

Whakapuaki kā Rakahau: 2014 research highlights



MĀORI COMMUNITIES

WORKING WITH
INDUSTRY

SUSTAINABILITY
IN PRACTICE

SOUND AND VISION

KNOWLEDGE
TRANSFER

WORKING IN
THE COMMUNITY

EDUCATION
IN PRACTICE

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Introduction



It is with great pleasure that I introduce the **Whakapuaki kā Rakahau: 2014 Research Highlights**. This issue showcases a range of theoretical, creative and applied research impacting on local and international communities.

Commencing this issue is an extended feature of research about and by Māori. Professor Khyla Russell leads this section explaining her acclaimed work into Māori knowledge systems. The stories that follow are testament to that work featuring Māori design in the practice of Tā Moko, and two other projects focussing on Māori health.

At Otago Polytechnic, we pride ourselves on maintaining relationships with our communities. In 2014 we had a number of exciting research projects that were creating new knowledge for community, professional and industry groups. Examples are as diverse as forensic research into the causes of accident and fire; restricted earth fault relay application on shunt capacitor bank design; the benefits of peer-led exercise groups for older adults; improving transitions from the forensic psychiatric service back into the community and new ways to improve child protection.

We continue to promote knowledge transfer through regular public symposia; in 2014 topics included Tā Moko, Food Design and Applied High Performance Conditioning. These events bring together a mix of practitioners and academics to share ideas and promote new collaborations.

On a more experiential level we showcase two researchers who work primarily in the fields of sound and vision to create new experiences within creative spaces in which people can explore new ways to interact with these media.

Our commitment to sustainable practice continues to be evident in on-going work with ecological footprinting, this time for the Gross National Happiness Commission of Bhutan.

A handwritten signature in black ink, appearing to read 'Alistair Regan'. The signature is fluid and cursive, with a long horizontal stroke at the end.

ALISTAIR REGAN
DIRECTOR: RESEARCH AND ENTERPRISE



A learning landscape

It's Mātāriki, and **Professor Khyla Russell** is explaining the significance of froth on the beach, her rapt listeners Waitati schoolchildren. She tells them tales learned from her own youth, of the phases of the moon and when to gather kai on the seashores, knowledge passed down from elders to mokopuna. The froth, she says, is there to protect the spawn. "And if the moon is in a particular stage, you leave it alone so that the next generation has a chance."

Māori communities

The theme is sustainability, of taking only what is needed and leaving the rest to regenerate. It's the same, but more strongly worded, message she brings to a recent meeting of the South-East Marine Protection Forum/Roopu Maanaki Ki Te Toka in Dunedin, and shows, she says, the range of interest communities have in local Māori knowledge about how best to preserve the harvest of the sea.

Khyla brings an 'insider's' perspective to these discussions, speaking out of her own experience and that of her whānau, her iwi, and all those who have come before. While some argue this insider or 'emic' approach makes the researcher too close to the subject, and the findings less rigorous and 'objective', she makes no apologies for it: "If that's the emic approach to research, then so be it. I guess if you live it all the time and practise it, then that's how you know how to be in the world. It's how you do what you do."

Indeed, what Khyla and her generation of Māori researchers have shown is that the careful observations and lived experience of mātauranga Māori is as valid as any other way of knowing.

Her PhD thesis, for example, explored the attitudes of Māori farmers to the landscape, and was a bit of a coup, says Dr Jim Williams of Te Tumu, who helped advise her. It was because Khyla was Māori herself and had iwi connections, not an outsider seeking information from them, that the people she spoke with opened up to her.

"Khyla was among the first to be able to break new ground like that," he recalls. "She was one of the pioneers in the use of emic materials, whether it was a conscious decision or whether she just did what came naturally to her, she helped pave the way."

From the very beginning of her research career, Khyla also ensured her findings were written in a manner that was accessible to all people from all walks of life, and not left in the rather esoteric language of academia.

"When I wrote my PhD, we borrowed a Pākehā term, 'landscape', what we might call our natural environment. But rather than the [Pākehā concept of] 'taming the land', Kāi Tahu wanted to claim the word landscape to say how we defined it, and in everyday language so that all 76 people who took part in [my study] could read it."

CONTINUED ...

Māori health: an issue of integrity

When **Dr Karole Hogarth** and **Mereana Rapata-Hanning** contributed a chapter on New Zealand indigenous health for an Australasian pathophysiology textbook, one of the challenges they faced was getting the Māori worldview and language accepted by the publishers. "Māori people identify as Māori, not as indigenous – it's about giving integrity to the people we're writing about," says Mereana.

Their exploration documented the prevalence of contemporary Māori health issues including high levels of diabetes, cardiovascular disease, kidney disease, cancer, asthma, skin diseases, smoking and alcohol abuse, and poor mental and oral health, revealing that Māori health is still disparate to non-Māori. "We weren't really surprised by this. Statistics for Māori reflect those of other indigenous peoples globally," says Karole.

Both Karole and Mereana, however, also wanted to acknowledge the wider social-political factors that determine these statistics, in particular the issues of poverty, and the inequality that Māori experience when engaging with health and disability services. Closing this gap is a key aim, one they believe that involves a multi-layer approach involving revisiting funding at government level, improving public education, and taking healthcare directly to the people in the community. "What you do in terms of inclusiveness and engagement directly affects health outcomes for individuals, whanau and communities."

Hogarth, K & Rapata-Hanning M. (2015) Māori health in Aotearoa New Zealand in Craft and, Gordon (eds) *Understanding Pathophysiology ANZ 2nd edition*, Elsevier Health.





Khyla’s subsequent research has involved working with other Māori and international indigenous people “to find a space where indigenous knowledge and science could meet” in a way which was mutually beneficial.

She recalls a conference she attended in Hawai’i in 2011, where she was impressed by researchers there who had received significant funding to look at how local flora and fauna could be managed sustainably. “They were able to manage their own things in a way that was culturally correct, but also ensuring they had enough science (to back it up).”

More recently, she’s collaborated with researchers at Waikato University and other institutions on developing a Māori ethic or tikā guide for scientists in the field of genomics. She and her colleagues presented their ethical framework to a hui in Hamilton in May, and Khyla will be presenting a paper based on this work at a conference in Vienna later in the year.

Entitled *‘Te Mata Ira: Informing cultural guidelines on biobanking and genomic research’*, this Health

Research Council funded project explores Māori views on biobanking and genomic research.

Biomedical research projects use human tissue to help understand disease and responses to treatments. But while individual Māori may have agreed for their tissue to be used for health research, Māori communities have expressed concerns about how consent is gained, and what happens to the tissue after it is stored in ‘biobanks’ to be used in future consented genetic research. This is because, for Māori, identity is not just an individual matter but one of whakapapa, which permeates the whole of Māori culture. And that’s a fairly alien concept to most non-indigenous researchers focusing on a particular genome sequence.

“But [the guide] is not just for health research,” Khyla explains. “It can be used for any research so that it’s done in a way that’s meaningful for Māori, and we’re not just an add-on at the end of a project. It’s for the protection of those who genuinely want to engage [with research] but who haven’t always received the benefit.”



Māori communities

Her Vienna presentation, entitled “*Reading the Sign of the Wave*”, urges both indigenous participants and scientists who are often unfamiliar with indigenous concerns, to tread carefully.

“You need to know the cultural aspects of genomics. It’s important to us to be able to trace our genes, whether we give our bloods or our tissue that then become just ‘data’ stored somewhere. We’re saying if you can’t trace our bits or biopsies, then you are not honouring the gift. So that’s our ultimate goal, to try and write an ethic that incorporates that understanding.”

CONTINUED ...



Reducing infant death rates in New Zealand

New Zealand’s Sudden Unexpected Death in Infancy (SUDI) rate remains higher than for other developed countries. **Associate Professor Sally Baddock** is part of a team researching the benefits, or harm, from providing two sleep devices – the wahakura (flax bassinet) and the Pēpi-pod – to families at higher risk of SUDI.

“While a number of factors appear to influence SUDI, bedsharing with mothers who smoked in pregnancy remains a ‘hard to change’ combination,” explains Sally, Co-Head of the School of Midwifery at Otago Polytechnic. Sally is working on two Health Research Council funded projects in collaboration with researchers at the University of Otago, investigating the use of sleep devices that could reduce SUDI.

Their research has focused mainly on Māori families from high deprivation areas – where there is the greatest risk. The concept of wahakura came from the Māori community and Māori researchers have been involved at all stages.

“Worldwide the focus has been on avoidance of bedsharing”, explains Sally, “but this has not been effective in many indigenous cultures, particularly where bedsharing has a strong cultural significance.” The wahakura (traditional flax bassinet) was designed to be used on the adult bed allowing close mother-baby proximity as experienced during bedsharing.

Following the completion of the wahakura study, the group has begun evaluating the Pēpi-pod. This device is distributed by many District Health Boards in New Zealand to reduce unsafe sleeping practices.

“At the conclusion of both studies, we hope to be in a position to provide scientific evidence that supports the recommendation of either – or both – of these devices as alternative ways to sleep close to baby,” says Sally.

Tipene Leach D, Baddock S, Williams S, Jones R, Tangiora A, Abel S, Taylor B. (2014) Methodology and recruitment for a randomised controlled trial to evaluate the safety of wahakura for infant bedsharing *BMC Pediatrics*. 14:240 DOI: 10.1186/1471-2431-14-240 URL: <http://www.biomedcentral.com/1471-2431/14/240>

Baddock, S. Tipene-Leach, D. Tangiora, A. Williams, S. Jones, R. Taylor, B. (2013) The late pregnancy sleep characteristics of an under-served population of Maori women. *Sleep and Biological Rhythms* [Abstract] 11:52 ISSN: 1446-0235 (Print); ISSN: 1479-8425 (Online) <http://wileyonlinelibrary.com/journal/sbr>

One Pākehā scientist who does “honour the gift”, says Khyla, is Dr Chris Hepburn of the Marine Sciences Department at the University of Otago.

Chris has worked with Khyla in her capacity as a gazetted fisheries manager, a tangata tiaki for Kai Huirapa, who has responsibility to care for the marine environment. He has nothing but praise for her experience and knowledge about customary fisheries, and looking after the environment in a way that is consistent with Kaitiakitanga guardianship. She’s also been a strong mentor in all things tika.

“She can be tough, which is a good thing because she’s protected us [Pākehā scientists] – she can stand up to people. I’m Pākehā, but that hasn’t mattered to her in the least. She’s influenced me, mentored me, about how to do things properly so that your research can be received by the iwi you are working with.”

Asked whether there is ever any conflict between what the science tells us and what traditional knowledge may teach, Chris is forthright:

“Sometimes the science will give you an answer you don’t want to hear. But there are different ways of knowing things, observational and experiential knowledge passed down the generations. Yes, there can be poor individual observations, but you can also have some very poor science that has been trumped by local knowledge.”

He adds: “Governments sometimes want to marginalise Māori knowledge as something mystical but in fact they are as interested in the practicalities of sustainable fisheries as we Pākehā scientists are.”

From anthropology to fisheries to bioethics, Khyla brings her ‘insider’s view’ to a wide range of research projects, working alongside people with different perspectives, cultures and areas of expertise. The Te Mata Ira collaboration, for example, includes a lawyer, a geneticist, ethicists and cultural experts. “Those are the kinds of research projects I’ve most enjoyed contributing to,” she says, reflecting, “because they have the most direct benefit for Māori.”

Looking forward, she anticipates the research possibilities posed by global networks of indigenous researchers, along with the greater likelihood of receiving substantial funding for projects. Too often, she says, she still sees “the big bucks” being won by non-Māori or non-indigenous researchers to conduct research on, but not involving, indigenous people.

“They’re still writing about us, talking at us, not with us. We’ve got huge networks around the world, so why wouldn’t we involve indigenous people? Governments are busy shoving money down our throats so that young Māori can train to be carpenters or joiners or some trade or other, but we don’t want to just use a hammer – we want to be the bosses.

“It’s the same with research funding. What gives us our strength is our international networks of indigenous scientists doing indigenous research.”

Russell, K. (2014) Intangible knowledge systems: Their application in tertiary institutions and the impact they have on Iwi Maori staff, in Fiona Cram, Hazel Phillips, Pale Sauni, Clark Tuagalu (ed.) *Maori and Pasifika Higher Education Horizons* (Diversity in Higher Education, Volume 15) Emerald Group Publishing Limited, 123 – 134.

Tā moko event draws crowds

The ancient art of tā moko was celebrated at a symposium hosted by Otago Polytechnic in 2014, including live work by distinguished tā moko artists.

The symposium, Ahikomau o Ruaumoko: Unearthing your Blueprint, was the first such event in the South Island for well over a decade. It was organised by **Justine Camp** from the Kaitohutohu Office, and attracted 70 registrations – most from Dunedin, Christchurch, Tauranga and Auckland, and even one from Australia.

The idea came after a well-attended guest lecture by artist Stu MacDonald at the Polytechnic's Dunedin School of Art in 2013. He and fellow members of the Tauranga-based Moana Moko, a group that travels the country teaching people about tā moko, were keynote speakers at the symposium.

"The delegates loved hearing the artists speak, and had the privilege of watching them give people tā moko live," says Justine. "Legendary former All Black Kees Meeuws was one of those who received one on the day."

IT and Design students contributed to the event, designing its website and delegate gifts.

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Stu McDonald designed and tattooed Justine Camp's tā moko. All rights are reserved.



Courts welcome simulation

“I’m the guy that gets called in when there is a disagreement about the cause of an accident,” says **Dr Matt King**, “Often both parties claim they’re blameless and I get to examine the physical evidence, apply the appropriate physics and determine who is right.”

Matt King, Principal Lecturer on the Bachelor of Engineering Technologies (Civil and Mechanical) programmes has over 16 years’ experience in forensic accident investigation. He has worked on over 2000 litigation and insurance cases for and against municipalities, attorneys and insurance companies, including the United States government, the French government and cases in New Zealand. 75 per cent of his work involves automobile crashes including those involving trains, big rigs, cars, motorcycles, bicycles, and pedestrians.

Since moving to New Zealand from California three years ago, he has discovered that this industry is not well established in New Zealand. This is why in 2014 he was invited to share his expertise at the Independent Forensic Practitioners Institute annual conference held at the University of Auckland.

His presentation focused on a \$20 million multiple car accident case he worked on in California and how a multi-modal scientific presentation of his analysis of the physical evidence (involving physics equations, 3D models and computer simulation) to the jury in court vindicated an innocent party, and demonstrated the multiple failures of one driver. A key aspect of the analysis was the data gathered by downloading the ‘blackbox’, or airbag controller, in one of the vehicles.

Matt believes multi-modal presentations are the most effective way to present the result of scientific analysis for complex cases where multiple events are occurring simultaneously and will become much more common in the future inspired by television shows such as CSI.

“Accidents can be highly contentious issues that have a major impact on a person’s life. Often no one wants to admit fault. Sometimes the people involved don’t know what the cause was, but their perception of the incident differs from other involved parties. Line drawings or videos can only present one perspective of an event, but 3D computer simulation software can be used to demonstrate a time sensitive engineering analysis from multiple perspectives for a single event.”

In New Zealand, because car crash cases are often tried in criminal court instead of civil (as opposed to how the same cases would be treated in the United States), an effective and easily understood analysis can help an innocent party faced with criminal charges to successfully demonstrate the facts of their case and get the charges dropped, while guilty parties can be held to account for their actions.

“It provides accountability on both sides and keeps the legal process working smoothly, avoiding the system becoming stagnant and cases being dragged out. A clear presentation of the results of Forensic Engineering helps the judge make an informed decision and enables justice to be served and due process followed.”

King, M. D. (2014) The Pros and Cons of Multi-Modal Scientific Presentations. Paper presented at the *Independent Forensic Practitioners Institute 2014 Conference*, University of Auckland, NZ, August 2014.





New electricity scheme design

Located deep in a semi-arid area of South Africa known as the Karoo, amid roaming springbok and Angora goat farms, is an electricity substation responsible for supplying power to over 5000 homes. "Within the substation are switched capacitor banks necessary for maintaining network stability. However, a few years back the capacitor banks started tripping intermittently with no obvious cause," reflects **William Phipps**.

Phipps, and his Masters student Warick Minkley at the Nelson Mandela Metropolitan University, were brought in to investigate the fault at the substation, which is part of the ESCOM Transmission Network, due to the university's long standing relationship with the company. ESCOM supplies 95 per cent of the country's electricity, employing over 33,000 people.

What William and Warick discovered, using software simulation, was that the earth fault relay was tripping due to inrush currents flowing into the discharged capacitors during turn on. This resulted in high voltage transients passing across the capacitor banks. By commissioning a new scheme design for the plant using a special filtering circuit that would filter out the voltage transients, William and Warick were able to assist ESCOM to fix the fault. These new understandings of transient waveforms can assist electrical engineers across the globe in diagnosing and fixing similar substation faults. "Tripping caused by voltage transients could occur at any substation in the world, resulting in blackouts in extreme cases. This research therefore has worldwide applicability," says William.

Minkley W, Phipps W, Harris R.T, Roberts A.G., (2014) Restricted earth faultrelay application on shunt capacitor bank design with synchronised switching. Paper published in the Proceedings of the IEEE international conference on industrial technology, ICIT, 941-946, Cape Town.

A burning passion

"People could die otherwise," says **Stuart Allan**, Senior Lecturer and Programme Manager within the School of Architecture, Building and Engineering, reflecting on the importance of his research and 16-year career as a fire cause analyst. With more than 120 residential fires occurring every week in New Zealand, and around 20 avoidable human fatalities by fire per year, Stuart's work is of critical importance.

Stuart has solved just under 400 cases in total – everything spanning from tractors combusting, power line failures and appliance faults, buildings and equipment not up to code, and arsons. He has worked under contract for the New Zealand Fire Service and the New Zealand Police, and has worked in conjunction with lawyers bringing cases to trial. He is also frequently asked to share his opinions and knowledge overseas.

Describing his method of working as “methodical, patient and concise”, Stuart has a Sherlock Holmes approach to his work. “There’s a thrill associated with solving a problem. Some cases are very quick and easy; others are much more complex. I enjoy the challenge of going where no one has gone before so to speak – there is no answer until you go through a process of elimination.”

Sometimes, as Stuart recalls, the cause of a fire can be seemingly small and innocuous. In a house fire in North Otago, a concave microscope mirror sitting on a windowsill in the sunlight reflected light and heat onto the back of curtains and the house caught ablaze. All evidence was covered by debris from the ceiling which collapsed in the fire, and previous investigators had been unable to determine the cause.

The largest fire Stuart ever worked on was a coolstore facility, part of an orchard co-op, thousands of square metres in area which burned down due to a faulty box glueing machine.

The hardest part of his job is seeing the bodies of fatalities. He soberly recounts a case where three children died, before commenting, “I don’t ever regret the work though – if I can find the cause I can prevent further incidents from happening.”

“I would really like to be able to hand on the torch someday and pass my experience onto others. It’s great that my job here at Otago Polytechnic allows me the ability to impart knowledge to a new generation of electrical engineers.”

However, Stuart is not planning on retiring just yet. He is currently working on researching aspects of smoke alarm reliability. He is also keen on working in collaboration with others to hopefully develop some case law around line failures to lead to cost recovery.

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Producing sustainable practitioners



Designing a sustainable future

“Sustainability is both a tradeable commodity now and a real opportunity to incorporate integrity into business strategy,” describes **Timothy Lynch**.

After successfully completing his Bachelor of Culinary Arts, Tim embarked on a Master of Design Enterprise at Otago Polytechnic. His thesis on sustainable business platforms for primary producers saw him create his own self-sustaining entrepreneurial venture, The Boatshed Smokehouse, bringing user-centred design thinking to food. This business funded his entire postgraduate study, and enabled him to create and run other small, up-and-coming spin-off enterprises.

Tim also collaborated with industry, including the CEO of Foodstuffs, sharing his knowledge and skills. He conducted research into user perceptions of Foodstuffs' underperforming Pam's Brands and helping them to investigate the "traditional trade-off between innovation and market share".

In addition, Tim noted two main problems that existed in the aquaculture marketplace and turned them into golden opportunities. The first of these was the realisation that few companies in Otago were prudently managing coastline resources. Secondly, Lynch noted that there was a growing market segment for ready-to-eat products. These insights led to Lynch creating tasty gourmet foods from fish that has traditionally been thrown away. "When fish is caught and filleted on board, only about 70 per cent of it is utilised," he recounts. "When you consider the total value of seafood from New Zealand is \$4 billion a year, the wastage is considerable. I wanted to use as much of that 30 per cent as possible, using farmers' markets as a springboard."

Tim describes this as having value, not just for consumers and profit margins, but also for employees: "It ensures their jobs and expands their skillset."

Tim was also interested in how small producers, like those found at local farmers' markets, could expand their businesses into national – and even international – markets. To test how this could work, Tim created different brands in different market segments: The Boatshed Smokehouse produces smoked fish and fish products, and is an Otago Farmers' Market favourite. Meanwhile, Wharf Street Kitchen creates smoked salmon burgers and chorizo for large-scale retail and food service companies.

"The surging popularity of local farmers' markets is evidence that consumers are now much more aware of where their food comes from – and increasingly, they expect their food producers to behave responsibly and ethically," Tim says.

Lynch, T. (2014) Sustainable business platforms for primary producers, Master of Enterprise Design Thesis, Otago Polytechnic.

Paying the environmental price

Dr Ella Lawton, Sustainable Practice Adviser and Research Co-ordinator for the Centre for Sustainable Practice, has been looking into the relationship between health, wealth and happiness in Bhutan.

After recently completing research into The New Zealand Footprint Project, examining the relationship between lifestyle, consumption and the effect it has on the environment, Ella has begun work on a new project – this time focusing on the Ecological Footprint of Bhutan.

Bhutan, a land-locked country in South Asia, is moving away from subsistence farming towards urbanisation and capitalisation. "The Bhutan government is asking whether this change is really making their country a happier and healthier place to live," explains Ella.

In this joint project, Ella's efforts are combined with PhD student Michelle Olivier from Charles Stuart University in Australia and the Royal Government of Bhutan Gross National Happiness Commission, which focuses on building a Localisation Index. Localisation occurs when a country's living requirements (water, food, energy, and housing materials) are utilised within the region, in contrast to a globalised economy.

"As a rapidly developing country, Bhutan is struggling to balance the demands from growth and capitalism whilst continuing to retain their cultural richness and diversity," comments Ella. "This research has highlighted, yet again, that 'development' has an environmental price. It needs to be measured and considered by governments in their decision-making in order to support their people's well-being and happiness."

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Photograph: Daniel Boud



Beauty in independence

Sound artist **Michael Morley**, an Art lecturer at the Dunedin School of Art at Otago Polytechnic, and member of The Dead C, describes “beauty in the freedom of independence” as part of the methodology for his group’s success.

The band, which formed in 1987 and includes fellow musos Bruce Russell and Robbie Yeats in its line-up, headlined in May 2014 at the Sydney Opera House as part of Vivid Festival, a celebration of music, light and sound, to a crowd of thousands. Michael says his sound artistry research aims to examine the possibilities of sound and music utilising the known tools of rock music. The band, whose genre Michael defines as rock music technically, is not recognisable to many as a rock group.

“We strip out the artifice that gets associated with rock music, and you’re left with a sort of skeleton of sound. We discovered very early on that we had an audience that was not in

New Zealand. In the spirit of punk we were very single-minded in our concept of sound and didn’t worry what the music industry thought of us”.

2014 also saw the band do a quadruple LP release of live recordings, recorded from concerts over a period of eight years that took place in Paris, New York, London, Los Angeles, Brussels and Marseille. The LP releases took a month of intensive work to edit and put together. Michael is currently working on another album, and a single comes out in July 2015. To date, The Dead C has a discography of 44 records.

When asked what inspires him as a sound artist, Michael describes the influence of other music styles and musicians including J. S. Bach, blues guitarist Son House, and Māori waiata and taonga pūoro. He also describes a sense of community that has been built amongst their eclectic fan base which features a wide demographic, ranging from teenagers through to people in their sixties and seventies.

The Dead C is currently in negotiations surrounding a concert in Philadelphia in 2016, which will take place over three days of performances, panel discussions and workshops including writers and other sound artists.

Morley, M., Russell, B., and Yeats, R. (2014) The Dead C performance at Christchurch City Art Gallery, 23 May 2014.

Species Dysphoria

“Surfing has always focussed the cultural beam towards California and the ripples move outward via the internet,” says **Ted Whitaker**, Electronic Arts technical teacher at the Dunedin School of Art.

Multi-media videographer and art researcher Ted Whitaker has long been interested in media archaeology and combining media from different devices, sources and origins. His work, *Species Dysphoria*, a surf film, was shot on two cameras in two very distinct formats, reflecting two different time periods. In addition, the video was shot in the disparate locations of Kaikoura, New Zealand and Los Angeles, California. The result is a piece which shows the “colonisation of culture and the collision between the foreign and the familiar”. *Species Dysphoria* unravels the layers of New Zealand’s surfing subculture identity derived from a ‘Malibu’ surfing ideology, and reflects the geographical isolation of our nation. Though mimicking elements of Californian surf culture, it shows a distinctive difference inherent within Aotearoa.

The first camera, a modern DSLR, provides a rich cinematic quality, representative of 2015, whereas the 90’s Sony hi8 camera shot low resolution scenes, with a lot of analogue noise from dust, a defect of the magnetic video tape. The visible difference was integral to film and the concept of dysphoria.

The project was a labour of love for Whitaker, who is a keen surfer and consumer of surf films himself. *Species Dysphoria* was widely accepted by surfing audiences, being selected for the Aotearoa International Surf Festival. However, interestingly, it was also appreciated by art audiences around the globe, being selected for the Alchemy Moving Image Festival in Scotland. As Ted says, “This indicates that there is a cross-over and a resonance between the two audiences.”

Whitaker, T. (2014). *Species Dysphoria*. Film selected for the Aotearoa International Surf Film Festival and Alchemy Moving Image Festival, Scotland. <http://vimeo.com/80665058>



Image by Ted Whitaker

Photo by Fifi Leong



Food conference makes global impact

“It far exceeded our expectations. The challenge now is keeping up with the demand and expectation for future events,” says **Associate Professor Richard Mitchell**.

Inspired by the inaugural world food design conference held in London in 2012, Richard Mitchell, Associate Professor at the Food Design Institute, led the development and delivery of International Food Design Experience at Otago Polytechnic. The event showcased cutting-edge food design from around the world, with more than 100 chefs, food designers and media

from nine countries attending the event to launch Otago Polytechnic’s Food Design Institute. Delegates included acclaimed New York food designer and photographer, Emilie Baltz, London’s Chloe Morris and award-winning New Zealand chefs Michael Meredith, Gianpaolo Grazioli and Giulio Sturla.

The event had an audience of 2.5 million via television, magazines and online content worldwide.

Students of our Bachelor of Culinary Arts – the first design-led undergraduate culinary arts degree in the world – contributed to the event creating food experiences throughout the event, concluding with the Gala Dinner for more than 120 people.

Otago Polytechnic will be hosting another International Food Design Experience from 6-8 July 2016.

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Photos by Irene van der Meer



Photo by Fifi Leong

High performance sports symposium

"As part of giving back to our local community and informing our students we brought in national experts to speak about how they practise in the sports community and apply their knowledge," says Head of School **Dr Megan Gibbons**.

Otago Polytechnic held an Applied High Performance Physical Conditioning Symposium in Dunedin in May 2014 which attracted world-class sport specialists. Key members of the Otago sporting community gathered to hear from experts who work closely with some of the world's most elite athletes.

The keynote speaker was Matiu Taingahue, a former strength and conditioning coach who has worked with professional football teams in Sweden and Norway. Matiu addressed attendees about the importance of athletic preparation and his views on movement development in high performance sport.

Organisers Matt Blair and Hayden Croft described the event as a huge success, stating: "Students really benefited from the day as they started to think about application in sport. The symposium timing in May was ideal as this is when the students start leading sessions."

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Understanding disability by walking

“I saw a real vulnerability and fragility in people during walking interviews even though they were verbally being very brave,” says **Dr Mary Butler**, Senior Lecturer in the School of Occupational Therapy.

Backed by a prestigious ACC Post-Doctoral Career Development Award, one of only three awarded throughout New Zealand, Mary set out to attempt to understand the longitudinal impacts of injury in those with pre-existing disabilities. Following a small cohort of participants with pre-existing co-morbidities including brain injuries, polio and severe burns, for a period of two years, she wanted to find out what factors mediate the speed of recovery. What she discovered was that “it all depends on support networks – the social capital available made all the difference in how quickly people recovered and how much they were able to function without continuing disability”.

Along the way she also made some subsequent discoveries, including the validation of walking as a method of interviewing for adding richness and depth to the data. “When I sat down

with people and interviewed people ‘normally’, that is, in a sedentary interview, the stories I got were very conforming. People would significantly downplay their injuries. However, when we went for a walk where people would choose to walk and how far we would go would be very revealing of the reality of their bodies and injuries,” says Mary, “Mostly we want to say that people with disabilities can live life like everyone else, however sometimes there are significant adjustments and changes they have to face that in one way or another bring retirement from various occupations closer.”

Mary’s research further revealed that walking interviews have benefits in terms of shifting the power balance implicit in the research relationship; situating cognitions and narratives in place and time; and remaining coherent with the worldview of Occupational Therapy which has activity as a prime focus of engagement.

“Taking research out of a fixed environment creates new understandings of disability,” says Mary.

Butler, M (2014). The Walking interview: an approach to investigating injury in people with pre-existing co-morbidities. *Internet Journal of Allied Health Sciences and Practice*. 12 (3).

Exploring significance of place

Those moving from forensic psychiatric institutions into the community are among the most vulnerable, marginalised and often feared members of the community. Understanding their experiences is critical to developing the support they need, and giving confidence to those they live among.

After extensive clinical experience working with individuals within the forensic psychiatric context, **Penelope Kinney** is currently undertaking PhD research exploring the transition process of individuals moving from forensic psychiatric hospitals and services into the community.

In 2014, Penelope presented at the annual Sociology Aotearoa New Zealand Association conference held at the University of Canterbury. Her presentation focussed on the unique ethics and data collection challenges that exist within this very specific, and often marginalised, population.

“I wanted to explore non-traditional qualitative data collection methods as my experience has revealed that these individuals find it very difficult to initiate conversation and talk about things that are abstract. Traditional qualitative interviews are also researcher-driven and I believe it is important for interviews with individuals within a forensic service to be client-driven. I want to allow participants some level of decision-making since they often don't have a lot of choices surrounding their treatment.”

In particular, Penelope discussed two novel forms of data collection, these being the Participatory Walking Interview and the use of visual images.

“The Participatory Walking Interview involves allowing the participants to choose a geographic location within the community that is important to them. We then go on a shared walk around this place discussing the significance of it. As well as listening I am also able to observe the individual's connection to, and interaction with, society and vice versa.”

“This method promises several benefits, firstly removing some of the researcher bias, and secondly eliminating some of the anxiety factor for participants,” describes Penelope. However, this approach also presents unique challenges including getting the gate-keepers within the forensic services onboard and ensuring safety and security.

“The conference helped evoke discussion of special considerations and this was particularly useful.”

Kinney, P (2014). Exploring the transition process of moving from hospital to the community within a regional forensic psychiatric service in Aotearoa/ Paper presented at the *New Zealand Sociological Association Aotearoa New Zealand annual conference*, University of Canterbury, Christchurch.



Social connectedness enhances mobility

Friends protect against falls. This was among the findings of **Dr Linda Robertson, Associate Professor** who set out to explore what lay behind the success of mobility and falls preventions groups for seniors organised by Age Concern (Otago).

Randomised trials had previously demonstrated the efficacy of physical achievement within these peer-led groups but Linda suspected that much more was at play in contributing to the successful longevity of these groups.

Using a qualitative, descriptive research method, individual interviews were conducted with seven focus groups comprised of group organisers and exercise group members, three major themes emerged.

The first was the already noted physical benefits of attending the group. Participants identified everyday movements they could now do that they couldn't before, such as "standing up in church without having to hold on to the pews".

The second, previously unidentified, theme was that of social connectedness. "The thing they talked about with most enthusiasm was the social value," notes Linda. "Although they weren't necessarily creating pals for life they were getting meaningful contact amongst a caring culture modelled by the peer leaders."

Thirdly, support needs were identified as being of importance to the ongoing maintenance of the groups.

This research is significant as it has successfully identified some of the underpinning mechanisms that make seniors falls prevention programmes work. This gives hope that future seniors exercise groups will be able to replicate the success of these falls preventions groups by ensuring that new groups are also peer-led and emphasise positive social links.

One of the conclusions Linda drew from her research is that because group leaders are similar in age and physical problems, yet have been supported with formal training and community and agency links, they are able to exist "between the formal and informal domains". This factor appears to be directly related to the ongoing attendance and enjoyment of these groups for members.

Robertson, L., Hale, B., Waters, D., Hale, L., & Andrew, A. (2014). Community peer-led exercise groups: Reasons for success. *The Internet Journal of Allied Health Sciences and Practice*, 12 (2).

Asking the tough questions

When women's refuge Pioneer Erin Pizzey made the statement that "women in refuges are systemically violent to each other and staff", she was ostracised from the counselling community for daring to present a forbidden narrative that women could be as violent as men.

This is just one example of what **Maurice Vaughan** describes as a "history of rigidity within counselling professional bodies" and a drift "towards moral certainties and preferred narratives".

In 2014, Maurice published a column in *Psychotherapy in Australia* about the work and career of Erin Pizzey, an English family care activist who started one of the world's first women's refuges in the United Kingdom. Maurice's column provided an insight into the political and personal struggle of

Erin Pizzey as well as the politics of domestic violence and the counselling industry as a whole.

Maurice believes that it is important that the industry displays an appropriate scepticism of itself, and continues to engage with critiques presented from clients, society and other professionals.

"We have a moral and ethical obligation to rationally examine ourselves. We need to be able to effectively model the behaviour we teach our clients," says Maurice.

Maurice's research is at the cutting edge of current clinical thought. "It simply isn't true that counselling is only ever useful and never abusive or contraindicated. Over the decades we have seen minority groups, including indigenous cultures and the homosexual community question modalities which work in discriminatory ways. These challenges will continue to present themselves and we need to remain responsive and open to them."

Vaughan, M. (2014). Erin Pizzey and the forbidden narratives about domestic violence. *Psychotherapy in Australia*. Vol 20. Number 3. May 2014.



A co-constructed model

“Child protection work is a difficult area for practitioners with no silver bullet,” says **Margaret McKenzie**. While previous research in this area has often focused on a favoured method, greater potential exists in how to judiciously and meaningfully combine the best of a range of strategies.

Five social work educators from Aotearoa/New Zealand, Norway and Western Australia, including Margaret McKenzie from the School of Social Services at Otago Polytechnic and Shayne Walker from University of Otago, have now developed a blended model of practice for child welfare work. The model incorporates elements of collaboration, participation, family members acting as their own theorists, strengths-based practice, and the importance of physical environment and cultural identities. This is one of the first times these theories have been combined to create a coherent framework from a basis of co-construction.

“At various points in our careers working in child and family work social agencies, before we moved into tertiary education, we each had concerns about how the work is done and how it is taught. So we drew together a group of ideas and principles that can be used to teach theory and practice, based on our combined experience of best possible outcomes for children and families,” says Margaret.

This blended model of practice is the basis for two articles published by the team of authors. One of these two articles was one of top three most downloaded articles that were published in 2014 across the Routledge Health and Social Care journals series.

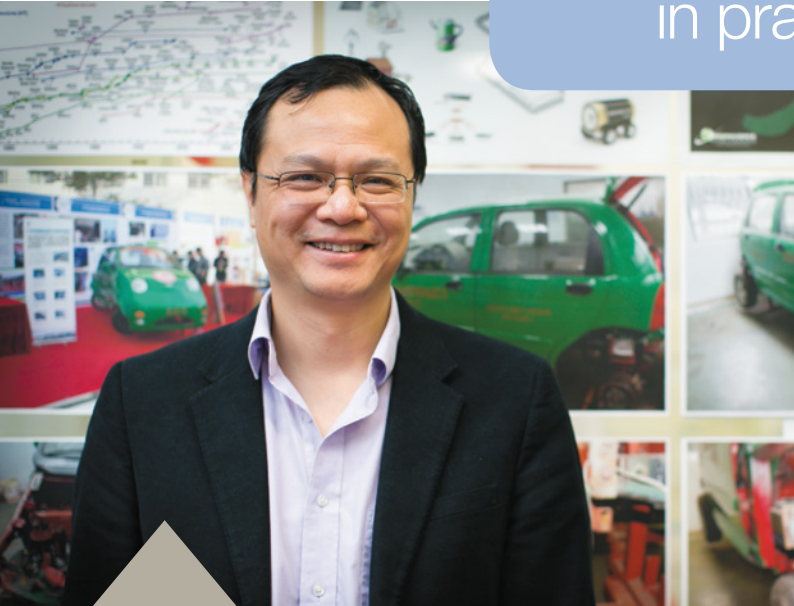
The team’s research is also influencing a new generation of practitioners. Margaret and her colleagues teach in Norway for two weeks every year on the European Master of Social Work with Families and Children (Erasmus Mundi) programme at the University of Stavanger. Two thirds of the students on this programme are from developing countries who are sponsored by the Erasmus programme and their governments to attend, learn and bring back their knowledge to help their communities.

“It is great to be part of this collaboration and partnership,” says Margaret. “The more minds that can contribute to navigating the complexities across families and cultures the better.”

Young,S.,McKenzie,M.,Schjelderup,L.,Orme,C. & Walker,S (2014). What can we do to bring the Sparkle back into this child's eyes? *Child Rights/Community Development Principles:Key Elements for a strengths based child protection practice Child Care in Practice*, 20:1,135-152.

Young,S.,McKenzie,M.,Orme,Schjelderup,L and Walker,S. (2014). *Practising from Theory: Thinking and Knowing to "Do"*. *Child Protection Work Social Sciences*, 3,893-915.





Industry-oriented engineering teaching strategy

“Many students have very good maths skills but lack practical hands-on engineering skills, and vice versa,” says **Associate Professor Tom Qi**.

Discouraged by the New Zealand engineering industry skilled workers shortage, despite the numbers of engineering graduates being produced each year nationwide, Tom set out to investigate how to close the gap between current teaching and industry need.

Tom's Ako Aotearoa-funded project worked with potential employers to create real-life case studies that students would have to use maths for in the real world to help blend theoretical knowledge with industry application to meet the same learning outcomes. Examples included measuring and predicting water flow rates through three successive water tanks on an industrial reservoir, and calculating the structural integrity of a load-bearing beam in a commercial build project. Tom's research is a New Zealand-first mathematics/engineering research collaboration between Polytechnics – with input from Metro group members including Waikato Institute of Technology (WINTER), Wellington Institute of Technology (WELTEC) and Christchurch Polytechnic Institute of Technology (CPIT) as well as Otago Polytechnic.

As Tom reflects, the current results open up more questions and challenges that need consideration: “If we accept that existing teaching is not really linked to industry, then if we need to change, how do we do that?”

“Obviously we want to meet IPENZ and NZQA regulations, but we also want students and parents to understand what engineering really is, as well as produce the kind of graduates that the industry really wants.”

Qi, Z. T. (2014). An industry-oriented math teaching strategy for the Metro Group BEngTech program. Project presentation at the *Ako Aotearoa Southern Hub Projects in Progress Colloquium II*, 21 Nov 2014, Christchurch.

Immersive learning in nurse education

How can you teach a nursing student what it's really like to live with a long-term disease such as Chronic obstructive pulmonary disease (COPD)?

This was one of the questions School of Nursing lecturers **Dr Liz Ditzel**, **Raewyn Lesa** and **Dr Karole Hogarth** were asking themselves. Reading about conditions in a textbook provides one form of knowledge, and practising on a mannequin provides another, but as Raewyn Lesa describes, “The problem with using simulation alone is that it is harder to give a holistic picture at one snapshot in time and therefore can dehumanise nursing care. Our goal was to bring the person back into care.”

The trio won an Ako Aotearoa research grant for a project aimed at evaluating the effectiveness of using a technology-enhanced, integrated teaching approach to clinical practice, in order to improve the learner outcomes within nursing education.

Two case studies were chosen for students to learn from, one involving a person living with COPD, and the other centering on myocardial infarction. For those students who were part of the test group, each case involved a five-step learning approach which included theory lectures and online learning, LabTutor session, group tutorial, simulation, and debrief. The LabTutor component was delivered through software technology developed by ADInstruments.

The research showed that students who had received all five steps of the learning process obtained better exam results than the control group which did not – compelling evidence demonstrated that the immersive approach was effective for second year nursing students. Visual teaching media such as patient case studies was the preferred teaching strategy.

Ditzel, L., & Lesa R. (2014) Immersive Learning in Nursing Education. Project presentation at the *Ako Aotearoa Southern Hub Projects in Progress Colloquium*, 21 November 2014, Christchurch.



In print

The latest books from Otago Polytechnic researchers



A **XXXXXwords**
Morley, M. (2014)

Otakou Press

XXXXwords is a book of lyrics and linocuts by Michael Morley, a Port Chalmers artist and musician. The book includes nine lyrics spanning Morley's career in music/sound art from the 1980s through to this year.

B **I am Brave Yet I Fear My Own Breath**
Greaves, M.J. 2014

Batti, ISBN 978-0-473-30551-2

In 2012 Michael Greaves spent three months living and working in Berlin as a part of an artist residency program. During this time the initial workings for the show *I am Brave Yet I Fear My Own Breath* were made, and upon his return this work was exhibited in a solo show at the Ashburton Art Gallery. To coincide with this show the work was included into an accompanying publication drawing together the threads of the work in a novel based collection.

C **RAFT**
Greaves, M.J. 2014

Batti, ISBN 978-0-473-30553-6

As a part of his ongoing MFA project, to be completed in early 2017, *RAFT* draws together ideas of the object and the thing in order to establish a foundation for Greaves' studio practice. The collection of images in *RAFT* combines the playfulness of making with no purpose with the seriousness of attempting to concretely define the world as it appears to us.



D **The Social Life of Art**
Peter Stupples

Cambridge Scholars Publishing: Newcastle-upon-Tyne, UK, 2014
ISBN (10): 1-4438-6217-7, ISBN (13): 978-1-4438-6217-2

This study examines not only the objects and processes that make up the artworlds of human history, but also the social and cultural circumstances, the historicised contexts that bring about their making, frame their functioning, inform their properties and influence their effects, both at the time of their creation and throughout their subsequent biographies.

E **Art and Food**
Peter Stupples (ed.)

Cambridge Scholars Publishing: Newcastle-upon-Tyne, UK, 2014 ISBN (10): 1-4438-5491-3, ISBN (13): 978-1-4438-5491-7.195 pp.

Art and Food is a collection of essays that explores a range of topics relating to the representation of food in art and art in food, from iconography and allegory, through class and commensality, to kitchen architecture and haute-cuisine. The essays were selected from papers given at a symposium held in Dunedin in 2012 organised by the Dunedin School of Art and the University of Otago, with contributions from scholars in New Zealand, Australia, Italy and South Africa. A highlight was a "food event" in the evening provided by the staff and students of the Otago Polytechnic Culinary Arts programme.

F **Midwifery: Preparation for practice**
3rd edition, 2015
Sally Pairman, Jan Pincombe,
Carol Thorogood and Sally Tracy

This midwifery textbook is the first to reflect Australasian historical and socio-political contexts for midwifery practice and the first to frame content within the philosophy and standards of the New Zealand and Australian College of Midwives. Written by New Zealand and Australian midwives who are leaders in their field, this third edition provides up to date evidence and practice-based resources for practising midwives and for students.

Professor Sally Pairman is the sole New Zealand editor and her vision for a midwifery textbook that approaches midwifery care from the perspective of a midwife as a primary healthcare practitioner, based in the community but interfacing with hospitals and specialists as necessary to meet the needs of individual women has resulted in a text that both explores and celebrates the achievements of women and midwives in giving childbirth back to women and their whanau.

(First edition published 2006; 2nd edition in 2010)

Theses and dissertations conferred in 2014

MASTER OF FINE ARTS

Katherine Belton: 'White Silence'

Rebecca Hamid: 'Positioning Artists Internationally'

Kristin O'Sullivan-Peren: 'Breath'

Mark Soltero: BACk Catalogue in Black and White

MASTER OF VISUAL ARTS

Nathan Forbes: 'Dogmatic Death'

Mutahir Mohamed Ariff: 'The Link, or Here and Back Again'

MASTER OF PROFESSIONAL PRACTICE

Jordan Cleland: 'Cultivating a Culture of Innovation in Higher Education'

MASTER OF DESIGN ENTERPRISE

Timothy Lynch: 'Sustainable Business Platforms for Primary Producers' (see story on page 12)

MASTER OF OCCUPATIONAL THERAPY

Helen Jeffery: 'Just Another Approach, New Zealand Occupational Therapists' Use of Adventure Therapy'

Sally Hollinshead: 'I Didn't Realise: An Obesity Case Study with an Occupational Perspective'

Elizabeth Edens: 'Choosing to Care' or was it "Hobson's Choice"?''

Frank Lu: 'An Exploratory Study into the Use of Perceive Recall Plan Perform System of Task Analysis in Clinical Practice in New Zealand'

Randa Abbasi: 'Occupational Experiences: Living Well with HIV'

Annie Baigent: 'Spirituality in Daily Activities of Mothers and their Young Children'

Evelien Hollestelle: 'Vision of the Future: Occupational Therapy and Neurological Vision Impairment in New Zealand'

Tracy Murphy: 'Risk in Occupational Therapy Practice'

Cate Shields: 'The Effect of Social Skills and Relationship Education on the Knowledge and Attitudes of People with Intellectual Disability'

Available from the Robertson Library:
www.library.otago.ac.nz/robertson

ISSN 2230-6994 (PRINT)

ISSN 2230-4320 (ONLINE)

Acknowledgements

Published by the Otago Polytechnic Research & Enterprise Office, 2015

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Cover:

The cover photo is of Justine Camp's tā moko. This was designed and tattooed by Stu McDonald and all rights are reserved. Photograph by Hayden Parsons.

Photography:

Isabella Harrex, Hayden Parsons, Ted Whitaker, Fifi Leong and Irene van der Meer.

Contributing writers:

Michelle Bunt, Jill Rutherford

Design:

Bernadette Grumball

Paper stock:

Printed on Advanced Laser by BJBall Papers, produced using fast growing farmed eucalyptus trees. These take as little as three to five years before they are ready for harvesting, providing sustainable income opportunities for rural communities. It is manufactured at an ISO 14001 and ISO 9001 accredited mill in an ECF process and has been printed using sustainable processes by Southern Colour Print.



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