsite) to each other and to nearby geographical features such as lakes and rivers, as well as to observe the spatial patterning of sites across the landscape. This data was then compared to the ethno-historical data and the ecological data used by Allen to help inform the function of sites in relation to their environment. The conclusions reached from this study found that there were two models operating the variation in the site location and distribution. These were power and ecology. The power model affected the placement of pa, whereas the ecological argument affected the placement of pit/terrace site types.

**Costa Lopes, Natalia (2019) *Monumental Architecture in the Amazon Basin: Evidence for Social Complexity.***

This dissertation investigates monumental architecture in the Amazon Basin. It addresses this via four main research aims; the type of each monument present in the Amazon Basin, the assessment of observed patterns in their spatial and temporal distributions, the variation of spatial and temporal patterns, and the assessment of those factors in relation to complexity models. Observed patterns were examined and presented through an ArcGIS spatial distribution figure and a frequency-seriation map of the regional temporal distribution of each monument types.

This research aims to study the Amerindian societies present in the

Amazon Basin during pre-historic, and occasionally lasting through to the 1600's. These societies were almost completely wiped out by the Europeans due to introduction of new disease, slavery, and other factors. By studying these societies, the thesis aims to analyse their impact on the landscape through monumental architecture and how these have marked Amerindians' adaptation, evolution and socio-political complexity. The thesis predicts a wide range of monumental architecture which will demonstrate different levels of social complexity throughout the Basin. It predicts it will not, however, showcase any societies with very low complexity as monumental architecture, and therefore, landscape management, requires a certain level of socio-political organization.

**Morete, Anna (2019) *Movement and Technology of Obsidian in Late-Lapita Society: An Analysis of Amalut assemblage to gain insight into the technology, movements, and interaction of the Late Lapita period.***

Obsidian analysis is commonly used in archaeology to gain insight into the nature of Lapita sites. It is able to provide the opportunity to learn about not only the small scale, site-level information, but also how it relates to other Lapita sites around it. This obsidian assemblage from Amalut studied in this dissertation acts as one of many pieces in the ongoing Lapita puzzle. Analyses on the source and technology of the assemblage was undertaken in order to learn about the nature of Amalut, a Late-Lapita site. The technological analysis showed that the material was maximised to quite a high extent, as evidenced by numerous attributes and methods of lithic reduction such as bipolar technology. The source analysis showed that four different obsidian sources were present in the 114-piece sample. The most significant of these was a handful from West Fergusson, a source that had only been seen in the Bismarck Archipelago in one other site. The two components that were analysed in this study were able to provide insight into the nature of society at Amalut, as well as its place in the wider network of obsidian movement and interaction.

**Thorrold, Claire (2019) *Argillite and Adzes: Adze Manufacture and Trade in Early Settlement New Zealand.***

The topic of this dissertation studies the adze production and trade industry in early New Zealand, with a particular focus on the production, trade and use of D'Urville Island argillite from the Nelson Mineral Belt. A review of historical lithics, and adze studies in particular is presented, that critiques the tendency to prioritise the study of the complete, 'final forms' of the adze. This research raises the importance of understanding all aspects of the manufacture and use of adzes, while also considering how social and economic factors influenced the adze industry.

The research in this dissertation builds on the pioneering model developed by Marianne Turner, referred to as the Source and Trade model, wherein one local community accessed the high quality raw material, completed initial flaking of the preform, the adze was then traded out through a network of communities who continued the manufacture, before reaching the final group who used and reused the

adze. This dissertation applies this model to the D'Urville Island argillite by analysing adze material from Kawatiri and Waitaki River Mouth sites. The methodology proposed identifies what stage of manufacture was occurring at each respective site, and where each site fitted in to the adze production sequence. The stage of production at each site is determined through the analysis of various attributes related to adze manufacture, such as cortex and polish. The adze production sequence is used to understand the role and activities of each respective site within the trade and manufacture network, and to understand the expanse of the network and the complex, inter-community relationships involved.

**Keywords:** Adze, argillite, manufacture, trade and exchange, New Zealand.

**Wallis, Samuel (2019) *Obsidian sourcing and reduction during Early and Middle Lapita: A View from Kamgot in the Anir Islands.***

The aim of this research is to obtain understanding about the use of obsidian at the site of Kamgot (ERA) in the Anir islands of Papua New Guinea and assess how this use fits into current models of resource use in the region. The first major aspect of this research was the geochemical sourcing of obsidian using pXRF which identified that artefacts from the 155-piece assemblage originated from either West New Britain or the Admiralty islands. The second aspect involved was a technological analysis to understand the nature of obsidian reduction at the site. As the obsidian excavated from the majority of Kamgot was found in mostly Early Lapita contexts, with a small number from later Middle Lapita contexts, an attempt was made to identify temporal changes in reduction strategies, presence of resource maximization and whether there was a change in source selection. The geochemical results showed that there was Admiralty islands obsidian found only during middle Lapita with an increasing presence over time, particularly in the sites most recent layer. Technological data built upon knowledge of resource maximization at the site and highlighted changes in reduction strategy employed between sources and time periods.

## 2018

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**Grainger, Arthur (2018) *Investigating the Nature of Mobility Patterns and Interaction Through Ceramic Production at the Late Lapita Site of Amalut.***

This study will use a physico-chemical analysis to look at the nature of settlement patterns of the Late Lapita period from ceramics at the site of Amalut, located in the Arawe region of West New Britain in the Bismarck Archipelago. To achieve this, firstly physico-chemical analysis will be used on the ceramics from Amalut (FOL) to study its clay matrix and filler constituents. Secondly, the results from this chemical analysis will be



compared to previous studies by Hogg (2007), Hennessy (2007), and Wu (2016) for showing the changes in Lapita mobility and production of ceramics overtime. These will help test the hypothesis in Summerhayes (2000) that there was a reduction in ceramic production centres overtime as in indication of settlements becoming more sedentary.

**Jones, Joanne (2018) *A Review of the Romano-British Pottery in the Otago Museum.***

This thesis attempts to put together a representative sample of Romano-British pottery vessels, from the Otago Museum, Dunedin, into a sample of tableware's that represents various forms that would have been used in Roman Britain during the 1st, 2nd, and 3rd centuries. This representative sample is looking at both early imported wares, and later locally produced wares. Chapter one is an introduction to Romano-British wares, comprising an overview of the different pottery types that are found in Roman Britain, discussing; background, colours, forms, decoration and the potters and their workshops. Chapter three presents the analysing methods conducted in the research process, from laboratory analyses to background research. Chapter four is an analytical catalogue of the tableware set from the Otago Museum collection. Chapter five is the results of the analysing, which leads into chapter six, drawing the discussion together in a concluding discourse.

**Miralles, Jorge Eduardo Fuenzalida (2018) *Representation of the Cultural Heritage Places of the Mana Whenua in the Dunedin Landscape.***

Cultural landscapes describe the spaces that people shape and live in, as a result a relationship is formed between the two as people shape the land and the cultural landscapes shape them. Within these landscapes, cultural heritage places provide specific sites that act as a connection to the past for a culture. The resulting interaction mean that both cultural landscapes and cultural heritage places play an important role in the creation and legitimization of culture and identity. This importance is not lost on any cultural group across the world, as each has their own defined way of creating and interacting with cultural heritage places.

While every culture has their own interpretations on cultural heritage places, when multiple communities reside in the same landscape, the access and representation of these places may prove difficult to balance. All too often, landscapes of power form in these places, as the cultural heritage places of a dominant culture are superimposed on others. This is an especially prevalent problem in colonial societies such as the United States and Australia. New Zealand provides similar, but less well understood conditions. As an example, the city of Dunedin in the South Island is represented by a long history dating back to its initial colonisation by Polynesians in the 13th-14th century who lived in the land for around 500 years before European settlers arrived in the 19th century. With them they brought an outlook on cultural heritage places that was radically different to that of the mana whenua.

Through qualitative research methods, quantitative and quantitative data was derived from questionnaires and interviews with the mana whenua.

In revealing some of their important cultural heritage places and the values attached to them, they also revealed a general acceptance that other cultures have better representation in Dunedin and provided suggestions to balance this out.

The aforementioned lack of representation, along with the consequences resulting from colonial placemaking and a general change in the use of land, have contributed to a lack of visible cultural heritage representation in the landscape. Furthermore, the categorisation of cultural heritage places also presents a visible way in which Kāi Tahu cultural heritage places are not valued in the same ways as European ones. The place naming that resulted from placemaking also removed the presence of the mana whenua in the landscape, contributing to their 'invisibility'. Cumulatively, these factors all contribute to the creation of an inadvertent landscape of power within Dunedin.

**Murray, Carl (2018) *The Forgotten Quarry: Kokonga Basalt and the Dunedin Railway Station.***

This research used archaeological methods to identify the location of the basalt source which was used in the construction of Dunedin Railway Station. Samples collected from the source enabled a detailed profile to be created of the basalt through laboratory analyses. Macrophotography was used as a non-invasive method to record the mineralogical features of stone used in the Dunedin Railway Station and other stone masonry structures. The macrophotographs also offered a similar magnification to a 10x magnifying lens with the added benefit of creating a preservable image which could be archived. The profile of the basalt created from the laboratory analyses aided in confirming the use of this material in the Dunedin Railway Station and other structures. This allowed for a link to be made between the quarry and the Dunedin Railway Station as well as other structures built from the Kokonga source. This method can be used on any basalt structure if the source is known and if samples are able to be taken for further analysis. The knowledge of the source and the understanding of the mineralogical features of the Kokonga basalt also holds conservation and heritage benefits for structures made from this material, particularly in restorative maintenance of the structures.

**Sahib, Mohammed Haroon Mira (2018) *What Happened to Lapita in West Polynesia?***

West Polynesia consists mainly of small isolated islands such as Fiji, Tonga and Samoa. The study of Polynesian origins have long captivated the attention of archaeologists since the early 1920s. Today, these Islands are considered to be the origins of Polynesian society. Common archaeological models up until recent have said that it was a simple stage of first, Lapita arrived. Second stage was a gradual change and loss of pottery and then the development of ancestral Polynesian society and proto Polynesian language. Third stage although was not well represented archaeologically, there was divergence so that traditional Tonga and Samoan societies developed in states of relative isolation. However, there were also problems occur. First, we do not have much

evidence for the presence of early sites or ancestral Polynesian sites in Samoa. We cannot find any early sites besides the one and only Mulifanua Lapita site in Samoa. We do not know if there are any sites or not. Why we cannot find it because they are not there, others are saying we cannot find it because the land is subsided and they are all underwater. Second, the current work in Tonga is suggesting that things are happening and changing much more rapidly than we have thought.

To that end, the purpose of my thesis is to look at the current stage of knowledge for early settlement of Samoa and Tonga. Re-examined the evidence for settlement and colonisation of both islands. Re-examined the problems of Ancestral Polynesian society. Use GIS to look at the distribution of sites across the landscape.

**Shaw, Stephanie (2018) *Ceramics of the Lawrence Chinese Camp. An analysis of dining and food storage practices.***

The focus of this dissertation is on the ceramic remains from four excavation periods at the Lawrence Chinese Camp in Otago, New Zealand. The ceramics analysed are material from shops, houses and the immigration barracks in the settlement. The Lawrence Chinese Camp was established in 1867 during the Chinese Diaspora of the 19th century and was inhabited into the early 20th century. This dissertation concentrates specifically on those ceramics associated with dining and food storage practices in order to take a look at how dining and food storage preferences differ (or do not differ) from traditionally Chinese practices as the immigrants gain access to other items for these purposes, and how they differ from European dining practices as a group close to but separate from the European settlers. This dissertation includes a look at how identity can influence food practices, and a discussion on acculturation studies. Data analysis of previously examined material was undertaken via a spreadsheet compiled by Laura Davies, and a comparative study was conducted with data produced by Naomi Woods on a predominantly European contemporary site in North Dunedin.

**Wooller, Bree (2018) *The Historical Archaeology of Coastal Trade on the Mahurangi River.***

In the nineteenth and early twentieth centuries, small, isolated settlements dotted the New Zealand coastline. Inland routes had not yet been established, so all transportation, communication, and trade took place by ship. This dissertation examines the archaeological and historical evidence of coastal trade along the Mahurangi River, north of Auckland. It looks at the archaeological footprint of coastal shipping, constructing a narrative that illustrates the nature of early industries and their associated trade. There have been no previous archaeological studies on New Zealand's coastal trade, so this dissertation intends to demonstrate the value of archaeological research in this arena.

Historical and archaeological methodologies were implemented to

identify sites relating to coastal trade along the river. In total, 54 heritage localities, spanning from 1832 to 1933 were recorded. The narratives of identified sites link the Mahurangi into a broader New Zealand context by illustrating the shift from an extractive economy, in which trade was an external process, to a localised trade meeting the needs of settlers and the domestic market. Coastal trade was discovered to be a fast-changing, sometimes drama-laden, activity that was central to the establishment and continuation of frontier communities on the Mahurangi River in the nineteenth and early twentieth centuries.

## 2017

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**Gillespie, India (2017) *A Stones Throw: What Implications the Distributional Extent of Silcrete and Porcellanite Artefacts Has for Studies of Human Mobility in New Zealand.***

Silcrete and porcellanite are two lithic sources that are found in the rugged interior of Murihiku; the southern South Island of New Zealand. When New Zealand was settled in the 13th century AD, climatic restraints meant southern Maori reverted to hunting and gathering subsistence methods in lieu of agriculture. These two lithic sources; silcrete and porcellanite, were exploited in conjunction with native fauna, and to a lesser extent, flora. In archaeology, mobility refers to how humans interacted with and settled landscapes. This dissertation focuses on identifying the distributional extent of silcrete and porcellanite lithics. By identifying the extent to which these lithics were distributed, information on patterns of human mobility and settlement can be studied; particularly in Murihiku.

**Goodall, Bradley (2017) *Hand Specimen Characterisation of Nelson and Southland Meta-argillites in New Zealand Archaeology.***

Hand specimen identification is the most common, cheapest and fastest method of sourcing archaeological stone. Too often the physical traits used to do this are poorly defined. Descriptions of these traits too are often vague and lacking standardisation. The use of a Munsells book of rock colour and a grain size card is suggested and tested with meta-argillite as a solution to this. These are then used in an attempt to create a standard set of characteristics which could be used to aid sourcing of this material.

Use of hand specimen sourcing, its accuracy and other inherent advantaged are described and compared with other methods.

Descriptions of meta-argillite and its geology are reviewed.

Results showed that Riverton and an amalgamation of quarries from Bluff Harbour could be distinguished and sourced with some confidence. From Nelson only Ohana, with its light colour and black streaking could be considered unique. These results demonstrate that the commonly cited "Jet Black" (Duff 1946, Prickett, 1975; 59-60) colour of Mount Ears meta-argillite is not always present, and that it is too similar to other varieties

of meta-argillite (especially Tiwai Point black and Whangamoia material) to be sourced accurately in hand specimen. That there was such ambiguity and diversity on material from results which are based on examination and description of only nine of in excess of 40 known quarries between the two regions casts serious doubt on the accuracy and legitimacy of claims of origin based on hand specimen identification. The development of geochemical or categorisation as a more accurate method, and a means to test the assumptions made by hand specimen sourcing should be a priority in New Zealand Archaeology.

**Henderson, Robert (2017) *The Changing Nature of Lapita Mobility and Interaction. Insight from sourcing and technological analyses of obsidian from Apalo, West New Britain Province, Papua New Guinea.***

This thesis investigates changes in Lapita mobility and interaction as they are reflected by the obsidian assemblage from Apalo (FOJ), a site in the Arawe Islands, West New Britain, Papua New Guinea. The investigation entailed analysis using portable X-ray Fluorescence Spectroscopy (pXRF) in order to allocate 472 obsidian artefacts from excavation squares Z1-Z4 to their geochemical sources. Sourcing analysis confirmed that obsidian from the Talasea region of West New Britain dominated the assemblage across all period of occupation at Apalo, although material from a number of other sources are present in small quantities from later contexts. A technological analysis was also undertaken in order to identify patterns in terms of how intensively the material was reduced over time. The results of this analysis demonstrated a definite shift in the way obsidian was reduced at the site between the Early, Middle and Late Lapita Periods. It is argued that changes in the nature of obsidian reduction at Apalo represent a different level of settlement mobility at each period of Lapita occupation, as a more sedentary pattern was adopted over time. This transition corresponded with a decrease in interaction between Lapita communities, and down-the-line exchange was adopted as the major mode of obsidian procurement by the Late Lapita Period. Nevertheless, some interaction is likely to have continued for social purposes, resulting in the epiphenomenal distribution of small quantities to the site of obsidian from more distant sources during the Late Lapita Period.

Key words: Lapita, obsidian, mobility, interaction, pXRF, lithic analysis, Near Oceania, Papua New Guinea, West New Britain, Arawe Islands, Talasea/Willaumez Peninsula, Mopir, Admiralty Islands, West Fergusson Island.

**Kelly, Alana (2017) *Quarantine Island/Kamau Taurua: It's Place in the Human History of Otago Harbour.***

Quarantine Island/Kamau Taurua is the largest of three islands in the Otago Harbour and is the site of New Zealand's oldest quarantine station. Established in 1861, the Otago quarantine station was first used in 1863 with the arrival of the smallpox ridden Victory. Over the next four decades thousands of people, from a total of 41 ships were placed on the island, marking their first 'home' in a new land. Following a decrease in

need, the quarantine station was officially closed in 1924, highlighting the end of an era. However, over the course of the island's human history it saw uses outside the realm of quarantine. This included uses in relation to the pre-contact period, the World War One era, farming, and recreational activities, all of which are represented in the archaeology of the island.

To date there has been only limited archaeological investigation into Quarantine Island and the quarantine stations of the wider New Zealand context. The primary aim of this research is to examine the different uses of Quarantine Island through an archaeological lens to investigate how these reflect changes over time in the human history of the Otago Harbour. A second objective is to highlight the role of quarantine stations, which have been largely ignored in New Zealand archaeological studies, through a comparison of the quarantine stations of the broader New Zealand and Australian context. Lastly, this research aims to consider the framework of island archaeology in relation to quarantine stations from the historical period.

**McBride, Rowan (2017) *A Technological and Geochemical analysis of Stone artefacts from Pilot Bay, Mount Maunganui, New Zealand.***

This dissertation aims to investigate the “Archaic” stone tool economy of Pilot Bay, Mount Maunganui, and comprises of a technological analysis of both basalt and obsidian assemblages and an obsidian geochemical pXRF sourcing study. The lithic material analysed here was recovered during monitoring and excavation conducted by Ken Phillips, during the 2013 boardwalk installation and storm water upgrade.

The first objective of this project was to conduct a technological debitage analysis, using quantitative methods to analyse the recovered basalt assemblage. This analysis tested the validity of Marianne Turner’s model of Tahanga Basalt adze-production to the lithic assemblage recovered from Pilot Bay. This analysis focused on size and shape dimensions, terminations as well as a number of morphological characteristics, such as the presence of cortex, dorsal scarring and polish, ultimately assigning the Pilot Bay assemblage to an analogous stage within the Turner adze-production model. The second objective of this research saw the application of pXRF geochemical methods and a technological analysis of the recovered obsidian material. This analysis pinpointed the major and minor source locations, while the dimensional data further categorised the resource management strategies employed at Pilot Bay, by Archaic populations. Furthermore, comments on the obsidian raw material procurement strategies were made, in relation to a distance decay model. Specific consideration was given to the geologic, geographic and human factors affecting raw material sourcing, given the site is situated in an area known to be an exchange centre, with a close proximity to Mayor Island.

A range of variables are considered in this study, including the sourcing of raw materials, artefact production and the degree of reduction in order to investigate the nature of the lithic assemblage. The measurements recorded during this project were related to the attributes that affect size,

shape and reduction stage. It is hoped that this analysis will contribute greatly to the understanding of Archaic Bay of Plenty archaeology and trade and exchange in this period throughout the region. Furthermore, it is hoped that this research highlights Tauranga harbour as an area of both regional and national significance, worthy of further investigation and research.

Key word: Pilot Bay, archaic, lithics, trade and exchange, New Zealand.

**Moroney, Craig (2017) *Me Pehea E Waiata Ai Tatou I To Tatou Taiata I Roto I Te Whānau Rekere: Māori Cultural Identity in the Face of Colonisation.***

This dissertation examined the role of Maori maintaining and enabling a cultural identity during colonisation, through political and religious means. To properly understand what this dissertation is studying, what cultural identity means had to be examined. This resulted in an examination of the three definitions of cultural identity with anthropology, two sociological definitions and one definition from social psychology. The definition used for this dissertation is a mixture of the 'modern synthesis' and the second sociological definition, as this best cover the type of cultural identity shown by Maori.

Three discourses are used to examine the political and religious sides to enabling and maintaining, these are sovereignty, spirituality and traditionalisation. Sovereignty showed the political side of cultural identity, using Kingitanga to show how this was attempted. Two different anthropological and one sociological understanding of sovereignty is covered, showing the theoretical side of this topic. Kingitanga in this paper showed the practical side of sovereignty in relation to cultural identity. Spirituality showed the religious side of cultural identity, by examining two anthropological and one sociological theoretical thought's. The case study showed the practical side of spirituality and its link to cultural identity, through the prophet movement Pai Marire. This religion was adopted by Kingitanga during 1860s and places a link between spirituality and sovereignty. The third discourse traditionalisation covered the political side of cultural identity. Two anthropological and one sociological theories were examined. The case study focused on where whakairo/meeting houses that showed the practical side of traditionalisation with cultural identity. Meeting houses mentioned Kingitanga and the early use of them as religious counterpoints, this linked traditionalisation with the other discourses.

The discussion that reviewed and expanded what was already mentioned. This included the spirituality part being expanded on mentioning Ratana, this linked the spiritual and political sides of cultural identity together. This discussion main examination was the foundation of a Pakeha/Kiwi identity that developed from the European identity and contained aspects traditional Maori beliefs. This allowed a way through the surface biculturalism of this identity for Maori to express their own identity. This discussion also stated the importance of rural Maori identity. This identity could form as rural New Zealand was where Pakeha influence was at its weakest, These ideas enabled a platform for Māori cultural identity to

form and function.

**Muir, Alix (2017) *Obsidian and interaction during the Early Lapita Period: an analysis of the lithic assemblage form Tamuarawai, Emirau Island.***

The aim of this research is to determine the nature of Early Lapita interaction based on the analysis of obsidian from the Tamuarawai site on Emirau Island, Papua New Guinea and to determine how this interaction compares to previously established theories. The geochemical technique of pXRF was used to source obsidian to its place of origin, while technological analysis was also conducted on the obsidian artefacts to determine the reduction techniques occurring at the site. The results from these analyses were then combined to determine if differential source use was occurring within the assemblage from Tamuarawai. The geochemical analysis showed that material from both the Admiralties and West New Britain was present at the site. The results of this research shows that both sources were subject to resource maximisation, though the intensity of this maximisation varied between sources. These results propose that some Early Lapita interactions were social in nature, as social ties were formed and maintained by the exchange of obsidian. Therefore, obsidian within this exchange system was a commodity that had the potential to take on a degree of social value.

**Tutaki, Teina (2017) *Aotearoa landscape: A spatial archaeological analysis of pā, pits and agriculture in South-Taranaki and Whanganui.***

This research study intends to highlight, assess and discuss the spatial distribution and relationships between pre-European Maori pa sites and other Maori archaeological sites along the West Coast of the North Island, particularly in the South-Taranaki and Whanganui regions. The research agenda and objectives are central to identifying locality catchments among each study region to address the role of pa site distribution, and whether this is a correlation of Maori agricultural activity, or other factors and opportunities. Assessing the proximity and distance of pa sites to storage systems, and a range of agricultural field sites, including borrow pits, cabbage trees (ti), karaka and midden/ovens will elucidate regional and wider Aotearoa Maori landscape relationships through a Geographical Information Systems (GIS) based study analysis. The investigation of pā site distribution is tested through applying a statistical average nearest neighbor tool to measure and compare the proximity of pa to storage pits systems, and pā to borrow pits, karaka stands, midden/oven and cabbage trees (tl) over four separate catchments. An additional analysis to identify the minimum measurements of storage pits and other agricultural field sites to the proximity of pā was established through a hubs distance method applied through a separate GIS-based software called Quantum Geographic Information System (QGIS). The results taken from the three methodologies employed in this study revealed a varied combination of clustered, random and dispersed patterns in site distribution. There is a statistically significant association of storage pit and pā sites consistent with both average nearest neighbor and hubs distance results,



while agricultural field sites tended to be distributed in random and dispersed patterns throughout both South-Taranaki and Whanganui. Implications for the spatial distributions and relationships are discussed to highlight potential factors that may explain these spatial patterns. Keywords: landscape archaeology, storage pits, pā, agriculture, geographic information systems, GIS, spatial analysis, aotearoa (new zealand), whanganui, south-taranaki.

**Weston, Jasmine (2017) *Set in Stone? An investigation into the significance and condition of the Chatham Island Petroglyphs.***

The Moriori petroglyphs of Rekohu, Chatham Islands have been impacted by a variety of condition issues which have caused degradation and loss. This investigation assess the nature of these impacts. Three methods were applied to evaluate the condition of recorded Moriori petroglyphs. These are description and evaluation of site setting and environment, historical research, and a desk based assessment of site record and other survey information. There was a large range in results: some petroglyphs were well-resolved while others had eroded completely. Almost all of the sites have been affected by surface erosion and other impacts to an extent. Te Ana a Nunuku at Moreroa is the most densely inscribed site. Recently this site has been recorded using Terrestrial Laser Scanning and White Light Scanning. These technologies could be applied to record other petroglyphs. The petroglyph sites are culturally significant to the Moriori whose ancestors carved them, so their preservation is of high importance.

## 2016

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**Hil, Greg (2016) *Waves of Mutilation: A GIS-Based Risk Assessment of Otago's Coastal Archaeological Sites.***

This dissertation is positioned amid ongoing concerns regarding the effects of climate change and its exacerbating influence on oceanic processes such as coastal erosion, storm surge, and inundation. In order to predict the effect such mechanisms may have on New Zealand's coastline, environmental scientists have employed coastal vulnerability models to rank sections of coastline through environmental variables such as geomorphological susceptibility, elevation, and historical wave activity. These assessments have indicated that a considerable number of New Zealand's soft-shore areas are at risk of being eroded through coastal processes. In order to equate this risk to Otago's coastal archaeological sites this dissertation conducted a GIS-based risk assessment, which incorporated a coastal vulnerability model, historical shorelines derived through aerial photographs, and an assessment of Otago's coastal archaeological sites using site record forms and spatial information. This approach identified large sections of Otago's coastline to be at high risk, which in many cases was paralleled by the locations of eroding archaeological sites. In all, 44.7% of Otago's coastal sites are currently or

have previously experienced erosion through coastal processes; with sites classed as 'Midden/Oven' forming a vast majority of these. In addition, historical aerial photographs revealed the extent upon which coastal erosion has already impacted two specific sections of Otago's coastline. By establishing which areas and sites are at greatest risk these results have the potential to contribute to future management strategies in Otago and other coastal areas throughout New Zealand.

Keywords: Otago, coastline, archaeology, erosion, assessment, coastal vulnerability model, management, heritage, InVEST, DSAS, GIS

**Lawson, Laura Ann (2016) *Protecting the Dreaming: legislation effects on managing the Aboriginal spiritual landscape.***

Western Australia heritage legislation is causing controversy because it is failing to protect sacred sites. The current legislation reminisces colonial ideas of Aboriginal landscapes and does not reflect the modern era of repatriating landscapes to Traditional Owners. The Aboriginal Heritage Act 1972 particularly emphasises evidence-based site protection which highlights the importance of material culture. Recently, the Aboriginal Culture Materials Committee, which is responsible for registering sites, used the legislation to change their definition of a sacred site to a site devoted to religious use; but, this definition has been repealed in court. With the Aboriginal Heritage Amendment Bill 2014 proposed to initiate if the Liberal Government gets re-elected in next election, the future protection of Aboriginal sacred sites is unknown.

This dissertation analysed 902 registered and 390 unregistered sacred sites over 12 Local Government Authorities to understand the effects of legislation on protecting sacred sites as well as the importance of material culture in aiding their registration. The current analysis found that site protection is significantly decreasing. Secret-sacred sites, including those with gender restrictions, appear to be particularly vulnerable, especially female sites as there are large discrepancies in the numbers of male and female sites; in addition, the majority of female sites are not registered. From the results gathered, it appears that while the Aboriginal Culture Materials Committee has been demanding detailed knowledge and material evidence in registering sacred sites, the site register itself indicates that many sacred sites have been registered without material evidence present. However, the majority of sacred sites are protected without material evidence, leaving these sites vulnerable to changes in the interpretation of the legislation which may result in a decline in sacred sites being registered in Western Australia.

**Watson, Clara (2016) *Working up an Appetite Foodways at the Nenthorn Railway Workers' Camp.***

The Nenthorn railway workers' camp was occupied between 1884 and 1887 during the construction of the Nenthorn section of the Otago Central Railway. The Nenthorn camp is the only New Zealand railway camp to have been excavated, with excavations taking place in 2013 and 2014. The site provides an opportunity to study what the lives of the men who built the railway, the navvies, were like. This dissertation will focus on

foodways at the camp. Foodways approaches the study of food by looking at the different stages in food procurement, preparation and consumption by people. By looking at foodways, this dissertation will provide insight into the lives of the navvies living and working at Nenthorn.

**Wills, Nikole (2016) *An Investigation of Value and use of Visually-sourced Obsidian from a Stratified Whitianga Archaeological Site (T11/914)*.**

Mayor Island obsidian is an important element of New Zealand archaeology. It has a high prevalence in early sites which changes through time. This makes it a significant proxy to explore concepts of differential value and use compared with local obsidian sources. This study explores what evidence there is in the archaeological record for the differential value and use of Mayor Island obsidian. T11/914, a site in Whitianga, on the East Coast of the Coromandel Peninsula is significant for this study as it is well stratified and dated. Two occupation phases are associated with the obsidian assemblage. Radiocarbon dating indicates that the initial occupation phase occurred within 1340-1400AD. A second occupation occurred within 1410-1440AD. A local obsidian source was available and directly accessed by occupants. There are low proportions of Mayor Island obsidian compared with local obsidian in both occupation phases. Technical analysis provides insight into differential value and use. Measures of reduction intensity were based on cortex, the ratio of cortical and non-cortical flake ratio, flake to core ratio, and core volume. A flake to debitage ratio confirmed that Mayor Island obsidian is of higher flaking quality than the local obsidian. Indication of use shows that the local obsidian was selected preferentially for heavier use. Mayor Island obsidian was used economically. Results suggest that Mayor Island obsidian had a higher symbolic value. This is associated with “coloniser mode” exchange, with lithics providing a proxy for maintaining long-distance communication.

## 2015

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**Adam, Rebecca (2015) *Blurred Lines: Searching for Separate Spheres within the Material Culture of Colonial New Zealand, 1832-1900*.**

The early settlements of 19<sup>th</sup> century New Zealand allow archaeologists a unique opportunity to study the development of separate spheres of gendered activity. The aim of this dissertation was to critique the application of the Separate Spheres ideology in identifying gender in the material record. Two different analyses were performed – a critical analysis of literature concerning gender in 19<sup>th</sup> century England and America, and a comparative analysis of the material culture of eight domestic sites from across New Zealand.

The comparative analysis established that the material culture of domestic sites did indeed reflect the emergence of separate spheres in a new environment.

**Bowers, Laura (2015) *Settlement Patterns on Rakiura/Stewart Island.***

This dissertation investigates settlement patterns on Rakiura/Stewart Island. It addresses this via three main research aims; the assessment of observed patterns in multiple activity types, the evaluation of visible changes over time in early, late, and contact period Māori sites, and the assessment of variation between Māori and European settlement patterns. Observed patterns are examined and presented here using the tools 'nearest neighbour' and kernel density analysis in ArcGIS 10.1. Several trends are described, and it is noted that Anderson & Smith's *Transient Village* model may be applicable to these sites. Several areas of potential for future research are proposed.

**Hilton-Ludwig, Therese (2015) *Rākau Momori. In Canterbury Museum and Otago Museum: A Stylistic and Conservation Study of the Collections***

This research is a stylistic study and conservation assessment of archaeological Mori tree carvings, known as rākau momori, from Rēkohu (Chatham Island). The rākau momori used in this research come from Canterbury Museum and Otago Museum. There were three methods used to determine their archaeological information value. Firstly, archives from the museums were researched to uncover collection and acquisition history of the carvings. Secondly, a stylistic analysis was conducted to find patterns in selection for collectors and museums. Finally, a conservation assessment and analysis was conducted to determine that care and preservation of the carving artifacts in each museum. This research contributed to our records of both dead and living rākau momori, our knowledge of the value of rākau momori in the museum context, and our understanding of the conservation of rākau momori in Canterbury Museum and Otago Museum.

**Kerby, Georgia (2015) *Lithics of the Rainforest: Changes in site and resource use in late Pleistocene to early Holocene New Ireland.***

The recent dating of the earliest occupation of Buang Merabak to 43,000 years ago shows that the colonisation of New Ireland occurred soon after that of Sahul. This provides the opportunity to consider the early adaptation of small groups of people to a depauperate environment. An analysis of a lithic assemblage from Buang Merabak was used to consider how the technological organisation of lithics at Buang Merabak reflect patterns of site use and subsistence strategies from the late-Pleistocene to the early Holocene. This dissertation shows a strategy of small simple flake technology aimed at allowing flexibility within fluctuating patterns of faunal resource use. During the late Pleistocene a broad range of local lithic materials were targeted and used expediently. Gradual change occurred in the early Holocene to a smaller variety of materials with dominant use of local chert flakes and slight conservation of a few specific volcanic materials.

**Northwood, Lucy (2015) *Pots on the inland shore: Investigating the nature of Austronesian interaction in the Sepik-Ramu basin, Papua New Guinea.***

This dissertation presents a geochemical analysis of a ceramic assemblage from the Kowekau rockshelter site in the Sepik-Ramu basin, northern Papua New Guinea. The presence of ceramics with a 3000 year old context is highly indicative of an Austronesian presence on the mainland of Papua New Guinea, which up until now, has been archaeologically invisible.

This study is primarily concerned with determining the chemical characterisation of the temper and clay materials found in the ceramic assemblage, and will use this information to establish the nature of Austronesian interaction in the Sepik-Ramu basin. Investigating the Kowekau pot production models over time has revealed a gradual change in the nature of settlement of the rockshelter site. The results from the geochemical investigation will be used to argue that Austronesian contact with the northern New Guinea mainland is much more complex than was previously considered, and that the cultural diffusion of Austronesian ceramic technologies into the Sepik-Ramu basin marks a period of socio-economic change.

**Platts, Maeve (2015) *Material Culture and Memory: The Deans Family and Estate.***

The following research examines the history of the Deans family who travelled from Scotland to New Zealand and became the first permanent settlers in the Canterbury region in 1843. It draws on the items of importance or heirlooms that were passed down through generations and were then curated and preserved by the family over the years, thus creating a very special type of assemblage. The heirlooms and the family home, which is now a historic house museum, provided a basis for a detailed investigation of the history of not only the Deans family but also the Canterbury community overall. The information and stories/histories derived from the analyses of the heirlooms and the family home, Riccarton House, have been combined with secondary and primary written sources to provide an account of the different functions of the heirlooms and comprehensive interpretations and narratives of the daily life of the Deans as well as information about Riccarton House and how historic house museums use displays to communicate the past. The interpretations and the stories behind each heirloom have, in turn, been used to explore if it is possible to use items that belonged to just one family to create an overall history of the Canterbury community.

**Radclyffe, Charles (2015) *Archaeology and Shell Adzes in Prehistoric Oceania: A Revised Methodological Approach to the Descriptive Analysis of a Solomon Islands Collection.***

This dissertation examines the archaeological study of shell adzes in the Pacific. It provides a critical review of archaeological methodology and terminology used in descriptive analysis of this artefact class. It raises important problems that are hindering this subject including a lack of

clarity and conformity in the selection of criteria used to describe shell adzes, ambiguity in nomenclature, and the restricted capacity of existing criteria to accommodate a wide range of morphological variation of these artefacts. In addition, it argues that archaeologists have focused almost exclusively on describing typological variation for culture historical purposes. This is problematic as it has resulted in the neglect of a wider range of issues important in shell adze study, specifically technology, function and ecology.

A revised methodology is proposed to address these problems and is applied in the descriptive analysis of two collections of shell adzes from Solomon Islands: one stored at the Otago Museum in Dunedin, New Zealand and the other at Solomon Islands National Museum in Honiara, Solomon Islands. The morphological and metric characteristics of the different shell adze varieties is described, as well as evidence of manufacturing processes involved in their creation. The findings of this analysis are then discussed in relation to their implications for broadening shell adze analysis by incorporating technological, functional and ecological issues. Problems encountered in the analysis are highlighted, and recommendations are made to further develop methodology in shell adze analysis.

**Voice, Christopher (2015) *Prehistoric fishing in the Loyalty Islands: a report on an archaeological assemblage from the Tiga Site.***

No abstract.

**Wesley, Rachel (2015) *A silcrete chaine operatoire at Papanui Inlet, Otago Peninsula.***

Silcrete blade technology is widely acknowledged as a significant feature of the archaeology of the early period of southern New Zealand. Current models place the production and consumption of silcrete tools during the early period within a logistical mobility framework, but as two distinct phases that occur in discrete locations.

An analysis of an assemblage of silcrete artefacts from Papanui Inlet, Otago Peninsula, tests this model, and proposes stages of a *chaine operatoire* are in effect at Papanui Inlet. Comparisons are made with an inland Otago production site and a coastal Otago consumer site to test whether the *chaine operatoire* is similar at other locations.

## 2014

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**Beynon, Nicholas (2014) *Wairarapa Gardens and Pa: An Archaeological Study.***

This dissertation investigates the relationship between gardens and pa in the Wairarapa. Principally assisted by the New Zealand Archaeological Site Recording Scheme it focused on further understanding a region that has been neglected since the Wairarapa Research Programme over 40 years ago. It intended to better understand garden related site types in the

Wairarapa by classifying them into direct or indirect forms of horticulture. This is an important measure to understanding the distribution of these sites in the Wairarapa and whether there was a consistent pattern between them and pa. This relationship was analysed using a consistent method of distance measurements based on how they were recorded in the Site Recording Scheme. This data is presented in a series of graphs, maps and tables to provide a modern understanding to the sites, most of which were recorded in the 1960s and 1970s. Aerial photographs are also used in the investigation to provide a different perspective on site relationships and to assess the reliability of the Site Recording Scheme. The analysis indicated that there is no consistent relationship between pa and garden systems in the Wairarapa.

**Eising, Kate (2014) *Childs Play: an archaeological assessment of 19th century children's toys.***

Excavations at the Victoria Retail Centre in Whanganui recovered a relatively sizeable assemblage of nineteenth century children's toys. This dissertation analyses these toys and attempts to determine what kinds of activities these artefacts represent and to what extent these activities are gender specific. A discussion is undertaken on the role these toys played in raising children and how they could be used to train children for the social and cultural expectations that accompany adulthood. Furthermore this assemblage is compared to the historical record and other assemblages to reveal how representative archaeological remains are of the full range of children's toys available in the nineteenth century.

**Harris, Terena (2014) *Fish vertebrae as diagnostic elements in New Zealand archaeology.***

In this research dissertation a methodology has been constructed that allows fish vertebrae to be identified to species level. This was accomplished through the use of morphological characteristics and a comprehensive reference collection. In order to test the validity of the methodology, the method was applied to a case study. In this application 93% of the assemblage could be identified to species level. Using the vertebrae, 11 species were identified at the site, two of which were not identified using the mouthparts and special bones. At present, most New Zealand archaeologists analysing fish bone assemblages restrict themselves to using only the five-paired mouthparts and special bones to aid their taxonomic identifications. This results in a large portion of excavated material being disregarded. Vertebrae are often the most abundant element found in fish bone assemblages, and ignoring them in analysis is producing biases in the data.

**Lord, James (2014) *Modelling Mobility and Landscape Use. A preliminary examination of mobility theories and landscape use in the Strath-Taieri region of Inland Otago.***

The current model used to describe mobility patterns in early New Zealand was proposed by Anderson and Smith (1996). The transient village displays all the main indicators of sedentism while also operating within a

system that involved mobility. These villages were based around large bodied prey such as seals and moa and therefore primarily located in coastal areas (Anderson and Smith 1996; Nagaoka 2002; Walter et al 2006). While these coastal sites have been the focus of much archaeological research, many inland sites have largely been ignored. By reviewing the available data for the Strath-Taieri region of Inland Otago and examining how theories of mobility may be applied. From the available data I show that it is likely that early Polynesian settlers in New Zealand practised a logistically organised form of mobility. The transient village on the coast remains the hub of permanent settlement where everyday activities take place. Logistically organised task groups of foragers would set out from these villages in order to procure food and raw materials. These resources would then be transported back to the residential base to be used by the community. This study illustrates that theories of mobility may be used in order to explain the distribution of archaeological sites and landscape use in the Strath-Taieri region.

**Ross, Victoria (2014) *The European Greenstone Industry in Otago: Archaeological and Historical Evidence.***

This research dissertation provides a comprehensive history and understanding of the European greenstone industry in Otago during the late 19th and early 20th centuries. Using the chaine operatoire method of lithic reconstruction, this work attempted to reconstruct the manufacturing methods of the lapidary at this time using archaeological material. followed by the introduction of documentary evidence to fill in the gaps. It was found that while the archaeological evidence could show some of the process, there were gaps in the knowledge, and so documentary evidence was essential in some areas. To date no work has been published looking at this industry from an archaeological point of view, all work has been from a historical view. In some cases the archaeological material gave evidence contrary to that in the documentation, clearly showing the need for more archaeological investigation in the area. As most sites relating to the period are in urban areas this will most likely only happen through CRM (Cultural Resource Management) work, and as such will occur only as rescue excavations which can miss some of the information. In saying this, any new information that can be added to this part of the country's history is valuable.

**Sanders, Jane Emily (2014) *Creating Communities: Heritage Management in the Clutha District.***

Heritage management is a discipline by which the heritage landscapes of communities are created, protected and preserved for the future. The processes that underpin heritage management legislation directly influence heritage outcomes and are influenced themselves by the way heritage is viewed from a national, regional and local perspective. This research explores the ways in which New Zealand's heritage legislation - specifically the Resource Management Act 1991 and the Historic Places Act 1993 - has worked in conjunction with local authority planning



documents to create heritage landscapes. It specifically examines heritage management processes in the Clutha District of New Zealand to determine firstly how heritage has been identified, evaluated, managed and protected in the Clutha District and secondly how the heritage landscape is viewed, understood and used by the local community. This research examines definitions of heritage, local and national mechanisms of heritage identification and protection and through case studies, examines how two Clutha communities view, understand and value heritage landscapes of their towns. The protection of heritage in local communities is often seen as essential to ensuring that people are able to connect with the past, live in the present and plan for the future. This research considers the validity of this principle through case studies of Lawrence and Balclutha and examines the effectiveness of the current approaches to heritage management to determine if the landscapes being created contribute positively to the communities in which they stand.

**Tennant, Karl (2014) *Sieving Strategies in New Zealand archaeofaunal analysis. A methodological assessment.***

This dissertation focuses on the influence that the use of 6.4mm, 3.2mm, and 2mm screen sizes has on the retrieval of data from faunal assemblages recovered from three separate prehistoric archaeological assemblages in New Zealand. Bulk midden samples recovered from archaeological sites at Kahukura, Tokanui and Cooks Cove were used as test samples to determine how relative taxonomic abundance is influenced by the degree of rigour used in the recovery of archaeofaunal remains. Rigorous identification procedures were employed to determine how the recovery of various elements of fauna is influenced by screen size. Issues surrounding optimal retrieval of data and potential for fine screen sieving for improving outcomes in faunal analysis research are addressed and the viability of fine screening for broadening understandings of interregional variation in economic behaviour in New Zealand prehistory is assessed.

## 2013

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**Allen, Francesca (2013) *Impacting vegetation communities. Accessing the anthropogenic effects of early Polynesian settlement at two East Otago archaeological sites.***

The anthracological analysis of cultural charcoal from archaeological sites is a growing field of paleobotany within New Zealand. The stratified archaeological site of Purakaunui (144/21) on the east coast of southern New Zealand provides an excellent opportunity to apply anthracological methods to assess change over time. Purakaunui represents one of the initial Polynesian settlements within the region. The site's paleobotanical record is investigated so as to identify how anthropogenic actions

impacted the vegetative environment. The investigation of cultural charcoal from Purakaunui can inform on the scope of anthropogenic interactions with local vegetation. A comparison with the record of vegetation change at the environmentally similar Shag River Mouth archaeological site (J43/2) provides an assessment of wider regional impacts and the range of anthropogenic actions in the course of early East Otago Polynesian settlement.

**Foster, Danielle Ashley (2013) *Culture History to Ethnicity. A Review of the Archaeology of Ethnicity as a Global Theory and its Reflection in New Zealand's Archaeological Practices.***

This dissertation examines the changing nature of the archaeology of ethnicity in the form a review of this topic. One aspect of this work is looking at the global acknowledgement of ethnicity throughout the history of the study of archaeology as a discipline, and how over time the representations and conclusions drawn may have changed. The second aspect is looking at how new theories have had an influence on how ethnicity is being determined. Based on this idea that new theories are having an effect on the determination of ethnicity, this dissertation attempts to examine if these international movements are having an effect on the work carried out in New Zealand that is related to the study of ethnicity. Examples are drawn from different ethnic groups in New Zealand as well as a spread across the timeline of which international changes can be seen from culture history to ethnicity.

**Gaffney, Dylan (2013) *Crossing the Transition: Mobility and Subsistence change in the Central New Guinea Highlands at the Terminal Pleistocene-Mid Holocene.***

Studies on the prehistory of the Papua New Guinea Highlands have emphasised environmental change, contemporaneous with the independent innovation of agriculture at the Pleistocene-Holocene transition through to the mid-Holocene. An analysis of a lithic assemblage from Kiowa rockshelter, in the Central Highlands, was used to investigate changes in people's mobility and subsistence at this important time. This study shows that human activity at Highlands' rockshelters at the Pleistocene-Holocene transition was not intensive, but in the early and mid-Holocene, occupation increased simultaneous with the intensification of agriculture and the increase of Highlands' population size. People at this time used mobile toolkits of small flakable stone to enable longer distance mobility for hunting while primarily reliant on abundant local stone for more local mobility. In the mid-late Holocene, occupation of rockshelters diminished, probably corresponding to gardens being used at these higher altitudes.

**Heath, Helen Rosemary (2013) *Enter the Ceramic Matrix: Identifying the Nature of Earlt Austronesian settlement and Subsequent Change through Time in the Cagayan Valley, Philippines.***

The research presented in this dissertation involved the physico-chemical analysis of a ceramic assemblage from the site of Nagsabaran located in

Lal-lo, Cagayan Valley, Northern Luzon, Philippines. The aim of this research was to answer two questions. The first was to identify the nature of the early Austronesian settlement through pottery production in Nagsabaran. The second question was to assess a change through time from pottery production in the Neolithic to the Iron Age. These questions were to be addressed through two methods. The first was to undertake the first physico-chemical analysis on ceramics from the site to study the mobility patterns of the early Austronesian settlement in the Philippines. The second method involved assessing mobility and sedentism through the use of models proposed by Summerhayes (2000). These models theorise that pottery can identify the nature of settlement, whether it be mobile or sedentary. To answer these questions a physico-chemical analysis was used to examine the clay matrix and mineral inclusions of the ceramic assemblage from Nagsabaran. The organisation of this data through the use of multivariate statistical techniques enabled the creation of groups based on chemical similarity. The research carried out through the physico-chemical analysis identifies a mobile society during the Neolithic in the Cagayan Valley changing through time to a sedentary society in the Iron Age. The research in turn validates that models proposed by Summerhayes (2000).

**Hurford, Jessie (2013) *Moriori tree carving on Rēkohu. A stylistic analysis of rākau momori.***

In this research, a stylistic analysis is conducted on the novel, archaeological Moriori tree carvings of Rēkohu (Chatham Island). The tree carving data sets are sourced from historic records, including sketches and photographs, and more recent University of Otago survey work, including digital photographs and 3-D scans. The analysis that follows includes two primary components. Firstly, the frequency and distribution of carving attributes are identified from defined localities on Rēkohu. Secondly, the frequencies of attributes are examined between localities to test for the distinctive carving styles argued by Simmons (1980). Cladistical and hierarchical clustering models are employed to assess the degree to which cultural transmission occurs between defined localities of rākau momori (lit. "memorial tree"). This research contributes to our understanding of pre-contact Moriori social organization and distribution on Rēkohu.

**Lane, Jennifer (2013) *Cemetery Studies: International Trends and Local Case Studies.***

This research investigates the ways in which cemeteries have been studied internationally and within New Zealand, and from these studies, a set of 8 research questions were developed and tested in a pilot study carried out in the Northern Cemetery of Dunedin. The Northern Cemetery is a category 1 protected site on the Historic Places Trust's list, as it is one of the earliest cemeteries in New Zealand that interred the public in a nondenominational layout. This pilot study was based on Phillip Edgar's (1995) Master's project in the Southern Cemetery's Presbyterian section, and adopted many of his classification forms, but also recorded several

attributes from other national studies. This investigation consisted of 52 randomly selected plots from the within the 200 blocks of the cemetery, spanning the whole period of occupation from 1873 to the current year. The 8 research questions investigated the relationships between the historical context (particularly class, society, and ideology) and the physical remains of the plots (through the plot dimensions, location, material, morphology, inscriptions, and iconography). The study identified a set of four classes within the cemetery that were dependent on the physical dimensions and location of the plot, and also discovered that several of the physical attributes varied depending on the class. These attributes were also investigated in terms of their changes over time and compared to the ideological and social contexts to identify if there was a relationship between them. While the sample was not large enough for an accurate study of the social and ideological changes during the period of occupation, the pilot study investigated many physical attributes of the plots in details that suggested patterns that would become clearer in a larger study.

**Lewis, Julia (2013) *Feasting at Wairau Bar. A taphonomic study of pre-depositional modification to a faunal assemblage.***

This dissertation focuses on an assemblage of moa and mammal remains from a Wairau Bar midden. The material dates from the earliest phase of New Zealand settlement and is the result of the disposal of the waste after a single feast event that occurred at the site. A taphonomic analysis of the remains was undertaken with a specific interest in the pre-depositional modifications. The various modifications caused by both human and animal taphonomic agents are used to develop interpretations and hypotheses about early Māori practices around food procurement, preparation, and disposal. Aspects of the relationship between the Māori and the Polynesian dog are also discussed.

**Pulman, Natasha (2013) *Small Change. A Study of Gambling at the Lawrence Chinese Camp.***

The Chinese had a major role in early New Zealand and even now their presence and influence is still great especially in the Otago and Southland regions. Their initial purpose was to mine and 'get rich quick' in order to return to China with greater wealth, this is described as the 'sojourner experience' (Ng, 1993). Although not all Chinese returned home, some by choice and others unable to, for much of their time in New Zealand the sojourner attitude prevailed. This attitude led to indulgence in the so called 'vices' of opium and gambling which created the notorious and sensationalised image of Chinese in New Zealand. Lawrence Chinese Camp contains a wealth of gambling artefacts including: Chinese Coins, European Coins and Glass Gaming Pieces (Wegars, 2006). Each of these classes of artefact offer information including: the mints from which the Chinese coins (wen) originate, the denominations of the European coins, and the numbers of Black and White Glass Gaming Pieces. The Lawrence Chinese Camp and its gambling assemblage are placed into the historic context of gold rush era New Zealand, explaining all the prejudices and

sensationalism in the historic record that arose with the arrival of the Chinese miners and the habits they brought with them.

**Robertson, Fin (2013) *Landscape Archaeology of Historical Rural Industries of Sandymount.***

This dissertation takes a landscape approach to examining the physical manifestations of historical rural industry in the Sandymount region on the Otago Peninsula. The study area contains examples of several of the important industries undertaken during the 19th century in New Zealand. Surveys of several house sites were carried out, and numerous other landscape features were recorded, in order to create a picture of the activities that occurred. Historical research was carried out to see how these activities fitted in with Dunedin and New Zealand as a whole, and why these activities changed over time. Dairy farming was the most common industry in the area, which was superseded by sheep farming in the 20th century. There were also minor forays into lime production, flax milling.

**Roughan, Stacey Laura (2013) *Analysing fragmented glass artefacts using the Lawrence Chinese Camp as a case study.***

Glass artefacts that are highly fragmented are difficult to analyse. It is important to have a systematic approach and an effective method of analysis. This dissertation presents a possible new method that uses a combination of hierarchical categorisation and multinomial logistic regression to predict which of the vessels that the glass pieces originated from. This approach was applied to a selection of the glass assemblage from the Lawrence Chinese Camp as a case study. The regression only used a selection of the best data generated from the assemblage to create the best possible results. It correctly predicted the categories 80% of the time but was deemed too inefficient to be applied further. With further research the method could become a valuable tool for archaeologists in the future.

**Scahill, Alexander (2013) *Defending Dunedin: The Archaeology of Dunedin's Coastal Fortifications 1885-1945.***

This dissertation is an archaeological analysis of Dunedin's coastal military fortifications in the period from the 1880s, when the country was threatened with Russian invasion, through until the end of the Second World War. This investigation examines the nature and extent of these fortifications, and was conducted through both field survey and mapping, and historical research. With very little previous work conducted on these types of site, this research provides valuable insight into fortification construction methods and temporal change throughout this period. This investigation also examines the mindset of a young nation, and their reaction when facing for the first time a serious external threat to their way of life.

**Vilgalys, Gabrielius (2013) *Do Hiccups Echo? Mobility Patterns During EPP in the Port Moresby Region, Papua New Guinea.***

The research presented here involved physicochemical analysis of ceramics from two EPP sites, Eriama [ACV] and Taurama [AJA], located in the Port Moresby region on the central south coast of Papua New Guinea. This research was driven by three main goals. Firstly to undertake physicochemical analysis on ceramics produced during EPP and post-EPP to provide insight into ceramic production and mobility during the Ceramic Hiccup that follows the end of EPP. Secondly to test the hypothesis put forth by Bulmer (1978) suggesting a continued occupation at Taurama [AJA] from 2000BP to 300BP. Lastly this study was undertaken with the hope of providing comparative data surrounding ceramic production during and after EPP. To achieve these goals physicochemical analysis was undertaken with foci on the clay matrices and non-plastic mineral inclusions used in ceramic manufacture. Through multivariate analysis this data was grouped into chemically related groups. Through the use of physicochemical analysis this research suggests that there was a great deal of mobility during EPP, with highly interactive groups, and that this trend declines over time and settlements become sedentary following the Ceramic Hiccup. At Eriama [ACV] there was a highly mobile group occupying the site only intermittently. At Taurama [AJA], Bulmer's (1978) hypothesis cannot be sustained as the data reveals a great deal of mobility at Taurama [AJA] during EPP and the Ceramic Hiccup with a sedentary settlement only arising after.

## 2012

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**Anderson, Teri (2012) *Moriori Fishing on Northeastern Rekohu. An archaeozoological investigation.***

Archaeozoological fish bone assemblages from midden deposits located within Kainagaroa Station Covenant and Taia Bush Historic Reserve, two Kopi (*Corynocarpus laevigatus*) groves along the northeastern coast of Rekohu (Chatham Island), are analysed to investigate whether pre-contact Moriori relied upon local versus non-local finfish resources. The findings of the analysis were used to test previous interpretations of Moriori regional resource distribution and contrasts to fishing behaviours of east Polynesian migrants to mainland New Zealand. The results show Moriori were primarily targeting *Parapercis colias*, a non-local hard shore species, even when *Rhombosolea* spp., a locally available soft shore species were available. Moriori fishing strategies on northeastern Rekohu demonstrate a significant resource exploitation zone highly targeted on non-local hard shore finfish species and transportation over significant distances to kopi forest localities behind the extensive soft shore coastline of Hanson Bay.

**Arun, Lana (2012) *Opium Pipe Bowls from the Lawrence Chinese Camps (H44/1012).***

This dissertation focuses on one aspect of Chinese material culture, opium from the Lawrence Chinese Camp. Opium was used for a number of reasons and was embedded within the social, physical, and psychological aspects of Chinese culture. Opium smoking was a complex process, which required specialised smoking paraphernalia, importation of opium, and was sold by Chinese merchants in Chinese communities and work camps (Wylie and Higgins 1987:317). This dissertation had three main aims including examining the role of opium in the LCC, classification of the pipe bowls, The LCC assemblage was compared to other overseas sites in New Zealand, Australia, and America. Similar patterns were found in Chinese sites in Australia and America. For example, New Zealand and Australia had similar pipe bowls types, suggesting similar trade and exchange movements. America slightly differed in pipe bowl types, but basically opium was important in Chinese sites, regardless of country. The opium pipe bowls in the Lawrence Chinese Camps played an important role within the social community of the Chinese sojourners.

**Bone, Kimberley (2012) *The Archaeology of Early Post-Colonial Settlements: A Re-evaluation of the William Cook Shipbuilding Site.***

Investigations on early post-contact sites have, until recently, been a largely neglected area of research in New Zealand archaeology. The William Cook Shipbuilding site, occupied between 1826 and 1833, provides one of the most unique opportunities for understanding this period. Despite its importance, investigations of the site are almost absent from the archaeological literature. This study reanalysed the William Cook assemblage and discovered that it represented a distinct cultural tradition which reflected the integrated nature of the community. Interpretation of the assemblage recorded a hybrid identity adopted by the settlers with the incorporation of European and Maori architecture and traditional Maori subsistence strategies. The artefacts demonstrated that a failing economy of the site eventually led to its abandonment in 1833. The investigations of two comparative case studies revealed several distinct cultural patterns during this period, identifying a marked contrast between European mission settlements in the north and the integrated communities of the south. These contrasts were identified in architecture, fauna and material culture.

**Cook, Letitia (2012) *The Study of a Regional Collection of Archaeological Kō and Tekā.***

The pre-contact Maori people of New Zealand were well practiced in the art of agriculture cultivating several tropical crops brought by their Polynesian ancestors. They cultivated the crops with well established production systems and a small collection of wooden agricultural implements. A primary agricultural implement, the kō or digging stick, and its corresponding teka or footrest has, until now, had little attention paid to it. This dissertation focuses on the kō and teka that were utilised in a number of ways to work the soil for cultivation or other purposes. Little is known about the quantitative and qualitative properties of kō and teka. This research aims to contribute to a greater knowledge of kō and

teka, as these artefacts have not previously been critically analysed. To achieve these aims this study gathers and analyses quantitative and qualitative data for the kō and teka collection at Puke Ariki museum in New Plymouth. The results of this study reveal patterns and anomalies that have not been previously seen in the literature pertaining to the kō and teka.

**Davis, Laura (2012) *Ceramic form Lawrence Chinese Camp. Preliminary study of ceramic remains excavated from the house lot of Sam Chew Lain.***

This dissertation focuses on the ceramic remains from the house of Sam Chew Lain, and his European wife, once located at The Lawrence Chinese Camp. The site dates from the late 1860s to the early twentieth century and provides a unique study for the overseas Chinese. A comprehensive descriptive study was undertaken of the 2,346 sherds of ceramics to understand the dynamics within the house lot and to produce a set of testable hypotheses to create investigative directions for the study of Chinese in New Zealand. The hypotheses proposed involve the potential presence of a distinctive New Zealand Chinese assemblage, the reiteration of Chinese New Zealand trade networks and the difficulties around identifying gender and ethnicity at Chinese sites.

**Hickey, Megan (2012) *Kahukura: The archaeology of a Late Archaic fish hook assemblage.***

The excavation of Kahukura in 2009 uncovered a significant Māori fish hook assemblage. This study has used standardised methods to produce an analysis of the assemblage which characterises the quantitative, technological and taphonomic aspects of fish hook use at the site. The classification and comparison of the assemblage with other fish hook collections from sites around New Zealand, has highlighted the unique position of Kahukura as a Late Archaic site with a fish hook assemblage dominated by two-piece fish hook points. Radiocarbon methods have placed the occupation of Kahukura in the Late Archaic phase (1450 AD-1550). This demonstrates that the change in dominance from a one-piece hooks to two-piece hooks occurred earlier than the Classic phase. The reasons for this change are ambiguous. The Kahukura assemblage holds evidence for explanation of this change as the result of chronological continuity of two-piece forms from Eastern Polynesia, the regional development of two-piece dominated assemblages in the Catlin's sites, and technological adaptation in response to the depletion of moa resources.

**Kurmann, Samantha L. (2012) *The Regulation of South Island Archaeological Practice under the Historic Places Act 1993.***

New Zealand's interesting and diverse cultural history covers the last 800 years. The Historic Places Act 1993 is the primary piece of legislation used in New Zealand to not only protect our past, but to regulate archaeological practice. The framework of this legislation provides archaeological provisions. These contain guidelines about how to



approach applying for an archaeological authority and regulations about altering an archaeological site. Concerns outlined in the literature reveal issues with the legislative framework, such as the lack of real protection for all archaeological sites compared with that of rescuing knowledge (preservation by record). Seven practicing South Island archaeologists were interviewed in order to assess opinions about the effects of the current legislation on archaeological practice. All participants expressed satisfaction with the archaeological provisions of the HPA 1993. The opinions of the participants about the regulation of the HPA 1993 by the NZHPT were also outlined, with a resultant combination of satisfaction and dissatisfaction. Major concerns included the default setting of site destruction, as opposed to preservation, the 1900 cut-off date for the definition of an archaeological site, and the lack of proper excavation of archaeological sites. The difficulty that the Trust faces due to lack of resources was also widely recognised by the archaeologists. The participants offered insights into possible ways that legislation could change in order to improve archaeological practice. The opinions of the participants on the proposed Heritage New Zealand Bill suggest that the planned changes will produce an even more meaningless archaeology; however it does introduce some important changes, such as the streamlining of the HPA 1993 with the Resource Management Act 1991. This research demonstrates that South Island archaeologists consider that current legislation is adequate for regulating archaeology in New Zealand, but that changes are needed at bureaucratic level.

**Lawrence, Megan (2012) *The Dynamics of stone Procurement and Exchange in New Zealand's Archaic Period: A pXRF analysis of obsidian artefacts from the Purakaunui site (I44/21), South Island, New Zealand.***

Portable energy dispersive X-ray fluorescence spectrometry is used here to geochemically characterise 198 obsidian artefacts from the Purakaunui site (144/21) on the South Island of New Zealand. During the site's two main phases of occupation, between A.D. 1300 and A.D. 1500, we would expect the assemblage to reflect a decline of a 'Coloniser Mode' marked by a shift away from long-distance interactions crucial for the first generations to settle New Zealand. Geochemical sourcing clearly shows that Mayor Island obsidian, directly accessed in early Archaic Period sites, has been replaced by Taupo obsidian as the primary source at Purakaunui. Technological analysis of the Purakaunui artefacts displays little evidence for direct access, instead down-the-line exchange is likely occurring. A comparison with obsidian from other South Island Archaic Period sites displays a sharp decline in the presence of Mayor Island obsidian relative to other obsidian sources. This illustrates a rapid decline from a 'Coloniser Mode' around A.D. 1350, which occurs long before an emergence of a 'Trader Mode' after A.D. 1500. This distinct and protracted period of regionalisation is defined here as an 'Established Settlement Mode.'

**Moyle, Jeremy (2012) *An Exploration of the EAMC Database: The Assessment***

***of a Potential Tool for Developing the Practice of Historical Archaeology within New Zealand.***

As it stands, the practice of historical archaeology in New Zealand is less than desirable. Much legislatively mandated investigation in historic sites has the potential to produce only a description of a site and its artefacts. A widely used historical archaeology database has the potential to help remedy this situation through the ability to make historical archaeological information widely accessible and facilitate large scale artefact comparisons between multiple sites. The EAMC Database exemplifies a program designed to achieve such a goal, and is explored and assessed through a case study artefact comparison in order to gain practical insight into the actual potential of a database. From this study five key aspects were identified as influencing the functionality of the database, and these were able to inform suggestions for the design of a similar type of program for New Zealand.

**Russell, Keir (2012) *Transition: rim form and modification from three localities at Reber-Rakival Watom Island, Papua New Guinea.***

The research presented here involved the characterisation study of ceramics from three late transitional Lapita sites: Kainapirina [SAC], Vunaburigai [SAB] and Vunavaung[SDI], on Watom Island, the Bismarck Archipelago, Papua New Guinea. This research had two major goals. The first was to undertake a characterisation study on rim sherds derived from the three late-transitional Lapita localities discussed above, in order to add to the current research that is being done to understand the nature of late-transitional ceramic assemblages. The assemblage was analysed using a range of attributes of rim form as well as decorative technique and rim modification, and applied multivariate statistics to classify the data sets into recognizable groups. The second goal was to report on any temporal changes that were observed in the characterisation results of rim sherds in order to provide insights into what was occurring at Watom Island at the end of the Lapita sequence. The results of the characterisation study have identified ten groups in the ceramic assemblage. Some of the rim groups were present throughout the archaeological sequence, starting in low numbers, when in the same horizons as Lapita pottery, but becoming dominant as Lapita-ware dropped out of the sequence. It is argued, therefore, that the results support arguments for the Lapita cultural complex going through a period of transition during the first millennium AD.

**Russell, Tristan (2012) *Long Distance Interaction in the Hawaiian Islands. A Case Study From Kaua'i.***

The KAL-4 rockshelter site is located on the Na Pali coast of Kaua'i, in the Hawaiian Islands. During the 1982 excavation of this site, 735 volcanic glass artefacts were recovered. But, as there are no geological examples of volcanic glass from Kaua'i, or geological evidence to suggest that there is a volcanic glass source on Kaua'i, the source of these artefacts has remained a matter of speculation. There could be an as yet undiscovered source on Kaua'i, or sources on the smaller islands of Necker, Nihoa or Ni'ihau to the

west. Alternatively, there may have been interaction with the islands to the east with known sources of volcanic glass. The present study aims to investigate volcanic glass on Kaua'i as a measure of long distance interaction. Non-destructive energy-dispersive X-ray fluorescence analysis (pXRF) was used to geochemically examine the elemental composition of artefacts in an attempt to identify the source of the volcanic glass found at KAL-4. Lithic technological analysis was carried out to identify the key features of artefacts and general patterns through time. Geochemical analysis highlighted the presence of three distinct groups; 1) Hawaiian Basaltic Glass (HBG), 2) Oahu Basaltic Glass (OA-BG) and 3) a number of natural stones and other material mistaken for volcanic glass. The presence of OA-BG indicates interaction between Kaua'i and other islands, but the limited quantity (n=3) suggests this was restricted. Technological analysis highlighted three distinct stages of lithic development; a period when raw material use appears typical of other sites with volcanic glass, a more 'wasteful' period when people are discarding more and larger pieces and a conservative period where little volcanic glass is wasted or unused. These stages, in combination with the three volcanic glass groups, suggest that inter-island travel and communication occurred, and changed, through time.

**Sutherland, Virginia (2012) *Archaeological Approaches to Māori Identity.***

This dissertation explores how concepts of Māori identity have been drawn from and influenced methods and terms of archaeological interpretation. It illustrates some of the colonial concepts framing what is interpreted from the archaeological record, including traditional Western ideas of progress, 'civilisation' and racial superiority, and attempts to identify their effects on narratives of the past in Aotearoa New Zealand. A special focus is terminology and definition, including how we approach the relationship between tangible material evidence and intangible ideas of cultural or ethnic identity. Topics explored include material culture, with emphasis on the adze as a foundational symbol of Māori identity in archaeology, and land use, specifically the concept and treatment of pā as they interlock with dominant narratives.

**Till, Charlotte Emma (2012) *Heritage Implication Resulting from the Canterbury Earthquakes: An Introduction to Natural Disaster Impacts Upon Tangible and Intangible Heritage.***

Heritage. It is something that each of us is bound to inseparably whether we actively appreciate it or not. In its tangible form heritage easy to see, it is the buildings sites and structures that dot the landscape that we as active members of society interact with on a daily basis. This interaction leads to the development of intangible heritage, our very own cultural heritage, our very own identity. When human action gets in the way of the planted doing what the planet does the result is defined as a Natural Disaster. Tangible heritage structures can bear the brunt of these disasters but it is how we react after such events that define our identity; do we repair and rebuild or do we demolish and start a new? The Canterbury earthquakes of 2010 - 2011 provide an unprecedented

current case study for examining the affects of a natural disaster of heritage in a modern New Zealand setting. Something that on the scale seen has never happened before in this country's history. The initial jolt of September 4th 2010 damaged Canterbury heritage, the devastating aftershock of February 22 2011 decimated heritage and the continued aftershocks are rattling communities to their knees. The resulting demolition works have seen drastic impacts on personal, local, regional and national identity. People all relate to heritage in a different way but it is not until heritage is ripped from us that people realise just what they have lost. It was the research aim of my investigation to identify just how much heritage (both tangible and intangible) has been lost in the Canterbury region as a result of the earthquakes and aftershocks as well as the following demolition works. I also aimed to investigate how the New Zealand recovery response stacked up from a heritage perspective and how this compared to other recovery operations after disasters using case studies from around the world. Lastly I sought to grasp the identity of the community and explore how the earthquakes and demolitions have impacted upon individual's, their sense of place and belonging and how the moving and shaking of the earth has been mirrored in the moving and shaking of peoples ideologies around heritage as well as their own identity. The incredibly complex and thorny nature of my research has resulted in some key findings and also presents a road map for future research once the required resources become available in the coming years as the Canterbury region and Christchurch city region their footing and stand once more. At the time of publication 272 tangible heritage structures have either been demolished or soon will be with untold others still on the chopping block as aftershocks continue to ravage the region. This staggering loss of heritage over such a short period of time has resulted in immense outpourings from individuals and communities as their intangible heritage, their cultural heritage, their very own identity is loaded onto the back of a dump truck before their eyes. It is clear from my research that heritage has not been a major part of recovery planning despite New Zealand having heritage protection legislation but rather political, economic and outsider influences have been at the forefront and as a result heritage has been pushed aside into the 'too expensive', 'too time consuming' basket. Communities have been left to pick up the pieces of their once proud landscape and have been forced to accept that the heritage they once knew is gone forever and is not coming back. As a nation we were tested, Canterbury paid and is still paying the price, but it is how we choose to move forward that will be the most rewarding case study of all.

**Waterworth, Jessica (2012) *Lawrence Chinese Camp: A Taphonomic Analysis of the Phase One Sample Assemblage.***

This is a study of a sample of the faunal assemblage from the Lawrence Chinese Camp, the only solely-Chinese community within the pioneer era of New Zealand settler society. By looking at the proportions of butchery practices and range of taxa present in the Lawrence Chinese Camp Phase One sample assemblage, in comparison to three other sites -Baird's Hotel

(a rural, New Zealand-European site located in Central Otago), Carlaw Park (a suburban, overseas Chinese site located in the North Island of New Zealand), and Pierce (a mining camp occupied by both Euroamerican and overseas Chinese settlers in North-Western America) -we can see that there are differences in culture between the overseas Chinese and the European settlers in both North America and New Zealand, which are evident through the diet and the butchery practices used.

## 2011

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**Alderson, Helen (2011) *The Distribution of Lithic Materials through time and space in Prehistoric New Zealand.***

This dissertation investigates the distribution of lithic materials throughout prehistoric New Zealand. The lithics discussed in the dissertation are obsidian, Tahanga basalt, Nelson metasomatised argillite, greenstone and Southland argillite. The research was conducted in two phases. The first phase ascertained the distribution of the lithics through time and space, through research of published and unpublished archaeological literature. The research was collated into archaeological regions, and through this broader patterns of distribution through time and space throughout prehistoric New Zealand were observed. All lithics experienced a change in distribution after AD 1500. The distribution of obsidian, Tahanga basalt and Nelson metasomatised argillite decreased, contracting towards their source areas. Southland argillite's distribution halted completely after the Sixteenth Century. Conversely, greenstone's dispersal proliferated after AD 1500, although it was present in the early period of settlement. The second phase of the research explored a range of possible models that could explain the change, looking to announce a model or models as explanatory of lithic distribution changes. Models of change were gathered from prominent national and international literature. The models were grouped under larger model categories. These models were "socio-political development", "resource depletion", "environmental catastrophism" and "changes in lithic production systems". The four models were tested against each of the five lithics using a "checklist" of criteria. The over-lapping of some of these criteria with those of other models lead to the development of a "graded model system" that could be used to isolate the best models of lithic distribution change. Through this, "socio-political development" was ranked as the primary model of change. "Socio-political development" could be used to explain distributional change over all five lithics discussed in the dissertation. Despite this, the "graded model system" also acknowledged "resource depletion" and "changes in lithic production systems" as secondary and tertiary models.

**Codlin, Maria (2011) *The First Hawaiians: the date and distribution of early settlement in the Hawaiian Islands.***

A recent review of radiocarbon dates from East Polynesia (Wilmshurst et

al. 2011a) suggests that Hawai'i was colonised at the same time as other East Polynesian islands in a rapid expansion from Central East Polynesia after AD 1200. This date of colonisation contradicts archaeological and paleoenvironmental evidence for human settlement in Hawai'i by AD 1000-1200. This study investigates this issue using a spatial approach to understand the timing and distribution of the first human settlement of the Hawaiian Islands. Expectations for the number of sites we should see in a colonisation process is derived from the well researched early chronologies of New Zealand and Samoa. The number of reliably dated sites between AD 1000-1200 in Hawai'i's prehistory fits the expectations for colonisation best, while the number of reliably dated sites between AD 1200-1400 exceeds expectations. The location of sites in both periods is analysed in relation to implied access to agricultural and marine resources, as well as their distribution over the islands. The overall pattern of distribution suggests a settlement history in line with Kirch's (2010) recent chronology for Hawai'i, with early coastal settlement on O'ahu, and later to the other islands centred on agricultural production.

**Cunliffe, Emily (2011) *South Coast Papua Lapita - A late Lapita Province? Characterisation analysis of Obsidian from Bogi 1, Caution Bay.***

This dissertation presents a geochemical analysis of a sample of obsidian from the assemblage excavated from Bogi 1, Caution Bay. The Caution Bay site complex is located near Port Moresby and it the first known lapita settlement on the Papuan south coast. The site is dated from the Late Lapita period through into the Early Papuan Pottery phase.

The study is primarily concerned with determining the source of the obsidian, and using this information to establish the nature of the Bogi 1 Lapita settlement in the broader context of Late Lapita. Contemporaneous Late Lapita populations in other areas within the parameters of the culture show a pattern of regionalisation and localisation of resources such as obsidian. The obsidian results suggest that Late Lapita occupation on the south Papuan coast fits the model of regionalisation apparent elsewhere during this period, and the Early Papuan Pottery phase was a more intensive period of exchange than in previous Lapita settlements.

**Hughes, Julia (2011) *Pyle's Cottage, St Bathans and Vernacular Architecture in the Gold Fields.***

Vernacular architecture of the historic period in New Zealand can be characterised by the technological innovations of the nineteenth century. Materials such as corrugated iron were adopted rapidly in New Zealand as a way of quickly establishing towns and cities. The use of corrugated iron and timber framed building can be seen as a result of and catalyst for the rapid development of feeder towns of the gold rushes in Central Otago. The methods of construction and nature of building materials of the mining settlements of the gold rushes in Otago are not well known. This report focuses on a mid -nineteenth century cottage in St Bathans, Central Otago. The cottage was owned by William Pyle, a merchant in the town. It is believed that the cottage was built in the formative years of the settlement in the mid to late 1860s. The investigation of the building, aims

to provide a date of construction for the building, and to provide information on the building traditions which characterise the changing nature of vernacular architecture in the nineteenth century.

**Knox, Ben (2011) *Obsidian Exchange in the South: PXRf analysis of two sites from the north of the South Island.***

Abstract not available.

**Rees, Bethan (2011) *Prehistoric Subsistence Practices at Tokanui River Mouth.***

The Polynesian settlers who colonised the most southern coastline of New Zealand some 700 years ago, had to face and adapt to new challenges such as the adverse weather conditions of the temperate country and the inability to grow their traditional agricultural crops. They had to rely on the prolific fish and shellfish species that lined the temperamental coast, as well as the large sea mammals that lived along its shores. By conducting systematic excavation into archaeological midden sites it is possible to analyse the faunal components left behind, and to determine what the ancient people were exploiting and consuming. The site at the Tokanui River mouth has evidence of two prehistoric layers of occupation. By comparing the faunal remains in these two layers, it is possible to determine if there was a change through time in the dietary components of these people, and what the reasons that initiated these changes may have been.

**Shirley, Brenden (2011) *Improving Historic Archaeological Site Management in New Zealand using GIS Technology: analysis of the Preservation Inlet Gold Mining Settlements.***

This dissertation examines the ways in which historic archaeological sites are recorded and presented in New Zealand and how this could be improved with the addition of GIS technology. In particular, it addresses the New Zealand Archaeological Association Site Recording Scheme known as ArchSite. The way the records are presented and what material is included is of particular interest. It was decided the simplest and most straightforward way was to examine a small area with a variety of sites that is poorly represented in the ArchSite database. It is for this reason that the mining township sites at Preservation Inlet were chosen as the basis for this research. Through the use of GIS technology, a database was developed based on the feature level of the site. This allowed for a wide ranging and comprehensive understanding of these sites to be developed in a way that was not available or possible in previous databases. Through the use of this feature level database, it is hoped that the significance and integrity of these under represented sites can be fully appreciated and help contribute to the wider ranging subject of gold mining in 19th century New Zealand.

**Tremlett, Luke (2011) *Reconstructing Russell: evaluating the archaeological record of one of New Zealand's earliest towns.***

The historical archaeology of the Russell area will be the focus for this

study. Located at the Southern end of the Bay of Islands, Russell is one of the first European settlements in New Zealand. Consequently the Russell area is of archaeological interest and has been the subject of many investigations, nearly all of which are stored on grey literature databases. This literature is difficult to access and has contributed very little to our understanding of New Zealand archaeology. Primarily this dissertation will synthesise grey literature to assess the extent to which archaeological site contexts can be dated, and what these dates can reveal about change over time in Russell. It is intended that this research will synthesise past archaeological investigations to form new understanding of the dating of historic sites in Russell, and the reconstruction of human activity in Russell from archaeological evidence.

**Woods, Naomi (2011) *Pakeha Ceramics as Dating Tools: creating a chronology for the Te Hoe whaling station.***

Very little is known about the chronology of the whaling station of Te Hoe in the Hawkes Bay region of New Zealand. This dissertation aims to shed some light on the sequence of historic occupation there through an analysis of the ceramic assemblage. To facilitate this analysis, a model was developed which characterises the typical "Pakeha" period (1792-1860) ceramic assemblage and identifies which attributes of the ceramics are useful for dating purposes. The results not only provide some much needed evidence for the occupation period for the station but prove the applicability of the created model for other, similar archaeological problems.

## 2010

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**Maxwell, Justin (2010) *Conservation of Rakau Momori. An archaeological investigation of historical and current management practices.***

Culturally modified trees on Rekohu (Chatham Island) represent a unique materialization of Moriori culture in the carvings of anthropomorphic figures, animals and abstract images on kopi trees. Known to the Moriori, the carvings have been protected within reserves in recent years, acknowledging their importance to iwi Moriori and the wider community. Rekohu has been subject to substantial environmental change since European contact, and these changes have had a negative impact on the geographic distribution and number of rakau momori. The rate at which carvings are being lost is still rapid despite the implementation of conservation measures since the 1970s. Whether this trend is a result of natural ageing of the host trees or the outcome of historical human actions is investigated. The number of rakau momori at risk is assessed and the reasons for continued loss of rakau momori and associated kopi groves are investigated. Historical and current conservation measures for preserving rakau momori in place are critically assessed and new strategies to improve the health of the varved trees are identified.



Key words: Moriori, Chatham Island, Rekohu, rakau momori, culturally modified trees, conservation.

**Mitchell, Peter (2010) *Why Were the Kuri at Purakaunui? An examination of the bird and mammal components of the 2001-2003 midden sample from Purakaunui (I44/21).***

Archaeological investigations of the Purakaunui archaeological site (I44/21) have thus far been focused on the nature and implications of finfish and shellfish exploitation at the settlement. Anderson (1981) interpreted the site as a temporary fishing camp, occupied sporadically during the early fourteenth century A.D. Recent analysis of the finfish and shellfish components of the midden sample collected during 2001-2003 excavations at the site have challenged this original interpretation and suggest that the site may have been occupied over a longer period. Pits and structures were also found during these excavations, hinting at a more complex settlement than initially believed. Analysis of the bird and mammal constituents of the 2001-2003 Purakaunui midden assemblage is presented to further test the interpretations of settlement at the site. The results of this study also challenge the original interpretation of the site as a temporary fishing camp and point toward a more complex settlement, one where the husbandry of the Maori dog (kuri) played an important role.

**Tonkin, Sarah (2010) *The Chatham Islands: Three Peoples, One Land. A discussion of the landscape beliefs of the English, the Maori and the Moriori.***

The Chatham Islands have been colonised three times by three different peoples: The indigenous Moriori, the invading mainland New Zealand Maori, and the settling English farmers. All three of these peoples have markedly different attitudes and beliefs of landscape, and their obligations and rights in relation to the use and ownership of land, all evident on the one physical location. The English settlers regarded land as a commodity to be bought, sold and made profitable. They also believed in individual and geographically based tenure, requiring extensive modification of land as proof of ownership. Maori had deep spiritual and genealogical connections to their land, a functional understanding of tenure and a well developed sense of reciprocity and revenge. Land not originally 'owned' by a group could only be gained through gifts or wars, both actions requiring payment. The Moriori had abolished war and subsequently the acquisition of land. All land on the islands was 'owned' and occupied, and could not be taken or gifted. Their attitude towards land was purely functional. The taking of their land firstly by war and secondly by commerce were the use against them of two concepts previously unknown and foreign to them.

**Davies, Talfan (2009) *Built on Gold and Industry: A Review of Urban Archaeology in Dunedin.***

This dissertation looks into what can be inferred about the history of Dunedin City through the study of the urban archaeological investigations that have been undertaken to date. There have been a significant number of urban investigations conducted within Dunedin City; the majority of which have uncovered large quantities of material that can be linked to specific events that are recorded as occurring in Dunedin's history. This dissertation compiles the information gathered from the separate investigations to see what can be inferred about Dunedin when looking at the complete archaeological record.

The individual contexts within the investigated urban sites are studied and used to infer what activities had occurred and the time periods covered within the separate sites. These contexts are then used to discuss specific events and activities that are shown within the archaeological record and how it relates to the larger picture of the growth and development of Dunedin City through the nineteenth and early twentieth centuries.

**Garland, Jessie (2009) *The Spaces in Between: A Comparative Analysis of Archaeological Approaches to Contact in Classical and Modern Colonisation .***

Through a comparative analysis of archaeological approaches towards colonial contact during the so-called classical and modern eras of colonization, this study seeks to explore the theoretical background behind recent scholarly publications on the subject. The sub-disciplines of Classical and Historical archaeology share a reliance on documentary and material records as well as encompassing two of the more prominent instances of colonial expansion in regard to the development of the modern world. They remain separated however, studied as separate disciplines in certain institutions and it is the purpose of this work to see how far below the surface the distinction goes. In light of the dissolution of the Western colonial empire of the last few centuries and the development of post-colonial and post-modern philosophies it is of interest to see how well those theories have been applied to the ancient world and whether their permutation of Classical Archaeology coincided with their application in a modern context. These aims have been addressed through the analysis of a selection of case studies illustrating the various ways in which colonial contact has been approached in each context, comparing the two fields on a variety of levels. It is evident from this analysis that there are trends in theoretical and practical approaches to contact that exist within each sub-discipline as well as those which transcend the boundary between them, suggesting that there could be further benefit to archaeological investigations in looking beyond the superficial divisions of the various fields within the discipline as a whole.

**Gosling, Anna (2009) *Larnach's Farmsteading: an archaeological and historical study.***

This dissertation describes the history and archaeology of the site of Larnach's Farmstead (I44/412). This site consists of a group of farm buildings located on Otago Peninsula constructed for the late William James Mudie Larnach in the 1870s to 1880s. This study contributes to the small amount of literature available on the topic of historic farmstead archaeology in New Zealand. Historical research in conjunction with mapping and site description was undertaken to help determine why the buildings were constructed in the manner they were. Comparison with other historic farm buildings found that Larnach's farm steadings were not unlike other New Zealand examples in the architectural sense, but their spatial orientation, in relation to each other and in relation to the landscape, makes them unique.

**Hauman, Cathleen (2009) *The Social Organisation of Bronze Age Thailand: A Comparative Study of Mortuary Ceramics from Ban Non Wat and Ban Lum Khao.***

Southeast Asia is anomalous in that a hierarchical type of social order does not appear to have developed with the onset of the Bronze Age, as was the case in the rest of the world. Two sites in Northeastern Thailand, Ban Non Wat and Ban Lum Khao, were chosen to test whether hierarchical structures were present in the early Bronze Age through a comparative analysis of one of the most common mortuary ceramic vessels, form 5E according to the classification system developed by O'Reilly (1999; 2004) and Barribeau (2007) for Ban Lum Khao and Ban Non Wat, respectively. The lip, neck and body diameters of this broad trumpet-rimmed and slender-necked form were recorded and converted into lip to neck and body to neck ratios for further analysis. Scatter plots indicated that the vessels from two early and very wealth Bronze Age phases at Ban Non Wat (Ban Non Wat BA2 and Ban Non Wat Ba3) were very similar to those from the relatively poor mortuary phase of Ban Lum Khao. This similarity was confirmed using ANOVA and post hoc Scheffe tests. It is proposed that the similarity in these vessels indicates that they were manufactured roughly contemporaneously. This indicates that a very rich group of people were living at or around the same time as a very poor group of people. The evidence at Ban Non Wat for wealth and status differentiation would undoubtedly have affected the social organisation of Ban Lum Khao, which, due to its much smaller excavation area, may still yield evidence of hierarchical structures.

**Lilley, Kate (2009) *Prehistoric Fishing in Central New Zealand and the investigation into Impacts on Environmentally Sensitive Snapper.***

This dissertation sets out to examine the nature of prehistoric central New Zealand fishing, with a particular focus on the size and abundance of snapper. The investigation is undertaken by examining previously studied central New Zealand archaeological sites, as well as an unstudied midden assemblage from Port Taranaki. These archaeological assemblages provide case studies for the marine zones exploited by prehistoric Maori. This study also examines the relative importance of specific fish species, both spatially and temporally.

Firstly, this study examines the environments exploited and fish species targeted in central New Zealand during prehistory, with a particular focus on the Port Taranaki fish assemblage. Snapper are the dominant species represented at Port Taranaki, followed by labrids. The midden mainly comprises of inshore demersal species which are commonly caught with baited hook. Pelagic fish commonly caught with lures are of secondary importance. When examining central New Zealand sites as a whole, some commonalities can be seen. In all sites examined, the prehistoric people focussed almost exclusively on inshore fisheries, targeting available habitats, for specific species. These people appear to have used demersal baited hooks as their primary fishing strategy. However, at some sites pelagic lure fishing was dominant. The main trend seen over time in central New Zealand is a decrease in snapper catch. This generally coincides with an increase in barracouta and red cod in the northern South Island and an increase in labrids in the southern North Island. The variation in relative abundance of species between the northern South Island and the Southern North Island is likely to be associated with environmental factors.

This dissertation also analyses snapper remains to determine whether regional patterns can be inferred. It also examines whether environmental or cultural impacts can be identified from this environmentally sensitive species. Live fork lengths of individuals are estimated from archaeological snapper bones from Port Taranaki, Kaupokonui, Rotokura, Mana Island and Foxton. Snapper from all multi-layer sites show an increase in mean size over time and this coincides with a decline in snapper abundance. Variation in snapper size can be seen throughout central New Zealand with individuals from Rotokura, Port Taranaki and Kaupokonui having larger fork lengths than Mana Island and Foxton. Although similarities and differences can be clearly seen when examining these assemblages, it is difficult to determine the reason for these results. This is due to the myriad of variables which influence the nature of individual snapper populations.

### **Webb, Kirsa (2009) The Farmsteads of Harbour Cone: An Archaeological Analysis.**

This archaeological analysis explores the nature of the physical remains of a number of farmsteads within a small agricultural settlement at Harbour Cone on the Otago Peninsula. An intensive field survey was carried out at some of the farmsteads which described and mapped the surface features of the sites with the aim of developing an interpretation of the economic activities and social interactions within the Harbour Cone community, as well as increasing understanding of the nineteenth century development of agriculture in New Zealand. The subsequent abandonment of dairy farming at Harbour Cone has left behind a pristine archaeological landscape of outstanding archaeological and historical significance.

**Bell, Alex (2008) *Field Systems at Pouerua: An archaeological survey and interpretation.***

This dissertation research project examines the extensive prehistoric and early historic horticultural remains that surround Pouerua pa in the inland Bay of Islands, Northland. While the central Pouerua pa and surrounding settlements have been the focus of much study in the past, the horticultural remains which dominate the Pouerua archaeological landscape have received little attention. This dissertation project aims to help address this imbalance by examining the horticultural remains at Pouerua. Field survey data gathered in 2008, and a detailed topographic map of the Pouerua landscape produced in the 1980s as part of the Pouerua Project, provided a starting point for understanding the nature, distribution and, relationship of the horticultural evidence at Pouerua. This project examines the different forms of horticultural evidence at Pouerua and variation within features. It also looks at the distribution of feature across the wider Pouerua area and the relationship between archaeological features, and archaeological features and the Pouerua landscape. The second half of the project then applies this information to the concept of temporal change, and investigates whether temporal change is evident in the Pouerua field systems and how it presents itself.

**Bull, Simon (2008) *Investigating the shellfish assemblage from Purakaunui (I44/21).***

Shellfish evidence from the site of Purakaunui I44/21 has previously been seen to change over time. This research examines a different sample from the same site for evidence of continuation of this pattern. The results of this research indicate that the assemblage is dominated by a single species over time. This evidence is compared to the shellfish data from a set of North Otago sites that are positioned near a range of shellfish habitats. These comparisons show that Purakaunui fits into a regional pattern of shellfishing. This pattern is focussed on prominent shellfish species in close proximity to the site. This focus changes little over time. An issue of site stratigraphy for the site this assemblage is from is also addressed. It is found that there is little evidence in the shellfish midden to support previous assertions made about stratigraphic relations.

**Clifford, Emma Jean (2008) *A Meaningless beauty contest between nations? Geographical representivity on UNESCO's World Heritage List with a focus on the under-representation of Pacific Cultural Heritage.***

The cultural heritage in the Pacific region is a major problem area in UNESCO's endeavours for a representative and credible World Heritage List. The region has a total of 9 cultural and mixed (cultural and natural) sites on the WHL. This represents 1% of the total cultural and mixed sites listed on the WHL. Through an investigation of both UNESCO and ICOMOS

documents and the scholarly literature on the topic of representivity, a number of reasons for these disparities become evident. These reasons are highlighted as either arising from the ineffective function and structure of world heritage or stemming from the ambiguity of concepts of heritage at an international level. Once these general reasons are applied to the Pacific cultural heritage and the current Pacific social and political situation, the reasons for the lack of the Pacific cultural heritage on the WHL becomes clear. The major issues lie in the lack of effective management strategies and the conflict between the Pacific definition of cultural heritage and the definitions of UNESCO. Finally an assessment of the strategies for increasing representivity by both UNESCO and ICOMOS was undertaken. It was concluded that the strategies were relatively limited in their effect.

**Culley, James Paul Alexander (2008) *The Protection of New Zealand's Movable Cultural Heritage: An Overview and Critique.***

This investigation assesses the way that New Zealand safeguards its movable cultural heritage. The focus is on archaeological material, both its protection in situ and after excavation. An appraisal of the New Zealand system was conducted through the examination of international conventions, past and present national legislation, domestic case studies, the New Zealand market, and two global case studies (Italy and Australia). The most imperative findings were that New Zealand needs to increase public awareness of the issue, enhance the protection afforded to non-Maori archaeological objects to the same level bestowed upon taonga tuturu, and revise the protection of its underwater cultural heritage.

**Harris, Nathaniel John (2008) *An Archaeological Education: A Study of Anthropology 103.***

A qualitative investigation of why students in the undergraduate Anthropology 103 class choose to study archaeology and how their perception and understanding of archaeology changes after taking part in this class. This research is then examined under the broader idea of understanding archaeology's role in contemporary society in conjunction with a review of the relevant published literature. This research aims to increase knowledge around archaeology as a socially constituted discipline and the role that higher education has in changing people's understanding of archaeology.

**Potts, Kirsty N (2008) *Symbols of Power in the New Zealand Archaeological Record.***

This dissertation is an examination of symbols of power in the New Zealand archaeological record. There has been little research done in New Zealand specifically on social power. The aim was to examine power in a relevant way to allow identification of symbols of power of the prehistoric Maori.

A review of the international literature, and reconsideration of the New Zealand published literature, allowed a select number of sources of power, and three examples of symbols of power, to be identified. The

whale tooth pendent and Maori comb are identified and justified as symbols of power. These first two symbols of power were primarily associated with ideological sources of power and were personal adornments. The Pā is reviewed in terms of power as a theoretical case study. It is concluded that there is a potential for theories of social power to be applied to the New Zealand archaeological record, but further research is required.

**Slater, James N (2008) *A Cutting Analysis: A study of obsidian resource maximisation from a Lapita assemblage on Watom Island.***

This dissertation presents the results of a sourcing and technological analysis of obsidian artefacts from a Late-Post Lapita site, Kainapirina (SAC), located on Watom Island, East New Britain Province, Papua New Guinea. This dissertation involved two major goals. The first was to undertake a technological study of obsidian to determine whether or not a model of resource maximisation was applicable to explain the behaviour behind the reduction. The second goal involved a sourcing study of obsidian which was compared with other Lapita sites from a regional perspective in order to identify connections through time. Comparing the study of obsidian technology and sourcing analysis provides a powerful tool to assess models of interaction between Late-Post Lapita communities. Through the use of a technological analysis and obsidian sourcing study using PIXE-PIGME, this research argues that resource maximisation was not taking place at Kainapirina (SAC) and that there was no significant change over time in the proportion of obsidian from the different source regions.

**Teele, Ben (2008) *Symmetry Analysis on New Zealand Stone Adzes.***

Symmetry is an important trait in New Zealand stone adzes. However, it is only sporadically mentioned in the New Zealand literature. It is important to determine what level of influence symmetry has on final adze form and function. This study examines a range of adze types sampled from a museum collection. Asymmetry values were produced using an automated software program, which were compared against other recorded adze variables. The results show variable symmetry levels across a range of different adze characteristics, notably the state of an adze, its blank type, and its form. Symmetry was actively sought by the tool worker, having an important effect on determining the functional use of an adze, and was constrained to some degree by material form and manufacturing technology. Measuring symmetry provides a quantitative value to a qualitative description, which can be used to reinforce existing lithic research, highlighting an important variable in New Zealand adze form.

**Tyrell, Elizabeth (2008) *Modern Contexts: how reconstructions of archaeological sites across the world are influenced by contemporary issues.***

Reconstruction as a method of preservation for archaeological sites and features is often disputed within the archaeological community and

several guidelines have been issued advising its use only under exceptional circumstances. Despite this, it has continued to be funded in many countries across the world and its use has increased over the last three decades, with millions of people choosing to visit reconstructed sites every year. The reasons as to why these sites have been chosen for reconstruction are discussed through the use of six case studies from England, Japan, Egypt, the United States, Easter Island and Crete. These include Stonehenge, Yoshinogari Historical Park, the North Palace at Amarna, the Alamo, Ahu Tongariki and the Palace of Minos respectively. Several political and social motives are shown to drive these reconstructions, with each example exhibiting several, interconnected underlying factors. These include nationalist, capitalist, cultural, social and educational influences. The need for archaeologists to actively take more control over this type of preservation method to prevent the unethical use of archaeology is also discussed. This research demonstrates that reconstructed interpretations of the past are usually created for the benefit of the general public and that as the contemporary politics behind them change, so do the pasts they represent.

**van Halderen, Karen (2008) *The Absence of Ceremonial Monumental Architecture in New Zealand.***

The absence of ceremonial monumental architecture in New Zealand is of interest to archaeologists as it contrasts with the rest of the island societies of Polynesia in that it is the only island archipelago in the region that lacks this form of architecture. This study identified possible reasons for the lack of ceremonial monumental architecture in New Zealand by reviewing three models in light of case studies from Polynesia, and then applied them to the situation in New Zealand. The key concepts of resource availability, productivity, environmental conditions and surplus energy were found to be the most influential factors. Surplus energy in particular, was a common theme in all three models and is considered to be the major reason for the absence of ceremonial monumental architecture in New Zealand.

**Van Sant, Lillian Sheridan (2008) *The Spatial and Temporal Distribution of Prehistoric Burial Practices in Oceania.***

Secondary burial practices are associated with ritual beliefs that impact on a community's life far more than what is revealed in the archaeological record. The widespread presence of this burial ritual in Oceania signifies a continuity of spiritual belief and indicates interaction among communities. This study investigates the spatial and temporal distribution of burial practices in Oceania, considering Robert Hertz's study, *The Collective Representation of Death*. This study focuses on the ritual meaning behind secondary burial, particularly concerning the soul. The transition made from death to the land of the ancestors can be observed in the archaeological record, given knowledge about death rituals is known. Therefore, Hertz's theories on secondary burial can be



directly applied to the interpretation of archaeological data of burial practices. This study examines the distributional patterns of burials practices and what they reveal about past societies. These patterns are furthered examined as an investigation into the origins of the Lapita Cultural Complex. The Lapita site, Teouma in Vanuatu has yielded a burial ground which exhibits specific burial ritual. All the burials were found without articulated skulls, several were in flexed positions, while one burial was found with three skulls placed on its chest. This site present a basis of comparison of burial practices elsewhere in Oceania. By examining the spatial and temporal distribution of various burial practices, interpretation is provided on the origins of the Lapita Cultural Complex.

**Vanstone, Jessica (2008) *Nephrite Working at Buller River Mouth (K29/8)*.**

An assemblage of nephrite fragments and tools from Buller River Mouth (K29/8) were analysed to contribute to an understanding of how nephrite was worked in the early period of Maori prehistory. Nephrite is generally understood to be associated with the Classic period of Maori culture, however its presence at Buller River Mouth means that it was utilised from not long after the colonisation of New Zealand. Nephrite working in the Classic period of Maori culture was done by sawing and grinding, and nephrite flaking has generally been considered to be associated with poor quality stone and due to a lack of understanding of the sawing process. The evidence from Buller River Mouth indicates that flaking was the prominent method of working nephrite and evidence of flaking occurred on many different grades of stone. The method of sawing was also occurred at Buller River Mouth indicating that the flaking method was used for reasons other than lack of understanding of the sawing process. This research contributes to our understanding of nephrite use at the early colonisation period of Maori culture.

**Wadsworth, Tristan J (2008) *Warfare, symbolism, and settlement: A critical review of pā literature*.**

Pā are complex aspects of prehistoric Māori culture that have been the subject of many significant archaeological studies. Pā are fortifications, and though a concern for defence is evident in their construction, the exact level of their association with warfare is not evident. A substantial survey of individual pā is necessary to investigate this association among pā. The defensive function of pā does not necessarily preclude alternate functions, and a symbolic function, compatible with the defensive function, is highly plausible. In addition to acting as fortifications, pā are examples of monumental architecture that act as symbolic and ideological portrayers of community identity and influence. Interpretations of pā vary, and it is likely that their role in settlement patterns does as well. Occupation of pā likely varies regionally and individually, with varying seasonal and fluctuating occupation. The distribution and use of space within pā has not been a major focus of pā studies, and further comparative work is required in this field. It is obvious that pā are highly important actors in settlement patterns, and both political and economic

factors are evident in their situation and spatial distribution. Pā remain an important focus of archaeological studies in New Zealand, but many research questions remain available for scrutiny, and the variable nature of pā should be considered before generalizations are made regarding their use.

## 2007

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**Brown, Andrew A (2007) *Lithic Technology and Raw Material Use at the Buller River Mouth (K29/8)*.**

A selected artefact assemblage of the predominant lithic materials (obsidian, argillite and Pahutane flint) from the Buller River Mouth site (K29/8) was analysed to investigate lithic technology and raw material use in the site. Formal tool types were not found within the flake tool assemblage however, some similarities were found to exist in retouch of Pahutane flint flake tools. This took the form of unifacial retouch which formed serrations along the margins of flake tools.

Analysis of artefact size and utilised edge sections for each material revealed differences in the exploitation of materials within the site. Argillite was used predominantly in adze manufacture whilst obsidian, the other exotic, high quality material was used in informal flake tools. These were smaller in size and were probably used more delicate tasks within the site. The local material, Pahutane flint was the most abundant material within the assemblage and appears to have been exploited for flake tools used in larger tasks than obsidian. This research contributes to the understanding of lithic technology, raw material use and raw material value within the Archaic phase of New Zealand.

**Geary Nichol, Rosie (2007) *Phimai Black Pottery: A study of Iron Age ceramic production and social organisation in Northeast Thailand*.**

Phimai black pottery is an Iron Age ceramic tradition specific to the upper Mun River valley of the Khorat Plateau, Northeast Thailand. The ubiquity of this ceramic tradition throughout all types of Iron Age site in the region has resulted in the use of Phimai black pottery as a significant horizon marker. The uniform appearance of Phimai black vessels has led many researchers to hypothesise centralized manufacture of these vessels, however little work has been undertaken to elucidate the production of Phimai black and its significance in the Iron Age society of the upper Mun River valley. This study applies the standardization hypothesis proposed by Rice (1981, 1987, 1991) to Phimai black assemblages recovered from the sites of Ban Non Wat, Ban Suai and Noen U-loke in order to relate concepts of specialized production and political centralisation to material evidence. The form, style and fabric of the vessels from each assemblage are assessed to establish any variation within and between assemblages. While certain components correspond to expected levels of homogeneity, the results of the electron microprobe analysis of the ceramic fabric prove more complex. A revision of the Phimai black production process is

undertaken and the resulting implications are applied to existing interpretations of late prehistoric society in the upper Mun River valley. The assessment of ceramic standardization therefore allows the construction of hypotheses concerning Iron Age economics and social organisation.

**Glover, Jenepher (2007) *Su'ena - An Adze Manufacturing Site on the Island of Uki, Southeast Solomon Islands.***

This paper presents an analysis of a stone tool assemblage from the site of Su'ena, on the island of Uki, Southeast Solomon Islands. In addition to understanding the assemblage's composition the analysis sought to determine the factors that were at work which resulted in the disproportionate distribution of chert lithic items at the site as compared to other sites on Uki. The majority of the assemblage consisted of debitage and unworked flakes, however, some cores were located. Very few formal tools were found, however, a significant percentage of debitage and flakes that were used opportunistically were located. It is concluded that Su'ena was a task specific site for the manufacture of adzes and that some repair and remodeling activity also took place there. After manufacture adzes were distributed to other sites on Uki.

**Thompson, Adam (2007) *Su'ena - Afula'ia: a garden in Tutuila.***

At the end of 2005 a large surface feature of a garden was discovered on the island of Tutuila, American Samoa, unlike any seen before. Large-scale, fine-detailed mapping revealed stone alignments for directing the flow of water from a permanent spring into two channels of garden plots suitable for taro cultivation. The style resembled a form of swamp irrigation adapted to the unique micro-environment, a band of swampy soils that line the base of the ridge dominating the island. The site is believed to be a single surviving example of a much larger tradition dating back to 500 BP based on similar stone alignments found in subsurface layers at 'Aoa. During this time extensive quarrying and trade led to the development of an elaborate system of defensive fortifications. The location of the garden at the base of a steep ridge offered valuable defensive positioning protecting its resource. Such precautions support the postulation that the site may be associated with the famed Tataga-Matau fortified quarry complex, located near the site, that supplied high-quality basalt throughout Polynesia.

The garden, called Afula'oa by the local informant meaning "the land that sweats" due to its continually moist nature, would have been used specifically for wet taro, a highly prized food for ceremonial occasions. As its overall size is small, it is believed that it would have had little effect on the overall population. Instead its primary importance was to supply food for the banquet accompanying malaga feasts in which pigeon-catching tournaments took the place of warfare in the competition for rank and prestige. The presentation of wet taro was integral to the proper hosting of highly-ranked chiefs. The discovery of this garden therefore attests to the importance of the ceremonies in Samoan culture.

**Hennessey, Matthew (2007) *On the Move: Mobility Pattern of the Early Phase Lapita Site at Kamgot.***

This dissertation presents a chemical characterisation study of the Lapita pottery assemblage excavated from the early phase Lapita site at Kamgot. The Kamgot site is a large Lapita village site located towards the north-western most coast of Babase Island, Anir Island group, Bismarck Archipelago. This study is primarily concerned with identifying the level of mobility utilised within the settlement pattern of the Kamgot population. The results of this study will be compared to chemical characterisation results presented by Summerhayes [2000] concerning the mobility patterns of the early phase West New Britain Lapita populations, and will identify whether the patterns of high settlement mobility identified by Summerhayes for these groups represents a localised settlement pattern or a typical early phase Lapita settlement strategy. It is argued that the chemical characterisation results of the Kamgot ceramic assemblage reflect a ceramic production strategy typical of a mobile population, thus suggesting that patterns of high settlement mobility during the early Lapita phase were not restricted to the West New Britain Lapita groups.

**Hogg, Nicholas (2007) *Settling Down: Mobility patterns of three mid-late Lapita sites in the Anir Group, Papua New Guinea.***

The research presented here involved the physico-chemical analysis of ceramics from three mid-late Lapita sites, Balbalankin, Malekolon and Feni Mission, located on Ambitle Island, the Anir Group, Papua New Guinea. This research involved two major goals. The first was to undertake the first physico-chemical analysis on ceramics derived from the three mid-late Lapita sites discussed above, in order to study the mobility patterns of mid-late Lapita settlements. The second goal involved testing the hypothesis put forward by Summerhayes (2000) which stated that a reduction in mobility occurred between the early and mid-late Lapita periods, with a subsequent development of sedentary settlement patterns in mid-late Lapita sites. To achieve these goals physico-chemical analysis was used to study the clay matrix and filler constituents of ceramics derived from the three sites detailed above. The use of multivariate statistical techniques upon the chemical data created by the physico-chemical analysis, allowed the definition of groups based upon chemical similarity. Through the use of physico-chemical analysis, this research argues that, the three mid-late Lapita sites had a sedentary settlement pattern and followed a local ceramic production strategy which involved the use of a limited number of locally sourced constituents in ceramic construction. It is argued, therefore, that the results from this research support the hypothesis provided by Summerhayes (2000) detailed above.

**McClintock, Kim (2007) *Chemical Characterisation of Pottery from Ban Non Wat, Northeast Thailand: The Transition from the Neolithic to the Bronze Age.***

Ban Non Wat is a prehistoric site located in the Mun River valley on the Khorat Plateau in northeast Thailand and has been excavated as a part of the Origins of Angkor project since 2001/2002. The site is unique in the area as an occupation was uncovered that spanned the Neolithic to the Iron Age. No other Neolithic occupation in this area of northeast Thailand is known in any of the literature either. This chronology is dated from calibrated radiocarbon date for the Neolithic at 1262-1055 BC, with the early Bronze age date to 1100-900 AD and Iron Age dates ranging from 400 BC until 400 AD (Higham pers.comm.). Ban Non Wat is a moated site located only 2 km from the site of Noen U-oke, and over 550 burials have been uncovered over the excavations history, with thousands of ceramic vessels found in association with the graves. The excavation during the season of the 2006/2007 involved the excavation of six 4 by 4 metre squares with occupation from the Neolithic to the Iron Age present in what has been interpreted as a continuous chronology.

**Spinks, Jean (2007) *The Archaeology of Place: the material culture of Codfish Island.***

Codfish Island/Whenua Hou is a place with a rich and diverse history. During the early nineteenth century the island was the location of a settlement that was a dual significance as it was the only substantial residential sealing settlement in New Zealand and the site of the first integrated Maori and European community. Recent archaeological investigations on Codfish Island have uncovered the remains of this nineteenth century settlement as well as several prehistoric occupation sites which date to the fourteenth and fifteenth century. The material culture recovered during this excavation is the basis of this dissertation. The artefacts are used to examine the life-ways of the people who inhabited the island and their utilisation of this place and its resources. The changing use of these resources is examined in terms of long term history of place.

**Williams, Hamish (2007) *Hard dates from soft bottles: dating New Zealand's historic period archaeological sites using patent aerated water bottles.***

Glass, especially bottle glass is often the most abundant, and perhaps the most ubiquitous artefactual material recovered from historic period sites in New Zealand. It is no wonder that the analysis of bottle glass assemblages are common practice for historic archaeologists, and chapters and appendices detailing recovered glassware is commonplace in the archaeological literature. As it is recovered almost systematically from all historical sites, it is an artefact class regularly used to make interpretations about human behaviour; both within and across sites of different types, locations, ethnic groups, and time periods. When a systematic analysis of the deposition context, associated material, and processes of site formation is made alongside a detailed descriptive analysis of recovered glassware, a wide variety of data is made available to the archaeologist; data which in many cases cannot be gleaned from available historic records.

# 2006

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**Butcher, Maria (2006) *Preserving our Past: Local Government and Cultural Heritage Protection in New Zealand.***

Regional, city and district councils have an important role to play in the protection of New Zealand's cultural heritage. The extent to which regional and local councils participate in the management and protection is considered. Case studies of selected regional and local councils addressed the issues of consistency across the country and co-ordination across different levels of government, with regard to managing and protecting cultural heritage. District Plans and Regional Policy statements were primary sources of information. The individual councils studied have interpreted their responsibilities towards cultural heritage in different ways. Variability in performance was most apparent between the two regional councils studied (Auckland Regional Council and the Otago Regional Council).

**Carter, Matthew (2006): *Going Under: An Assessment of Protection and Management Practice for Submerged Archaeological Sites in New Zealand.***

Beneath the waters that surround and intersect our nation lie submerged heritage resources that have the potential to provide New Zealanders with a unique view into the past. However, this opportunity is unable to be grasped as underwater archaeology in New Zealand is critically underdeveloped. As a nation we have a comprehensive legislative framework that provides for the protection of our terrestrial and submerged heritage. This framework is applied differentially to terrestrial and submerged sites, with terrestrial sites benefiting from active management and advocacy while submerged sites are neglected from protection schedules and heritage initiatives. The methods used for the protection and management of terrestrial and submerged sites are investigated through case studies of the Auckland and Otago Regions this provides a number of areas for comparison and analysis reflecting two very different styles of heritage management. Within the Auckland region heritage initiatives are readily undertaken to provide the heritage authorities in the region with a comprehensive framework from which to make heritage management decisions. Heritage authorities in the Otago region however utilise a much more passive approach to heritage management. This research demonstrates that unless a more pragmatic approach is undertaken towards the protection of underwater archaeological sites we will continue to lose a valuable and non-renewable part of our heritage.

**Coote, Logan Eyre (2006) *The Box by the Door': The Role of the Public in New Zealand Archaeology.***

The public in New Zealand have been involved with archaeology over a long period of time. The purpose of this study is to understand the public's role in archaeology as it was in the past, as it is now, and the role it could have in the future. This study looks at how archaeology has been perceived by the public. Interpreting archaeology and informing the public is looked at through the literature and the media. The public also learns about archaeology through Museums as well as visiting sites or excavations. Prior to the archaeological profession New Zealand the role of the public was mainly as private collectors and amateur archaeologists. They held this role until the 1975 Acts began to allow for the growth of professional archaeology and for the Historic Places Trust to take control of managing of New Zealand's archaeological resources. The role of the public, including bottle collectors and Maori, is shown through case studies. Commercialisation in archaeology has involved the public since artefacts were first collected and this has changed over time. This dissertation will discuss the relationships between the public and archaeology in New Zealand and will suggest future directions in this area.

**McPherson, Sheryl (2006) *A Critical Review of the Archaeological Application of Current Analytical Methods for the Improvement of Moa (Aves: Dinornithiformes) Research* .**

Moa research has played a prominent role in New Zealand science since its conception. Over the last 150 years the study of these giant extinct birds has added immensely to our knowledge of New Zealand palaeoecology, palaeozoology and archaeology. Recent advances in methodology has raised the potential of moa research to contribute even more fully to an understanding New Zealand's past. Unfortunately, in archaeology, this potential has not yet been matched by practice. This research essay reviews a range of new methods and new applications of existing methods, and develops a case for applying these to future moa studies in archaeology. It shows how the application of a number of these methods will improve our understanding of the historical inter-relationship between moa and Maori.

**Sarjeant, Carmen (2006): *Iron Age Mortuary Goods: A Comparative Study Between Ban Non Wat and Noen U-Loke, Northeast Thailand.***

Mortuary traditions reflect aspects of life of a past community, including their access to resources and technological developments. This study investigates differences between the mortuary goods excavated from two Iron Age "moated" occupation and cemetery sites, Ban Non Wat and Noen U-Loke, located in the Upper Mun Valley of the Khorat Plateau, Northeast Thailand. Material culture associated with industrial and funerary activities was recovered during excavation. These mortuary goods were employed to examine potential resources, trade and technologies that may have influenced the industrial, cultural, social, political, and religious

developments of the Iron Age. The purpose of this dissertation is to compare and relate the Iron Age mortuary samples excavated from Ban Non Wat and Noen U-Loke that are located approximately three kilometres apart.

Four distinct Iron Age mortuary phases were previously identified at Noen U-Loke. Unreported mortuary goods and burial treatments from the recent excavations of seven Iron Age burials at Ban Non Wat, a site with a chronology spanning from the Neolithic to the present era, are documented. It was concluded that the Ban Non Wat burial sample was most similar to mortuary phases two and three at Noen U-Loke.

The analysis of artefacts from the two sites found similarities that confirm funerary practices characteristic of the early Iron Age and differences suggestive of regional, economic and social aspects in mortuary practices, trade and exchange activities, and the development of industries and technologies. Both the Ban Non Wat and Noen U-Loke excavations exposed occupation and cemetery layers. Both sites provided evidence for spinning and for the exchange of marine items, Indian influenced ornaments and perhaps red ochre. Pig remains were important to mortuary rituals at both sites and fish remains were prominent in the Ban Non Wat sample. There was extensive evidence of ceramic specialisation at Ban Non Wat. Bronze and iron were more abundant at Noen U-Loke, particularly in the later mortuary phases, but there was greater evidence for casting over the entire Ban Non Wat site. Local rice production was suggested in some Noen U-Loke burials. Salt processing was likely to have been an important economic activity, seen in the presence of salt working mounds to the east of Noen U-Loke.

This research essay concludes that the early Iron Age burials of Ban Non Wat and Noen U-Loke had common mortuary traditions. The excavated mortuary goods provide archaeological data of value to the understanding of cultural traditions and social, political, industrial and economic pre-state progress throughout the Upper Mun Valley of Iron Age Northeast Thailand.

## 2005

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**Barribeau, Tim (2005) *The Spindle Whorls of Ban Non Wat: An Analysis.***

At the site of Ban Non Wat in Northeast Thailand, there is a large sample of small ceramic artefacts known as spindle whorls. These whorls are used in the production of textiles, and they are small and easy to manufacture. They are an introduced technology, and their morphology is reflective of changes in textile usage. Through a combination of statistical and spatial analysis, the whorls show distinct cultural changes in the wider environment. From morphological and metrical trends, they show



alterations in the use of the site, as well as showing contact and interaction with foreign societies. This allows them the potential to be used in similar fashions in other sites, to show important alterations in the society

**Briden, Shar (2005) *Archaeofauna from Sandfly Bay (I44/68), Otago Peninsula.***

Salvage archaeology at the I44-68 site of Sandfly Bay recovered a large suite of archaeological fauna. Identification and quantification of the faunal assemblage was made to understand early Maori subsistence and occupation on the Otago Peninsula. The presence of artefacts, fauna and ovens suggest I44-68 was a short-term habitation site. Subsistence strategies focused on coastal resources with opportunistic procurement of species away from the coast. The main species taken was barracouta (*Thryxites atun*) with smaller quantities of dog, rat, small bird, other fish and three species of moa. Fur seal, sea lion and elephant seal were found, with a few remains from juvenile small bird species. The avian fauna provide a new record of species extirpation from the presence of three premaxilla's from the South Georgian Diving Petrel (*Pelecanoides georgicus*) Murphy & Harper, that has not previously been recorded from the New Zealand mainland. Seasonal indicators based on contemporary coastal movement of small bird species suggest the site was occupied January to April (Davies 1980:70, McGovern-Wilson et al. 1996:232-233), while the seasonal movement of fish species is consistent with October to May (Anderson & Smith 1996:242). Together these suggest repeated use of the site in prehistory.

Radiocarbon dating on charcoal and small bird bone suggests two occupations. The first around ca. 668-550 cal. BP, and the second at ca. 545-459 cal. BP. (McFadgen 2005). These early dates are supported by the presence of Archaic style artefacts including a bone reel and a cache of bird spear points. Site stratigraphy is difficult to interpret and may represent a conflated single layer containing prehistoric material from several phases of occupation. The early occupation at Sandfly Bay may have ceased from the loss of forest vegetation and resulting increase in the size of the Sandfly Bay dune system.

**Cramond, Joanna (2005) *A study of Material Culture from a residence at the Lawrence Chinese Camp, Otago, New Zealand.***

The Lawrence Chinese Camp, situated approximately 90 km from Dunedin, was established by Cantonese goldseekers during the Otago gold rushes in 1867, and remained inhabited until the death of the last Chinese resident in the 1940s. The Lawrence Chinese Camp Charitable Trust is an organisation which was formed specifically to oversee the preservation and reconstruction of the site as an historic heritage attraction, with the goal date for the completion of the project set at 2010. The first of four seasons of archaeological excavation for the Charitable Trust was carried out from March to April 2005 by the New Zealand Historic Places Trust and the University of Otago, with the aim of

recovering information which may assist with the understanding of the site and its reconstruction. This study presents an analysis of five groups of characteristic Chinese artefacts representing a range of cultural and subsistence-based activities from the residence of well-known businessman Sam Chew Lain. As acculturation by Chinese goldseekers was typically minimal, research on these artefacts from overseas Chinese sites worldwide has provided important information their function and role in a mining community. Site record plans made in the field were used to plot the approximate spatial layout of the artefacts in the locations in which they were recovered. Together, these data have allowed a basic spatial and behavioural interpretation of everyday life at the site and within the residence, highlighting the importance of thorough research, accurate site recording and the thorough excavation and detailed research of a culturally and historically valuable site.

**Harsveldt, Patrick (2005) *Interpreting the Blackened Industry: Historic Heritage Management of Former Coalmining Sites on Conservation Lands, South Island, New Zealand.***

This research essay is concerned with the management of historic former coalmining areas located on the public estate of the South Island of New Zealand. Within this geographical parameter, the project will identify and evaluate historic mining sites that are being managed by the Department of Conservation (DOC) as case studies. These key sites will be assessed and compared in terms of layout type and the physical condition of components and for any reconstruction and interpretation applications that have been undertaken as part of DOC conservancy management. The research question asks what DOC conservancies are actively managing historic coalmining sites on the South Island and to what degree these historic coalmining resources are managed, especially in terms of visitor interpretation. Linked with this research question is whether the visibility of the historic coalmining resource has any bearing on the active management status of such sites.

**Jennings, Chris (2005) *The Restoration of Monumental Archaeological Sites in East Polynesia.***

Using the Pu'uhonua o Honaunau on Hawai'i and the Tahai Cultural Complex on Easter Island as case studies, this research project seeks to examine how restoration can affect the information and potential research values inherent in a monument and its associated landscape. Further it investigates how restoration projects in East Polynesia have been carried out in relation to international cultural heritage principles, laid out in such documents as the Venice Charter of 1964. The principles of restoration are introduced and defined in an international context, examining how restoration projects have been successfully undertaken. The focus is then shifted to East Polynesia, providing a background of the two principle monument types – heiau and ahu, that are primarily examined in the case studies. The case studies are described, focussing on the work of Edmund Ladd at Honaunau and William Mulloy at Tahai, and are then examined in relation to issues of authenticity, cultural tourism,

and the approach to restoring monuments with superimposed construction phases.

**Marsh, Rebecca (2005) *Digging up Dunedin: Research into the Attitudes and Knowledge of Dunedin Residents Towards New Zealand archaeology.***

This research was designed to gauge the levels of knowledge and awareness of New Zealand archaeology among Dunedin residents, with a specific focus on the legislation and organizations involved. A questionnaire was created, and residents from six suburbs of Dunedin were invited to participate. A response rate of 32% was generated, with ages ranging from 18 to 91 years, and a mean age of 50 years. The gender division was marginally in favour of women, as 55% of participants were female and 45% were male. A wide range of occupations was listed, and the majority stating they were retired. The majority of participants hold some sort of tertiary education.

The responses show that overall Dunedin residents have enthusiasm for New Zealand archaeology. Most have a good general understanding of what archaeology involves, and what archaeologists do. Knowledge of organizations and legislation such as the Historic Places Trust, the Historic Places Act, and New Zealand Archaeological Association, and the Department of Conservation was encouraging in that most had heard of the Trust, HPA, and DoC. They also had accurate perceptions of how these organisations functioned. Knowledge of the NZAA was not as good, and perceptions of the function of this organization were generally inaccurate. Participants were asked to comment on the values of the past. These responses were very positive, as the majority said that we can learn from the past and that it should be conserved and protected. Finally, respondents were asked to comment on financial matters relating to the cost of archaeological excavation. The majority said that a landowner or developer should not have to pay for the excavation of a site affected by their work. However, many qualified this by saying that developer should take responsibility for choosing an archaeologically valuable site, whereas a landowner should not have to pay because it was not their fault a valuable site existed on their property. Overall, Dunedin residents have a good perception of the basics of archaeology in New Zealand, although their knowledge of the legislation and organizations is not as strong. There is great support for the protection of sites, although most state that landowners and developers should not be responsible for meeting the costs of this.

**McAlpine, Christen (2005): *The Archaeology of Shore Whalers Houses in New Zealand.***

This study examines the evidence for shore whalers' houses in New Zealand. This is done through the analysis of historical descriptions and images, and the archaeological evidence of two New Zealand shore whaling sites, Oashore and Te Hoe. The data collected from these three sources resulted in an understanding of variations in the form and materials in which the shore whalers' houses were constructed. The historical images also enabled a study of changes over time in some of

these attributes. This information is then used to provide an interpretation of the housing structures that were present at Oashore and Te Hoe. Finally, a comparison between the New Zealand examples of shore whaling houses and those found internationally are discussed. This comparison identifies Australia as the industry that most closely resembles that of New Zealand.

**Steele, Rhonda (2005) *The Industrial Technology of Shore Whaling in New Zealand.***

The aim of this study was to investigate the industrial technology of the 19th century shore whaling industry in New Zealand. The shore whaling industry of New Zealand, and more specifically the technology involved, has until recently been an undervalued and under-researched area of archaeology. Analysis was undertaken on remains from two case study sites in New Zealand; Te Hoe and Oashore. An interpretation of the evidence was presented using archaeological analysis, previous research and historical data to investigate the use and change of industrial technology. The results show that there were local adaptations and uses of technology within the industry and that these differ not only from other localities in New Zealand but also internationally. As one of the most early and influential industries the how, when and why of changes in shore whaling industrial technology can provide information about what was occurring in the larger context of the colonial period.

## 2004

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**Dudfield, David (2004) *Sealers: The Lifestyle and Material Culture of Early to Mid 19th Century European Sealers in Southern New Zealand.***

The contribution of sealers is largely ignored or glossed over in the history and archaeology of New Zealand. Yet these people were one of the first non-Maori groups to spend any length of time on our coasts. They brought both their material culture and lifestyle to New Zealand and had substantial impacts and interactions with the environment, fauna and indigenous people.

This essay is comprised of a substantial literature review of the historical sources and a reanalysis of archaeological material relating to sealers in New Zealand. This was undertaken to understand more about how they lived, what they brought here and how they interacted with other people and their environment.

Both primary and secondary historical sources were combined and contrasted with the excavated post-contact components of three caves at Southport, Chalky Inlet. When all these sources were used in conjunction, a method of interpreting and supporting the evidence with as many sources as possible provided a good insight of how sealers may have lived in the past. Their unique contribution to our past is finally being acknowledged.

**Findlater, Amy (2004) *Interpretation in Archaeology: An Investigation of a Fishbone Assemblage from Rurutu Island.***

This paper aims to elucidate the nature of interpretation including the assumptions made, analogies used, reasoning employed and the plausibility of interpretations. This will be illustrated through the investigation of an ichthyofaunal assemblage from Rurutu Island. A narrative approach is taken to mimic the situation one faces in a real world investigation involving knowledge acquisition and the construction of interpretations. Types of data that influence interpretations are introduced as they were encountered during the investigation. This data included information relating to identification, provenance, quantification, taphonomy, fish behaviour and ecology, the environment, the excavation, ethnographic analogy and comparative studies. It was found that interpretations must be explicit and open to revision as additional data is understood. The narrative approach explicitly revealed the issues in interpretation of the ichthyofaunal assemblage. Inferences made from the assemblage revealed that human behaviour in relation to fishing strategies was similar to those observed elsewhere in the Pacific with a targeting of inshore reef flat and edge taxa.

**Gay, Jason (2004) *Selected Artefact Assemblage from Purakaunui (I44/21) Excavated During 2001, 2002, 2003.***

The analysis of artefacts is an important part of archaeological investigation. At Purakaunui (I44/21) an assemblage of some 1413 artefacts have been selected from material excavated during 2001, 2002, and 2003. The use of phonolite, a local stone source, was important at Purakaunui, with some evidence for its use in the manufacture of polished stone tools. In contrast, basalt appears to have only been present at Purakaunui as finished adzes. The presence of obsidian as the third most numerous stone material is indicative of Purakaunui's participation within trade networks that reached as far as the upper North Island. This analysis has been undertaken as initial work that is part of ongoing analysis involving Purakaunui's artefact assemblage.

## 2003

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**Beu, Katerina (2003) *The Physical Characteristics of Islands as Major Factors Influencing Anthropogenic Environmental Change in East Polynesian Prehistory: A Comparison Between Hawai'i, Easter Island and New Zealand.***

The colonisation of the Pacific by prehistoric peoples led to significant anthropogenic environmental change on every island that was inhabited by humans. People affected their environments differently in Hawai'i, Easter Island and New Zealand. This was mainly a result of the differences between the environmental constraints experienced in the three island groups. These constraints were determined to a large degree by the

locations, sizes and geological types of the islands, a model that can be applied to the whole of East Polynesia.

**Gilmore, Helen (2003) *Southeast Asia, Maritime Trade and State Development: A Braudelian Perspective.***

This study sets out to investigate the relationship between the participation of Southeast Asia in the trade of the maritime silk route in the first millennium A.D. and the state development in the region. In this period there was significant intensification of international maritime trade, and the archaeological record shows a corresponding major cultural change in the Mekong Delta region, and evidence of the emergence of trade-oriented polities. The aim of this research has been to consider the continuity between the long-established exchange patterns of prehistory and those of the early historic era, and the contribution of long-term environmental variables and evolving social structures to the eventual emergence of the states of Southeast Asia.

In order to do so, I have drawn upon the work of Fernand Braudel, an historian of the French Annales school of historiography, whose model of time for the analysis of history consists of three temporal scales, the interaction and dynamics of which form the background to historical changes and events. It was Braudel's contention that the history of short-term events could be better understood by incorporating elements of the medium and long-term into the analysis when addressing an historical question. The Braudelian time scales offer a method for organising archaeological evidence in a comprehensive way, providing deeper levels of explanation when addressing complex questions about past societies, and uniting processual and post-processual approaches to the data. I begin by considering the long-term features of the environment, climate and resources, the constraints they imposed and the opportunities they afforded for exchange-related activities. Secondly, I proceed to consider the social and economic structures which developed within the environmental framework, showing the extent to which developing social complexity coincided with increasing levels of exchange interaction, and the extent to which the state formation of the first century was built on the foundations of trade and society in prehistory. The third part of the model considers the contribution of external events, ideas and political forces to the functioning of the maritime silk route and the development of the Southeast Asian state.

Archaeological, textual, epigraphic and iconographic data are ordered and examined within the context of a Braudelian perspective in order to produce a synthesis of the continuity of Southeast Asian trade, the influences that shaped it, its implications for social change, and how this culminated in participation in international maritime trade and contributed to state development.

**Harris, Jaden (2003) *Direct Human Predation and Avifaunal Extinctions in the Pacific.***

The colonisation of the Pacific Islands resulted in a mass extinction of birds. Records of extinct birds are especially rich from Eastern Polynesia

and New Zealand. Human predation has been implicated in causing many of these extinctions since it was proved that they post-dated the arrival of man. Many early archaeological contexts show that native bird populations were heavily exploited. Many species were also affected by habitat loss and the impact of the Polynesian rat and other predators. While there is some evidence that human predation played a significant role in the decline of some species, for others the process of extinction is still unknown. In all cases every line of evidence has to be considered before an evaluation of the relative contribution of factors causing extinction can be attempted.

## 2002

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### **Cawte, Hayden (2002) *Was There a Bronze Age in Southeast Asia?***

In recent years archaeologists working in Southeast Asia have adopted the relativist approach and denied the presence of a Bronze Age. It is suggested that various terms and concepts developed to describe and define Bronze Ages by scholars investigating around the world lack strict analogues within this area. Muhly (1988) has noted the non-compliance of Southeast Asia to previous models, "In all other corners of the Bronze Age world China, Mesopotamia, Anatolia, the Aegean and central Europe we find the introduction of bronze technology associated with a complex of social, political and economic developments that mark the rise of the state. Only in Southeast Asia, especially in Thailand and Vietnam, do these developments seem to be missing" (Muhly, 1988:16). More recently White ((2002)) has noted that the terms Neolithic and Bronze Age do not connote "discrete region wide time periods, discrete sets of sites, or easily identifiable sets of societies exhibiting a clearly definable stage of social and technological development" (White, (2002):xvi). Using evidence from the recently excavated site of Ban Non Wat in Thailand, and others throughout Southeast Asia it is possible to establish a discrete time period for which sets of sites throughout the region, display a well established bronze industry from 1500BC therefore offering a definable stage of technological development satisfying by most accounts the criteria of a Metal and Bronze Age.

### **Hurren, Kathryn (2002) *Lapita: An Overview.***

This thesis provides an overview of issues and debates concerning the study of Lapita. The Lapita peoples were a prehistoric population in the Southwest Pacific who colonized the area 3500BP. They settled the Bismarck Archipelago in Fiji, Tonga and Samoa, a distance of 4500 km over a period of about 1000 years. They are widely known for their dentate-stamped ceramics, which has become their cultural marker, and are the ancestors of the Polynesians. The outline of the thesis is as follows: firstly, a general introduction is provided; the second chapter concerns the history and development of ideas in the study of Lapita from its initial discovery to the present and beyond; the third chapter provides

a generalization of the Lapita cultural complex and debates surrounding it by reviewing who the Lapita peoples were, their origins, material culture, subsistence, settlement patterns and interaction. Chapter four reviews the evidence and debates of the Lapita expansion and the decline of their dentate-stamped ceramics as well as the evidence and debates for the Lapita peoples being the Polynesian ancestors by reviewing biological, linguistic and archaeological evidence. The thesis concludes with a general conclusion on the above material and indicates possible future directions.

**Inglis, Raelene (2002) *Recipes as Material Culture*.**

Patterns of food-related activity in New Zealand communities between 1920 and 1950, experienced change as the effects of the Depression and the Second World War imposed constraints on household food availability. Participation in community events, particularly those focused around food, codifies inclusion into that particular society and constitutes normalizing behaviour. One technique of engaging with a community and its food-related activities is through contribution to community-based cookery books.

Cookery books and recipes are a very recent source of research information already of proven worth in studies of gender and identity. Treated as valuable sources of social history, recipes also can be treated as 'proto-material culture' and subjected to similar analytical methods of investigation. Using detailed recipe-by-recipe comparative analysis of ingredients and ingredient proportions, recipes can be analysed and their results interpreted to study the dynamics of social change. Recipes can be considered as a form of material culture that like ceramics respond to external events and socio-economic trends.

A pilot study encompassing three decades of selected New Zealand community and comparable cookery books from 1920 to 1950, examined 4069 recipes with 1280 recipes analysed. Results displayed significant substitutions and modification in response to the Depression and the onset of the Second World War, as well as retaining the essence of recipe ingredients in traditional recipes. Thus recipe books can show both innovation and conservatism, and in these respects are fully comparable to artefact assemblages.

**Kendrick, Richard (2002) *Taphonomy of Avian Skeletal Remains from an Archaeological Site in North Otago (Shag Point 143/11)*.**

Faunal remains within an archaeological context are subject to both pre-deposition and post-deposition processes. Understanding these events will ultimately provide a better view of how and why these remains became incorporated into the archaeological matrix of a site. It will also allow judgment of any potential deposition or natural bias that will influence the manner in which a faunal sample is evaluated. This study looks at the taphonomy of avian skeletal remains from Shag Point (J43/11), a coastal Otago site. Avian skeletal remains are notoriously difficult to assess archaeologically, given both their small size and fragility. Taphonomy hence plays a vital role in understanding why



certain avian skeletal elements may be more prevalent in faunal assemblages than others.

**Latham, Phillip (2002) *Interpretations of the Purakaunui fish bone assemblage.***

Fish bone analysis provides archaeologists with a means to examine prehistoric changes in subsistence strategies. This research looks at a number of issues related to the fish bone assemblage from the Purakaunui Site 144/21 in coastal Otago. As well as providing a brief review of the history of fish bone analysis in New Zealand, including some current methodological debates, this essay examines a selected sample of the Purakaunui fish bone assemblage, with a specific focus on investigating fish taxa relative abundances and change over time. It also compares the results to past studies at this site and those at nearby Mapoutahi Pa and Long Beach. The evidence supports earlier studies that show red cod and barracouta to be the dominant species in southern South Island prehistoric fish catches. However, it also shows that there may have been change over time with a greater emphasis given to targeting red cod relative to barracouta in the Classic period. This is certainly the case in the Purakaunui sample and there is evidence that this may have been the case at Mapoutahi and Long Beach. An hypothesis is advanced that this may be indicative of an increased focus on bait hook fishing in the transition from the Archaic to Classic.

This essay also investigates the benefits of incorporating otoliths, epihyals, palatines and hyomandibulars into fish bone studies. It is shown that while the five-paired mouthparts usually provide the highest MNI counts, the additional elements are useful because in some species they produce the highest MNI. A taphonomic issue relating to otoliths is also raised. Evidence has shown that while red cod otoliths are extremely durable elements they may also be a taphonomic oddity in that their size, shape and weight can result in some stratigraphic movement. When investigating change over time in fish taxa relative abundances, therefore, the incorporation of otoliths in the generation of MNI should be treated with some caution. Finally, this study shows that 3.2 mm screens are important for the accurate recovery of fractured but diagnostic red cod elements, a high percentage of which would have been lost through 6.4 mm sieves.

**Scott, Andrew (2002) *An Investigation of Archaeological Site 144/21 at Purakaunui for evidence of Historic Era Occupation.***

Excavation of site 144/21 at Purakaunui during (2002) disclosed a collection of historic era artifacts. Analysis of stratigraphy determined that the artefacts all belonged to the uppermost cultural layer (2 a); this layer is distinct and caps all but one of the features excavated.

Comparative dating of the historic artifacts recovered from layer 2a provided a date for the manufacture of the artifacts between 1810 and 1900. Interpretation of stratigraphy and the overlap in artefact dates suggests that the artifacts were deposited during the period directly following European contact in southern New Zealand. Historic research of

Purakaunui supports this; a documented visit to the site in 1844 recalls a Maori settlement with the adoption of European habits. Recognition of a historically documented site in the archaeology provides physical evidence for the study of nineteenth century Maori life, rare in southern New Zealand archaeology.

**Sharpe, Kiri (2002) *Information Loss and Rescue Archaeology in Coastal Otago, New Zealand.***

This dissertation examines loss of information from archaeological sites, a common problem experienced in sites all around the globe. This research essay is case study oriented, focusing on coastal and estuarine prehistoric Maori sites in Otago, New Zealand. Two case studies are presented and analysed in detail; Purakaunui as an example of a high dune estuarine site, and Watson's Beach, an extensive low dune site complex behind an exposed coastal beach. This essay also looks at site values and the various threats that cause information loss in sites. Conservation techniques are also discussed with particular focus on rescue archaeology and the need for site monitoring.

**Smith, Keith (2002) *Distinguishing New Zealand Prehistoric from Historic Worked Nephrite by Microanalysis and Experimental Archaeology.***

The research presented in this paper is intended as a pilot study into the investigation of whether nephrite worked by prehistoric Maori techniques of pounamu manufacture can be distinguished from those created in the historic period. The experimental recreation of techniques and the use of microscopic analysis are employed to this aim.

The study of manufacturing techniques of ground stone at a microscopic level is a highly over looked area of archaeology, since the use of a grinding technique is clearly visible on an objects external surface. For this reason when analysis of ground stone artifacts occurs it directed to use rather than manufacture.

However, being able to identify the abrasive and the technique used to grind a stone can, within New Zealand, provide important information. A distinction between prehistoric and historic ground stone items can provide:

A chronological division between that of prehistory and that of the historic period. A simple division, yet an important distinction that can affect research practice, by providing a broad temporal distinction to a site.

The distinction and discrimination of genuine Maori taonga, as opposed to those created to fulfill the antiquity trade. This trade was supplied with fraudulent 'artefacts' in the years post-contact.

The research presented summaries the characteristic features that can indicate the probable grinding medium, and the technology used. It is concluded that the grinding agent used, and in some cases the technology that has been used can be identified. Where polishing has obliterated traces of grinding, different patterns appear on the surface of the stone, however the analysis of this is problematic at low powered magnification with a small sample size. However results suggest that further analysis,

with larger sample sizes, would be fruitful to better understand the research aim to a level beyond a pilot study.

**Vogel, Yolanda (2002) *Prehistoric Archaeological Features in Otago: A Classificatory Study.***

This study examines the treatment of archaeological features from prehistoric Otago. An historical review of archaeology in Otago is presented in order to place the study within its context. An analysis of the available data on features reveals that a wide range of terms has been used to describe a relatively simple set of features. It is argued that this number of terms is unnecessary, and inhibits the incorporation of the evidence provided by features into wider interpretations of prehistory. The descriptive information on features is used in the development of a systematic classification system, which is then presented along with a discussion of the range and variation encompassed within each class. Finally, the implications of this work for the archaeology and prehistory of Otago are considered.

## 2001

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**Crowther, Alison (2001) *Pots, Plants and Pacific Prehistory: Residue Analysis of Plain Lapita Pottery from Anir, New Ireland, c. 3300 B.P.***

Identification of plant-processing in Pacific prehistory is problematic because direct evidence in the form of macrobotanical remains is rare, particularly for roots and tubers. Hypotheses for the exploitation of roots and tubers by Lapita peoples have been formulated on the basis of comparative ethnography and historical linguistics. Indirect evidence has come from putative plant-processing artefacts, domestic animal remains (arguably associated with a horticultural production system), land-use patterns and other evidence in the archaeological record.

An exploratory analysis of residues on undecorated potsherds from the Early Lapita site, Kamgot, New Ireland, dating to c. 3300 BP, was undertaken to test the hypothesis that Lapita people used root and tuber crops. The result of the analysis indicates that abundant levels of starch grains and raphides were present on these artefacts, and a large quantity of raphides was also present in the sediment. These residues were identified as taro (*Colocasia esculenta*).

This represents the first direct evidence obtained from anywhere that *Colocasia esculenta* was processed by Lapita peoples, and has thus made an important contribution to archaeological understanding of early plant processing in the Pacific. It is also the first study of surface residues on Lapita pottery to ascertain their actual use. This research demonstrates that the analysis of cooking residues on pottery is an alternative to traditional archaeobotanical recovery methods in the Pacific.

**Spark, Jennifer (2001) *Otago Archaeology: Purakaunui (2001) A Socially Engaged Video Documentary.***

A video documentary was produced as a visual account of the February-March (2001) field school excavation at Purakaunui, conducted by the Anthropology Department of Otago University as paper ANTH 405. Drs Richard Walter and Ian Barber conducted the work and field technician Rex Thorley filmed most of the footage. This was then converted to digital format and edited and produced into a complete documentary. The video focuses on the process of the archaeological excavation from a post-processual theoretical perspective investigating the role of subjectivity in archaeology, the hypothetical and evolving nature of archaeological knowledge and the relation between past and the present, and was created with a view to addressing certain issues surrounding the public representation of archaeology. The video also provides an opportunity to highlight the issue of archaeological resource management in a publicly accessible manner.

**Stuart, Colleen (2001) *What in the World do Fish Scales Contribute to Archaeological Interpretation? A literature review of methods and applications.***

Fish scales offer another avenue of archaeological investigation that can contribute to individual site interpretation, intersite comparisons, regional patterns and environmental reconstruction. The application of information gleaned from fish scale analysis is not limited only to hypotheses on fishing, dietary contributions and marine environments, but may also be used in conjunction with other information to pursue research relating to human impacts on pristine environments, regional climate changes, seasonal site occupation, preservation and storage of fish and variation in human food preference.

In the South Pacific (particularly in New Zealand) very little work has been done using scales. However, information drawn from around the world suggests that scale analysis could play a useful role in Pacific faunal research. Fisheries scientists in New Zealand and the Pacific have been making use of scale information for over fifty years and such data can be applied in archaeology. This dissertation discusses the human use of fish and zooarchaeological studies of scales to date, before examining ichthyology (especially the classification of fish scales) and lepidoarchaeology as a subsection of zooarchaeology and providing an assessment of analytical value.

**Wylie, Joanna (2001) *Cross-cultural Use and Significance of Tutu (Coriaria spp.) in Aotearoa New Zealand.***

In this dissertation, ethnographic and historic resources were used in conjunction with limited archaeological data to determine the cross-cultural use and significance of tutu (*Coriaria* spp.) in prehistoric, protohistoric and historic New Zealand. It was revealed that tutu was predominately used both by Maori and Europeans to make a popular beverage known as waitutu or tutu juice, which was extracted from the ripe berries in summer and early autumn. Maori were also found to have used the juice as a flavouring for other wild plant foods such as fern root and bull kelp, and it was additionally utilised for medicinal purposes, as

were the young shoots and leaves of the plant. Ethnographic and historic sources further revealed however that tutu was renowned for its potentially lethal toxicity to both humans and animals, which consequently raised the paradox of why both Maori and Europeans bothered to prepare tutu juice given the severe toxicity of the species. This dissertation argues that Maori went to the effort of processing the juice because it supplied much needed energy in the form of fructose and glucose (natural sugars), whilst Europeans most probably processed the juice because of its highly favourable taste, although their decision may also be tied to a colonial 'risk-taker mentality' of the protohistoric and early historic periods.

Drawing upon the findings from archaeological excavations at the Bronze Age site of Ban Lum Khao, the Iron Age sites of Non Muang Kao, Noen U-Loke and Phum Snay, and the early historic site of Oc Eo, together with information offered by ancient Chinese Annals and an analysis of pre-Angkor inscriptions, it is contended that insight will be gained into the nature of society of pre-Angkor Cambodia, from the 1st to the early 9th centuries AD. Archaeological and historical data are synthesized for better comprehension of the Khmer cultural, religious, social and political life as the first states developed.

## 2000

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### **James-Lee, Tiffany (2000) *Gender and its Role in Melanesian Exchange Systems.***

This dissertation argues that archaeology can make a substantial contribution to the study of exchange in Melanesia. It is proposed that the most effective way archaeology can do this is through an holistic approach which combines both social anthropology and archaeology. The social anthropology of exchange is discussed: first exchange is defined; second, the development of the study of exchange is discussed, with emphasis on such important scholars as Malinowski and Mauss; third, the work and themes apparent in the study of exchange in Melanesian social anthropology are discussed. Then the archaeology of exchange is dealt with: the changing approaches to the archaeology of exchange are discussed; basic contributions to the archaeology of exchange in Melanesia are examined; and the strengths of the archaeological approach are looked at. The conclusion ties together the disciplines of anthropology and archaeology in a holistic approach. The holistic approach eliminates the weaknesses inherent in both the archaeology and anthropology of exchange in Melanesia. A methodology for the holistic approach to the study of exchange in Melanesia is outlined. Thus this dissertation shows that the archaeology of exchange can make a substantial contribution to the study of exchange in Melanesia.

### **Knowles, Jodie (2000) *Analysis of Shag Point Debitage.***

This dissertation examines a lithic debitage assemblage from Shag Point (J43/1 1), North Otago New Zealand. The site was excavated during (1998), (1999) and (2000) and the lithic assemblage collected from 96msq excavated during these three field seasons.

Previous studies of lithic material from New Zealand sites are discussed to indicated the range of information that can be gained from lithic analysis. The North Otago region is also examined to place Shag Point into its regional context.

This dissertation had three main areas of investigation. The first involved a descriptive and technological analysis of the debitage. Secondly, spatial analysis was used to determine if the debitage could be used to infer intra-site activity areas. The third area of investigation was to determine if trade and exchange was present at the site, through the analysis of lithic material.

**Koirala, Nicholas (2000) *Analysis of the Canterbury Museum Archaeological Seal and Moa Assemblages from Anapai.***

The archaeological site at Anapai is the only reported western Tasman Bay site to contain moa and seal remains. While the site has long since been eroded away, much of the analysis of the material from the site is still to be carried out. This dissertation examines the seal remains excavated from the site in 1962 and stored, largely unprocessed, in the Canterbury Museum.

The analysis of these seal remains is reported. This work identifies elements of New Zealand fur seals (*Arctocephalus forsteri*), New Zealand sea lions (*Phocarctus hookeri*), and a single femur from a leopard seal (*Hydrurga leptonyx*). The age and sex composition of the seal populations represented in the site is determined where possible, showing the presence of females and juveniles. These results are consistent with exploitation of a breeding colony, although there is no such colony near Anapai today. The representation of elements was identified and graphed, showing that fur seals were brought to the site relatively complete. This suggests that hunting most likely occurred in close proximity to the site. Records of other Tasman Bay sites containing seal remains are compared with the Anapai results in order to investigate regional patterns of seal exploitation. Though these other Tasman Bay sites are all located in eastern Tasman Bay, an argument can be made that seal meat was an important means of subsistence for the earliest Polynesian settlers at specialist stone working or extraction sites around the northern South Island.

**Purdue, Carla (2000) *Adaptations to the Cold at Murihiki.***

Upon arrival in the southern South Island (Murihiku), the initial Polynesian settlers were faced with many challenges. These included unfamiliar subsistence resources, landscapes and rather significantly, a climate that was considerably cooler than what they were accustomed to. Adaptations would have had to have been made in order to survive in this environment where rain and cold temperatures occurred frequently. This study focuses not only on the climatic conditions facing the southern

Maori, but also considers the necessary internal and external adaptations involved. These include an analysis of food and energy requirements, subsistence resources available to the Maori, clothing style and housing form. Through an investigation of each of these areas and considering the possible detrimental effects that living in a cold climate may have upon quality of life, it is clear that the southern Maori people needed to develop effective ways of negating the effects of the cold. They achieved this through the careful utilization of seasonally available and high energy resources, the development of preservation techniques and utilitarian housing forms.

**Walsh, Rebeca (2000) *Moa Hunting at Anapai.***

Anapai is the only moa-bearing midden in northwest Tasman Bay. The aim of this dissertation is to investigate whether the moa remains at Anapai are likely to have derived from localised hunting, and whether the palaeoenvironment of the site is likely to have supported moa populations.

The Anapai moa remains (Canterbury Museum assemblage) with the exception of six unidentifiable fragments, are all from the leg region of the moa. This suggests the possible importation of the haunches only. The species *Anomalopteryx didiformis* was positively identified by Worthy at the site, while two other individuals were indistinguishable between *Anomalopteryx didiformis*, *Megalaptetyx didinus*, and *Emeus crassus* respectively.

Reconstruction of the surrounding environment suggests that *Anomalopteryx didiformis* could have been supported by the vegetation of the area. It is proposed that this region was not “teeming” with moa, but in fact had very little. This is evidenced by Anapai (MNI 3) and numbers of individuals identified in other Tasman Bay contexts (eastern Tasman Bay sites). Research by Anderson on the windward and leeward provinces in New Zealand provides some background to an understanding of moa species distribution. Tasman Bay is located in the windward province where big game populations were small. This suggests that the moa remains from Anapai were most likely to have derived from opportunistic hunting. The remains suggest that only the lower leg body parts were brought to the site, with the kill probably occurring in a localised context.

## 1999

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**Bignall, Alex (1999) *The Archaeology of Ethnicity.***

This dissertation explores current archaeological thought pertaining to the study of ethnicity, considering this within the context of North American plantation sites. Past approaches taken within Plantation Archaeology are reviewed and critiqued in order to illustrate the absence of an adequate consideration of the formulation of cultural identity among slave populations. Past archaeological research has created a

dichotomy between primordialist and instrumentalist views of ethnicity, or else not considered ethnicity at all. The concept of the habitus is introduced as a working theoretical framework within which to consider ethnic identity formation and maintenance, incorporating the essential social, political and economic forces inherent within the dynamics of the plantation superstructure.

**Brooks, Emma (1999) *A Time of Change – Totaranui 1770-1820.***

A number of journals from the seven visits by the Cook expeditions to Queen Charlotte Sound in the South Island of New Zealand between 1770 and 1777 are examined in order to infer local settlement patterns and subsistence practices. These practices are then placed beside the information from the journals of the Russian visit to the Sound in 1820. Change is noted in settlement patterns and for the first time cultivation is observed. The archaeological evidence is then examined for those sites that can be confidently associated with the European visits. They suggest that there is scope for archaeological investigation of early culture contact and aspects of late prehistoric life. This scope is enhanced by the dearth of previous archaeological research in this area. Areas for potential future research include possible evidence of gardening and midden analysis.

**Dickenson, Brooke (1999) *The Past in the Pages of the National Geographic: An Examination of the Popular Representation of Archaeology.***

The scientific content of archaeological articles published in the National Geographic was examined for the period between 1950-(1998). Factors affecting article content were also discussed for their influence upon the popular representation of archaeology in the magazine. The modernisation of the National Geographic was considered in reference to articles published within the sample period, which was also a critical phase in the development of the discipline of archaeology. Specifically, archaeological articles were analysed for their relationship to research and practice within professional archaeology. In total, 226 articles about archaeology were published during this period. An examination of each of these articles has shown that the magazine both creates and reflects popular perceptions of archaeology. While the National Geographic does depict archaeology in a popular manner that appeals to members of the public, it reflects academic developments to a greater extent than originally predicted by this study, and makes a valuable contribution to public perceptions of archaeology.

**Dickson, Hamish (1999) *A Functional Analysis of Coral Tools from Late Prehistoric Moloka'i Island, Hawaii.***

During the course of archaeological fieldwork conducted late in 1978, 425 artifacts relating to fishhook manufacture were recovered from site 38 on Moloka'i Island in the Hawaiian chain. Fishhook manufacturing artifacts include Porities sp coral and echinoid urchin spine abraders, basalt flakes, bone fishhook blanks and bone fishhook debitage.



Artifacts deemed coral abraders were studied from this site and will be the focus of this dissertation. It is generally believed that coral abraders were used to manufacture fishhooks.

This dissertation has two main aims: 1) To form a classification system (non-classificatory arrangement; after Dunne, 1971) for the purpose of ascertaining a functional relationship between coral tools and fishhook manufacture and 2) To devise a standardised system for the measurement of attributes on coral abraders that may aid future functional studies.

A definition and basic description of coral tools will be provided along with a review of the literature regarding coral artifacts, classification systems and typologies. A justification will be given as to why the chosen classification system was used. Methods used in measuring attributes are described and discussed, followed with a detailed description of each artifact class. Each class description is accompanied with possible functions. Finally, suggestions for future research are presented.

**Hughes, Anita (1999): *Looking Back: A Study of Female Figures on Angkor Wat.***

This study concentrates on how the images of females changed as they moved from India to Southeast Asia, focusing on the temple of Angkor Wat (1113-50). To begin to understand the images of females carved upon the walls of Angkor Wat, it is first necessary to go back and be aware of the cultural origins from which these images developed. Angkor Wat was obviously heavily influenced by neighbouring India both in the religion, style, and architecture, therefore it is important to know from where Indian culture, religion and art developed. Indian portrayals of femininity and beauty are discussed and compared with the images of women at Angkor Wat to help in the interpretation of the images that later evolved in conjunction with local cultural beliefs and practices. The images at Angkor Wat are also interpreted as an indication of how women were seen and related to in the contemporary Khmer society.

**Lawson, Kathleen (1999) *Sourcing Prehistoric Pacific Pottery.***

A great deal remains unanswered and uncertain in Pacific prehistory, despite the amount of research that has been conducted in this region. Of particular interest to archaeologists working in the Pacific has been the understanding of the colonisation of the Pacific, the origins of settling populations, and subsequent interaction between island societies. Pottery provides a way of eliminating ambiguities often presented in other forms of study. A piece of pottery can be matched to the area where it was most likely manufactured, by identifying the mineral and/or chemical composition of the raw materials used in the piece, along with the composition found in the suspected sources. The aim of this work is to show how and why pottery characterization techniques work, and then to review past sourcing studies conducted in the Pacific, to demonstrate how this form of research can aid in unveiling aspects of Pacific prehistory. I

explain why characterization studies provide more precise evidence of migration and contact than stylistic analyses do, and describe how the various sourcing techniques used in characterizing Pacific pottery work. Ceramic sourcing studies from the Pacific are reviewed and the future outlook of sourcing studies are discussed. I provide suggestions for the advancement of this kind of research in the Pacific.

**Lubcke, Eva (1999) *By Their Buildings Ye Shall Know Them: Class and Domestic Space, Dunedin, 1902-1910.***

The deduction of the status/class of a household from their domestic dwelling is a practice in archaeology which is strongly grounded within a set of assumptions pertaining to this link between the material and immaterial realm of society. The common assumption is that the elite reside in larger, more architecturally complex houses than their poorer counterparts, irrespective of the space and time components of the culture under investigation.

The aim of this research project was to test this assumption through the study of the degree of 'fit' between class and the spatial components of eighty dwellings from the ethno-historical context of Dunedin, New Zealand, during the late Victorian/Edwardian era, dating between 1902 and 1910.

The methodology involved correlating a number of social and economic class indicators, deduced from the historical literature, and correlating these with a set of spatial indicators pertaining to the size and architectural form of the houses.

The overall findings indicate that whilst the archaeologist may be able to grasp the basic features of the social organisation of a prehistoric society from the spatial composition of the households, the more intricate elements of a culture and its class structure are likely to be hidden from view, embedded within the particulars of the architectural design.

**Payne, Barbara (1999) *Ten Hotels You Say! The Number and Location of Hotels in 19th Century Kingston.***

The township of Kingston on the southern shore of Lake Wakatipu was the main transfer point for the transportation of goods from Invercargill and Dunedin to Queenstown from late in 1862. Gold had been found in the area and settlements were quickly created. This essay researches the number of hotels, their locations, and any physical evidence that remains in Kingston of these nineteenth century hotels. Oral history mentions ten or twelve hotels.

The sources used were the primary records of Lake County, Deed Registers, maps and plans, and secondary sources of newspapers and books, as well as photographs. I spoke to past and present residents who provided additional information to the written sources.

I found that prior to the railway opening in 1878 at least 5 and up to 8 hotels were known to be trading at Kingston from 1863, although some were very short-lived. Two later hotels opened in 1878 by the railway station at the west-end of Kingston. Excavation reports of hotels

operating in the 1860s near Kingston provided information without the expense of excavation.

Only one building, the 'Ship Inn', which was a hotel from about 1869 to 1876, remains today as visible evidence of any hotel structure of this period. The sections along the waterfront on Cornwall Street, where the hotels were located, have been completely cleared and/or built on. An empty section with patches of concrete and asphalt remains as evidence of the later hotels built from 1878, which burnt down. Bottles and ceramics have been collected from these sections. In (1999) the remaining tavern is situated beside the railway station.

Except for the period in 1863 and 1864 Kingston has remained a settlement of few people and buildings. This research has shown that the demise of the hotels from 1864 is reflected in the settlement's prosperity. Kingston was an important transport hub and the hotels catered for the associated people. The railway and the lack of a road until 1936 to Queenstown ensured that Kingston survived into the twentieth century.

**Van Wijk, Rachael (1999) *Feasts and Fasts*.**

A (1997) article by Cooper and McLaren demonstrated that the dietary patterns of the nineteenth century explorers' diets underwent three stages of development. Initially they relied heavily on bought provisions, but as bush skills improved more native food was exploited. As mounted expeditions became a viable option, the explorers once again returned to a diet relying on European provisions.

This dissertation demonstrates that explorers in New Zealand did not undergo the same stages of development, despite developing similar culinary traditions that drew on their common British heritage. The discrepancy is due to differences between the two colonies in terms of environment and landscape, and the degree of cross-cultural interaction between the colonists and the indigenous people. The diets differed most in their exploitation of native foods. Differences in diets seen throughout New Zealand may be attributable to a number of causes. Environmental differences, the density of the Maori population and the state of relations between them and the local Pakeha, the reason for the journey and its financial backing, the length of the trip, and finally their mode of travel, are all contributing factors.

**Wheadon Christopher (1999) *New Zealand Zooarchaeology: a Review of Current Methods*.**

Zooarchaeology is an important area of archaeological research. The extinct flightless moa was found in stratigraphic association with stone tool in 1843. The work of Lyell and Lubbock meant that such finds were rigorously studied. Zooarchaeology followed developments elsewhere. From the 1960s New Zealand zooarchaeology was providing input into zooarchaeological theory (e.g. Davidson 1964a, 1964b; Ambrose 1963). By the late 1980s this active participation had decreased markedly. At this point New Zealand zooarchaeology began to fall behind. Thus changes now need to be made to our zooarchaeological methods: there needs to be standardisation in the analysis of zooarchaeological methods;

smaller screen sizes need to be used; analysis of skeletal frequencies must be improved; taphonomic analysis must be used. This dissertation addresses these issues.

**Wilkinson, Aaron (1999) *Networks, Sourcing, and Social Organisation: an Assessment of Bronze Age Thai Trade and Exchange.***

This paper assesses Bronze Age Thai trade and exchange and also the role of trade and exchange in the rise of Thai social complexity. The Bronze Age in Thailand is period around 1000 years in length, with initial casting beginning in the vicinity of 1500 BC. This period is followed by major social changes following the introduction of iron metallurgy.

A significant portion of this paper deals with theoretical discussion of trade and social models, with the aim to provide a base for Thai related discussion. Also included is an outline of Thai prehistoric excavations, beginning with the inland cave sites up until the Bronze Age period.

This paper outlines what we know of Bronze Age Thai trade and exchange. Due to a limited number of major excavations, and a lack of provenance studies on exotic materials, discussion on Bronze Age Thai trade and exchange remains restricted.. Knowledge of trade and exchange is restricted to a recognition rather than any absolute understanding of artefact movements or site relationships. There is a need for large scale excavation and artefact provenance studies before any further assessment can be made.

**Wylie, Simon (1999) *Reconstructing Prehistoric Fishing Strategies: Test Case from Moloka'i, Hawaii***

The ecological approach to studying prehistoric fishing integrates ecological, ethnographic/ethnohistoric, archaeozoological and material culture data to reconstruct fishing strategies. This approach was employed to determine the late prehistoric fishing practices used along a stretch of coastline near Hinanalua, north-west Molokai, Hawaiian Islands. The basic data set for this reconstruction was an assemblage of 6.4mm identified fish bone recovered from several sites in the area as part of the Hinanalua Project.

The first major objective of this dissertation was to use this assemblage to illustrate the application and relevance of the ecological approach. The second principal aim was to use the assemblage to assess the significance of a selection of methodological issues that can potentially distort the accuracy of fishing strategy reconstructions produced by the ecological approach. These issues included: the existence of different methods for calculating the Minimum Number of Individuals (MNI); general quantification biases of differential preservation and the use of different numbers of elements for identification; and the problem of the taxonomic level of identification. Finally, the assemblage was used to test whether variation, in terms of taxonomic abundance, range and size, existed in the fish bone recovered from sites with different functions, namely between residential and religious sites, and if so, what effect it may have on fishing strategy reconstruction.

With regards to the first objective, it was found that the holistic nature of the ecological approach makes it a thorough and effective method for reconstructing prehistoric fishing strategies. Secondly, it was determined that the different methods of calculating MNIs and the use of different numbers of elements for identification may have no significant effect on rank order taxonomic abundance, which has important implications for inter-study comparisons of fish bone assemblages and fishing strategy reconstructions. However it was concluded that differential preservation might be an important bias in quantification and that the taxonomic level of identification has a profound influence upon the accuracy of fishing strategy reconstructions: further attention to and testing of these issues is required. Thirdly, it was demonstrated that differences do exist between fish bone assemblages from sites of different function, but it was cautioned that these might be just as much a factor of the methodological issues investigated above as of functional variation. However the most salient finding of this dissertation was that all of the aspects of fishing strategy reconstruction tested above interact and so each of these issues should be thoroughly investigated and tested before making firm conclusions about prehistoric fishing practices.

## 1998

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**Chetwin, James (1998) *Aspects of Structural Technology at Noen U-Loke.***

Construction technology in Iron Age Southeast Asia is not well understood. This dissertation examines evidence for such activity by reference to sintered daub remains from Noen U-Loke, Nakhon Ratchasima Province, Thailand.

Wattle and daub technology is explained with reference to literature from Europe and Africa, and evidence for such technology in the published literature on Southeast Asia is assessed. Waffle and daub technology is examined and explained as a construction process requiring specialised knowledge and materials. Construction methods are analysed by the examination of sintered daub fragments bearing impressions of decayed plant materials. It is argued that details of construction method are apparent from quantitative and qualitative variation in daub structures. A classification system is devised for use in the study, to aid in the analysis of construction method. Reconstructions of prehistoric building practices are offered, as are conclusions on the nature of preservation and deposition of daub in the archaeological record.

The preliminary nature of this study highlights the paucity of our understanding of practices of construction in prehistoric Southeast Asia, and attempts to set out basic considerations on a previously neglected line of inquiry in the study of domestic and industrial activity in prehistoric Southeast Asia.

**Dodd, Andrew (1998) *Chert Stone Tools from the Southeast Solomon Islands.***

This paper deals with the chert artifacts recovered from Su'ena village. The original chert assemblage included 67 tools described as adzes, with a further 20 recovered when sorting through the waste flakes from the site. This study is concerned only with those tools previously classified as adzes. The size and morphology of these tools is the same as those described in the other sites on Ulawa, San Cristobal, and Malaita. The condition of the tools is varied. Some of the adzes show attempts at reshaping after breakage.

Stone adze studies in the past have been descriptive, culture historic, and technological in their orientation. This project aims to include all of these aspects to provide a holistic analysis of these tools. Both the ethnographic, and archaeological records will be considered. Previous analyses of these tool types will be considered, along with any ethnographic descriptions of these tools from the earliest European visitors to the Solomon Islands. This project primarily aims to describe the function of the adzes and manufacturing techniques employed in their production. Manufacture will be studied by an investigation of the positioning, angling, and types of flake scars, and amount of cortical material remaining. These attributes will reflect the stone reduction sequence. The ultimate aim of this project is to provide data suitable for a wider comparative study of prehistoric Solomon Island stone working technology. It will offer an interpretation of how these adzes were manufactured, and suggestions of what functions they served to perform. This will include the implications of this study, and of the direction of further studies needed in this area.

**Irving, Aaron (1998) *Debitage and Distance: A Petrographic Study of Kawela Lithic Assemblage.***

The sourcing of archaeological basalt to geological outcrops is of major importance to Pacific archaeology for a number of reasons. Firstly in the Eastern Pacific, basalt is the only real durable and ubiquitous raw resource (apart from shell and bone which are difficult to source accurately) and secondly, the identification of foreign stone to a distant geological source presupposes some form of contact or travel. The only real explanation for the displacement of archaeological basalt is by human agency.

The lithic assemblage from the Kawela Mound site in Moloka'i, in the Hawaiian Islands, consists of 3736 pieces of stone with a total weight of 5.6 kg. This assemblage was analysed macroscopically. The Kawela Mound assemblage was sorted into 15 groups based on macroscopic differences. From these groups, possible functions were inferred and the assemblage was then broken down into two functional groups: stone used in tool manufacture (flaking stone) and stone used in construction (construction stone). From these groups changes in site activities and stages of settlement could be inferred.

Items from each macroscopic group were analysed in petrographic thin section, and the results fine-tuned the sorting by macroscopic attributes, but loosely concurred with the macroscopic results. Most of the flaking stone was imported from West Molokai, from the well known quarries 'Amikopala and Mo'omomi and the construction stone was largely local.

**McCaw, Morag (1998) *The Spatial Analysis of Prehistoric Cemeteries in Thailand.***

The distribution of burials at various prehistoric cemeteries in Thailand suggests evidence for the deliberate placement of each individual grave. The significance of such an occurrence reflects the social systems implemented by that particular society. The sites of Ban Chiang, Ban Lum Khao, Ban Na Di, Khok Phanom Di, Noen U-Loke, Nong Nor, and Non Nok Tha, will be subjected to spatial analyses in order to determine whether the distribution of burials at each site is random or not. Co-ordinates are taken from individual graves to comprise a data set for each given site. The spatial analysis seeks to determine the spatial distribution of these points, and in so doing, the nature of the pattern. Non-random distributions infer the existence of pre-planned activity. The distribution of graves into tight clusters, loosely formed clusters, or separated into rows, reflects the deliberate placement of graves. The grouping of graves is determined by membership groups. Membership groups maintain a distinct burial location where members are exclusively buried. Such groups are often based on a hierarchical system, or on the basis of family groups. Evidence pertaining to such activities indicates the preoccupation with ritualistic behaviour. Such an occurrence is typical of what is expected from communities with growing social complexity.

**Miller, Kathryn (1998) *Curio-hunting and the Regional Archaeologist: The Diaries of David Teviotdale.***

Records of early archaeologists and curio-hunters have been under-utilised in preliminary investigations for regional archaeological studies. Curio-hunter and Otago Museum employee, David Teviotdale went on an artefact collecting trip to the Nelson-Marlborough region with fellow collector A.G. Hornsey in the summer of 1934-1935. The section of Teviotdale's field diary, from December 22 1934 to January 5 1935, when the pair were in Golden Bay, northwest Nelson, is closely examined to ascertain its potential use to the modern regional archaeologist. Three key issues are examined: Use of the diary to locate sites and identify site disturbance processes, to locate collections of artefacts and assess collector's motivations and to analyse Teviotdale and Hornsey's artefact finds, especially with regard to collector motivation and provenance information. Documents such as this have a great deal of untapped potential for investigating all these areas and deserve to have an integral part in preliminary archaeological studies.

**Watson, Katharine (1998) *Amorphous Lumps: The Metal Assemblage from Facile Harbour, Dusky Sound.***

Metal artefacts are invariably ignored during the analysis of historical assemblages in both New Zealand and abroad. It was not possible to simply forget about the metal objects recovered from Facile Harbour, Dusky Sound: they were the only class of remains recovered in significant quantities. A detailed analysis of these remains was undertaken, examining as many variables as possible for each category of artefact and

drawing on historical information to aid interpretation. This successfully demonstrated the quantities of information that can be obtained from a metal assemblage. When subjected to a spatial analysis, these metal artefacts revealed the differential use of distinct areas of the site and thereby provided new information about the eighteenth century occupation of Facile Harbour.

**Williams, Chris (1998) *Marine Shell Exploitation in Prehistoric Su'ena: An Analysis of a Shell-bearing Midden Site.***

An analysis of a marine shell assemblage from Su'ena in the Southeast Solomon Islands is presented. Evidence for temporal change is investigated through the analysis of taxonomic abundance. Statistical measures indicate a decrease in shell taxa and abundance over time. Explanations for these results are considered in the light of cultural, ecological and taphonomic factors.

## 1997

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**Jones, Brenda (1997) *Flake Tools from Suena, Solomon Islands.***

An analysis of a chert assemblage from Su'ena in the Southeast Solomon Islands is presented. Evidence for a temporal change in resource accessibility is investigated through the analysis of assemblage composition and visible manifestations of technological manufacture. A review of contemporary lithic analyses is provided with a focus on the methodologies implemented in the investigation. Statistical manipulations indicate a decrease in chert over time and these results are discussed with regards to a resource maximisation response by knappers and the broader issue of chert as an important trade commodity in the interaction of the Southeast Solomon Islanders in prehistory.

**Smith, Sally (1997) *Rather Badly Built: Gender and Nutrition in Protohistoric Polynesia.***

Many cultures in late prehistoric and protohistoric Polynesia placed dietary restrictions on women. These restrictions ranged from women being forbidden one or two items within the society's subsistence system, through to societies which forbade women consumption of virtually every high quality protein food available. This information comes mainly from early European observations and later ethnographers and presents a picture of many women in late prehistoric and protohistoric Polynesia as consuming significantly less protein than their male counterparts. Osteology is also a useful source from which to glean information about the overall health of a prehistoric population. However, when the osteology of Polynesian material is reviewed, a picture of good female health, reflected by many factors but especially by stature, is presented. The two data sets concerning women's nutritional status in late prehistoric and protohistoric Polynesia present us with two opposing pictures - an intriguing paradox.



I ask whether status systems in these societies could have unduly affected the conclusions presented about women, and I present two different explanations for the variation within Polynesia of the level of the dietary restrictions. One, following Mary Douglas, focuses on the contestation of gender relations within a society and the other, following Shore, is a more emic argument, utilising new theoretical research into the tapu concept. Two resolutions are attempted, one dealing with the visibility of protein-deprivation in skeletal material, and one suggesting an alternate source of protein that Polynesian women may have had access to.

This dissertation suggests a change in the way osteologists handle their reporting of nutritional adequacy. I then link these findings with those found elsewhere in the world, and with Douglas theory. Finally, I present my conclusions.

**Sullivan, Michelle (1997) *Ceramic Makers' Marks from the Otago Settlers Museum.***

Ceramic vessels frequently have back marks — painted, printed or impressed marks on the reverse of the vessel. This research focuses on the makers' marks from the Colonial Cottage display at the Otago Settlers Museum. In comparison to archaeological sites, museum collections have larger, relatively complete assemblages, with the addition of written accession records. These collections are potentially ideal for reference material and data, providing means for comparison with archaeological sites as well as other museums. This research documents the range of ceramic manufacturers represented in the Colonial Cottage display, as well as those reported from historic sites from around New Zealand. A comparison is made of maker's marks recorded in the Colonial Cottage with those from various historic sites around New Zealand.

**Tanner, Vanessa (1997) *Faunal Analysis at Martin's House, Hokianga.***

An analysis of faunal material from the historic site of Martin's House, Omapere, was conducted in order to ascertain the relative abundance and types of animals being utilised during the mid to late nineteenth century occupation of this site. The research involved a quantification of faunal remains from three excavated areas along with an analysis of taphonomic variables. An indepth study of butchering was conducted for one of the three assemblages, in order to determine the types of meat being consumed. An additional focus for the study was the presence or absence of evidence which suggested that pork was being used as an export commodity by inhabitants during the mid nineteenth century. Although no evidence supported this contention the analysis proved valuable in that it provides information on the importance of three major mammalian fauna as food resources, and highlights a combination of processes that may have led to the formation of this site. The results also allow the interpretation of a possible change in subsistence towards the end of the nineteenth century.

**Fraser, Karen (1996) *An Analysis of Faunal Material from Anatoloa, Niue.***

Faunal remains from excavations at Anatoloa, Niue, in (1994) are analysed to determine patterns of dietary resource use and the subsistence behaviour associated with shellfishing. This shows a broad spectrum exploitation of available resources with a focus on the marine environment, especially reef flat invertebrates and inshore fish. Size frequencies of shellfish indicate a collection strategy with no preference for individuals of a particular size. Shell breakage patterns suggest intentional breakage to enable meat extraction, and the differential incidence of burning may indicate roasting of Turbo shells.

**Habberfield-Short, Jeremy (1996) *Chronology and Rim Form: a Seriation of the Ceramic Rims from Ban Bon Noen, South East Thailand.***

This research essay discusses the results of rim form analysis of the ceramics from Ban Bon Noen, in South Eastern Thailand. It is a site thought to have been occupied for over a millennium -- from the termination of the Bronze Age into the early protohistoric period. A dislocation in artefact and in pottery form between the lower and upper layers, suggests the culture of Ban Bon Noen underwent a process of change in the early Iron Age. Such a dislocation in material culture and increasing social complexity has been extensively documented within Iron Age contexts of South East Asia. It is within this context of developing regional complexity that Ban Bon Noen existed, and for a short period of time exploited the inter-regional trade networks and access they provided to new forms of wealth procurement. This has lead Pilditch ((1995)) to describe the upper layers of Ban Bon Noen as a market place due to the presence of a wide range of artefact forms, tin, bronze, metal, and most importantly, beads. Although only a small area was excavated, no burials were encountered at this site, thus Pilditch's suggestion seems plausible. Artefacts in the lowest layers have been interpreted as having similarity to those of the upper undated layers of Knok Phanom Di, while the upper layers display contemporaneity with Muang Phra Rot, south of Ban Bon Noen. The results of this research support the argument for chronological change, this is seen empirically in the complexity of rim forms in the upper layers.

**Stone, Jenny (1996) *The Archaeology and History of Chamouni.***

This dissertation is an investigation of Chamouni, a short-lived packer's town established in 1863 near the beginning of the Otago goldrushes. Its principal objectives are to determine the dates of occupation, location, and historical significance of the town through the analysis of historical sources, local information, and archaeological observations. Several potential sites were investigated and the probable location identified.

**Wilson, Amanda (1996) *Reworking Debitage: an Analysis of Polished Basalt Flakes from Pitcairn Island.***

An assemblage of polished basalt flakes have been examined from Water Valley site on Pitcairn Island. It is believed that the flakes are a result of

the reworking of adzes and the analysis was performed to determine if reworking was the manufacturing process of the flakes.

A discussion of previous debitage analyses was used to set the scene for the analysis in which metric and non-metric attributes of complete and incomplete flakes were examined. A refitting exercise was conducted to determine if the flakes could be placed in the original position on the adze. An estimation of skill was calculated, and a discussion follows on the suitability of this technique.

It was determined that the flakes are result of reworking. The results are examined with respect to the composition of the assemblage, possible theoretical reasons for the reworking of the adzes (including the concept of curation) and the implications of the results are discussed with respect to the use of Pitcairn Island in prehistory.

## 1995

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### **Somerville-Ryan, Graeme (1995) *The Geoarchaeological Analysis of Sediment from Henderson Island.***

The basic goals of this project are to see the site formation processes and to try to reconstruct the environment on prehistoric Henderson Island, using the tool of geoarchaeology. The approaches to these problems form two main hypotheses. The first is the role of the various methodologies that were utilised in the analysis of the sedimentary material. Did these procedures supply the information that was required to form an overall picture of the prehistoric situation?. The second hypothesis covered, was in regard to the natural and cultural impacts on site formation and the environment in general. What effect did the people have on Henderson?, and how did their occupation alter over time?. The extent to which these questions can be answered by geoarchaeological analysis is covered throughout this essay.

### **Wadsworth, Angela (1995) *A Functional Analysis of Pumice Artefacts from Anapaluki, Niue.***

Pumice artefacts are relatively uncommon throughout the Pacific and little research has been undertaken on them. This dissertation presents a functional analysis of an assemblage of thirteen pumice artefacts from Anapaluki, a cave site on Niue. A classification is developed to standardise the description of use-wear on the pumice artefacts, and use-wear experiments conducted to determine function. These indicate that the Anapaluki tools were used primarily for finishing off the already shaped surfaces of wooden and bone artefacts.

### **Widdicombe, Helen (1995) *The Meaning of Junk: an Economic Comparison of Two Hotel Sites.***

Published descriptions of the artefact assemblages from two nineteenth century hotels, one in the remote goldmining settlement of Nokomai and the other in urban Auckland, are compared to assess the social status of

their patrons, and whether remoteness of location influenced assemblage composition. Differences in function and status were identified, but there were few differences reflecting location.

## 1994

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**Martin, David R. (1994) *Experiments in Archaeology in Aotearoa/ New Zealand: a Critical Appraisal.***

Several researchers in archaeology have expounded the basic premises for the relevance of experiments in archaeology. Coles [1973:13] declares that 'By definition the words [experimental archaeology] suggest a trial, a test, a means of judging a theory or an idea and this is exactly so...'. In most experiments the aim is to resolve problems inherent in the archaeological aspects of material culture such as incomplete survival and doubts about the presumed function of artefacts [Coles 1973:14]. Reynolds [1979] more precisely states that the rationale for experiments is to test the detailed theories on which explanations are made. Such explanations must be made critically. This more scientific approach to experimentation is one in which material from excavations is used to formulate hypotheses which the experiment is designed to test. Binford [1983] clearly states the relevance of experimental situations for archaeological research. Experimental archaeology is an area of research in which the present is used to serve the past'..providing insights into the accurate interpretation of the archaeological record' [Binford 1983:24]. The methodology used is the creation of experimental situations where the causes are controlled, in order to study the effects, these being compared to the effects of past action that remain in the archaeological record [ibid:26]. This summary of the thoughts of some major researchers made above as an introduction to the role of experiments in archaeology. a more critical and more specific examination of the scientific method as no applied in experiments in archaeology in Aotearoa/ New Zealand, and the validity of the inferences that flow from them, will form a substantial and important part of this essay.

**Palmer, Rachel S. (1994) *Archaeology of the Taieri Mouth District.***

This is a study in local archaeology focusing on the Taieri Mouth district, 34km south of Dunedin. It is an area that was known to the Wai Taha, Kati Mamoe, and Kai Tahu, especially for mahika kai. This coastal strip was later settled intensively by Europeans, when other land on the Taieri and Tokomairiro Plains was less accessible. The Taieri River provided a route inland, and coastal trade was vital to existence. Through archaeology we can document past lifeways in this locality, by tracing marks on the land.