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Valpapa laumata Rau Valpap

WAIORA PORT

Distinguished wahine toa who rose above te reo Māori ban Page 6

MEET THE KAIĀRAHI

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BOOST TO bFM COFFERS

Vinyl sale, Give-a-Little and other ideas for financial sustainability

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TRAIL OF MEMORIES

As the Epsom Campus readies to move, its art history is on show Page 10

NGĀ KAUPAPA O **TE WĀ**

A selection of University staff and students who provided expert commentary in the media recently. Let us know! Email: uninews@auckland.ac.nz.



MORE THAN THE BLUES

Dr Felicia Low (Koi Tū's Knowledge Hub for Maternal and Child Health) told RNZ's The Detαil that post-partum depression is nothing like the 'baby blues'. It can be triggered by hormonal changes, poor housing, family violence, poverty, isolation and/or depression, a difficult pregnancy and traumatic birth. "It can be overwhelming to suddenly be holding this new baby and feeling all this sense of responsibility for a brand new life."

Link: tinyurl.com/rnz-felicia-low



SKINNY GENES

Dr Hilary Sheppard told Newshub about growing gene-edited skin that could treat epidermolysis bullosa, a rare condition where skin is fragile and blisters. Taking a tiny skin sample from a patient, her team fixes the gene that causes the condition and grows sheets of skin. The research may lead to repairs for patients' damaged skin or wounds.

Link: tinyurl.com/newshub-sheppard-skin



BEHIND THE POLITICAL SCENES

Associate Professor Jennifer Lees-Marshment spoke to Radio Waatea about the role political staffers play in the success, or otherwise, of any government, and some of the challenges they face. Jennifer has a book due out on the subject at the end of the year.

Link: tinyurl.com/waatea-lees-marshment



EYE DROPS TO REPLACE GLASSES?

Physiology researcher and optometrist Dr Alyssa Lie (Medical and Health Sciences) talked to Kim Hill on RNZ about pilocarpine, a drug approved for use in the US as Vuity eye drops. Most people over 40 have some difficulty reading, a condition known as 'presbyopia'. Alyssa is researching how the drug works at a molecular level to lubricate the muscles of the iris, giving people greater depth of focus for reading.

Link: tinyurl.com/rnz-alyssa-lie-eyes



BEST TO SHOOT THE GAP

As a number of teams had penalty shoot-out chokes at the FIFA Women's World Cup, doctoral student Robyn Sullivan told Newshub about her research into the art of penalty-taking under pressure. After observing players shooting hundreds of penalties in the lab, Robyn said one mistake is focusing too intently on the goalie.

Link: tinyurl.com/newshub-shootout



DITCH THE SECOND CROSSING

Urban Planning expert Timothy Welch (Creative Arts and Industries) told The Spinoff that instead of waiting for a second harbour crossing to be built, a walking and cycleway could quickly be implemented on the Auckland Harbour Bridge. "We can't afford to kick the can for 15 years." Link: tinyurl.com/spinoff-crossing-welch

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Cover portrait: Marcos Mortensen Steagall

Māramatanga: Ilan Oshri

Editor: Denise Montgomery denise.montgomery@auckland.ac.nz Photography: Billy Wong, Chris Loufte, William Chea Design: Abigail Kerr Production: University of Auckland Volume 53 - Issue 7 - September 2023 Published by: Waipapa Taumata Rau, University of Auckland Communications Office, Alfred Nathan House, 24 Princes Street, Private Bag 92019, Auckland 1142 Web: auckland.ac.nz/UniNews

Something to share? The next UniNews is October 2023, copy due 14 September. Email: uninews@auckland.ac.nz

For the fortnightly Whaimōhio The Loop newsletter, email: staff-comms@auckland.ac.nz. Deadlines are on the intranet under News, Events and Notices, The Loop.

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The headlines were jarring. Radio bFM was selling off part of its record collection to stay afloat. So how did it go?

When 6,000 albums were laid out on the trestle tables on 19 August for the record fair at bFM, there was a little bit of sadness.

But also, music lovers had to admit the sell-off hit the sweet spot between philanthropy and excitement at the prospect of getting their hands on some previously loved vinyl.

All purchases from the vinyl sale went towards boosting the coffers of the radio station and were described as a 'last resort' by bFM general manager Tom Tremewan in August.

But maybe bFM is just a super-smart marketer. As well as the record sale getting close to Tom's optimistic target, the station's Give-a-Little page has been going gangbusters following the publicity around bFM selling off some of its record collection.

From 1 August until the time *UniNews* went to print, Give-a-Little had raised more than \$15,000 in visible donations, not including the private amounts given. Listeners young and oldish were happy to part with funds to save the day, with some opting to have their name and song choice read out on air for a few dollars. From a request for Hüsker Dü for \$100 to \$5 for Electric Wizard's 'Vinum Sabbathi', the asks were as wide-ranging as the donations and a bFM playlist. There was \$1,000 from someone who said a world without bFM would look pretty much upside down.

"We are proud of our community for rallying around us and supporting the station in a time of desperate need," says Tom. "Many customers found hidden gems and got away with a steal – purchasing \$20 'bargain' records and then finding out some of those retail on vinyl reselling sites for \$200 to \$800. But we know those records are going to homes that will love them, not for their retail value, but for their cultural value."

Tom says no one wanted to sell but it had to be done.

"It was something we needed to do to sustain ourselves. It's the big picture. It wasn't an easy decision, but it's a cash injection."

One place that cash is needed is to upgrade the radio station's backroom servers and replace "old, clunky" computers.

Rachel Ashby, Campus bFM's Breakfast host for four years, says the station is important not just for its support of independent music, but as a training ground for journalists, commentators, technicians, advertising creatives and artists.

The BA/BFA Honours graduate started at bFM in a volunteer role, the same as the backbone of its workforce. She then ended up hosting an arts show and is now one of 12 paid staff, two contractors and around 170 volunteers.

"In an ideal world, bFM would be more sustainable and that's what we're working towards," Rachel says. "Supporting the station is important because if we lose something like this, there's no way to replicate it."

As well as the vinyl sale and Give-a-Little, there's the world famous – in Auckland – bCard.

"It's a sort of Patreon subscription service where people pay \$4.20 or \$9.50 a month – or \$100 – depending on financial circumstances. It's a way of saying, 'I support this station and I want to just keep it ticking over'. It makes a massive difference for us to get that type of support."

Campus bFM is owned by the AUSA Media Trust, which is owned by the Auckland University Students Association. As well as support from AUSA, bFM gets some funding from NZ On Air.

Part of the station's mandate is to be financially sustainable.

"We have a three-pronged strategy to being financially sustainable. We have a bunch of plans and schemes on the horizon that also include alumni and the whole community of bFM."

Rachel says since starting out as Radio Bosom

PITOPITO KŌRERO

in 1969, bFM has had a big part to play in the culture of Tāmaki Makaurau.

"Our listeners are people who really care about independent music. They care about independent journalism and alternative culture.

"We're a platform for interesting ideas, and that independence is a big tenet for us."

The station's creative advertising department is renowned and bFM has also been a media training ground for some of the best-known names in arts, fashion and mainstream media, including Francis Hooper, Simon Grigg, Murray Cammick, Jeremy Wells, Wallace Chapman, Mikey Havoc, Paul Casserly and Charlotte Ryan. (The list is long ... visit the 95 bFM Historical Society on its website.)

Charlotte, RNZ's *Music 101* host on Saturdays, popped back into the studio recently and said she felt like she was coming home. "I wouldn't have been the person I am today without bFM."

Says Rachel: "So many of our volunteers, DJs and journalists have gone on to have really significant roles in music, broadcasting, television, art, and the like. Our people are united in shared values, that's the best way to explain it."

Values worth preserving.

■ Denise Montgomery





POLLEN TRAP STICKS IT TO ALLERGIES

A metallic pollen trap with sticky tape has been installed on the roof of the Auckland War Memorial Museum so health researchers can gather data on pollen and spores that can trigger allergic reactions.

The last time pollen was trapped and analysed in Auckland and across New Zealand generally was in 1988.

"We simply don't have recent data that tells us about how these pollen triggers may have changed in recent decades in response to changes in climate, land use and vegetation," says Dr Amy Chan, a pharmacist and asthma researcher in the Faculty of Medical and Health Science (FMHS). "There's a real need to look at pollen and how this relates to health."

Amy and Dr Stuti Misra (also FMHS) are leading the initiative to unravel the links between pollen and allergic disease. The work is funded by the Auckland Medical Research Foundation, Health Research Council and Life Al Corp, and will follow 300 asthma patients for six months to see if there are correlations between their asthma, and amounts and types of pollen.

Stuti, an optometrist and scientist, is conducting pilot research on the effects of seasonal variation on the eye surface. She has noticed inflammatory cells in the cornea of those with allergies and wants to investigate if pollen is to blame.

Amy says the pollen capture is part of a larger project tackling New Zealand's high rates of asthma. The Auckland research team is collaborating with Massey University and has also been assisted in its access to the location by staff at the Auckland Museum, which was also the site of the 1988 pollen trap.

Jodi Yeats

Full story and video: auckland.ac.nz/pollen-trap-research





A project to understand the benefits of 'living' roofs has sprouted at the Faculty of Engineering.

Hundreds of plants are being used to transform the rooftop of the Engineering building as part of a trial to facilitate the uptake of green roofs in Aotearoa. Green or 'living' roofs have many environmental benefits. They can be used to help manage stormwater runoff, improve air quality and provide a natural habitat for wildlife. They can also help to combat rising temperatures in the fight against climate change.

"The extreme weather we've seen this year has highlighted the urgent need to accelerate climate change mitigation and adaptation work," says research lead Associate Professor Asaad Shamseldin.

"Increasing green spaces and making our cities spongier is essential to reduce the impact of weather events like Cyclone Gabrielle and the Auckland floods in January."

The project to understand the benefits of living roofs over conventional roofs is a collaboration with Auckland City Council. Asaad and a team of engineering students will use seven small-scale experimental plots to test different configurations of planting soil build-ups and use the data to inform future green roof designs in New Zealand.

"A lot of the research about living roofs comes from overseas, so we need to figure out what plants work best in our climate and local conditions," says Asaad.

An ultimate goal is to investigate the concept of using the living roof to produce food.

The project aims to create replica test beds of Auckland's Central City Library living roof and will support our understanding of the hydrological benefits that living roofs may be able to provide in contrast to conventional roofs.

■ Hussein Moses

Full story: auckland.ac.nz/green-roof-trial



NEW DIRECTOR FOR ABI

Professor Merryn Tawhai has been named the new director of the Auckland Bioengineering Institute (ABI).

Merryn, who became a professor in 2014, has been deputy director since 2013. She takes up the directorship in September.

Following her PhD in Engineering Science

from this University, Merryn continued as the Maurice Paykel Postdoctoral Fellow, focusing on computational physiology of the respiratory system. She has established new methods for biophysical modelling of structure-function relationships in the lung which are used to study and predict individual patient response to acute and chronic lung conditions and their treatment.

In 2016, Merryn was awarded the MacDiarmid Medal by the Royal Society of New Zealand (RSNZ) Te Apārangi and is a Fellow of the RSNZ. In 2018, she won a University Research Excellence Medal and is a fellow of both the American Institute of Medical and Biological Engineering and the International Academy of Medical and Biological Engineering. She was Director of the Medical Technologies Centre of Research Excellence from 2018-2021, and is on the board of directors of Cure Kids Ventures.

Former director, Distinguished Professor Peter Hunter, the founder of the institute, has stepped down to pursue his research area of digital twins.

Megan Fowlie

WHAT'S INSIDE A TUATARA GUT?

A CAM REVEALS

Biological Sciences doctoral candidate Cam Hoffbeck's talk about the microbiome of the tuatara took out the top prize at the Three Minute Thesis Final in August.

Impressing the audience and judges alike, microbiologist Cam Hoffbeck from the Faculty of Science took out both the top doctoral prize and the coveted People's Choice Award.

"It was a shock to win," says Cam. "The presentations were all very well put together, and I enjoyed hearing about everyone's research. I would've had an impossible time picking a favourite from such a solid crowd of presentations."

She believes the ancient tuatara, native to Aotearoa, is a worthy candidate for attention.

"I hope the audience's enthusiasm reflects their interest in the tuatara and its conservation, and that they take away a bit of what makes tuatara so special."

Originally from the US, Cam arrived here on a Fulbright Scholarship in 2020 and quickly became interested in New Zealand conservation. Having won the University of Auckland Finals, her next challenge will be to represent the University at the 3MT Asia-Pacific Final and U21 3MT Final. Last year's doctoral winner Trevyn Toone (Faculty of Science) went on to win the Asia-Pacific Final, for his talk on the restoration and recovery of the green-lipped mussel.

"I'm really excited to share my research about a unique New Zealand species to a non-New Zealand audience. I didn't know much about



tuatara before coming here so I'll be interested to see if it goes down internationally!"

Her hope is that her research adds to our understanding of what makes tuatara so unique; and the answer might be in their guts.

"Tuatara have been really successful in New Zealand over millions of years, and their microbiology may be part of that story, and how they might adapt to a changing climate.

"They're also very important as taonga species, but aren't necessarily on people's radar as one of the coolest inhabitants of New Zealand and in need of conservation."

Doctoral runner-up was Faculty of Medical and Health Sciences student Anantha

Narayanan. Anantha is training to be a vascular surgeon and during the course of his research found the use of music during operations was widespread around the world, but what sort of a difference it makes has yet to be widely studied.

Masters winner Robbie Delany, from the Faculty of Science, talked about his research on the impact of air pollution, in particular, carbon monoxide, on the brain.

Robbie will go on to compete at the national Inter-University Masters Final, which will be hosted by the University of Auckland this year.

■ Julianne Evans

Full story:

auckland.ac.nz/tuatara-3mt-winner-2023

GROUND CLEAN

A new technique has been developed to destroy dangerous 'forever chemicals' left in the soil from firefighting foam.

The proof-of-concept study by University of Auckland scientists, collaborating with the US Environmental Protection Agency, showed that grinding or 'ball milling' appears viable for decontaminating soil from military bases, airports and refineries around the world where the foam was used over decades.

Contaminant chemicals called PFAs don't break down naturally and, at certain levels, have been linked to cancers, reduced fertility, liver damage and other adverse health effects.

Cleaning up PFAs from the environment is a massive task. In the US, individual sites can have thousands of tonnes of contaminated soil, with

the US Department of Defence estimating in 2021 that its clean-up could cost \$31 billion.

Ball milling in a Faculty of Science chemistry laboratory destroyed 99.88 percent to 100 percent of PFAs in soil from a decommissioned New Zealand Defence Force firefighting training site.

Dr Kapish Gobindlal, an honorary academic in the Faculty of Science, and chief scientist for the company EDL Intense, says grinding at extremely high speed by metal balls left a safe by-product.

Kapish's doctoral research was supervised by Professor Jon Sperry and Dr Cameron Weber from the University's Centre for Green Chemical Science. It has been published in the journal *Environmental Science: Advances*.

■ Paul Panckhurst

Full story: auckland.ac.nz/forever-chemicals





WAIORA PORT: LIFELONG LEARNING WRIT LARGE

When Dr Waiora Port was growing up, there was no such thing as Māori Language Week. In fact, quite the opposite. She was even told to stop using her original Māori name.

Dr Waiora Port is an academic, mother and grandmother, but hides the pride in how her life has turned out. She says a "kūmara never speaks of its sweetness".

Waiora (Te Aupouri, Te Rarawa) was born in Auckland but her whānau moved north to their tūrangawaewae, Manukau in Northland, when she was three months old.

"I was brought up with tikanga Māori because my mum was Māori. But I was also a graduate of the assimilation policy - I went to a 'native school' where we were not allowed to speak te reo Māori.

"At the time, this wasn't such a problem for me because our dad was Pākehā. I just became a brown Pākehā."

Waiora's real first name is Ramari, but she became known as Waiora. She's philosophical about it, in the way of people of her generation.

"R, especially at the beginning of the word,

is the hardest letter for people to pronounce learning the Māori language."

The headmaster said, "We can't pronounce her first name. 'Call her Viola, her second name.' But because there is no V or L in Māori, my Māori grandmother thought she was pronouncing Viola correctly by calling me Waiora."

Waiora stuck. "When I began learning te reo Māori in 1968, each learner chose a Māori name. I decided to stay known as Waiora in honour of the memory of my dearly loved grandmother calling me that."

Waiora says the progress we've made with the acquisition and acceptance of learning te reo Māori in recent years is "amazing".

"Sure sometimes there's a backlash, but we all just need to keep going. In fact, whatever language belongs to you ... you need to stay connected to it - Māori, Pacific languages, whatever."

Waiora returned to Auckland when she was eight and was in her thirties when she learned te reo. Since then, it's been part of her life and mana in her many roles, including her ongoing role on the Māori Advisory Board for the Centre for Brain Research (CBR) in the Faculty of Medical and Health Sciences. Which may not be so remarkable but for the path she took to get there.

Oh, and the fact she's 90 years old.

Waiora began her first degree at the University of Auckland at 56, completing a BA double major in Education and Māori Studies in 1992, aged 60. She'd been teaching for years already, with the equivalent of a degree; a primary teaching certificate earned in 1953 and graded by inspectors during her classroom placement.

"I taught at Richmond Road School for 15 years. We were working seven days a week, making resources for a new bilingual school as well."

KŌRERO MATUA

She felt burnt out. "When you get crabby with children, you shouldn't be there because it's not fair. There must be joy in education.

"I decided to go to university and resigned at the end of 1987. A few days later, I was approached by one of the members of the school committee to become supervisor of Te Kōhanga Reo o Ritimana in Ponsonby, which I'd worked with the community and school to help establish and open in 1985."

At first she joked that she didn't want to be dealing with children under five, and that she would stick to her dream of going to university.

"I'd always been jealous of those who had gone. But then I took time to consider. I believed in te reo and always wished my children had had the opportunity to attend a kōhanga. I eventually offered to do three days a week there for a year, while also enrolling in six papers at uni.

"I surprised myself by doing well. It was hard work but I managed, with help from wonderful staff, to stay in that position for four years and so complete my undergraduate degree."

After Waiora graduated with a Bachelor of Arts, her skills were sought by a different faculty.

"Geneticist Cyril Chapman from the Medical School wanted someone who could speak Māori to help him with his research on club foot, to speak to Māori families."

She felt an obligation to help as there was club foot (talipes equinovarus) in her own whānau.

"It's six times more likely in Māori than Pākehā." Up until she began working on Chapman's research, she hadn't had to use a computer but tackled that like she has everything in life.

"I thought learning how to use one could be an asset to me "

Waiora took the 18-month contract and initially thought she'd put her MA on hold, until Graham Hingangaroa Smith (Ngāti Porou, Ngāi Tahu, Ngāti Apa and Ngāti Kahungunu) and Linda Tuhiwai Smith (Ngāti Awa, Ngāti Porou), both now professors, encouraged her to continue. She was able to enrol late and the late fee was paid.

"Graham and Linda were the best education lecturers ... we did things in a Māori way together, helping each other."

The result was a MA thesis, incorporating skills learned in her BA alongside Chapman's genetic research, called 'He mate huhua, he tirohanga Māori: Clubfoot, Māori attitudes to disability'.

Following the MA came a PhD and by now her focus was health research. "But I'm a social scientist so medical science was all new for me.

"What I'd say about that is you need social scientists to be able to talk to the people, the patients especially, or you can't make progress.

"It's how we work together that counts, and culture is important in people's recovery. If your mind is upset or you don't understand, it's not going to be a good outcome."

Her doctorate was a steep learning curve, but one she embraced.

"It was much harder because I'd crossed over from education to health so I couldn't go back on all my readings from education; I couldn't draw on what I'd learned before."

It was also tough personally because she began her doctoral research not long after she and husband Garth tragically lost one of their five daughters to bowel cancer, aged just 43.

Having something else to focus on kept her busy and learning at a very difficult time.

"I learnt a certain amount about genetics, but mainly my role was to negotiate between clinicians and families; to be their speaker if they were too shy or just reluctant."

"You need social scientists to be able to talk to people, the patients especially, or you can't make progress. It's how we work together that counts."

- Dr Waiora Port, Faculty of Medical and Health Sciences

In 2007, aged 74, she graduated with a PhD in Māori and Pacific Health and Molecular Medicine with her thesis: "He whakamātautau pi taua mo te mate pukupuku: ngā tikanga a te ao Māori/ DNA testing for cancer susceptibility: the needs of Māori"

"I couldn't have done all this without a spiritual belief and a deep feeling of being helped."

Over the years, she herself has helped many people, not just her whānau which includes 11 grandchildren and six great-grandchildren. In August she was helping again, with preparations for a granddaughter's wedding.

She even helped out at the University on a significant birthday, after she was asked by Professor Sir Richard Faull, director of the Centre for Brain Research (CBR), to give a mihi and korero at the inaugural lecture of Professor Chris Shaw, who joined the CBR in 2022. It was the day she turned 90, 17 October. Fittingly, she received a big bunch of flowers at the end.

Sir Richard describes Waiora as "our taonga". He had first met her in the 1980s when she was a research assistant.

"Right from the beginning, and later with the establishment of the CBR, Waiora has been our 'rock' for our outreach and engagement with Māori. She has advised, guided and mentored us on all things Māori.

"As our kuia, Waiora always accompanies us on

our CBR hui and visits to marae and whānau and ensures we follow tikanga for all engagement with whānau, hapū and iwi.

"She mentors our research group leaders and graduate students in our Māori outreach and engagement. She has also been pivotal for me personally, as a guiding light in my personal outreach and engagement with my whakapapa, Te Āti Awa, Ngāti Rāhiri."

Waiora also had obvious experience of longevity she could draw on while working with researchers on the LiLACS study, a long-running study of New Zealanders living into advanced age.

In her 91st year, Waiora is still making jam, baking pikelets and scones for guests, and trying new things. Outside her family home of many decades, under a big shady tree, is a chair in which she sits from time to time.

"I've been doing 'earthing," she laughs. "Sitting with my bare feet on the ground. I've heard it's good for your health. I'm sure I feel better!

"Initially I lived my life like I was going to die aged 60, because none of my aunties or uncles on my mother's side lived to that age. Around five cousins died when they were about 57. That's why I wouldn't let my children give me a 60th birthday party."

Garth, Waiora's husband of more than 60 years, died in 2014 and is buried in an urupā at Manukau. Although he was Pākehā, kaumātua agreed he could be buried there.

"He's in the basement and when I join him, I will be in the penthouse," she laughs.

Not any time soon, I say.

"Oh no, I'm all good. But when I do go, I don't mind. I'm ready."

■ Denise Montgomery



This month, thousands of students will graduate from Waipapa Taumata Rau. This graduation photo shows Waiora Port with her whānau on the occasion of her MA (Education), aged 62.

INTRODUCING THE KAIĀRAHI OF WAIPAPA TAUMATA RAU

The Kaiārahi attached to faculties and departments are Māori leaders appointed for their knowledge of te ao Māori and involvement in their communities. Te Rina Triponel talks to six of the University's 13 Kaiārahi about their roles.



Hone Thorpe



Tui Kaumoana, Kaiārahi, UniServices

Tui Kaumoana (Waikato, Ngāti Maniapoto) is a businesswoman, ethicist, māmā, wife and grandmother. Raised with the influence of her elders, Tui inherited mātauranga passed through generations. She also speaks three languages, English, te reo Māori and Mandarin, and has a postgraduate diploma in Māori Business Development and a MBA from the University.

Her early career was spent working for her iwi at Waikato Tainui and the office of the Māori King, Te Tari o te Kiingitanga, before further study at the University.

Tui says the focus for all Kaiārahi is to provide a strategic Māori lens across their departments or faculties to ensure culturally safe environments are provided for all kaimahi (staff), tauira (students) and external partners.

She believes "success is succession" so creating pathways for rangatahi leadership has been her priority. She has led a Māori internship programme since 2020.

Part of her role includes using her expertise as a Māori ethicist for the University. She is part of the kaitiaki group for the longitudinal study Growing Up In New Zealand and a member of the Liggins Institute Māori Advisory Board.

"The Human Participants Ethics Committee offered a crash course in realising the importance of having a qualified Māori voice at the table," she says. "A lot of my time is spent making recommendations to protect kaupapa Māori research, Māori data usage and intellectual property protection."

Tui is married to Michael Steedman, the University's Kaiarataki, Deputy Pro Vice-Chancellor Māori, who became the inaugural Kaiārahi in 2010, in the Faculty of Science.

Hone Arohaina Te Topa Thorpe, Kaiārahi, **Faculty of Business**

Hone Arohaina Te Topa Thorpe (Te Āti Awa) comes from an education and activist background. He's a te reo Māori champion who took part in the Māori Language Petition in 1972, alongside Ngā Tamatoa and Te Reo Māori Society.

He describes that petition as, "a monumental occasion that I have never forgotten".

"The speeches in te reo Māori on the steps of Parliament still resonate today in my work in the

"It's up to everyone to

keep te reo Māori and

tikanga alive." - Hone Thorpe

Hone has a strong interest in selfimprovement through learning and thinking about how accounting, business, law, economics,

Business School."

entrepreneurship, governance, marketing, management and systems should be part of the Māori world.

His focus as Kaiārahi has been in strategy development to bring more rangatahi Māori into these areas and to work with staff so Māori can succeed as authentically Māori in the University's Business School. He has written two high-school economics books, one on inflation and the other on employment.

He encourages everyone to get on their te reo and tikanga journey. He says he is always learning. His mantra is, 'Kei hea te komako e kō? Where will the bellbird sing?'.

"That means it's up to everyone to keep te reo Māori and tikanga alive. If we do nothing, then we have cut the shoots of the harakeke. Kia whiua! Kia kaha!"

Teariki Tuiono, Kaiārahi, Faculty of Science

Teariki Tuiono (Ngāpuhi, Ngāi Takato, Ngāti Ingātū, Kuki Airani) has been an educator most of his life. In South Korea and Southeast Asia, he taught English at universities and private institutions and taught bilingual education at the University of Canterbury. He is also a social entrepreneur and publisher, a culturally responsive educator, and the Kaiārahi for Te Whare Pūtaiao, the Faculty of Science.

Teariki cares deeply about South Auckland and it influences much of his

teaching.

"I'm a big fan of incremental change that brings everybody on the journey, as opposed to telling people, 'This is how it is: do it," he says.

"As Kaiārahi, we take a unified approach, because at the end of the day, every single one of us has a role to peel the potatoes at the marae."

Teariki's focus is developing culturally safe spaces in the Science faculty and supporting students to succeed through their culture and language. He is working on two strategic frameworks for Māori and Pacific students, as well as Tangata Tiriti, a programme to educate about the importance of Te Tiriti o Waitangi.

"A Kaiārahi's role is to accelerate success for Māori and Pacific in their learning pathways."

There has been progress. In May, he presented science degrees at the Māori graduation ceremony, joking that he "needed new shoes by the end of it".

"This makes me excited - to welcome and work alongside more Māori scientists, and to see them forge their futures."

KŌRERO MATUA







Dr Peter Keegan, Kaiārahi, Faculty of Education and Social Work

A senior lecturer in the Faculty of Education and Social Work, Dr Peter Keegan (Waikato-Maniapoto, Ngāti Porou) is a pāpā, matua, marae committee member, reader and raconteur, with interests that include computing and keeping fit outdoors - especially in the bush and mountains.

Peter provides advice and assistance for researchers undertaking educational and linguistic research in the Māori community. This includes ad hoc advice on research methodologies, Māori language and tikanga Māori.

"Too many Māori have experiences of being involved in research that has either gone wrong or resulted in very few benefits for those involved," he says.

"There is a realisation that if Māori and Indigenous education is to improve, then more high-quality research is required.

"Engagement with Māori has become part of research process in New Zealand, along with an ongoing need to increase Māori research capacity and capabilities among Waipapa Taumata Rau staff and students."

He says it's important to work collaboratively with others when opportunities arise.

"I am fortunate to belong to Te Puna Wānanga which has many long-standing Māori staff and attracts high-quality Māori students. I am also well-supported by my whānau and iwi; these are critical elements for Māori."

And just as you might expect from someone whose focus is education, he has embraced learning te reo as an adult.

"He tino taonga te reo Māori. Kāore au i tupu ki roto i te reo i taku tamarikitanga. Ka pakeke au ka tīmata ki te ako i te reo Māori, nā tēnei mahi kua kite au i te hua o te reo Māori.

"Māori language is an important treasure. I wasn't brought up speaking Māori but learnt it in adulthood. Through this, I became aware of its great value and importance."

Dale Harding-Thomas, Kaiārahi, People and Culture (Human Resources)

Dale Harding-Thomas (Ngāpuhi) is a kaiako (teacher) and a Master of Indigenous Studies. The inaugural Kaiārahi of People and Culture is a grandmother of five and mother of nine. The crossfit enthusiast is also a keen waka ama paddler and partial to a ride on her Harley-Davidson when the sun's out.

Dale says the role of a Kaiārahi involves championing Māoritanga.

"We all love being Māori, so let's make that visible i ngā wā katoa (at all times).

"Our role is to support, guide and encourage others to learn and adapt to the skills needed to better understand their role in supporting both kaimahi and tauira Māori.

"The goal for People and Culture has always been to be culturally capable, competent and responsive in a way that caters to and respects te ao Māori."

She says it's important that every space at Waipapa Taumata Rau has a Kaiārahi.

"We are an active part of a kaimahi Māori network and we can make those connections for everyone. Kaiārahi also have the skills to help navigate spaces, te reo, resources and learning opportunities."

She believes that's where the mana of the Kaiārahi comes from. "It's their connectedness and relationships in their respective faculties or services, and with our PVC Māori office, as well as their external knowledge, whānau and previous roles. He tino pukenga o ngā Kaiārahi (Kaiārahi have many skills).

"If we continue to whanaungatanga with each other as kaimahi Māori within the University, we champion that concept of being whanau and that makes people want to become a part of it."

Dale has been teaching te reo Māori in People and Culture since she arrived in 2022, and is also committed to tautoko (support) her whānau and marae with their learning.

"It's choice to be a Māori; we should say that often! Ko te reo te mauri o te mana Māori!"

Wiremu Tipuna, Kaiārahi, Faculty of Law

Wiremu Tipuna (Ngāti Kahungunu ki te Wairoa) is a father, foodie, diver and footy fan. He's also a te reo Māori teacher and Master of Māori Development.

He didn't have an academic background, nor could he speak te reo Māori until 2006, but says when he headed down that path, it opened many doors. "Te reo Māori is a strong component to what's secured me the role of Kaiārahi in the Faculty of Law.

"I'm really excited and passionate about it because it means supporting Māori and Pacific success. It allows me to speak at an executive level, advocate for ideas, share our vision, who we wish to be and what success looks like to us. We explore how we can make good contributions to our communities within and outside of the University."

His personal goal is to increase grade point averages over the next five years by "moulding a model where Māori can see themselves being a

"My priority is to see the success of Māori learners. I look through the lens of a multifaceted linguist. I support the faculty and staff by developing and supporting tikanga."

Waipapa Taumata Rau has other Kaiārahi, including:

Wikuki Kingi (Creative Arts and Industries)

Abigail McClutchie and Manuhiri Huatahi (Libraries and Learning Services)

Leanne Tāmaki (Faculty of Arts) Grace Latimer (Campus Life) Haunui Royal (Liggins Institute) Steve Roberts (Engineering)

Te Wiki o te Reo Māori runs from 11 to 18 September.

TOI ME TE AHUREA



TRAIL OF MEMORIES

Emily Karaka's 1994 work Maumau Whenua Maumau Tangata, Waste Land Waste Man

An art and discovery trail celebrating the rich history of Epsom Campus is now available to explore before the University leaves the site permanently by the start of 2024.

Each trail has a map to guide people around significant memorials, artworks, mature native trees and places of interest; the legacy of 100 years of teacher education.

The art trail features 16 artworks located in all sorts of nooks and crannies, many of which were done by visual arts graduates of the former Auckland Teachers' College from 1945 onwards.

Some of these include paintings, sculptures, mixed media, neon and ceramics by notable artists like Carole Shepheard, Reuben Paterson, Jeff Thomson, Emily Karaka, Donna Tupaea-Petero, Peter Stitchbury and Len Castle.

Art educators like Peter Smith, Jill Smith, and latterly a committee under the leadership of Dr Barbara Ormond, acquired and commissioned these works which are part of a valuable and diverse collection of around more than 500, some of which are likely to adorn the faculty's new home across four buildings on City Campus.

The collection not only reflects the educational, bicultural and historical foundations of the campus, but also its unique location at the foot of Maungawhau, Mt Eden, says Deputy Dean Dr Camilla Highfield. "It represents artists who have challenged the status quo on a range of social and political issues.

"For almost a century, teacher education at Epsom has played an important role in the development of a significant number of artists' lives and careers in Aotearoa and enriched the development of teacher educators, art teachers and teacher/artists in this country."

The discovery trail takes visitors past landmarks like the First and Second World War memorial displays, the 1928 caretaker's house, the Sylvia Ashton-Warner Library, the Te Aka Matua ki Te Pou Hawaiki Marae and the beautiful põhutukawa avenue, planted on Arbour Day in 1935 to commemorate the teachers of the Auckland province who died in World War 1.

The avenue is notable for its canopy of scarlet blossoms at Christmas.

The campus is also home to long-established kauri, rimu, totara, nīkau and phoenix palms, as well as a tennis court and swimming pool dating to the 1930s. The pool's original landscaping included terraces, a fernery and a fishpond, and students originally paid for the water used each year.

Between 1945 and 1973, the flat area to the side of the pool was the site of a men's hostel, Rae House, which gained some notoriety, both for its cold and spartan conditions and for the "youthful shenanigans" of its up to 100 male residents, according to the guide.

And the only visible signs of a huge top secret underground bunker constructed during the Second World War is a wedge-shaped concrete structure sloping out of a grassy berm and some ventilation stacks near the Gate 3 entrance.

The campus was requisitioned as the Northern Districts Combined Headquarters for the army, air force and navy, which occupied more than 45,000 square feet. The military presence included communications and meteorological units, as well as two underground emergency telephone exchanges and an air raid shelter. The bunker was fortunately never called into use and the land was given back to the Auckland College of Education in 1976.

The idea for the trails is not a new one, says Faculty of Education and Social Work communications and marketing manager Rebecca Bain.

"Art and historic trails were created several years ago and the idea to renew and republish came out of a cross-faculty team tasked with submitting a range of ideas to celebrate our past to the Epsom to City (E2C) steering group."

Rebecca, with a team including content writer Kristine Scherp and marketing assistant Alex Quint, worked with old brochures and documents, discovered a faculty book, did some of their own research and followed up with the original artists for their input.

She says the final art trail was a bit of a challenge as some pieces on the original list were off campus for restoration and others had arrived since, but it came together well in the end.

The University Art Collection adviser Madeleine Gifford and Deputy Dean Camilla Highfield helped with shaping the art content, faculty academics Dr Rose Yukich and Hēmi Dale checked the marae information and Mike Renwick supported the initiative as the E2C project manager.

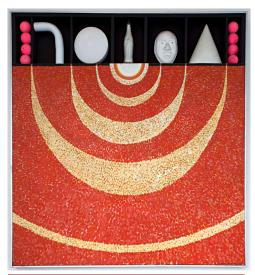
The informative maps for both trails are available at A Block reception on Epsom Campus and the faculty website also has downloadable copies and additional information on the locations of interest.

While the faculty remains at Epsom, people are welcome to meander along the leafy paths and enjoy the tranquillity before the final move marks the end of an era.

■ Julianne Evans

See auckland.ac.nz/discovery-trail to find out more

The pohutukawa avenue at Epsom.



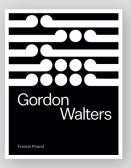
Pacific 76, 1976 mixed media by Max McLellan, acrylic and 3D objects, including a glass Coke bottle



Robert Jahnke's 1988 work, Te Pataka Mātauranga, mixed media sculpture

Ngā Kete Mātauranga, 2013, by Donna Tupaea-Petero, mixed media and neon

PUKAPUKA



Gordon Walters

An in-depth study of 20th century artist Gordon Walters by Francis Pound. Francis was in the History Department for many years and for a decade traced the

work of Walters (1919–1995) for this book. After Francis died in 2017, Dr Leonard Bell, honorary Arts academic and art historian, stepped in to write the foreword and afterword and complete the work on behalf of Francis.

Francis Pound, Auckland University Press, \$90, released on 14 September



Little Doomsdays

Musician and artist Phil Dadson. who lectured at Elam 1977 to 2001, worked with Ngāi Tahu writer Nic Low in this unique collaboration of words and art as part of Lloyd Jones'

kõrero series through Massey University Press. Phil Dadson and Nic Low, MUP, \$45,



released on 14 September

Machine Learning for Managers

Paul Geertsema is a senior lecturer in the Business School. His book aims to make the concept of machine learning accessible, so managers make better predictions, automate complex

tasks and improve business operations.

Paul Geertsema, Routledge, \$57



Rōmeo Rāua Ko Hurieta

A te reo Māori translation, by Te Haumihiata Mason, of Romeo and Juliet, the tragic drama of young love between two feuding families. William

Shakespeare,

translated by Te Haumihiata Mason, AUP, \$40

MĀRAMATANGA

USING AI FOR SUSTAINABILITY

We hear a lot about New Zealand's sustainability challenges but not as much about how digital technologies can help address some of these challenges.

The Centre of Digital Enterprise (CODE) in the Business School has designed a Digital Sustainability Index, an assessment tool for companies to evaluate how well they are harnessing digital technologies for sustainability.

In CODE's research, we applied the tool to several New Zealand companies and discovered them to be far from digital sustainability maturity.

Government, organisations like the New Zealand Tech Alliance and businesses are well aware of the key challenges associated with sustainability, as a major concern for humanity. While there has been an emphasis on carbon emissions, other concerns such as environmental degradation, resource depletion, inequality and digital exclusion are important.

There still is some conflict between business targets and sustainability objectives and, for most enterprises, the sweet spot between the two has not been discovered and institutionalised.

The good news is that many tech consultancies are clearly aware of the potential in deploying digital technologies and the positive impact these would have on sustainability targets in various sectors, from energy to transport.

Of particular interest is how Artificial Intelligence (AI) technologies can help. AI is already used across the spectrum, from energy and agriculture to transportation and urban planning. Many of these AI solutions optimise resource utilisation, enhance predictive modelling, and can devise strategies for more sustainable practices.

If we're looking at examples, take agriculture. Al promotes sustainable farming practices by using big data collected from application programming interfaces such as sensors, satellites and drones. This information helps farmers optimise irrigation, fertilisation and pest control, minimising resource use and environmental impact.

When it comes to weather and climate, Aldriven models inform decision-making for climate adaptation and mitigation strategies. Big data and algorithms generate insights into complex climate change patterns and help us make 'best estimate' climate predictions.

Another example might be Auckland City Council's recently launched Flood Viewer, showing the likelihood of properties flooding across the city, which has been created by deriving data from a number of sources.

The council is also using AI to preserve wildlife. AI-powered solutions significantly benefit wildlife



protection and biodiversity preservation, through image recognition and big data analysis.

When it comes to energy, AI supports real-time monitoring and control of energy systems, leading to more efficient distribution and consumption. Take, for example, smart grids powered by AI algorithms. These AI-guided grids balance energy demand and supply, reduce waste and enhance renewable energy integration.

Whenever you talk about Auckland, the next word might be traffic. But algorithms and big data can improve transportation systems by optimising traffic flow and transport networks, aiming to reduce road congestion. We just need to get them all talking to each other.

Still, there are challenges to be considered as tech leaders adopt AI-enabled solutions to address sustainability targets. First, AI uses significantly more energy than other forms of computing, and training an algorithmic model is a very high energy-consuming activity. Other considerations broadly reviewed in scientific and popular media include issues of inherited biases in AI, which are usually the outcome of a biased data set used to train a model. Ethical concerns arise when such biases create skewed decisions that could have a negative effect on certain communities. However, other algorithms are self-learning and challenge science to understand how to build ethics into a 'black-boxed' AI.

Another area of concern is privacy rights. Algorithmic modelling requires vast amounts of data, and collection of this is likely to expose individuals, if not governed properly.

CODE's research shows that when deploying digital assets such as AI to address sustainability targets, businesses need to develop three key capabilities: digital maturity, partnership and governance. Digital maturity is an organisation's ability to create value through the use of digital assets. Partnership involves working with other organisations, such as service providers, to access capabilities not available in-house. And governance is the maturity of the

practices, processes and rules that the business puts in place to bring together the digital unit (aka IT department) with the business units.

New Zealand businesses fall short in both digital maturity and partnership capabilities. To become a strategic leader in digital sustainability, they need to partner with both tech and specialist service providers, to advance the country's digital landscape and its ability to deploy digital assets towards sustainability targets.

My view is that we will make progress in these digital sustainability capabilities in the next two to three years. One reason is the growing pressure from the regulator, customers and investors who all signal that businesses need to do more. And our businesses want to use more technology in their sustainability operations around achieving targets of net zero, waste reduction, water conservation and energy consumption.

The second reason is the growth of the CleanTech sector, high-tech businesses with solutions to help solve environmental problems. Our CleanTech sector has great potential, demonstrating creativity and innovation as well as commercialisation at the global level (e.g. Allbirds, CoGo and CarbonClick).

The stumbling block? CleanTech start-ups face under-investment – the funds needed often fall significantly short of the amounts invested by governments and investors in similar small and advanced economies. So we come back to partnerships needed: between government, businesses, professional associations and academia to educate about the potential of technology to address the challenges the planet is facing, and to create talent, opportunities and resources to boost the New Zealand CleanTech sector. That's where we're at.

■ Professor Ilan Oshri is the director of the Centre of Digital Enterprise at the Auckland Business School.

The views in this article are personal opinion and not necessarily those of the University of Auckland.