

TE KARAKA

**Maraka! Maraka!
Ōtautahi rises
from the ruins**



SPECIAL EARTHQUAKE EDITION

Murihiku 99.6

Ōtautahi 90.5

SKY 505

The Unshakeable **tahū**

Kaikōura 90.7

Ōtākou 95



ACTING CHIEF EXECUTIVE OFFICER,
TE RŪNANGA O NGĀI TAHU,
MIKE SANG

Whānau. That's what Ōtautahi is about. Yes, a city needs buildings, roads and toilets that flush, but mostly it needs its people.

The large aftershocks on June 13 were a setback for many whānau living in Ōtautahi. Thankfully the overall injury toll was extremely low, no one was badly hurt at our marae and the Te Rūnanga Group complex here at Wigram stood up well to the shaking.

The continuation of large damage causing quakes is tough on our people and the situation we find ourselves in is now testing even the most resilient of us. It is exhausting for everyone living in the region particularly for those whose homes are damaged and whose lives are disrupted in a myriad of large and small ways. It is also challenging for businesses as we once again pick ourselves up and start again. But essentially, that is what we all must do.

Some aspects of the "getting on with it" part of the process are proving positive. For instance, the work of the Iwi Māori Recovery Network, which was front-footed by the Māori Wardens, was a terrific achievement in the weeks immediately after the February 22 earthquake. We are also grateful for the assistance that flowed in from so many other Iwi and Māori organisations in what was an amazing show of unity and support. Moving forward, the Christchurch City Council "Share an Idea" campaign was well received by the local community and the Ngāi Tahu Matariki function, Puaka Kai Rau, at the Antarctic Centre was welcome relief from the seriousness of the June aftershocks. Our resilience is what we will remember when we look back, therefore it is important we keep going and keep looking for those small achievements.

In addition to over \$500k in donations, Te Rūnanga has also set aside more than \$1million for the earthquake recovery process. These funds will help us to support whānau as they endure the current hardships and as they rebuild their lives and their communities. We have established Te Awheawhe Rū Whenua committee to oversee the prioritisation for the use of these funds.

Now is the time to really test our thinking and to be visionary as the rebuilding of our new lives begins. Yes, we will have to be pragmatic and achieve this within the constraints of what can be afforded, but we can also be clever and do the very best that we can for our whānau and our communities.

Mō tātou, ā, mō kā uri ā muri ake nei

For us and our children after us

TE KARAKA

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TE KARAKA is published quarterly in March, July, September and December, so your first subscription magazine will be the next published issue.

**MARAKA MARAKA –
ŌTAUTAHI RISING FROM THE RUINS**

As Ōtautahi and surrounding towns are pummelled repeatedly by earthquakes big and small, resilience, vision, hard work and communication are needed more than ever as residents try to rebuild a new life. TE KARAKA reports on the local and national recovery efforts.



COPING WITH EARTHQUAKE TRAUMA

Psychologist Suzanne Pitama presents questions that will help whānau deal with earthquake trauma.

COUNTING THE COST

Once known as the Garden City and renowned for being a beautiful place to raise a family, Christchurch has become a city torn and troubled by recurring earthquakes. Ōtautahi and Ngāi Tahu whānau talk about how they are rebuilding their lives.

**JOSEPH POHIO –
A GREAT SON AND FRIEND**

Getting a call from the police about the death of your child is every parent's worst nightmare. For Joy and Arnold Pohio, that call at about midnight on February 22 confirmed their worst fears.

FINDING HOME

Many Christchurch parents have sent their children out of the city to try and keep them safe from the continuing earthquakes. Sharlene Pirikahu-Waata talks about her family's separation and reunion.

REASONS TO CELEBRATE

Even though their home has been devastated in the February earthquake, the Te Wani whānau have found reasons to celebrate at their new residence.

WASTEFUL

Parts of the Christchurch sewerage system twisted and ruptured during the recent earthquakes, forcing many residents to use portable or chemical toilets. Now, more than ever, seems like the right time to rethink a stressed and outdated system that is failing Ōtautahi ratepayers.

SOUNDS FROM THE EDGE

To read Hinemoana Baker's poetry is to find everything from Buddhist prayers and hip-hop to whakapapa and whānau yarns. And that's just in one poem.

CELEBRATING 50 ISSUES OF TE KARAKA

This issue is a milestone for the magazine – issue 50. It has taken 17 years to reach this point. Editor Faumuina Tafuna'i looks at the history and future of Ngāi Tahu's tribal magazine.

ECO THRILLS

A new ride that takes visitors through an ecological evolution of Aotearoa is the coming attraction at Rainbow Springs in Rotorua.

THREE TIMES ORDINARY

To celebrate their 80th birthday this year, the Ryan triplets returned to Te Rau Aroha Marae in Bluff to celebrate with their whānau.

TAKING SIDES

First-time MP Hekia Parata's impressive performance in last year's Mana by-election for the National Party caught the attention of the general public and fellow Parliamentarians.

ENDURING SIGNIFICANCE

Mō Tātou, the largest ever collection of Ngāi Tahu taonga, has now ended its five year journey – but for the iwi, the memories, the learning and the pride live on.

A NEW WORLD VIEW

Wairewa was once a thriving food basket that sustained generations of Ngāi Tahu in Canterbury. Although what you see now are bleak, murky waters, the future is bright and healthy with a new project to revive the lake.

RESTORING TAONGA

Sometimes you don't realise the value of whānau taonga until later in life and by that time you may need the help of an expert to help restore it. Conservator Rangī Te Kanawa visits Awarua to show rūnanga members how to make their taonga last.

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NGĀ HAU
E WHĀ
FROM THE
EDITOR

This edition of TE KARAKA is a bit of a catch-up. We did not publish our Kahuru/Autumn edition due to the February earthquake. Partly because we did not have the files we needed to complete the job. However, the main reason was Ōtautahi people needed help.

Life here is fragmented now. There are glimpses of life before the earthquakes but these are interspersed with aftershocks that make us question: Where are our loved ones? Will the power be on at home? Do I need to start boiling drinking water again? How are our emergency supplies? Do I want to live here anymore?

These questions make it hard to plan ahead but I guess it all starts with one day at a time, and from there the months and years will take care of themselves.

One of the odd elements of Canterbury earthquakes is that there is little evidence of disruption in Christchurch's western suburbs. The malls and supermarkets are open. The roads are generally flat. There are parks and playing fields filled with families. The shocks are still felt out in the west but there has not been the demoralising damage. That the west is up and running has probably kept Christchurch and its surrounding towns together, giving residents somewhere to seek refuge and buy supplies.

We have seen such compassion from the Canterbury region, Aotearoa and abroad. We have also seen university students rally and hit the streets with aroha, youthful energy and shovels, and Māori Wardens knocking on doors and checking on the welfare of all. We have learned our neighbours' names and begun to weave a new community. There has been a profound and constant outpouring of aroha ki te tangata, love for the people of Christchurch. We will rise again.

nā FAUMUINĀ F. M. TAFUNA'I

Rāhina (Monday) is current affairs night.
Native Affairs 8:30pm



Head home for a mean night out. maoritelevision.com

MĀORI
TELEVISION

HE KŌRERORERO
nā KERI HULME

For nearly two years, I thought I had lost it

I hunted in all the places I thought I might have put it, in my Ōkarito home, in my mother's home, and in my van. The latter should've been easy to search, you may be thinking – I mean, how hard is it to find something in a vehicle?

My van is a seven-seat people-mover: it is capacious. It also carries everything I think I'd need in event of an emergency – food and water, cooking gear and small stove, clothing, books, writing materials, laptop, first aid kit, kōpaki-moe and additional blankets, tool-kit, fishing kits and several rods ... it's a kind of escape-and-survival pod, and it is crowded.

Normally, only the two front seats are useable by people. The rest of the vehicle is full.

Several times I cleared out sections, hoping to find it – it isn't large. As the months passed, I began to lose hope. Had I put it down in a motel on my travels? Left it behind in other family places? Or at a friend's? – sometimes I like to show it off.

It contained treasures. Koha from people now dead: indeed, it was a koha from someone who is now dead. Things I had bought or commissioned, unique and irreplaceable objects. Touching or wearing them warmed my heart, made me feel good.

Why oh why had I kept them all in Tāua Fan's little kete?

Irihapeti Ramsden had taken me to meet her, in 1984. She was very old, bent with age, but she was mentally sharp, and an easy and engaging conversationalist. When we made our goodbyes, she hobbled over to a drawer, took something out and held it to me. "A little present for you."

22 centimetres wide, 14 cm tall, originally it had two plaited handles, but the attaching muka wore through (I kept them in the kete.) I loved the four chequered diagonals set apart by three of plain flax on each side. It held a surprising amount.

In it I kept the Chinese muttonfat jade cicada that Janet Frame had given me, and the bullet shaped old pounamu earring that

Michael King handed to me saying, "This wants to go home with you. Home to the Coast." A John Edgar Coin of the Realm, my inaka hei-tiki, *Motoitoi*, a fish-hook hei carved from moa-bone, and three hei tiki carved from whale-bone and ivory ... and many other treasures ... and they seemed to have evanesced with the kete...

I keep thinking, as yet again Ōtautahi is smitten by quakes, about all the treasures people there have lost – forever. The little cherished objects among them, valuable because of associations, as well as possible dollar-worth.

It may seem petty, when remembering the dead and the injured (physically and mentally), to even be thinking about such things. But we are human, and not wholly rational, and possessions we value, large or small, mean a lot – to most of us – pictures, rings, crockery, vehicles, houses. Their loss can sadden a heart as long as memory lasts.

And I've been thinking about my survival-pod escape-vehicle too: so much depends on chance. Come the tsunami or Alpine fault slip sliding away too quickly for me to get into the thing – or not able to drive far enough away to escape the initial danger (we won't even think about what damage a major disaster does to roads further afield) – my foresight and preparations will be worth diddley-squat.

But we do what we can to prepare ourselves for the eventuality, all eventualities, each in our own way. It's all we can do, life never being a certainty in any way, at any time, whatsoever.

So, having checked every possible scenario I could envisage as to where Tāua Fan's gift could be – well, I didn't really contemplate the 'stolen-by-aliens' or the 'jealous spiders' possibilities – I did something I rarely do, because I find spooky stuff truly irrational even when I understand how it could work.

I asked my dreams to tell me where the kete was.

For nights and nights the usual chaotic rehashing of the days, the ordinary 'ye gods



and little fishes,' this dream does emphatically not belong to me! Take it off my brain right now! I do not often have kindly portent dreams ...

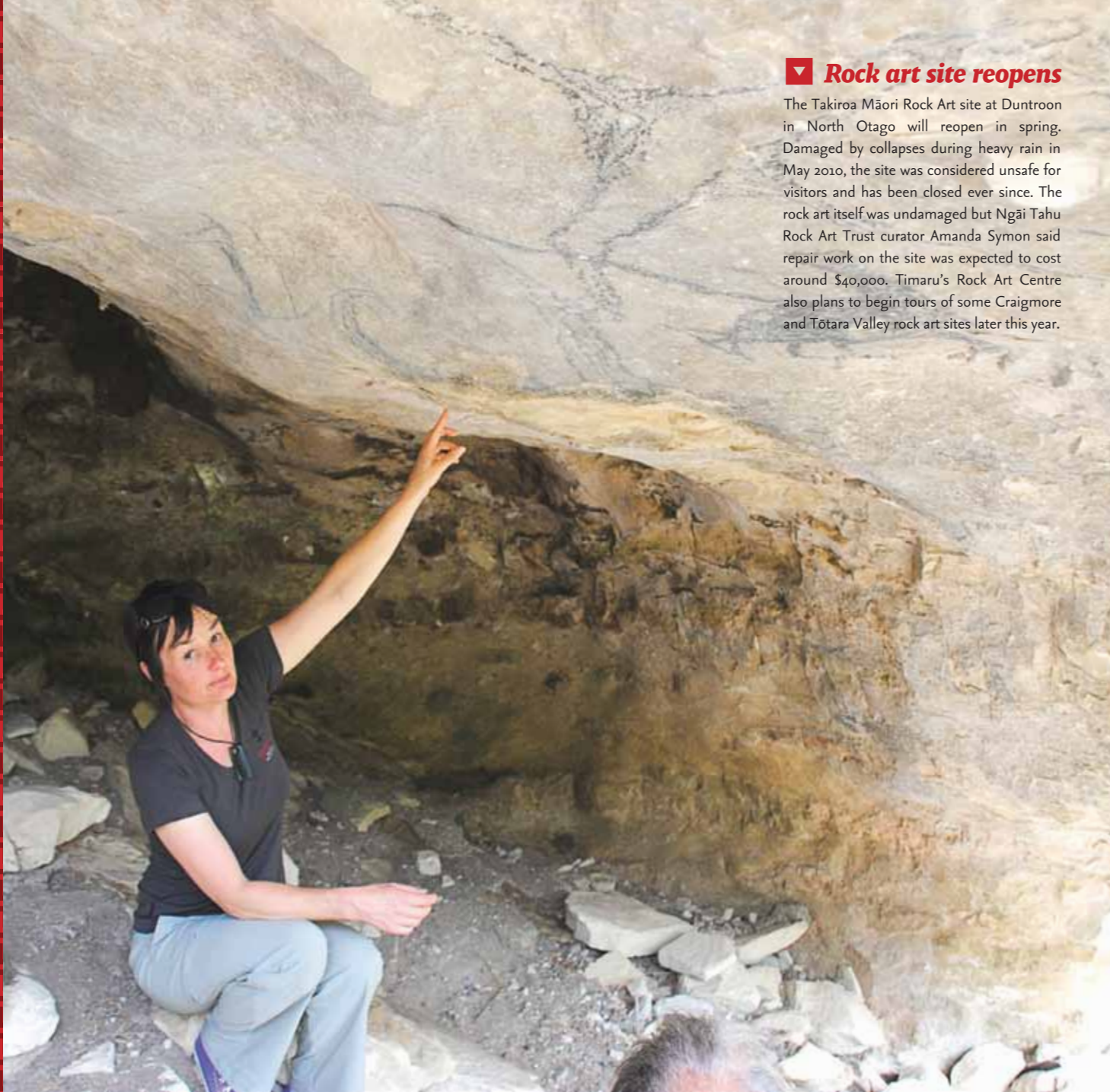
It had been a day not fraught, not especially pleasant, just a day. I was due to travel over the hill two days later, because it would be my mother's 84th birthday. The dream was very clear: it showed my driveway and all the contents of my van on it. That's all.

So, the next day, which was fortunately fine, I literally emptied my van onto my driveway. In my three-tier container of books (which, because they are duplicate reference books, I rarely check up on) – yeah – you know what.

I travelled away with a glad heart even after the bit of a shake we felt in Ōkarito just before 1pm, over the hill for Mary's birthday on the morrow. ■■

*I think, and there is some evidence for this, that we can access some areas of our subconscious awareness of our surroundings and memory in dreams.

Writer Keri Hulme is southern Kāi Tahu but lives in "Big O" – Ōkarito. Among her passions are whitebait and family history. In 1985 Keri's novel *The Bone People* won the Booker Prize.



▼ **Rock art site reopens**

The Takiroa Māori Rock Art site at Duntroon in North Otago will reopen in spring. Damaged by collapses during heavy rain in May 2010, the site was considered unsafe for visitors and has been closed ever since. The rock art itself was undamaged but Ngāi Tahu Rock Art Trust curator Amanda Symon said repair work on the site was expected to cost around \$40,000. Timaru's Rock Art Centre also plans to begin tours of some Craigmore and Tōtara Valley rock art sites later this year.



▼ **Rātana makeover**

Houses in Rātana township south, of Whanganui are being given a makeover thanks to a \$2.7 million project grant from the Government. An extension of the Te Tari Tiaki Pūngao Warm Up New Zealand: Heat Smart programme, it is providing basic repairs, insulation and heating for about 100 Rātana homes.



Māori Language Week

Well-known Māori artist and children's author, Robyn Kahukiwa (Ngāti Porou, Te Aitanga-a-Hauiti) is on a mission to get a thousand Māori "Supahero" dolls made for children. Based on twins Hina and Māui, the stars of her book, Supa Heroes Te Wero which she wrote and self-published ten years ago, the dolls are a work in progress as Kahukiwa investigates production costs.

Marae makeover

Ngāti Porou's Putaanga Marae, two kilometres north of the East Cape settlement of Tikitiki, is now shining after a spruce-up by Māori Television's Marae DIY crew. The \$22,000 facelift included improvements to entrances and the marae ātea, establishing a vegetable garden area, landscaping, wheelchair access and a revamped ablutions block.

Māori Shakespeare

Shakespeare in Māori will be part of a theatre extravaganza in London to mark the 2012 Olympic Games. Starting in April 2012, Shakespeare's Globe Theatre will stage all his 38 plays, each performed in a different language. Troilus and Cressida will be performed in Māori.

A waka on the Thames

A waka crewed by 16 Māori from New Zealand's Toi Māori and London's Ngāti Rānana communities will be a feature of this year's City of London Festival on July 1. The waka will navigate the river from the Tower Bridge to Blackfriars, and will be followed by a haka in Paternoster Square by St Paul's Cathedral where the waka will be on display.

The kōkako is back

The threatened North Island kōkako has been discovered nesting in the Waitakere Ranges for the first time in 80 years. The discovery is a triumph for the 2,300 hectare Ark in the Park open sanctuary project, run by Forest & Bird, the Auckland Regional Council and West Auckland iwi Te Kawerau a Maki. Twenty-two kōkako have been transferred into the Ark from the King Country and Tiritiri Matangi Island in the Hauraki Gulf.

▼ **Growing Māori potatoes**

A new book by leading horticulturalist Dr Nick Roskrige (Te Āti Awa) and post-graduate students Aliese Puketapu (Te Āti Awa) and Turi McFarlane (Te Āti Awa) aims to give growers of Māori potatoes a comprehensive guide to the pests and diseases the crop is susceptible to.

Ngā Pārearea me ngā Matemate o ngā Māra Taewa: Pests and Diseases of Taewa (Māori Potato) is an important reference tool for taewa growers. Along with information on how to control pests, it includes a Māori calendar for fishing and horticulture, which outlines the best days for fishing and planting according to custom. To buy a book go to www.tahuriwhenua.org.nz.

Current exhibitions

In my own time

An exhibition of new and recent works by Lonnie Hutchinson (Ngāi Tahu, Samoan) as part of Matariki Festival at the Mangere Arts Centre – Ngā Tohu o Uenuku, Mangere, Auckland, 4 June – 24 July.

The pressure of sunlight falling

An exhibition of large-scale photographs by Fiona Pardington (Ngāi Tahu, Ngāti Mamoe, Ngāti Waewae, Clan Cameron) featuring life casts including those of Māori chiefs, taken during one of French explorer Dumont d'Urville's 19th century voyages. The exhibition runs from June 11 until August 28 at the Govett-Brewster Gallery, New Plymouth. The exhibition will then be toured to the Dunedin Public Art Gallery in September. A book, Fiona Pardington: The pressure of sunlight falling was launched at the exhibition opening.



▼ **Retail Therapy**

These greenstone platters are made by Ross Johns (Ngāi Tahu), each pounamu bowl or platter is meticulously crafted over many hours from South Island pounamu. They come in a range of colours, governed by the colour of the original stone, and are finished to a high polish.

Ross, a registered Ngāi Tahu craftsman, has exhibited his bowls throughout the country and at the Museum of New Zealand Te Papa Tongarewa. His Soul of Stone works can be obtained from Ross by calling 027 4470 818.

New Māori school

An innovative Māori secondary school has opened in two sites in Palmerston North and Hamilton. Tai Wānanga has a tikanga-based programme delivered in English, focusing on employment qualifications, and sporting success. The school will be overseen by tertiary institute Te Wānanga o Aotearoa and aims to lift achievement by developing individual student learning plans.



Māori Business Centre

After three years of planning, the Matatau Māori Business Centre Trust has opened a serviced office space for small-to-medium sized Māori enterprises in Manukau. The centre aims to strengthen the role of Māori in the Auckland economy, provide a place for Māori to do business and for others to access Māori enterprises more readily.

She Sings and Plays

Poet and singer Hinemoana Baker (Ngāi Tahu) is one of five wāhine Māori to feature on a compilation album released by Jayrem Records, a label that regularly champions the work of Māori musicians. Baker's track Long time coming home is one of 20 tracks on She Sings And Plays, a compilation of New Zealand women's music from 1983 to 2010.

Digital te Reo

Three Victoria University Faculty of Education lecturers, Tabitha McKenzie, Rawiri Toia and Hiria McRae, have developed a groundbreaking digital programme for teaching te Reo Māori. Aimed at teachers' professional development, their innovative approach uses video podcasts, online support and in-school facilitation to advance Māori language use and acquisition among teachers.

Focus on Māori women

Auckland's AUT University is trying to encourage more Māori to take up nursing. Nursing facility joint head Anita Bamford-Wade says Māori have disproportionate health needs, and Māori healthcare across the board would improve greatly if there were more Māori health professionals.

Sounds from the edge

To read Hinemoana Baker's poetry is to find everything from Buddhist prayers and hip-hop to whakapapa and whānau yarns. And that's just in one poem. Story and photograph by Aaron Smale.

IT'S A LATE WINTER'S NIGHT IN A DOWNTOWN WELLINGTON BAR. Patrons are babbling loudly as poet Hinemoana Baker steps to the microphone, dapper in a long black coat, narrow glasses and a bowler hat with a red and black patterned band.

In a quiet, firm voice she musters the crowd's attention with an opening explanation of the poem she is about to read.

Her father was a Māori All Black (Valentine Rangiwaititi Baker) and her mother is Bavarian but she can neither play rugby nor yodel she says, to laughter. Now she has them. She begins to read *Born Again Māori*, her voice marching and swinging, punctuating and improvising. The drinkers listen, applauding warmly between poems.

When I talk to her later she explains that the poem was a response to an invitation to write something on how her Ngāi Tahu and Pākehā heritage affects her writing.

"It has multiple, colourful frustrations and a bit of rage – only a little bit – and quite a lot of humour," she says.

"That basic question of who you are, it's a place I need to get to, in order to write out of. In the end that's the question that is constantly plaguing me and probably will until the day I die. I'm never going to finish answering it."

Part of that questioning is her resistance to being defined by any one aspect of her identity.

"I don't know if I'm the kind of person who will feel comfortable in the middle of any community. I always end up on the edges."

She's not even willing to settle on one art form. She is also a musician/songwriter and producer. She will often combine her talents in one performance.

"The great thing about having several things to draw on is that my possibilities for publishing work are greater. So I can publish on the page, or on the stage, or on the radio. It's a good thing to think about if you're a poet in New Zealand, having different outlets.

"I'm starting to think I need another label. God knows what it is. I think the thing that draws everything together for me is sound."

Her journey of discovering poetry as a means of self-expression has been a meandering one. In her teens she was drawn to singer-songwriters like Leonard Cohen and Kate Bush. English teachers encouraged her first tentative efforts at writing; and when she enrolled in the Master of Arts in Creative Writing at Victoria University in 2002, she initially thought she would write a collection of short stories, only to find she was more interested in poetry.

Around this time she was "bowled off (her) chair" by reading Hone Tuwhare's collection *No Ordinary Sun*.

"At that time I didn't have my own analysis. What I remember was just feeling incredibly moved, incredibly emotionally moved."

She looks back on her first published collection that grew out of that year, *matuhi/needle*, as slightly spare, largely because she still didn't



have confidence in her own voice. She feels her second collection *koiwi koiwi* is far more assertive, although she says she still hasn't yet worked out how poetry happens.

"It's a complete mystery and it seems to change from week to week. So it keeps me on my toes. I always just feel pretty fortunate if I am writing at all."

She's also had the good fortune to spend time at the famed Iowa writers' programme in the USA, rubbing shoulders and swapping stories with writers from around the world.

There she befriended Ghada Abdel Aal, a writer from Egypt whom she describes as writing chick-lit. Ghada also had a weekly column in a newspaper and was very aware of the risks of getting arrested. Hinemoana asked her how she knew what was okay to say. "I just keep an eye on who's getting arrested and find out what they did and I don't do that," was the reply.

But Hinemoana says sometimes it can be an innocent metaphor interpreted the wrong way that will get writers into trouble with a despotic regime.

The images in her own work can be taken in a multitude of ways. She intentionally layers in different meanings, although she is modest in her expectations of readership.

"I'm just grateful if anyone reads it," she laughs.

"Everything I've done in there is deliberate, but that doesn't mean everyone is going to read it the same way. Hopefully there's enough in there that people are going to read it in vastly different ways. That's what I aim for."

TK

HE KÖRERORERO

Celebrating 50 years of Te Karaka

The very first TE KARAKA magazine rolled off the printing presses in 1994. At the time of *Te Karaka's* inception, Te Kereme (the Ngāi Tahu Claim) was very much the tribal focus as it started to gain traction within Parliament. The magazine served as an important communication tool to let iwi members know how Treaty of Waitangi negotiations were progressing. Former editor Gabrielle Huria wrote in Issue 1 the reason for having a tribal magazine was: "We live in an information age and those who control their information control their own destiny."

Tā Tipene O'Regan, then chairman of the Ngāi Tahu Trust Board, named the magazine *Te Karaka* because of its dual meaning. It referred to the karaka tree and also karaka, the Ngāi Tahu dialect for karanga meaning "to call" or "to summon". The magazine began as a call to Ngāi Tahu to reconnect at a tribal level and to support the cultural revitalisation of the iwi. I like to think the karaka berry reference alludes to the fact that you can eat karaka berries only if you prepare them properly as otherwise they are poisonous. In preparing *Te Karaka*, you often have to balance family politics and tribal policies to produce a story that is still publishable, meaningful and palatable for the iwi.

In spring of 2004, 10 years after *Te Karaka* began, a new phase heralded significant changes in the presentation and content of the magazine. *Te Karaka* was still about reconnection and cultural revitalisation but it was now also a window into the iwi, a window that invited other iwi and non-Māori to peer into.

Since 2004 *Te Karaka* has also taken on an advocacy role for the iwi – highlighting issues it considers important and giving iwi members a chance to voice their opinions in a modern medium. In this issue, the story *Wasteful* on page 38 looks at alternative solutions to centralised sewerage systems and features the research findings of Ngāi Tahu

This issue is a milestone for the magazine – issue 50. It has taken 17 years to reach this point and during this time, TE KARAKA has adapted according to the needs of the iwi. Editor Faumuina Tafuna'i looks at the history and future of Ngāi Tahu's tribal magazine.



environmental advisor Craig Pauling. His findings are endorsed by Dr Kepa Morgan, who has Ngāi Tahu whakapapa and is senior lecturer in civil and environmental engineering at the University of Auckland. One solution they promote is greywater systems, which Don Sorenson, who is also Ngāi Tahu, produces. Pauling's research is also used to support rūnanga aspirations to protect their waterways and mahinga kai areas. The solutions offered are timely given the Christchurch earthquake and ensuing sewage chaos. This story is an illustration of Ngāi Tahu connections, ingenuity and whakapapa. It is what *Te Karaka* is about.

Within the print medium there is a lack of Māori journalists, with many preferring television and radio. So finding Māori or Ngāi Tahu writers for *Te Karaka* has been a challenge. However, increasingly there are more and they are always welcome.

To explain to new *Te Karaka* writers what the magazine is about, I tell them this: *Te Karaka is a family owned magazine that is about the family. It forms part of the iwi record.*

At first glance, *Te Karaka's* Ngāi Tahu focus may appear quite limiting. But it is more like applying a Ngāi Tahu lens to the world, which provides enormous scope both in terms of the wide variety of topics and events that can be

covered (from the future, present, past and distant past) to the depth of which they can be explored. Part of this is because mainstream media has generally ignored many of these topics, events and peoples. They continue to show ambivalence and, in many cases, incompetence, in covering Māori stories. To refine stories to an iwi or hapū level has proven to be out of their collective grasp. Overall the magazine aims to take a positive and personal approach to stories.

In the last few years the magazine has gained peer recognition at the National Magazine Awards with finalist placings in the custom publishing category for Best Magazine Designer and Best Magazine Columnist (2009) and Best Magazine Editor (2010) and this year at the Canon Media Awards with a highly commended in the Best Trade or Professional Magazine category. These honours signal that the magazine is starting to fulfil its potential. Ngāi Tahu whānau are also now able to read the magazine online at www.tekaraka.co.nz and follow it on Twitter www.twitter.com/TeKaraka.

Seventeen years on, the challenge for *Te Karaka* is to continue telling important, relevant stories in new, thought-provoking ways that hold true to Ngāi Tahu values of manaakitanga, tohungatanga, whanaungatanga and kaitiakitanga.

ECO THRILLS

A new ride that takes visitors through an ecological evolution of Aotearoa is the coming attraction at Rainbow Springs. Kaituhituhi Kahu Te Whaiti checks out the Ngāi Tahu Tourism project that is making a splash in Rotorua.

ONE OF THE WORLD'S LEADING THRILL RIDE CREATORS IS ABOUT TO bring a touch of adrenalin, magic and ecology to Rainbow Springs in Rotorua.

The \$10 million-plus "Project Splash" is the single largest investment in Rainbow Springs since it opened in 1932. The new ride is designed by Intamin, a Switzerland-based design and manufacturing company that has created amusement rides for Movie World, Sea World and Disney World.

Ngāi Tahu Tourism project manager Stewart Brown says the ride will take visitors on a nine-minute journey through New Zealand's ecological evolution, and is due for completion early next year.

In May, Ngāi Tahu Tourism management, local iwi Ngāti Whakaue, and local dignitaries gathered at Rainbow Springs to pick up shovels for the "sod-turning" opening of the expansion.

The new ecological thrill ride will begin its journey in the realm of Tāne Mahuta (God of the forest and birds) among kauri and tōtara trees with a chorus of birdsong including tūi and kea.

As the ride sweeps around a corner, a screeching squawk silences the choir, as life-sized models loom into view – a pouākai (the enormous extinct Haast Eagle) attacking a moa.

The ride will continue to journey through time, passing by an ancient Ngāti Whakaue pā site, and then a 19th century English settlement. It gradually climbs up to a tree canopy, where visitors are told how they can look after Papatūānuku, by doing activities such as replanting and recycling. The ride climaxes with a steep 12-metre adrenaline drop into a splash pool.

Project Splash also includes the development of a 400-seat auditorium to host shows featuring live birds; an interactive playground with fun educational activities for families, such as a fossil digs; and an upgrade of the reptile enclosure to house 10 newly hatched tuatara.

Ngāi Tahu Tourism chief executive John Thorburn says Rainbow Springs has developed a great story based on the country's natural history, and it was time for a 21st Century twist. "We needed to take a more interactive approach to bring the park to life."

The wildlife park attracts around 120,000 visitors a year and is one of New Zealand's iconic tourism destinations, especially because of its breeding and viewing facilities for endangered native species.

Thorburn says while Rainbow Springs is a commercially successful operation, he would like to see it do even better.

"We have a really positive view that once we complete the development we will see even greater returns."

The project is expected to start turning a profit by June 2013.

Destination Rotorua General Manager Don Gunn is thrilled about the development at Rainbow Springs, and says it will attract more visitors to the town.

"A water ride is a unique addition. It is great because it's the only one of its kind in New Zealand."

Rainbow Springs was previously owned by the Shotover Jet Group and when Ngāi Tahu Tourism took over that group in 1995 they acquired the wildlife park. Rotorua is seen as one of three tourist hubs in New Zealand, alongside Auckland and Queenstown.

With an already well-established base in Queenstown, Thorburn believes it's important to spread the wealth of investment to mitigate



the risk and to tap into different flows of tourist activity.

Thorburn says a strength of this investment is that it is expected to capture the attention of markets that haven't always been targeted in the past, such as the domestic and Asian tourist markets.

Locally Rainbow Springs has established a partnership with the mana whenua of the region, Ngāti Whakaue, who own neighbouring tourism operator Mitai Māori Village.

Ngāti Whakaue kaumātua Bishop Kingi says they have always encouraged other iwi organisations to be a part of Rotorua.

"With Ngāi Tahu making a big investment in Rainbow Springs, it means that they are going to be here for the long term, and this will only continue to grow and foster the relationship between the iwi."

Following the official May opening, Te Rūnanga o Ngāi Tahu also held a meeting with Ngāi Tahu living in Rotorua.

As part of this hui Ngāi Tahu Tourism project manager, Eruera Tarena talked to local whānau about potential job opportunities at Rainbow Springs once the development is completed. Currently Rainbow Springs employs 27 staff.

One of Ngāi Tahu Tourism's strategic goals is to encourage and support more Ngāi Tahu into tourism-focused careers within Ngāi Tahu operations and the wider industry.

Thorburn plans to hold a pre-employment programme for Ngāi Tahu in Rotorua just before it advertises its new roles.

In the meantime, a swarm of hard hats and hi-viz vests have moved onto the construction site at Rainbow Springs, stepping to the beat of the clanking hammers and rumbling dozers.



JAMES TAWA

Ko Aoraki tōku mauka

Ko Waitaki tōku awa

Ko Takitimu tōku waka

Ko Ngāi Tahu tōku iwi

Ko Kāti Huirapa tōku hapū

Ko Whareraki tōku tipuna

Ko Hineparepa te whānau

Ko James Tawa tōku ikoa

James Tawa graduated from Lincoln University last year with a Bachelor of Tourism Management and became the first student to complete the Ngāi Tahu Tourism scholarship programme.

The programme pays students' university fees, and gives them practical and theoretical knowledge of the industry so they can fast-track their careers. The scholarship programme is based on a partnership between Lincoln University and Ngāi Tahu Tourism.

During university holidays scholarship students have the opportunity of work experience at Ngāi Tahu Tourism-owned operations, and to be part of iwi leadership programmes such as Aoraki Bound.

Tawa's next goal is to secure one of the soon-to-be advertised roles at Rainbow Springs.

He says he enjoys working for his iwi because it maintains his connection to his Ngāi Tahu heritage, and also gives him a chance to give something back.

"I am proud to be Ngāi Tahu. It's in me, it's who I am. Our tipuna did what they did and that lives inside you. It gives you strength to keep doing what you are doing."

Through his studies, Tawa spent time at Shotover Jet in Queenstown, the Hollyford Track in Fiordland, Dart River Safaris in Glenorchy and Rainbow Springs in Rotorua.

"As far as company service went, telling customers where they needed to be and what they needed to do; my work experience prepared me to be ready for this," says Tawa.

As well as customer service roles, Tawa also took part in Funyak tours at Dart River and wildlife tours at Rainbow Springs.

Tawa says his cadetship made him aware of the importance of meeting key people.

"I was able to meet with iwi and Ngāi Tahu Tourism leaders such as Tā Tipene (O'Regan), John Thorburn and Stewart Brown and depending on what type of people you meet, it can work out well for you."

John Thorburn says he has always been impressed by the way James has been able to build and maintain networks.

"James is a great example of someone who has worked hard through his degree and made the most of opportunities we have created for him."



"Whānau Ora is about empowering whānau to take control of their future. What we want for our whānau is to be self-determining, to be living healthy lifestyles, to be participating fully in society and to be economically secure."

Hon Tariana Turia
Minister Responsible
for Whānau Ora

Whānau Ora to expand with nationwide coverage



The Government will invest an additional \$30 million in Whānau Ora over the next four years, including \$11.25 million in the coming year, Whānau Ora Minister Tariana Turia says. Budget 2011 invested an additional \$30 million on top of the \$134 million invested in 2010.

"The funding will maintain the momentum created by the Whānau Ora approach, with opportunities to extend coverage across the country," Mrs Turia says.

"Currently, 25 provider collectives involving 158 health and social service providers are beginning to deliver Whānau Ora and are working collaboratively to deliver this innovative approach to engage whānau."

Budget 2011 will ensure Whānau Ora is supported in at least eight new provider collectives in a range of new locations including Kaipara, Hauraki, South Waikato, Taupō/Tūrangi, Palmerston North, Wairarapa, Levin/Kapiti Coast and Murihiku.

"I believe whānau have the capability and collective capacity to overcome the challenges they face and will take responsibility if empowered to do so.

"This further investment in Whānau Ora will ensure nationwide coverage during the next two years and represents a significant investment in the future of whānau from a Government that is prepared to be bold and innovative."

What is Whānau Ora?

Whānau Ora is about a transformation of our whānau, with whānau setting their own direction. It is driven by a focus on outcomes: that whānau will be self-managing; living healthy lifestyles; participating fully in society; confidently participating in Te Ao Māori; economically secure and successfully involved in wealth creation; and cohesive, resilient and nurturing. Whānau Ora empowers whānau as a whole rather than focusing separately on individual family members and their problems. Whānau Ora providers will work together with families rather than separately with individuals. Whānau Ora is an inclusive approach to providing services and opportunities to all families in need.

How will Whānau Ora work for families?

Whānau Ora will work in a range of ways, influenced by the approach the whānau chooses to take. Some families will want to come up with their own ways of improving their lives and may want to work on this with a hapū, iwi or a non-government organisation (NGO). Other whānau will want to seek help from Whānau Ora providers who will offer them wrap-around services tailored to their needs. Families will have a champion – known as a navigator – to work with them to identify their needs, develop a plan of action to address them and broker their access to a range of health and social services.

How is Whānau Ora working for families?

Whānau Ora is currently being pursued through collaborative, strengthened and integrated service delivery across 25 provider collectives involving around 158 health and social service providers. These provider collectives continue to offer existing services to individuals, families and communities while they

work on the changes they are making to their service delivery to engage whānau. Several hundred whānau – involving several thousand individuals – are already engaging in planning at the whānau level and are connecting to existing service delivery and increasingly to the Whānau Ora service providers.

How is Whānau Ora working for providers?

The focus at this point is on building effective service delivery mechanisms that engage and enable whānau to take their own positive steps. The Whānau Ora Governance Group is currently considering the first Programmes of Action from the provider collectives which outline the changes they intend to make to their service delivery model and the key steps they will take to implement these. These Programmes of Action are the result of considerable work undertaken by these providers and have been developed across collectives of providers that offer exciting potential in having come together.

Why will Whānau Ora be more successful than existing programmes?

Successive governments have tried to get agencies to work together and some of these initiatives have worked well. Whānau Ora takes this a step further by putting families at the centre because they are the best people to make decisions for themselves. This is likely to be more successful because families will have real ownership of their solutions.

For more information

Call 04 819 6024; email whānauora@tpk.govt.nz; or go to Te Puni Kōkiri website: www.tpk.govt.nz.





THREE TIMES ORDINARY

To celebrate their 80th birthday this year, the Ryan triplets returned to the area in which they grew up. Kaituhituhi Vivienne Valledor-Lukey went along to the festivities at Te Rau Aroha Marae in Bluff to chat with the sisters about their extraordinary lives.

RONA, ELIZABETH AND RUTH DON'T THINK OF THEMSELVES AS anything other than ordinary, but as the first set of triplets born on Rakiura/Stewart Island, they have always attracted attention – all the more so now that they are the country's oldest Māori triplets.

The sisters, now known by their married names – Ruth Brandon, Rona Larsen and Elizabeth (Bessie) Porima – live in different parts of the country, but they are never far from each other's thoughts. Their birthday party on February 27 was a chance to get together and reminisce.

The triplets were born to parents, Tom and Ruth Ryan, who went on to have 16 children in all, including twins.

The sisters agree that although they were special in the eyes of others, being triplets was nothing unusual for them.

"We've all led really ordinary lives. Because we were triplets we've sort of been made a fuss of, but really I never felt all that special. We're just three girls in a big family being brought up," says Ruth.

"We didn't like the fuss," says Rona.

Ruth says she and her sisters had a lovely childhood despite the relatively troubled times.

"We were born during the Depression in 1931, and we started school in 1937. Then the war came along. We had a pretty good life. We didn't have lots of material things, but our father gardened. We had our own cow; and our mother was a great cook," says Ruth.

"The year we were born, the first airplane landed in Stewart Island – the float plane, it was," says Bessie. "It ran out on the beach and Oscar Garden was the pilot. Mother was going to call one of us Oscarina after him," Bessie says with a laugh.

"Supposedly Mum was going to call one of us Oscarina or Gardenia or some such," corrects Rona, "but Mum didn't even know the plane had landed."

The sisters say the fact their mum, Ruth, didn't know she was carrying three little babies added drama and excitement to the day of their birth.

"In those days there were no such things as scans and things like that," Bessie explains. "I was born three hours before Rona and Ruth and the doctor couldn't come over because of the weather."

So Sister Casey the district nurse delivered Bessie," continues Rona. "But our grandmother, who was a midwife, delivered us because the nurse panicked when she realised Mum was going to have triplets."

Having escaped being named Oscarina or Gardenia, the triplets are thankful their parents looked to significant family members and friends as inspiration for their names, as Bessie explains.

"I was named after my godmother Elizabeth Thompson. Tiraroa, my Māori name, comes from one of the chieftainesses, or from my aunt's family. I love my name Elizabeth, but I get called Bessie. People say to me: 'Why do they call you Bessie when you've got a beautiful name, Elizabeth?' I just say 'it's how it is'."

Rona continues the story. "My name is Rona Jane Marewa. And from what I hear my first name came from the Braggs – the Rona. The Jane came from my paternal grandmother, and Marewa came from up in Otago, the Te Roi."

"Because these two were born first and had to be taken to Karitane Hospital in Invercargill, they got named straight away," says Ruth.

"Mother's eldest sister said to mum: 'What are we going to call

"We didn't have birthdays but our mum was a great baker and she always had lovely cakes. We just had little family celebrations. There were no parties as such."

ELIZABETH (BESSIE) PORIMA



"We've all led really ordinary lives. Because we were triplets we've sort of been made of a fuss of, but really I never felt all that special. We're just three girls in a big family being brought up."

RUTH BRANDON



"And not many presents – actually, no presents at all."

RONA LARSEN

this one?" So my name's Ruth after my mother, and Hawea, my Māori name, is after one of the ladies up in Otago."

Having moved to Bluff as children, Bessie talks of a normal childhood in a small town. "Really, we were just three girls in a large family, going to school and playing outside. We went to school just across the road from our family home and we would come home for lunch – we never had lunch at school. We always had really good meals made by our mother."

The triplets were the second eldest in their family and being the eldest girls still living with the family (an older sister lived with their grandparents), they had specific responsibilities. Rona says they were always there to help their mother.

"We were never idle," adds Ruth. "We were in charge of the younger kids. We practically brought them up."

Birthdays were not a priority.

"We didn't have birthdays but our mum was a great baker and she always had lovely cakes. We just had little family celebrations. There were no parties as such," says Bessie.

"And not many presents – actually, no presents at all," says Rona.

"Our first birthday party was when we were 50 and we had it in Rotorua," continues Bessie.

"Our mother was so looking forward to coming up to that but she died in the March. From then on... well we didn't have a 60th but we had a 65th, we had a 70th, we had a 75th and now we have an 80th."

Their 80th was all about welcoming and reconnecting with family and friends, and celebrating with singing and dancing. Speeches were made and jokes were told. There was laughter and tears, reminiscing

and, of course, the birthday greetings; all fuelled by the wonderful kai Bluff is famous for.

For the triplets, getting together with family was the most important part.

"It's like a reunion because it brings all our family together," says Ruth. "We live in the North Island, some of our families and grandchildren live in Australia and five of our brothers live here in Bluff, so it brings us all together."

"It was just wonderful to see all the people," adds Bessie. "A lot of our family members hadn't been here before so it was lovely to see cousins dancing and having a wonderful time together."

It was particularly special, as this is their first birthday celebration in Bluff as adults and the first time for some of their family members to visit their hometown.

"My eldest daughter and her children were here and they'd never been here before," says Rona. They all agree that Bluff will always be home, no matter where they live.

As talk turns to the next birthday celebration (their 85th), the triplets also talk about sharing the years as sisters.

"As well as being sisters, we've always been friends," says Bessie.

"When we get together we talk, talk, talk," adds Ruth.

"We're blessed. We keep good health although we have a few aches and pains, you know. But I always think we're young at heart," concludes Rona.

TAKING SIDES



First-time MP Hekia Parata's impressive performance in last year's Mana by-election for the National Party caught the attention of the general public and fellow Parliamentarians. Not long after, she got the call to take on the roles of Women's Affairs Minister and Ethnic Affairs Minister. Kaituhituhi Matt Calman speaks to Hekia on her political heritage and future.

HEKIA PARATA LOOKS ACROSS TO THE BEEHIVE AS THE SUN FLOODS into her sixth-floor office in Bowen House, and recalls when she entered Parliament as a list MP in 2008.

She says she rushed to see Leader of the House Gerry Brownlee to ask for one of the windowless offices in old Parliament House. When asked why, she told him: "Because it's on the Māori Affairs corridor – and (pictures of) my Parata tīpuna hang on the wall there in that gallery."

Parata's great-great-grandfather, Tame Parata, was a long-serving MP for Southern Māori until 1911. His son, Taare Parata, won the seat after his retirement.

Parata's office view may be limited but her career outlook is bright. In December, Prime Minister John Key promoted Parata to take over the women's affairs and ethnic affairs ministerial portfolios of resigned MP Pansy Wong.

Parata (Ngāi Tahu – Kāti Huirapa, Ngāti Porou) says her priorities as Women's Affairs Minister include creating more opportunities for women to gain better-paid and more sustainable jobs, and addressing the level of violence women suffer from male partners.

As Ethnic Affairs Minister, she is keen to make sure ethnic communities are not discriminated against in the labour market.

Hekia's promotion was sparked by her eye-catching performance in November's Mana by-election. Though she lost to former journalist Kris Fa'aofo, she slashed Labour's majority by more than 6000 to just 1400, in what had been considered a safe Labour electorate.

"It felt fantastic. Really it's put Labour on notice... that we're really serious about that electorate; that they may have held it since 1938 but we're really competitive in that area and I think that's true of National across New Zealand," Parata says.

Now she is looking forward to having another run at Mana in the general election in November.

"If the party selects me again, I will be out there campaigning again for every one of those votes."

Husband and business partner Sir Wira Gardiner (Ngāti Awa, Ngāti Pikiao, Whakatōhea, Te Whānau-ā-Apanui) says last year's Mana by-election was the result of three years of hard work in the electorate and represented a "watershed" in his wife's political career. "She fought it tooth and nail. We're all very proud of her. We think that her efforts are a tribute to both Ngāi Tahu and Ngāti Porou."

Victoria University Pro Vice-Chancellor (Māori) Piri Sciascia (Ngāi Tahu – Ngāti Kaweriri, Ngāti Kahungunu) says the Mana result showed the seat could fall to National.

"You just can't rest on your laurels with Hekia's presence. She's created an opportunity where you mightn't have thought there was one, and that's by simply doing the work."

Parata does not wish to speculate on whether voters will return National to power but she believes John Key publicly ruling out working with Winston Peters – who could again hold the balance of power – has given voters certainty.

Parata, who has two teenage daughters, grew up in Ruatoria, on the East Cape of the North Island. She is Ngāti Porou through her mother

Hiria Reedy, but was given an equally strong sense of being Ngāi Tahu by her father, Ron Parata, a Māori Battalion veteran and teacher who grew up in Puketeraki, near Dunedin.

"Dad would always say: 'We might be in Ngāti Porou and they do all the talking, but Ngāi Tahu was actually supporting you in your education.' We would get the education grants from Ngāi Tahu every year. It wasn't a lot of money but it was... the feeling that we are connected."

Parata says she was keen to return to Dunedin to go to university to study for a Bachelor and Master of Arts, but chose the University of Waikato because it had a stronger Māori department at the time and she wanted to study te reo Māori. In 1980 she was elected president of the student union and helped campaign against the Springbok tour the following year.

Parata joined the National Party in 2001. She cites individual and personal responsibility, strength of families, sanctity of property rights and the Treaty of Waitangi as the basis for relationships between the Crown and Māori, as National Party values that match her own.

She said it made sense to her that if she was going to cross over "from being an apolitical public servant to being a partisan politician that it would be with National".

Parata says she received her political grounding by spending many years in the public service. She worked in the offices of three Labour prime ministers, represented New Zealand in Washington while at the Ministry of Foreign Affairs, and also worked at Housing New Zealand, Te Puni Kōkiri, the State Services Commission and the Office of Treaty Settlements. She has also run a successful consultancy business with her husband.

Ngāti Porou politician Sir Apirana Ngata's famous essay on the price of citizenship, and his belief that people should strive to serve the public, has proved to be influential for Parata.

"I grew up with the idea that you are responsible for being a good citizen – that you give as much back to your communities as you might take from them," she says. "In that sense this chapter of my life... is just part of the continuous story of how you try to create a better community, how you contribute, (and) what your responsibilities are in that regard."

Parata was a foundation director on the Ngāi Tahu Development Corporation Board, set up in 1996 following the iwi's \$170 million treaty settlement with the Crown. She was a strong advocate against adopting an individual redistribution model as the board established how Ngāi Tahu would grow its resources.

"I'd much rather we focussed on how we strengthen the hapū and rūnaka. That is the model that Ngāi Tahu has adopted."

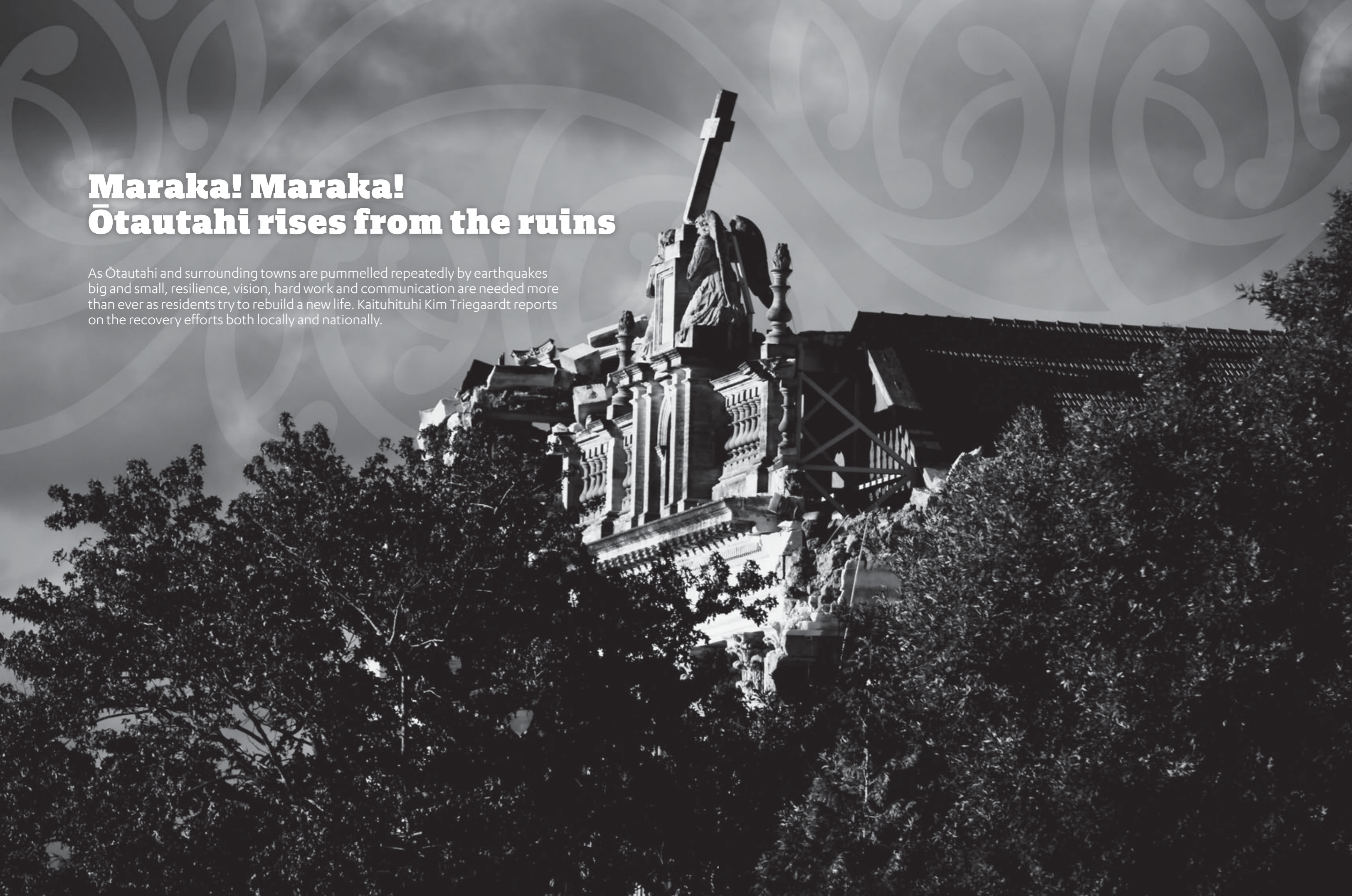
Former Te Rūnanga o Ngāi Tahu Chief Executive Officer and former Ngāi Tahu Development Corporation Board Chairman Tahu Potiki says Parata has a "fierce intellect", is politically astute, culturally strong and brought a lot of humour to the board table.

"You get the whole package with Hekia really. I honestly think she's got the capability to be a Prime Minister. It's a celebration for all of Ngāi Tahu that Hekia is a sitting cabinet Minister."



Maraka! Maraka! Ōtautahi rises from the ruins

As Ōtautahi and surrounding towns are pummelled repeatedly by earthquakes big and small, resilience, vision, hard work and communication are needed more than ever as residents try to rebuild a new life. Kaituhituhi Kim Triegaardt reports on the recovery efforts both locally and nationally.



AT 12:51PM ON TUESDAY 22 FEBRUARY, THE GROUND UNDERNEATH Christchurch buckled and heaved. The city was literally shaken to its foundations as an until now unknown fault just 5 km below the surface ruptured only 10 km away from the city centre.

As the rock on each side of the fault accelerated almost three times faster than a typical quake, unprecedented violence shook the city.

The result was tragic and catastrophic. By the time the dust settled 181 people had died, two central city buildings had collapsed, thousands of people were left homeless and thousands more faced weeks without electricity or water.

The city was awash with muddy water as liquefaction turned streets into rivers, whole suburbs into lakes, and left many thousands of tonnes of silt in its wake. Rockfall in Lyttelton, Sumner and Redcliffs destroyed houses and ended lives.

Four months on with loved ones laid to rest, power, water and sewer lines back up and running in most areas and people slowly returning to their homes, Christchurch has been hit yet again.

On the afternoon of June 13, the city experienced yet more devastation with a magnitude 5.6 quake followed soon after by a 6.3. Both these quakes are believed to have stemmed from a new fault line in the Port Hills, further reinforcing fears of new quakes to come. There was more liquefaction, more rock fall, more people forced to leave their homes and more damage to the already compromised buildings in the CBD. Yet again, many households in the eastern suburbs were left without power and water. Since September the city has had more than 7000 earthquakes.

To say Christchurch has a daunting task ahead of it is a monumental understatement. With every new quake and its subsequent aftershocks and every report, it's evident that the road back is going to be a long, hard one.

"When has a city in the Western world since World War II lost 50 per cent of its fabric?" asks Christchurch mayor Bob Parker. "In global terms this is a massive, massive event."

Now comes the \$30 billion question: what happens next? There's obviously going to be a rebuild, a reconstruction and a new Christchurch. For Te Rūnanga o Ngāi Tahu Kaiwhakahaere, Mark Solomon the rebuild process must be governed by one guiding philosophy.

"Mō tātou, ā, mō kā uri ā muri ake nei – For us and our children after us."

"That's been Ngāi Tahu's guiding motto since the 1800s. It's always been that. We have a responsibility not just to ourselves but to our grandchildren. Everything we do has to leave us in a better position for

our grandchildren," Solomon says.

It's hard not to feel as though the heart of Christchurch has been suffocated and the future for the central city is dead. But the cliché that time is a great healer is a cliché because it is true. In a few years we will need photos to remind ourselves of what buildings filled what spaces, and we'll flock back to new markets, new shopping centres and new community spaces.

In the meantime, Parker says there are waves of energy that can be felt as people seek answers to the question of what to do next.

"That's one exciting part of this tragedy. We've had an extraordinarily successful consultation process to kick it off." The City Council's Share an Idea website (www.shareanidea.org) and subsequent two-day expo has garnered over 90,000 individual ideas in just one month. Each one has been entered into a database that will be used to mould the final plan.

To oversee the process and lead the recovery, the Government has created the Canterbury Earthquake Recovery Authority (CERA). Led by former Orion CEO Roger Sutton, CERA has until December 16 to prepare the long-term recovery strategy. The Government has also established the Canterbury Earthquake Recovery Fund to pay for a 60 per cent share of infrastructure rebuild costs.

The Central City Plan will guide development – it's a vision that will outline how people, business and retail can use the CBD, what buildings will be built and how to revitalise the central city.

Ideas are flowing fast. There have been youth forums, community group meetings, inspiring talks – a plethora of different platforms thick with ideas and cloaked heavily in emotion.

"There's lots of excitement, sadness and regret," says Solomon, "but mostly there is hope."

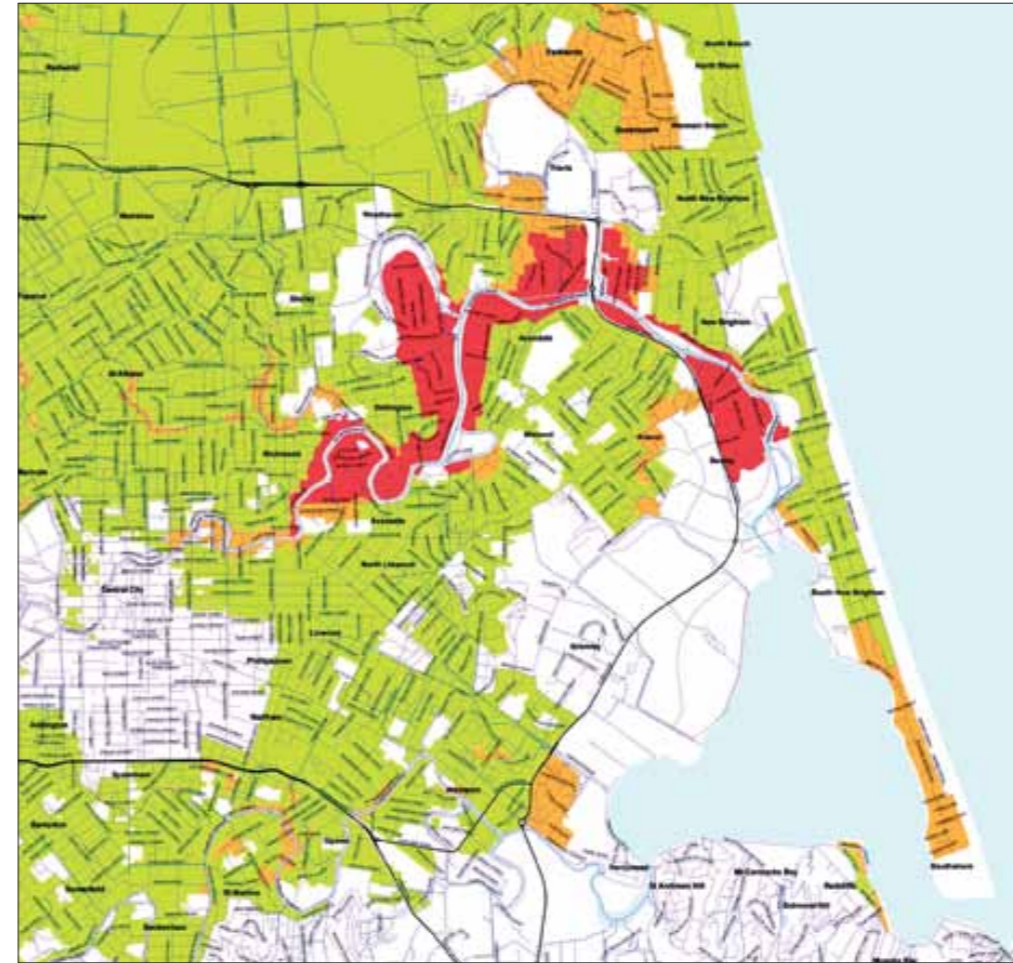
Solomon says Christchurch now has the potential to become the poster child for cities of the future. "I would like to see a city that uses a lot more green technology such as solar power, and grey water for toilets. We need to be sensible here because we have an issue that we don't generate enough power. We have to look for ways to alleviate that."

But while people have imagination, invention and innovation in spades, the dreams come at a cost.

The big question is which of the visions will see the light of day and which will languish unfunded. As Solomon warns, the reality is that private capital will be needed to fund a major portion of the \$30 billion rebuild.

"Sadly it will come down to what we can afford," he says.

"Who's going to pay for it? That's one of the great tests because what



Left: The land report announced by CERA on Thursday 23 June divided Christchurch into four zones:
Red: not feasible to rebuild on this land at the present time
Orange: land requires further assessment
Green: Clear to repair and rebuild
White: mapping and assessment underway but as yet unzoned.

He also says NTP have capital to invest and are committed to Christchurch.

"We've been here a long time and we are not going anywhere. We have an incredible, great skill in property investment and management and the market recognises that and wants us to participate."

After many months of discussion, NTP, in association with our joint venture partners, Foodstuffs (South Island) Ltd and CDL Land New Zealand Ltd, have been given the planning green light on the Preston Project.

Planned for 2700 homes for 6000 people, the 203-hectare site flanks either side of Prestons Road and is bounded by Mairehau Rd to the south and lower Styx Rd to the north.

Originally NTP applied for a plan change because the Preston's land sat outside the area that has been set aside for the future development of Christchurch.

However, with the recent earthquakes, Environment Canterbury and its urban development strategy partners, the Christchurch City Council, Waimakariri District Council,

Selwyn District Council and NZ Transport Agency, reviewed their original plan and decided that Prestons should be included as an area where future residential development can take place.

"We are absolutely delighted as we have been working on this development for several years and are well advanced in our planning," says Sewell. "We expect strong demand for Prestons sections when they come on the market."

Sewell says in 2008 NTP undertook a detailed geotechnical investigation of the site, which indicated a low susceptibility to liquefaction.

"We reviewed the area after both the September and February earthquakes and found no liquefaction or lateral spreading or any

we come up with as a community has to be more than just an outstanding plan," says Parker. "It has to translate to real life and be grounded in reality."

Ngāi Tahu Property (NTP) chief executive Tony Sewell says the city needs to look at five-year programmes.

"We don't want knee-jerk reactions. We can't instantly produce houses and jobs so in the meantime we have to make sure that people are as comfortable and safe as possible and then get on with the rebuild programme as quickly as possible."

He says NTP are encouraging government and local authorities to move quickly to get planning issues resolved so people can get on and do things.

"The city (council) has engaged its own consultants who are engaging with us. We are happy with our amount of input but it can be frustrating because not all the good ideas get accepted, but that's okay," says Sewell.

Left to right: A road bordered by flooding and liquefaction; Ngāi Tahu members help Tā Tipene O'Regan shovel silt off his property; Aranui High School's Rugby League Academy digs in; Te Rūnanga o Ngāi Tahu kaiwhakahaere Mark Solomon gives out Bluff oysters at Burnham Army Camp as a thank you to the NZ Army; Corner of Linwood Avenue and Worcester Street.



other seismically associated hazards, which confirmed our earlier investigations.”

Christchurch entrepreneur and inventor of the Yike Bike, Grant Ryan (Ngāi Tahu) spoke in May at TEDxEQCh, a forum that brought together speakers from around the globe to bring inspiration to the Christchurch situation.

Ryan says that property developers must be encouraged to spend money to make money. “Yes, you can move quickly and put up tilt slab buildings to get the city up and running again and to get returns on your property in the short-term. Or you can do something bolder and great, and create a city that attracts the brightest and best.”

With that, says Ryan, will come higher house prices, a more vibrant city and thriving communities. He says his research shows being innovative versus being boring is worth about \$30 billion to Christchurch.

“A city’s success is really dependent on who lives there, and if you have a lot of talented, interesting people living there, it thrives. People are prepared to pay more to live in an iconic city, so there is actually a huge cost to being boring.”

Ryan’s vision is for an elevated garden city (www.elevatedgardencity.com) that turns rooftops into green spaces.

But as people imagine the future and tinker with models, Solomon says there are some hard questions to be asked first.

“We have to look at the CBD because really, why would you go there to shop when there is a mall down the road that has everything you need? There has to be some discussion around that, and we need to be logical about what we put back.”

Solomon says contractors have told him that they can still feel the ground “sloshing” underneath them; evidence that there are still large areas of the city that will need remedial work before they can be rebuilt.

Apart from the destruction left by the shaking, the biggest damage has been caused by liquefaction as streams built over long ago make themselves felt again. There are about 8000 springs under the city as well as ancient levees left by the old waterways.

“There are huge questions that need to be answered. We have to wait for the geotech reports and I do believe there will be some areas we won’t be able to rebuild on,” says Solomon.

“If you overlay an old map of Christchurch over a photograph of the damaged city you can see that all the areas that had liquefaction are what used to be swamps and where there was no liquefaction was high ground. Areas have gone back to swamp.

“There is even a river that Māori referred to as quicksand. But over the years, we’ve built on it.”

“A city’s success is really dependent on who lives there, and if you have a lot of talented, interesting people living there, it thrives. People are prepared to pay more to live in an iconic city.”

GRANT RYAN Ngāi Tahu, Christchurch entrepreneur



Earthquake recovery Minister Gerry Brownlee says the observations are correct and that much of the traditional knowledge that’s been held about the land from generations back is now being proved by science.

“It indicates that the traditional knowledge of a place is very important and can’t really be set aside,” he says.

The Government is waiting for the results from geotechnical reports that have used a survey system known as LiDAR, an optical remote sensing technology that uses pulses from a laser, to establish how far ground levels have subsided. These are expected in early July.

The wait is excruciating for many Ngāi Tahu families who live in the hardest-hit eastern suburbs including Bexley and Avonside, and areas such as Rāpaki on Banks Peninsula. Some families who live in Kaiapoi have been waiting for decisions on their homes since the September 4 quake.

Immediately after the February earthquake, despite the difficulty of not having access to its Hereford St headquarters, Te Rūnanga o Ngāi Tahu began to build its resources at Wigram and work with others to coordinate an earthquake response. More than 30 iwi from around Aotearoa offered assistance in various forms from donations and container loads of food to emergency supplies and blankets as well as medical teams from Tainui and Te Arawa.

Working in partnership with mana whenua (Ngāi Tūāhuriri) the Māori Wardens and Christchurch’s wider Māori community, Te Rūnanga o Ngāi Tahu formed the Iwi Māori Recovery Network, the face of which was the Māori Wardens. The wardens, who came from all over Aotearoa, were involved in a major doorknocking effort in the

Eastern suburbs. The network provided assistance to all through food and water distribution and triage services spanning building, psycho-social support and labouring efforts.

Through the wardens, the network was able to collect a substantial amount of information about what the needs were and who needed them. This information was collated daily and fed into the wider Civil Defence effort.

After the initial response period was over, Te Rūnanga set up an earthquake committee (Te Awheawhe Rū Whenua) to coordinate the ongoing response. Its first job was to conduct a needs assessment among whānau and to plan the second stage response.

In parallel to this, a whole range of activities, are being conducted by organisations like He Oranga Pounamu (Health and Social Services coordinator involving Te Rūnanga and other Māori providers) and Te Rūnanga o Ngā Maata Waka (Māori authority in Ōtautahi that caters for the needs of iwi from outside the district).

Te Awheawhe Rū Whenua chairman Wally Stone says the group was formed to assess what the immediate, medium and long-term needs of Ngāi Tahu were and how to best respond to those needs.

Some of the key concerns include: whānau support, housing and financial assistance. People already working in these areas have been assigned to bring practical help to those in need.

Stone says Ngāi Tahu also needs to coordinate its efforts with other organisations to be effective.

“The last thing we want to do is duplicate. In a number of areas the best thing we can do is to see how we can support them to continue to do the good work they are doing.”

Stone says Ngāi Tahu also has a role in making sure there is accountability in the solutions offered by government agencies but also stepping in to help in areas that are outside the scope of those agencies.

“We do need some advocacy to ensure that the responses of those

Above: Ngāi Tahu entrepreneur Grant Ryan has a vision for an elevated garden city as conceptualised here.

agencies are aligned to the needs as we see them. Equally if there are gaps we need to think about how we fill some of those gaps.”

He says it is critical for the whole city that CERA is successful and Ngāi Tahu needs to support it in any way it can. This extends to the wider community of Ōtautahi.

“After the first earthquake the first thing everyone did was ring their own family. Once the family was okay then they checked on their neighbour. Once their neighbour was okay they began to focus on their own community.

“Ngāi Tahu is very similar. One of our obligations is to check on our own immediate family, having done that we have an obligation to check on our neighbours and having done that we have an obligation to the wider community. Going forward, we’re only going to get momentum for the recovery if we’re all working together to move Christchurch forward.”

Project Manager Rakihia Tau (Ngāi Tahu – Ngāi Tūāhuriri) says the group’s first priority was identifying the needs of the community.

“These needs have provided a pretty clear picture as to what the response should be around whānau wellbeing, and whānau homes, and heating for example.”

Tau says when it comes to the vision for the central city rebuild people affected by the quake are more interested in what’s happening

Left to right: Sweeping silt off Christchurch streets; Te Rūnanga o Ngāi Tahu personal assistant Ali Williams and former chief executive officer Anake Goodall help allocate donated goods from Wellington; Teetering homes at the suburb of Redcliffs; Māori wardens gather for their farewell at Te Whatumanawa Māoritanga o Rehua Marae; A demolished block of shops in the city centre.



with their home and family.

“The focus for us is to address that first. Surveys are finding there are high levels of stress and anxiety in our communities. People are worried about the future. We need to find a response to address those needs and then that response will change as other needs are addressed and things change.”

Tau says Ngāi Tahu is worried about communities like Rāpaki and Kaiapoi, which are facing critical issues.

He says 10 houses on the western-side of Ōmaru stream were red stickered. Whānau aren't sure if they will be able to return to their homes or not. “Amongst all of this mix we can't forget about those communities such as Kaiapoi, which were affected in the September 2010 earthquake.”

Solomon says the demand for builders should signal an end to unemployment for the building trade in Canterbury, especially once the Ngāi Tahu apprenticeship programme kicks off.

“We have a proposal in the pipeline working with CPIT that will initially create 200 training positions. Rebuilding the city will take more skilled labour than the country has available, so it's important to start training now.”

Until then, Tau says the city is still in recovery mode.

“We know from research that the recovery process will take about a year before the reconstruction period can begin.

“As a rough estimate, for every week of emergency response, the next phase is ten weeks of recovery, followed by 100 weeks of reconstruction.

“Basically, there are no silver bullets – this is going to take a long time.”

Parker says the city plan will be developed by the end of July and delivered to Parliament by the end of the year.

Solomon says it's going to be a long, ongoing consultation process.

“It's also up to the citizens of Canterbury to engage in the process as it happens. The progression will look at all the themes that come through, and what are the most popular things.”

Solomon says those will be used as a steer towards the final decision making, but it shouldn't end there.

“I believe you have to keep going back out to the people as you are progressing, otherwise you are going to get a whole disenfranchised group in the city,” he says.

One man who has experience rebuilding a city after an earthquake is former San Francisco mayor, Art Agnos. He was in charge of San



Above: Māori wardens gather at Rehua Marae in April for a poroporoaki, a farewell and thank you from Ngāi Tahu and the Iwi Māori Recovery Network.

Francisco's City Hall during the 7.1 magnitude earthquake in 1989.

After speaking at TEDxEQChch in May and after a tour of the CBD, he said there could be no short cuts through the consultation process.

“They (leaders) have to listen extensively to the citizens and exhaust the public debate, but it is worth it. Christchurch can afford to be fussy about getting the very best in the planning process.

“You can't go back to what was there – you have to plan a city for the future that will work for the people who live there,” he says.

Agnos acknowledges however that all decisions in the San Francisco rebuild were made without any consultation of the area's Native American Indian population.

“In the US generally and in California we have not shown the kind of respect and understanding that New Zealanders have demonstrated to their indigenous cultures. While it's not been perfect here, your relationship is so much more advanced than ours.

“Indigenous people as a group have all but disappeared from the San Francisco region to other parts of California, so they really were not a part of the rebuild.”

While Agnos says an indigenous heritage is not a significant identifiable part of San Francisco, Parker says there is no doubt that Māori heritage will be part of a new Christchurch.

Left to right: Aranui High School boys help with the city-wide clean-up; Another brick firewall collapses; Danny Hema from Ngāti Kahungunu; Student Volunteer Army equipment; a CBD tribute among the wreckage; Police and residents have bonded during the many earthquakes.

Q&A with Ngāi Tahu Property chief executive Tony Sewell

What is the value of NT's properties in the central city – what proportion faces demolition?

We probably have the best part of \$150 million in the city, the amount facing demolition is minimal, maybe about \$10 million and that's all well covered by insurance.



How are you dealing with that process?

We are dealing closely with insurers and working through what needs to be repaired and what doesn't; and ensuring the value of our portfolio is impacted

minimally by what we are doing.

We are also ensuring that our tenants are looked after. They, are a key customer, and we are working hard to ensure their needs are being met – for instance the Police and Civic buildings. We are working closely with them and being as open and honest as we can about the situation. We don't have anything to hide.

What are the iwi's priorities for dealing with its property portfolio?

If we look at the property portfolio such as Tower Junction, it only sustained minor damage and has been open and operational the whole period and the objective is to keep it going. We are also going to enlarge the centre and have a few more shops there. We are going through the planning but it won't happen until next year. We have a good understanding of what the ground conditions are around there.

- The Christchurch Police Station and the King Edward Barracks site – the New Zealand Post temporary facility there is fine and continues to operate.
- The police station has sustained some

damage but it is still structurally sound.

- Police have indicated that they will be looking for new premises and we are keen to provide one for them, so we are working with them on their requirements.
- Christchurch Courts complex – main complex is fine. There is just an old building on the corner of Durham and Armagh that is not, so we'll be working with them to look at how we will move forward on that site.
- Civic Building – sustained a lot of superficial non-structural damage, we are half-owners of that. We had nearly completed the first stage of repairs when Monday's (June 13) aftershocks hit, so we have to re-inspect.

Our Wigram properties here are fine and it's a fantastic opportunity to create new housing subdivisions. We have the land and plans and are all ready to go. The land is fine, it's high on gravel and well out of the swamp areas.

Ngāi Tahu will be a major participant in the residential rebuild of Christchurch.

Who is Ngāi Tahu taking advice from?

We are participating in all the forums. We get first class geotech advice from a range of engineers, good town planning and architectural advice from consultants around the city and in fact around the world. We have a good spread of advice. We have a very capable property development team here. They are right on top of all the things that are happening, and are in touch with market trends. They will be governed however, by what the city plan has to say. Although we are participating in the preparation of the plan, the final plan is not ours it's the city's. There will be a plan for the new bits.

We are just suffering from some fairly poor choices in the early days around draining swamps and putting residential property in areas that probably weren't the best places for it.

Will your decision-making drivers change post-earthquake – are the priorities different?

No, they won't. We have always had the main aim of building wealth for the iwi and that remains the same. The level of opportunity has lifted amazingly. We are going to be presented with a huge number of opportunities and it's a matter of selecting the right ones and moving forward with them.

We've been going for 17 years and have a portfolio that's probably the most robust in the city. Our buildings are still standing and occupied, the ones that aren't are being fixed quickly to get the tenants back.

Every time we get an event over 5 Magnitude, we have to go back and re-inspect everything again so things do take time.

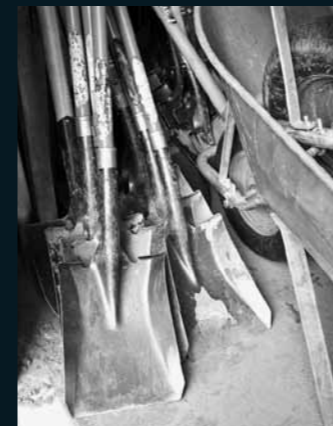
We know what we are doing, so we don't spend a lot of time talking about making decisions, we just get on and do it.

We are prepared for an extended period of seismic activity. We are looking at building materials to see if we can't find substitutes that are less likely to be damaged, so that the buildings can continue on without the destruction. The aim is to get to the point where we live with this.

In Japan they live with it every day, we've just got to move ourselves into that position.

We've spent the last 150 years without any major seismic activity and now that it's arrived we have to get on top of it. I can see some differences in the way we build and we'll be reviewing the types of materials we use based on trying to minimise the damage to buildings so that we can carry on. We'll get up to speed with the most modern techniques. I thought we were up there but obviously we are not, so we have to review that.

We have a great portfolio that has performed okay. We are now entering a period of enormous opportunity, it's huge. We are in a position to lead. We know we are not going anywhere; we are here for the long haul so we have to take the leadership position and guide the future.



“Māori perspectives take on a new value in the city at this time. In the forums there have been numerous ideas coming through of people asking for a strengthening of the Māori history of the city. So how do we show the true story of this place, not just the development of the European part of the city, but what was here before?”

Parker says the draft plan will be arrived at through a robust consultation process.

“We are feeding in all the information and are creating a draft. That will be finished in July, and then it will go back to the community where it can be pulled to pieces and new ideas built in. Through a series of hearings it will be redeveloped into something that will go to parliament before the end of the year.

Among the lessons Agnos brought to Christchurch is the importance of strong building codes regardless of the cost. No rule should be sacred or infallible, and there must be a readiness to modify, revise or discard any rules that didn't work when a disaster hits.

Despite media reports that there would be some non-negotiables in the new city plan, such as keeping the Avon River and grid system, Mayor Parker says these were really just starting points. “We need something to push against and if a better idea comes along...”

Solomon agrees that at this stage everything is “up in the air”.

“Nothing is black and white. There's always different shades, and if we go in with open minds that's how we will get the best solutions.”

For Solomon, no matter how compelling the vision, Cantabrians have come to terms with the fact that things won't happen overnight.

“Be patient. Keep looking after yourself and your whānau, because that need has not disappeared.”

In the meantime, he says the future of the city will be built on great ideas and at the heart of that is generous giving of ideas, opening minds to new concepts and welcoming a better future.

A WRAP-UP OF EVENTS

- **September 4: a magnitude 7.1 earthquake followed five months later by the magnitude 6.3 on February 22 that leaves 181 people dead.**
- 22 February is New Zealand's second deadliest natural disaster since the Hawke's Bay quake in 1931.
- The Government establishes CERA, the Canterbury Earthquake Recovery Association to oversee the rebuild. It received \$25.5m of set up funding and has a five-year lifespan reviewed annually; lead by Roger Sutton and reporting to Earthquake minister Gerry Brownlee.
- An alliance of organisations is tasked with rebuilding infrastructure. They include CERA, the Christchurch City Council, the New Zealand Transport Authority, Fulton Hogan, Downer Construction, Fletcher Construction, MacDow New Zealand and City Care.
- The EQC has paid out \$888m on claims relating to the September 4 quake, and nearly \$35m on claims from February 4.
- June 13: a magnitude 5.6 quake followed soon after by a 6.3 further devastates Christchurch, injuring several people, causing more liquefaction and rockfall, and necessitating the demolition of a further 100 buildings in the CBD.
- If you can't live in your house, the first option is your own insurance. This covers up to around \$20,000 generally. After that is used up, there is a government subsidy called Temporary Accommodation Assistance. It is a capped amount of \$180.00 per week for a single person, \$275.00 for a couple without children or sole parent with one dependant child, and \$330.00 for a family. This assistance is NOT income tested.
- Emergency homes are being constructed at Kaiapoi and Linwood.

THANKS TO ALL WHO CONTRIBUTED PHOTOGRAPHS, INCLUDING SHAR DEVINE, ANDY LUKEY AND AARON SWALE

MĀORI TRADE TRAINING

The trade training initiative is a partnership between Te Rūnanga o Ngāi Tahu, Te Tapuāe o Rehua, CPIT and the BETA workgroup, with support from Ngāi Tahu Property. Thanks to funding from Te Puni Kōkiri, 200 Māori students will be placed into trade training positions at CPIT before the end of the year.

The training programme is reminiscent of the late 1950s-1980s when popular Māori trade training initiatives helped to grow Christchurch at that time.

Graduates from those older programmes are returning to mentor and encourage the new entrants.

Patron and Kaiwhakahaere for Te Rūnanga o Ngāi Tahu Mark Solomon wants all local Māori to get involved and says the course is a great way for Māori to take on an important role in the Christchurch rebuild.

Left to right: Buildings ready for demolition in the CBD; Cleaning the streets; A sign from Wellington whānau that was inside a shipping container of donated goods.



HE WHAKAARO
nā SUZANNE PITAMA

Coping with earthquake trauma

What is 'normal'?

Research shows that the way natural disasters impact on us is dependent on a whole range of factors, not just the event. Prior to the earthquakes we all had our own set of issues including: day-to-day stress (which is healthy and keeps us engaged in the activities we need to do) and cumulative stress (which is a build up of day-to-day stresses that places a heavy burden on us and needs to be worked through). Where we were during the earthquake, whether we felt safe or were isolated from our loved ones all impacts on the level of traumatic stress – the change to routines, lifestyle, priorities, employment and housing – all contribute to our ongoing levels of stress.

It's important to assess how we are now responding to our usual day-to-day stresses. Are we coping with them as well as we once did? Have we got an increase in cumulative stress? Are we on edge and having flashbacks or nightmares related to the earthquakes?

It is normal to be experiencing increased stress levels as a result of the ongoing quakes. However, in terms of our long-term health we need to put in place strategies to help us manage this increased stress. One of the best ways to do this is to re-define what a normal day now looks like and create new routines based on our 'new realities' rather than holding on to 'old' routines. This might mean leaving for work 20 minutes earlier, your children going to swimming on a different night or doing the housework twice a week rather than four in acknowledgment that you are tired and not sleeping as well. Routine helps us to set up a 'new normal.' It may seem simple, but it's a positive way to involve the whole whānau in a decision-making process that helps move forward.

Make sure you don't become isolated – keep in touch with those you care about. Do things as a whānau that are fun and involve some laughter, things that celebrate life and that bring joy. This is especially important when you have children.

Over the past months since the first earthquake struck I have been asked many times, what we as individuals and whānau should define as 'normal'? How do we know whether we are 'coping' and how do we know whether we should seek help?



How do we know whether we are coping?

Throughout our lives we learn lessons from our teachers, parents, whānau, television and other resources. We develop a predictable script for our lives, so we know how to respond when an event happens. However when the first and subsequent quakes hit very few people had a script for dealing with them. Our brains went into overload about how to make sense of this new 'thing' in our lives while trying to carry on with usual daily activities. For many it also caused our bodies to undergo some physiological changes including increased heart rate, increased breathing, slowed digestion and decreased flow of saliva.

Forgetfulness, feeling tired and not able to accomplish as much in a day are usual physical and cognitive responses to trauma. Therefore we need to look after our body by exercising more, healthy eating and avoiding overusing substances like drugs and alcohol that further impair our functioning. We also need to take care of our minds, by taking time out for ourselves, resting and ensuring we don't increase risk-taking behaviour (e.g. driving faster, inappropriate sexual liaisons, buying unnecessary items).

As whānau we need to talk about stories of resilience not victimisation – what has kept us together, what has supported our safety – and if it happens again what is our plan. This not only supports adults but helps children to

feel safe and confident that any future quakes will not affect them to the same extent.

How do you know if you need to seek help?

If you or someone in your whānau isn't feeling confident about establishing new routines or that there are ongoing physical and psychological impacts making it difficult for you to move forward, it is really important to talk with a professional about how you are feeling. The usual first place to go to is your GP who can assist in a relevant referral.

Your workplace should have a programme in place that you can access or there may be other community resources in your area that you would feel comfortable accessing.

For more tips go to www.moh.govt.nz and search under "Christchurch Earthquake".

Suzanne Pitama (nee Meihana) is Ngāti Kahungunu. Suzanne married into the Ngāi Tūāhuriri whānau many years ago and has lived in Ōtautahi for the last 10 years. She is a registered psychologist who has worked with children who have suffered trauma. She is currently employed as the Associate Dean Māori at the University of Otago, Christchurch School of Medicine and Health Sciences, and contributes clinically through the department of paediatrics at Christchurch Public Hospital.

COUNTING THE COST

Once known as the Garden City, Christchurch has become a city torn and troubled by recurring earthquakes. TE KARAKA asked Palmerston North-based writer and photographer Aaron Smale (Ngāti Kahungunu) to visit Ōtautahi and talk with Ngāi Tahu whānau about how they are rebuilding their lives.

Looking in the rear view mirror while sitting at the lights, I see a man in a rage. It looks like he's in the throes of a heavy metal concert. As the oncoming traffic clears and I turn my car, he stomps on the accelerator and gasses past like a man possessed.

I wonder for days what was going on with that guy. Has he lost his business in the red zone, a business already staggering during the financial crisis? Is his house stuffed? Are things becoming fraught in his marriage? Has his social drinking escalated into a regular habit to dull the nerves? Are his kids' education and future prospects being sabotaged by the disruption to their school day, not to mention the trauma? Is his elderly mother living with them after her retirement home has been trashed?

In the three times I visit Christchurch since February, I hear all of the above scenarios and more.

Several weeks after the February 22 quake, people I meet have a glassy, shell-shocked look in their eyes, the kind you usually only see in collections of war photographs. Although I am moved by the frightening wreckage in the central city, it is those haunted eyes that stay with me.

When I return in early June there is a hesitant flicker of normality. Then the June 13 earthquakes strike. On that day I am finishing a story about Joy and Arnold Pohio, who lost their son Joseph in the February quake. Among many things, Joseph was a cousin to my sister-in-law. While I am trying to convey the anguish that his parents, family and many friends felt at his death, the ground is again exploding under the feet of the people in Canterbury.

Returning the following day, I find a city reeling like a punch-drunk fighter holding on to the ropes, waiting for either a bell to ding or a thundering left hook.

The events of the last 10 months are so vast in their consequences; while the physical destruction is monumental, it is the human cost,



the morale that has been pounded relentlessly. Piles of silt line the streets of the eastern suburbs, a substance similar to the river silt I saw during the Manawatu floods of 2004. There the silt from various rivers burst over the banks. In Christchurch the silt was pushed up by the tectonic plates, rupturing water and sewerage pipes, crippling power and roads and folding houses in half.

Wally Stone, chairman of the Ngāi Tahu earthquake recovery committee Te Awheawhe Rū Whenua, says historical maps confirm that much of the city is built on ground that is less than ideal when an earthquake hits.

"I've been reviewing an old map from the 1850s, which identifies a large part of Christchurch being in swamps and waterways.

"A lot of people are asking, 'Why did we build Christchurch on swamps?' That's a good question, but it doesn't change the fact that we did.

"The question is: What should we do in the rebuild, and in that there's going to be a whole lot of factors that come into it."

In a cul-de-sac in Woolston, Phil Tikao (Ngāi Tahu) and a bunch of young volunteers dig up the silt around some retirement units, a steady rhythm of shovels and wheelbarrows turn back the tide of sludge.

Phil is manager of He Tohutohu Pai Ki Waitaha (Positive Directions Trust), an organisation focussed on employment for youth.

"The main thing we come across is people who don't know how to look after themselves or bounce back. We do shifts and help older people get their medication, taking them to doctor appointments, helping them around their houses.

"I'd have to say the elderly are the ones that are suffering. Their own families don't have a lot of ability to help them. You might see well-off elderly people on the pension living in a nice cul-



PHOTOGRAPH AARON SMALE

Above: Andrea Williams, New Brighton Police Constable. Left: Phil Tikao, manager of He Tohutohu Pai Ki Waitaha (Positive Directions Trust), in the foreground.

de sac old-age pensioner house. Their kids aren't actually there, they're overseas or up north on business."

Although many residents need help cleaning up their properties, many are confused and afraid when help does turn up, not sure if the stranger knocking at their door is genuine or a looter casing their property.

One volunteer, Tawhai Matunga (Ngāi Tahu), has seen a range of emotional responses, from disorientation to indifference.

"There was one woman that stuck in my mind. She'd been injured in the quake. I think she'd been hit in the head by a chimney that fell down and she lost a couple of days where she just didn't know what she was doing. In the February one you could see the Salvation Army and Red Cross everywhere. This time you don't see it at all really. That's not a complaint I just think it's the reality. People are almost getting blasé about it. I think the surprise has gone."

One person who has experienced the full gamut of the city's anguish is Constable Andrea Williams from the New Brighton Police Station.

Andrea (Tūwharetoa) grew up on the eastside of Christchurch and her Burwood home has a large crack through the foundation, but she considers herself lucky to have a roof over her head.

After her usual morning meeting with staff, we talk about what she's seen.

I ask where she was in the September and February earthquakes. Her account is straightforward enough, until the February 22 quake. There is a long silence and she buries her

head in her hands trying to compose herself. The only words she chokes out are, "It was horrible." She was there as people tried to save Joseph Pohio.

"There was a mum, dad and baby a bit further down. The dad and baby had died. The mum was still there but she wouldn't leave. She was in complete shock."

Andrea says the police carpark was turned into a makeshift morgue and officers grew disheartened as they brought in the remains of more casualties. And then for the following days and weeks it was the heartbreaking work of telling and consoling the families of the earthquake victims. "That was the beginning of our hikoi really."

"The outlook after this last one (June 13) is not good," says Andrea. "If people knew there was another big one tomorrow and that was it, they could get on with their lives. But we don't."

The intermittent to non-existent essential services are not only inconvenient, but degrading. Fluctuating power leaves people without heating in the grip of a Canterbury winter. School days and education as a whole have been disrupted as rolls plummet and students from different schools use the same buildings over a staggered timetable. Whole streets are almost deserted and those residents who remain are in a state of limbo, waiting for a verdict on their properties and lives.

"We had one old lady, she was outside her house with a garden tool. She was sitting there sobbing. She said, 'I can't dig a long-drop with this. I'm just too tired.'"

The residents are not alone in their exhaustion. Kim Manahi, a counsellor with the Māori Response team, says even professionals like Andrea are starting to hit the wall.

"Health workers have been going since the 23rd (of February) and haven't had a break. We're seeing them as well and they're just as hurt... You can see a toll banking up and the workers are going to fall over soon. When do the workers get a break? Well they don't."

The Māori Response Team is made up of nine people, six of whom are Ngāi Tahu, with expertise in different areas such as drug and alcohol abuse, domestic violence and government services like ACC and Work and Income. They've needed all their experience and more.

Kim (Kāi Tahu-Ngāi Tūāhuriri, Kāti Māmoe, Waitaha) says the problems left in the wake of the earthquakes are pushing people beyond breaking point.

"I've been talking to people who can't start their

day without a bourbon. They have to have it to stop the nerves, to stop the anxiety.

"Emotional problems from before the earthquake are being exposed now. Alcohol and drug abuse and domestic violence have gone through the bloody roof."

The domestic violence is not only between partners/spouses but between siblings, children and their parents, even grandparents and grandchildren.

Though anxiety and stress has increased across all ages, Kim says some of the saddest and most worrying cases she has seen are those involving children and the elderly.

"There's kids with huge problems in terms of bedwetting and acting out. They're very, very angry, they're uncontrollable, mums and dads are freaking because they don't know what to do with their kids," says Kim. "My brother lives in Wainoni and he has three kids and they're getting help because they're all exhibiting signs of extreme stress. They haven't had sewerage since September."

She says there are kaumātua who won't go in the shower because they are worried they'll get hurt if an earthquake strikes.

"There's anxiety all around. Everyone is exhausted all around... just crushed. You go into their homes and you see it in their faces. They look defeated."

As heartbreaking as the story of Christchurch is right now, there is a heartening, genuine concern people have for each other, even complete strangers.

"Instead of people saying how's it going, people down here say 'are you OK?'," says Kim.

Andrea has noticed people are more willing to talk to police and trust them more.

With all that the city has been through, you can only hope that unity and fellowship are lasting legacies of the events that started in September 2010.

While writing this story a 5.3 earthquake hit Christchurch on June 21.



JOSEPH POHIO

A GREAT SON AND FRIEND

Getting a call from the Police about the death of your child is every parent's worst nightmare. For Joy and Arnold Pohio, that call at about midnight on February 22 confirmed their worst fears. Kaituhituhi Aaron Smale talks to the Kaiapoi family a few months after the passing of their beloved son Joseph.

Sun streams in through the living room windows of Arnold and Joy Pohio's Kaiapoi home. Arnold stares into the distance as Joy sets up the DVD player.

She points the remote. "This is it," she says.

A song comes on: Leonard Cohen's *Hallelujah*, sung by two friends of their son Joseph. The occasion is Joseph's wake. Friends and family are gathered around his casket, which is painted with a scene of Lake Tekapo.

A faint smile lights Joy's face as she listens to the stream of tributes. "Joe sailed through life leaving nothing but friends in his wake," one mourner says.

"That's true," Joy says softly.

"I looked out here and there was just a mass of people. We just weren't ready for that," says Arnold.

Only two months before Joseph celebrated his 40th birthday with relations and about 120 friends. "We didn't think they'd all come back two months later for his funeral," says Joy. "Some of his friends talked about him at his 40th birthday and got upset. They said Joe loved life, but most of all he loved the people in it."

On the afternoon of February 22 they knew something was wrong. The couple was in the Catlins when the earthquake struck, and they felt a second shake as a stranger told them the CTV building was down.

"Joy got a bad feeling within the hour," says Arnold.

"Every day we would have contact with Joe," says Joy. "Every single day he would ring. He would ring at nights and I'd say: 'What do you want, boy?'. 'I'm just ringing up to see that you and the old man are OK,' he'd say. So when I never got a text from him and he didn't phone, I started to get worried. I got my daughter (Hayley), but I still couldn't get Joseph. When I found out the first quake was at ten to one I knew it was his lunch break. That was when the panic started to set in."

They made desperate phone calls to Police, hospitals, anyone they could think of. Joseph was a draughtsman at the Christchurch City Council, and his workmates were also trying to find him.

"We got a call at about midnight from a police lady," says Joy. "She said, 'You realise I'm acting unofficially, but it's the worst news possible about your son.' I said, 'Are you sure it's him?' She said, 'Very, very sure.'"

They also had a call from a person who had been at the scene when people were trying to save Joe, and giving him CPR. The security card on Joe's belt had his name and photograph.

The next day they experienced confusion when they went to the hospital.

"We got there and the Police were just starting to get organised, but everything was new to them. They didn't know where Joseph was. They thought he was at Burnham, and we should go home and wait," says Arnold.

It wasn't until their doctor intervened that they found out Joseph was in the morgue in the hospital. They identified him the following day.

From what they've been able to establish it seems that Joseph was helping a woman when the roof collapsed in the food court in High Street, and the pair were struck by falling rubble. The woman survived but Joy and Arnold haven't been able to talk to her yet.

"It's just typical Joe. He's helped people before. He's done CPR on people in the street before; done first aid on people, things like that. If he could help someone he would," says Joy.

"The hard part is that he was only two metres from getting away."

Joseph had come close to having his life cut short twice before. He had open heart surgery to correct a hole in his heart when he was seven, and as an adult he had suffered a broken neck after being hit by a car.

"Not once did he ever complain about his health. Not once. It made him appreciate his life and value life," says Joy.



PHOTOGRAPH AARON SMALE

Joseph was the first of those who lost their lives in the earthquake to be formally identified. This led to an unwelcome media frenzy. Journalists rang and turned up on their doorstep. One Japanese reporter phoned and asked how the family was moving on. Joy told him they'd only just buried Joseph, and hung up.

But the timing also led to the family being overlooked by authorities responsible for providing help. They weren't assigned a police liaison officer like other victims' families, and missed out on help from the Red Cross and

ACC, grief counseling and other services. They were unaware that they could have been given a police escort to the memorial service and been seated in a cordoned-off area with other victims' families.

"We watched it here with friends," says Arnold. "Nothing will bring him back now."

"He just loved people. He just made every day better for us. He was a good son. He was a good boy wasn't he," Joy says, turning to Arnold.

"Just the best," Arnold says, nodding.

"It's just typical Joe. If he could help someone he would ... He just loved people." JOY POHIO

"Just the best." ARNOLD POHIO



PHOTOGRAPH AARON SMALE

FINDING HOME

Many Christchurch parents have sent their children out of the city to try and keep them safe from the continuing earthquakes. Kaituhihi Aaron Smale spoke with the Pirikahu-Waata family about separation and reunion.

The light is beginning to fade behind the Lyttelton hills and the breeze has stilled to a whisper. The harbour has turned slate grey, as the chill of a June evening closes in.

Sharlene Pirikahu-Waata sits outside her cousin's house in Rāpaki, grinning at the thought of it – next week her three youngest children will return home. "For almost four months my job has been to get a home and get my children back, and find an environment that they would feel good about."

On February 22, news of the earthquake came crashing through her mobile phone, as she stood helpless in Gisborne.

"My daughter (Savanah) was screaming. This is my 23-year-old. She was terrified and I was terrified for her.

"I knew something was happening because I could hear everything smashing, the side of the house collapsing. I was asking her where she was but she kept rambling. I kept her talking.

"I was sitting in the airport and I didn't know where my children were, I didn't know where my husband was. At the time he was coming out of the (Lyttelton) tunnel. I managed to get through to him to see if he was alright and you could hear the boulders coming down.

"I couldn't get through to the kura because all the lines had gone down. It wasn't for another four hours that I got through to the school and asked how the children were."

Sharlene (Ngāi Tahu-Ngāti Wheke, Ngāti Whatua) was on her way home from Te Matatini National Kapa Haka Festival 2011 in Gisborne, but she couldn't get a direct flight. She had to travel via Auckland. As she waited for her flight she watched people in distress getting off flights from Christchurch. Children were arriving without shoes.

Her daughter Sarah was swinging from a jungle gym when the quake hit and she fell and hurt herself. She had been scared and clingy after the first quake and Sharlene was worried, not only for her physical safety but also for her state of mind.

"I knew that Sarah would not be in good shape. It was horrible not being there to awahi them."

Sharlene was overwhelmed when she finally got back to Christchurch and met her children. "My first words were, 'I'm so proud of you, I'm absolutely so proud of you for being so brave.' Then I just cried."

But the reunion wasn't to last for long. Sharlene has seven children and three of them were living at home, Nevaeh (9), Sarah (7) and Timi (6). Her eldest daughter Sariah (24), son Peter (20) and daughter Kamalani (13) live outside Christchurch, and Savanah flats in the city. The family couldn't get back to their house in Woolston because of the damage, so the next day Sharlene and her husband Tim spent the day preparing these three children to leave Christchurch for Tim's family in Taranaki.

"We drove because I couldn't wait for available flights. My husband's family met us in Picton. We said goodbye. That was four months ago."

For the first few nights Sharlene and her husband Tim (Ngā Rauru-Ngāti Maika) slept in their car. Sharlene knew she could go back to her home marae at Rāpaki, where she grew up. But what was to be a short-term fix became long-term. When they faced problems getting back to their own house, whānau convinced them to stay on at Rāpaki.

"When we were finally allowed to go back home, I found that our sewerage pipe had burst and gone up the side of the house. Our house is at the front and there are three other houses behind us. So all that sewage blew and just went all over the side of the home. The smell was horrific."

They were still paying rent on the Woolston house until late May, but decided to officially move out because it was taking so long for the house to be fixed. They have recently been boarding with a cousin in Rāpaki, but are now moving into a house across the road. Sharlene had been up to the North Island to see her children for a week, and was dearly looking forward to their return. However, Tim's family

was still concerned about the children coming back to Christchurch.

"I had a flight booked for my children to come home. But they didn't put them on the plane. I couldn't understand – these are my children, why did you do that? Their reply was, 'We don't think it's safe for the children to be there.' I just thought we were getting back on our feet, and now my children weren't coming home.

"I'm grateful that my husband's family loved my children enough for them to do that. But for us to function as a family we need to come back together as a family.

"We've had so much support here from the whānau, the marae and the rūnanga. Everyone has been absolutely fantastic in trying to get me back on track and trying to move forward with my children. If we can do that together we'll be fine."

A week after the children's return the July 13 earthquakes hit. Sharlene was with the children in the supermarket and says they were shaken but okay.

"We just try and keep them occupied to take their minds off it."

"We've had so much support here from the whānau, the marae and the rūnanga. Everyone has been absolutely fantastic in trying to get me back on track and trying to move forward with my children. If we can do that together we'll be fine."

SHARLENE PIRIKAHU-WAATA
Ngāi Tahu-Ngāti Wheke,
Ngāti Whatua

REASONS TO CELEBRATE

Even though their home has been devastated in the February earthquake, the Te Wani whānau have found reasons to celebrate. Kaituhituhi Aaron Smale catches up with them at their new residence.

Jacqui Te Wani yells out to her son Haiti.

"Haiti. Come and get your photo taken." She turns back to me and grins. "You've got three minutes," she says, breaking into a laugh.

Haiti emerges from the hallway with a nervous smile. He shakes hands before turning to his mother for reassurance. He leans his head against his mother's.

Haiti is autistic. Before the earthquake, the 13-year-old would have stayed in his room, not coming out until the stranger left. But since the upheaval of the earthquakes, the condemning of his house and the affection from Māori Wardens, he has changed.

Jacqui (Ngāi Tahu – Ngāti Kuri), her husband Garry (Ngāti Tamatera) and their five children were in different parts of the city when the earthquake struck. It took Jacqui 40 minutes to get out of their Aranui home because both exits were wedged shut. Her son Johnny was at work in Sumner, and had to negotiate fallen boulders to get to Haiti's school in Beckenham to pick him up.

"We were in Aranui, and Beckenham could have been the other side of the world at that time. According to the teachers he was really brave and was telling the others kids, 'You'll be OK.'"

After the September earthquake Garry established a rule that if another major

earthquake struck they should all make their way to the home. Their eldest son Garry, who is also autistic, was already at home with Jacqui.

Johnny made his way home with Haiti. Her daughter Wikitoria walked from Worcester Street to Marrion College looking for Rawinia then walked home to Aranui. Rawinia was on a bus and was told to get out by the driver. After being invited inside by an elderly couple, she eventually went to her aunty's house. It was seven hours after the earthquake that she arrived home with her father.

At first Jacqui was just grateful they were all safe. But as they hunkered down in their house with no water, power, phone, or sewerage, the conditions started to take their toll.

"We were really depressed but I got up one morning and decided, 'Enough is enough'. We're members of the Ōtautahi Māori Wardens – I am, my husband is, four of my five children are. So we got up, we wiped ourselves down the best we could, we put our uniforms on, we got in the vehicles we owned, we found some food and we went around to the community of Aranui. We went from house to house delivering food because there were other people worse off than us. From there it grew."

Sometimes people just needed a shoulder to cry on.

"A kaumātua that we met had just had an operation. The port-a-loo was a long way down the street and she couldn't get to it. She lived on a hill and it was unstable. We took what we had but to be honest it was like a white bucket. When she looked at it she cried and we hugged her. I took her in my car to the port-a-loo."

They were joined by Māori Wardens from up and down the country. But despite being at the forefront of helping others, ultimately Jacqui had to face her own situation.

"The good thing about the work is that you don't need to think about what's going on in your own backyard. That's exactly what we did, we ignored it."

Their house was eventually condemned and they had four hours to move everything out. The back of the house was going downhill, a number of walls and windows were unstable. The house was at risk of toppling over.

"We cried in every room, we got angry in every room. We spent the first night at my sister-in-law's in the garage. We owned that home; that was our first home. So we went from there to a garage."

It soon became obvious that living in a garage was not viable. The whānau was invited to stay with the other Māori Wardens at a motor camp outside the city.



PHOTOGRAPH AARON SWALE

"We stayed there six weeks, and that changed my children. I've got two very well-adjusted young men. I'm so proud of them, and I'm so thankful that that's what the wardens have done. Time is a thing that's free, but time is a thing that people don't normally give. All those wardens did, and for that I'm really thankful."

"There was a lady there, a camp mum, and she just spoilt my two autistic boys. They just adored her and she adored them. It helped make my children grow. At the beginning they were two boys that always lived in their room. If we went into the dining room there would have to be one or two of us there, Haiti wouldn't go alone. At the end he would get up really quickly, he'd

have a wash and get dressed and he would go running into the dining room alone. They're both completely different now. They're more outgoing, they're more outspoken."

"My 27-year-old, when he goes to WINZ I go with him, and it's my name on his papers. Just last week he went to WINZ alone and he made the appointment, which is unusual. The Garry I had and the Garry I have now are two completely different people."

Haiti sneaks back into the lounge. His father Garry gives him a pat on the chest as he walks past. He skitters in and out of the lounge with an excited grin, like a child who has learned to ride a bike but is still a bit wobbly.

"Haiti. Come and say goodbye." He comes out, grinning and shakes hands. I show him the photos on the screen of the digital camera. He roars with laughter.

"The good thing about the [Māori Wardens] is that you don't need to think about what's going on in your own backyard. That's exactly what we did, we ignored it."

JACQUI TE WANI
Ngāi Tahu – Ngāti Kuri

wasteful

Parts of the Christchurch sewerage system twisted and ruptured during the recent earthquakes, forcing many residents to use portable or chemical toilets. Now, more than ever, seems like the right time to rethink a stressed and outdated system that is failing Ōtautahi ratepayers. Kaituhituhi Kim Triegaardt reports on some solutions that are better for the environment and respect Māori values.

LITTLE ESCAPED THE TRAIL OF DESTRUCTION LEFT BY THE September and February earthquakes and ongoing aftershocks, including Christchurch's vast sewage system. The shattered network left raw sewage flowing onto our beaches and into our rivers raising the question of whether it's time for a rethink on how the city deals with its waste.

Some of the answers may lie within a study that looked at alternative ways to manage waste that is less stressful on the environment and in line with Māori values.

Tiaki Para is the result of a five-year research project looking at Māori and Ngāi Tahu perspectives on waste management and the critical role for Māori in setting the future direction of how human waste is managed.

Te Rūnanga o Ngāi Tahu environmental advisor and co-author of Tiaki Para, Craig Pauling (Ngāi Tahu – Ngāi Te Ruahikihiki), says that people generally don't spend much time thinking about waste management practices, because, "poos just aren't cool".

However, in Christchurch's post earthquake environment people have been forced to think about it, as portable and chemical toilets replace flushing toilets and while the sewer pipes and Bromley Treatment plant are trying to be repaired.

Christchurch has one of the flattest sewerage systems in the world and the volume of wastewater is not sufficient to cause a rapid flow making it necessary to flush extra water through the pipes to move waste along. It is this use, of what is often referred to as "the best water in the world", which the Tiaki Para report is questioning and shedding new light on.

Christchurch City Council water and waste manager Mark Christison says the city had just started looking at its wastewater strategy when the September earthquake hit.

"This work is continuing but is slowed down by higher priority work at present. We are working with researchers at Canterbury University and expertise from overseas looking at improving resilience of the wastewater network through the rebuild."

Christison believes that gravity sewers to a centralised treatment plant will continue to be the main stay of the wastewater system, but that rebuilt sections will use modern materials and construction techniques, and are therefore likely to have added resilience in combating the effects of liquefaction and lateral spreading.

Dr Jamie Ataria (Ngāti Kahungunu, Rongomai Wahine, Ngāti Tūwharetoa) is co-author of the Tiaki Para report. He is an ecotoxicologist at Lincoln University who studies the effects of contaminants such as human waste on the environment. He believes February's earthquake has given the city the opportunity to explore new and better alternatives for a modern waste treatment system.

"In Christchurch we use beautiful, clean aquifer water to flush away our waste. It's just used as a transport medium and the infrastructure to do that is what has broken and caused the problems after the quake.

"Maybe it's time to look at taking waste out of the water, using composting toilets for instance, or even stop the use of water at all.

"We've got a blank slate, so this could be the opportunity to create a demonstration suburb where you have different systems for dealing with human waste."

Dr Kepa Morgan, senior lecturer in civil and environmental engineering at the University of Auckland, endorses the Tiaki Para

report and says the current centralised wastewater system goes against Māori protocol of respecting the mauri (spirit) of water, especially when the wastewater is then mixed into our rivers, lakes, harbours and seas, from where we collect our food.

Morgan (Ngāti Pikiao, Te Arawa, Ngāti Kahungunu, Kāi Tahu – Kāti Kuri, Kāti Huirapa) agrees that now is the right time for Christchurch to be considering alternatives to a centralised sewerage system. He says it's all part of a "build back better" philosophy where after a disaster occurs a better system replaces a system that is shown to be fallible.

This approach can be difficult to implement because following a natural disaster many people want things to return to normal as soon as possible and so can be resistant to new technologies that are unfamiliar, says Morgan.

Morgan suggested after the September quake that when the council fixed the broken sewers they considered installing a dry composting system in one in ten houses.

"The advantage with dry composting toilets is that they do not require a water source to operate and will not fail if there is no electricity supply. Therefore unless the dwelling is unsafe to occupy, the dry composting toilet should continue to be available for use immediately after an earthquake."

Dry composting toilets are waterless toilets where waste is collected in a chamber below the toilet pedestal. A low-powered electric or solar fan sucks air from a vent pipe, creating a vacuum, eliminating odours inside the toilet cubicle and speeding the composting process. A solar-powered heater can also be used to enhance the decomposition process. Although the toilets aren't widely used in Aotearoa, there is a joint Australian-New Zealand standard for their installation and operation.

Morgan says for a typical 5-person family a dry composting unit may only require emptying every two years. He adds that the resulting compost is not toxic and can be added like fertiliser to the ground. Although, he says, as the Tiaki Para report suggests, it's preferable not to put it straight onto the vegetable garden.

The challenge ahead highlighted in the Tiaki Para study is the lack of understanding of Māori cultural beliefs and practices, in particular mahinga kai (food gathering) and the tapu ascribed to human bodily wastes, including things such as fingernails and hair.

"The biggest thing we found was the depth and range of traditional beliefs that exist around dealing with waste and how, post-colonisation, these traditional practices were supplanted by modern technology and uninformed decision making that often inadvertently offended cultural values," says Pauling.

The study was designed to gain greater understanding of the issues, and to document Māori and Ngāi Tahu perspectives on waste and preferences for waste management. It's one of only a few reports that exist on the subject and highlights the critical role Māori should take to ensure waste management practices reflect their cultural values.

For instance, the practice of discharging waste into a waterway or out to sea is problematic for Māori when it comes into contact with food gathering areas, because the polluted water is seen to degrade the health of the area, even if the waste is treated.

"Having a sewage outfall pipe over food beds hinders our ability to gather food safely, and in turn it impacts on our duties of manaakitanga and as kaitiaki," says Pauling. "There are also

“Having a sewage outfall pipe over food beds hinders our ability to gather food safely, and in turn it impacts on our duties of manaakitanga and as kaitiaki.”

CRAIG PAULING Ngāi Tahu – Ngāi Te Ruahikihiki, Te Rūnanga o Ngāi Tahu environmental advisor



further spiritual issues and concerns associated with the inappropriate mixing of human bodily wastes, considered tapu, with food, which is considered noa.”

Pauling says his research shows there are alternatives to using water as a medium for waste treatment and discharge that Māori would prefer. These include using both liquid and solid sewage as biofuel, and applying waste water and sludge as a natural fertiliser to forests, wetlands or non-food crops such as timber, or those used for production of clothing fibres.

For Māori, this relates to the belief that water falls from Ranginui (the sky father) as rain (waiora) and then passes through Papatūānuku (the earth mother) to the sea where its mauri is restored. This means water can be cleansed of pollutants by passing through vegetation and soil.

“There are viable alternatives out there, but councils struggle to look at them, usually because they have already made a significant investment in existing water-based infrastructure,” Pauling says.

Many councils and engineers oppose decentralising waste treatment, says Morgan, because it reduces the reliance of ratepayers on a single wastewater solution and introduces complexity into management of a mixed infrastructure solution.

“With centralised wastewater systems residents are locked into paying rates to cover the cost of sewage collection and treatment and engineers are caught in the old ways of doing things without thinking about the environment.

“With urban populations growing, centralised systems of the past, which filter the solids out of the wastewater stream before relying on dilution in rivers and harbours is high risk. These systems have become more hazardous following earthquake events for both people and the environment, and uses thinking that is outdated,” says Morgan.

Christison disagrees that the council isn’t acknowledging Māori perspectives, or considering other alternatives. He says wide and robust stakeholder consultation is a requirement under the Resource Management Act but adds that decisions have to be based on science as well as beliefs.

“Land application has its place but when, for example, you have hills around Lyttelton that are quite steep with shallow soil which you can’t irrigate in winter because the ground is saturated, the effluent would just run off into the rivers which would defeat the purpose.”

On an average dry weather day the Bromley treatment plant receives and treats about 180 million litres (180,000 m³/day) of wastewater per day (that’s enough to fill an Olympic-sized swimming pool 72 times every day or 26,280 pools full in one year). However, there are still biosolids left over from this treatment and these are taken to the landfill. In a year this amounts to about 29,000 tonnes of biosolids.

In the future, these biosolids are also going to go through a thermal drying process, which is just being commissioned at present, reducing the amount to about 6800 tonnes of dried biosolids per year.

“The intention is to use this dried material to rehabilitate a mine site on the West Coast where a third party has received resource consent to do this work,” says Christison.

He adds that trial work has illustrated that biosolids greatly help the re-establishment of vegetation in these difficult terrains, which go some way to supporting the preferences of Ngāi Tahu outlined in the Tiaki Para report.

While Christison agrees that wetlands are a good idea, he believes that they will only work in rural areas with enough land.

“It all comes down to population density and land availability. Using wetlands as a filter requires a big treatment area and the water that drains through is usually of a lower quality than that from a modern treatment plant.”

Christison says that while wetlands can sometimes be used to “polish the effluent” there is still need for a mechanical treatment.

He says there has to be a balance between all the causes and effects to get the best benefit for the whole community, weighing up cultural, economic and operational costs.

The issue now is that communities have much greater population pressures, volumes of waste are higher and the make-up of waste is much more complex, with chemicals and pharmaceuticals of increasing concern.

Pauling says this reality alone should be forcing a rethink on how we deal with our waste so that while it needs to be affordable, it also needs to include a perspective that reflects our cultural values, particularly around the importance of food gathering.

He points out that Māori are not, and have never been totally opposed to using water as a medium to discharge waste. The difference is, that prior to European arrival, iwi and hapū had control over their lands and waters. “We made conscious and disciplined decisions about where and how waste was disposed of, and it was always done with regard to where food collection and other activities occurred.

“It wasn’t haphazard. Even Captain Cook was impressed with the way Māori managed waste, saying that it was better than what was happening in the great cities of Europe at the same time, where people were just throwing their waste into the streets.

“There were a variety of ways it was done, including the paepae hamuti – a plank located either over a cliff or into the ground – but the point to make is, that it was managed.”

Pauling welcomes any process that will allow Māori to have a fair say in decision-making processes when it comes to dealing with water and waste.

He cites approaches to dealing with Banks Peninsula disposal issues as an example of how this input is starting to effect change. Currently waste water from Lyttelton and Akaroa harbours is carried through a network of underground pipes and pumps to treatment plants at Lyttelton, Diamond Harbour, Governors Bay, and Akaroa, Duvauchelles and Wainui respectively.

Following treatment it is discharged into each of the harbours with the sewage sludge sent to landfills.

The local rūnanga in both areas opposed the renewal of discharge consents associated with both of these harbours and the results have been that interim consents were granted to allow for further research into establishing new options to improve the situation.

In the case of Akaroa, Te Rūnanga o Ōnuku have been advocating for either a land-based option or an ocean outfall with the highest treatment standard that takes the discharges out of the inner harbour.

In Lyttelton, the Christchurch City Council has adopted an option that involves pumping untreated waste water through a new pipe to the Christchurch wastewater treatment plant at Bromley, to be eventually discharged through the ocean outfall pipe. This project is due to start in 2017 and will at least allow the harbour to be free of sewage discharges.

Henry Couch is a tangata tiaki for the Rāpaki Mātaimai and was a member of the Lyttelton Waste Water Working party. He’s an outspoken critic of the timeframe the council allocated to the project. “I don’t think it should be so far away,” he says. “No-one agreed to that time frame so I would like to see that addressed and brought forward.”

He realises however that the recent earthquakes will cause a refocus on priorities but that once the dust has settled on this, the issue has to be revisited.

He says the immediate concern is the material being dumped in Lyttelton Harbour as demolishers clear city buildings, particularly those associated with human fatalities.

“I know it has to go somewhere but they are dumping material in the harbour that contains all sorts of dangerous pollutants, including asbestos,” he says.

Henry Couch says while Ngāti Wheke was consulted about this,

GREY POWER

It was a classic “Eureka!” moment for Eastern Institute of Technology Engineering Tutor and ECOPlus® Water Management Systems Managing Director, Don Sorensen (Ngāi Tahu). “At the height of the big Auckland water shortage in 1994 everyone was going on about not spending too long in the shower. I was in the bathroom and thought, hey why can’t I use the shower water to flush the toilet?”

Sorensen set his inventing skills to work and within a year he had a patent for a system that used reticulated household grey water, the water from showers, baths and washing machines, to flush the toilet and water the garden. “It was much more complicated than I expected as you have to remove the lint and smell from the water to get it to an acceptable standard. And you can’t use water from the kitchen because of the grease.”

Sorensen’s ECOPlus® system has a holding tank that can be placed above, or in the ground, and a flow filter that acts as a separator. The water in the end holding tank is piped to the toilet system by an electric pump that turns on when the toilet is flushed. The systems cost from around \$3000 and can be retro-fitted to homes, motels, hostels, and marae alike.

“The process was more expensive to create and build than I ever anticipated, but sometimes you get to the point of no return,” Don says. He admits it’s been a hard slog, but now with around 1000 hits a day on his website (ecoplus.co.nz), he’s starting to catch the attention of a wide range of people looking for sustainable water solutions.

The ECOPlus® system is in use overseas in tourist camps in Mongolia, is on trial in a home in Hawaii and is saving the Auckland YHA \$60,000 a year in reduced water rates. However, Sorensen says most enquiries are from people having problems with septic tanks.

“In the old days, about five laundry washes would only use 90 litres of water. Now modern machines can use nearly 200 litres per wash. This overloads the septic tank, the leach fields get blocked and you end up with a smelly section as the bacteria grow and spread through the fields.”

He says as more councils start to demand a warrant of fitness for septic tanks, people will need to reduce the amount of water going into the tanks, or face the prospect of getting them cleaned out every year.

“The most cost-effective way of doing this is to set up a system that recycles grey water.”

Sorensen’s biggest challenge in doing this was to find a way to remove lint and body fats from grey water. He invented a system of inverse cones to create a natural vortex that floats off the soap and fats to a gully trap. He adds a small measure of chlorine to take care of any faecal bacteria, which, according to his tests, are never at higher levels than those found in town drinking water.

Sorensen says there is nothing in Māori culture that is not in harmony with grey water being used for flushing the toilet or watering non-food crops.

“Why would you use good water to flush a toilet in the first place?”





they didn't have a say in the final decision, and responded by placing a customary rāhui on the use of the harbour, which is still in place.

"Who knows what poisons are polluting our water," he says. To ensure concerns like these are heard, Ataria has made giving a Māori voice in environmental forums especially around scientific research a priority.

"Councils and other organisations are working more towards being inclusive in that respect more than in the past. The political landscape is also changing so there is increasing awareness of the need to incorporate Māori in lots of these natural resource management issues and processes," he says.

Dr Ataria says the initial Tiaki Para research has already evolved into a further four-year biowastes programme looking at a real integration of research factors that includes strong social and cultural aspects with scientific momentum and also a small economic component.

The township of Kaikōura is being used as a case study for the research.

"They have issues with a whole lot of biosolids that were dredged out of the sewage treatment ponds and which the council is unsure how to deal with."

He is working with Te Rūnanga o Kaikōura and the local council to provide the community with as much information as possible so they can make the most informed decision around which option they want to pursue, and the Tiaki Para report findings are an important basis for this.

"The success of the programme however, has been the constant feedback loops to the community and the integration of science, cultural and social methodology to come up with solutions that have community buy-in and approval," says Ataria.

Both Ataria and Pauling say waste management is a hugely important issue because it affects the health and well-being of a community, but it's a subject that is largely ignored.

Part of the problem is that water pollution has historically been a low priority in New Zealand. The Waters Pollution Act was only passed in 1953 after many failed attempts stretching back 50 years. But even then, the governments of the day had no real incentive to monitor or control water pollution.

By the 1970s industrial waste and raw sewage discharges were leaving streams and shores seriously polluted, particularly in urban areas. The last major centre to stop dumping raw sewage into the sea was the Hutt Valley in 2001.

It was only after the initiation of the Waitangi Tribunal in the mid 1970s and the passing of the Resource Management Act (RMA) in 1991 that Pauling says Māori began to be heard.

"Over half of the first ten Waitangi Tribunal reports were related to sewage schemes and this had a huge influence on the development

"The political landscape is also changing so there is increasing awareness of the need to incorporate Māori in lots of these natural resource management issues and processes."

Dr JAMIE ATARIA Ngāti Kahungunu, Rongomai Wahine, Ngāti Tūwharetoa Lincoln University ecotoxicologist

of the RMA and subsequent sewage treatment proposals. Before this there was little, or no legal requirement on the side of the councils, for Māori to be involved in the decision-making process.

"So previously, councils largely made the decisions they thought would be in the best interests of everyone." Unfortunately those decisions often ended up with sewage plants discharging onto significant food gathering areas.

Things have changed however, and most recently, the Land and Water Forum, to which Ngāi Tahu and four other iwi belong, has recommended improvements to the way fresh water is governed and managed – a good sign for the future.

The Tiaki Para report also showed Māori were interested in alternatives if they had help to achieve them but what's missing is knowledge about the alternatives.

"When it comes to composting toilets, using grey water to flush toilets, or collecting rainwater for domestic use, people are curious to know more," says Pauling.

While the current wastewater system goes against Māori protocol of respecting the mauri (spirit) of water, Morgan adds that a grey water system is an appropriate use of water that is consistent with Māori values. It can also be fitted in to the existing centralised system.

"It's time people started to question the existing models of waste treatment and whether these will survive the next 50 or 100 years. Where is the sense in using fresh, clean water to transport sewage to treatment plants, then spend an enormous amount of time, energy and money trying to separate them and finally mix it with the water where we collect our food?"

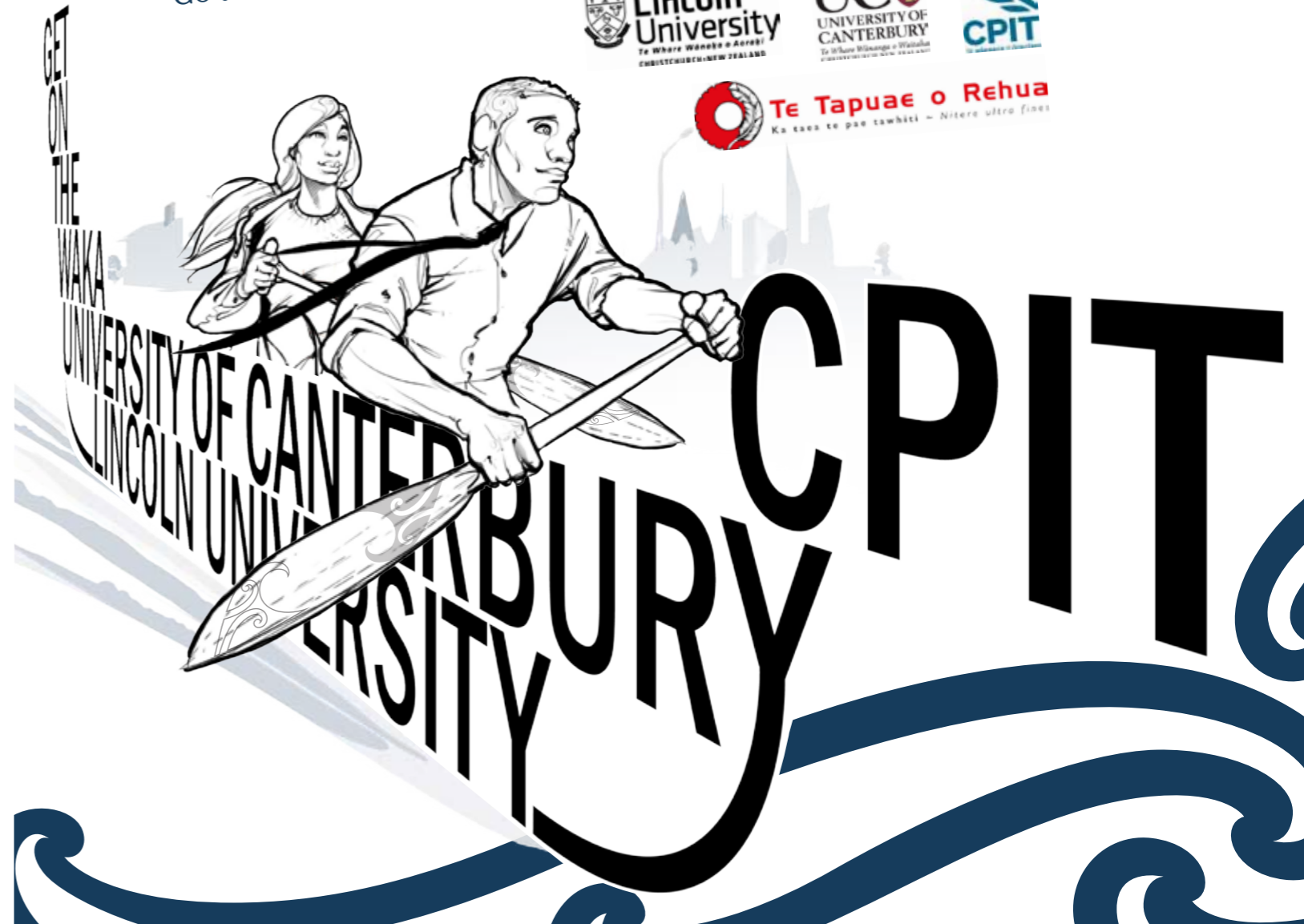
Pauling says people have to realise that this issue is not going away and in light of the earthquakes it's even more important than ever before.

"All we are really asking is for people to start thinking about it and to seriously consider the alternatives, as at some point in the future we will have to change. Using greywater systems in Christchurch is an obvious solution to preserving our precious ground and drinking water, and developing a demonstration suburb with dry waste systems would be a further step in the right direction."

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Enduring Significance

Mō Tātou, the largest ever collection of Ngāi Tahu taonga, has now ended its five-year journey – but for the iwi, the memories, the learning and the pride live on. Kaituhituhi Carmen Houlahan attended the exhibition closing at Otago Museum where the iwi gathered to celebrate and remember.

FOR NGĀI TAHU, *MŌ TĀTOU – THE NGĀI TAHU WHĀNUI EXHIBITION* HAS BEEN AS SIGNIFICANT as the watershed 1986 *Te Māori* exhibition.

Mō Tātou told the Ngāi Tahu story to the nation and to the iwi themselves. It carried the taonga of Ngāi Tahu ancestors and the ambitions and desires of the current generation, supporting the whakatauki, *Mō Tātou, ā mā kā uri ā muri ake nei* (For us, and our children after us), which was the exhibition's guiding tenet.

The Iwi Steering Group (ISG) led the *Mō Tātou* project, which started at the Museum of New Zealand Te Papa Tongarewa in Wellington on July 8, 2006. It then toured three Te Waipounamu museums, Canterbury, Southland and Otago, which shared the hosting responsibilities with Papatipu Rūnanga.

ISG deputy chair Piri Sciascia spoke at the closing on April 17 at Otago Museum, about the pioneering journey of *Mō Tātou* from its inception; of exhibiting the largest collection of Ngāi Tahu taonga and showcasing it to the nation and throughout Te Waipounamu. More than a million people viewed *Mō Tātou*.

"Ngāi Tahu has gained so much from it," Sciascia later said. "It is like having our own *Te Māori*. We have had a brilliant time of conception and developing old ideas, an informative time. It was huge. Deciding what our themes should be and what we wanted the exhibition to portray, and then all the different stages, the curation and finding the best examples of our culture that were available."

Following his speech, *Te Hokinga Mai* echoed through the galleries, bringing tears to the eyes of many. *Te Hokinga Mai* was composed for *Te Māori*, and had not been sung at the Otago Museum since the closing of that exhibition 26 years ago.

For Ngāi Tahu pōua Kukupa Tirakatene, *Mō Tātou* has been more than an exhibition. For him it has been a voice for the tribe.

Pōua Kukupa has been involved with *Mō Tātou* since its inception, guiding museum staff in the protocols for the iwi.

"I feel rather humbled to be able to speak on their behalf. I felt humbled I was speaking for Ngāi Tahu. It was more than an exhibition at Te Papa," he says.

Tāua Te Whe Phillips represented Ngāi Tahu alongside Kukupa Tirikatene when *Mō Tātou* was exhibited at Te Papa. She took over the role of kuia from Tāua Maruhaemuri Stirling.

"The most important thing for me was to go to Wellington and represent my iwi and to work in Te Papa," says Tāua Te Whe. "I had heard all about Te Papa and had taken my kids there. It was an honour to take my kura kaupapa there and 10 to 15 years later, here I am working there in this place they call 'the back of the house' and to be working for my iwi. It was an honour."

Being involved in *Mō Tātou* created many other opportunities. Only days into the job, Tāua Te Whe was asked to go to Dame Whina Cooper's home to collect taonga to display at Te Papa.

"Here was I visiting this old kuia I had only seen on TV. The honour of going into these places was very special."

She also travelled with Te Papa staff to San Francisco and Washington DC to view Māori taonga. She says this was also very emotional, and that she sometimes cried when viewing such beautiful taonga that had been taken overseas.

Tāua Maruhaemuri believes the exhibition has achieved its goal of enriching the sense of heritage for our people and particularly our children.

"Events like *Mō Tātou* that promote people gathering together where there is a mixture of te reo and waiata, help to strengthen the reo and ensures a better future for the mokopuna," she says.

The journey for her has been a great learning curve. She has been proud to be one of the kaumātua maintaining the integrity of Ngāi Tahu and its tikanga.

"There have to be people there to keep an eye on things. We all have to be aware and we have to look after each other. It is for the health of our children. It is the people. We need to turn to each other and help each other and if people are struggling to learn te reo, give them a helping hand," Tāua Maruhaemuri says.

ISG chairman Charles Crofts says the opening of *Mō Tātou* at Te Papa was a highlight for him – to see so many Ngāi Tahu gathered there to celebrate their taonga and art.

"The (Ngāi Tahu) Claim put us in the national headlines, especially in economic terms. But *Mō Tātou* put a national spotlight on us as an iwi with taonga and an artistic heritage. It also presented a stage for our contemporary artists to show their work."

Crofts says *Mō Tātou* helped solidify relations between the iwi and museums, and also between the museums as well. He also acknowledged the roles ISG members Rakihia Tau, Edward Ellison and Koa Mantell had fulfilled in creating and supporting the exhibition.

Another highlight for Crofts was the Tūpuna Room at Canterbury Museum.

The Tūpuna Room was established as part of *Mō Tātou* as a place where people could view pictures of whānau groups and individuals. Many of the images were unnamed. Visitors to the exhibition were asked to name the people in the pictures if they knew who they were.

Canterbury Museum pictorial collections curator Damian Cairns says the feedback was fantastic.

"I have worked with other images at other institutions before, but the relationship between Ngāi Tahu and the museum and what we gained from it was amazing," he said.

"There is nothing worse than having unnamed pictures. It was great."

Out of 100 photographs, more than a quarter were named during the exhibition, and a dozen of them had stories attached to them that were given by whānau.

"With the Whakapapa Unit helping us with the initial selection, they were able to give us pictures that linked to other taonga in our collection." Such as one photograph where the cloak a woman was wearing in a photograph was also part of the exhibition.

Cairns says since the Canterbury exhibition closed, many people still came to look at the photographs from the Tūpuna Room.

"The (Ngāi Tahu) Claim put us in the national headlines, especially in economic terms. But *Mō Tātou* put a national spotlight on us as an iwi with taonga and an artistic heritage. It also presented a stage for our contemporary artists to show their work."

CHARLES CROFTS
Chairman, Iwi Steering Group



Above: Ngāi Tahu iwi gathered to bring *Mō Tātou*: The Ngāi Tahu Whānui Exhibition to a final close at Otago Museum in April.



“The central thing for me was the photographs of tūpuna, it was such a connecting point. They would look at the images, they would find their families. The whole thing had a spiritual meaning, it was beautiful.”

IRENE MURA SCHRODER
Curator of visual arts, Southland Museum

“We have updated the records with the information we have been given, so now we can tell the stories that go with it. We still have folders for people to come and view, or for people who want to find out what we found out through the exhibition.”

When *Mō Tātou* toured, Otago and Southland representatives from the local rūnanga were asked to collect taonga from their region that were special to them, to add to the exhibition. The Tūpuna Room was a theme that was also picked up at those museums.

Southland Museum and Art Gallery (Niho o te taniwha) manager Gael Ramsay says *Mō Tātou* created a lot of interest in the community.

“The thing that stood out for me was the interaction from the local rūnanga.” Murihiku rūnanga members brought photographs of their tūpuna to the museum to show in *Mō Ngā Uri*, a contemporary exhibition that ran alongside *Mō Tātou*. Rūnanga members were also available to tell stories to visitors in the exhibition.

“It was a bonus to have their presence, so if anybody had a question they were on hand. It was also a chance for them to interact with members of the community who would not normally go to the marae,” she says.

Irene Mura Schroder (Kāti Māmoe, Ngāi Tahu) is the curator of visual arts at the Southland Museum.

“The central thing for me was the photographs of tūpuna,” says Schroder.

People were asked to bring their own framed photographs and they were hung in their frames as they would be in the home.

“It was such a connecting point. They would look at the images, they would find their families. The whole thing had a spiritual meaning, it was beautiful.”

It created interest with not only visitors to the Museum from Southland but visitors from everywhere. “It brought the travelling show of *Mō Tātou* together with what we had,” says Schroder.

Pōua Kukupa says because rūnanga were asked for their advice, people started talking to each other, gathering stories and looking for taonga.

“The work that those taonga have done, they have interlaced whānau. Even neighbours who wouldn’t normally talk to each other did. If nothing else, the exhibition has pulled people together.”

He says there are special stories behind the taonga, such as the mere pounamu that the Topi family gifted to the exhibition.

Peter Topi and his cousin Tania Topi brought the pounamu they had grown up with to Te Papa in April prior to the opening of the exhibition in 2006.

As a child growing up in Bluff, Peter Topi’s father had told him there were originally four



“Ngāi Tahu has gained so much from it, it is like having our own Te Māori.”

PIRI SCIASCIA
Deputy chair, Iwi Steering Group

Opposite page, left: Ngāi Tahu tāua Ranui Ngarimu, Jane Davis and Maruhaeremuri Stirling lead the way forward during the closing ceremony; top left, from left to right: David Higgins, Taare Bradshaw, Piri Sciascia (sitting), Riki Pitama and Kukupa Tirakatene.

This page, above: Kukupa Tirakatene, Piri Sciascia and Matapura Ellison.

mere pounamu in the set. He said one was burnt in a house fire, while another was given to the then Prince of Wales – later King George V – when he visited New Zealand.

The remaining two had stayed with the Topi whānau. “When we were kids, we used to play with them. They just told us to be careful with them.”

It wasn’t until Peter and Tania brought the mere pounamu to Te Papa that they became overwhelmed by the significance of the taonga.

“It was very special, and it was even more special for Tania, because she had not been out of Bluff before. She found it very moving and so did I,” Topi says.

The next time Topi saw the mere pounamu was at the official opening of *Mō Tātou* in July 2006. This was very emotional for Topi because Tania was not with him. She had drowned in the tragic sinking of the *Kotuku* resulting in the loss of six lives in Te Ara a Kewa (Fouveau Strait) in May that year; only two months prior to the exhibition’s opening.

“It was extremely sad. Tarns really wanted to come back again as well. I shed the odd tear or two.”

The end of *Mō Tātou* was also the end of an even longer journey for the pounamu stone that started its travels a quarter of a century ago at the *Te Māori* exhibition, and which served as the gateway stone for *Mō Tātou*.

At the final closing ceremony at Otago Museum, rūnanga representatives from Waihao, Ōtakou, Hokonui, Moeraki and Puketeraki shared stories and images about their people, their mountain, their projects, their past and their future.

In his closing speech, Piri Sciascia acknowledged the pounamu. “The pounamu had its first outing here in this museum 25 years ago, and here it is tonight to symbolise all the taonga going back to Ngāi Tahu.”

At the end of the closing, the pounamu was lifted up and placed on a kākahu made by young Ngāi Tahu weaver Alice Spittle and worn earlier by Sciascia. Then a karakia was said.

Another benefit of the exhibition has been the strengthening of the Ngāi Tahu Fund. It was shaped on *Mō Tātou* and the elders who were on the ISG became its inaugural members. The fund has supported cultural knowledge, reo, and whakapapa, and has aligned itself with the four cultural themes of *Mō Tātou*: toitū te iwi (culture); toitū te rangatiratanga (tenacity); toitū te ao tūroa (sustainability) and toitū te pae tawhiti (innovation).

Beneficial also were the opportunities it had given young Ngāi Tahu to prove their cultural leadership skills, Sciascia says.

“The exhibition has helped people to stand up and say ‘We are Māori and this is what our culture is like.’”

Sciascia was tearful talking about the love and respect he had for the elders who had helped to make *Mō Tātou* the success it was.

“My heart goes to one place immediately and that is a deep love and respect for our elders.”

Mana needed to be found through leadership from elders. “The level of cultural sanctioning that is required to create an exhibition like *Mō Tātou* can only come from the elders,” Sciascia says. “It is born of wisdom and a deep abiding love of Ngāi Tahu, out of which comes authority.

“You can’t question their love for things Ngāi Tahu. They have a parent’s love. Out of that is born authority. That’s what makes your exhibition powerful and authentic.”

Museum of New Zealand Te Papa Tongarewa Kaihautū Michelle Hippolite (Tainui) told the guests at the closing ceremony of *Mō Tātou* that Ngāi Tahu had many good stories to tell.

“We were just catalysts to enable the kōrero to be shared. It has been our privilege to join with Ngāi Tahu in bringing your stories, your kōrero to your people and to everyone else.”

Finally, Te Rūnanga o Ngāi Tahu Kaiwhakahaere Mark Solomon thanked the ISG and kaumātua for their job.

“I am absolutely proud of the numbers from all over the country. It made you proud to see our people, made you proud when you walked through our exhibition and said: ‘look, that’s my taonga.’”

“When it came down to Christchurch, I watched some of my own people burst into tears when they recognised photographs (of ancestors).”

Family members had since received copies of the photographs and put them up on their walls.

“It is the end of a very long journey,” Solomon reflected later “A journey that started at Te Papa. What has it done? It has taught us about ourselves. It has taught the rest of the nation about us. It has been a beautiful experience. It is a bit sad (that it is coming to an end). It is the biggest expression of Ngāi Tahu. It has been a beautiful journey.”

A NEW WORLD VIEW

Wairewa was once a thriving food basket that sustained generations of Ngāi Tahu in Canterbury. Although what you see now are bleak, murky waters, the future is bright and healthy. Kaituhitui Adrienne Rewi looks at a project to revive the lake.



Robin Wybrow, chairman of Ngāi Tahu's Wairewa Rūnanga, looks forward to a brighter, healthier future for Te Roto o Wairewa (Lake Forsyth) through the rūnanga-led project, Te Ao Hou (The New World), which includes the construction of a loch, an estuary, a groyne, a canal and the production of healthy algae for fish food and, ultimately, the vision of whales returning to their old feeding grounds in the area.



IF YOU LOOK AT LAKE WAIREWA FROM AFAR, IT APPEARS LIKE MOST New Zealand lakes – a body of cool water surrounded by hills. But up close, the water is dark and degraded. It is worse still under a microscope. If you venture out on a canoe, do not fall in otherwise you may have to visit a doctor.

It wasn't always this way. The lake, properly known as Te Roto o Wairewa (Lake Forsyth), along with Lake Horowhenua in the North Island, is one of just two customary lakes in New Zealand, and was once a thriving food basket that sustained generations of Ngāi Tahu in Canterbury. A customary lake is one where iwi have retained exclusive fishing rights for tuna (eels).

Robin Wybrow, chairman of Ngāi Tahu's Wairewa Rūnanga, sees past the bleak, murky waters and looks forward to a brighter, healthier future for the lake. He is confident that an innovative bioengineering project, developed with the help of engineer Wayne Alexander and fisheries scientist Charles Mitchell, will restore the lake to its former bounty, while at the same time providing a host of new economic opportunities for the region.

The rūnanga-led project, Te Ao Hou (The New World), includes the

construction of a loch, an estuary, a groyne, a canal and the production of healthy algae for fish food and, ultimately, the vision of whales returning to their old feeding grounds in the area.

Others also see the project's potential. Te Ao Hou is one of four Canterbury V5 award winners. V5 are projects of national significance with the potential to generate up to \$100 million of revenue for the Canterbury region within five years and \$1 billion or more within 20 years.

Both Lake Wairewa and its neighbour Te Waihora (Lake Ellesmere) suffer from high algal levels. In recent times Wairewa has had a severe problem with sedimentation and the blue-green algae *Nodularia spumigena*, which produces a deadly cyanotoxin in summer. This poses a health hazard to humans and other mammals, and disrupts the lakes' normal ecosystems, including by limiting the water oxygen needed for fish and shellfish to survive.

Wybrow says the rūnanga wanted to reinstate a permanent outlet from the lake to the sea to change the lake's chemistry, and to control the depth, temperature and salinity for the better health of our resources."

The rūnanga and Ngāi Tahu initially funded that first step, creating a 600 metre-long canal to act as a permanent "hard outlet" to the ocean.

Now, thanks to \$200,000 worth of professional assistance and project development provided by the Canterbury V5 initiative, the Te Ao Hou team will work to create a tidal estuary at the seaward end of Lake Wairewa and, potentially, a 4.3 kilometre-long canal connecting to Te Waihora.

The shared tidal estuary flows through the canal joining the two lakes and will provide the energy to sweep away the gravel build-up, creating permanent fish migration pathways for inanga (whitebait), tuna (eels), pātiki (flounder), sea trout and other fish. The ultimate aim is to restore links in the food chain, re-order the production base and increase the biomass of valuable fish species in the region, ranging from whitebait to whales.

Wybrow says the support of the V5 initiative, managed jointly by the Canterbury Employers' Chamber of Commerce, Canterbury Development Corporation and the University of Canterbury, was a turning point; allowing the team to apply critical thinking and model-

ling to parts of the concept.

Te Ao Hou is also supported by the Canterbury Regional Council, the Department of Conservation, Environment Canterbury and the Ngāi Tahu Fund.

A small team of experts has worked on the project since its inception and early development, including Christchurch-based Wayne Alexander and Raglan-based Charles Mitchell.

Alexander, who worked on the world record-breaking Britten motorcycle and developed mountaineer and motivational speaker Mark Inglis' prosthetic legs, came up with the original idea for the project.

Alexander says he was frustrated by news, several years ago, that the Christchurch City Council was considering an \$11 million contribution to building a proposed new rowing venue near the city.

"I couldn't understand why they were ignoring the lakes we'd already ruined and were prepared to build a man-made 'replacement'.

"I drove out to Wairewa and sat under the cliffs. The idea of creating a permanent canal from the lake to the sea came to me then, so I phoned the Wairewa Rūnanga and met with Robin. From there,

we began fleshing out a plan and I rang Charles – the only practical scientist I knew – and we all came together to devise a bio-engineering solution for the degraded lake.”

Charles Mitchell, who has spent the last 14 years developing his own fish farming operation on formerly rundown swampland beside Raglan Harbour, welcomed the opportunity to join the project.

Mitchell’s studies, using six 150-metre long ponds supplied with runoff from Wairewa’s 20-hectare dairy-beef operation, have shown that valuable native fish species can be grown successfully and cheaply using methods that could be applied as part of the Te Ao Hou project.

Mitchell says that the project shows early signs of success. “Fish passage has already improved greatly at Wairewa and the original, highly toxic algae (of the *Nodularia* genus) appear to have vanished.”

That said, a new, potentially toxic blue-green algal genus *Anabaena* appeared last summer, indicating that complete control of the lake and estuary system may be needed before algal blooms can be successfully managed.

Once that occurs, Mitchell says, more improvement in native fish stocks is expected, and his fish-farming approach could be used to extract value from nutrient-laden discharges into the lakes.

“I see my fish farming approach matching problems of nutrient-laden ground water discharges from dairy farms and intensified agriculture. Somebody paid for those nutrients that leach into waterways. We want to trap these nasty, unwanted nutrients and turn them into benefits for ecological functioning, wildlife and fish populations; and therefore, the people of New Zealand.”

Mitchell says that it’s time for a focus on solutions to the problem of artificially-high lake fertility, rather than continued studies of the problem.

“This ‘undertake more research’ approach has a poor cost-benefit history but it has been going on at the lakes for at least 40 years. The shift in attitude and thinking we need is from studying the most difficult problems possible to providing elegant answers. We are looking for that quantum shift.”

Robin Wybrow believes the Te Ao Hou project will provide a raft of opportunities for the Wairewa Rūnanga, Ngāi Tahu and the wider community.

“What we’re trying to achieve is an economic model based around the two lakes,” Wybrow says, “with potential business opportunities ranging from aquaculture and tourism to recreational pursuits.

“If we increase the populations of tuna in Wairewa and pātiki in Te Waihora, there will be definite economic opportunities for the iwi to go into commercial production.”

Beyond that, Wybrow sees the possibility of creating a leisure park and swimming hole at the Little River end of Wairewa, which would



“This is an ambitious, innovative, sustainable project – built by man and run by nature.”

WAYNE ALEXANDER Engineer



encourage large numbers of Cantabrians into the area.

Ultimately, he believes that by restoring the lake to good health and generating healthy algae, which will be fed out to sea via the canal, fish and whales could be encouraged back to the coastline.

“When we once again see Southern Right whales and their calves basking off Birdlings Flat, we’ll know that our vision has been achieved. By restoring the links in the food chain we’ll then be able to more fully explore wild fish ranching, and possibly even some kind of tourism venture based around the whales,” he says.

“That would be fantastic for Canterbury, and if we discharge the right food at the right time, there’s no reason why we couldn’t see whales back within perhaps 10 to 15 years. That would be the ultimate success.”

At a more immediate local level, Wybrow wants to reinstate Wairewa as a Mahinga Kai Cultural Park. “It’s all about kaitiakitanga, about looking after your resources. Mahinga kai was the social and political currency of Ngāi Tahu, and I’d love to see that happening again.”

Wybrow says the Mahinga Kai Cultural Park is an inter-generational project but he wants to do as much as he can while he is around. “We’re already further ahead than we expected to be. That’s exciting.”

The team shares a view that bioengineering will become enormously important as society shifts towards a more sustainable future – and that the concept of Te Ao Hou could be applied elsewhere.

Wybrow sums it up as a uniquely localised New Zealand response to a global problem. “We think we have a very smart opportunity to show our neighbours around the Pacific Rim a new way of approaching these sorts of problems.

“How you monitor lake temperatures, how you control lake levels and factor in weather events might all synthesise down to a piece of software down the track. There are people all around the world trying to manage toxic algal blooms, so there’s definitely room to develop intellectual property around nutrient scrubbing – with an aim of sharing that knowledge for mutual benefit.”

Wybrow praises Wayne Alexander for his crucial role in the project. “He’s a progressive thinker with a great appreciation for sustainability, and his ability to see the big picture, to collaborate as a Kiwi, not as a Pākehā or a Māori, has been essential.”

Alexander says that the action-based innovation demonstrated by Te Ao Hou is the only way forward. “This is an ambitious, innovative, sustainable project – built by man and run by nature – and concepts like nutrient scrubbing and getting clean, used water back are the way of the future.

“I don’t think we have any choice but to shift our thinking on environmental issues,” he says. “I’m all for tackling a problem head on. Anyone can say something; it’s whether or not you get up and do something that counts.”

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Restoring Taonga

Sometimes you don't realise the value of whānau taonga until later in life and by that time you may need the help of an expert to help restore it. Conservator Rangi Te Kanawa recently visited Awarua to show rūnanga members how to make their taonga last. Kaituhihi Adrienne Rewi reports.



TRISH KERR REMEMBERS RUNNING DOWN THE PASSAGE OF HER grandmother's home, brushing her hands along the base of the three treasured piupiu hanging there.

"We kids did that every time we went by; that's why these piupiu are broken along the bottom," she says, pointing to the tattered ends of her family's heirlooms.

"I vaguely remember them being stored in stockings after that. Then they were folded up and put in my pōua's old sea chest."

Trish (Ngāi Tahu) is one of several Awarua rūnanga members who gathered at Te Rau Aroha Marae in Bluff in February to attend a two-day workshop on taonga and korowai conservation. The workshop was run by Wellington-based freelance conservator, Rangi Te Kanawa (Ngāti Maniapoto), who is on leave from her role as textile conservator at the Museum of New Zealand, Te Papa Tongarewa. For Trish, the workshop was a chance to save the old piupiu, which include one dated around 1910 and given to her tāua by the Rehu family of Moeraki. She was there with her son Darcy, 17, to learn everything she could to extend the life of the piupiu and return them to the family home.

"They were part of the home for my 50 or so years, and that's where they'll be returning to – and remaining," she says.

Stories of treasured taonga being stored in unlikely and often very damaging places are not new to Rangi Te Kanawa. She's spent 12 years visiting iwi all around New Zealand in the hope of saving as many taonga as she can.

"Whānau usually keep their taonga close because they know they're precious, but I've heard of them being folded and tucked away in the

back of cupboards or under beds. I remember one case of a Rarotongan cape – now in Te Papa's Pacific Gallery under push button lighting – coming to me for restoration. It had been folded and folded and stored in a Griffin's biscuit box, but the rats had gotten into it."

Gavin Reedy (Ngāti Porou) is Te Papa's National Services Te Paerangi Iwi Development Officer. Gavin coordinates workshops like these all around New Zealand and often travels with Rangi. He too has seen taonga emerge from unexpected places.

"This workshop is all about helping iwi take care of taonga that are held in homes, on marae, stuffed in boxes, or in attics. One lady up north brought in a beautiful kahu kiwi (kiwi feathered cloak) stuffed in a rubbish bag. Rangi has seen a 300-year-old cloak in the Far North, but you only see those sorts of things if the iwi and whānau trust you. That's why we see these workshops as a cornerstone, a beginning. It's about building relationships with iwi, to see where they're at in relation to their heritage and culture. Depending on their needs, we then run workshops on textile conservation, digital photography so iwi can record and preserve their marae photos in case of fire, building a taonga database, or paper conservation to protect things like whaka-papa papers, kaumātua diaries and Māori Battalion souvenirs.

"The important thing about all the workshops is that we teach our people to teach others," Gavin says. "We can't go to every marae, so we tell them how to get the funding and where to buy materials, and then we visit them with the best tutors we can find to teach them the skills they need to pass on."

Rangi Te Kanawa says iwi have shown intense interest in the work-

shops. They share their experiences, talk about taonga and whaka-papa; and leave with a renewed sense of pride.

"It's lovely to go onto marae and have people bring in their taonga, which we often reform from stressed, tired or damaged treasures into pieces that look like new. I've seen tears fall when cloaks have been cleaned and repaired and put into their new boxes. Most whānau truly care about their taonga but they don't always know how to physically care for them. My job is to get the word out there: roll, don't fold, and don't use handles to hang garments. Store your cloaks, piupiu, kete and whāriki in acid-free boxes.

"There are those who want to have their treasures on display, not shut away in boxes; but the majority, once they see the cushioning, safe environment of the boxes, accept that this is the best way to give their treasures a much longer life – sometimes 50 to 100 years longer. People can always put photographs of the items on the outside of the box, or have a replica made that they can use and display, knowing the original will last for future generations to enjoy."

Rangi comes from a long line of traditional Māori weavers. Her mother was Diggeress Rangituatahi Te Kanawa (1920-2009) and her grandmother was Dame Rangimārie Hetet (1892-1995), both of whom dedicated their lives to the promotion and preservation of traditional Māori weaving arts. Diggeress Te Kanawa was also one of the co-founders of the Aotearoa Moananui-ā-Kiwa Weavers Association in 1983, which was the driving force behind Rangi's own conservator's training.

"It all happened after the Te Māori exhibition in the early 1980s. There was a growing awareness of the need for Māori to be involved in the preservation and conservation of taonga, and Aotearoa Moananui-ā-Kiwa were approached to find someone to train. They found me," says Rangi.

"I was at home in Ōparure, near Te Kuiti and in my early 30s, and when my mother got the call, she nominated me. I grew up surrounded by weavers and I also weave, so I took up the challenge."

After studying conservation at the Canberra College of Advanced Education in Australia, Rangi's passion for conservation was ignited. She speaks of "a tremendous feeling of accomplishment" that comes with every successful project or workshop.

"Conservation makes for fabulous before-and-after treatments, but more than that, you know you have helped arrest the degradation of a treasure; that you've upheld the integrity of the taonga and its wairua, its history, its stories. There's a very real sense of pleasure of giving and iwi receiving; of them grasping the idea that if they roll a garment, it won't be damaged by fold lines.

"That's like an awakening, and when they rest their cloak into a box they've made themselves, there's a feeling that the taonga has been given the special attention it commanded; that it's become a part of them and an item of even greater value for that. It gives them peace of mind knowing that the archival box they've created has provided the best storage that can be had, and that their taonga can now safely be handed down through the generations. The workshops also bring communities together and the kaupapa is great. I love it."

Awarua's Gail Thompson says the February workshop came about when a beautiful whitau (flax fibre) and wool-embellished korowai made in the 1850s was returned to Bluff's Riki Topi (Ngāi Tahu) and his family after the death of their family members in the Foveaux Strait fishing disaster, which claimed the lives of six people on board the

vessel *Kotuku* five years ago.

"The cloak was made for my great-great-grandfather and paramount chief of Ruapuke, Topi Patuki (Waitaha) in the mid-1850s. Reverend Johan Wohlers had established a mission at Ruapuke and he brought out a boot-maker called Mr Ott. Mr Ott's grandson was later elected Mayor of Invercargill and Toki Patuki presented his cloak to him when the first tram started running there. As far as we know it stayed with the Ott family in Australia from that time on, until they heard the news item about the fishing boat disaster," says Riki.

"They contacted Hana Morgan so they could return the cloak to its rightful place and have it restored. That's how it came to be the catalyst for this workshop," says Gail.

Riki says that although he and his family originally wanted to restore the cloak, he's going to take Rangi's advice and just conserve it as it is.

"Rangi says it's not correct to put new weaving into something that is so old and special, so we'll take care of it the right way and then we'll give it to Southland Museum along with our family pounamu that has also been handed down through the family from Topi Patuki. Eventually though, we'd like to see about getting a replica of the cloak made – one that the family can use, knowing the original will be preserved for future generations."

Tiny Metzger (Ngāi Tahu) was also delighted to be part of the



"My job is to get the word out there: roll, don't fold, and don't use handles to hang garments. Store your cloaks, piupiu, kete and whāriki in acid-free boxes."

RANGI TE KANAWA
Ngāti Maniapoto, textile conservator, Museum of New Zealand, Te Papa Tongarewa



Above left: Conservator Rangi Te Kanawa helps a whānau to physically look after their korowai; above right: Trish Kerr restoring a whānau piupiu for the next generation to enjoy.

PHOTOGRAPHS SHAR DEVINE

korowai workshop. He brought along his family's fifth-generation heirloom, a beautiful kahu kiwi, originally made in Taupō.

"I've had it for 30 years and we've had it hanging on a wall in the darkest part of the house," he says.

"It has had some moth attacks unfortunately, so it feels good to know we're now giving it a proper home in its own archival storage box."

Weaving expert, Ranui Ngarimu (Ngāi Tahu, Ngāti Mutunga), applauds the work being carried out by Rangi Te Kanawa and the National Services team.

"Thank goodness for Rangi's own foresight, and for that of the weavers' group Aotearoa Moananui-ā-Kiwa before her," she says.

"She's raising awareness of the preciousness of taonga that many people may have in a closet, a suitcase or a box, and their value, not only to the immediate family but to hapū, iwi and to New Zealand. We now have a way to protect them so we can keep on wearing them if they are strong, or we can admire them in a protected state, either in our homes or in whare taonga.

"Like Rangi's mother and grandmother, I am a weaver and like them, I have always said 'we can make new ones.' I've been in their

presence when they've articulated that and it still holds true if you are a weaver; but of course, not everyone is a weaver and things do come to the end of their lives. Now though, we can give a garment another hundred years of life, so that it can bring pleasure to future generations," she says.

The preservation and conservation though is about more than just pleasure. As Ranui points out, for some, those early garments are the only clue to the thinking and work practices "of the hands of those times."

"Aotearoa Moananui-ā-Kiwa was a very forward-thinking group for its time. It understood the need for taonga conservation and the need to test and record and to look for what might help weavers of the future. That includes research into the plants we use, like harakeke, which has been shown to have different fibre content depending on where in New Zealand it is grown."

Ranui who is based in Christchurch also restores korowai.

"Restoration is different to conservation, but of course the two are interconnected. If a whānau wants to continue wearing a garment that is basically sound, I can repair and restore it. Aunty Tiny Wright's (Ngāi Tahu) kahu kiwi is a good example. Te Papa provided the feathers for a small amount of repair and restoration to the 120 year-old garment, and now, if her whānau take good care of it, they'll still be wearing it 120 years from now.

"The future of our taonga lies with people like Rangī. It's wonder-

"Aotearoa Moananui-ā-Kiwa was a very forward-thinking group for its time. It understood the need for taonga conservation and the need to test and record and to look for what might help weavers of the future."

RANUI NGARIMU
Ngāi Tahu,
Ngāti Mutunga,
weaving expert



ful to have her doing what she's doing – inspiring others to investigate what they have and how to look after precious heirlooms. My question now is: 'What are we doing about training more people like her?'

"I'd like to see Ngāi Tahu think about training someone in this area for tribal purposes. Aotearoa Moananui-ā-Kiwa could see the benefits of putting their weight behind Rangī's conservation training and I believe Ngāi Tahu as an iwi have to actively seek some young people who may be interested in this sort of training while we've got the best people for them to train under. The conservation of our taonga is very important. I can't stress that enough."



CARING FOR MĀORI TEXTILES

Iwi and whānau are in possession of many forms of taonga in their whareniui and in homes around the country. These include woven treasures like kete (baskets), piupiu, whāriki (mats) and kākahu (cloaks), which are made from plant material and often include feathers, wool and hair. The following steps are essential for caring for such items.

- Identify the taonga and the materials they are made of and assess the condition of these materials. Handle them accordingly. You may need expert help in this, especially if they are fragile, which is where the team at Te Papa's National Services Te Paerangi can be invaluable. Anyone wanting their assistance should contact Gavin Reedy on 0508 678 743 or email gavinr@tepapa.govt.nz.
- Maintain good conservation practice when handling, storing or displaying taonga, preferably by wearing latex gloves and creating acid-free cardboard boxes for the storage of rolled items.



- Always roll garments and mats; never fold them.
- Keep taonga out of bright light. Sunlight is very damaging and causes colours to fade and fibres to become dry and brittle.
- Heat also dries out textiles; while too much moisture in the air can lead to mould and mildew. Dust, moths, silverfish and mites are also a problem when textiles are not stored correctly.

- Black dye alert: the black-dyed fibres in Māori textiles are the most fragile of all. The dye is a combination of tannin (from hīnau or mānuka bark) and paru (mud rich in iron compounds). Its acidic nature can cause damage over time, and textiles containing black dye require special treatment. They are especially vulnerable to light, heat and moisture.

TOI IHO



AWATUNA

Tuna
River native 20 million years

Tuna
From Muriwai o Whata

Tuna
He taniwha befriended
by Hine Te Ngaere, Hine Tū Repo

Smoked
Endangered

Waters
Polluted

Do we care?





PRISCILLA COWIE
Ko Ngā Puhi, Ngāti Kahu, Ngāi Tahu ki Kāti Huirapa ngā iwi



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Ngāpuhi te iwi
Ko Waana Reihana tōku ingoa
Ko ahau te kaiako o nga rorohiko ki
Te Wānanga o Aotearoa Whangarei



Waana Reihana

Kaiako for the National Certificate in Computing
Level 2 & Level 3
Te Tai Tokerau, Whangarei

Waana Reihana used to clean cars, wash dishes and cook at Whangarei Hospital just to earn enough money to help raise her family. As a result of many years working in laborious jobs she had to stop working when she sustained an injury. Waana needed to go out and find something else she could do and that realisation was not easy to come to terms with, especially at the age of 50.

She contemplated different career options but the one that stuck in her head was computing. Waana had some basic computing skills and thought she could use these skills to get a job. Unfortunately, not having a tohu (certificate) to say she had the skills

prevented her from making this career change. It was a struggle but Waana made the decision to study computing. 'It was so worth all the hard work and effort in the end', she says.

Waana started work at Te Wānanga o Aotearoa as a kaiako (tutor) for the Certificate in Computing Level 2 in 2007 when computing was first delivered in Whangarei. 'I now pass on what I know; I've witnessed ākonga (students) become computer literate and pathway to bigger things. But the greatest reward is watching them grow as people, become confident, empowered, and then taking what they have learnt back to their whānau'.

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marae kai

Manea and Pip Tainui get together for part two of TE KARAKA's new food series. They talk with kaituhituhi Adrienne Rewi about duck and the place of food in their lives, growing up at Ōnuku Marae.



*Inset photo:
Pip and Manea Tainui.*



AS PIP TAINUI PEELS KŪMARA IN HER SISTER REIANA'S Christchurch kitchen, she remembers the family's annual duck shooting pilgrimage to Lake Wairewa – how they returned to the same maimai each year as a big family group and how their father, John Tainui, came home with his catch to pluck, clean and hang the birds outside their house.

With vegetables prepared, Pip lays duck breasts and legs into a baking dish.

“Dad was always the one who roasted the wild ducks at home. He was a great cook and he was always on the phone to his mother – our tāua, Meri Tainui – to talk about food and cooking. As soon as he came home from work, he'd ring her and talk about what they were each cooking for dinner that night,” says Pip.

“Dad was also a master gardener,” adds Pip's sister Manea. “We had a quarter acre section in Akaroa and most of it was laid out in vegetable gardens. He grew all our vegetables and it was our job as kids to come home from school and do all the weeding.”

The sisters are preparing duck liver pate with quince paste and flat bread, followed by roast duck with mandarin sauce on roasted root vegetables, with sautéed zucchini and scalloped potatoes. As they work, they talk about the weekend meals at their tāua's house and the ducks and geese she roasted for Christmas dinner.

“Our tāua was a huge influence for all of us,” says Pip.

“I started going to cook with her when I was about five and I spent a lot of time with her, especially after Dad died. The first time she let me cook for her was when I was about 14. I made her groper with lemon sauce to introduce her to something a bit different.

“She had over 120 grandchildren and she knew us all individually. Food and cooking was the basis of our relationship with her and everything about those days cooking with her was special.”

Manea says their tāua's Sunday roast was legendary and people came from miles to eat at her table.

“Carloads would arrive from Christchurch, she cooked for 12 to 20 people most weekends. I was always amazed that she always had enough food no matter how many turned up. I think that's the most valuable skill I learned from her, and that's prepared me well for marae cooking.

“As a result of that, I'm now very good at looking at a crowd and guessing the numbers and quantities needed at the marae. It doesn't make me panic. I have the ability to stay calm and just get on with it. You need someone like that in a marae situation,” Manea says.

With the smell of roasting duck wafting through the kitchen, the sisters work their way through their tasks. Pip is in charge and Manea is happy to follow orders for the day.

“We all have our own cooking styles and we're all very competitive,” Manea says. “The level was always high at the Kaik with tāua setting the strongest example, and we all aspired to her level of confidence.

“Pip's preference is definitely for classic French cuisine and she loves making all the rich, creamy sauces. Rei is the opposite. She's into a more 'lean and mean' Asian-organic cuisine.” Another sister, Ngaire prefers organic cooking, Manea has been the marae cook at Ōnuku for the last 14 years and she's often joined by her sister.”

From a marae perspective, Manea says she and her sisters now place a far bigger emphasis on healthy, nutritious foods than they have in the past. Many of their recipes are based on traditional favourites – like the duck – with a new twist or small refinements like a special sauce.

“It's all about modernising some of our traditional kai,” says Pip.

“We've all done a lot of cooking on marae and while much of that is still quite conventional, we all like making something new and different for special marae events.”

Duck is one of Pip's favourite ingredients. She also names scallop mornay and seafood chowder among her favourite things to cook.

“It's all about taste and texture for me. We had a lot of those French favourites growing up in Akaroa – figs, walnuts and citrus all grow well

DUCK LIVER PATÉ

- 125g butter
- 1 small onion, finely chopped
- 1 clove garlic, minced
- 200g duck liver, cleaned
- 1 sprig thyme, leaves removed and chopped
- 1 tbsp brandy
- salt and pepper, to taste

METHOD

Melt 25g of the butter in a pan and gently fry the onion until tender, about five minutes. Add the garlic and cook a further two minutes. Add the chopped liver and thyme leaves and cook, turning constantly for five minutes. Remove pan from the heat and cool slightly. Place the mixture in a sieve and push through to form a smooth purée; or alternatively, process in a blender.

Add 75g of the remaining butter and beat until smooth. Add brandy and season to taste.

Spoon the paté into a serving dish or two individual paté pots and smooth with a spatula.

Melt remaining butter in a pan and pour over the paté. Alternatively, top with cracked pepper and cover. Refrigerate until set.



DUCK WITH ORANGE SAUCE

- 2 duck breasts and 2 legs
- 2 tbsp olive oil
- salt and pepper, to taste

METHOD

Brush the duck portions with oil, salt and pepper. Dice the vegetables and place in an oven dish with the rest of the oil. Place the duck, skin side up, on top of the vegetables. Roast in the oven on 200°C for approximately 40 minutes, basting occasionally. The duck is cooked when the juices run clear and the skin is crispy.

Transfer the duck to a platter and keep warm. Drain the juices from the pan into a bowl and remove excess fat. Strain and use these juices in the orange sauce.

FOR THE ORANGE SAUCE

- ¼ cup white sugar
- 2 tbsp water
- 2 tbsp sherry vinegar
- 1½ cups orange juice
- 2 tbsp shallots (minced)
- 1½ cups stock (juices from roasting pan, top up with extra chicken stock)
- 4 oranges, peeled and segmented, pith removed
- ¼ cup unsalted butter
- 1 tbsp orange zest

METHOD

Boil sugar and water until caramelised. Add vinegar, orange juice, shallots and stock and reduce until less than one cup of liquid remains. Add the butter and one tbsp of the zest. Stir in the orange segments.

Pour ¼ of the mixture over the duck and return duck to the oven. Reserve the rest of the sauce to reheat and serve with the duck when cooked.

SCALLOPED POTATOES

- 6 large Agria potatoes
- 1 small onion
- 300ml cream
- 300ml white wine (or chicken stock)
- About a cup of grated Parmesan cheese

METHOD

Peel and thinly slice potatoes lengthwise. Halve and finely slice the onion. Cover the base of an oven dish with a layer of potatoes, top with a few slices of onion, and continue to layer the potatoes until the dish is almost full.



Pour cream and wine or stock over the potatoes. Add salt and pepper. The liquid should cover the potatoes. Cover with foil and bake for an hour at 200 C. Remove the foil and sprinkle with Parmesan cheese. Bake a further 15 minutes until the cheese is bubbling and the potatoes are cooked through. The sauce should have reduced and set around the potatoes. Cut into portions and serve.

ROASTED ROOT VEGETABLES

- 4 carrots peeled
- 4 parsnips peeled
- 2 tbsp soy sauce
- 2 tbsp honey

METHOD

Cut the carrots and parsnips lengthwise in even pieces. Place in a roasting dish and drizzle half the soy sauce and honey over the vegetables. Add salt and pepper and bake at 200° C for 40 minutes, basting with juices from the duck. After 30 minutes, add the remaining soy sauce and honey. The vegetables should be cooked through.

TO SERVE

Place the vegetables on a plate and place the duck on top. Add a portion of the potatoes on the side and drizzle the remaining sauce over the duck. Garnish and serve.



there – and taste and texture were the most valuable things I learned from Tāua. That's because she was blind and she learned to use her sense of smell and touch to tell when something was cooked. She taught me to do the same.

“At the same time, I learned how to cook fish from Dad. He was especially good at groper and flounder and he used to cook crayfish en masse in a copper and they'd be beautiful. That's not an easy thing to do. It was a real talent of his.”

Opposite page: (clockwise) Honeyed carrots; Plating up; Duck with orange sauce and roasted vegetables.

This page: (right) Finely chopping onions.



HEI MAHI MĀRA

A beginner's guide to growing organic vegetables nā TREMANE BARR

Māra kai survival kit

February 22 was a beautiful summer day and my work was going well. We had just held a meeting to prepare for a wānanga to look into the potential benefits of organic dairy-ying for Ngāi Tahu.

Having left my lunch at home, I needed to go downstairs to buy some, but decided to write a quick email first. On the 6th floor of Te Waipounamu House at 12.51pm, we started to grin, just as we did when every aftershock gently rocked the building. This time though, within a second, we realised this was not a normal aftershock and we dived for cover under our desks. The building lurched violently from side to side as material on our desks flew around with furniture and files like missiles. Everything came crashing to the ground. The noise was deafening and I gripped the carpet to avoid being thrown out from under my desk. Ten seconds later a stunned silence. We slowly got to our feet, surveyed the damage and checked that we were all uninjured, and then we realised it was time to abandon ship before the inevitable large aftershocks came rolling in.

We knew straight away that this was not just a normal aftershock from the September 4 quake, but it was not until I walked 200 metres up Hereford Street and saw the collapsed CTV building that the true scale of the tragedy started to sink in. It took me over an hour to walk home and I had to avoid liquefaction all the way. The relief of getting there and finding all my whānau alive and well was overwhelming. Despite the mess inside our house it was still largely intact. Outside, liquefaction covered three quarters of our property and there was a large crack in the ground at the back of the garden. As we sat in our backyard listening to our Civil Defence wind-up radio, we realised we were close to the epicentre and decided to evacuate to a friend's place outside the city for the night.

When we returned the next day, the benefits of having a large māra kai (garden) in an emergency situation became obvious. February is the high point of production in the māra kai calendar and we had plenty of

With the February 22 earthquake destroying much in Christchurch, Tremane Barr wipes the silt off his vegetables to rescue what is left in his garden.



fresh vegetables and fruit available to us, as long as we could uncover them from underneath the silt. The only disadvantage was that when our water supply returned three days later, we had to boil and cool it to rinse the salad vegetables.

Other vegetables that were cooked, like rīwai (potatoes), were easy as the cooking process took care of the contaminated water issue. In our location the silt itself was not toxic, as it was mostly pure subsoil.

However in a precautionary move we abandoned the māra kai we had made on the front lawn in spring, as the sewage line for the house ran beneath it.

Having a good supply of fresh vegetables and food stored in case of just such an emergency made our house a hub for feeding friends and neighbours. For most of the first week, my wife and youngest daughter worked overtime in the kitchen to keep us all well fed. That freed the rest of us to



Left: Gardens beset with liquefaction as a result of the February 22 earthquake. Above: Your garden vegetables and fruit, such as these strawberries, can become part of your survival kit.

tackle house repairs and silt removal from the streets and garden. The task of carefully scraping the layer of silt off the rest of the māra kai was painful for me, knowing how much effort and money had gone into creating fertile living topsoil, but in the wider context of what was happening, it was a minor inconvenience. It was not possible to remove all the silt from the māra kai and some seedlings had to be removed along with the silt. However, all the well-established crops, like leeks and broccoli, survived and have continued to thrive.

Another problem for the garden was that the water supply was contaminated with sewage. I did not want this on the garden, so I had to rely on natural rainfall for irrigation. This was sufficient given the superior water retention capacity of the soil – the large amounts of compost that had gone onto the garden over the years paid off. The tunnel house was watered sparingly with cool boiled water – just enough to keep the plants alive until the water supply was declared safe for human use. However, I suspect the added chlorine will not be beneficial for soil life.

Ngāi Tahu marae played a prominent role in helping quake refugees and they are now re-discovering the advantages of having established gardens. Not only does a garden complement the food served in their commitment to healthy eating and manaakitanga, it also contributes to overall food security. As an example, Te Rūnanga o Makaawhio established a māra kai last spring at Te Tauraka Waka a Māui marae in Mahitahi (Bruce Bay), South Westland. Two tunnel houses host rīwai growing containers alongside a herb garden complete with compost maker. This allows for the recycling of kitchen waste into nutrient-rich compost for growing the next generation of food. The bulk of the funding for the tunnel houses came from the West Coast District Health Board Māori HEHA project, under Ngā Māra Kai Whenua, with a smaller amount from Te Puni Kōkiri's Māra Kai project. For marae, these gardens are a real win-win solution in terms of the taste buds, healthiness, the environment and helping with food security during a crisis.

I cannot recommend highly enough the advantages of being prepared for a crisis like

COMPETITION

For the next issue TE KARAKA has three first aid kits to help you with putting together a survival kit, and don't forget to start planning your garden so that you can enjoy a summer harvest. Simply write or email us which marae set up their own gardens in South Westland last year.

Email the answer to tekaraka@ngaitahu.iwi.nz or write it on the back of an envelope and address it to: TE KARAKA, PO Box 13-046, Christchurch 8141.



PHOTOGRAPHS: TREMANE BARR

an earthquake, by having a store of water and food, along with fresh food growing in a māra kai.

Winter is the ideal time to plan your māra kai for the coming spring. Matariki will be a special time of celebration this year in my whānau, as we celebrate surviving the old year and the renewal of life. ■■

Useful websites:

Selfcharge radio/light/siren:
www.selfcharge.co.nz

American 20-year trial reveals major benefits of organic production:
www.rodaleinstitute.org/fst

Organic Pastoral Resource Guide:
www.organicnz.org/growing-farmers/

Civil Defence:
www.civildefence.govt.nz

Tremane Barr (Ngāi Tahu – Kāti Māhaki) currently works as a consultant to Toitū Te Kāinga (Regional Development) at Te Rūnanga o Ngāi Tahu on various development projects.

Rangiora – friend and foe

Rangiora is the bushman's friend as well as a lethal poison that can kill. You can chew the gum, but never, ever swallow.

Rangiora is one of those extraordinary native bush plants that had a multitude of uses for both our tūpuna and early pioneers. Although this plant is commonly known as “the bushman's friend”, it is also a powerful poison capable of killing humans and livestock.

Starting with the obvious, rangiora has a large leathery leaf with a soft downy underside, which makes it a natural substitute for toilet paper for hunters and bush walkers caught short in the bush.

In fact, the underside of the leaf is a worthy substitute for writing paper. It serves as a medium to scribble a message on when there is nothing else at hand. Some thrifty bush scribes lifted the art of improvisation to new heights by using a rangiora leaf as a postcard, complete with address, a brief message and a stamp affixed as legal tender for delivery.



The name rangiora, the plant and its leaves hold a spiritual meaning to Māori as a symbol of life. The plant was also known as pukapuka, whārangi and several other names depending on the particular variety and the region where it grew.

Some sources suggest the plant's spring flowering signalled that the weather was safe to plant kūmara.

To gardeners, rangiora is officially known as *Brachyglottis repanda*, an attractive small tree or shrub found commonly between North Cape and Greymouth and Kaikōura in the south. It grows up to six metres in height in coastal and lowland forest, scrub and forest margins.

The leaves range in size from 5 to 25cm long and 5cm to 20cm wide but one variety, *Brachyglottis repanda rangiora*, found on either side of Cook Strait, grows to 50cm long and 27cm wide. The plant flowers profusely in spring with large clusters of creamy, fragrant panicles.

Rangiora leaves and flowers are powerful poisons if chewed and swallowed and yet those same properties give the plant strong antiseptic and disinfectant qualities, our forebears understood to dress wounds and sores.

In *Māori Healing and Herbal*, Murdoch Riley records numerous reports of the leaves of rangiora and pukapuka used to treat old sores. Early settlers mixed bruised leaves with olive oil as a poultice to treat boils.

The leaves were poisonous to stock, causing staggers in horses and cattle. Sources suggest the toxin was concentrated in the young growing tips, leaf stalks and the stems.

If a horse was “not too far gone with poison, the best treatment was to saddle it up and run it hard for a couple of hours to work out the poison,” one stockman suggested.

Despite the plant's formidable reputation as a powerful poison, Māori cut the bark on the west side of the trunk of the tree and collected the gum that exuded from the wound.

This was stored in water to keep it soft and was chewed as a highly aromatic gum to treat bad breath. Sources believe the gum may have been subjected to a process of purification before use. There was one potentially fatal catch for anyone with a taste for this gum. If you swallowed it you would die.

Māori used the gum as a scent, heating it in titoki seed oil or hinu kererū (pigeon fat) until it dissolved to produce a scented hair oil or ointment.

The gum was also used on shark hooks, but it is not known whether the gum was used to seal the bindings or whether its poisonous properties had any effect on subduing a hooked shark.

Reports suggest some varieties of *Brachyglottis* have leaves with toxic properties, but it is not clear from historical records whether Māori used the leaves of some varieties for cooking and avoided others.

They certainly used the generous leaves of rangiora for cooking, although again, it is not obvious whether they selected leaves from non-toxic varieties of the plant or if the toxins were neutralised by the cooking process.

Records suggest rangiora leaves were sometimes used to wrap fish, tuna (eels), parcels of hinu cakes and aruhe meal for steaming in the hāngi. The leaves were also used to line small harakeke kete to hold sifted pua (raupō pollen) and to cover food.

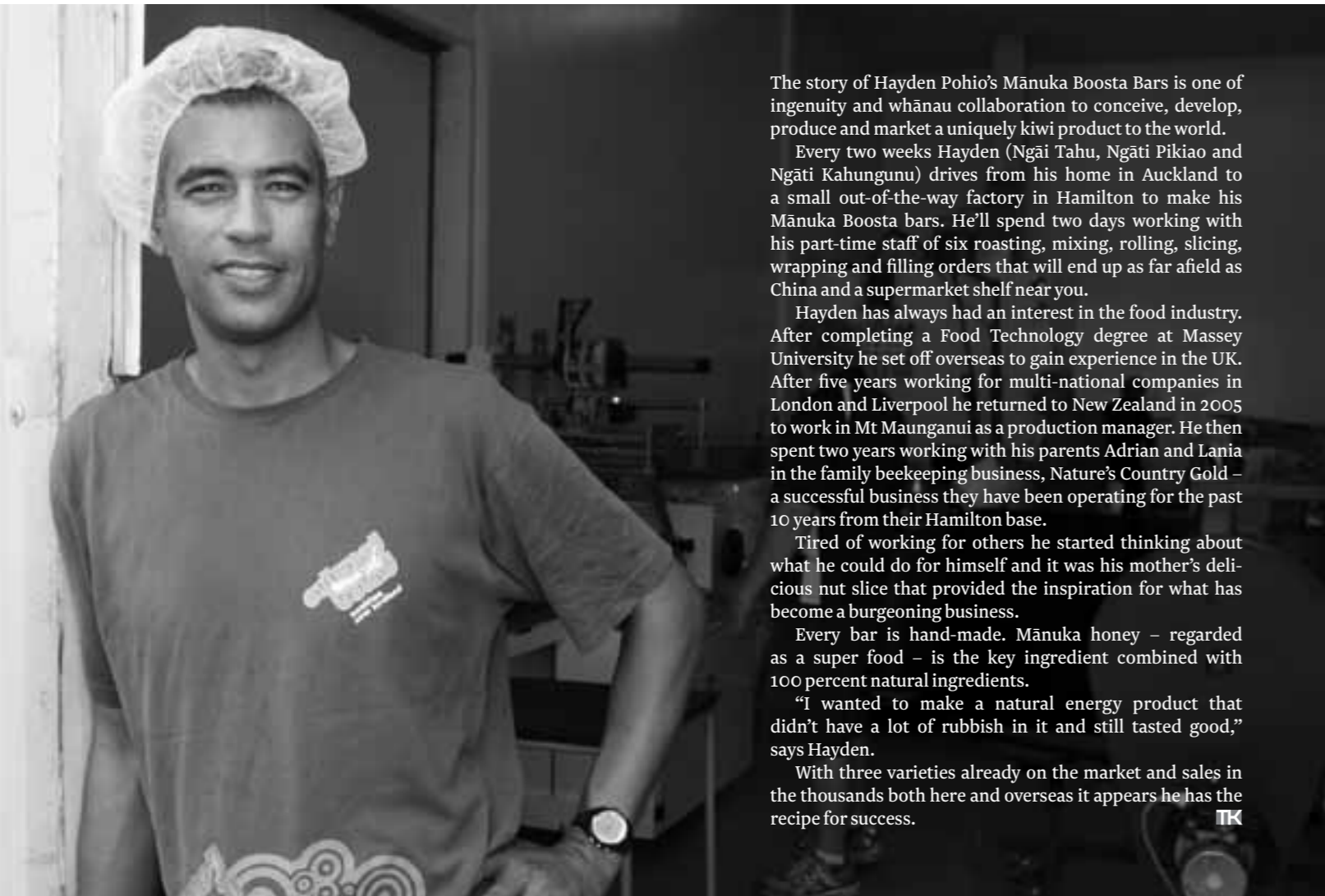
One poisonous fungi was deliberately wrapped in rangiora leaves and cooked to neutralise the fungi for human consumption.

Captain James Cook's botanists collected samples of rangiora from Queen Charlotte Sound in 1773, which were held at Kew Gardens in London. In Europe the plant is used as a homeopathic remedy for urinary and kidney complaints.

PHOTOGRAPHS AND WORDS nā PHIL TUMATAROA

Te Ao o te Māori

A WINDOW INTO THE RICH LIFESTYLES OF CONTEMPORARY MĀORI.



The story of Hayden Pohio's Mānuka Boosta Bars is one of ingenuity and whānau collaboration to conceive, develop, produce and market a uniquely kiwi product to the world.

Every two weeks Hayden (Ngāi Tahu, Ngāti Pikiao and Ngāti Kahungunu) drives from his home in Auckland to a small out-of-the-way factory in Hamilton to make his Mānuka Boosta bars. He'll spend two days working with his part-time staff of six roasting, mixing, rolling, slicing, wrapping and filling orders that will end up as far afield as China and a supermarket shelf near you.

Hayden has always had an interest in the food industry. After completing a Food Technology degree at Massey University he set off overseas to gain experience in the UK. After five years working for multi-national companies in London and Liverpool he returned to New Zealand in 2005 to work in Mt Maunganui as a production manager. He then spent two years working with his parents Adrian and Lania in the family beekeeping business, Nature's Country Gold – a successful business they have been operating for the past 10 years from their Hamilton base.

Tired of working for others he started thinking about what he could do for himself and it was his mother's delicious nut slice that provided the inspiration for what has become a burgeoning business.

Every bar is hand-made. Mānuka honey – regarded as a super food – is the key ingredient combined with 100 percent natural ingredients.

"I wanted to make a natural energy product that didn't have a lot of rubbish in it and still tasted good," says Hayden.

With three varieties already on the market and sales in the thousands both here and overseas it appears he has the recipe for success.

TK



REVIEWS

BOOKS

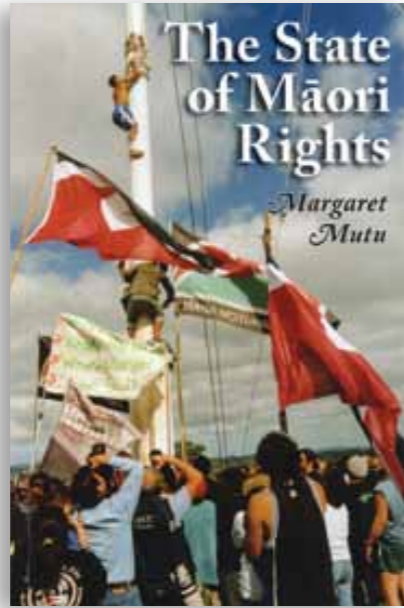
THE STATE OF MĀORI RIGHTS

By Margaret Mutu
Huia Publishers
RRP: \$45
Reviewed nā Gerry Te Kapa Coates

Margaret Mutu (Ngāti Kahu, Te Rarawa, Ngāti Whātua) is no stranger to controversy or to Treaty issues. Her view of the events that have moulded Māori history between 1994 and 2009 is showcased in this new book, an expanded collation of annual review articles she wrote for *The Contemporary Pacific: A Journal of Island Affairs*, published by the University of Hawai'i Press. Her version of what happened is gripping and reads easily, almost like a novel.

Mutu comes with a viewpoint, but one that is shared by many Māori. Of course history is usually written by the victors but remembered by the vanquished; all too often Māori. This book holds events up to the current light of day and exposes the underlying racism that has characterised much of successive governments' dealings with Māori issues. It is particularly revealing to me as someone who has been a participant over the period concerned, yet was still reminded of things I either missed at the time, or had forgotten. Even the contents pages are a potted tour of important things that have occurred.

It starts at the time of the Sealord deal, and the "fiscal envelope" – both examples of the Government of the day unilaterally determining how things should happen. The Tainui and Ngāi Tahu claim settlements followed swiftly, and it was fortunate that their lawyers were able to get relativity clauses embedded; so that when the billion dollar cap was exceeded, as it has been, there is less disadvantage. The advent of MMP and the spin-off for Māori; landmark Waitangi Tribunal reports and the flexing of the Tribunal's muscles by making binding recommendations; the long-running unnecessary war over the fore-



shored and seabed and the resulting hikoi are all covered well.

An example of Mutu's style: "On election night in November 1999, the new Prime Minister, Helen Clark, thanked Māori for returning all the Māori electorates to Labour. Māori then waited to see what Labour would return to Māori." As it turned out, very little that was good and much that was bad, including the Tūhoe raids. But the advent of the Māori Party and their inclusion in the National Government helped to regain, in Mutu's words "the respect owed us as the country's first nation".

COOKING WITH CHARLES ROYAL

By Charles Royal
Published by Huia Publishers
RRP \$45
Reviewed nā Huia Rereti

What a neat cookbook to discover.

Charles Royal proves he can cook dishes that combine mahinga kai with contemporary cuisine to create a unique Māori-influenced fusion style.

The cookbook's graphic design is exemplary, with beautiful food photography and easy-

to-read fonts, and the hand-written style of the ingredients lists is a nice touch.

The recipes seem easy to prepare, whichever page you turn to. I never start at page one with cookbooks... who does?

All are delicious-sounding recipes, except for possibly the cabbage tree hearts.

To find that these recipes have been handed down through generations of whānau and developed further by a Māori chef is even more inspiring. The results are just amazing.

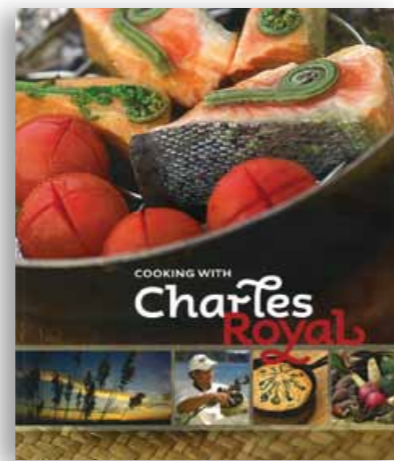
No longer should we endure bought sliced-white-bread at hui, when a recipe for rēwena and parāoa parai is here for all to follow! Take note, lazy bakers.

Many recipes feature ingredients foraged from native bush. Luckily, the author also includes information on how to obtain these ingredients from his own company. Clever.

The book is beautiful enough for the coffee table, but useful enough for the kitchen shelf. My only regret is that it does not include kaimoana recipes other than for salmon and mussels. Unfortunately neither of these two are my faves!

Otherwise an absolutely recommended read for all cooks... especially those who fancy themselves as culinary warriors!

I give this book a well-deserved 9 out of 10.



Gerry Te Kapa Coates (Ngāi Tahu) is a Wellington consultant and writer. He is also the Representative for Waihao.



Huia Rereti (Ngāi Tahu) is a partner in Modern Architect Partners in Christchurch.



Fern Whitau (Kāi Tahu, Kāti Māmoe, Waitaha) is a te reo Māori advisor at Te Rūnanga o Ngāi Tahu. Moeraki is her tūrakawaewae and she is a proud tāua who loves to read to her mokopuna.



TE RĀ TUATAHI MŌ JONAH

Nā Feana Tu'ākoī i tuhi
Nā Samantha Asri kā whakaahua.
Nā Katerina Te Heikōkō Mataira kā kupu Māori.
Nā Scholastic New Zealand i tā.
Te utu: \$19
Nā Fern Whitau kā whakaaro i tuhi.

Ka maumahara rānei koe ki tō rā tuatahi i te kura, i te wāhi hou rānei?

Hikaka ana tō Jonah manawa i te hikoi tuatahi ki te kura kōhukahuka, ekari anō te tae ā-tinana ki reira. Nā te whakamā kāore a Jonah mō te whawhao ki roto, ā, ka hoki atu rātoro ko Māmā mā ki te kāika. Ka aroha hoki ki a ia. Ao ake te rā ka tae mai a Pāpā Koroua ki tō Jonah me te mahere mūrere. Māhana a Jonah e whakamanawa kia hoki anō ki te kura?

Maumahara tonu ahau ki te wā i timata taku mātāmua i te kura; ia rā, ia rā i ārahina ia ki te kura, ia wā, ia wā ka hoki tika mai ia ki te kāika. I te mutuka iho ka tau tana noho, heoi anō he āhua orite ōna kare-ā-roto ki tō Jonah.

Ka marama a Feana Tu'ākoī ki kā whakaaro o te tamaiti, ā, tērā pea ka kōrerotia tōna whānau; he Pākehā ia, nō Tonga i te Moana-nui-ā-Kiwa tana tāne. He whānau kākano rua hoki tō Jonah. He kāwari he pai hoki kā pikitia a Samantha Asri, ka tino kitea kā kare-ā-roto o kā tākata katoa, te harikoa, te whakaokaoka, te mataku me te pōuri. Kāore e ārikarika āku mihi atu ki a Katerina Te Heikōkō Mataira, koia kai a ia mō te mahi whakamāori. He māmā, he rawe hoki te pānui i te reo Māori o tēnei pūrākau.

He pukapuka pikitia pai tēnei hai pānui atu ki kā tamariki e timata ana i te kura hou, i te kura kōhukahuka hou rānei. Ko tēnei te pukapuka tuatahi a Feana kua pānuitia e ahau, ehara i te pukapuka whakamutuka!

NGĀ TANIWHIA I TE WHANGA-NUI-Ā-TARA

Nā Moira Wairama te kōrero.
Nā Bruce Potter kā pikitia.
Nā Penguin i tā.
Reo Māori.
Te utu: \$19
Nā Fern Whitau te whakaaro

Kātahi anō au ka mōhio ki tēnei kōrero tuku iho kua tāruatia e Moira Wairama, te kaikōrero paki, te kaitito, te kaiako. Nā Tā Tipene O'Regan tēnei pūrākau i kōrero atu ki

a ia i kā tau toru tekau kua pahure ake. Kātahi nā te kōrero whakaokaoka mō te auahataka o te Whanga-nui-a-Tara.

He pakiwaitara tēnei mō kā taniwha e rua ko Whāitaitai rāua ko Ngake "e noho ana i tētahi roto kānapanapa". Pai noa iho ki a Whāitaitai te kai tuna momona, te kaukau noa i taua roto, ekari a Ngake. Ko ia mō te tiu huri haere i te roto; ko ia mō te toro atu ki te Moana-nui-a-Kiwa. I tētahi rā ka tutuki tana wawata!

Nā Bruce Potter kā pikitia ahurei i peita, kua whakaahuatia a Whāitaitai rāua ko Ngake hai moko tuauri e mau moko ana, he kōwaiwai whakamiharo.

He pai ki ahau te ako i tēnei kōrero nōnamata mō te hakataka o Te Whanga-nui-ā-Tara, kia mōhioia kā ikoā tūturu o taua rohe.

Mai i kā tamariki i te kura tuatahi tae atu ki kā kaumātua; mā kā tākata katoa tēnei pūrākau nanawe. E tika ana kia mōhioia tētahi atu kōrero nō tuawhakarere mō Te Whanga-nui-ā-Tara. Pānuitia.

THE TANIWHIA IN WELLINGTON HARBOUR

Written by Moira Wairama.
Illustrated by Bruce Potter
Published by Penguin
RRP \$19
Reviewed nā Fern Whitau

This is the first I knew of this ancient tale, retold by Moira Wairama, wordsmith and teacher, as it was told to her 30 years ago by Tā Tipene O'Regan. What an exciting description of the shaping of Wellington Harbour and the authentic place names of the region.

It is the story of two taniwha, Whāitaitai and Ngake, who live in a sparkling lake. Whāitaitai is happy cruising around feeding on juicy eels, but that lifestyle is too dull for Ngake. He loves to whirl around the lake at top speed. He wants to swim in the Pacific Ocean, and one day he achieves his goal.

Bruce Potter has splendidly illustrated Whāitaitai and Ngake as dinosaurs – dinosaurs with tā moko – how perfect.

I really enjoyed this legend. It is an exciting and interesting tale for all, from school children to kaumātua. It is also appropriate we all learn the Māori history of Wellington harbour. Highly recommended.

TE RŪNANGA O NGĀI TAHU ONLINE BOOKSTORE

Who are Ngāi Tahu? Where did we come from? What were we like before the Treaty of Waitangi? How did our kaumātua live? Good questions deserve good answers from good books:
www.ngaitahu.iwi.nz/shop/books
\$10 shipping throughout Aotearoa.



TE KARAKA has two copies of *The State of Māori Rights* to give away. To go into the draw, email tekaraka@ngaitahu.iwi.nz or write it on the back of an envelope and address it to: Te Karaka, PO Box 13-046, Christchurch 8141.



Opinions expressed in REVIEWS are those of the writers and are not necessarily endorsed by Te Rūnanga o Ngāi Tahu.

Giving your pēpi a financial head start

When is it too soon to introduce your tamariki to the concept of money and saving? The answer is never! The earlier you start saving for them and teaching them healthy money habits, the better-equipped they will be to make informed decisions about their future. It will give them choices they may not otherwise have had like pursuing an education or owning their own home. Now more than ever, financial responsibility is vital to living a healthy, happy and fulfilling life.

According to Statistics New Zealand we spend \$1.14 for every dollar we earn (Statistics New Zealand, May 2008). Also, 43 per cent of 18–24 year olds in this country have a negative net worth. In other words, they are starting out their independent lives in debt.

As parents and whānau, we are the primary role models for our kids. The money habits we teach them are the habits they will generally take into their adult life. We have a responsibility to make good the statistics by leading by example.

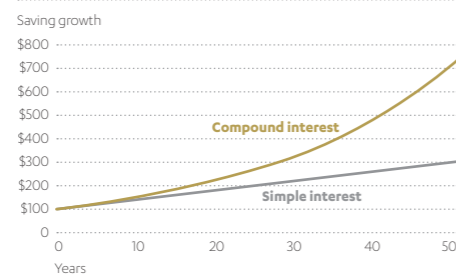
An important first step is to see what's available and what will work best for your circumstances. Most major banks offer children's savings accounts with minimal or no fees and limited access. For example, ASB offers the Headstart children's savings account and also a school banking programme. The National Bank has an interest-earning account with no transaction charges and no base fees, and the Westpac KiwiSaver scheme offers a fee-free KiwiSaver option for children.

Earlier this year Ngāi Tahu's Whai Rawa matched savings programme set up the Newborn Distribution incentive, to encourage all Ngāi Tahu to enrol their pēpi as soon as they are born. The initial conditions stipulated that pēpi must be signed up during the 2011 calendar year and before their first birthday to receive a \$60 distribution to be paid out as part of the 2012 distribution round. However, due to the delays caused by the Christchurch earthquakes, the Whai Rawa Fund Board has agreed to extend the newborn incentive to tamariki who have already turned one in 2011 but are not yet enrolled with Whai Rawa,

provided they are enrolled before the end of August 2011.

These are just a few of the options available. It really does pay to check them all out before making your decision. The key thing to remember is that the amount of money saved is less important than simply getting started early. No matter how small the contribution, there is financial gain to be made from setting up savings accounts for your tamariki as early as possible. Over time even the smallest contributions mount up. On top of that is the interest earned, coupled with compounding interest – the interest you earn on interest. For example: if you save \$100 for a year at four per cent net interest you will gain \$4 interest, making your total invested \$104. After another year the total interest will be \$8.16, as you will have earned four per cent on the \$4 interest earned from the first year. The graph below illustrates the power of compound interest over 50 years on your \$100 investment. Imagine if you had invested \$100 per year or even per month what that total might look like in time.

Power of compound interest



SAVING SENSE

Ngāi Tahu mother Cherie Meerlo firmly believes in giving children a head start by starting savings young. She signed her daughter Claudine up to Whai Rawa when she was two months old. The fund is already giving Cherie peace of mind.

"It is a fantastic savings scheme for our daughter and the money is secure and only available for her education or her first home, which is really wonderful.

"Obviously the incentive is to start saving for them as young as possible, so they will have more savings available as the years go on and as they get older.

"I believe it is important for my children to get ahead in life and with Whai Rawa it will help ensure this is possible. Any savings are good savings. Trying to get them to save money as teenagers might be mission impossible.

"Claudine's grandparents prefer to put money into a savings account for her birthdays and Christmas instead of presents, which makes perfect sense to me. Claudine already has everything that she needs and a savings account lasts her lifetime.

"Investing in property is a sure winner. I would like her to purchase her first home as young as possible.

"I want to help her get to her destination in life as soon as possible and I believe saving money elevates you to your dreams. I hope she will be clever with money and use it wisely."

TE KARAKA has three copies of *Parents: How to Stop Your Kids from Going Broke* by Sylvia Bowden to give away. This book is a common sense practical guide for teaching your children important money and life skills. To be in the draw to win a copy of this book simply write or email us at tekaraka@ngaitahu.iwi.nz or write your name and address on the back of an envelope and post it to: TE KARAKA, PO Box 13-046, Christchurch 8141.

PETER HUIA RERITI

Ngāi Tahu, Ngāti Mutunga, Wharekauri

HE TANGATA

WHAT CONSTITUTES A GOOD DAY?
Playing guitar or drums, leisurely lunch/ alcoholic beverage, fancy dinner/alcoholic beverage.

WHAT NEW ZEALANDER DO YOU MOST ADMIRE? WHY?
John Key. I reckon he has New Zealand's future mapped out!

ONE THING YOU COULD NOT LIVE WITHOUT?
My puppy.

IF YOU COULD LIVE ANYWHERE, WHERE WOULD IT BE?
Sydney.

WHO IS THE MOST IMPORTANT PERSON IN YOUR LIFE?
My partner and darling, Wendy.

WHAT IS YOUR FAVOURITE SONG?
No one fave but more like 100, each for different occasion, currently on high rotate is *Ordinary World* by Duran Duran performed live on a programme called Songbook.

ON WHAT OCCASION DO YOU TELL A LIE?
When it suits me.

WHAT CONSTITUTES A BAD DAY?
Any illness.

WHAT IS YOUR GREATEST FEAR?
Abandonment.

WHO IS YOUR FAVOURITE SUPERHERO?
Batman... although in earlier years it was the 'Mighty Thor'.

IF YOU COULD BE A SUPERHERO, WHO WOULD YOU BE?
Batman.

WHAT IS YOUR WORST CHARACTER FLAW?
Inability to suffer fools gladly.

WHICH TALENT WOULD YOU MOST LIKE TO HAVE?
Guitar skills like Eddie van Halen, or drum skills like Steve Jordan (John Mayer Trio's drummer).

WHAT'S YOUR FAVOURITE CHILDHOOD MEMORY?
Holidaying with whānau.

WHAT COUNTRY WOULD YOU MOST LIKE TO VISIT?
United States of America.

DO YOU BUY LOTTO?
When it's over \$10 million.

WHAT WOULD YOU DO IF YOU WON LOTTO?
World travel.

DO YOU BELIEVE IN REINCARNATION?
Probably not, but really don't know enough about it.

EVEN IF YOU DON'T, WHAT WOULD YOU COME BACK AS IF YOU COULD?
Any famous singer songwriter from the 70s.

WHAT IS THE BEST GIFT YOU'VE EVER RECEIVED?
I should say my kids... but probably my Gibson American Standard Les Paul guitar (Goldtop finish).

FAVOURITE WAY TO CHILL OUT?
Watching recorded Arts Channel telly with my pup early Sunday morning.

WHAT IS YOUR MOST ADMIRABLE QUALITY?
Easy-going, straight-up, honest.

DANCE OR WALLFLOWER?
Dance. 80's 'Robot', woo-hoo!

WHAT IS THE LAST BOOK YOU READ?
Keith Richards' autobiography.

WHO IS YOUR FAVOURITE AUTHOR?
No one really, maybe J K Rowling... coz I did read the whole Harry Potter series!

IF YOU HAD TO WATCH SPORT ON TELEVISION, WHAT WOULD IT BE?
Er... everything!

WHAT FOOD COULD YOU NOT LIVE WITHOUT?
Probably sausages.



Peter Huia Reriti (Ngāi Tahu, Ngāti Mutunga, Wharekauri) is 47 years old. He is a director at +MAP Architects. He is the son of Peter Reriti and Aroha Reriti-Crofts, and his pōua and tāua are Edward Te Oreorehua Crofts and Metapere Ngawini Barrett.

WHAT MEAL DO YOU COOK THE MOST?
Seared beef fillet, with beef jus, and flavoured mash, asparagus, peas or french beans.

WHAT'S YOUR BIGGEST REGRET?
Not learning a musical instrument when I was a young lad.

WHAT IS YOUR GREATEST ACHIEVEMENT?
My own (immediate) whānau.

Strengthening Ngāi Tahu

Calling for project applications now

Whakapapa
Te Reo me ōna Tikanga
Mahi Toi
Whānau Development
Whenua Development
Mahinga Kai
And more

Taikawa Tamati-Elliffe
(Kāi Tahu, Kāti Māmoe,
Waitaha, Ngāti Mutunga,
Te Atiawa ki Taranaki,
Ngāpuhi) got his first
taste of sailing on a
traditional waka hourua
through a 2010 waka
wānanga project
supported by the
Ngāi Tahu Fund.

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Applications close last Friday of March and September. www.ngaitahufund.com email funds@ngaitahu.iwi.nz

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