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FIELDWORK AND OTHER ACTIVITIES

Remote Sensing Workshop

The PDC ran its 12th workshop on Friday 26 August, at the Auckland Regional Council. The topic was Remote Sensing and five experts – Allen Juffermans, Caroline Phillips, Ian Lawlor, Hans-Dieter Bader and Daniel Parker – presented current information, illustrated by recent examples of their work. The workshop was supported by Auckland Regional Council, and thanks must go to Hans who devised the topic and organised the speakers; to Vanessa Tanner for collating and photocopying the handbooks and booking our venue; and Meri Low for organisation.

The workshop discussed non-intrusive remote sensing techniques that are currently being used in New Zealand. These are especially valuable when they are all used in an archaeological project and the information is transformed into multiple overlays. The results can provide an important tool for archaeological assessment or preparation for intrusive investigation, and also has the ability to better provide for the preservation of representative sites or parts of sites. As Hans stated, “the crucial thing is what information you can get from all the various sources before you put a spade into the ground”.

Allen Juffermans briefly looked at the history of surveying in New Zealand, detailed the different types of plans and their current availability and described current methods of cadastral surveying. Caroline Phillips discussed the use of aerial photographs, focusing on the information that could be gained from a series taken over time of the same locality (time-layered aerials). Ian Lawlor followed with examples of georeferencing oblique aerial photography and infrared photography. Hans-Dieter Bader briefly described geophysical techniques used here and in Europe, and then discussed in more detail the advantages and limitations of the two most commonly used methods in New Zealand: ground penetrating radar (GPR) and magnetometry. Daniel Parker spoke about overlaying all forms of information using geographic information systems (GIS). In particular he focused on the importance of understanding the metadata – the data behind the material being presented (this subject is taken up

in more detail in the article ‘Continuing the Dialogue: Remote Sensing – Data and Metadata’ later in this issue of *Archaeology in New Zealand (AINZ)*.

Professional Development Cell

Northland

Joan Maingay has recently been doing an historic excavation at Rawene. The excavation has been over seven days and Joan has been aided considerably by the help of a number of enthusiastic volunteers. Without them, it would otherwise have been an excavation of the foundations of the new building. A brief overview of the artefacts, mostly recovered from a longdrop, indicates that they consist mainly of glassware probably dating from the late 19th to the early 20th centuries. Although many contained alcoholic beverages there were also a large number of coffee and chicory essence bottles. Interestingly, there were bottles from a wide variety of places – Paris, New York, Brussels and Scotland. A few Māori artefacts, a hāngī and intercutting pits suggest a much earlier occupation of the site.

Joan also reports that work to preserve the William Williams’s ruins will finally be undertaken, after several decades of discussions, debates and misunderstandings. The ruins are the only surviving structure from the Paihia Mission Station, which date from 1830. The ruins have sadly deteriorated since they were first surveyed in the 1980s but there enough remains to interest the public and to justify conservation. Descendants of the Williams family have set up a trust for this purpose, and as a first step to combat vandalism plan to fence the property in the near future. This will require archaeological monitoring and hopefully more extensive archaeological investigations will be conducted at a later date.

Andrew Blanshard (Department of Conservation (DOC) Bay of Islands Area Office) reports that he is busy and has all but completed the archaeological monitoring on the school road track behind Paihia. He has also had a very successful week out on Urupukapuka with Hans Bader, continuing the geophysical survey of parts of the island. Somewhere between 5-6 hectares of the island have now been surveyed.

Michael Taylor (Archaeology North) has given technical input into a recent meeting between Te Roroa and the New Zealand Historic Places Trust (NZHPT) looking at the harvesting of pine trees on archaeological sites. He has also been monitoring at the Taharoa lakes. Archaeology North are also providing archaeology support for work at Arai Te Uru.

Simon Best reports that the first stage of the Russell drainage and road improvement work was carried out in June. This involved trenching along the

east side of York Street for approximately 135 metres, to a depth of 1-1.5 metres. Layers of fill were encountered, containing ceramics around 170 years old.

Simon has also been monitoring the excavation of foundation and drainage work for a new building on the police station site, on the York Street boundary, which was carried out in September. An area of about 300 m² was augered and trenched. Forty-one pile holes between 350-450 mm diameter were drilled, and 80 metres of 300 mm wide trenches dug. Two features were found – a dump from a modern hāngī, with corrugated iron, silver paper and a can opener, and part of a hāngī or rake-out, with bone and shell, also associated glass.

Simon also reports on the Puwera landfill site, which was the University of Auckland field school in 2007. A boundary fence for the landfill site is due to be shifted to the east, from farmland into bush and reverted pasture. The bush and scrub was cleared by machine along the proposed route. Pohotu pā, on the south end of the line, was avoided by diverting the fence track along the west side of the pā. Four shell midden were encountered towards the north end of the track, where the land sloped towards the harbour. The fence will be diverted to avoid the two in-situ sites.

Bill Edwards

Tauranga/Bay of Plenty

Over Guy Fawkes weekend, Tauranga was privileged to host 20 members of ICOMOS New Zealand (the New Zealand national committee of the International Council on Monuments and Sites) for their annual general meeting. ICOMOS has recently published a revision of its 1993 “Charter for the Conservation of Places of Cultural Heritage Value”, setting out standards for the conservation and management of heritage sites. Copies will soon be available through the website, www.icomos.org.nz. The weekend included field trips, introduced and guided by Rachel Darmody, John Coster and The Elms volunteers, to the city’s unique historic property of that name, and to the stunning archaeological landscape of the Papamoa Hills Regional Park, where Lynda Walter has recently been continuing archaeological monitoring of planting and fencing.

Also in Tauranga Moana, Nick Cable and Sian Keith have been working on Matakana Island where, apart from enjoying some fishing from the back of the ferry, they have excavated over 100 kūmara pits alongside a road on the island. These comprise mostly rectangular pits, with occasional bell-shaped rua and some interesting interconnected pits as well. Nick has also found some nice working floors at the northern end of the Bowentown Domain, at the western end of Tauranga Harbour.

In Situ Heritage has been working on a smattering of small projects for the Bay of Plenty Regional Council, including advice for Biodiversity Management Plans on private properties near Tauranga. Further east, In Situ has undertaken an archaeological assessment of the coastal section of the Opotiki/Motu Cycle Trail, archaeological monitoring of the construction of a pedestrian walkway adjacent to a section of the Ohiwa Harbour Road, and a small dose of forestry archaeology with continuing work for the Tuhoe Putaiao Trust as harvesting of Tuhoe Forest rolls on.

John Coster has also been monitoring forestry operations, in a private forest on the Rangitaiki River, near Te Teko, where a thick blanket of 1886 Tarawera ash protected much of a splendid pā site from harvest-related damage. Still in the Tarawera ash zone, John also carried out a brief reconnaissance survey on a farm block adjacent to the Maruka project at Kawerau, undertaken by Ian Lawlor, Louise Furey and Caroline Phillips over 30 years ago (*NZAA Newsletter* 24(3): 184-191).

Caroline has more recently been working in Paeroa, where any of you who have driven through may have noticed a new McDonalds where previously there had been the 1897 Criterion Hotel. The hotel was pulled down in May this year, and Caroline recorded features of the original fabric and changes to the building. Architect Brian Simpson also drew detailed building plans and, after the demolition, a team joined Caroline to excavate the site, finding evidence of an earlier hotel and houses. The material is currently being analysed and a report prepared.

Following the theme of the destruction of historic sites, road upgrade work in the Mangorewa Scenic Reserve, between Tauranga and Rotorua is now complete (see *AINZ* 52(3):149). It entailed the removal of historic 1880s bridge abutments, a World War II tank trap and an early stage coach horse-watering trough, remnants of which have been re-erected at a rest stop on the roadside, with accompanying interpretative signs. The display and arrangement of these decontextualised historic items demonstrate an unfortunate, and avoidable, degree of ineptitude.

And now the breaking news...during a recent archaeological survey of a property at the southern end of Motiti Island, offshore from Papamoa, Ken Phillips has recorded a new obsidian source. Essentially a northern component of the Maketu formation, the Motiti obsidian has similar characteristics to that from Maketu but appears to be present in larger quantities and, significantly, in larger pebbles, cobbles and occasional boulders. Samples of the Motiti obsidian have been examined by Marianne Turner and Dante Bonica (University of Auckland) and found to be of excellent quality. The University is assisting with

further analysis of the obsidian in order to be able to compare it with similar material sourced from archaeological contexts.

In October, Ben Shaw (Opus) was in Gisborne for two weeks excavating the Gisborne Courthouse for its redevelopment. It was part of Cathryn Barr's project, and Ben was there primarily to excavate and record the burials that were uncovered.

John Coster

Taranaki

Ivan Bruce has recently carried out section 18 investigations on a midden site near Opunake and of an area adjacent to a previously unrecorded pā within a proposed subdivision at Oakura. The investigation at Oakura has uncovered pit and midden features and will provide additional information to aid both the NZHPT authority and New Plymouth District Council resource consent processes.

Angela Scott and Hans Bader have carried out a geophysical survey of the Taumata Historic Reserve near Bell Block to locate the unmarked burials associated with the ambush of Rawiri Waiaua during the Puketapu Feud of 1854. DOC are finalising the purchase of Onukukaitara which will link to the Puketakauere Historic Reserve near Waitara and provide alternative access to both previously land locked sites.

Michael Taylor and Annetta Sutton are working on the analysis of the material from the Bell Block bypass.

Andy Dodd

Whanganui

Michael Taylor and Annetta Sutton of Archaeology North have employed Michelle Horwood to undertake research for the Wanganui District Council to identify previously unrecorded sites in the district. The coastal zone was the priority area for research but this was extended about 15 km up the Whanganui River. Stage 1 of the project was completed in November with a surprisingly high number of sites, 679, identified from historic resources, aerial photographs and Waitangi Tribunal research. Of these more than 60% are named places and 70% have good location information. The majority of the sites are Māori. The three Whanganui iwi were involved in the project providing information on sites within their individual rohe. Special mention must be made of Ken Clarke, kaumātua from Nga Paerangi hapū on the Whanganui River, who is passionate about his heritage and has identified more than 200 individual sites around his ancestral home at Kaiwhaiki. The next stage of the project has

yet to have funding confirmed but, all going well, will primarily involve iwi and ground checking of sites.

Michelle Horwood

Wellington

Christine Barnett has recently been assisting with the Wairarapa Moana exhibit at Aratoi, which opened on 6 November. She has also been researching and assessing some older buildings in Greytown and Featherston, along with a pre-European Māori garden site at Palliser Bay.

Kevin Jones has been busy monitoring a pre-1896 Sunday school room at All Saints, Palmerston North, and monitoring the lowering of the floors of the Paekakariki coast rail tunnels. More recent work includes monitoring the demolition of an Italianate-style building complex in downtown Wellington. He has also conducted a long flight around the Hawkes Bay plains covering Napier, Cape Kidnappers, Waimarama Beach, Tukituki River to Lake Poukawa, Kahotea and Te Hauke vicinity, terrace lands on the Ngaruroro, and Tutaekuri Rivers, Otatara and Kohukete. The flight track is available from Kevin.

Ben Shaw has been working up the Kapiti Coast on the Emerald Glen road extension near Paekakariki, which is almost complete. Some evidence of the early farm homestead was exposed during the earthworks. Ben has also been monitoring the earthworks at the Carterton Library. They lifted the floorboards of the original 1881 building and had access to the ground underneath where there were bottles and documents dating from the 1800s through to the late 1900s.

Victoria Grouden has been working on a number of ongoing excavations and assessments in central Wellington. A recent highlight was excavating at Mt Cook School, Tory Street where she became a minor celebrity among the 5-7 year olds and was even sustained with fresh-baked pikelets. Investigations at Midland Park (Lambton Quay) and the site of the first rail bridge on the original Wellington-Manawatu line (Hutt Road) continue, with interesting layering in the reclamation soils. Investigations of part of the Somerville commercial stables, associated with the Victoria Hotel on Abel Smith Street, have produced some well-documented and relatively early patterned ceramics as well as a wide range of bricks and horse shoes.

Mary O’Keeffe has been finishing monitoring landscaping work at Government House, and working on several Wellington roading projects –

Transmission Gully, the tunnels duplication project and the MacKays to Peka Peka expressway.

Mary O'Keefe

Nelson – Golden Bay

Deb Foster reports that the work at the Early Learning Centre at Auckland Point School is nearing completion. This has involved the monitoring of numerous minor excavations, but there have been no significant intact deposits. Deb has also completed an assessment of Fort Arthur on Church Hill for the Nelson City Council. The proposed works are very minor, and are not expected to impact on the remains of the Fort.

Amanda has finished monitoring a new sewerage pipe across Rabbit and Bells Islands. No material was found along the route with the exception of a chunk of unworked argillite on Bells Island. This was reasonably far from known sites and the coast and in an area of fill. Prior to the work commencing iwi required a matakite to assess the area. A number of areas were marked out as being sensitive or with physical remains. These areas were monitored by an iwi monitor and an archaeologist. Nothing was uncovered.

Amanda has finished an upgrade of the historic archaeological sites on the Nelson City Council resource management plan. There are 200 or so pages of information on the sites to go with Bruce McFadgen's Māori sites work and Ian Bowman et al.'s work on buildings. She is now also working with Tasman District Council (TDC) on their resource management plan. Karen Greig is involved providing expert advice while Amanda provides on the ground expertise including relocating sites. TDC have finally notified a plan change and are attempting to increase protection of archaeological sites in the district.

The locally controversial Nelson Arterial Road study is also getting to the public release stage. Two of the four options propose an arterial road either along Rocks Road (affecting the historic landscape, historic buildings and sea-wall) or the Railway Reserve, the route of the historic Nelson Railway.

Amanda has also completed a number of small assessments including three at Mapua; work for DOC at the Glen; archaeological sites in the forests on the North Bank, Wairau; another forest block across the Dun Mountain Railway; work for Transit on State Highway 60 and a subdivision at Fish Bay,

Kenepuru. Work on a new house at Anawera Point above Tapu Bay is finally about to commence.

Amanda Young

Marlborough

Deb Foster monitored the installation of a new wastewater treatment plant at Whites Bay to service the DOC campsite. Trenching revealed a small number of fire areas probably associated with the early occupation of the back beach. Deb has also completed monitoring reports for White's Bay and for the DOC track construction on Motuara Island in the outer Marlborough Sounds.

Reg Nichol has carried out small surveys in connection with proposed residential developments at Whatamango Bay in Queen Charlotte Sound and at Miro Bay in the outer Pelorus Sound. Reg has also been involved with archaeological assessments of two Marlborough District Council projects in Blenheim – a parking building in Alfred St and a new iSite kiosk at the Railway Station. The latter project has led him to begin a site survey along the road between Picton and Blenheim, where a little research has shown that a most remarkable range of industrial sites, at present very largely unrecorded, has existed at various times.

Reg Nichol

Canterbury

Kevin Jones has undertaken assessments of subdivisions and plan changes in the Christchurch area. One of the last involved test pits with a digger on the banks of the former Waimakariri distributaries and on dunes near West Melton. Nothing was found except some excellent deep plough marks in the subsoil of one test pit.

Ben Shaw has just completed a review of the cultural heritage for the Selwyn District Council as part of the District Strategy.

The southern end of The Esplanade, Kaikoura, was the focus of two excavations undertaken by Logan Coote. The first was while digging a utilities trench and at least one burial was found, but possibly two due to the scattering of remains. The second excavation was a month later when a lateral trench was dug off the main trench for a utilities cable and kōiwi from probably three burials were uncovered along with a bone pendant. Logan is currently monitoring the excavation on a trench in Killarney St, Kaikoura.

Most people in New Zealand will be aware of the problems faced by the residents of Kaiapoi in North Canterbury as a result of the September earthquake

and following aftershocks. Back in the 1860s the Kaiapoi residents faced another natural disaster – the periodic flooding of the Waimakariri River. Huge efforts were put into building floodbanks and diversion channels at that time. Most of the physical evidence of this historic work has long since been destroyed or obscured by subsequent constructions, but some stopbanks and borrow pits have survived on local farmland. Current plans for a residential subdivision west of Kaiapoi are likely to destroy much of what is left, and Michael Trotter has been involved in locating and recording some of these sites.

Witter Archaeology has mainly been engaged in the Sovereign Palms subdivision in north Kaiapoi. This is about 6 km south of the work at Pegasus, but with a considerably different context of coastal progradation and middens. Analysis is nearly complete on a cockle midden where repeated disposals took place close together from separate meals. These were deposited as clusters of food baskets packed with shell near the oven area. They clearly show the very dense nesting and bunching of handfuls of shells in the baskets. These separate disposal events are indicated by differences in species proportions of cockle, pipi and mudsnail, and differing population structure shown by sizes of the cockles.

In addition, a group of very different middens was found. This includes four midden deposits of small-sized pipis. These middens were jumbled, loosely nested and not densely packed. They had been poured out from large containers. The effect was replicated by pouring out the sieved shell from the 10 litre buckets used for volume measurements, duplicating the structure found in the deposit. Another midden was comprised of the *Cyclomactra ovata* trough shell, as well as cockles and mud snails. It is expected that analysis will show that this is also was poured out of a large container, and in which the trough shells, cockles and mud snails sorted themselves out when they were dumped down the slope of a blowout. Pouring out sieved shells from 10 litre buckets, it was found that the mud snails tended to roll out to form the toe of the pile and the trough shells cascaded down together. This is the first *Cyclomactra* midden I have ever seen, or heard of. It is a remarkably large shellfish, but lives 20 to 30 cm below the mudflat surface. Thus gathering would be labour intensive and would require digging them up, along with the rest of the molluscan fauna, and probably sieving them out of the mud in the estuary water.

Katharine Watson has been recording a late 19th century homestead near Mayfield. This homestead, known as Clearwell, was built by Claude Strachey sometime after 1872. Strachey sold the property to Frederick de Carteret Malet, a prominent Canterbury figure, in 1896. A combination of historical research, oral history and buildings archaeology have demonstrated that the house was extended significantly following Malet's purchase, with the house almost dou-

bling in size. The house was a combination of tōtara, kauri and rimu and still had some of its original wallpaper. A descendant of the family who purchased the house in 1919 has provided valuable information about the function of the rooms and the location of long-since demolished outbuildings.

Katharine Watson

West Coast

Reg Nichol has recently carried out two small surveys in the Reefton area. Work in the vicinity of the proposed Souvenir pit helped to fill in the records, including an impressive series of old prospecting trenches. A survey near the Big River mine located a scatter of features including prospecting and old structures. Now that he has seen it, Reg also wishes to praise the splendid reconstruction of the engine house at Big River, which was based in part on work he did there some years ago with Kevin Jones.

Les Wright added 22 house and hut sites to the Waiuta inventory recently, mostly in conjunction with a clearance of self-sown exotic trees by DOC, but also by taking advantage of a good knock-back suffered by blackberry bushes over winter. In one case a tree had been blown over, revealing an earth stake, the only trace of a building on that site. Remnants range from earth stakes to concrete and mullock paths, fireplace bases and some well built fireplaces that have not been sighted for a quarter of a century or more. There are still several known building sites where nothing has been found beneath dense detritus and growth, but Les hopes to get back with a metal detector before long. Most of the trees removed were millable-sized Lawson cypress and western red cedar which will be sold to provide funds for conservation work at Waiuta. Care was taken to keep trees in the places where these species had been planted. Assistance with the tree clearing programme and with clearing of sites has come from a range of groups including Friends of Waiuta, Conservation Volunteers New Zealand, International Student Volunteers and Tai Poutini Polytechnic.

Rosie Geary Nichol and Katharine Watson have undertaken work alongside the Kawhaka Creek (inland from Hokitika) in relation to the Westland Wilderness Trail, which will be part of the New Zealand Cycle Trail. The work involved recording a tramway initially used during the construction of the dam that supplied the Waimea water race, which in turn allowed mining of much of the Waimea area. There are some remnants of the dam, including timbers in the creek bed and a substantial stone and earth embankment on the true right of the creek. The tramway was later used by a logging company in the early 20th century. To the east of the dam, the cycleway will run along a pack track that once connected the dam with Big Wainihinihi. Near Kumara, the cycleway will utilise an existing track through the Kumara tailings. Katharine has also

recorded numerous bridges on the Hokitika Industrial Line that are scheduled for replacement and/or maintenance work.

Katharine Watson

Otago

Ben Shaw and Cathryn Barr spent a week at the Macraes mine in Central Otago, carrying out a cultural heritage survey.