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FIELDWORK AND OTHER ACTIVITIES

Auckland

Department of Conservation

The first week of August was Conservation Week for 2003 (4-10th August), the theme being 'Historic Heritage - Our Places, Our Stories'. Several events in the Auckland area were offered to the public to encourage visitation and appreciation of our historic and archaeological heritage. The events were all generally successful and well supported by the public.

Fort Takapuna opening. Fort Takapuna was opened to the public during the week with guided tours offered Department of Conservation staff for the general public to showcase the recent restoration work that has been taking place, and offer interpretation on Auckland's coastal defences during the Russian scares of the 1880s, and subsequent threat of invasion during the first and second World Wars.

Auckland's Coastal Defences presentation at the Maritime Museum. Dave Veart gave a talk at Auckland's Maritime Museum on the 6th August on the history of Auckland's coastal defences. The talk co-incided with the release of Peter Corbet's publication 'A First Class Defended Port: The History of the Coast defences of Auckland its Harbour and Approaches'.

Otuataua Stonefields Open day. An open day was held at the Otuataua stonefields on the 9th August with guided walks offered by Manukau City Council park rangers, Department of Conservation and Auckland Regional Council archaeologists, and consultant archaeologists who had previous experience and involvement with the Otuataua stone fields reserve. Danny Roberts from Makaurau Marae offered talks on the local whakapapa and the Marae's association with the stonefields, and despite initial forecast for rain the weather was excellent on the day.

Rangitoto Baches Open day. An open day was held for the Rangitoto baches by the Rangitoto Island Historic Conservation Trust on the 9th August. The Trust offered guided tours of the Rangitoto baches, and talks about the history and conservation of the baches.

Andy Dodd

Auckland Regional Council

Jonathon Carpenter has returned from American Samoa and is working on a temporary contract at the Council. The ARC Heritage Department has obtained external funding to produce a guide to historic heritage in the Mahurangi Harbour. It will be a marine-based heritage trail aimed at kayakers and recreational boat users. Another project underway in the Mahurangi is the detailed mapping of Gordon Browne's spar station site by Geometria. Browne's spar station is a significant early site, being the Auckland region's earliest European settlement & an example of a co-operative venture with local Maori. Earlier in the year a 170 year old barrel well containing a number of artefacts was recovered after erosion occurred at the site.

Two new publications have been produced by the ARC: a theme-based booklet on historic heritage in Auckland's Regional Parks called "Treasures Handed On, Taonga Tuku Iho: Precious places to visit in our regional parks" and a local history booklet on Te Maketu in South Auckland. The Te Maketu booklet is intended to be the first in a series of local histories to be produced by the Council.

Conservation Week saw ARC staff assisting with the open day on the Otuataua Stonefields Historic Reserve in Manukau City. This was a combined effort with archaeological consultants and staff from Manukau City Parks and DoC, and kaumatua from Makaurau Marae.

Auckland Museum

Kath Prickett and the Ethnology staff recently spent a week and a half registering Maori artefacts from the Wagener Museum collection due to be auctioned by Webb's in late October and early November. It was a heart-breaking exercise to do this, knowing the dispersal of these objects will be for financial gain. The greater number appeared to have no locational information.

Nigel Prickett is giving Gallery Tours of "Gold and Sacrifice: Treasures of Ancient Peru", every Thursday at 3.00pm, until the exhibition closes on September 28.

Kath Prickett

New Electronic Survey Gear for Archaeology

Archaeologists are often pictured in the entertainment industry leaning over a patch of dirt, scraping away with dental instruments and trowels as they unearth the things left behind by past peoples. Clutching a notebook in dirty hands, they scribble a description of the things—other peoples' trash—that they find. Alternatively, archaeologists are portrayed as an adventuress lot, risking life

and limb in the pursuit of artefacts, generally in competition with evil villains intent on claiming the same prize!

As we all know, these caricatures, despite various Hollywood portrayals, are a long way from the truth. The reality of archaeological life, like the life of many scientists, involves long hours of careful observation, often aided (thankfully) by computer technology. A group of archaeologists, planners and database designers in Auckland have come together with the folk from Global Survey to purchase a range of new survey equipment that will make field work a great deal more efficient and precise. The star of this equipment is a Cyra 3D Laser scanner.

Archaeological significance is as much about location, and association among objects and structures, as it is about the form of individual artefacts. In the past, we used manual surveying instruments to map out structures with paper maps and plans: sites were often mapped using a tape and compass. Today, with the need to excavate large areas quickly, electronic survey instruments are the obvious solution. For a number of years archaeologists at the University of Auckland have pioneered the development of new techniques for excavating and mapping archaeological sites in New Zealand, Australia and the Pacific. To develop this research even further we approached the team at Global Survey, looking for an instrument package that would let us locate, map and scan surfaces and structures rapidly and with a very high precision.

The result was a system that integrates DGPS, total stations and the Cyra 3D Laser Scanner, giving us the ability to locate archaeological sites and excavate them with a precision never before seen in New Zealand. The Laser Scanner captures the three dimensional geometry of complex structures and sites. It works by sending out a pulsed laser beam of light. The system records the time of flight, the duration taken for the beam to go out and back when reflected from a surface and converts this to a distance. The scanner automatically calculates the beam's horizontal and vertical angles giving the x, y and z coordinates for a huge number of points. These points are recorded in a three dimensional visualization program in a matter of seconds. Literally millions of points can be taken very rapidly for a wide variety of excavated features like pits, postholes and artefact concentrations as well as the surfaces of structures like buildings. We use the total stations to individually locate artefacts on the scanned surfaces. The DGPS technology allows for rapid mapping of features that may be impacted as a result of commercial development. Whereas survey and excavation once took months of fieldwork, much larger areas can be excavated to a much higher level of precision in a few days.

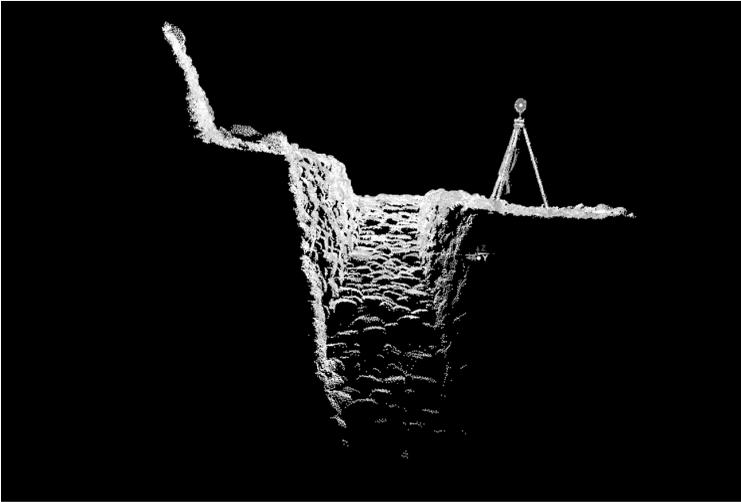


Figure 1. 3D laser scan of the main entrance to the upper platform of Pu'ukohola heiau, a luakini heiau or temple dedicated to Kū the god of war, built under the auspices of Kamehameha I on the island of Hawai'i.



Figure 2. 3D laser scan of the 19th century Bluestone Store and stable located in Downtown Auckland, one of the few remaining heritage items from Auckland's commercial past.

Currently the scanner has been used by Thegn Ladefoged, Russell Gibb and Mara Mulrooney in Hawai‘i, and by Hans Bader and Russell Gibb at several sites. In Hawai‘i, the scanner was used to map heiau, portions of the Kohala field system, and a petroglyph field. Hans and Russell used the scanner to image some kauri gum holes, as well as a historic Catholic church in Auckland, a small cave system and an artefact rich landscape in the far north. The team at Auckland are very interested to use the scanner in as wide a variety of projects as possible. If you think you have something we could scan, please contact Dr. Simon Holdaway, email: sj.holdaway@auckland.ac.nz.

Project team members are: Simon Holdaway, Craig Whitehead, Thegn Ladefoged, Lesley Gardner, Hans Bader and Russell Gibb.

Simon Holdaway

Bay of Plenty

The past months have seen a frantic pace of work in the Bay of Plenty, with lots of interesting projects being undertaken.

Warren Gumbley excavated an extensive kaianga site on the Papamoa Dune Plain in July, with the help of Mat Campbell, Don Prince, Ken Phillips and volunteers from Auckland University. This was one of a few detailed excavations to be undertaken at Papamoa, despite extensive residential development and archaeological monitoring to date, carried out over the last decade.

Ray Hooker was delighted to find an unrecorded pa site in the hills behind Whakatane, as part of a forest survey for Fletcher Challenge. Ray has been undertaking a lot of forestry survey work in the Whakatane-Rotorua area recently. Ray also completed a damage assessment report for the Western Bay of Plenty District Council, whose contractors uncovered a series of pits at Te Puna during road widening. The Historic Places Trust has been working with Council to try and prevent site damage and a workshop for staff and consultants has been organised for early September.

Ken Phillips has been preparing a report on Mauao (Mount Maunganui) for the Tauranga District Council, which included GPS mapping of the archaeological features and recommendations for future management. The preliminary findings of the report were presented to the Mauao Advisory Group, which included iwi, staff and councillors and was very well received. Ken reinforced to the Advisory Group that Mauao is one of the most significant archaeological landscapes in NZ.

Another one of Tauranga's significant sites is Otumoetai Pa and Ken has been GPS mapping the remaining archaeological features for Tauranga District Council. Ken has also begun writing up Kath Fletcher's material on archaeological sites in Tauranga. Fletcher was an amateur archaeologist who retired to Tauranga and carried out extensive fieldwork on some of the more significant sites in the district in the 1970s.

We had our first "case" of buildings archaeology in the region with the demolition of the Livesey building in Waihi. Phil Moore monitored the demolition of the historic shop, which was located on the site of the Methodist Church dating back to 1898.

With funding assistance from Environment Bay of Plenty, the Historic Places Trust ran an archaeology workshop for Tangata Whenua of Tauranga Moana over two days in July. Mat Campbell and Rachel Darmody presented the workshop in conjunction with Rob McGowan of the University of Waikato and it involved both classroom and field work. The event was very successful and planning is underway for future workshops in both Whakatane and Rotorua.

A walking tour pamphlet of historic Tauranga was recently launched by the Bay of Plenty Branch Committee of the Historic Places Trust. Written by Jinty Rorke, "Historic Tauranga – Te Papa; Heart of Tauranga", includes information on a wide range of historic places and is available from the Trust's Tauranga office.

Finally, Rick McGovern-Wilson gave a public lecture organised by Whakatane Museum to a packed-house, entitled "archaeology of the common man"!

Rachel Darmody

The newly formed Papamoa Hills Cultural Heritage Park was surveyed by Geometria Ltd as part of a wider project to describe the cultural, historical and archaeological values of the Park. Well over a thousand terraces were individually surveyed, using high precision RTK-GPS and total station. Tangata whenua took part on the survey. The council supplied a geo-corrected, recent aerial photo and a digital elevation model. During the survey it became obvious, that the park area contains only part of the archaeological landscape. Tauranga District Council supported more survey work, especially after further land was gifted towards the Park by Fulton Hogan. A more complete picture of the immediate archaeological landscape emerges, which seems to fit well with the oral traditions of the area. More research will be needed to understand the pattern of this archaeological landscape, but it is obvious that the density of visible

archaeological elements is very high, arguably the highest in New Zealand. Part of the Fulton Hogan quarry next door has been surveyed to the same detail and the data is made available for future research.

Hans Dieter Bader

John Coster has been appointed Manager: Museum Development at Tauranga District Council. He moves to Tauranga in September and will spend the next couple of years planning a new museum there.

On a lighter note, readers may be interested in this piece of contemporary ethnography—the food required to sustain a single archaeologist during fieldwork in the eastern Bay of Plenty for eight days in January 2003

3 loaves Vogels bread, 3 litres milk, 12 litres water, 16 x 330 ml bottles beer, 200 g ground coffee, 18 rounded teaspoons raw sugar, 300 g honey, 100 ml peanut oil, 150 ml olive oil, 50 ml vinegar, 250 g cheese, 12 slices salami, 20 apples, 16 bananas, 1 rock melon, 1 handful each dried figs, dates, pistachios, 4 avocados, 1 lettuce, 10 courgettes, 2 capsicums, 2 handfuls green beans, 2 heads broccoli, 8 tomatoes, 2 onions, 1 bulb garlic, 2 handfuls rice, 4 cakes dried noodles, 6 handfuls macaroni, 300 g fresh tortellini, 2 pieces fish, 4 mussels, 3 handfuls chips.

John Coster

Inland Patea

Tony Batley has recently retired as filekeeper for the Inland Patea file. Tony had been the file keeper since the Site Recording Scheme's inception and has matched that long effort with a lively interest in the natural and human history of the area. Elizabeth Pischef has taken over the role. Tony has had a close association with the Historic Places Trust, particularly through the mitigation work that went on in the Tongariro power project, was a member of the Polynesian Society Council and in 1999 was the winner of a DOC conservation award.

Garry Law

Taranaki

Pressure continues to be placed on the coastal landscape as new subdivisions and house sites are developed.

The New Plymouth District Council has begun legal proceedings against a local nursery which undertook major landscape modification close to Onukukaitara at Waitara earlier this year.

In the last few months a number of sites have been damaged, mainly through bulldozing tracks. Two of the most recent occurred on the end of Arapawa pa near the mouth of the Mimi River and at Tumutumu pa at Urenui.

On a positive note the NPDC have entered into a partnership with NZAA which will see the Site Record File upgraded. This work is due to start soon.

Kelvin Day

Wellington

Conservation Week (4–10 August) this year had a focus on historic heritage and this has seen archaeologists out and about doing commentaries for members of the public on field trips to local places such as Whitireia Peninsula and Palliser Bay.

Louise Furey is doing a review of horticultural sites for the Science & Research Unit of DOC. (Works on sealing and whaling sites have already appeared.) Louise, Kevin Jones, and Tony Walton visited numbers of Te Awaaiti – Pukaroro and Palliser Bay sites on 24–25 July. A couple of hours were spent at Pukaroro and most recorded sites in the vicinity were visited or seen from vantage points. This included T28/42 (stone rows/pits), T28/49 (stone rows/pits), T28/50 (terraces), T28/53 (raised rim pits), T28/54 (pits), T28/55 (pits), and T28/56 (house floors).

The pa north of Okoropunga (T28/36) and the Okoropunga stone row system (T28/47) were visited, the latter viewed mainly from the hill slope behind. The site is more subdued than when it was first recorded but many features can still be seen within the deer fences (which have now been in place for many years). Three unrecorded sites, all close to the farm road and readily visible, were recorded south of Okoropunga including stone rows (S24/184), stone rows/stone mounds (S24/186), and a raised rim pit (S24/185).

A brief visit was paid to S28/19 (pits) near the turn-off to Palliser Bay. No change is evident in its condition in the last few years. The stone rows at North Kawakawa (S28/79) were inspected on the ground, as were parts of the extensive Black Rocks site (S28/103), particularly the area at the south end. Both sites appear to have changed little in recent years. Other sites were viewed in a slow drive-pass. Sites visited in the Makotukutuku Valley were:

- Washpool garden site (S28/47) – the part of the site near Makotukutuku River was inspected. There is a dwelling at the south end of the site but other parts of the site are still in pasture. Washpool terrace garden and

circular raised rim pit sites (S28/51) were walked over. They were in grass and are in reasonable condition.

- Cricket pitch S28/53. Condition is reasonably good but with slow damage is occurring from stock wear and tear.
- Stone-wall fort S28/54. Site is in reasonable condition and the river is no longer cutting in at the base of the ridge. Stone mounds were seen a little way above the 'fort' and a terraces/pits site (S28/55) was also visited.
- Cross site S28/56. A large area is planted in pines, c. 20 years old. The rest of the area is in grass.

All in all it was two hectic, but very productive, days.

Recent Science & Research Unit publications are Walton (2003) and Williams and Walton (2003). Walton (2003) was originally intended as a pilot for a larger study of sites of the New Zealand Wars, but this hasn't been funded. The pdf files of many science titles published since 1999 are now available free for download from the DOC website. Go to www.doc.govt.nz/Publications/004~Science-and-Research/index.asp and follow the link to the science publication required. Some titles are still only available by purchase.

Tony Walton

Canterbury

On 12-13 June, Chris Jacomb, Sheridan Easdale, Francis Jacomb, Gareth Wright, Melanie Lovell-Smith and Katharine Watson excavated at 27 Main Rd, Redcliffs, where a new house is being built. The site lies near Moa-bone Point Cave and over the road from Redcliffs School, which was built on a moa-hunter site. The excavation consisted of digging the foundation trenches for the house. During this, moa bones, sea mammal bones, obsidian, and basalt adze flakes were recovered. Some parts of the site had been disturbed in past, possibly when the first house on the section was built.

Smaller scale excavations were carried out by Chris Jacomb, Sheridan Easdale, Francis Jacomb, Hilary Jacomb, and Katharine Watson at Keane's Cottage, near Pleasant Point on 2 August. Keane's Cottage is a sod cottage built in the 1880s by an Irish immigrant who worked on the nearby railway line (that ran from Timaru to Pleasant Point). A small group of locals are taking care of the cottage and doing restoration work. The excavation was to put in ground and storm water drains around the back of the house. A small quantity of artefacts were located during this.

Ian Hill has commissioned work surveying Sawyers Stream, near Mt Cook. This stream was dammed in the 1920s to provide power for the first Hermitage. The stream was dammed twice and one of the dams was fed by a tunnel dug through the rock. Water was carried from the dam to the power station (which was on the flat near the modern road to Mt Cook) in a pipeline. The hydro scheme operated until national grid power came to Mt Cook in 1961.

Katharine Watson has surveyed the length of the Little River Branch Railway Line that is owned by the Department of Conservation (who plan to open it as a rail trail). Work on the line began in 1879 and was completed (in several stages) in 1886. DoC own the rail corridor from Motukarara to the Little River Hotel (21km). The embankment is intact for most of this distance, and there are a variety of associated features, including mile marker posts, loading banks, bridges, jigger resting stations, culverts, and the remains of stations. Katharine has undertaken excavation work at Trader McKendry's (a hotel site, first built on in the 1850s), the Cross Wharf in Oamaru Harbour, and at the Lyttelton Timeball Station.

Katharine Watson