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# LEADING LIGHT

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JR Rowland on avoiding bandits and engaging minds

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# IN THE NEWS

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



#### WHY WOMEN ENTREPRENEURS QUIT

Stuff featured research by senior lecturer Dr Janine Swail (Business School) on why female entrepreneurs leave their businesses. Janine said all study participants left due to personal reasons rather than financial or performance issues. Those who had or were planning to have children cited this as their main reason. Link: tinyurl.com/stuff-swail-leave



#### **AI IN SURGERY**

New research shows AI has uses at all stages of surgery, from prioritising waiting lists to monitoring people post surgery. Dr Chris Varghese (Medical and Health Sciences) told *Voices of America* that an exciting area is 'computer vision', where AI learns to interpret images to inform the best approach to surgery. Link: tinyurl.com/voa-varghese-ai



#### **BIRD'S VOCAL LEARNING**

Dr Kristal Cain (School of Biological Sciences) told RNZ's *Morning Report* that the country's tiniest bird, the tītipounamu, or rifleman, seems to have the ability to learn new sounds. The finding adds to evidence that vocal learning in birds may have evolved tens of millions of years earlier than previously thought. **Link: tinyurl.com/rnz-cain-birds** 



#### YOUNG CITIZEN SCIENTISTS

Dr Arie Spyksma (Institute of Marine Science) told TVNZ's *Seven Sharp* about some citizen science, where kids' photographs of coastal environments are being combined to make 3D models so scientists can monitor changes. Arie said it was important to bring digital elements to science projects to engage young people. Link: tinyurl.com/tvnz-spyksma-kids



#### **CHANGING MUSIC LANDSCAPE**

Godfrey de Grut (School of Music) told the Sunday Star Times that fewer local musicians are being signed by record labels. Instead, they're expected to self-promote and build a social media following first. This contrasts with labels previously investing in long-term artist development – a trend seemingly in decline. Link: tinyurl.com/sst-degrut-musicians



#### **ARTIST'S COPYRIGHT**

Senior lecturer Joshua Yuvaraj (Faculty of Law) featured on RNZ's *The Panel* sharing his insights on whether an artist's copyright should be considered relationship property. The discussion stems from the most recent legal development in a long-running relationship property dispute involving artist Sirpa Alalääkkölä.

#### Link: tinyurl.com/rnz-yuvaraj-art

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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 ART OF **ADVENTURE**

From returning to university aged 33 to being detained in Ethiopia, JR Rowland has experienced risk and reward in her academic career.

As a child, Professor Julie Rowland devoured her brother's educational *World of Wonder* magazines and pored over her father's copy of *High Adventure*, Sir Edmund Hillary's account of climbing Mt Everest.

She was fascinated by stories of epic adventure.

When hockey goalkeeper Trevor Manning played on with a shattered kneecap for New Zealand to win gold at the 1976 Olympic Games in Montreal, Julie was inspired. His story had it all – risk, bravery, triumph – and she needed to play for New Zealand, too.

She achieved that ambition in the 1980s, becoming vice-captain of New Zealand's under-21 women's hockey team and then a member of the national women's team.

As 'JR' tells it (the name bestowed by hockey teammates has stuck), academic life as a geologist and a leader has been similarly loaded with adventure.

'Yes, do load that gun: tales of high adventure in academia', was the title of her inaugural lecture as a professor in May.

The deputy dean of the Faculty of Science told friends, family, colleagues, mentors, students and professional staff of an unconventional academic career and diverse enthusiasms, from training her dog to herd sheep to figure painting (she's no slouch as an artist).

JR grew up in Whanganui, and her parents steered her toward studying science at school. A holiday snap from 1974 shows an early field expedition – a Rowland family visit to the Waimangu geothermal field in the central North Island.

She learned the craft of educator during a decade teaching at Tangaroa College in Ōtara, James Cook High School in Manurewa, St Cuthbert's College in Epsom (a challenging time for a Rainbow individual during the late 1980s), and Western Springs College. She taught maths and science and became the head of physical education at Western Springs.

She loved it all – but eventually needed a change.

Returning to the University of Auckland at age



33 to complete a science degree – "It was so scary. Did I have the smarts?" – she retrained to become a geologist, later getting her PhD at the University of Otago and becoming a lecturer.

Powerful forces reshaping Earth's landscapes over millions of years, such as colliding tectonic plates, magma, and water breaking down rock, became JR's research specialty.

Nearly 40 years after that family trip to Waimangu, the area would feature in a prizewinning scientific paper by JR and her mentor Stuart Simmons.

The Antarctic, Chile, the Caribbean, and the Afar region in Ethiopia, where the African continent is splitting apart and a new African ocean will form, have been locations for her on-the-ground research.

Mostly flat desert, Afar is known for extreme heat, volcanic activity and bandits. A veteran of arbitrary detention in Afar, JR was travelling with fellow researchers and an armed guard in 2009 when she told him to ignore the usual protocol of keeping the magazine out of the rifle – hence the title of her talk.

She regrets the "scientific imperialism" of UK-led research in Ethiopia, which failed to engage with the local peoples, adding, "my time teaching in South Auckland and my experience in Afar usefully rubbed off any lingering imperialistic tendencies".

JR makes no apologies for being an economic geologist, carrying out research connected with mineral exploration and extraction. Industrial civilisation requires minerals; the twist now is ensuring they're exploited in the least damaging ways.

A key focus as deputy dean of the Faculty of Science is implementing *Taumata Teitei*, the University's vision and strategic plan.

Driving the establishment of Ngā Ara Whetū (which translates as 'star paths'), the research centre focused on climate change and biodiversity, and heading the School of Environment have been among her leadership roles.

She credits a leadership mindset course at the Business School for honing her skills in that area.

Has academia truly been an adventure? "Crikey, yes," she says.

"Avoiding bandits, engaging the minds of undergraduates, leading teams of unbelievably clever people – it's all been unusual, exciting and daring to me, and that's the definition of adventure."

Paul Panckhurst

# GOOD TO KNOW

# KING'S BIRTHDAY HONOUR

Distinguished Professor Sir Peter Hunter, who has led the transformation of the country's bioengineering research capability to have an entrepreneurial focus, was appointed a Knight Companion of the New Zealand Order of Merit in this year's King's Birthday Honours.

The founder of the Auckland Bioengineering Institute (ABI) received the honour for services to medical science; it follows his appointment as a Member of the New Zealand Order of Merit in 2010.

On receiving the honour, Sir Peter (pictured) said he was most proud of his work with the Physiome Project, which is working to explain how every component in the body, from the scale of molecules up to organ systems and beyond, works as part of the integrated whole.

"It's put New Zealand at the forefront of a



major international effort to use what are called virtual human twins in healthcare. I think over a long period of developing the methods we've put ourselves in a really good position to be able to internationally lead the development of engineering, physics and maths approaches to improve healthcare outcomes," said Sir Peter.

In response to Sir Peter's King's Birthday Honour, ABI director Professor Merryn Tawhai said: "Peter's reputation in bioengineering internationally is second-to-none and is the reason why many young scientists choose to come to ABI, and why our home-grown talent chooses to stay."

His leadership in transforming the country's bioengineering research capability to an entrepreneurial focus had accelerated the translation of research into clinical applications, she said, while he remained "a thoroughly decent and humble person".

For more, including other University academics recognised in the 2024 King's Birthday Honours: auckland.ac.nz/kingsbirthday-2024

# RISE IN GLOBAL RANKINGS

The University's international rankings continue to rise, with it recently reaching its highest result in more than a decade.

The Quacquarelli Symonds (QS) World University Rankings (WUR) 2025 have ranked Waipapa Taumata Rau 65 in the world; by comparison, the University ranked 68 in 2024 and 85 in 2019, reflecting a consistent upward trajectory in academic and research excellence.

More than 1,500 tertiary institutions around the world were evaluated in 106 locations, including eight from Aotearoa. Waipapa Taumata Rau was the only New Zealand university to make the rankings' top 100.

Vice-Chancellor Professor Dawn Freshwater said: "Behind the result is a lot of data that shows how the University is achieving its research goals. We are forming networks with other researchers around the world, the community, local iwi, industry, and government to seek researchdriven solutions to society's challenges." Areas in which the University improved significantly, boosting its overall ranking, were sustainability, citations per faculty, employer reputation, and international research network. The University scored 99.7 points for sustainability out of the 100 possible.

This was also reflected in the Times Higher Education (THE) Impact Rankings 2024, also released earlier in June, in which the University retained its position as one of the top worldwide for sustainability.

The THE rankings are a key measure of how universities are working to achieve the Sustainable Development Goals. The University ranked 13 in 2024 (12 in 2023), placing it in the top one percent of an increasingly competitive international field. **Full stories: auckland.ac.nz/qsrankings-2025** and **auckland.ac.nz/therankings-2024** 





Director of the Master

The Business School's Master of Management (International Business) ranked third in the latest QS International Trade Rankings, outperforming the likes of Harvard and Cambridge.

The programme attracts students from around the world, particularly Asia, and it scored highly for its industry-relevant content, graduate outcomes, innovative teaching and reputation.

Director Dr Jo Wright, who has helmed the programme since September 2023, says there are several factors behind the success, including a strong focus on real-world experiential learning.

"All of the programme lecturers are PhD qualified and have a deep level of academic knowledge. This is paired with excellent exposure to industry. Taken together, these factors are the bedrock of the programme, and they help our students understand the connections between theory and practice," says Jo.

Full story: auckland.ac.nz/managementmasters-third

### GOOD TO KNOW

# REOSPACE READYING FOR LAUNCH

#### From 17 July, part of the University's General Library will be officially designated for enthusiastic kōrero.

That's the day that ReoSpace opens on the first floor of Te Tumu Herenga, Libraries and Learning Services, and the aim of the area is for people to practise te reo Māori in a welcoming, inclusive space.

It's the brainchild of Kewana Duncan (Ngāti Tara, Tokanui), an alumnus of Te Wānanga Reo Rūmaki movement, which was hosted at the University in the 1990s. ReoSpace is a dedicated space for speakers to practise their reo, no matter what their level of expertise.

The concept supports the University's Language Plan for the Revitalisation of Te Reo Māori 2020-2025 and the nationwide Maihi Karauna – the Crown's Strategy for Māori Language Revitalisation.

ReoSpace is open to all kaimahi (staff), tauira (students) and manuhiri (guests/visitors). Participants can choose one of four manu, or bird icons, developed to indicate their level of speaking ability, from beginner through to fluent.

The birds are kiwi (beginner), pīwaiwaka (casual), tūī (conversational) and kāhu (fluent).

Abigail McClutchie, Kaiārahi of Te Tumu Herenga, says ReoSpace is a movement to create dedicated spaces for the revitalisation of te reo Rangatira.

"We hope to create a tsunami of reo speakers, from beginner level to fluent. ReoSpace aims to keep the ahikā [home fires warm] burning for all who enter," says Abigail.

ReoSpace will be open during normal library hours. Between midday and 2pm Tuesday to Thursday during semester, there will also be ReoSpace kaiāwhina lunch sessions available to encourage the use of Māori language through activities and games.

Sue Roberts, director of Te Tumu Herenga, says ReoSpace is a great addition to the General Library space.

"Libraries have always been about the printed word, so it is exciting to have the spoken word a key feature of our new library spaces," says Sue.

"With ReoSpace, we can't think of anything better than people practising te reo in a relaxed and friendly environment, making connections



ReoSpace will cater to speakers of te reo Māori from beginner level to fluent.

with each other and cherishing the taonga of te reo."

ReoSpace opens on 17 July on Level One of the General Library.

For more information send an email to: reospace@auckland.ac.nz

# UNIVERSITY AT WORK AT WHO

School of Population Health Professor Sir Ashley Bloomfield has been playing a key role in improving health regulation internationally, including how the world will respond to future pandemics.

Sir Ashley was in Geneva recently for the World Health Organisation's (WHO) World Health Assembly, which adopted a wide-ranging package of amendments to improve International Health Regulations.

Following more than 40 days of negotiations, which he co-chaired, Sir Ashley says the work was successful on several levels.

This included getting unanimous agreement on the package of amendments itself, which he describes as a major step forward to global health equity in preventing, preparing for and responding to disease outbreaks, including those that escalate into Public Health Emergencies of International Concern and potentially then into a pandemic.

Gaining consensus among the WHO's 194 member countries shows multilateralism can still work to progress important issues, he says, and helps boost the WHO's reputation and counter voices seeking to undermine the organisation.



Sir Collin Tukuitonga (Niue: Alofi) will also be contributing to important WHO work following his appointment as chair of the Strategic and Technical Advisory Group on the Prevention and Control of Noncommunicable Diseases.

The associate professor of population health says in the new role he will be advising on how best to manage conditions such as gout, obesity, diabetes, heart disease and other noncommunicable diseases that affect Māori and Pacific disproportionately, in comparison to other communities, giving Māori and Pacific a stronger voice in this area.

"I've been doing some work with the World Health Organisation for some time so this is an additional responsibility, particularly working with a global group," says Sir Collin. **Read more: auckland.ac.nz/sir-collin-WHO** 

### STUDENTS ON THE WORLD'S BIGGEST SPORTING STAGE

Bon voyage to our student athletes heading to France for a big month on the sporting world stage from 26 July to 11 August.

BCom student Thomas Saunders will compete in the ILCA sailing event, BEng (honours) student Isaac Houlbrooke in the men's hockey and BHSc student Theresa Setefano (née Fitzpatrick) in the rugby sevens. Two students will also compete in canoe racing: BSc student Lucy Matehaere (Ngāti Raukawa) in the K2 500 events, and BCom student Grant Clancy in the K4 500. As well, alumni including sailor William McKenzie, trampolinist Dylan Schmidt and pole vaulter Imogen Ayris will again put on their New Zealand sporting uniforms.





### THE PATH TO ENLIGHTENMENT

A large-scale commission by alumna and internationally acclaimed artist Lisa Reihana has been unveiled in the atrium of B201.

#### Lisa Reihana recalls the University's Waipapa Marae being built during her years studying at Elam in the late 1980s, and the development providing fertile ground for the young artist.

"There was this free flow of information between the carvers and Elam art school," recalls Lisa (Ngāpuhi, Ngāti Hine, Ngai Tūteauru, Ngāi Tūpoto).

"We were all across it and a lot of discussion was happening. The opportunity really opened my eyes to what was happening within Māoridom. All these people who had been pushing to make things happen, their work was coming to fruition. It was an amazing point in time.

"And there was this real flourishing of Māori arts and a thirst for it in a way that hadn't happened previously, which was emerging not only nationally but internationally."

Lisa has gone on to become one of New

Zealand's most celebrated artists whose work is exhibited and commissioned globally. She was awarded an Arts Laureate in 2014, represented New Zealand at the Venice Biennale in 2017 (the same year she was named a Distinguished Alumni) and was made a member of the New Zealand Order of Merit in 2018.

Now, in something of a homecoming, the multidisciplinary artist has created a large-scale artwork for the University called *Māramatanga*, which she has described as a "love letter" to that time more than three decades ago.

The video installation, housed in the atrium of B201 on Symonds Street, was unveiled at a dawn ceremony on 26 June. Lisa was selected from among four leading artists invited by the University of Auckland Art Acquisition Committee to submit proposals to create a site-specific artwork for the space, after an initial expression of interest was sent to a wider group. *Māramatanga* is the first video work by Lisa acquired by the University of Auckland Art Collection, which also holds several of her static photographic works. Running on a 20-minute loop, it features six performers embodying ātua, and other ancestral figures, many inspired by carvings in the whare whakairo of Waipapa Marae, Tāne-nui-a-rangi.

The walls of the meeting house feature captains and priest-navigators of the canoes that brought the ancestors of the different iwi to Aotearoa, as well Tangi'ia, an ancestor who connects the major islands of the Pacific with New Zealand.

The performers in *Māramatanga* embody the diversity represented in the pan-iwi, pan-Pacific meeting house – a diversity that also reflects the University's students today, says Lisa.

"I thought it provided a profoundly beautiful model," she says.

### COVER STORY



Many of the performers featured in the work are students, including Darren Taniue (pictured above, left). Darren is in the last year of the Bachelor of Dance Studies programme and says the collaborative process of working with Lisa included the performers reading a book that explains the symbolism of the meeting house, from which they could choose a figure that they identified with to represent.

Darren, who has been performing for 13 years and is a pioneer of the New Zealand vogue scene, embodies the ātua Tangaroa, god of the ocean, and Tāwhirimātea, god of the weather, in the work.

"As a Niuean/Samoan I felt the most connected to Tangaroa because Tangaroa is present in both my cultures," explains Darren.

"Tangaroa is part of one of the origin stories of Niue, and in other Samoan myths, Tagaloa was genderless."

The dancers devised short solo dance works to embody their characters, which were then workshopped with Atamira Dance Company dancer and choreographer Maaka Pepene (Tūhoe Potiki, Ngāti Hine and Ngāti Awa), who also features in *Māramatanga*.

Dance studies PhD candidate Chas Mamea (Matautu Lefaga, Upolu Sāmoa; Ngāpuhi, Ngāti Hine) says collaborating with highly experienced artists was the highlight of her involvement.

"Working with Maaka and Lisa was helpful, because they're part of a generation that built the foundations for us to be artists, Indigenous creators," says Chas (above, centre).

"During the process, they talked a lot about how back in their day it was quite hard to be a Māori artist working in Auckland. Hearing their stories about what that looked like for them and having them give me advice about my own journey as an artist was insightful."

The collaboration extended to Chas representing one of her own ancestors,



Hineamaru of Ngāti Hine – one of the few female founders of an iwi.

Ngāti Hine is based in Northland's Waiomio Valley and Chas, who grew up in Auckland, is in the process of returning to her papakāinga where she and her cousins plan to build homes. She learnt the story of Hineamaru through her aunty, who's involved with the Ngāti Hine kaitiaki trust.

"I'm on this journey of self-connection and discovery in terms of my whakapapa, so I'm always having these conversations with my family at home. So, I asked Lisa if it was okay if I embody my own ancestor, because I just felt like I could connect better to that story."

Another of the dancers, Yin-Chi Lee (above right), reiterates the collaborative nature of the project. Originally from Taiwan, Yin-Chi is a third-year dance studies PhD candidate whose research explores Taiwanese diasporic identity from an Aotearoa/migrant perspective.

"My journey is a bit different than my Pacific peers featured in the work. I'm a little bit wary of suddenly becoming a figure when I don't have that lived experience ... so we discussed that I'd take the perspective of a migrant guest in a meeting house," says Yin-Chi.

"Lisa is very open and collaborative; whatever we put forward and tabled she responded and ran with it."

Lisa worked with award-winning Tongan/ New Zealand costume designer Liz McGregor, whose film credits include *The Convert*, *The New Legends of Monkey, Mahana* and *Mulan*, to create detailed costumes that help tell the stories of the figures depicted, as well as reflecting the individual dancers' unique identities.

Yin-Chi explains how she wore a hair braid during an initial meeting about the project, and this detail was incorporated into a belt in her costume. Yin-Chi's father is Hakka Chinese, from Malaysia, a culture in part characterised by



migration and in which women traditionally wore their hair braided.

"It was really refreshing to see how attentive Lisa and her team were to whatever I was presenting myself as, and vice versa. It was a process of trying to find out what she needed from me, while she was doing the same, like a little tango," says Yin-Chi.

*Māramatanga* also features imagery of the natural world – the sea, mangroves, forest – and includes footage shot in Hokianga, the Far North and Te Uruwera. Many of these images form patterns in the backgrounds of the work, referencing the patterned tukutuku panels of Tāne-nui-a-rangi.

The act of binding, demonstrated through tukutuku panel weaving, is what B201 architects Jasmax used to conceptually underpin the building refurbishment. The concept signifies the exchange and release of kõrero, knowledge and energy – ideas that are echoed in *Māramatanga*, which translates as enlightenment.

Like carved figures in a meeting house, the dancers are presented as full figures in the work, says Lisa, and the large scale of the installation gives them an "awe inspiring" quality.

How do the dancers feel about seeing themselves, larger than life, on the big screen in the building where they come to study? Daniel, Chas and Yin-Chi all say appearing in the work is a privilege.

"The University to me is a place where you learn and you meet people, where you can create your path together," says Yin-Chi.

"To be able to work on this this project has been empowering and I want to translate that through to whoever might look like me or might share similar experiences to me – that we have arrived together in this meeting house, which is the University, and we have a place here."

Caitlin Sykes



# CREATING A SPACE FOR SPIRITUAL WELL-BEING

Now, more than ever, we need to find opportunities for healing and reflection, says Maclaurin Chapel's new lead chaplain.

#### From having fun and enjoying hobbies to taking time to rest, Reverend Petra Zaleski acknowledges we fill our spiritual cups in many ways.

So, the Maclaurin Chapel's lead chaplain wants people to be able to use the chapel to strengthen their taha wairua, or spiritual well-being, in ways that work for them.

"I'm really interested in how we transform, how we're nourished, what renews us spiritually. However you express what spirituality is – whether it's play, recreation, rest or renewal – for me, all of those things are spiritual principles or spiritual values."

Petra joined the chapel at the beginning of this year and envisages it as "a sacred space of refuge where you could light a candle or just be still without it having to be a colonising experience".

Previously vicar of St Peter's Anglican Church in Onehunga, she gained her bachelors and a graduate diploma in theology from the University and trained towards the priesthood at Hoani Tapu te Kaikauwhau te Rongopai, St John's Theological College. She also has a graduate diploma in addictions and mental health from AUT, and a certificate in clinical pastoral education.

Her work and life experience, along with her learning about the art of spiritual direction, has led her to focus her chaplaincy work on the idea that everyone is tapu, or sacred. To foster a sense of community and connectedness, she aims to create a space at the chapel where everyone is welcome and accepted as they are.

"No one is going to convert you. We will do our best to keep you safe. Certainly, with me, who you are is safe because I believe in your intrinsic worth as a human being, breathing in and out."

As part of the network of support services on campus, she wants to address the feelings of isolation that tauira (students) can feel at university. She empathises with young people who have experienced the stress and isolation of the pandemic so early in their lives and encourages them to see themselves as interconnected with other people, communities and their whakapapa.

"A tree, innately through the root system, will know whether another tree needs a particular nutrient. It will share its nutrients. On the surface they look like separate trees, but underneath, what can't be seen, is the root system.

"Te ao Māori so beautifully articulates it in

"I'm really interested in how we transform, how we're nourished, what renews us spiritually."

- Reverend Petra Zaleski, Maclaurin Chapel

the call of the karanga and the honouring of the ancestors. When you think about it from a biological point of view, cellularly and genetically, our bodies are created from the same carbon material as our ancestors, so we carry that within us anyway."

When daily life is so busy, she says creating space for healing and reflection is important.

"I think mindfulness practice is so critical – or an embodied way of being where we are in touch with our bodies and we honour our bodies, not just the body as the temple of the Holy Spirit, but actually nourishing our bodies and resting our bodies.

"I know for myself, when I'm head-down in my mahi, feeling pressured, I don't pay a lot of attention to taking rest. The reality is, as we know from neuroscience, that when we are in peace, our creativity and our potential to attend to the work that we need to is enhanced."

Sarah Krieg

### FEATURE

### HERE FOR GOOD

There's plenty of negative talk about the potential impacts of artificial intelligence, but it's not all doom and gloom, says Professor Yun Sing Koh.

#### To the human eye, one stoat looks very much like another.

And that's a problem for those who want to keep track of the wily predators and monitor their impact on vulnerable wildlife, like birds that nest on the ground or in holes.

Te Korowai o Waiheke has been monitoring stoat populations in its efforts to rid them from the island, but the conservation-focused charitable trust was unsure how many they were dealing with. Camera traps could confirm the predators were there, but not if they were capturing the same stoats all the time, or different ones.

So, the group turned high-tech. Specifically, it turned to the University's Centre of Machine Learning for Social Good, which has since been developing a system that deploys machine learning to re-identify the island's stoats and gain a more accurate population count.

Co-director Professor Yun Sing Koh says the centre has created bespoke AI technology trained in part on data from stoats held in captivity by Crown Research Institute Manaaki Whenua/Landcare Research. Six months into the project, the system has successfully re-identified stoats captured on cameras during daylight on Waiheke Island, and now aims to identify individual critters in the dark. Ultimately the technology could be used to identify other predators, she says.

Talk of AI is everywhere right now, and Yun Sing says the conversations often take a negative view of the technology. But "it's not all doom and gloom", she insists, saying such examples of projects being undertaken at the centre show how AI can be used to create positive environmental and social outcomes.

"Our research projects emerge from the conversations that we have with communities to understand, what are the problems out there? And how can we use machine learning and AI to solve them? If we start with a real-world problem, that's how we think we'll be able to create a longer-lasting impact."

While AI is experiencing a moment, Yun Sing has been working in the field for decades.

"I always tell people I looked at AI before it was cool," she laughs.

After completing a masters in software engineering at the University of Malaya, she



### "If we start with a real-world problem, that's how we think we'll be able to create a longer-lasting impact."

#### - Professor Yun Sing Koh, Faculty of Science

ended up doing her PhD in machine learning at the University of Otago and later joined the University of Auckland in 2010.

"What initially attracted me to this area they called machine learning and data mining was its combination of applied maths, stats and computer science, which is where I like to sit. I could see there was a lot that could be done in the area, which, of course, has now exploded."

Al's transformative potential is huge, she says. She cites PwC's recent Global Artificial Intelligence Study, which notes AI will potentially contribute \$15.7 trillion to the global economy by 2030 – more than the current combined outputs of China and India. It notes \$6.6 trillion of this will likely come from increased productivity.

"From my perspective, AI is going to enhance people's jobs. It's going to be like a co-pilot that helps make you and your job more efficient and faster. It will remove a lot of the grunt work so you can focus on things that really matter and have more time to spend on the cases that require more thought."

She admits the fast-moving nature of AI research is exciting but can also feel scary.

"That's why we have to train people to be responsible in how we're developing these AI techniques, so they can be used responsibly."

Yun Sing is director of the University's Master of AI programme, which launched this year with a cohort of 33 students drawn from academia and industry. Aiming to educate the next generation of AI professionals, it has four core courses: the fundamentals of AI (part of which Yun Sing is teaching); how to build AI systems; how to manage AI projects; and AI's ethical, philosophical and social implications.

"People think AI is going to put them out of a job, but when they invented cars a lot of people thought that as well. This is another of what I call a tech evolution and, as how we interact with AI emerges, there are going to be a lot of new opportunities opening up."

Unless, of course, you happen to be one of those stoats.

Caitlin Sykes

# ARTS

Celestial sounds and surveillance tech combine in Fabio Morreale's sound installation at the General Library. Photo: Chris Loufte

### UNIVERSAL SOUND

Visitors recently filing in and out of the General Library may have heard music gently jangling in the air.

What they might be less aware of is that the music is tuning them into the rhythms of the cosmos.

*Karanga* is a soundscape installed at the library entrance as part of a wider project to revitalise the General Library area; a second University of Auckland Art Collection project, called *Kaumoana*, includes an interior waka installation and exterior anchor stone sculpture at the rear of the library facing Princes Street.

The first wholly sound-based artwork commissioned for the University of Auckland Art Collection, *Karanga* was created by Dr Fabio Morreale – a computer scientist and now senior lecturer in the School of Music.

Fabio was approached to create the work after composing other soundscapes, both as standalone works and to accompany other artworks, such as *The Drawing Room* by Aaron Paterson, Sarosh Mulla and Marian Macken exhibited at CoCa – the Centre of Contemporary Art Toi Moroki in Christchurch.

He says he was given a relatively open brief to create the General Library work and, as a specialist in the technology used to create electronic music, he had seemingly limitless possibilities.

"I was interested in experimenting: in a creative quest to explore ontological questions like 'what is music?' and how you can arrive at new experiences of musical enjoyment, even if it's not necessarily music that sounds good."

Still, he needed parameters. He wanted the work to constantly change, so to create 'rules' governing that change he looked to the universe, creating an electronic composition of sounds aligned with the changing tides, lunar phases, Earth's rotation, and the distance between the Earth and Sun.

He also wanted the work to be interactive, so the composition changes as people, captured by CCTV, walk in and out of the space – an interaction reflected in the work's title, referencing the call and response of a karanga.

Fabio's academic research probes areas such as human-computer interaction and the ethics of AI, and he says that while the CCTV doesn't record people, it introduces an element of social commentary to the artwork.

"I wanted to create a kind of surveillance art to take a critical, political stance; to highlight these controversial technologies, and for people to reflect on these, as we're not really aware of where they are and how they function."

There were also practical considerations. One of the biggest, he says, was that the music "I was interested in experimenting; in a creative quest to explore ontological questions like 'what is music?"

#### - Dr Fabio Morreale, School of Music

sounded pleasant and played at a respectful volume for those using the space, particularly library staff.

Another was that the composition was intriguing enough to attract listeners' attention, but not so much that they would linger and clog up the entranceway.

He initially thought of creating more ambient, drone-like sounds for the work, but he ultimately hit upon the sounds used in *Karanga* through experimentation. He describes it as "a cascade of string sounds that don't ever have a tonal centre".

Fabio has a background as a musician, albeit in an extremely narrow niche. He was an accomplished brutal death-metal guitarist, but the highly technical and physical nature of the playing required up to six hours of daily practice and ultimately led him to give it up when he was doing his PhD.

Music was a theme in his computer science studies in Italy, and later the UK; his PhD explored using computational power, techniques and algorithms to compose music and he became fascinated with humancomputer interaction, particularly related to new music technologies.

When looking to move to New Zealand with his Kiwi wife, he applied for a position teaching electronic music composition at the School of Music in 2019 and this year became an associate dean of postgraduate research in the Faculty of Creative Arts and Industries.

Fabio's research is focused on traditional, written academic output rather than creative composition, and he sees *Karanga* more in terms of its hardware and software – its speakers, algorithms and sensors – than as a musical work in its own right. The plan is to invite composers from around the world to undertake a short residency to create compositions to play on *Karanga*, and these, along with compositions created by postgraduate students, will play in a loop through the work.

"I see it as an instrument that, at the moment, has only one piece that was written for it, which is my piece. But as we go on, there are going to be more."

Caitlin Sykes



### ELAM ALUMNI AT WALTERS PRIZE SHOW

Three former Elam School of Fine Arts students who are finalists for Aotearoa New Zealand's top contemporary art award, the Walters Prize, will showcase their work in a free exhibition at Auckland Art Gallery from Saturday 6 July.

Juliet Carpenter, Owen Connors and Brett Graham are in the running for the award and \$50,000 in prize money alongside a fourth finalist, multimedia artist Ana Iti. The winner will be announced by an esteemed international judge in October.

As part of the prize, the exhibition will feature new work from all four finalists.

Juliet Carpenter will present a reimagination of her nominated work, *EGOLANE*, 2022 (pictured above). The film installation challenges the conventions of narrative filmmaking through a focus on physiological states, and explores the relationship between new technology and human connection.

Owen Connors will exhibit a new work that explores altarpiece painting. In *Land of the doubts & shadows*, Connors deconstructs the traditional three-part structure of the Western

#### **PET REFUGE DOCO**

A secret haven that shelters pets from fractured households is the subject of a new documentary that premiered in competition at the Doc Edge Film Festival in late June.

*Refuge: A Duty to Care*, produced and directed by veteran filmmaker Professor Annie Goldson (Faculty of Arts), charts the work of Pet Refuge, a sanctuary that offers temporary shelter to pets from violent households.

Research shows that those experiencing domestic abuse often stay in danger for the sake of their animals, which they don't want to leave, but often can't take with them. Pet Refuge, a registered charity, lies on outskirts of Auckland and offers refuge to pets across the motu.

Annie believes it could be the first haven in the world designed specifically for this purpose.

The 40-minute film is a true University of Auckland creative effort, she says.

altar into multiple panels, reinterpreting lost mystic and Queer symbology.

Brett Graham (Ngāti Korokī Kahukura, Tainui) will show a new large carved sculpture, a reinterpretation of work from his major exhibition *Tai Moana Tai Tangata*. The new work, *Ka Wheke*, 2024, re-examines the civic monuments and historical legacy of colonial aggression in the Waikato War of 1863-64.

Established in 2002, the Walters Prize is New Zealand's largest and most prestigious contemporary art award. It was named after influential artist Gordon Walters.

The Walters Prize 2024 marks the first iteration of the award in its new triennial format. The change aims to help recognise an artist's overall recent contribution to contemporary art, rather than a single work.

The nominees were selected based on their work from 2020 to 2022, a time described by the jury as one of unsettled exhibition opportunities.

"Despite this, the artists presented extraordinary works that address the cultural, social and political conditions of our time, and ask us to pay careful attention to the way histories are made, told and maintained." The Walters Prize exhibition runs from 6 July to 20 October at Auckland Art Gallery.

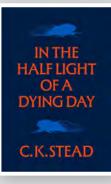


"I produced, directed, sound recorded and edited it, alongside co-producer Alex Reed. It was shot by two University alumni, Adam Luxton and Renke An alongside professional teaching fellow [PTF] Peter Simpson," says Annie.

Another PTF, Ewan Collins, was the composer and sound designer, and Annie's relative, Auckland graduate Ben Goldson, edited the doco with her. The film was also funded in part by a Faculty of Arts research grant.

Refuge: A Duty to Care will show in Auckland on 7 July at 2.30pm at the Capitol Cinema as part of the Doc Edge Festival 2024 (19 June to 31 July). It will also be on Virtual Cinema from 15 to 31 July.

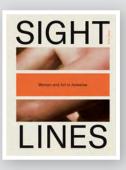
# ARTS AND BOOKS



#### In the Half Light of a Dying Day

Emeritus Professor of English and award-winning novelist, literary critic, poet and essayist C.K. Stead turns to the poetry of Roman poet Catullus in his

new collection. The book is structured in two sequences, with the first moving from classical Rome to modern-day Aotearoa, while the second addresses a new character, named Kezia, described as a lover and friend recently lost. C. K. Stead, Auckland University Press, \$25, released 11 July



#### Sight Lines: Women and Art in Aotearoa

The story of art made by women in Aotearoa, *Sight Lines* gathers the work of painters, photographers, performers,

sculptors, weavers, textile artists, poets and activists, including alumnae Maureen Lander, Fiona Clark, Ruth Buchanan, Imogen Taylor and Ngahuia Harrison. With more than 150 images and essays, its contributors include Associate Professor Ngarino Ellis and alumna Lana Lopesi. **Kirsty Baker, Auckland University Press, \$70, released 11 July** 



#### **CHILDREN'S BOOK FINALIST**

Professor Selina Tusitala Marsh's (Arts) *Wot Knot You Got? Mophead's Guide to Life* (Auckland University Press) has been shortlisted in the 2024 New Zealand Book Awards for Children and Young Adults. The book is a finalist for the Elsie Locke Award for Non-Fiction, which recognises titles that encourage children to look closely at our history and the natural world. Winners will be announced on 14 August.

Read more: auckland.ac.nz/mophead

# MĀRAMATANGA

### CLASS ACT

You don't necessarily need to have spent time in a classroom recently to know that bad behaviour is an issue of increasing concern in our schools.

An OECD survey of teenagers from December 2023, for example, found they were more likely than others in the OECD to report problems. These included noise and disorder, distraction from phones and other digital devices, and students not listening to their teacher.

The report also showed that high levels of disruption were associated with lower scores in the Programme for International Student Assessment (PISA) maths test.

And, in March, media outlets reported on a recent Education Review Office (ERO) report into the critical levels of disruptive and even violent behaviour in New Zealand classrooms. When interviewed by Newshub, Ruth Shinoda, head of ERO's Education Evaluation Centre, said classroom behaviour was a significant and persistent issue in New Zealand and, that over the past 20 years, our classroom behaviour has been among the worst in the OECD.

Half of all teachers surveyed thought that all types of disruptive behaviour had become worse in the past two years.

The significant global event of the past few years has, of course, been the Covid-19 pandemic, and the responses of different societies to keeping their populations safe. In New Zealand, the response included extensive lockdowns during which students engaged in remote emergency learning – if they engaged in any learning at all.

The effect of extended periods away from school has been to disconnect students from the complex social fabric of the classroom and allow them to indulge in lengthy periods of very self-focused activity. They may simply have fallen out of the habit of taking the needs of others into consideration in many aspects of their behaviour and thinking, judging by the 2022 school stand-down rate, which was the highest in 20 years of record keeping.

There are simple strategies, however, to remedy this situation and get misbehaving students back in the fold.

While speaking to groups of teacher education students about managing classroom behaviour, I often remind them of how they used to behave for relief teachers at secondary school. These students would have been among the better behaved at their school but, even so, they recall their now-embarrassing acts of disobedience – giving the wrong name for example, to confuse the poor teacher put in charge of the class for an hour or a day.



Breaking usual classroom protocols and alleging that 'our teacher lets us do it' is another common ploy. In general, the overall standard of behaviour is lower when the usual classroom teacher is absent.

In the parlance of the sports field, the relief teacher is on a hiding to nothing. The students, without their usual teacher, expect something of a holiday; the usual rules of behaviour, constrained by a respectful relationship, don't apply. There is a level of thrill in disobedience, when even otherwise well-behaved students feel anonymous and unrestrained, and things are almost certain to go awry, if only in minor ways.

Which brings me to the all-important teacherstudent relationship. In the case of the relief teacher, there is no prior relationship to draw on, and possibly no future one that sees any consequences for bad behaviour. Students feel safe in their anonymity.

So how should initial teacher education students on their practicum placements in schools begin to create a classroom climate in which students behave well?

Their first task is to learn students' names. This creates an authentic, real-world relationship between the participants that makes it very hard for students to act up. As an example, asking your student 'Mike' to close the curtains or turn off the lights is almost certain to result in action, whereas asking 'you in the back row' to do the same is most likely to result in no activity at all. If you personalise the request, you get a better result.

I don't suggest this strategy by itself as a panacea for all classroom issues, but it's a practical place to start. In his 2009 research, US author and educator Jeffrey Cornelius-White found that person-centred education had positive outcomes for students in terms of participation, satisfaction and motivation to learn. In his 2012 book *Visible Learning for Teachers*, notable New Zealand educator John Hattie also points out the significant impact of positive teacher-student relationships on student outcomes. This places 12th highest on a list of 150 influences on achievement.

Then there is the work of Māori education experts Russell Bishop and Mere Berryman, which identified underlying teacher and school behaviours and attitudes that make a difference to Māori achievement and were brought together in their Effective Teaching Profile (2009). This work notes that 'Relationships and interactions between teachers and students in the classroom are key to effective teaching of Māori students'.

Bishop and Berryman also point out that effective interactions rely on: caring for students and acknowledging their mana; having high expectations; managing the classroom to promote learning; using a range of dynamic, interactive teaching styles; and teachers and students reflecting together on student achievement to move forward collaboratively.

It's been a long time since my teachers addressed the poor behaviour of my peers and myself with the dark sarcasm that Pink Floyd made famous in *The Wall*, but students in some of today's classrooms would still recognise that cutting mode of address immediately.

Could we not agree instead on Bishop and Berryman's findings as aspirations for managing New Zealand's classrooms of the future – and start enacting them?

Dr Brian Marsh is a professional teaching fellow in the Faculty of Education and Social Work. In the course of the academic year, he lectures, oversees student placements (practicums) and observes students in schools.

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