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FIELDWORK AND OTHER ACTIVITIES

Professional Development Cell

Due to popular demand this PDC workshop was repeated with updates of information by all speakers, and an additional speaker, on 20-21 April. Friday was a day of discussion held in the Anthropology Department of the University of Auckland, while Saturday involved a fieldtrip to Mangere Mountain and the nearby Otutaaua stonefields.

The workshop considered garden sites, probably one of the most difficult to discover in the archaeological record, but one of the most widespread site types in the past.

As Ian Barber pointed out in his review of past studies of Māori gardening, there are some important new directions that “have potential to advance archaeological knowledge on the contribution and context of Maori cultivation” (Barber 2004: 102). These he identified as: microbotanical identification of crop remains, remote sensing approaches, experimental work, identifying cultigens and soil qualities and the interpretation of cultivation soils and systems as part of a dynamic cultural landscape.

These new directions were discussed by Ian Lawlor, Caroline Phillips, Peter Crossley, Hans-Dieter Bader and Mark Horrocks. Although aspects of these new directions have been published in papers and reports by some of the speakers and others, it is hoped that this workshop will be published as a book, with other invited authors, so that this topic as a whole may be advanced.

Ian Lawlor discussed excavated examples of gardens, surveyed gardens and investigated gardens in Northland, Auckland and the Bay of Plenty. He also illustrated his long-time field and experimental research. Hans-Dieter Bader described advances in geomagnetic survey that may be able to extend our knowledge of gardens without extensive excavation. His recent finds in Taranaki have greatly extended our knowledge of the area of land cultivated in that part of the country. Mark Horrocks described the findings of microfossil analysis, such as palynology, phytolith studies, and in particular starch grain analysis of some of the crops (kūmara, taro, potato) that have been cultivated at various sites, which he has been undertaking in conjunction with Hans, Ian and Caroline, as well as overseas. Caroline Phillips described finding gardens through survey and excavation studies based on the topography, the physical nature of the soils and soil analysis. In the latter she was assisted by

Peter Crossley, who has been involved in varying soil testing techniques in the Geography Department.

Ian added a test for the participants – ‘The Dirt Game’ – in which we had to determine how many of his 60 samples of soil were from gardens and how many were from natural deposits. The message was clear: there is no easy way to determine whether or not a soil was gardened. It is important to focus on the landscape, taking into consideration the natural soils, the elevation, orientation and other sites.

Ian led a field trip to the Mangere Mountain Education Centre to see the gardens and displays of previous kūmara harvests and then up to the reserve to look at the mounds and gardens on and in the crater (Figure 1). We also went to Otuaataua to see more stonefield gardens and to look at the places where Mark Horrocks and Ian had taken microfossil samples.



Figure 1. Ian Lawlor (far right) discusses gardening sites with the workshop participants.

Thanks must be given to Ian for this inspiring workshop, to those who attended, some of whom were very experienced in their own right, and those who freely shared information about the work they have been involved in.

Also thanks to the Mangere Education Centre for the use of their facilities, the Anthropology Department and Meri Low for administration.

A further two workshops are planned for 2012, and our email list has already been informed. The next one is 'An Introduction to Buildings Archaeology', which will be held in Oamaru the day before the New Zealand Archaeological Association conference starts, and the second will be 'Being an Expert Witness', a repeat of a popular workshop held last year, planned for Wellington in August. If you are not on our list and you want to hear more about the workshop series please email Meri Low: meri.low@xtra.co.nz.

Professional Development Cell

Barber, Ian, 2004. Crops on the border: The growth of archaeological knowledge of Polynesian Cultivation in New Zealand. In: Louise Furey and Simon Holdaway, eds. *Change Through Time: 50 Years of New Zealand Archaeology*. New Zealand Archaeological Association Monograph 26: 169-192.

Northland

Northern Archaeological Research has been involved in the excavation and conservation of part of the ruins of William Williams's house, the sole surviving structure from the Paihia Mission complex and a structure registered by the New Zealand Historic Places Trust (Register Number 403). William Williams holds a prominent position as one of the pioneering Pākehā in the establishment of modern New Zealand. His brother, Henry Williams, established a mission in Paihia in the Bay of Islands in 1823 on behalf of the Church Missionary Society (CMS). William Williams joined him in Paihia in 1826, and four years later, William began building a stone house that would act as both his dwelling and a school. The ruins of this house are registered by the New Zealand Historic Places Trust (NZHPT) as a Category II historic place (Register Number 403). William was helped in building the house by Rawiri Taiwhanga, one of many examples of how the current ruins link both Māori and Pākehā history. William Williams's reputation is that of a missionary, scholar, and translator, responsible, amongst much else, for the first translation of the New Testament into Te Reo Māori. William Williams's family moved to Te Waimate around 1835, and the house changed hands several times before it burnt down in 1856. The event was recorded by Jane Williams, William's wife, and the majority of household effects were said to have been saved.

The house was a substantial two storey building with a hipped roof and three dormer windows to the seaward side. It was constructed entirely of local material including greywacke, lime mortar, bricks made by the missionaries and basalt cobbles (probably obtained from the Waitangi River). The walls

were plastered. There were also Māori whare and whata were on the property (these can be seen in Lieutenant Woore's drawing of 1834).

As the only surviving structure from the Paihia Mission complex, the ruins are of considerable historic and archaeological significance. Twenty years ago, the walls stood approximately 2 m in height, and window apertures were still visible. Erosion, vandalism and neglect have now reduced their height to a little more than 1 m.

The remaining fabric of the house is very fragile, and information collected during the project shed light on the construction of the house, the formation of the external and internal rock walls, the sequence of internal and external plastering and located what appears to be the original floor level (although that question is still open until further excavate is carried out); and the original external ground surface. As the upper levels are still being excavated, no artefacts associated with the Williams family or the Colenso period have been recovered, although there were fragments of what appeared to be burnt window glass, and molten glass fragments which are likely to have been associated with the 1856 fire. Most of the material recovered as a result of the excavation was from a late 19th and 20th century rubble layer and comprised fragments of domestic china (blue and white transfer), glazed earthenware containers, black bottle glass and nails. No whole artefacts were uncovered.

The weight of soil and rock debris inside the house had slightly displaced the west wall of the house, which was leaning slightly to the west. As a consequence, this wall had separated slightly from the southern and internal walls. A substantial weight of worked basalt (bluestone) resting up against the inside of the wall was removed and this should stop any further movement. The origin of the bluestone is still an open question but may represent a collapsed fireplace or mau have been brought into the site at a later date. All the artefacts will be returned to the Paihia Haven of History Charitable Trust.

The main aim is now is to get the exposed wall area stabilised in order to stop, or at least minimise, further deterioration. Specialists will be working on this over the next few weeks under the guidance and advice of Dave Pearson (Dave Pearson Architects Ltd, the conservation architect for the project) and Northern Archaeological Research Ltd.

Jono Carpenter is involved with the Ruakaka South Pressure Sewer Scheme. Sewerage has been entering the Ruakaka River as a result of septic tank overflows so the project has major public health benefits. A sewer main will be dug along the Marsden Point Road and there will be nearly 500 houses

connected to it. The area around the Ruakaka River is a highly sensitive archaeological area and there are visible middens along parts of the route.

Andrew Blanshard (Department of Conservation) has been monitoring the track upgrade on Urupukapuka Island. The archaeological sites are extensive on the island and Andrew has been advising how to avoid the sites with both track work and fencing.

In March SPAR and Ngatiwai, supported by the Department of Conservation (DOC) and NZHPT, carried out an archaeological survey and training programme on Taranga Island in the Hen and Chicken Group. This project was undertaken with Nga Whenua Rahui (DOC) funding and aimed to revisit all previously recorded sites on the island and filling in gaps in the survey coverage. The purpose of the work was to provide baseline data and a methodology to assist Ngatiwai and DOC in the long-term management of the cultural resource. The survey almost doubled the number of recorded sites on the island and it is apparent that Taranga is a remarkably intact and significant cultural landscape containing extensive garden complexes and occupation zones.

Bill Edwards

Auckland

Tawhiao cottage (Figure 2) is a four-room wooden cottage at 31 Wallace Road, Mangere Bridge, on the west side of Mangere Mountain, and was built on land granted to Tawhiao, the second Māori king, in 1891 after his return from the King Country. The cottage is presumed to date from this time. The land fell out of Māori ownership in the mid-1920s and the cottage ceased to be occupied in 1947. A preliminary analysis of construction techniques and material culture supports this chronology. At the time of excavation in 2012 it was in a ruinous state and the cottage has been moved to the other side of the mountain where it will be restored and incorporated into the Mangere Mountain Education Centre.

The majority of features recorded during the excavation were within the footprint of the cottage and consisted of foundation postholes, a chimney base (the brick chimney was deconstructed and will be re-assembled on the new site) and shell midden. The midden consisted of shell (primarily oyster and cockle, which would have been available nearby in the Manukau Harbour), along with fish bone and sawn mammal bone. The chimney was constructed of irregular basalt-scoria blocks and no more mortar had been used in its construction. Over this a levelling fill of oyster midden had been laid, then a layer of lime and a cement hearth. The midden, then, probably relates to the builders of the house but this had all been thoroughly turned over by rat burrowing so it will probably be impossible to distinguish any differences between midden deposited

by the builders of the house and by its subsequent occupants, both within and outside the cottage footprint. The majority of artefacts were also found under the cottage, often mixed into the midden layer by rats.



Figure 2. Tawhiao cottage.

Outside the cottage footprint, a few postholes, small rubbish pits and a probable long-drop toilet were found, along with some shell and scoria paths. This lack of features is not unexpected in what would have been a rural context, with the occupants disposing of waste and rubbish at some distance from the dwelling.

Mat Campbell

Central North Island

The west coast of the Waikato features in a recent publication – Wilkes et al., 2012. *Earthwork Fences in New Zealand* (Memoir 11 of the Whakatane and District Historical Society).

In Hamilton, Caroline Phillips and others have been excavating the Hamilton Club site in Grantham Street. The second phase of the earthworks, in March and April, uncovered numerous features and finds, relating to Māori gardening and storage, 19th century European businesses, dwellings and other

structures, with associated rubbish pits. Some of the finds will be described by Caroline and Ben Thorne in forthcoming paper.

Land Wars sites at Rangiriri have been receiving a lot of attention lately. Warren Gumbley is writing up the results of excavations on the Commissariat Redoubt and Brent Druskovich has been monitoring the installation of the Te Tohu Maumahara at Rangiriri Pā. As hoped, the work and associated landscaping have not revealed any archaeological features.

Brent has also been working for NZHPT at Te Wheoro's Redoubt in Rangiriri, where past road works have cut away the toe of the hill, resulting in slow but steady erosion. An authority application is with NZHPT to replace the fence and undertake some plantings at the top of the bank in an effort to slow the erosion. Because of the erosion the fence has to be placed further in from the road than currently and is likely to cause minor damage to subsurface archaeological features, but will avoid the main redoubt area.

On the Coromandel, Caroline and Brent have been digging test pits near the Māori archaeological site at the Whangamata wharf, which was first excavated in 1969 by Jan Allo. Two layers of midden were found (which may relate to those found by Allo) and shell from the lower one has been submitted for radiocarbon dating. It is intended to fully excavate the area, where an extension to the Whangamata Ocean Sports Club is planned. This may add to the information uncovered by Warren Gumbley at the nearby Cabana Lodge.

Caroline and Brent also surveyed a property in the Wentworth Valley, Whangamata, where they found an unrecorded pā, a complex terrace, pit and midden site, and another unrecorded midden.

In the Bay of Plenty, John Coster and Lynda Walter are still in the pine forests, and Peter Holmes has been investigating a midden at the Tahatai Coast Primary School, as well as ongoing site testing and assessments at Athenree, Mt Maunganui and Tauranga. In Hawkes Bay, Peter has completed the report on a difficult site excavated recently at Waimarama, while Kevin Jones has been working on the Mahia sewerage scheme and on the Mahia hill country. In one of the Mahia valleys he found the bases of horticultural mounds cut into the subsoil.

John Coster

Taranaki

Ivan Bruce has been carrying out archaeological surveys and assessments of large areas of South Taranaki to be affected by seismic testing. Seismic testing involves the use of explosives to measure energy wave reflections from underground rock layers, and is used by oil exploration companies to determine suitability for drilling in a given area. Ivan has been providing advice to

oil companies and iwi on the potential impacts on a number of archaeological sites during the drilling stage of the project. Many sites that might have been affected have been avoided, but because of the extent of many of these sites, some work will be undertaken under authority from NZHPT. Ivan believes this is a first for the industry and represents real progress in better communication between those involved in oil and gas exploration and the relevant regulatory authorities.

Monitoring work continues on the Waitara to Waiwakaiho sewerage pipeline. No further sites have been affected on this project to date.

Andy Dodd

Wellington

Kevin Jones's work at Queen's Wharf is continuing and is being finalised on Maupuia Pā (site of the Wellington International Airport sign).

Victoria Grouden has been involved with monitoring demolition at 34-42 Ghuznee Street, site of various dwellings and businesses dating the late 1860s, 1880s and 20th century. Initial investigation has shown an interesting stratified midden, covered by a cobbled brick floor. Work will continue later in the year on this site when it is prepared for construction. Victoria has also completed an assessment for an 1870s site on upper Willis Street that will be excavated in early June. Monitoring of track work at Orua-iti/Point Dorset and planting at Tarakena Bay (both on the Miramar Peninsula) continues.

Mary O'Keeffe continues work on three of Wellington's roading projects: Transmission Gully (which has just been consented by the Board of Inquiry), Mt Victoria Tunnels Duplication, and MacKays to Peka Peka expressway on the Kapiti Coast. She has also completed an assessment for DOC for a water treatment system on Matiu/Somes Island, has completed a report for monitoring historic archaeology at the Countdown Supermarket site in Newtown, and in a voluntary capacity has helped the Friends of Mount Street Cemetery plan a new walkway through the cemetery

Mary O'Keeffe

Nelson

Aside from minor assessments, Deb Foster has been involved in ongoing work at the pā site on the Riwaka-Kaiteriteri Road, N27/298, in preparation for backfilling. The excavated pits and features were backfilled with grey river sand to distinguish them from the golden granite, and the 300-400 mm of topsoil that was stripped from the site before it was properly identified has

now been reinstated and sown in grass. Future management of the site is still under negotiation.

Tasman District Council recently undertook to install a sewage pump station at Mapua, on the site previously occupied by the Fruitgrowers Association. In a major project dating back to 2005-06, the contaminated soils across the site were treated and reinstated, and the area is now being developed as a waterfront park. It was well-known that the area had produced a lot of cultural material including ovens, shell and bone midden, artefacts and burials, but it was assumed by the project managers that the remediation work had wholly disturbed any intact deposits. Iwi monitors were on site and work proceeded under an accidental discovery protocol. During excavation, however, intact cultural layers were found and work was halted while an authority was obtained. Subsequent finds have included stone flakes associated with 19th century bottle glass and a row of nine postholes, 200-300 mm in diameter and spaced 100-150 mm apart.

Amanda Young and Wesley Maguire have recently completed the investigation of an historic site in central Nelson, where two adjacent sections are being redeveloped. 90 Collingwood Street was a two-storied 1880s wooden building which was built behind one of Nelson's early hotels, possibly for the hotel manager. 7 Alma Lane contained a turn-of-the-century brick building known as a bake house. There are records of earlier buildings on both sites with occupation dating back to the 1850s. 90 Collingwood Street was thoroughly recorded by Wesley Maguire prior to demolition and the Alma Lane building was also recorded. Previous episodes of rebuilding on the sites had left only traces of earlier foundations but a number of rubbish pits and deposits were uncovered. One on the Collingwood Street site looks like it may relate to the neighbouring hotel. Investigations at Alma Lane uncovered a row of five pits. These were rectangular, deep (c. 3 m) and consistent in size and form. They were spaced at c. 1 m intervals. There was no evidence of a lining. The pits were aligned along the edge of an historic right-of-way. They are interpreted as possible long-drops which were later used as rubbish holes. The pits may relate to the boarding house that was on the property at one stage, or to an adjacent hotel. Amanda would be interested if anyone else has uncovered similar features.

Amanda Young

Canterbury

Nick Cable has been monitoring the temporary sewer upgrades on Lower Styx Road in the Brooklands area (to the north of Christchurch). He has found evidence of an intact buried topsoil and gardening soils across much of the area

at approximately 400 mm deep but only limited evidence of direct activity, including one pit and a possible floor, a disturbed midden and a teacup.

In Ashburton, Nick has started work on the Westburn Courts site, a 1920s NZHPT registered building that was recently partially demolished, and has found a small brick cellar there. Other archaeological work in Ashburton has included the demolition of a late 19th century commercial premises on East Street (monitored by Andy Dodd and Matt Carter). Removal of the foundations of this building revealed no archaeological material.

Witter Archaeology has been excavating a habitation area in coastal dunes at Waikuku near the Ashley River mouth. The midden includes a very large number of small birds of different species, some dog bones, but hardly any fish bones and no rat bones. There are moa bone fragments (but not in the midden) and a few of these have been worked, although there are no fish hooks. There has been no nephrite, but considerable argillite flaking, and part of a slate (ulu type) knife. The site thus appears to be relatively early. There seems to be a house floor with considerable debitage – probably a shallow pit house – and a fireplace (not stone-lined) containing ash. No post holes have been found so far.

Emily Cunliffe, Greg Gedson, Julia Hughes, Kirsra Webb, Luke Tremlett, Matt Carter and Matt Hennessey continue to monitor the demolition of buildings and removal of the foundations in Christchurch. Recent demolitions of particular note have included two designed by William Barnett Armson, the Canterbury Society of Arts building and an 1880s woolstore next to the railway line. Little original fabric remained in the former, beyond the external walls. The remains of the early 20th century earthquake strengthening, however, proved interesting. The deconstruction work at the Canterbury Provincial Council Buildings has ground to a halt as new resource consents for the work are sought, but is scheduled to resume later this month.

Work on the city's infrastructure rebuild is continuing and has seen the investigation of two brick barrel drains on opposite sides of the central business district by Matt Hennessey. Examination of the two structures revealed some surprising differences in construction.

Katharine Watson

West Coast

Katharine Watson has carried out archaeological surveys of small areas of several mining permits in the Hokitika area, recording the remains of hydraulic sluicing in the Callaghans area of the Waimea Forest. Amongst the remains in this area were a surprising number of dams for the small area

that was supplied with water, a testament to the problems of water supply in this area.

Katharine has also collected the surface artefacts from a miner's hut site disturbed during past activity in the Blue Spur area. As well as the remains of numerous black beer and case gin bottles, a range of patterns were evident on the ceramics recovered and there were also the remains of a decorative object, a suggestion that this hut site was more than a temporary occupation.

Katharine Watson

Otago

In mid-April, Ian Smith and Angela Middleton took a group of 10 students to St Bathans for two days of surveying and mapping features on the previously unexplored hill slopes above the Blue Lake. This was undertaken as part of an archaeological assessment for the St Bathans Community Association's proposal to extend the existing Department of Conservation Blue Lake walkway by adding a track that will circle the lake. Archaeological features mapped include ground sluicing and tailings from the earliest phase of mining in the 1860s, numerous water races feeding both the early phase and the later hydraulic elevating that produced the Blue Lake, and remnants of abandoned piping and other equipment. When completed, the walkway will enable visitors to see many of these features, as well as getting magnificent views of the Blue Lake, St Bathans township and the surrounding countryside.

SPAR has been involved with three of the national cycle trails, and has carried out surveys for the Lake Roxburgh trail, the Clutha Gold trail and the Alps to Ocean trail, as well as one in the lower Kawarau River. These trails pass close to or through a large number of archaeological sites although it has been relatively straightforward to avoid major damage to any of them. Katharine Watson has also surveyed part of the Alps to Ocean trail, and relocated features associated with the Canterbury-Otago boundary line that was established in 1861 (following several years of dispute over the boundary).

SPAR continues its work with the Southland Coastal Heritage Inventory Project (SCHIP) and has recently completed a strategic plan for the SCHIP partners for the next five years.

The DOC Wakatipu Area Office is currently looking at placing a structure over the large baker's oven located at the Cherry Gardens, Kinloch, to protect it from falling tree branches. J. W. Robertson and Company built the Antrim here in 1868. The *Antrim* was used for the U.S. Transit of Venus expedition in 1874.

Tenure review surveys for the 2011/2012 season have been completed for the following properties: Longlands, Gorge Creek I and II, Matakaunui, Mt

Stalker, Minaret and Lowburn. Some of these leases contain large numbers of historic sites and significant sites will be recommended for protection either in conservation areas, historic reserves or covenants.

The demolition of the Garrison Hall (I44/525) at Port Chalmers was monitored by Guy Williams and Associates. The main body of the hall was constructed in 1887 (by the Volunteer Force of Port Chalmers), with several additions made to the rear of the hall between then and 1900. During the staged demolition of the building the remains of a large mural were discovered under the interior lining of the main hall. The remnants of the mural, which had originally covered all interior walls of the hall, were fixed to the north and south walls with each remnant originally measuring 20.4 m long by 3.6 m high. The painting on the mural was executed in tempera-type paint on sheet fabric. The mural was painted in the form of a “panorama” encompassing all four walls of the hall and depicted the exotic scenery of a Japanese village and landscape. The mural was removed from the hall in lengths and is currently in storage at Otago Settlers Museum.

The New Zealand Transport Agency is undertaking an improvement programme along the stretch of State Highway One connecting the Dunedin Southern Motorway to the city. As part of the work, a number of houses flanking State Highway One required archaeological investigations prior to their demolition. Guy Williams and Associates were contracted by Opus International Consultants to carry out this work. The buildings represented a working class community, ranging from one quite small cottage to a reasonably well-appointed villa.

An archaeological assessment has also been prepared by Guy Williams and Associates for Opus for the former Caversham Industrial School (I44/526), at the crest of Lookout Point. Caversham Industrial School was the first such school in New Zealand, opened by the Otago Provincial Government in 1869 under the Neglected and Criminal Children Act of 1867. The school housed up to 200 children ranging in age from two to 18 years, who lived, worked and were schooled on site. Numbers in attendance fluctuated wildly, peaking in the late 1870s, and the school closed in 1927. Excavations have not yet begun.

MWH has been undertaking remedial and upgrade works at Dunedin’s Southern Cemetery (I44/149) for the Dunedin City Council (DCC). Guy Williams and Associates were asked to advise the DCC and MWH on the avoidance of damage to archaeological features, and the retention and protection of historical features such as cobbled channels, grave borders, and drainage features. The assessment of the cemetery found that there was a possibility that unmarked paupers’ graves may have been located in an area earmarked for a new car park and that an existing car park requiring drainage and resurfacing

was the site of the pre-1900 Church of England sexton's cottage (demolished c. 1945). No clear evidence of the sexton's cottage was found, although a broken brick rubble used as fill may have originated from the demolition of the cottage. No graves were found.

An archaeological authority was issued to Guy Williams and Associates for an archaeological investigation at Lauriston farmstead (I44/522) on the Taiari Plains south of Dunedin. The original Lauriston homestead is believed to have been built by Robert Somerville in 1863. Somerville was a respected farmer with a small mixed farm. Excavation was required in the footprint of proposed additions to the residence. This resulted in the discovery of a section of stone foundation wall from an earlier building about 260 mm below the finished ground level. The full extent of this wall was not explored, but the technologies and skill evident in the construction indicated that the foundation was from a well-constructed and permanent building, of which no other record has been found. The associated artefacts indicated it was built c. 1870.

Guy Williams and Associates have been engaged by Oceana Gold to advise on repair works to Gay Tan's cottage (I42/49 and I42/50), and to monitor the installation of drainage at the site. Louis Gay Tan was a Chinese storekeeper and interpreter who arrived in Otago in 1867, and settled in Naseby c. 1870. In 1873 he married a 17 year old European woman, Emma (Emily) Flinch. At the end of 1875 the Gay Tans moved to Macraes, where Louis built their home, a 'townhouse' of sun dried brick and plaster, opposite the Macraes Chinese camp. The cottage is thought to have been built between 1876 and 1882.

Emma Brooks