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NEW ZEALAND
ARCHAEOLOGICAL
ASSOCIATION

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NEW ZEALAND
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NZAA Conference 2019
Rakiura/Stewart Island
29-31 August



Sponsors

The New Zealand Archaeological Association gratefully acknowledges the support of the following sponsors:



HERITAGE NEW ZEALAND
POUHERE TAONGA

Cover Photograph:

Propellers on the beach at the Norwegian Whalers Base, Paterson Inlet, Stewart Island (M. Schmidt 2013, Heritage New Zealand).

Programme Overview

Venue:

Stewart Island Community Centre, 10 Ayr St, Oban.

Wednesday 28 August	
5.30 pm – 7.30 pm	Informal welcome at South Seas Hotel
Thursday 29 August	
8.30 am – 9.00 am	Registration and coffee
9.00 am – 10.15 am	Mihi whakatau and conference opening
10.45 am – 3.00 pm	Papers
3.30 pm – 5.00 pm	Special General Meeting
7.30 pm – 9.00 pm	Public talk
Friday 30 August	
8.30 am – 4.30 pm	Field trip
3.00 pm – 6.00 pm	Lockerbie Collection viewing
Saturday 31 August	
8.30 am – 4.30 pm	Papers and posters
4.30 pm – 5.00 pm	Mihi poroporoake
7.00 pm – late	Gala dinner

Programme Detail

Wednesday 28 August

5:30 pm – 7:30 pm

Informal welcome at South Seas Hotel

Thursday 29 August

8.30 – 9.00	Registration opens
9.00 – 9.30	Mihi whakatau & conference opening
9.30 – 10.15	Keynote talk: Atholl Anderson
10.15 – 10.45	Morning tea
10.45 – 12.00	Session 1: Responding to the Kaikoura Earthquake Session Chair: Alex Jorgensen
	10.45 – 11.00 1. NCTIR and Iwi <i>Darran Kerei Keepa</i>
	11.00 – 11.15 2. Project overview <i>Jeremy Habberfield-Short</i>
	11.15 – 11.30 3. NCTIR archaeological mitigation strategies <i>Kim Bone</i>
	11.30 – 11.45 4. NCTIR archaeological investigations <i>Dr. Jeremy Habberfield-Short and Sam Kurmann</i>
	11.45 – 12:00 Questions
12.00 – 1.00	Lunch
1.00 – 2.00	Session 2: Continuation of Kaikoura papers
	1.00 – 1.15 5. Bone working technology on the Kaikōura coast <i>Dan Witter</i>
	1.15 – 1.30 6. NCTIR archaeological lab <i>Victoria Ross</i>
	1.30 – 1.45 7. NCTIR and public archaeology <i>Sheelagh Conran</i>
1.45 – 2.00	Questions

	Session 3: Living in the Pacific Session Chair: Kevin Jones
2.00 – 2.45	2.00 – 2.15 Obsidian trade in PNG <i>Rob Henderson</i>
	2.15 – 2.30 Communities of culture over 3000 years in southern Vanuatu <i>Stuart Bedford</i>
	2.30 – 2.45 Questions
2.45 - 3.30	Afternoon tea
3.30 – 5.00	Special General Meeting
7.30 – 9.00	Public Talk Session Chair: Katharine Watson

Friday 30 August

8:30 am – 4:30 pm Field trip

The field trip will travel from Oban’s main wharf by boat to visit Millers Beach, where we will explore the Norwegian Ross Sea whalers’ winter base used for repairing vessels. We will continue on to Ulva Island, one of New Zealand’s earliest reserves where we will hear stories of early European settlers, conservation history, and enjoy the results of modern conservation efforts. Other significant landmarks and sites will be pointed out from the vessel during the travel. We will be joined by local tangata whenua who will share their perspectives and traditional stories about the area, and along the way we will hear about the beginning and end of timber milling on the island and other historical anecdotes.

Note: This trip involves boat travel but is predominantly on the enclosed waters of Paterson Inlet, and doesn’t include open sea.

Please bring:

sturdy walking shoes	sun hat
insect repellent	sunscreen
Sea Legs (if prone to sea sickness)	rain coat
warm clothes	hat & gloves
waterproof over-trousers (not essential but may be a good idea)	

3:00 pm – 6:00 pm Lockerbie Collection viewing

The Rakiura Museum staff are generously opening their doors at the new museum workspace, 12 Main Road (black building beside DOC), to display the collection of material mainly from “The Neck” at Rakiura, excavated by Les Lockerbie in the 1950s – 60s.

This is a free event for attendees only. The material is open to view 3 pm – 6 pm.

Jo Massey and Margaret Hopkins will speak at 5 pm about the collection and new museum.

Saturday 31 August

	Session 3: The first New Zealanders - living on the whenua Session Chair: Warren Gumbley	
8.30 – 10.15	8.30 – 8.45	Place Matters: 'Motutapu' Greywacke and the Stone of the Hauraki Gulf <i>Brendan Kneebone</i>
	8.45 – 9.00	Gardens, Storage... and Houses? Excavation in the Western Bay of Plenty <i>Brendan Kneebone and Caroline Phillips</i>
	9.00 – 9.15	Niche construction at Waitetoke garden complex, Ahuahu, New Zealand <i>Thegn Ladefoged</i>
	9.15 – 9.30	Redcliffs return: a 14 th century Māori village Tristan Wadsworth
	9.30 – 9.45	When and why did all the pā arrive? A multidisciplinary investigation into the spatial-temporal role of pā in the development of Māori culture <i>Alan Hogg</i>
	9.45 – 10.00	Fishing nets in a horticultural setting <i>Alex Jorgensen, Rod Wallace and Matt Barrett</i>
	10.00 - 10.15	Questions
	10.15 – 11.00	Morning tea
	Session 4: Archaeology process and context Session Chair: Christine Barnett	
11.00 – 12.15	11.00 – 11.15	When is a Site not a Site? Or, the Fate of the Silent File... <i>Brooke Tucker</i>
	11.15 – 11.30	Integrating source communities during conservation of their taonga in Aotearoa New Zealand <i>Dilys John</i>
	11.30 – 11.45	S.45 (2) (b) <i>Huia Pacey</i>
	11.45 – 12.00	Archaeozoology in the 21st century <i>Karen Greig</i>
	12.00 – 12.15	Questions
12.15 – 1.30	Lunch and posters	

	Session 5: Historic New Zealand	
	Session Chair: Nigel Prickett	
1.30 – 2.45	1.30 – 1.45	Above and Below: Archaeological investigations at Thomas Shalders' house and property (Oamaru), Site J41/179 <i>Dr Dawn Cropper & Eva Forster-Garbutt</i>
	1.45 – 2.00	Ng (King) Bros Market Garden settlement, Ashburton <i>Frank van der Heijden</i>
	2.00 – 2.15	The Archaeology of a Kitchen and Servants' Quarters in Māori Hill, Dunedin <i>Jeremy Moyle</i>
	2.15 – 2.30	"A Large and General Assortment": Fancy Goods Stores and the retailer-consumer relationship in Christchurch <i>Jessie Garland</i>
	2.30 – 2.45	Questions
2.45 – 3.30	Afternoon tea and posters	
	Session 6: continuation of historic papers	
3.30 – 4.30	3.30 – 3.45	The archaeology of Christchurch's houses <i>Katharine Watson</i>
	3.45 – 4.00	Insights from the Empire: Approaches to Buildings Archaeology in the UK <i>Eva Forster-Garbutt</i>
	4.00 – 4.15	The Petrie farmsteads and homesteads at Woodend, near Christchurch <i>Kevin L. Jones</i>
	4.15 – 4.30	Questions
4.30 – 5.00	Mihi poroporoake	
7.00 – late	Gala dinner	

Conference details

Whakatau

The conference will be opened at the Stewart Island Community Centre by mihi whakatau from the tangata whenua at 9:00am. Tangata whenua will speak, followed by the NZAA responding. After the NZAA speaker has finished NZAA attendees will waiata tautoko the speaker.

Please ensure you are there on time. Below is the waiata that will be sung after each speech from our side.

Waiata tautoko for NZAA speaker

Ehara i te mea
Ehara i te mea
Nō nāianeī te aroha
Nō nga tūpuna
Tuko iho, tuku iho

Special General Meeting

NZAA's Special General Meeting will be held at the venue at 3:30pm on Thursday 29 August. Come along to learn more about NZAA Council and its officers have been up to for the last year, and to vote on matters of importance to NZAA.

Posters

While posters can be viewed any time, authors will be beside their poster to answer questions at lunch time and afternoon tea on Saturday.

Public talk

Atholl Anderson

Archaeological excavations on Rakiura 1998-2007

This illustrated talk describes three archaeological projects on Rakiura; in 1998 at Cooks Cove in Pegasus Harbour, in 2000 at the Gutter in Mason Bay, and in 2007 on Whenua Hou (Codfish Island), putting the results into chronological context.

Brooke Tucker

Managing Archaeological Heritage on Codfish Island/Whenua Hou

Brooke will outline her recent work on Codfish Island/Whenua Hou. As an archaeologist, she is collaborating on a biological conservation project that takes an integrated approach to the landscape, working with both environmental and cultural heritage. The opportunity to work on Whenua Hou over an extended period has allowed regular monitoring of sites, identification of threats to the archaeological record, and preparation for a salvage excavation to be undertaken shortly (watch this space!). Cooperation with environmental researchers has provided exciting opportunities to contribute to the understanding of human occupation on Whenua Hou, and to work for the preservation and appreciation of the island's cultural taonga.

Peter Petchey

The Tin Range Archaeological Survey

In 2001-2002 the Department of Conservation commissioned an archaeological survey of the tin mining in the Tin Range, Port Pegasus, Stewart Island. This survey recorded surviving evidence of the 1888-1890 and 1912-1917 tin mining efforts, including extensive ground sluicing areas, water races, a dam, a tramway and hut sites. The results of the survey were published by the Department of Conservation in 2006 (Peter Petchey, *Pegasus Tin*). This talk discusses the survey, how it was carried out, who was involved and some of the challenges and rewards of working in this remote part of Stewart Island.

Matt Schmidt

The Wreck of the Pacific in 1864, Pipi Rocks, Stewart Is.

This paper looks at the wreck of the whaling vessel called the *Pacific*, which occurred in 1864 at Pipi Rocks near Ulva Island and The Neck. The history of the ship is traced from where it was built, to its whaling days based out of Tasmania, through to what is known about the wreck today. A brief glimpse into the life of the ships' last captain, Captain Sherburd, and his connection with to Stewart Is, is presented.

Gala Dinner

The gala dinner will be held at the South Seas Hotel. The dinner will begin at 7:00 pm. Drinks are available for purchase at dinner.

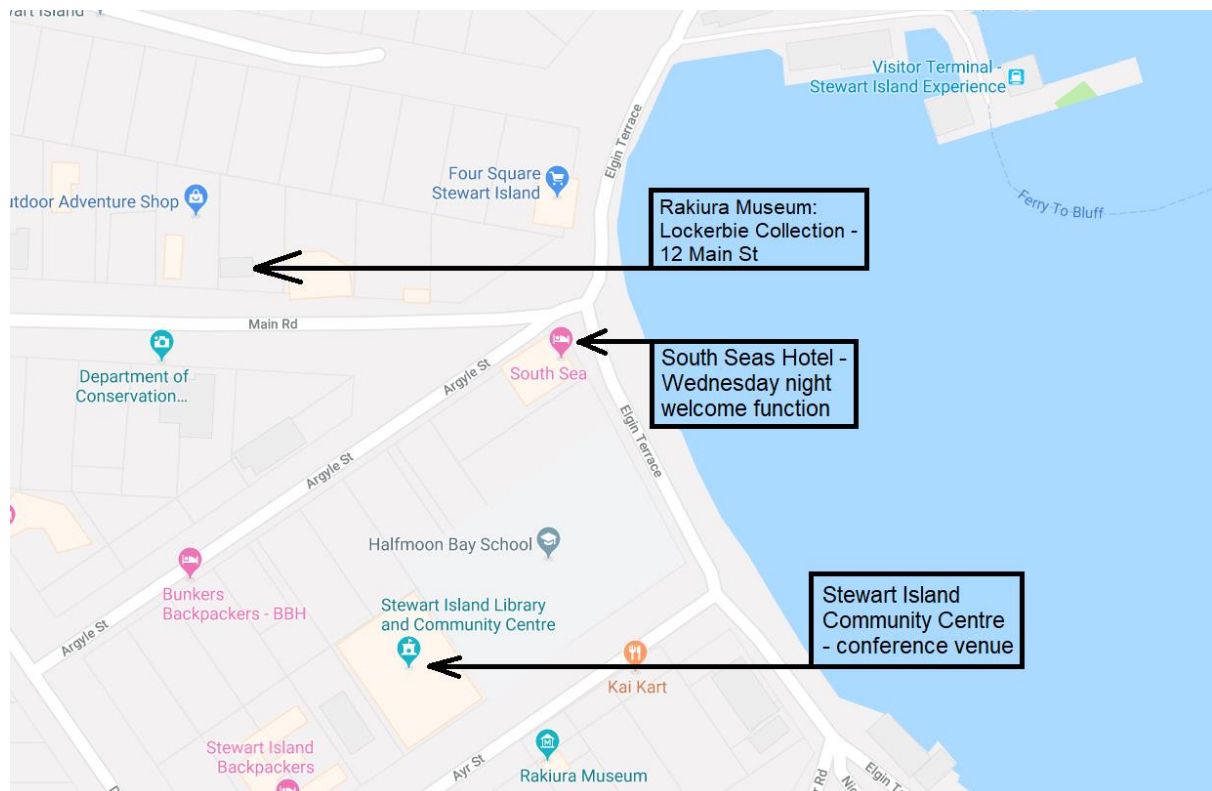
Discounts

The NZAA warmly thank Stewart Island Flights and Real Journeys for discounted travel costs for the conference.

Acknowledgements

We would like to acknowledge the following people who assisted with the organisation of this year's conference: Danielle Trilford, Alana Kelly, Mary O'Keeffe, Katharine Watson, Gerard O'Regan, Rachael Edgerton, Brooker Tucker, Mia Morgan, Brendan Kneebone, Jasmine Weston, Robert Henderson, Rick McGovern-Wilson, Aaron Joy, Kylie Bakker.

Venue map



Abstracts

Papers

North Canterbury Transport Infrastructure Recovery (NCTIR) and Archaeology Heritage Management: strategies, learnings, and opportunities.

At two minutes after midnight on 14 November 2016, an earthquake comprising a complex sequence of ruptures with a combined magnitude of 7.8, occurred all the way along the Kaikōura coast on New Zealand's South Island. In response, the New Zealand Government passed a suite of special legislation to enable the recovery and restoration of the area including critical transport links. A requirement of this legislation was the application for an archaeological authority and development of Archaeological Management Plan. These documents then guided the work of the North Canterbury Transport Infrastructure Recovery (NCTIR) Alliance (a collaborative partnership between the NZ Transport Agency, KiwiRail, Downer, Fulton Hogan, HEB Construction and Higgins) and shaped this project within its dynamic heritage landscapes.

This session's intention is to provide a view of the overarching aims and objectives of the archaeological and cultural work undertaken on the NCTIR project. This will be achieved through documenting the background to the project and how the NCTIR team manages archaeological, cultural and historic heritage. The NCTIR Archaeology team manages over 215 archaeological sites and there have been over 1000 risk assessments completed to date. These span emergency works, resilience and safety packages and enhancement packages, all of which require consistent heritage management inputs. This has demanded a spectrum of responses ranging from on-site briefings and compliance checking, to yearlong investigation programs. This session comprises seven presentations that encompass a helicopter view that illustrate a richer understanding of the layers of history of the Kaikōura coastal landscape and changes over time.

The session will be hosted by Jeremy Habberfield-Short and Sheelagh Conran.

The seven presentations are:

1. *NCTIR and Iwi*

How NCTIR has been working alongside iwi within the cultural realms and the working relationships and protocols that have been developed through this work. The session opens with kōrero from Darran Kerei Keepa (Lead Cultural Monitor, Te Runanga o Kaikōura).

2. *Project Overview*

An overview of the project and NCTIR's heritage management practise throughout the duration of the project and how these have evolved. This will be presented by Dr. Jeremy Habberfield-Short, Archaeological Director and S45 archaeologist for the NCTIR project. (Strata Heritage).

3. *NCTIR archaeological mitigation strategies*

Demonstration of how archaeological mitigation strategies are implemented on the NCTIR project, through the example of the site Rākautara. This will be presented by Kim Bone, the Field Operations Manager (WSP-Opus).

4. NCTIR archaeological investigations

The archaeological investigations and evidence uncovered from archaeological excavations at Waipapa Point. This will be presented by Dr. Jeremy Habberfield-Short and Sam Kurmann (Strata Heritage and Mamaku Archaeology).

5. Bone Working Technology on the Kaikōura Coast.

The excavations on the northern Kaikōura coast between Waipapa Point and Clarence River produced large quantities of lithics in conjunction with worked bone and finished bone tools. Although all of this is prominent in the New Zealand archaeological record, there has been relatively little documented in terms of technology. This presentation is about how the stone tool technology was utilised in bone tool technology.

An analysis program at the NCTIR laboratory in Kaikōura is underway, and includes a significant assemblage of stone and bone artefacts. The lithic analyses are focused on recording descriptive attributes and microscopic usewear. An emerging result is an abundance of stone bone-working tools which is consistent with the large quantity of worked bone recovered. This has further led to an experimental program to understand how the bone working tools were made and used. An important consequence has been the identification of stone tool types not previously recognised in New Zealand and how they were used in the blank and preform stages of bone tool manufacture. I have also been unable to find some of the technology present referenced in the international literature and there is the potential that it is exclusive to New Zealand.

The bone artefacts found are mainly utilitarian (fish hooks, bird spears, assorted awls, needles, etc.) made from sea bird, dog, human and moa bone. The tool kit for making them consists of burins, pseudo- burins, greywacke scarfers, flake saws, wedges, radially fractured shavers and grinders. These are described and their function explained. This will be presented by Dan Witter, stone tool expert (Witter Archaeology).

6. NCTIR archaeological lab

An overview of the archaeological laboratory operations, processes and some key aims, objectives and key outputs. This paper will present an overview of the laboratory team and their skills; laboratory processes – from the field to laboratory; an overview of the range of analyses that are being undertaken; results from the NCTIR project to date; and a selection of images showing the breadth of taonga analysed and housed in the laboratory.

This will be presented by Victoria Ross, archaeologist from the laboratory team. (Heritage Properties).

7. NCTIR and public archaeology

Public Archaeology is the practice of presenting archaeological data and interpretations of that data to the public. How can all the information and discoveries from the NCTIR Project be translated into the public sphere? This will be presented by Sheelagh Conran (WSP-Opus).

Communities of culture over 3000 years in southern Vanuatu

Stuart Bedford^{1,2}, *Frederique Valentin*³, *James Flexner*⁴, *Richard Shing*⁵ and *Edson Willie*⁵.

1. The Australian National University; 2. Max Planck Institute for the Science of Human History; 3. CNRS; 4. University of Sydney; 5. Vanuatu Cultural Centre

The five intervisible islands of southern Vanuatu comprise the Tafea Province. Dating from initial Lapita arrival to the ethnographic period the archaeological record indicates strong cultural linkages throughout the 3000 years of human settlement in the region. This is despite the development of a number of different languages across the islands. This paper presents new data from Tanna which provides further evidence of a distinctive regional community of culture that developed immediately after Lapita arrival.

Above and Below: Archaeological investigations at Thomas Shalders' house and property (Oamaru), Site J41/179

Dr Dawn Cropper (*principal archaeologist, New Zealand Heritage Properties Ltd*) & *Eva Forster-Garbutt* (*senior heritage advisor, Wellington City Council*)

The combined findings of buildings and below ground archaeology can provide us greater insights into everyday New Zealanders, adding a multi-dimensionality in terms of the factors that shaped their lives: social, economic, cultural and personal. This is explored through the example of Site J41/179, a late 1860s Oamaru Stone dwelling and property on the northern outskirts of Oamaru which was excavated by archaeologists from New Zealand Heritage Properties (Dunedin) in 2017.

Insights from the Empire: Approaches to Buildings Archaeology in the UK

Eva Forster-Garbutt (*senior heritage advisor, Wellington City Council*)

A synopsis of the lessons learnt from the presenter's trip to the England visiting heritage and archaeological professionals as part of a 2019 Winston Churchill Fellowship with the aim of "improving the investigation and recording of heritage buildings in New Zealand".

"A Large and General Assortment": Fancy Goods Stores and the retailer-consumer relationship in Christchurch

Jessie Garland, *PhD Candidate, La Trobe University*

The opportunity to investigate the material culture of a place from a retail perspective is rare. The processes of distribution and retail are often under-represented in the archaeological record and overshadowed by the refuse of domestic consumption. However, work in Christchurch has uncovered several sites associated with the importation and retail of nineteenth century goods, from fancy goods stores to bonded warehouses. These sites, particularly that of London and Paris House, an 1860s-1870s fancy goods store with aspirations of grandeur, draw back the curtain on hidden retail practices and showcase material not usually found in domestic refuse deposits. They also, when viewed within the broader context of the city, raise questions about the relative power and agency of the retailer, merchant and consumer in a young colonial settlement.

Archaeozoology in the 21st century

Karen Greig, Southern Pacific Archaeological Research, University of Otago

This paper compares recent studies of fauna from archaeological sites that use molecular methods to identify taxa and investigate population histories with results from conventional morphological analyses. The implications for understanding New Zealand's human history are discussed and future opportunities highlighted.

Ng (King) Bros Market Garden settlement, Ashburton

Frank van der Heijden

The Ng King Brothers Chinese Market Garden Settlement was established in 1921, and quickly grew to become the largest Chinese market garden in the South Island. As the business flourished, a settlement grew on the land, part of which still stands today. As such, it provides a unique opportunity to tell the story of early to mid-twentieth century Chinese immigrants, and the contribution they made to rural New Zealand towns like Ashburton. To recognise the site's national importance, earlier this year it was declared an archaeological site under S43 of the HNZPTA 2014.

Changes in Lapita mobility and interaction: insight from the analysis of obsidian from Apalo, West New Britain, PNG

Robert Henderson

Studies of obsidian from Lapita contexts have provided important insight into the nature of interaction in Near Oceania in recent decades. This paper presents research undertaken on obsidian excavated from the Apalo site (FOJ) squares Z1-Z4 in the Arawe Islands of West New Britain Province, Papua New Guinea, with a specific focus on gaining further insight into the nature of mobility and interaction between Lapita communities. The obsidian assemblage was analysed using pXRF in order to determine which geochemical sources were represented and how source selection changed over time. The results of this analysis demonstrated that the Talasea sources in West New Britain remained dominant throughout the occupation of the site. However, evidence for the introduction of small quantities of obsidian from other source regions including Mopir, the Admiralty Islands, and Fergusson Island during later stages of occupation at Apalo was also an important result of this component of the study. A technological analysis of the obsidian was also undertaken in order to identify any pattern relating to how intensively the material was reduced over time. This demonstrated a definite shift in reduction strategies between the Early, Middle, and Late Lapita periods. It is argued that this shift correlates with changing levels of settlement mobility as a more sedentary pattern of occupation at the site was adopted over time. This transition corresponded with a decrease in interaction between Lapita communities, and down-the-line exchange was adopted as the major mode of obsidian procurement by the Late Lapita period. Nevertheless, some interaction is likely to have continued for social purposes, resulting in the epiphenomenal distribution of small quantities of obsidian to the site from more distant sources during the Late Lapita period.

When and why did all the pā arrive? A multidisciplinary investigation into the spatial-temporal role of pā in the development of Māori culture.

AG Hogg¹, WJ Gumbley², IG Boswijk³, TC Roa⁴, WW Waitoki⁵, AJ Anderson², IH McIvor⁴

1. Radiocarbon Dating Lab, School of Science, University of Waikato
2. Archaeology and Natural History, Australian National University
3. Tree-Ring Lab, School of Environment, University of Auckland
4. Faculty of Maori and Indigenous Studies, University of Waikato
5. Psychology, Faculty of Arts and Social Sciences, University of Waikato

Polynesian migrations to Aotearoa/New Zealand led to political, geographical and economic changes generating a discrete Māori culture, characterised by the development of pā, associated agriculture and regional migrations.

We outline here a new Marsden-funded project which will investigate Waikato wetland pā and gardens as a vital step toward a larger and more precise understanding of the role of pā in constructing Māori culture.

We will use remote sensing and spatial mapping, high-resolution radiocarbon and dendrochronological 'wigggle-match' dating of preserved waterlogged timbers and explore Mātauranga Māori knowledge repositories in a multi-layered investigation to investigate this mid-sequence cultural transformation.

Integrating source communities during the conservation of their taonga in Aotearoa New Zealand – waka conservation in satellite facilities.

Dilys A Johns, Senior Research Fellow, University of Auckland

The Conservation laboratory at the University of Auckland became a national facility over 30 years ago researching and conserving wet organic materials from archaeological deposits throughout Aotearoa.

Conservation of these taonga has allowed a rare glimpse into pre-colonial Aotearoa when organic materials played a central role in everyday life from horticultural and domestic implements to carved artworks and ocean-going waka (canoes).

This paper discusses important aspects of canoe conservation, project development and implementation which includes iwi involvement from the outset. It includes case studies involving satellite laboratories and assesses the feasibility of conducting large scale wet organic projects on small budgets, in remote locations with little infrastructure in place.

The Petrie farmsteads and homesteads at Woodend, near Christchurch

Kevin L. Jones

The first Robert Petrie arrived at Lyttleton on the Gananoque in 1860 and settled soon after near Woodend. He founded what appears to have been a hard-scrabble dynasty of small farmers that lasted four or five generations on 40 ha of land at Gladstone Road. From the monitoring of the demolition and removal of contaminated soil a remarkable record has

emerged. The full plan layout of the first farmstead was able to be recorded, along with two other farmsteads of the second or third generation. The first and second homesteads on the first farmstead were cob and survived as super-imposed cobble foundations, the demolished cob being spread sometime in the 1920s over the adjacent fields. The first farmstead included a small wooden cottage (possibly from the 1860s and possibly the very first homestead) with substantial reconstructions, a two-storey balloon-framed barn constructed in two phases in the 1880s, a woolshed and yards, various cribs and small yards and the last homestead dragged by traction engine from the second farmstead and given a make-over as a bungalow, thinly disguising its origin as a villa. This household saga became something of an archaeological saga set in a Canterbury winter. The latter has resulted in a unique record for New Zealand of the full perimeters of two phases of cob foundations and the unusual construction of a large wooden barn.

Fishing nets in a horticultural setting

Alex Jorgensen, Rod Wallace and Matt Barrett, University of Auckland

Archaeological evidence of pre-European Maori fishing gear often relates to line fishing, in the form of fishhooks and stone sinkers – evidence for net fishing is rarer due to the less durable nature of the fibre nets. Excavations in December 2018 on Ahuahu/Great Mercury Island saw the discovery of a number of artefacts interpreted as small stone net weights and anchor stones, on a terrace within a complex of habitation and horticultural features. The 3-dimensional location of each net weight was recorded during excavation, and this paper will present the results of the analysis of the spatial distribution and physical characteristics of the artefacts, and the insights they provide into Maori net fishing.

Gardens, Storage... and Houses? Excavation in the Western Bay of Plenty

Brendan Kneebone and Caroline Phillips

Abstract: Recent and ongoing investigations in the Western Bay of Plenty are yielding interesting results. Storage structures cover ridge tops and spurs, Kaharoa rich garden soils are evident on the gentle slopes running down into dry river valleys, but where are the houses? This paper presents evidence for possible occupation in the hills of Pongakawa, near major routes inland and in the vicinity of the Kaikokopu Stream and the Waitahanui River.

Place Matters: 'Motutapu' Greywacke and the Stone of the Hauraki Gulf

Brendan Kneebone

Motutapu Greywacke' is a generic category assigned to various types of fine-grained sedimentary rock that visually resemble material from Motutapu Island. This category currently covers all greywacke thought to originate from the Auckland region and is based in part on visual characteristics such as grain size and colour, along with broad geochemical compositional data. This talk is an introduction to a research project on Rakino Island aimed at identifying and characterising discrete sources of adze quality greywacke stone.

Niche construction at Waitetoke garden complex, Ahuahu, New Zealand

Thegn Ladefoged, Rod Wallace, Simon Holdaway, Rebecca Phillipps, Josh Emmitt, Louise Furey, Alex Jorgensen, Matthew Prebble

Maori were drawn to Ahuahu (Great Mercury Island) from the early fourteenth century in part by its warm microclimate and the relative ease with which the native forest could be cleared and transformed into a productive horticultural landscape. At Waitetoke, localized environmental change involved 'cultural niche construction' with people's activities and choices generating dynamic selective conditions. Our ongoing archaeological and palaeoecological research has documented the transformation of the area from native forest to first a raised bed taro complex, and later to an intensified kumara garden. We present the results of recent research and future plans.

The Archaeology of a Kitchen and Servants' Quarters in Māori Hill, Dunedin

Jeremy Moyle

This paper reports on the archaeological recording of a former kitchen and servants' quarters building formally attached to a 19th century mansion in suburban Dunedin. The building's original form and fabric is outlined and interpreted through the lens of late-19th century domestic spatial patterning. Specifically, the distinction of 'front' and 'back' domestic space. The wider social significance of these divisions, and their relationship to domestic service in New Zealand, is also considered.

S.45 (2) (b)

Huia Pacey

The HNZPT Act came into effect in 2014. Within that Act was S.45 (2) (b) – that the approved person to carry out an activity under an archaeological authority in the case of a site of interest to Māori has the requisite competencies for recognising and respecting Maori values and access to appropriate cultural support.

So how do consultant archaeologists learn or exhibit those requisite competencies? What are those competencies and who assesses them? How are they expected to access appropriate cultural support?

This presentation talks to those questions raised above – and provides clues, cues and options for archaeologists to consider

When is a Site not a Site? Or, the Fate of the Silent File...

Brooke Tucker

An archeological site record that has been classified as a "Sensitive" or "Silent" File is digitally invisible. Using my recent work on Codfish Island/Whenua Hou as a case study, I explore the small, but important, subcategory of Silent Files within the New Zealand Archaeological Association Site Recording Scheme. I discuss the historical incidence of these files and their current position in existential limbo, with reference to implications for site protection and

management, archaeological research, and cultural knowledge. Administrative action is advocated and a way forward proposed.

Redcliffs return: a 14th century Māori village

Tristan Wadsworth

The Redcliffs Flat site and the associated Moa Bone Point Cave are among the earliest and richest Māori village sites in Canterbury, occupied approximately 1350-1390 AD. Part of the site, right outside the cave, is now being developed for the construction of a new primary school. This paper will give a preliminary account of excavations from the Redcliffs School development since June 2018, and the finds from these excavations, including an intensive cooking area, and extensive stone working area on a beach flat.

The archaeology of Christchurch's houses

Katharine Watson

While others have looked at the history and development of 19th century domestic architecture in New Zealand, this work has been from an architectural perspective and at a national level. This paper presents the results of the analysis of over 100 houses from Christchurch, and demonstrates how using an archaeological approach provides a much more nuanced understanding of the development and change of houses in the city over time. This data provides a starting point for comparison with other towns and cities, and for better understanding why these changes took place and what they meant.

Posters

Unfolding Tauranga's Story

Dr Rachel Darmody, Ken Phillips, and Eleanor Sturrock

The mass accumulation of data, from development-led archaeological investigations in Tauranga, has created an under-utilised resource which is rarely fed into subsequent investigations or synthesised to develop new narratives of the past. Heritage New Zealand has been working with Ken Phillips on an over-arching research statement to understand the city's archaeological values within a broader context to ensure future research effectively contributes to our understanding of the past.

Refurbishing an 1860s puddle-clay dam

Sam Kurman

Dunedin's Ross Creek Reservoir (1867) was significant for early water supply as the city grew quickly and required adequate sanitation. Following a 2010 rainfall event, the structural integrity of the dam was lacking and from 2017 earthworks were undertaken to restore the structure. The archaeological investigations revealed phases of historic drainage and

engineering repairs that were uncovered over the course of the project. This poster presents part of the jigsaw puzzle of drainage-related features. It also highlights future research avenues that are being pursued to explore the archaeological data collated during the refurbishment project.

Hair today, gone tomorrow: Investigating exposure of Arsenic, Mercury and Opium in Hair Samples of Otago Early Settlers.

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The Otago Gold Rush of the 1860s led to a frontier population of prospecting miners entering Otago, many whom lived and died on the goldfields in Lawrence. This investigation aims to explore whether health on the goldfields was adversely affected by mining-related exposure to heavy metal toxins and/or recreational and medicinal opiate use. Hair samples from burials were analysed for heavy metal toxins by Energy Dispersive X-Ray Spectroscopy – Scanning Electron Microscopy (EDS-SEM) and Laser Ablation Inductively Coupled Plasma Mass Spectrometry (LA-ICP-MS). Liquid chromatography assessed the presence of opiates. Preliminary findings indicate mercury exposure in hair samples from Lawrence cemeteries.

Changing settlement patterns in urban Dunedin: excavations at the University of Otago Dental School complex

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This year marks the 150th anniversary of the establishment of the University of Otago. The University is currently in the middle of a major phase of construction and renovation, and the Southern Pacific Archaeological Research (SPAR) team has been working alongside the University to manage the effects of this programme on archaeological sites and heritage. This area of Dunedin has a long human history, ranging from the pre-contact Māori occupation and resource use along the Water of Leith and inner harbour, to the subsequent founding and growth of the city. The 2016 excavations at the University's Dental School and Research Support Facility have highlighted key aspects of settlement pattern change and land use practices during the expansion of urban Dunedin during the nineteenth century. These works have made significant contributions to the growing body of knowledge of the Dunedin cityscape.

Recent excavations at Eastland Port: investigating an early Māori settlement on the East Coast

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Recent excavations beneath the Eastland Port Lower Log Yard have yielded a rich archaeological assemblage comprising nearly 2,000 stone artefacts, a selection of bone and stone fishhooks, moa bone tabs and a large faunal sample dominated by shellfish, with dog, moa and fish also present. The site appears to have been part of a village, located near the Turanganui River mouth, not far from where Captain Cook made landfall some 470 years later. Calibrated radiocarbon dates indicate that the site was occupied during the Polynesian colonisation phase of the fourteenth century AD. The presence of industrial stone samples from a diversity of locations in the North and South Islands (including pounamu and d'Urville Island argillite) support the observation that there was a rapid exploration and exploitation of resources following initial landfall. Few sites of this age have been investigated along the East Coast between the Wairarapa and Coromandel/Bay of Plenty and this site adds significantly to our understanding of the processes involved when Polynesians settled into the new landscapes of Aotearoa.