New Zealand Archaeological Association Annual Conference · 2023

3-7 July

New Zealand Archaeological Association Annual Conference 2023

Programme and Abstracts

3-7 July

SkyCity Hamilton
New Zealand

PROGRAMME

All events apart from the field trip will be held at SkyCity Hamilton, 346 Victoria Street, Hamilton City with morning tea, lunch and afternoon tea available.

Monday 3 July

5.00 - 8.00 pm **Pre-conference icebreaker**
Sponsored by CFG Heritage Ltd
The Foyer and Galleries 3-7, Waikato Museum, 1 Grantham Street

Tuesday 4 July

10.00 - 10.45 am **Poowhiri**

The haukaainga are welcoming on manuwhiri. Please meet outside the room and follow the group of attendees in one roopū. Please remain standing at your seat until directed to be seated. Follow the lead of speakers. Attendees will waiata tautoko with the following waiata:

Mā wai rā	**Te aroha**
Mā wai rā e taurima	Te aroha
Te marae i waho nei?	Te whakapono
Mā te tika	Me te rangimārie
Mā te pono	Tātou, tātou e
me te aroha e	

Cover Image: Courtesy of Heritage New Zealand Pouhere Taonga Lower Northern Region collection

10.45 - 11.15 am **Morning tea**

11.15 - 12.45 pm **Panel discussion**
Chair: Makere Rika-Heke

"Archaeological assumptions: Mana Whenua and the 'real find'

A panel discussion with Mana Whenua representatives of the Waikato region on the cultural competency required to access the richness of archaeological findings. The panel will discuss the importance of relationships and best practice when completing archaeological protocols with Iwi Maaori that can create inter-generational impact. Points for korero:

- Own experiences when supporting archaeological finds
- Legislation and its impact on non-compliance
- Importance of Mana whenua narrative
- Top pieces of advice for archaeologists when engaging with Mana Whenua

12.45 - 1.30 pm **Lunch and Student luncheon at the venue**

An opportunity for tauira and various professionals to meet and chat.

1.30 - 3.00 pm **Paper Session 1**
Chair: Pam Bain

Te Puna o Korotangi – Archaeological and Heritage Perspectives on Contemporary Issues, Warren Gumbley, Diane Bradshaw, Karyne Rogers, Sally Strang & Oliver McLeod

Kia eke Kurahaupō: Kurahaupō Heritage Tours, Leela Moses

Te Hokinga Mai: The Journey of Taonga Tuuturu, Glenda Taituha & Mahana Toka

"Kia takahi ai ngaa takahangahanga tuupuna": kaitiaki Maaori relationships to waahi tuupuna, Zac McIvor

3.00 - 3.30 pm **Afternoon tea**

3.30 - 5.00 pm **Paper Session 2**
Chair: TBA

Reconstructing and Enhancing our Understanding of Past Cultural Lanscapes at Whangapoua, Coromandel Through the Integration of Mātauranga Māori, Archaeological Survey and Game Engines, Benjamin Jones, Simon Bickler, Wanda Brljevich, Thomas McDiarmid and Charlotte Judge

From Pā to People? Exploring a new method of estimating the size of the contact era Māori population, Dr Simon Chapple

Finding Takapuna -the falling spring, Robert Brassey

Enderby Island mahinga kai, Thegn Ladefoged, Simon Holdaway, and Matiu Prebble

Wednesday 5 July

8.30 - 10.00 am **Paper Session 3**
Chair: Andrew Brown

A Newly Recognised Scoria Site, Tiwai Point, Southland: Resilience in Mineralogy and Chemistry over Time in Sourcing Early Polynesian Artefacts, Ross Ramsay, G.S. Collett, G. Kerby, E. Ramsay and B.L.A. Charlier

The Pitcairn Stone Tool Collection in Tāmaki Paenga Hira Auckland Museum, Emma Ash and Louise Furey

What is preinitiation cracking and why does it matter, Dan Witter

Non-destructive geochemical characterization of non-volcanic adze stone in New Zealand: an example from Tāmaki Makaurau, Brendan Kneebone, Andrew McAlister, Dante Bonica, and Greg Gedson

10.00 - 10.30 am **Morning tea**

10.30 - 12.00 pm **Paper Session 4**
Chair: Alex Jorgenson

Building resilience towards maritime archaeology: avocational opportunities in New Zealand, Kurt Bennett & Matthew Gainsford

Criteria for identifying Musket Wars Era Gunfighter Pā in Taitokerau, Dr James Robinson, Bill Edwards, and Kevin Jones

The Forest Dream Eternally – Exploring the palaeoenvironment of Mangere, Auckland, Bernie Larsen

The role of archaeology in building resilience in place-based communities, Dr Hans Dieter Bader, Dr Janice Adamson, Connie Ake and Karla Beazley

12.00 - 12.30 pm **Poster Session**

12.30 - 1.30 pm **Lunch**

1.30 - 3.00 pm **Paper Session 5**
Chair: Matthew Campbell

Preliminary research into the isotopic signatures of seashells from Kokohuia and Warrington, Leteisha J. Lamb

Māori Plant Subsistence and Medicine – a microbotanical case study at Opoutama Cook's Cove, northern Te-Ika-a-Māui, Adelie Filippi

Using Strontium isotopes to understand the ecology of moa, Monica Tromp, Karen Greig, Rebecca Kinaston, Robyn Kramer and Richard Walter

Investigating Pre-European Interaction Across Tonga and Sāmoa Through Ceramic Geochemistry: Results and Implications for the Hawaiki Model, Leo Gallagher

3.00 - 3.30pm **Afternoon tea**

3.30 - 5.00 pm **Paper Session 6**
Chair: Vanessa Tanner

PS Kopu: an important but forgotten resource, Matthew Gainsford and Kurt Bennett

What are they? The unclassified features from Pongakawa, Caroline Phillips

NZAA and Māori Sites and Areas of Significance, Dr. Des Kahotea and Sheryll Paekau

Te Papa Atawhai's Heritage Response to Cyclone Gabrielle, Cathryn Barr, Andi Blanshard, and Emma Brooks

6.00 - 7.30 pm **Public Talk**
The Waikato Horticultural Complex, Dr. Warren Gumbley

Waikato Museum, 1 Grantham Street, Hamilton. Doors open 5.00 pm.

Thursday 6 July

8.30 – 5.00 pm **Field trip**

Departing from SkyCity Hamilton, 346 Victoria Street, Hamilton City promptly at 9.00 am. A packed lunch will be provided. Returning to SkyCity Hamilton at approximately 4.30 pm.

Friday 7 July

8.30 - 10.10 am **Paper Session 7**
Chair: Amber Aranui

63 years kaitiaki of Ngāti Wairere taonga – now treasured components of the Waikato Museum Te Whare Taonga o Waikato, Chris Booth

Building Hapū Resilience and Rangatiratanga in kōiwi recovery, protocols and reburial, Ngāti Ruamahue, Rebecca Kinaston, Kathrin Nägele and Johannes Krause

The Journey Home – Lessons Learned from the Waikāretu Taonga Repatriation, Maree Mills and Quinta Wilson

Storing archaeological archives: first impressions, Katharine Watson

An Archaeology of Seismic Resilience, Anthony Hoete, Geoffrey Irwin, Alex Jorgensen and Jeremy Treadwell

10.10 - 10.40 am **Morning tea**

10.40 - 12.00 pm **Professional Organisation Workshop**

12.00 - 1.00 pm **Lunch**

1.00 - 2.00 pm **AGM**

2.30 - 3.30 pm **Closing Panel Discussion and Poroporoaki**

3.30 - 3.45 pm **Afternoon Tea**

6.00 pm - late **Gala Dinner**

ABSTRACTS

SESSION 1 – Tuesday 4 July 1.30 – 3.00 pm

Warren Gumbley Visiting Fellow, College of Asia and the Pacific, The Australian National University, W Gumbley Ltd

Diane Bradshaw MacDiarmid Institute for Advanced Materials and Nanotechnology, Ngāti Te Wehi

Karyne Rogers National Isotope Centre, GNS

Sally Strang Manulife Investment Management Forest Management (NZ) Ltd

Oliver McLeod MacDiarmid Institute for Advanced Materials and Nanotechnology, Waikato Regional Council

Te Puna o Korotangi - Archaeological and Heritage Perspectives on Contemporary Issues

This paper presents some recent reconnaissance, iwi engagement and fieldwork results from the Korotangi wāhi tapu area, adjacent to the southern side of the entrance of Aotea Harbour, near Kawhia.
We will describe archaeological and ecological investigations of this historical site, linked to the earliest settlers from Tainui and Aotea wakas. We will contextualise the defining historical events of cultural occupation and dispossession, the whakapapa of the Aotea cultural landscape, the geology, and from what is known of the archaeology of Aotea.

The Korotangi wetland lies within a plantation pine forest, which was harvested in 2022. Prior to pine forestry, the wetland and surrounding land had been managed for pastoral farming since the 1940s. The archaeology of the area was previously poorly understood, but

investigations associated with recent forest operations have provided some insight into the archaeological record around Aotea peninsula, including the extent of Te Puna o Korotangi (the wetland), Owhakarito Pā (R15/111) and the Pohutukawa located at the Pa site.

We will share our understanding of the key areas of early habitation and zones used for different daily and cultural activities in past times, supporting the strong need for future protection and safekeeping of the remaining sites that signal these activities.

Leela Moses CFG Heritage, Ngāti Kuia, Ngāti Apa ki te Rā Tō, Rangitāne

Kia eke Kurahaupō: Kurahaupō Heritage Tours: The role of archaeology in supporting iwi connections with place

In 2023 a ropu of Kurahaupō ki Te Waipounamu iwi heritage professionals ran a tour of Whakatū sites of significance. Using our combined expertise in history, whakapapa, taiao, archaeology and matauranga Māori, our ropu took two busloads of iwi members to a number of archaeological sites around the rohe. Whanau were able to hear kōrero tuku iho through a Kurahaupō lense – learning their own whakapapa links to each place, connections to specific tipuna, iwi and hapū korero for those wāhi, and the archaeological evidence, as well as the Treaty processes that saw these links legally recognised. Archaeology played a role both in establishing our footprint on the whenua, as well as opening a door for conversations about the lifeways and practices of these tīpuna.

In addition to educating iwi members, these hikoi are a method of growing our capacity to be active kaitiaki of our own whakapapa, whenua, wāhi tapu, and wāhi tipuna. This is one example of how archaeology can be used to support tangata whenua in their stewardship.

Glenda Taituha Waikato-Tainui
Mahana Toka Waikato-Tainui

Te Hokinga Mai: The Journey of Taonga Tuuturu

In the generation before us, were the changemakers across the heritage and culture sector who joined forces with many sectors and professionals including archaeologists and museums to repatriate critical pieces for Te Ao Maaori. Land, language, education, taonga. All of which were lost to its people for generations, and all of which are housed in different agencies and sectors across the country. Although they are now 'found', they are still lost to their people. The presentation concentrates on the importance of taonga centric processes, which require the Taonga tuuturu itself to be continually connected to its land, to its language, in order to educate its people of its teachings. The true definition of taonga tuuturu are all these things, not the physical taonga itself in isolation.

Waikato-Tainui as an organisation represents 68 marae and 33 hapu, and we have some very lofty goals, all aiming towards the fulfilment of Whakatupuranga 2050. We have many projects that will help us make Waikato look and feel like Waikato, to share with the world what is uniquely us under the korowai and guidance of the Kingitanga. Waikato-Tainui currently has 209 taonga tuuturu cases within its regions, 5 of which have been prioritised due to their significance.

Zac McIvor University of Otago

Kia takahi ai ngaa takahangahanga tuupuna": kaitiaki Maaori relationships to waahi tupuna

This paper presents the results of a thematic analysis of interviews with kaitiaki in Waikato about their relationships to waahi tupuna (ancestral places), in particular paa tawhito (ancestral fortified places). The author offers reflections on archaeology's place within these relationships and broader processes of kaitiakitanga (guardianship) today.

SESSION 2 – Tuesday 4 July 3.30 – 5.00 pm

Benjamin D. Jones University of Auckland
Simon Bickler Bickler Consultants Ltd
Wanda Brljevich Ngati Huarere ki Whangapoua Trust
Thomas MacDiarmid Bickler Consultants
Charlotte Judge Origin

Reconstructing and Enhancing Our Understanding of Past Cultural Landscapes at Whangapoua, Coromandel through the Integration of Mātauranga Māori, Archaeological Survey, and Game Engine

This presentation delves into the exploration and documentation of the Māori pā located at Te Rehutae Point, also known as Opera Point, in Whangapoua on the Coromandel Peninsula. Despite the area being densely covered in regenerating native vegetation and currently managed by the Department of Conservation (DOC), it holds significant cultural and historical importance, housing at least three pā sites and other heritage sites that have not yet been thoroughly investigated or mapped.

To fully comprehend the rich history and cultural significance of these sites, we have initiated a volunteer collaboration between archaeologists, the local community and representatives of Ngati Huarere ki Whangapoua Trust. Our collective aim is to investigate, map, and reconstruct the past archaeological landscape of Te Rehutae Point.

To accomplish this task, we have utilized modern data collection techniques such as LiDAR, GPS survey, GIS (Geographic Information System), and 3D reconstruction using the "Unreal Engine" software to map and visualize the archaeological features of the area.

These innovative tools have allowed us to create detailed images and models of the sites, which can be used to reconstruct features of the past.

This approach not only communicates what these landscapes looked like in the past to the general public but also acts as a medium for archaeologists to interrogate what they know of the past, thereby enabling them to gain deeper insights into the historical significance of these sites.

Our ultimate goal is to provide a more nuanced model of the past by integrating the stories and knowledge of the mana whenua (local iwi or tribe) to fully comprehend the cultural and historical importance of these sites. The 3D reconstruction is available to mana whenua for exploration, critique and integration, enabling them to provide valuable insights and perspectives on the past. By collaborating with them and incorporating their contributions, we hope to gain a deeper understanding of the cultural significance of Te Rehutae Point and preserve its heritage for future generations.

Dr Simon Chapple Motu Affiliate, Motu Economic and Public Policy Research

From pā to people? Exploring a new method of estimating the size of the contact era Māori population

The lack of solid estimates on the size of the contact-era Māori population is a major knowledge gap for both prehistorians and historians. It is important as a critical number tying our pre-history and history together. This presentation undertakes an exploratory analysis of the question of contact-era population size, integrating information from pre-history - archaeological evidence - and from history - using approaches of historical demography. The preliminary results suggest a far higher population than the current conventional wisdom of 100,000 people or less.

Robert Brassey

Finding Takapuna – the falling spring

Takapuna is widely known today as a suburb on Auckland's North Shore. However Takapuna is an ancient place name that originated in Hawaiki and was given to a freshwater spring by the people of the Tainui canoe upon their arrival in the Waitematā Harbour. The spring (site) is supposedly protected by scheduling, and is identified in a Treaty of Waitangi Statutory Acknowledgement. However, during a review of the site undertaken for Auckland Council it became apparent that the specific location of the spring was actually unknown.

In this paper I review traditional and historical sources that potentially provide clues as to the location of Takapuna, and consider whether there is tangible (including archaeological) evidence of the spring and its context remaining. I discuss the significance of freshwater springs (puna) generally, and the Takapuna spring in particular (including an odd connection to Napoleon Bonaparte).

Thegn Ladefoged University of Auckland
Simon Holdaway University of Auckland
Matiu Prebble University of Canterbury

Enderby Island mahinga kai

Our research on Māori ecosystem interactions and adaptations uses a comparative perspective to investigate the complex interplay between early Māori settlers and the diverse ecosystems of six small islands extending from sub-tropical Raoul to sub-Antarctic Enderby Island. The project investigates the history of mahinga kai or the traditional procurement of food and other natural resources including the inter-relationships between species, habitats, and behavioural strategies.

To understand these practices, we focus on the ecodynamics of niche construction or processes whereby people and other organisms modified their own and each other's environments and selective conditions. The interdisciplinary team includes archaeologists, palaeoecologists, geomorphologists, biogeochemists, and modelers who are analysing materials to understand the complex ecological relationships of early Māori settlers. In our paper we present some initial results from a recent trip to Enderby Island.

SESSION 3 – Wednesday 5 July 8.30 – 10.00 am

W. R. H. Ramsay Private researcher, Kerikeri
G. S. Collett Private researcher, Dunedin
G. Kerby Geometria, Consultant Archaeologist, Whangarei
E. G. Ramsay Heritage NZ, Kerikeri
B. L. A. Charlier Victoria University of Wellington

A Newly Recognised Scoria Site, Tiwai Point, Southland: Resilience in Mineralogy and Chemistry over Time in Sourcing Early Polynesian Artefacts

In 1968 an excavation under the direction of Stuart Park, Otago Museum, was undertaken on a Māori occupation site at Tiwai Point, Bluff, Southland (site of the present-day NZAS aluminium smelter). There were four periods of work at this site, namely Easter, August, December 1968 and Easter the following year. The sequence comprises basal shallow marine sands and gravels overlain with a paraconformity by loess, which grades up into an occupation layer, and this in turn is overlain by wind-blown, unconsolidated sands. During the final phase of excavation six small pieces of distinctly vesicular, dark grey scoria and a small reddish piece of scoria (2gms weight) were recovered from the site by Russell Beck, the then Director Southland Museum and Art Gallery. The largest piece of scoria contains some 80-85% vesicles and

appears to be worked on one side. None of the pieces fit together to form a coherent whole.

To date there are now four Māori occupation sites in Southland and South Otago where foreign scoria to these localities has been recovered. The scoria blocks from three of these sites arrived via anthropogenic transportation from outside New Zealand.

Current mineralogical and geochemical work is designed to establish whether the Tiwai scoria is also foreign to New Zealand. The mineralogical and preliminary chemical data obtained from this Tiwai Point scoria demonstrate the longevity and resilience of these parameters through time to allow finger printing of ancient lithic material to arrive at a potential source locality.

Emma Ash Tāmaki Paenga Hira Auckland War Memorial Museum
Louise Furey

The Pitcairn Stone Tool Collection in Tāmaki Paenga Hira Auckland Museum

Tāmaki Paenga Hira Auckland Museum houses approximately 20,000 stone tools from Pitcairn Island in the southeast Pacific Ocean. Acquired predominately in the 1930s – 1950s from residents living on Pitcairn, it is the largest museum-held collection of tools from the island and largely under-researched. A wide range of tool types are represented across all manufacturing stages, use and condition. An initial description of the unique collection is provided within the known archaeology of the island. Using correspondence held in museum archives, the history of the acquisition is explored in the context of the disruptions in the Pacific during WWII and the acquisition aspirations of Auckland Museum.

Dan Witter Witter Archaeology

What Is Preinitiation Cracking and Why Does It Matter?

The basics of lithic technology are simple and were mastered by our ancestors over two million years ago. The archaeological record shows a range of sophistication in knowledge and skill since then that is preserved as worked stone. Sometimes it is spectacular such as the moa hunter period mega adzes. Sometimes it is less obvious, such as the pre-initiation cracking in the Bluff area.

To understand the Bluff example, it is necessary to review certain principles of lithic technology and how flakes are made. This includes the two-stage process of crack initiation and fracture propagation. At the early Colyers Island argillite adze quarry there are some extraordinary examples of how these principles were used that employed a technique which is rare in the world. The further surprise is that this technique was also used in a very different way on obsidian from an early period site at Little Papanui. This raises questions about the nature of the social networks operating at the time of initial settlement.

Brendan Kneebone CFG Heritage Limited
Andrew McAlister University of Auckland
Dante Bonica University of Auckland
Greg Gedson Independent researcher

Non-destructive geochemical characterisation of non-volcanic adze stone in New Zealand: An example from Tāmaki Makaurau

Geochemical characterisation of stone artefacts is well-established in the Pacific. This technique has provided a key means of identifying spatial distributions of raw materials and, by extension, social interaction,

especially in regions where metal and ceramics were lacking. Artefact characterisation studies have concentrated mainly on volcanic rock types, in particular basalts and obsidians.

However, in regions with a continental geology, such as Australia, New Zealand and Papua New Guinea, sedimentary and metamorphic rocks were also important sources of tool stone. In terms of characterisation techniques, destructive or partially-destructive methods have traditionally been preferred because they produce the most accurate geochemical data. However, in many jurisdictions, the use of these methods is becoming more restricted as indigenous peoples gain greater control over the curation of their heritage. Accordingly, research is focussing more towards non-destructive methods.

In this paper we investigate greywacke, a fine-grained sedimentary rock that was commonly used for adze manufacture in New Zealand. Greywacke exposures occur throughout New Zealand but, to date, few quarry sites have been identified, with the Motutapu source, in the Hauraki Gulf in the Auckland region being the only one studied in any detail. Consequently, greywacke adzes are often attributed to this source without considering other possibilities. For this study, we collected adze-quality greywacke from several other locations around Tāmaki, and here we discuss the possibilities and limitations of non-destructive geochemical analysis of this material.

SESSION 4 – Wednesday 5 July 10.30 – 12.00 pm

Dr Kurt Bennett Heritage New Zealand Pouhere Taonga
Matthew Gainsford RedOx

Building resilience towards maritime archaeology: avocational opportunities in New Zealand

New Zealand's underwater cultural heritage (UCH) is a treasured resource when learning about our maritime past. After all, we are an island nation and watercraft served as vital vehicles for maintaining global connections. The discipline of maritime archaeology is a relatively new profession in New Zealand with most of those who work in the industry being internationally trained. On the other hand, the public are always interested in shipwrecks and this continues to inspire local people to explore our maritime sites and histories.

This paper briefly introduces you to the world of maritime archaeology and some of New Zealand's different maritime site types. Recording and understanding these sites, however, requires help from the public. Maritime archaeological avocational training has been offered in New Zealand for the past decade. The courses train people with a keen interest in UCH to record, monitor and collect important data. Such training programmes feature slightly different learning outcomes with a mixture of theory, practical activities and diving.

As a result, participants become citizen scientists with basic technical knowledge and practical skills to further our understanding about our important maritime sites. Ultimately, these trainings build resilience in communities toward UCH and encourage people to respond and engage with this finite resource.

Dr James Robinson Heritage New Zealand Regional Archaeologist Northland

Bill Edwards Heritage New Zealand Area Manager Northland

Kevin Jones Former Department of Conservation and Historic Places Trust Archaeologist

Criteria for identifying Musket Wars Era Gunfighter Pā in Taitokerau

Ngapuhi Rangatira Hongi Hika's procurement of large numbers of muskets into New Zealand redefined the arena of inter hapu politics and warfare and made traditional pa obsolete by 1820. The use of muskets was first discussed in a paper written by the author and Bill Edwards and presented at the 2021 NZAA conference. In it the argument was made using some examples of repurposed traditional sites and purpose-built sites, that the development of defensive musketry must have developed in parallel to the development of offensive musketry and that this should be visible in the archaeological record.

This paper addresses the concept of resilience in archaeological site recording by arguing that Musket Wars era Pa in Northland are often not recognised or misidentified by archaeologists in the field and if suspected don't fit easily into current ArchSite site categories. Building on the NZAA 2021 conference paper and incorporating information provided by the late Kevin Jones, this paper revisits Musket Wars Era Gunfighter Pā in Taitokerau. In it (i) arguments are made that the chronology of such sites can be pushed back to at least 1828, and (ii) possible criteria are set out that archaeologists might use in the field to determine whether any given site has features specific to the Musket Wars period that ran from the 1820s into the 1830s, and (iii) some new ArchSite site categories are put forward that may that could assist field archaeologists in identifying these elusive sites in the field.

Bernie Larsen

The Forest Dream Eternally – Exploring the paleoenvironment of Mangere, Auckland

Colonisation and early occupation of Aotearoa resulted in major changes in the vegetation in many parts of the country. These changes drove the loss of the native forests, with approximately 40% of the existing forest cover gone by the arrival of Europeans.

Significant commercial development has occurred across Mangere over the last 30 years due to the proximity to Auckland International Airport numerous large-scale archaeological investigations conducted across the area producing anthracological and palynological data about human and environmental processes. A pattern has been emerging of remnant primary forest being present much later than in nearby regions, with evidence being found at multiple sites in multiple contexts.
This study explores the dynamics of the human-environmental interactions at multiple scales through time, identifying the interplay of remnant native forests with the creation of suitable intensive horticultural zones around settlements in South Auckland.

Dr. Hans-Dieter Bader Archaeology Solutions Ltd
Dr. Janice Adamson Archaeology Solutions Ltd
Connie Ake Kāinga Ora, Tāmaki Makaurau
Karla Beazley Kāinga Ora Tāmaki Makaurau.

The role of archaeology in building resilience in place-based communities

Over the past several years, archaeological fieldwork in Tāmaki Makaurau has uncovered a number of new archaeological sites on public housing areas recently redeveloped by Kāinga Ora.

Kāinga Ora have moved to a place-based approach to communities and are working to create opportunities to use these findings to add a ‘sense of place’. The archaeological discoveries have uncovered physical evidence that provides insight into localised knowledge of indigenous traditions.

This presentation will briefly introduce examples of recent discoveries and explain Kāinga Ora’s approach, collaboration and practices that have emerged to demonstrate what occurs once archaeology has been uncovered. The Kāinga Ora – Homes and Community Act 2019 Section 4c cultivates a joint effort with archaeology, local indigenous knowledge-bearers and Kāinga Ora place-based engagement team that embraces the principles of te Tiriti o Waitangi and the richness that dual cultural heritage can bring to our communities. We examine how knowledge generated from these archaeological sites can impact community identity and provide that 'sense of place'. We explore the opportunities being created to share the knowledge and local history that we argue, can contribute overall to community resilience.

SESSION 5 – Wednesday 5 July 1.30 – 3.00 pm

Leteisha J. Lamb Ph.D candidate at the University of Waikato

Preliminary research into the isotopic signatures of seashells from Kokohuia and Warrington

Marine shells are an important material for dating archaeological contexts. Unfortunately, there is still much to learn about how they incorporate carbon into their shells and how this may affect the radiocarbon results.

As part of my Ph.D., I will investigate the assumption that taxa influenced by marine conditions should be preferentially selected for dating archaeological contexts.

In this presentation, I present the isotopic results obtained from a range of shellfish taxa from the Kokohuia and Warrington archaeological sites and outline what environmental information can be obtained from shells. Ultimately, this Ph.D. research aims to improve radiocarbon chronologies and enable more detailed conversations about Aotearoa's settlement and early occupation, including how environmental change during early Māori occupation may have driven cultural adaptation.

Adelie Filippi Masters candidate at the University of Otago

Māori plant subsistence and Medicine – a microbotanical case study at Opoutama Cook's Cove, northern Te-Ika-a-Māui

Plants are ubiquitous both in our environment and diet, playing a foundational role in the material culture and subsistence of all cultures, and yet the study of plant remains in archaeology is something that has remained largely on the side-lines. Wild plants remain even more sorely neglected, with the bulk of paleoethnobotanical studies in Aotearoa focusing on the analysis of exotic domesticated cultivars such taro and kūmara.

Wild plants in Aotearoa make up a significant component of Māori plant-human interactions – seeing use as staple foods, as crafting materials, and in rongoā Māori, traditional Māori medicine. These species hold great functional, cultural, and spiritual significance, and yet their existence remains largely unremarked upon in archaeological research in Aotearoa, leaving a key gap in our understanding of how early Polynesian communities interacted with the unique plant resources and environments of Aotearoa.

This study tests the viability of phytolith analysis as a means of identifying the presence of culturally significant native wild medicinal plants in the archaeological record. It examines the phytoliths from

modern reference material of thirteen wild plants species with traditional medicinal use and carries out a case study analysing sediment from Opoutama Cook's Cove, the site of a Māori village whose occupation spans back to the first century of human arrival in Aotearoa.

Monica Tromp Southern Pacific Archaeological Research, Archaeology Programme, University of Otago, Dunedin, New Zealand

Karen Greig Southern Pacific Archaeological Research, Archaeology Programme, University of Otago, Dunedin, New Zealand

Rebecca Kinaston BioArch South, Waitati, New Zealand

Robyn Kramer California Department of Transportation, California, USA

Richard Walter Southern Pacific Archaeological Research, Archaeology Programme, University of Otago, Dunedin, New Zealand

Using Strontium isotopes to understand the ecology of moa

Most data related to the habitats of different moa species are based on coprolite and gizzard content studies of moa before the arrival of humans. Using strontium isotopes to look at moa associated with archaeological sites, we can better understand how humans and moa interacted during the early colonisation of Aotearoa, New Zealand. We use strontium isotopes of speciated eggshell from a single feature at Wairau Bar, and the newly developed bioavailable strontium isoscape for Aotearoa, New Zealand, to examine where moa were living and how far people would have had to travel from Wairau Bar to obtain these eggs.

Radiogenic strontium isotope ratios (87Sr/86Sr) from the geology on which a moa lived were incorporated into their bodies (and therefore eggshells) via the water and plants they would have eaten. Aotearoa is geologically quite diverse, making it possible, within specified margins of error, to pinpoint where the moa eggs were laid and likely collected from.

Leo Gallagher

Investigating Pre-European Interaction Across Tonga and Sāmoa Through Ceramic Geochemistry: Results and Implications for the Hawaiki Model

The Lapita migrations into Remote Oceania formed the genesis of human history in Tonga and Sāmoa. The subsequent emergence of the Polynesian cultural complex and its origins have been the subject of anthropological focus for more than half a century. The pre-eminent 'Hawaiki' model, developed by Patrick V. Kirch and Roger C. Green (2001), posits that the Polynesian cultural complex emerged from an ancestral Polynesian culture developed in Tonga and Sāmoa after approximately 2500 BP, 300 years after their settlement. Integral for this emergence in both Tonga and Sāmoa is interaction between these two regions to facilitate the mutual development of this ancestral Polynesian culture.

However, through the use of lithic sourcing, recent archaeological studies have suggested a lack of interaction between these two regions during the Lapita and Polynesian Plainware period. The abundant ceramic assemblages dating to this period provide the opportunity to further investigate interaction between these two regions during this important time. Geochemical and petrographic analyses were undertaken on three ceramic assemblages from Tonga (Tongatapu, Ha'apai and Niuatoputapu) and one from American Sāmoa (Ofu Olosega, Manu'a Islands). The results demonstrated no evidence of ceramic transfer between Tonga or Sāmoa, potentially indicating a lack of population interaction between the two regions. The results of this research contribute to the growing body of evidence challenging the interaction spheres of the Hawaiki model.

SESSION 6 – Wednesday 5 July 3.30 – 5.00 pm

Matthew Gainsford
Kurt Bennett

PS Kopu: an important but forgotten resource?

Maritime archaeology quite often focusses on shipwrecks or vessels of international renown. Little mention or research is given to the multitude of local costal traders and other small watercraft that were the bulk haulers before the advent of a developed road network. A lot of these vessels were unique, unregistered and were not built to any direct specification using only the knowledge of the shipwright/boat builder; their histories are also, quite often, only known to a specific few. During 2022, Gainsford and Bennett applied for a small grant from the Australian Institute for Maritime Archaeology to undertake a short project to record the paddle steamer PS Kopu. PS Kopu was a coastal and riverine trader that plied routes between Thames, Paeroa and Auckland. It presents a significant opportunity to investigate late-19th century New Zealand ship construction in detail. Through archaeological recording and investigation, there is great potential to learn more about New Zealand's shipbuilding past and to fill gaps in current knowledge regarding this theme.

Working with the Maritime Heritage Park the authors focused on gathering as much information from the vessel as possible. The project's focus was to document the vessel (for long term longevity), its construction and to identify the condition of the site and propose potential methods for its long-term preservation and resilience for the future.

Caroline Phillips

What are they? The unclassified features from Pongakawa

Since 2016, Caroline Phillips and her Mysteries of the Trowel team have worked on more than 30 properties, uncovering numerous sites containing over 16,000 features. Most of the features can be classed as storage pits, bin pits, postholes and hangi, and can be interpreted as relating to storage, housing and cooking. However, there are some anomalies that do not fit the normal range of types and defy interpretation. This paper describes some of these anomalies and asks attendees if they have observed anything similar, if they have any ideas of what their purpose was, or if they have any methods or tests that might confirm their purpose.

Dr Des Kahotea Ngati Pukenga, Maori Heritage Consultant
Sheryll Paekau Policy Planner and Kaiwhakamaahere (Policy Advisor) Waikato District Council

NZAA and Māori Sites and Areas of Significance

In the 2009 Waikato District Council Proposed Plan New Zealand Historic Places Trust made submissions regarding the absence of Maori Heritage in the Heritage Schedule of the plan. This was followed by an NZHPT appeal to the Environment Court where WDC was forced to address the issue of absence of Maori heritage in the plan. There was no WDC Maori Committee or tangata whenua forum which for many Councils under the RMA provides a process for input of Maori heritage for either a schedule or list in a plan. Waikato marae, hapu or Waikato Tainui also did not put forward or provide any waahi tapu or other heritage for the proposed 2009 plan. Nor had any hapu or iwi plans been produced for Council to draw upon.

Over 400 Maori Sites and Areas of Significance were listed in the 2020 plan with earthwork rules where the majority were pa and overall received little objection from private property owners. This paper discusses the use of the NZAA site records of pa for Maori heritage purposes.

Cathryn Barr, Andi Blanshard and Emma Brooks Te Papa Atawhai Department of Conservation

Te Papa Atawhai's Heritage Response to Cyclone Gabrielle

The catastrophic impact of Cyclone Gabrielle on people, property and infrastructure is still very much in national focus with many agencies involved in the response and recovery. Mapping and field assessments show that the cyclone impacts are highly variable across and within regions, for instance adjoining river catchments may have experienced very different effects.

As a major land manager across all of the cyclone-affected regions Te Papa Atawhai Department of Conservation has developed a centralised approach to assessing impacts across heritage and biodiversity values as well as visitor assets. This approach has seen the establishment of a dedicated Task Force whose role is to ensure a strategic and adaptive response to the recovery. Heritage has a strong voice within this Task Force. DOC's heritage impact assessments initially targeted high priority sites such as the Heritage Icons, however focus is now shifting to understanding the broader landscape-scale heritage impacts including on archaeological sites and developing a risk-modelling approach to target key landforms, catchments etc for more targeted assessment.

SESSION 7 – Friday 7 July 8.30 –10.10 am

Chris Booth

63 years kaitiaki of Ngāti Wairere taonga - now treasured components of the Waikato Museum Te Whare Taonga o Waikato

My father, Stan Booth, came to New Zealand from England when he was seventeen. Around 1922 he was working as a labourer at Te Rapa, on a farm called 'Twin Oaks' alongside the Waikato River.
One day Dad was digging a trench in a small wetland when the shovel hit something. It was a tiny, absolutely exquisite, Māori carved wooden figure - a taumata atua. With it he found a small pumice figure, a wooden fern pounder and a small stone receptacle.

Considering his youth, he showed great foresight in what he did next, and as a result these objects are perfectly preserved and still together today, housed with the Tainui collection at the Waikato Museum. Photographs of recent lithographic stone prints will show the step by step emergence from wetland to Dad's wardrobe, plus actual images of the taonga. For 63 years they were our family's most revered taonga. Dad bestowed the name 'god' to the taumata atua. Only on special occasions (for us all) would Dad reverentially unwrap the taumata atua for us to touch - in awe. In 1985 Dad assigned me the task of returning the taonga to the Tainui people. This was negotiated mainly with Dr Ngahuia te Awekotuku, the museum's senior curator. The profoundly meaningful ceremonial return was conducted under the direction of tohunga, John Haunui, Kahui Ariki, accompanied by Tainui kaumatua and kuia - starting at 4:30am alongside the river at the original site (now within suburbia) where the taonga was found.

Ngāti Ruamahue

Rebecca Kinaston Bioarch South

Kathrin Nägele & Johannes Krause Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

Building Hapū Resilience and Rangatiratanga in kōiwi recovery, protocols and reburial

This presentation is a kōrero of the process, protocols and required protections that Ngāti Ruamahue and Bioarcheologist Dr Rebecca Kinaston traversed as they recovered, examined and reburied kōiwi that were exposed on their shores of Piapia Bay, as a result of the Cyclone Gabrielle event in February 2023.

This is a story about how science and mātauranga can and did cross borders to assist in making sense of Ngāti Ruamahue's past and the building of their future. Planning for future events and preparing Ngāti Ruamahue to be better informed and able to participate in the transmission of mātauranga became the gift that was gained through this collaboration. The role of manaakitanga, kaitiakitanga, tino rangatiratanga, wairuatanga and ārahitanga are explained within the context of the tikanga that was practiced to achieve the appropriate return of tupuna back to Papatūānuku.

Maree Mills Ngāti Tūwharetoa, Poutiaki Whakataki, Te Whare Taonga o Waikato

Quinta Wilson Ngāti Tahinga

The Journey Home- Lessons Learned from the Waikāretu Taonga Repatriation.

In this paper, we will explore the challenges and opportunities of repatriating taonga referring to the experience of a Waikato case study- The Repatriation of the Waikāretu Collection in 2019. Maree Mills

(Ngāti Tūwharetoa), Poutiaki Whakataki, curator Mana Whenua at Te Whare Taonga o Waikato, Waikato Museum will discuss the personal, ethical and institutional considerations involved in mediating the process. Quinta Wilson (Ngāti Tahinga) completed her dissertation on the Waikāretu repatriation for her Masters of Archaeological Practice in 2022 and will discuss the motivation of those involved and the meanings assigned to the taonga by the different groups of people involved. Overall this paper aims to contribute to the growing body of knowledge on the repatriation of taonga and to encourage efforts of institutions, communities and individuals to engage in this important process.

Katharine Watson Christchurch Archaeology Project

Storing archaeological archives: first impressions

There are many ways in which we can make the archaeological profession –and the archaeological record – more resilient. One that is fundamental is the preservation of the data and material recovered in the course of the work we do. Ensuring that this is preserved for the future makes it easier to revisit past excavations, and to ask new questions of old sites, ensuring that the research potential of an archaeological site can be realised. But how to store either the data or the actual physical material is a vexed question.
This paper reports on the initial impressions of a Winston Churchill Memorial Trust Fellowship, which enabled me to visit archaeological repositories – or archives, as they are also known – in England and the US, and learn from their experience about how to best establish and run such a facility, as well as the ongoing problems associated with the 'curation crisis', and particularly the fact that these collections keep growing.

Anthony Hoete Ngāti Awa, Professor, Architecture and Planning, University of Auckland

Geoffrey Irwin Emeritus Professor, Anthropology, University of Auckland

Alex Jorgensen Senior specialist, Māori Heritage, Plans and Places, Auckland Council, Honorary Research Fellow University of Auckland

Jeremy Treadwell Senior Research Fellow, Adjunct Senior Lecturer, Archictecture and Planning, University of Auckland

An Archaeology of Seismic Resilience

This paper presents an Archaeology of Seismic Resilience.

The ongoing reconstruction of Tānewhirinaki (near Ōpōtiki in the Eastern Bay of Plenty region) provides an opportunity to demonstrate that this Māori whare tīpuna / ancestral meeting house was not only the "best extant example of a native decorated building" but also reveals an endangered structure that incorporated a post-tensioning technology once found in waka (canoe) - construction as well as traditional buildings.
The paper will trace the design whakapapa / genealogy of this traditional pre-contact structure, known as mīmiro, from its ancient Polynesian ocean voyaging waka origins through to its first evidence in Aotearoa at Kohika, the AD1700 Māori Lake Village excavated in the Ngāti Awa rohe, and finally through to its present-day manifestation in the EQC Toka Tū Ake / QuakeCoRE project at Opeke Marae. Here, the traditions of this mātauranga tāwhito Māori / endangered material knowledge are today being deployed to enhance the seismic resilience of marae buildings. Buildings which today act as first responders in times of civil emergency. This paper presents the transdisciplinary research interactions between the source communities of te hapū Ngāti Ira o Waioweka and Te Rūnanga o Ngāti Awa, and the University of Auckland School of Architecture that are occurring outside the ivory tower and down 'in the field' of Waioweka.

POSTERS

Wednesday 5 July 12.00 – 12.30 pm

Dr Kurt Bennett, Dr Matthew Carter, Dr Deb Shefi, Dr Maddy McAllister and Toni Massey

Mobilising the past: archaeology and the UN Decade of Ocean Science

The UN's Decade of Ocean Science for Sustainable Development 2021-2030 seeks to address the multiple stressors on global marine systems and manage them sustainably through ocean observations and research. Perhaps surprisingly, underwater cultural heritage (UCH) and interdisciplinary maritime/marine archaeological activities have much to contribute to the goals of the Decade and in fact overlap with the Decade's seven Research & Development Aims, and proposed research agendas and societal outcomes. The Australasian Institute for Maritime Archaeology (AIMA) seeks to work constructively with the marine sciences under the auspices of the Decade - not only throughout the Australasian region, but also abroad, to enhance, engage and support interdisciplinary marine research throughout the region.

Lucy Arrell

'What's the Point?' Usewear Analysis and Functional Interpretations of the Auckland Museum Pitcairn Point Collection

Stone drill points are a uniquely prolific part of the Pitcairn Island lithic industry, and comprise a large proportion of the stone artefacts found on the isolated island. The Pitcairn points are distinctly variable in their form and style, with a large range of proportions, manufacturing styles, and sizes, present across the collection.

A total of 200 stone points from the Auckland War Memorial Museum were analysed for morphological and usewear patterning, to investigate artefact standardisation, use and reuse patterns, and establish tool motion and use. Prior proposals that the points were used for canoe manufacture were examined and confirmed.

Dr Kurt Bennett, Greg Walter and Pauline Vela Heritage New Zealand

HNZPT mid-northern archaeological authorities, 2022 in review

This poster presents Heritage New Zealand Pouhere Taonga granted and returned archaeological authorities for the mid-northern region (Tāmaki Makaurau/Auckland, Hauraki District and Te Tara-O-Te-Ika-A-Māui/Coromandel Peninsula) for the year 2022. The breakdown of data is displayed spatially by region and former council areas in Auckland. It draws attention to trends relating to site types and the frequency of how many archaeological sites are being recorded and investigated under the provisions of the HNZPT Act 2014. Overall, it gives insight into what sites are being modified and learned from in the mid-northern region.

Kathleen Dons

Time To Say Goodbias

The New Zealand Heritage List contains 5616 ‘historic place’ sites, of which 1332 are ‘sites of significance to Māori’. In ArchSite there are 57,491 recorded archaeological sites in the North Island, of which 50,296 are ‘Māori’, 4288 are ‘non-Māori’ and 769 are ‘combination’. There appears to be a discrepancy between the proportion of Māori sites in the List and ArchSite records. Is this because most historic sites are more visible (e.g., built structures) than Māori sites? Or is it because there are more people in Aotearoa who identify with European sites? This poster will raise the issue of this bias in archaeology and heritage.

Jennifer Lane

What makes the cut? Feature typologies from the Bay of Plenty (Paengaroa to Pikowai).

This poster looks at some interesting attributes of features discovered in the Bay of Plenty between the study areas of Paengaroa and Pikowai. This is an observation of smaller feature types that differ from the norm (between the dimensions of pits and postholes), and invoke the questions: where do we find these features, and what were they?

Jennifer Graydon and Lucy Hughes

I Beg Your Garden? A comparison of garden sites from the Bay of Plenty, Waikato and East Polynesia

Caroline Phillips' team has conducted archaeological investigations across the Bay of Plenty between Paengaroa and Otamarakau for several years, uncovering sites of repeated Maori occupation and extensive gardening. The Bay of Plenty has been long considered one of the largest agricultural regions for early Maori settlers, alongside the Waikato region. Previous studies within East Polynesia where a similar range of crops were cultivated may exhibit similar gardening strategies. However, distinct differences can be seen in the examination of these garden sites as a result of environmental variation. This poster compares garden sites from the Bay of Plenty and Waikato areas, as well as the traditional agricultural practices of Hawai'i.

NZAA warmly thank this year's sponsors. He mihi whakawhetai ki.