



NEW ZEALAND
ARCHAEOLOGICAL
ASSOCIATION

ARCHAEOLOGY IN NEW ZEALAND



This document is made available by The New Zealand
Archaeological Association under the Creative Commons
Attribution-NonCommercial-ShareAlike 4.0 International License.

To view a copy of this license, visit
<http://creativecommons.org/licenses/by-nc-sa/4.0/>.

NEW ZEALAND
ARCHAEOLOGICAL ASSOCIATION
ARCHAEOLOGY IN NEW ZEALAND



This document is made available by The New Zealand
Archaeological Association under the Creative Commons
Attribution-NonCommercial-ShareAlike 3.0 Unported License.

To view a copy of this license, visit
<http://creativecommons.org/licenses/by-nc-sa/3.0/>.

ARCHAEOLOGY

I N N E W Z E A L A N D

VOLUME 45

NUMBER 2

June 2002

CONTENTS

Notes and News	81
Fieldwork and other activities	105
Recent Reports	115
The matchbox - the rat bone - the Hukanui #7b excavations 1959. <i>John C. Yaldwyn.</i>	118
Omaha beach, stage 1: preliminary archaeological report. <i>Matthew Campbell and Rod Clough.</i>	128
Archaeological assessment of an eroding site complex (No.I44/21) at Purakaunui Inlet, Otago. <i>Ian Barber and Richard Walter.</i>	153
Reviews	171



NOTES AND NEWS

New members

Elizabeth Pascal and Ross Clark, Antony Thorpe, Lynette Williams, Stuart Park, David Stringer.

Donations

Heritage Works, E.L. Phelan, J. Coster and G. Johnston, P. Fletcher, S. Macready and R. Clough, C. Merrony, A. Leahy. Received with thanks.

Maritime Archaeology Training Course in New Zealand

The first NAS training courses have recently been run in New Zealand, finishing with 28 tired but happy graduates, and two weary but still enthused trans-Tasman instructors. Two stage 1 courses were run over the consecutive weekends of 23-24 February and 2-3 March, in Wellington. The courses were co-hosted by AIMA, the Australasian Institute of Maritime Archaeology and MAANZ, the Maritime Archaeological Association of New Zealand.

NAS – the Nautical Archaeology Society - is an international society that is based in the UK. One of the stated aims of the Nautical Archaeology Society is to advance education in maritime archaeology at all levels. The NAS has put this into practice by introducing a structured training scheme open to both divers and non-divers. It was designed and developed by archaeologists and recreational divers working together, and has proved to be an effective way to learn basic archaeological skills for use underwater. The general aim of the course is to introduce the methods and procedures employed in underwater archaeology, as well as to generate awareness regarding shipwreck preservation. On completion of each of the courses, students are awarded an AIMA/NAS certificate which is internationally recognised.

14 students attended each course. The attendees were an interesting mixture of currently archaeology students, professional archaeologists, ship and marine enthusiasts and maritime archaeology enthusiasts.

Two Australian maritime archaeologists crossed the Tasman to deliver the two courses, and Mary O'Keeffe and Jack Fry added local New Zealand components on NZ legislation and conservation.

We also took advantage of our Australian colleagues in the week between the two courses and ran a successful seminar on the recently adopted UNESCO Convention on the Protection of Underwater Cultural Heritage, which New Zealand has signed up to with apparently little understanding of its implications. MAANZ gathered a number of relevant industry and governance agencies to listen to Mark and others discuss the content and implications of the conventions, and watched the eyebrows rise.

Many students expressed an interest in continuing with the Part 2 module, so MAANZ will consider running another Part 1 and a Part 2 course next year. In the meantime the training material will be further tweaked for New Zealand context and legislation. MAANZ is very grateful to AIMA for their support and encouragement in running these first trailblazing courses.

Fulbright Scholar Grants, 2003-2004

The Fulbright Scholar Program is offering 50 lecturing, research, and lecturing/research awards in Anthropology and Archaeology for the 2003-2004 academic year. Awards for both faculty and professionals range from two months to an academic year.

While many awards specify project and host institution, there are a number of open "Any Field" awards that allow candidates to propose their own project and determine their host institution affiliation. Foreign language skills are needed in some countries, but most Fulbright lecturing assignments are in English.

Application deadlines for 2003-2004 awards are:

August 1 for Fulbright traditional lecturing and research grants worldwide
For information, visit our Web site at www.cies.org <<http://www.cies.org>>.
Or contact: The Council for International Exchange of Scholars
3007 Tilden Street, N.W. - Suite 5L
Washington, D.C. 20008
Phone: 202-686-7877

E-mail: apprequest@cies.iie.org

New Zealand Archaeological Association Council, March 2nd. General Business included the following matters:

1. Memorandum of Understanding (Banks Peninsula)

Moved (Prickett/Clough) that we accept the terms of the Memorandum of Understanding as they stood in the most recent draft from Chris Jacomb; that we reply with this decision; and that we ask Chris to act on our behalf in arranging the signing. Agreed.

2. SRS Upgrade Project

Waiting to see if the current Lotteries application is successful before planning new fieldwork for the coming year. Should hear this month. Recent fieldwork focussed on the Bay of Plenty and will probably continue for approx. 18 months.

Northland: both Whangarei and the Far North councils have said they will provide the money to cover half the costs of fieldwork.

Tauranga District Council has been granted the money from the regional council to do a total survey after the Upgrade project work.

3. ARC MOU

Sarah reported that she, Ian Lawlor and Kath Prickett had met to discuss issues surrounding this Memorandum. As a result specific actions had been determined. The ARC had joined N.Z.A.A. as a corporate member, agreed to promote surveys, and to promptly submit data for the N.Z.A.A. File. The ARC does not give the CHI on CD to consultants; holders of the CHI on CD must be members of NZAA; and it is specified to approved holders that it is for their own use only and may not be passed on to third parties. Concerns included the interpretation of data, acknowledgment of the original source of the archaeological information, and sensitivity over approval to disseminate or not. It was hoped that these would be answered through the conditions required when people obtained a copy of the information.

4. Website

It was agreed that we would ask Garry to include the Contents pages of the most recent issue of AINZ on the website.

5. Membership

Actions taken in response to the motion at the 2001 AGM were summarised:

- Putting a copy of the membership form on the website
- Placing copies of the NZAA pamphlet in regional venues where possible

- The membership survey
- Lobbying for tertiary student members

6. UNESCO

It was noted that this year was the Year of Cultural Heritage and suggested that we add a link on the website. Remain open to other suggestions/ideas.

Annual General Meeting Report

The 2002 Annual General Meeting of the New Zealand Archaeological Association was held at the Russell Town Hall on Saturday 27 April. Approximately 35 members attended.

The President presented the Wellington Archaeological Society prize for the best student paper, which was awarded to Jacqueline Craig, from the University of Auckland.

General Business included discussion of the following items:

Election of President

No nominations for this position had been received prior to the meeting. Garry Law was nominated from the floor and accepted the nomination, which was duly confirmed.

Other Council members:

Vice-President	Rick McGovern-Wilson
Immediate Past President	Kath Prickett
Treasurer	Karen Greig
Secretary	Moira White
Council	Ian Barber
	Lynda Bowers
	Rod Clough
	Sarah Ross

President's Report

Without the pressures to expend energies on legislative and RMA matters, as in previous years, 2002 has given a breather to focus more attention on our internal functioning.

The 2001 Conference at Akaroa was a success despite being held in a 'remote' venue. We were able to bring in a modest profit, which was pleasing, as conferences in small centres have often needed a subsidy. Council has begun

working on the resolutions formulated from the workshops at Akaroa and adopted at the AGM. We are giving particular attention to the issue of membership as our financial status and support base is critical to maintaining what we have, before we can move on new initiatives. It is hoped that the membership survey recently sent out will result in clear indications of what members see as the Association's core activities. Membership recruitment and retention remains a problem. Here I make the plea that it is up to us all, as well as Council, to try to bring in new members.

The Site Recording Upgrade Project has continued strongly with fieldwork in several districts now completed. Fieldwork in Tauranga district is finished and is progressing well in the Bay of Plenty. Support from the Northland region's mayors and Tasman District Council has been forthcoming for work in their regions. Continuation of the project is dependent upon grants from Lotteries Environment and Heritage. We were successful in securing a grant of \$45,000 this year: \$35,000 for the project manager's salary, \$5,000 for database costs and \$5,000 for iwi participation costs. Special thanks to Lynda Bowers and Rick McGovern-Wilson for continued effort in this important NZAA work. The project manager has concerns that success in initiating and carrying out the upgrades is raising expectations of the Association's capacity to continue to upgrade and maintain each district's databases. Without secure long term funding this may be unrealistic. It is extremely difficult to plan ahead with so much hanging on the procurement of a grant particularly at a time when Lotteries income is falling. Local authorities databases will need in future to be self-supporting. Informal discussions have been held with Ministry for Culture and Heritage and MoRST officials regarding funding and file issues and will be pursued further in the coming months. Last week I attended a database workshop (hosted by the ARC) to discuss ways in which various contributors to heritage databases might work together, and with NZAA, to achieve a more supportive and less fragmented approach to database management. A desired outcome is to secure ongoing funding commitment from government.

The Central filekeeper has completed two filekeepers' newsletters to help liaise with district filekeepers, lend them support, and attempt to standardise operation of the files and recovery of search fees for the Association.

On the subject of specific sites, progress has been made with the registration of Tahanga, Coromandel. Louise Furey and Rachel Darmody have visited and assessed the area, which has been partially planted in pines, and produced a report for the Historic Places Trust. The Trust and the developers have met to discuss removal of the pines. An appeal against the Marlborough District

Council's decision to turn down a proposed subdivision in Greville Harbour, D'Urville Island, progressed to a mediation attempt. I represented the Association in a teleconference in August. We have just been notified that the appeal has now been withdrawn.

Publications issues: The Editor of *AINZ* and the sales manager have worked hard over the year to reduce production costs. It may be possible to produce four issues for the current cost of three. I thank Louise and Joan for achieving this without compromising quality and Simon Bickler for providing technical support to Joan. It is an extra burden to have had to bear and we appreciate the efforts made to uphold standards.

Monograph 24, *Lapita. A View from the East* by Simon Best has been produced. There were a number of hiccups with production and the book had to be reprinted. Now that the printing difficulties have been ironed out, Monograph 25, which is well advanced, should be produced without problems. The healthy publications account and financial assistance with Monograph 25, has made production possible of two monographs in one year, both with Pacific titles. Hopefully, this will maintain the account to allow a less lucrative New Zealand title to follow.

Work resumed on the MOU with Ngai Tahu ki Horomaka and Council has agreed to sign. We await news of when this is to take place. It was agreed that it will be breaking new ground for us; and as there is provision for a review at the end of two years, any problems will be able to be tackled through this process. Work on the ARC Memorandum of Understanding also resumed. Final alterations and additions are being worked on and the updated document should be reviewed and ready for signing shortly.

I have continued to attend meetings of the Auckland Region's 'Accidental Discovery of Human Remains Policy' group during the year and participated in the July meeting and workshops for the Royal Society's affiliated groups. With two other members of the Association, I had input into the Kiwi Careers programme.

Finally, but very importantly I would like to thank the people whose generous gifts of time sustain NZAA. We are grateful to Garry Law for the magnificent job done on the website. This is now a major part of our public face and is going from strength to strength. Particular thanks go to Lynda Bowers for her long contribution as Treasurer over an increasingly difficult period. Special thanks go to Mary O'Keefe and Cathy Barr for conference in put.

I would like to thank all office holders - the Publications teams, the Treasurers, the Filekeeping Co-ordinator, the Upgrade Project Co-ordinator and Manager, and Council- for the fantastic work you have volunteered to the Association. I express gratitude for the support that so many of you have given me in my term as President. I wish the incoming President all the best. To our members, a hearty thank-you. We may not be numerous these days, but make up for lack of quantity with great quality. Thank you all.

Kath Prickett

Treasurer's Report. 2001 Financial Year

Following the recent trend 2001 continued to be an active year for the Association, which ended the year with a total of accumulated funds of \$76,065.28. This is a substantial increase from 2000 of \$19,300.82 however this includes funds held in advance for the Upgrade project. The following comments should be read in conjunction with the annual accounts, which have been posted to all members.

The General Account had a high level of activity in 2001 due to the Site Upgrade Project. The project has remained within budget. The income for the Project was made up of \$50,000.00 from Lotteries and \$37,098.88 from District Council grants (these figures have been corrected in the audited accounts). Cash flow problems at times throughout the year however continue to create difficulties for the General account. Nonetheless, the account supported the Upgrade Project, the regular production of *Archaeology in New Zealand*, and general expenditure. The printing of Volume 44 (3) was again funded by the Publications account, as there were insufficient funds at the time of production to meet this cost.

The Association's income from subscriptions in 2001 was \$13,966.97. This is a slight decrease from the previous year. The cost of production of *Archaeology in New Zealand* met by the General Account was \$11,187.09. This cost represents a significant portion of the Association's funds. Steps have recently been taken to address the increasing cost of producing *Archaeology in New Zealand* and in future this area of expenditure is likely to reduce. A review of the Association's general expenditure and operations is also underway.

The 2001 Conference realised a profit of \$650.90. Most other levels of expenditure were consistent with 2001, although the decrease in travel expenses is misleading, as not all receipts for 2001 were received before the close of accounts.

The Publications had a steady sales year, while the Journal had a significant increase in sales for 2001 of \$5,251.91. This reflects in part income from the production of two volumes in the previous year.

The annual accounts presented to members this years have been audited in keeping the requirements of our Lotteries Environment and Heritage funding.

Karen Greig Treasurer

New Zealand Journal of Archaeology. Editor's report.

The Journal is still a year behind schedule, because of the continuing difficulty of obtaining a sufficient number of papers. Volume 22 (for 2000) appeared in 2001.

We hope to produce two issues in 2002. Volume 23 (for 2001) will contain a normal mix of papers relating mainly to New Zealand archaeology. Because there are several papers going through refereeing and revision at present it is not possible to list the contents of Volume 23 more precisely. One or more of these papers may be held over to Volume 25.

Volume 24 (for 2002) will be dedicated to a group of New Zealand and Pacific papers from the Conference of the Fish Remains Working Group of the International Council for Archaeozoology, held in Paihia in October last year. For this issue, we broaden our usual definition of 'Pacific' to include papers from Borneo, the Aletutians and Australia, as well as New Zealand and Polynesia. We think this will make an interesting volume. Once again, however, to keep the Journal from falling behind again we have had to cast our net far beyond New Zealand.

I should like to thank all those who willingly devote valuable time to the Journal free of charge:

- The referees, and especially those who undertook to referee papers more quickly than usual to ensure that Volume 22 appeared promptly;
- the people who have acted as assistant editor, to maintain the integrity of the editorial process for any paper of which I myself am an author,
- the typesetters
- the business managers.

The Journal continues to be viable because of the support of these people.

Janet Davidson

Archaeology in New Zealand. Editor's Report.

This will be the 9th year that I have edited *Archaeology in New Zealand*, with 9 volumes and 37 issues to March 2002. I value the contact I have with archaeologists both in New Zealand and overseas and sometimes find it hard to believe that the flow of good papers for publication continues to flow in. After the long Christmas break this year there was a period of mild panic where I had only one paper in hand, but a call for papers brought them streaming in - enough for two issues! I am very grateful to all my contributors, both regular and occasional. Without you there would be no *Archaeology in New Zealand* and no venue for shorter papers with a tight turn around period as well as the other archaeological information disseminated in our core NZAA publication.

Thank you to the NZAA for providing me with a new printer. I can't tell you how pleased I am to finally have a printer that is reliable and that doesn't require me to feed in paper one piece at a time.

The March 2002 issue was printed using a new docutech process. With the help of Zoe Prince, the Auckland University Arts Faculty Publications Officer, I have sourced a much cheaper way of printing *Archaeology in New Zealand*. Prices for this method of printing are at least 40% cheaper than the old printing process. The resulting publication, I hope you agree, looks good. Hopefully this will go some way to overcoming the escalating price hikes in printing and paper experienced over the past few years.

Joan Lawrence

NZAA Upgrade Project Report

During 2001 work continued to complete the East Coast file review. This has been completed for Gisborne District, which contains the majority of the file district. Pam Bain is currently working with Gisborne District Council to provide the final list of sites to be scheduled in the district plan with appropriate buffer areas. The portion of the file district included in the boundaries of Wairoa District Council will be updated as part of the Hawkes Bay file review.

Fieldwork has commenced in the Bay of Plenty and will be on going, with a projected completion date of December 2003. Fieldwork is currently being undertaken in Tauranga district and will extend into Western Bay of Plenty district during May.

A paper-based review of the Northland file was carried out in 2001 and the relevant district and regional councils have been asked to assist with funding for

fieldwork. Far North and Whangarei District Councils have both made funding available in their 2002/2003 Annual Plans. Planning for fieldwork will continue and hopefully, with Iwi and landowner support, we will get the work underway before the end of 2002. Kaipara District Council has also indicated verbally that it is supportive of the project, but no funding is currently available. We are currently working to obtain funding support from Northland Regional Council.

A paper-based review of the Marlborough and Nelson files has been completed. We are currently contacting the relevant district councils to enlist support for the fieldwork phase. Tasman District Council has already confirmed that they will make funds available in the current financial year and in 2002/2003. We will be working toward getting the fieldwork underway in the near future.

To date the project has assessed approximately 14,000 sites. Current and planned work relates to approximately 21,000 sites in total. It appears from the reviews completed so far that the records generally have about a 60% accuracy rate – meaning that we are finding that about 40% of the recorded sites need to be revisited in the field.

The absence of core funding for the upgrade project administration and operating remains a significant issue that threatens the viability of the project. This may mean that NZAA will need to reassess the degree of direct involvement the organisation has in fieldwork for upgrade projects. We may need to move toward encouraging district and regional councils to initiate their own upgrade projects under guidelines provided by NZAA and using qualified archaeologists. The project has received funding from Lotteries Environment and Heritage to continue until April 2003. We will continue to lobby central government agencies to support both the upgrade project and the Site Recording Scheme.

Lynda Bowers

Groube Gumboot Award

One nomination had been received and Council had endorsed this. Recipients were Louise Furey and Brenda Sewell for their work on the Arthur Black's midden site.

Abstracts of Papers Presented at the Conference

Pacific and Asian Archaeology

Mortality and Morbidity of the Subadults of the Prehistoric Settlement of Khok Phanom Di

Sian Halcrow

PhD candidate

Anthropology Department

University of Otago

Many infants died at, or soon after birth at Khok Phanom Di. A biocultural approach is adopted to investigate why there was such a high mortality rate and whether there was a change in mortality and morbidity over time. A comparison of data between the early and late phases shows a higher rate of neonatal death, higher frequencies of severe cribra orbitalia, as well as more intra-uterine growth retardation in the early phases. These differences correspond to the proposed environmental changes occurring part way through the mortuary sequence. The formation of defects in deciduous teeth and intra-uterine growth retardation indicates that maternal health, as opposed to sampling effects, is a factor associated with the high neonate and infant mortality in the early phases. Malaria is proposed as a likely contributing factor in the mortality and morbidity of the subadults.

Mangaian Landscapes: A case study from Keia

Richard Walter

Lecturer

Anthropology Department

University of Otago

James Robinson

Archaeologist

Dept. of Conservation

Whangarei

Mangaia is a raised reef island in the Southern Cook Islands that is well known in the anthropological literature for its highly ranked chiefdom and its intensive wet-field production systems. The Keia Project is a partnership between Otago University and the Mangaian Island Council. It seeks to combine archaeological data with indigenous histories to construct a rich historical account of the role of landscape in structuring Mangaian social and political history and in

constructing Manganian identity. This paper reviews the first field component of the project carried out in October 2001.

The timing and nature of Lapita settlement in Vanuatu

Dr Stuart Bedford
Regional Archaeologist
NZ Historic Places Trust Pouhere Taonga
Auckland

Apart from on the island of Malo, Lapita sites in Vanuatu are relatively rare and generally those that have been investigated to date have been shallow and somewhat mixed. More recent results from northern Vanuatu along with a reassessment of earlier data now provide a clearer understanding of the chronology and settlement pattern associated with Lapita colonisation.

Stable Isotope Analysis of Human Commensals from Aitutaki, Southern Cook Islands

Jacqueline Craig
PhD. Candidate
Anthropology Department
University of Auckland

Stable isotope analysis has become an increasingly useful tool worldwide for archaeologists interested in examining prehistoric diet and production systems and change over time. ^{13}C and ^{15}N stable isotopes are particularly useful in examining changes in subsistence strategies involving marine and terrestrial sources of protein. Despite this, it remains an underutilised technique in the Pacific. This paper will discuss preliminary results of research into changes in subsistence strategies over time on the island of Aitutaki, in the Southern Cook Islands. Fish bone from archaeological middens on Aitutaki suggest a decline in fishing over time, whether this is due to actual changes in diet or discard patterns is unknown. Combining stable isotope analysis with the large, well dated collections from Aitutaki has provided an excellent opportunity to examine this trend more closely, and to determine whether these changes in fishing strategies are accompanied by an increased reliance on terrestrial proteins.

The initial portion of the project has concentrated on using stable isotope analysis of bone from commensal animals, in this case pig and dog, to look at human diet. The identification of appropriate substitutes for human bone has the

potential to considerably widen the scope for palaeodietary research in the Pacific.

People: Living and Eating

Fashionable Tools

Roger Fyffe

Curator

Canterbury Museum

Studies of Maori pendants or 'amulets' have quite predictably grouped them stylistically according to shape or form. Indeed almost everything the right size drilled with a suspension hole has been considered a pendant or an earring. A closer look at Canterbury Museum collections of what Skinner in 1934 classified as 'Amulets in the form of Implements' then later in 1974 'Amulets in Adze Form' clearly indicates that they conventionally had a primary practical and utilitarian function as well as serving as ornaments. Skinner and most authors have dithered about this distinction. Closer examinations show that they were deliberately shaped and frequently used as multi-purpose knives and scrapers.

Arthur Black's midden at Opito: introduction to December 2001 excavation

Brenda Sewell

Archaeological consultant

Auckland

An exposure of midden more than 1 m deep and 25 m long in the wave cut seaward face of the sand dunes at Opito Bay, Coromandel Peninsula, prompted the investigation of the site. An overview of the history of archaeological investigations in this area is appraised and previous excavation of this site considered. The reasons for excavation are outlined although a major driving force was the insistence of Ngati Hei that the site be excavated and the information retrieved before it was lost through erosion. The site and the several cultural layers are described. Although no analysis of the midden has taken place, the wide range of rocky shore shellfish present, including *Celana denticulata*, and the presence of seal and moa bone fishhooks and large quantities of Tahanga basalt flakes suggests that the site falls into the age range of other similar sites at Opito and Sarah's Gully, that is prior to 1500 A.D.

Freshwater and marine eels: food avoidance behaviour and/or differential preservation in the Pacific and New Zealand

Dr Janet Davidson
Curator of Pacific Collections
Museum of New Zealand
Te Papa Tongarewa

Dr Foss Leach
Museum of New Zealand
Te Papa Tongarewa

This paper examines archaeological and ethnographic evidence about eels in New Zealand and the Pacific. The presence of eel bones in archaeological sites is highly variable and is clearly not related to the natural distribution of these fish. We reject the idea that the relative dearth of eel bones is a product of poor preservation. On the contrary, we argue that eel bones are very durable in most archaeological sites in this region, with diverse soil chemical conditions ranging from tropical to sub-Antarctic environments. There is abundant ethnographic evidence that both marine and freshwater eels occupy a very special place in human societies in this region. There are numerous examples of religious observance, myth, and totemism; and eels occupy an entrenched position in stories relating to human sexuality. We argue that these wide spread beliefs find their concrete expression in food avoidance behaviour towards eels.

Polynesian agriculture in New Zealand: the microfossil evidence

Mark Horrocks
Centre for Archaeological Research
University of Auckland

Current understanding of prehistoric farming in New Zealand is based mainly on inferences drawn from early European accounts and indirect evidence such as landscape architecture or soil structure. There is a paucity of direct evidence in the form of preserved remains of actual cultigens. This is not surprising; whole or large fragments of plant organs would not be expected to be found preserved in most garden soils, where cyclic wetting and drying, the worst conditions for the preservation of organic material, would prevail. However, recent studies of microfossils in archaeological deposits in New Zealand have shown promise in providing different lines of direct evidence of Polynesian gardening, and gathering of wild plants. Three types of microfossils that have been looked at so far are pollen, biogenic silica (phytoliths, diatoms and sponge spicules) and starch grains. These microfossils are of plants cultivated or

gathered by prehistoric Maori, and have been found in stone mounds at Pouerua in the inland Bay of Islands, in coprolites and a swamp core from Harataonga, Great Barrier Island, and in coprolites from Kohika in the Bay of Plenty.

Mulching at the margins: archaeological evidence of horticultural innovation from Golden Bay

Dr. Ian Barber
Anthropology Department
University of Otago

Stratigraphic and sediment remains are discussed from a recent archaeological investigation at Puponga Farm Park at the base of Farewell Spit. Evidence for pit horticulture and shell mulching is identified within a dated sequence. At least two cultigen types appear to have been grown. These remains are consistent with a long-term pattern of gardening sustained by novel horticultural innovation. Shell mulching in particular may be a response to climate change in the late Maori archaeological sequence.

Recent Fieldwork

The Archaeology of Omaha Sandspit

Mat Campbell
Archaeological consultant
Auckland

During phase 1 earthworks for residential development at Omaha Sandspit 157 features were exposed and recorded. These range from isolated oven scoops to substantial middens containing 100 cubic meters of shell or more. This paper reports on the preliminary results of monitoring, excavation and recording. The Omaha project provided us with the opportunity to examine an extensive prehistoric landscape. The results demonstrate surprisingly little in the way of complexity at Omaha, but some reasons for this, both geomorphological and archaeological, are proposed.

Maori and European landscapes at Te Puna, Bay of Islands, New Zealand, 1805-1850: recent fieldwork

Angela Middleton
PhD. candidate
Anthropology Department
University of Auckland

In early nineteenth century New Zealand, the arrival of missionaries and whalers initiated different kinds of European relationships with indigenous Maori, which impacted on the indigenous landscape. My work examines the details of Maori and European interaction at Te Puna, in the Bay of Islands, northern New Zealand. At Te Puna, there is evidence for Maori agricultural intensification and fortification, and early European missionary villages, all of which were deserted by the mid-nineteenth century. My methods combine historical archaeology and an anthropological approach to history to re-examine the landscape, inhabitants, and events of early nineteenth century cultural interaction, through an analysis of the archaeological record and historic accounts and images. Cultural landscapes are examined in regard to key themes: Maori concepts of mana and tapu, evidence for cultivation, and European and Maori perceptions of the colonial era at this place. This paper will discuss some of the recent fieldwork and findings at Te Puna during the summer of 2002.

Cultural Wetlands in Taranaki project: update

Dr Harry Allen
Anthropology Department
University of Auckland

The first year of the wetlands project, which involves a partnership between Ngati Mutunga and a diverse range of researchers, went well. Difficulties emerged during 2001 and continued through the year. These were caused by our unfamiliarity with the area and Ngati Mutunga, and the lack of a permanent presence in Taranaki. We have refocussed our investigations on specific field locations where detailed investigation and monitoring are providing interesting results concerning the age and processes forming wetlands, the relative lateness of changes in pollen indicators for changes from lowlands forest to fernlands on the coastal strip, and the conservation requirements of the wetlands themselves

Physical anthropology - MtDNA research

An update on the molecular archaeology research programme at the University of Auckland - the current rat, dog etc. status

Dr Lisa Matisoo-Smith
Anthropology Department
University of Auckland

The origins of the feral pigs on the Auckland Islands - A MtDNA analysis

Judith H. Robins, Elizabeth Matisoo-Smith, and Melinda S. Allen

Anthropology Department

University of Auckland

At least three releases of pigs on the Auckland Islands were made in the early to mid 19th century, the first in 1807 and the third probably in 1842. Initially the releases were to provide food for shipwreck victims and/or sealers and whalers. Whether these pigs were of European or of Asian stocks was unknown. In an attempt to protect what may now be a rare breed The Southland Heirloom Breeds Charitable Trust removed some of the feral pigs from the main Auckland Island and holds them on the mainland. Mitochondrial DNA studies were carried out from blood obtained from five of these pigs. Comparisons were made among a range of modern pig breeds, and archaeological south east Asian material. The five Auckland Island pigs sampled are identical over the 394 base pairs studied and are most closely related to European pig breeds, which strongly suggests European origins.

From the Mouths of Babes: An Evaluation of Current Molecular Sex Identification Methods for Juvenile Dental/Skeletal Remains

Sonia M. Townsend

Anthropology Department

University of Auckland

The lack of definitive sexual dimorphism in juvenile skeletal remains complicates the identification of biological sex in juvenile material. In addition, molecular-based sex identification protocols successfully applied to adult remains have been problematic for the study of juvenile material, particularly due to poor rates of DNA recovery and to problems of authenticity and accuracy of results. To address these issues, this research tested three different molecular sex identification protocols on dental material from three different case studies: one modern collection (deciduous teeth recently extracted) and two historic archaeological collections from cemeteries in Sydney and Adelaide, Australia. Results and recommendations will be presented.

Historic research & archaeology

Tin mining in Pegasus, Stewart Island

Peter Petchey

Archaeological consultant

Dunedin

The Tin Range in southern Stewart Island was the site of New Zealand's only tin rush. Prospectors looking for gold in the 1880s instead found stream tin, and hundreds of acres of harsh Stewart Island bush were quickly pegged out. However the field was a failure, and no fortunes were made. Work is currently in progress to record the archaeological evidence of this tin field, and this paper presents some of the finds to date.

Tekapo Station Homestead

Katharine Watson
Archaeological consultant
Christchurch

Tekapo Station, once located on the shore of Lake Tekapo, was one of the first runs to be taken up in the Mackenzie Country in the late 1850s and the owners, the Hays, were some of the earliest European settlers in the district. Low lake levels in the spring of 2001 presented an opportunity to map the site of the homestead. Further information about the site was gathered through oral history and old plans. This paper focuses on the homestead's garden, considering the influences that shaped it and the broader significance of gardens in historical archaeology.

X marks the spot: aspects of Waikato history 1863-73, as recorded on Captain S. Newall's map

Lyn Williams
Curator of History
Waikato Museum of Art and History Hamilton

This original map, in the collection of the Waikato Museum of Art and History, was drawn by Captain Stuart Newall of the Armed Constabulary in 1873. The map is topographical in nature, showing settlements, roads, hills, rivers and vegetation features. Though probably based on a military survey map, it has many inaccuracies of scale, variable detail and some idiosyncrasies. Most of the detail is in the triangle formed by the Waipa and Waikato rivers and the Confiscation Line, with each farmstead being identified by its owner's name. The map reflects a turbulent period of Maori-Pakeha relations, with Newall noting the locations of events such as the protest killings of Todd (1870) and Sullivan (1873). Despite its incompleteness and flaws, the map is a valuable document for researchers of 1860s-70s Waikato history and landscape.

Site management & interpretation

Auckland City's Gulf Island Project: A brief overview of the methodology and preliminary results

Rod Clough

Archaeological consultant

Auckland

Auckland City have been developing a broad based heritage database covering heritage items and features such as trees, ecology, geology, buildings and archaeology. As part of this process, the Gulf Islands project has been initiated. This has involved developing recording and evaluation systems and relocating and applying these to previously recorded sites. The aim of the exercise is to produce an accurate record and evaluation of each site and compiling a data pack for every site. It is intended that this data pack will meet statutory processes and provide a basis for scheduling sites on the District Plan.

Digital 3D Models: Public presentation or Research?

Hans Dieter Bader and Russell Gibb

Geometria

Auckland

The use of three-dimensional digital models to reconstruct and visualise archaeological sites is becoming commonplace when presenting archaeology and heritage to the general public. The question is how do these models contribute to archaeological research? During a recent project undertaken by Geometria and the Centre for Archaeological Research (CAR) to create a 3d reconstruction of part of Maungakiekie, the authors encountered many open research questions. Decisions on the type, size and placement of the 3D models (such as palisades, fences, whare, etc.) in the reconstructed landscape were based on a detailed topographical survey, preliminary geo-physical surveys and comparative studies. The focus shifted - early in the project - away from the defensive earthworks to the multiple pathways through the pa and areas of different functionality. The physical structure was a determinant in the defence of the pa, but it does not appear to be its primary function. The idea of utilising pathways and fences to control movement and access to distinctive areas of the pa allows us to picture the pa as a physical monument that helped describe the social relationships of a pre-contact Maori society, as conceived by that society. The creation of an informed 3D model for part of the pa on Maungakiekie widens the research on complex pa structures. It also provides another data set

for Maungakiekie to further research questions on the composition and function of the pa.

Bay of Plenty Archaeological Resource Statement -A view From Part Way

Garry Law
Archaeological consultant
Auckland

The author has been engaged by DoC to prepare a statement for the BoP conservancy area. The project has not reached the stage of any new insights on the prehistory of the area. However after reviewing the site records, theses, published material and as yet some of the 'gray' literature, it is apparent what features are special to the area but also the selectivity that has come through in what has been recorded and studied. These will be explored, together with some suggestions on the future practice of archaeology in the area.

Oropuriri (P19/262): an unknown place

Michael Taylor
Archaeology North
Wanganui

Simon Holdaway
Anthropology Department
University of Auckland

Hans Dieter Bader
Geometria
Auckland

During a recent survey of the Bell Block Highway Extension by Michael Taylor and Annette Sutton of Archaeology North a possible house site was discovered. Initial consultation with Te Atiawa Tribal Council, coupled with historical background research, revealed little more than the name of the place - Oropuriri, a small pa about 50 metres uphill from the excavations. This led to a collaborative excavation between research and contracting archaeologists being conducted at Oropuriri in the form of the annual field-school undertaken by the University of Auckland Anthropology Department. The field-school was directed by Simon Holdaway, with technical assistance supplied by Geometria. This combination of experience and technical knowledge resulted in an excavation characterised by the systematic use of physical and geophysical

survey data, digital photography, and relational databases. This systematic approach permits us to examine the relationship between every single find, its three dimensional space, and the relationship between features and other finds.

A large house measuring approximately 20 x 7 metres, of Maori concept, but with some European building features was uncovered. At least two more large houses can be identified underneath it, together with some features, which could be possibly associated with a gun-fighter pa, as well as several pits and other signs of occupation. The geophysical survey guided the direction and extension of trenches and also showed that the settlement is larger than originally anticipated. Therefore a second excavation is planned, during which the remaining earlier features and the full extent of the settlement at Oropuriri will be explored.

Archaeology in Maori at Maungakiekie

Sue Bulmer

Archaeological consultant

Auckland

For some time I have been leading tours of Maungakiekie pa on behalf of the Cornwall Park Visitors Centre, basically a very pleasant task and one that has caused me to frequently revisit the site, to see new evidence and rethink old evidence and to discuss it with interesting people. Among these have been teachers from local Penrose High School who a couple of years ago asked me to help run a pilot teaching project for their Maori Studies students. They, teachers and students, were very interested in learning Maori terms for archaeological features and concepts. I've recently produced a guidebook for the Visitors Centre and have included a wide range of Maori words and place names. The next step is, of course, to translate writings into Maori, but this is beyond my expertise. Another level of linguistic study is that of patterns of classification and explanation for archaeological subjects, which I have over the years explored as having much potential for adding to archaeological knowledge and interpretation. This paper reviews the range of subjects that can usefully be approached linguistically, looking at a couple of examples, i.e. fortifications and middens.

Managing Heritage for Environment BOP

Sue Mavor

Acting Heritage Coordinator

Environment B O P

Purpose of talk:

To inform conference attendees of the role of and issues addressed by the Heritage Co-ordinator at Environment BOP

Topics covered in presentation:

- * Environment BOP's mandate for heritage
- * Examples of heritage places and values in the Bay of Plenty Region
- * Aspects of heritage addressed by Heritage Co-ordinator
- * Role of Heritage Co-ordinator
- * Environment BOP heritage objectives, policies and strategies
- * Examples of projects Heritage Co-ordinator involved in
- * Issues for the Bay of Plenty Region

Questions and discussion*Development and archaeological sites: resolving the issues*

David Stringer

Resource Management Planner

Thomson and King Ltd

As a planner working throughout the Far North District Council area, part of David's job is resolving issues re development of properties with archaeological/cultural sites. A set of procedures have been developed over the years which have resulted in co-habitation of the old and the new.

Size of Central File as of 31 March 2002

On 31 March 2002 the Central File held a total of 54,813 records. This is an increase of 769 on last year's figure of 54,044. This represents an increase of about 1.4%. Regional totals are as follows

REGION	2001	2002	Change
Northland	10099	10285	186
Auckland	8711	8770	59
Coromandel	4093	4184	91
Waikato	3264	3322	58
Bay of Plenty	7932	7992	60
Taupo	455	455	

East Coast	2788	2853	65
Taranaki	1537	1542	5
Inland Patea	296	297	1
Hawkes Bay	1901	1907	6
Wanganui	869	882	13
Wellington	1035	1062	27
Nelson	1536	1569	33
Marlborough	526	538	12
Canterbury	1334	1346	12
West Coast	855	907	52
Otago	2475	2518	43
Central Otago	2048	2087	39
Southland	1459	1466	7
Outlying Islands	831	831	
Total	54044	54813	769
Summary			
North Island Files	42980	43551	571
South Island Files	10233	10431	198
Outlying Islands	831	831	
	54044	54813	769

Pa sites (excluding gunfighter pa) comprise 12% of recorded sites (n=6809). Middens (by themselves with no other features identified) comprise 22% of all recorded sites. Historic archeological sites make up about 15% of all recorded sites. The three largest files hold 49% of the records.

A. Walton, Central Filekeeper.