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Growing Māori agribusiness

Unearthing the potential

Plus

- Big data's big skill shortage
- Folded desk revolutionises office furniture
- Agility, innovation and 21st-century business skills

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TE KUNENGA KI PUREHUROA
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THE ENGINE OF THE NEW NEW ZEALAND

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THE ENGINE OF THE NEW NEW ZEALAND

Website: www.definingnz.com
Editor: Kelly Osborn
Contributors: Sidah Russell, Kelly Osborn, Paul Mulrooney, Jennifer Little, Sonia Yoshioka Braid, Andrew Morrison, Kerry Thomas, Ted Zorn, Glyn Harper, James Gardiner, David Wiltshire
Designer: Grant Bunyan
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Working with business leaders we have identified skill shortages and future issues and opportunities, and we are responding with forward-thinking, specialised programmes.

New Zealand is heading into interesting times.

The scale of cultural, economic, environmental, political, scientific, social, and technological change is enormous.

Understanding the changes taking place around us, and responding appropriately, are central to everything Massey University does – whether it is through our teaching, our research or our connections with the wider community.

Professor Ted Zorn knows this as well as anybody, which is why he is working to ensure that the Massey Business School he leads prepares our graduates – and New Zealand businesses – to thrive in the 21st century.

The challenge is to do that in an environment where the careers and industries for which we are preparing them are changing more rapidly than at any time in our nation's history.

Working with business leaders we have identified skill shortages and future issues and opportunities, and we are responding with forward-thinking, specialised programmes.

Take the new Master of Analytics (Business), the new Māori agribusiness major and the new Bachelor of Retail and Business Management.

Big data is an area undergoing rapid growth; enormous quantities of information are readily available to today's businesses, but few have employees with the skills to analyse that information, meaning opportunities are missed. That is why the new masterate programme focuses on how to use data in a practical, useful way for business decision-making.

Māori agribusiness is another sector with enormous potential. A 2011 report estimated that 80 per cent of Māori farmland was under-developed or under-utilised. The new major will produce graduates with an understanding of specific issues relevant to the Māori agribusiness sector, and the skills to contribute.

And the Bachelor of Retail and Business Management will develop future leaders and further professionalise a sector that increasingly provides a long-term, multi-skilled career path.

We believe that now, more than ever, Massey University has an important role to play in these changing times and that changes must have positive impacts on the industries and communities we serve.

Often the most effective change happens at the grassroots level, where small, strategically smart communities partner with top-level expertise. One example is an exciting partnership between sustainability researchers Professor Ralph Sims and Dr Phil Murray and the iconic Parihaka settlement in south Taranaki.

Parihaka is known as a world leader in peaceful coexistence and passive resistance – based on the legacy of chiefs Te Whiti and Tohu, who modelled passive resistance to the colonial government of the 1880s – and today's Parihaka leaders want their growing community to continue to thrive.

With the support of a Ministry of Business, Innovation and Employment grant, Sims and Murray are exploring wind, solar and water options for a rural community that is gearing up for the changes of the 21st century whilst nurturing its cultural heritage and practices. Indeed, Parihaka's leaders see living in a sustainable way as central to its strategy of being an "innovation leader".

The partnership, like all our collaborations, is about using our research strengths to make a difference. It is about making sure that new times are better times, and building on our reputation as a bold, innovative, "can do" university.

But we cannot do it alone so, please, talk to us about how we can work together to create a better and more prosperous society.

Peter Schwerdtfeger awarded Rutherford Medal

A world-leading authority in quantum chemistry and physics, Massey University's Distinguished Professor Peter Schwerdtfeger was the 2014 winner of New Zealand's most prestigious science award, the $100,000 Rutherford Medal.

Originally from Germany, he has been based at the University's Auckland campus since 2003.

Schwerdtfeger works on fundamental aspects of chemical and physical phenomena in atoms, molecules and condensed matter. His approach to science is truly interdisciplinary, ranging from chemistry to physics, computer science and mathematics.

It earned him this citation from the Rutherford Medal selection panel: "Distinguished Professor Peter Schwerdtfeger is one of New Zealand's most brilliant and internationally sought-after scientists".

Schwerdtfeger was honoured to receive the Rutherford Medal.

"Rutherford, for me, is one of the giants in science. He's in the same category as Einstein, Dirac, Schrödinger and Heisenberg. When I went through school and university, the name Rutherford was everywhere. There's the Rutherford atomic model and there's Rutherford scattering — and of course he was the first one to split the atom, and he discovered the proton. So the name — the person — Rutherford means a lot to me. In that sense, I'm honoured."

He is the seventh Massey alumnus to receive the Rutherford Medal in the past 10 years.

The population of the critically endangered green parrot (*Cyanoramphus cookii*) on Norfolk Island is on the rise, thanks to an intensive collaboration between Dr Luis Ortiz-Catedral, from Massey's Institute of Natural and Mathematical Sciences, and Norfolk Island National Park ecologists and rangers.
In July 2013 there were between 46 and 93 birds remaining – and just 10 adult females – down from 240 in 2010.
But after implementing a breeding programme, 75 nesting sites were constructed and last winter 51 chicks had fledged – of which 25 were female.

The Pacific Research and Policy Centre, launched in November, will focus on key development issues facing Pasifika communities in New Zealand and in the wider Pacific region.
As well as undertaking research that supports the work, housing, health and education aspirations of Pasifika people in New Zealand – which hosts the largest Pasifika diaspora in the world – the centre's purpose is to partner with Pacific Island nations in tackling critical issues facing the region.
Associate Professor Malakai Kolomatangi and Professor Regina Scheyvens are co-directors of the centre.
The university currently has around 130 researchers with expertise in Pacific issues spread across its three campuses and five colleges.
Distinguished Professor Paul Spoonley (above) takes part in the Fijian Nai Sevusevu (kava) welcome ceremony at the centre's launch.

Honorary doctorate for China's First Lady

Madame Peng (centre) among the official graduation party – Sir Richard Taylor, Steve Maharey, Chris Kelly and Lady Janine Mateparae.

Madame Peng Liyuan, First Lady to the President of the People's Republic of China, was conferred with an honorary doctorate at a special ceremony at the Wellington campus in November.

The accomplished musician, renowned soprano, opera performer and Professor of Music received her doctorate during a tour of the University's College of Creative Arts that coincided with the official visit to New Zealand of her husband President Xi.

University Chancellor Chris Kelly, who led the doctorate ceremony, says the Doctor of Literature (*honoris causa*) was in recognition of her international contributions to the performing arts and health and education programmes.

She is the current United Nations Educational, Scientific and Cultural Organisation special envoy for the advancement of girls' and women's education and, in 2011, was appointed a World Health Organization Goodwill Ambassador for tuberculosis and HIV/AIDS.

Vice-Chancellor Steve Maharey says Massey University has a longstanding and strong relationship with China. It was the first New Zealand university to be visited by the president of a Chinese university, and the first to sign a memorandum of understanding with a Chinese university. Massey currently has close to 1800 students from China and about 70 active agreements and collaborations with Chinese university and government agency partners.

Ten Massey University-led research projects were awarded research funding worth more than $5.1 million from the Government's 2014 Marsden Fund. Four of the projects received Marsden Fund Fast-Start grants ranging from $250,000 to $300,000 for young researchers, including Dr Rachel Blagojevic (pictured), whose study will make it easier to draw diagrams on computers by finding algorithms that help computers quickly recognise what people intend to convey.

A little blue penguin spent two months at Wildbase Hospital after being found starved and emaciated on a beach at Whanganui. The bird's recovery involved regaining weight, waterproofing itself and practising swimming. The penguin weighed just 543 grams when it was found, but was a healthy 900 grams when it was released at Himatangi Beach in September.

Online tools to help dairy forecasting

Two new online tools will give dairy farmers simplified and instant information on the farmgate milk price and New Zealand milk production trends.

A Farmgate Milk Price Calculator and Milk Production Predictor were developed by Massey University and stock exchange company NZX, with funding support from Callaghan Innovation.

The calculator gives farmers a better understanding of the relationship between Global Dairy Trade (GDT) prices and their milksolids payouts. Massey Chair in Farm Business Management Professor Nicola Shadbolt says huge amounts of complex science and financial data have been rigorously analysed and condensed into a simple tool.

"The Farmgate Milk Price calculator will provide an instant translation that hasn't previously been available, an important innovation for farmers who are absolutely hardwired to the global dairy prices and demand, with New Zealand making up about a third of the world trade in dairy."

The new tool produces two prices – one based on the latest GDT prices and the other seasonal figure, which includes costs and the exchange rate.

The tool is easy and free to use and essentially simplifies the Fonterra Milk Price Manual, so farmers are better equipped to make better decisions.

The predictor uses advanced modelling to forecast New Zealand milk production for the next three months, based on factors including climate, pasture growth and cow numbers. It is available for purchase from NZX.

Roger Van Hoesel (centre), managing director of Food Valley in the Netherlands, was the forum's keynote speaker. Pictured with vice-chancellor Steve Maharey and FoodHQ's Mark Ward.

Big year for FoodHQ

The past year has seen FoodHQ help secure a new $5 million Food Safety Science Centre, host the inaugural Manawatu Agrifood Forum, and prepare for the future.

Massey will host the centre, where FoodHQ will work alongside research providers AgResearch, Cawthron Institute, ESR, Plant and Food Research, and the Universities of Auckland and Otago.

The centre, expected to open mid-year, aims to promote, co-ordinate and deliver food safety science research for New Zealand and ensure that it remains a leader in food safety.

FoodHQ programme director Mark Ward says the forum, held in November, was another highlight and the beginning of the next phase for food innovation.

There are now plans for a membership group and a new governance structure. Tom Richardson, chief executive of AgResearch, will also replace Steve Maharey as chair.

FoodHQ is a research collaboration of 12 New Zealand food innovation organisations. Its aim is to enable the nation's food exports to reach $60 billion by 2025.

Massey University has an aerial imaging tool in its precision agriculture arsenal that was first developed for military reconnaissance and space exploration. The $500,000 Fenix hyper spectral imaging system from Finnish company Specim was purchased, with Massey, as part of Pioneering to Precision – a $10.3 million Primary Growth Partnership programme between Ravensdown and the Ministry for Primary Industries, to improve how fertiliser is applied to hill country. The seven-year programme is expected to generate $120 million annually in additional export earnings by 2030. Left to right: Massey research officer Gabor Kereszturi, Specim product manager Petri Nygren, Massey commercialisation manager Russell Wilson, Adept Turnkey chief executive Marc Fimeri and Aerial Surveys pilot Mike Marchant at a training week in Manawatū.

Growing Māori agribusiness

Unearthing the potential of a largely untapped sector.

Kiri Symonds (Ngāti Kahungunu) grew up wanting to be a builder, ended up a dairy farmer and now has a new calling.

The 31-year-old mother of two has finished a Bachelor of AgriCommerce degree, majoring in rural valuation and farm management.

Her study combined her love of the land with her interest in property, and now she has her sights set on becoming a rural valuer in the Māori agribusiness sector.

And she knows she's on to a good thing.

"Everyone now asks me what I did at Massey and they go, 'Wow, that's good', as there's a gap in the market for people like me."

Helping family was also a motivator; her grandmother is a shareholder in Aohanga Incorporation, which owns Owahanga Station, a 7300-hectare farm on the east coast of Wairarapa between Mātaikona and Ākitio.

"I'll be able to give more guidance to my nana's farm, about the value of the land, and help them out," Symonds says.

Kiri Symonds has her sights set on a career as a rural valuer in the Māori agribusiness sector.

> "Everyone now asks me what I did at Massey and they go, 'Wow, that's good', as there's a gap in the market for people like me."
>
> – Kiri Symonds

Her mother and uncle help her grandmother now but, "in my generation there weren't many people interested in succeeding them. With my farming background and studies, they've put me in that role. It's exciting to be part of it."

Massey University lecturer and Kāiarahi Māori Dr Nick Roskruge (Te Ātiawa, Ngāti Tama-Ariki) sees huge potential for development in Māori agribusiness, but says it is selling itself short.

Massey's new Māori agribusiness major, introduced this year as a specialisation within the agricommerce degree, will produce graduates with an understanding of specific issues relevant to the sector, and the skills to contribute.

The Government has identified Māori agribusiness as a key priority, and Minister for Primary Industries Nathan Guy says the potential for Māori freehold land represents an opportunity for Māori, the wider primary sector and New Zealand as a whole.

Māori freehold land comprises approximately 1.5 million hectares, or 5.6 per cent of New Zealand's land area.

But a 2011 ministry report shows that 20 per cent of Māori farmland is well developed, 40 per cent is under-performing (defined as currently developed for productive use but under-performing compared to similar enterprise benchmarks) and 40 per cent is under-utilised (the inherent physical capacity of the land is not being realised).

Another ministry-commissioned study, in 2013, suggests that by investing in and lifting the productivity of Māori land to average industry benchmarks, output could reach $8 billion and create 3600 jobs over a decade.

But Roskruge says there is a need to think outside the box both with what is being farmed and to add value to the stock or produce.

Māori are strongly represented in the sheep and beef sectors (10-15 per cent of national stock units are from Māori agribusiness enterprises) and increasingly in dairy (8-10 per cent). Roskruge says areas such as energy, fisheries, tourism, and food and beverages could be a future focus.

But development is subject to lots of factors and "it's not just a conversation about this is what you should be doing". People need to recognise what the key drivers are for owners, and the issues facing the sector.

Challenges to developing the sector include the difficulty in accessing capital, the isolation of the land, succession and multiple owners, and absentee ownership – but Roskruge says they're not new, and they're not necessarily negatives, they just need to be understood and worked through.

"It [Māori agribusiness] is probably a sleeping giant – it's a unique space, so there's a need for people to understand the space better and in a culturally sound way.

"Everyone pushes for it to grow and develop, but you don't want to do that at the expense of relationships with the people. It's up to people to make the decisions."

He says the new major allows people to look at the wider sector, and provides a theoretical framework as well as practical experience.

Second-year papers investigate key issues and the practices of Māori agribusiness policy and systems, including the values, science and business processes aligned to these, and the concepts of land and resource utility and kaitiakitanga, and the relationships of these kaupapa Māori-based systems with the present day.

Kiri with her mother and grandmother.

"The reality is that as a country we need more skilled managers of our natural resources, and we need to be able to contribute to that skill base."

– Dr Nick Roskruge

Kiri Symonds sees the potential in Māori agribusiness.

A snapshot:

- 1.5 million hectares of Māori freehold land, or **5.6 per cent** of New Zealand land area
- **14 per cent** of all New Zealand business are in agriculture, horticulture, forestry or fisheries industries. 26 per cent of Māori businesses are in the same sectors
- **15,000** Māori employed in these sectors, according to 2013 census
- **$543 million** worth of goods exported by Māori authority-owned businesses in year to March 2014 (1.1 per cent of total exported goods from New Zealand)
- **64 per cent** of all Māori land is managed by Māori trusts and incorporations
- **25,887** Māori land titles with an average size of 59 hectares

Third-year students build relationships with those in the field through case studies, with an emphasis on analysis and decision-making.

Roskruge says there are significant successes in Māori agribusiness – pointing to Parininihi ki Waitotara Incorporation in Taranaki and the Nelson-based Wakatu Incorporation, for example – and the future is bright for students seeking careers in the sector.

"They have the opportunity to work in an industry that has the potential to wake up the economy, to work in a sector where they are contributing to land use, land sustainability and cultural sustainability."

Agriculture and horticulture graduates are already in demand, and the new major would be attractive to employers.

"At the moment we can't satisfy demand. There are more jobs than graduates, but the numbers are slowing growing.

"The reality is that as a country we need more skilled managers of our natural resources, and we need to be able to contribute to that skill base."

For Symonds, going back to study was hard – especially with her soldier fiancé deployed in Afghanistan for eight months during her final year – but the sacrifices were worth it.

She gained new perspectives on farming and insights into the opportunities within Māori agribusiness, from land use to marketing.

"There's a lot of potential for Māori to take their products right through the value chain, from start to finish, and sell them worldwide with Māori stories behind them."

Had the new major been available to her, she would have taken it, and she can see the potential benefits. "It'll encourage people to come through and think about it as a career; before, they would never have thought much about it.

"So much of Māori land is under-utilised and Māori want their people to run the land, but if there's nobody coming through to fill those positions they have to look elsewhere.

"We have to encourage kids to come to university and go down that path. There's so much potential for them." ■

Creating a healthy lifestyle just got easier

Miriam Mullard discusses food options with a client.

A new Auckland-based nutrition and dietetics centre will offer sound, practical advice backed by science and research. By **Sonia Yoshioka Braid**

Healthy eating can be a challenge at the best of times, but throw in an exercise target, allergy or particular health requirement and it's a short road to information overload.

A new nutrition and dietetics centre at the Auckland campus aims to cut through the chatter and offer sound, practical advice backed by science and research, across a range of services and consultation packages.

The centre's principal dietitian Miriam Mullard recently returned to New Zealand from Great Britain, where she worked both in private practice and for the National Health Service. She is excited about the opportunities the new centre will provide.

"People have a variety of reasons for being careful with their diets. Some have allergies or intolerances; others have weight management problems or need specific information for chronic health issues, sports nutrition or even their children's fussy eating. We're here to help," Mullard says.

The centre will offer a range of consultation options, from individual packages to group programmes, nutrition education talks, bespoke meal plans, guided supermarket visits and professional development seminars. Professional services, including sport psychology, can be added to the programme as required. Charges will vary depending on the type of consultation.

> "The healthy lifestyle approach incorporates everything – there is no magic bullet." – Miriam Mullard

"We are keen to hear from people who want to work with us individually or in groups, so we can provide advice tailored to their needs. The healthy lifestyle approach incorporates everything – there is no magic bullet. It's about changing behaviours and reducing physical inactivity," she says.

College of Health Pro Vice-Chancellor Professor Paul McDonald says launching this new professional practice centre will benefit staff, students and people in the community.

"We are delighted to offer this new service to the public, as it particularly focuses on those who are not eligible for assistance through their district health boards, for example. At the same time, our dietetics students will have the chance to practise in a professional environment alongside our qualified staff. Dietitian services are in huge demand within the health care system, and access is limited to the chronically ill. This centre provides an opportunity for Massey to help contribute to building a healthier society," he says.

Mullard says the centre's services will also be offered to medical clinics, schools and corporate organisations across the Auckland region. "I'll be able to travel where I'm needed, and provide consultations in GPs' practices, school health clinics and corporate offices.

"We know there is a need for this service and we can work with people to fill in those knowledge gaps and help build a healthier New Zealand."

For more information on the centre, email nutritiondieteticcentre@massey.ac.nz or visit Massey's website. ■

Agility, innovation and 21st-century business skills

Change, technology, innovation. These are the forces shaping the future of business education, says **Professor Ted Zorn**.

The only certainty ahead for today's university students is this: the world of work as we know it will change, and likely at increasingly rapid speeds.

This has implications for businesses too. The key to thriving in the 21st century is to have employees who can learn and adapt quickly and make sense of the opportunities and complex challenges ahead.

As the head of the Massey Business School, I take this challenge very seriously. Employers tell us they want graduates who "can hit the ground running". We want this too, but preparing students for jobs is no longer enough. What's more important is that graduates leave with the skills to ensure life-long success – for themselves and for the organisations for which they work.

The Massey Business School is comprehensively reviewing its programme offerings and there are three key words shaping our thinking: change, technology and innovation. How do we equip graduates to embrace change? How will technology shape the jobs of the future? And how do we construct university programmes that encourage innovation and entrepreneurial thinking?

Part of the answer lies in developing some very fundamental skills – critical thinking, the capacity to synthesise information, and the ability to formulate and communicate creative solutions.

Throughout their time with us we want students to develop leadership capabilities and entrepreneurial ways of thinking. We also want them to see how their theoretical learning connects with the real world of business so they understand the ways that ethical business practices can improve society as a whole.

> "It is no exaggeration to say that in 20 years' time, up to half of all jobs will be ones that no one has heard of today."
>
> – Professor Ted Zorn

But it's also about recognising the current trends that will shape all our working lives. Top of the list is the so-called "second industrial revolution", which is rapidly changing the nature of work and the jobs that people do. In the past decade we have completely revised what digitisation, robotics, automation and artificial intelligence can achieve.

It is no exaggeration to say that in 20 years' time, up to half of all jobs will be ones that no one has heard of today. It will be no mean feat to prepare graduates to deal with that scale of change and the related ethical issues it will no doubt throw up.

But the key to a successful 21st-century business school will be its ability to connect classrooms to real workplaces to create two-way exchanges of learning and information. This is how innovation happens – constantly testing ideas, questioning practice, reflecting on results and colliding theory with practice – and innovation will be critical to thriving in an environment of constant change.

At Massey we are putting this into practice through initiatives like the trading room and enterprise lab and through student clubs like Social Enterprise NZ, which gives students opportunities to use their skills out in the community to solve social and environmental problems.

We are also transforming our programmes to include more internships and other practical components to get students out of the classrooms and into real workplaces. Our newest qualifications, including the Master of Analytics, which will equip graduates to deal with the explosion of data now at our fingertips, the Master of Sport Management and the Bachelor of Business and Retail Management, all include projects that require students to work within businesses to both learn and effect change.

We are creating pathways where students can apply their classroom learning in workplaces but, equally, bring their real-world insights back into the university to start a process of innovation. By exposing them to workplaces and working professionals, they will see how things are really changing on the ground and, given the right conceptual frameworks and analytical skills, will identify opportunities for new products and improved processes.

This two-way connection between universities and the wider society they serve is now fundamental to a good business education. Important skills and knowledge are taught in the classroom, but innovative and entrepreneurial thinking comes from the collision of these skills and knowledge with real-world experience. Only this will enable graduates to make sense of the changes afoot, then reflect on how things can be done better.

In the future, these are the employees whom every organisation will need.

Professor Ted Zorn is Pro Vice-Chancellor of Massey University's Business School. ■

Big data's big skill shortage

The commercial potential of big data is clear, but there's a shortage of specialists with the skills to exploit it. That's why Massey has launched New Zealand's first business-focused analytics degree. By **Sidah Russell**

To really make use of all the data that today's businesses have available to them, firms need employees with the skills of a computer scientist, analyst, communicator and business adviser. Finding all that in one person is easier said than done.

Marketing specialist Professor Harald van Heerde, who analyses large data sets in his own research to quantify the impacts of marketing, says the university's new qualification is definitely responding to a need.

"We constantly hear from employers looking for people with strong analytical skills who also have a good understanding of business," he says. "These companies are having a very hard time finding anybody in New Zealand who can do that."

Van Heerde says few New Zealand organisations use their data really well, but many realise they are missing out on opportunities.

"With the ability to track so many things electronically now – through website visits, mobile phone geolocation apps, loyalty programmes and so on – a lot of companies are realising they are collecting a lot of data but doing very little with it.

"This is a valuable resource they already have, it's just a matter of harvesting it. Making better sense of your data leads to better decision-making – whether it's deciding on the best marketing activity in which to invest or, the most valuable customers to target, or identifying trends that you might not otherwise notice."

The new Master of Analytics (Business) is taught by lecturers from both the Massey Business School and the College of Sciences.

"There are other postgraduate analytics qualifications in New Zealand, but they focus more on the technical aspects of data analysis for scientists," van Heerde says. "This degree is unique because it's about using data in a way that is useful for real-world business decision-making.

"Computer scientists are good at handling data, but that doesn't mean they understand business problems and how they can be tackled by data sets that often exist within a firm."

Students are taught the fundamentals of data mining, statistics and handling data sets by science lecturers. They then transfer those skills to a business context by specialising in marketing, finance or supply chain management. In the final phase of the one-year programme, students complete real analytics projects for their employers or other companies.

"With the ability to track so many things electronically now... a lot of companies are realising they are collecting a lot of data but doing very little with it." – Professor Harald van Heerde

Van Heerde says the practical programme was developed with input from an industry panel, which included representatives from companies like KPMG, The Warehouse Group and 2degrees. He's confident the new qualification will be well supported by employers who recognise they are facing a serious skill shortage.

"We are only at the beginning of the revolution – more and more things are going online all the time and there's been a generational shift in attitude where young people are happy to share where they are and what they are doing. They see the benefits of receiving the right offer at the right time."

He says there has been a change in the mentality of organisations as well.

"Now that storage costs are no longer an issue, it's accepted that you should keep track of your activity over a long period of time and store information in a way that makes it easy to access and analyse. In this environment, decisions that aren't backed by solid data will become a very hard sell." ■

A degree of difference

With the launch of New Zealand's first degree solely focused on the retail sector, Massey University hopes more people will begin to see just how rewarding a career in retail can be. By **Sidah Russell**

Dr Jonathan Elms celebrates the launch of Massey's new retail management degree with The Warehouse Group chief executive Mark Powell.

Last year The Warehouse Group boss Mark Powell frankly discussed his pay with media. He surprised many by admitting it was a "ridiculous amount" of money.

But what his pay does show, he says, is how incredibly rewarding a career in retail can be.

"The biggest company in the world is Walmart; it's a massive company, and there are many big retailers and increasingly there are multinational retailers. Retail businesses are very big businesses and, therefore, there are very fulfilling and financially rewarding roles."

> "The retail industry is highly important – it's the second largest employment sector in New Zealand and it needs well trained managers who are able to lead and take the industry forward."
> – Associate Professor Jonathan Elms

Powell's words are endorsed by Associate Professor Jonathan Elms, the newly recruited head of Massey University's retail programme. Elms says Powell is a great example of why the university is establishing the country's first degree focused solely on the retail sector.

"The retail industry is highly important – it's the second largest employment sector in New Zealand and it needs well trained managers who are able to lead and take the industry forward," he says.

The degree, the Bachelor of Retail and Business Management, has strong industry support, with The Warehouse Group funding the Sir Stephen Tindall Chair in Retail Management. Elms is the first academic to hold the chair and has been tasked with developing the university's retail-focused academic and research programmes.

Retailers had made it clear that they needed a qualification that would produce people with sound managerial skills in running a retail business.

"The most fascinating aspect of retail is the interface between the business world and the consumer world, and a retail degree bridges both," Elms says. "Many people underestimate the skills needed to be a manager in retail – strategy, marketing, buying, merchandising, supply chain management, accountancy, human resources – there's so much more to it than what you see happening on the shop floor."

The degree consists of 20 compulsory papers and four elective papers, ranging from retail law to operations, planning and buying and everything in between. A working party of retail partners involved in the degree – including The Warehouse Group, Mitre 10, Farmers and other leading retailers – helped to guide its development.

Elms believes the degree will help to validate retail as a career path.

"Retail has historically had bad press around the career options it provides. But things are very different now – it can be a very lucrative and rewarding career and the opportunities are immense. It should be a career choice for a lot more people."

And, he says, you only have to look at someone like Mark Powell to see what can be achieved within a retail career.

Powell began his working life coal mining in Wales and says he became qualified in mine management

before turning to retail and eventually finding himself as chief executive of The Warehouse Group.

The organisation was keen to back the new degree because it wanted retail to be seen as an attractive career. Qualified students will bring many benefits to retail, Powell says.

"Learning and knowledge broaden people's thinking horizons. It helps them to problem solve better. It helps them to understand the why, not just the what, and it gives them confidence in their abilities."

Retail is largely about problem solving, he says.

"There's the store, there's buying, there's sourcing – which is now a global supply chain – there's IT, and now with online retailing as well, it's right at the front line of digital marketing and digital engagement with customers. I can't think of a broader industry where as many different skills are needed."

People should see retail as a serious option, he says, adding that a store manager of a large Warehouse store earns more than the principal of a high school.

The Bachelor of Business and Retail Management launches this year with around 60 students enrolled in its inaugural cohort. But Elms has big plans to expand both the suite of qualifications and Massey's retail-focused research programme.

"We are exploring a range of new minors and postgraduate qualifications and I'm currently talking to retailers to ensure that the research projects we undertake are relevant to their needs," Elms says.

"2015 will see the launch of Massey's Centre of Retail Excellence – we really want to get the message out there that Massey is the go-to place for knowledge about retail research, education and scholarship in New Zealand." ■

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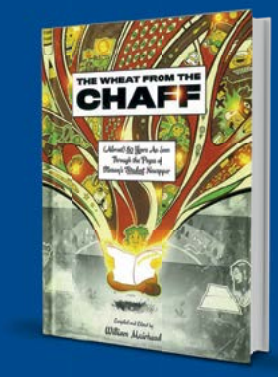

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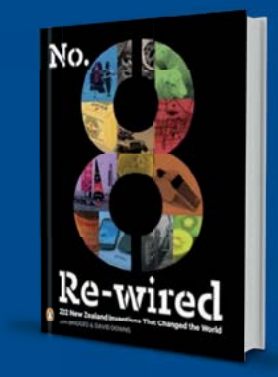

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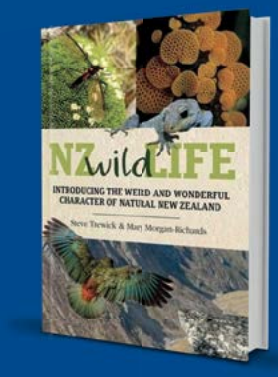

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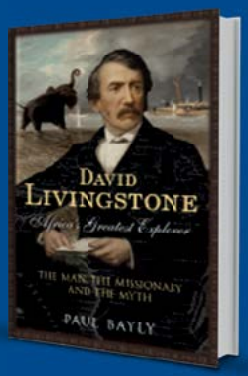

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THE ENGINE OF THE NEW NEW ZEALAND

Homes and hope for low-income families

Families participating in Habitat for Humanity's social housing programme are now being offered financial literacy classes, setting them on a pathway of home ownership and long-term financial security.

The Fin-Ed Centre (Financial Education and Research Centre), which is a joint initiative between Massey University and Westpac, is working with Habitat for Humanity to deliver a customised version of its Money Smarts course to low-income families working towards owning their own homes.

The Commission for Financial Literacy and Retirement Income funded the centre to train Habitat's family support administrator Jane Mead to deliver the financial literacy course to families in its programme.

While Habitat's projects undoubtedly improve the financial positions of families, most do not have the financial management skills to make the most of their finances.

"Many of the families we work with live in unhealthy homes – sometimes a family is crowded into one bedroom, basement or garage," says Mead. "We can help them get into decent housing, but the Money Smarts course really cements the behaviour that Habitat is looking for."

Fin-Ed Centre director Dr Pushpa Wood is pleased to be working with the non-profit organisation.

"It is really pleasing to see that, as a community, we are moving more into the education and prevention space when it comes to financial literacy, rather than relying on intervention alone," she says.

"It is important that people are provided with the right tools and information to empower them to make decisions that are appropriate for their life stages and personal circumstances. The Fin-Ed Centre has been working with a range of community organisations to build capability and we see this model as key to a sustainable delivery of financial literacy."

The course for Habitat for Humanity follows on from the Fin-Ed Centre's work with a group of Auckland youth organisations and Māori Women's Development Inc. A customised version of the Money Smarts programme was designed for each organisation to ensure financial skills were taught in an engaging and culturally appropriate way.

Amanda and Shaneel Kashyap outside their new Weymouth, Auckland home.

Shaneel and Amanda Kashyap were among the lucky families chosen to be part of Habitat's pilot programme, making them one of the first families to go through the special Money Smarts course.

"The biggest eye-opener is when you're plodding along, thinking you're doing all right because you're not in debt, you can afford food and you think, 'What do I need this course for?'" Mrs Kashyap says. "But when you come here and you take part in Money Smarts, you realise how much money you're wasting, where the leaks are and how to grow your savings – and you realise everybody needs this."

> "You realise how much money you're wasting, where the leaks are and how to grow your savings – and you realise everybody needs this."
> – Amanda Kashyap

Her husband agrees that the course will have lifelong impacts on the family's finances.

"I learnt how to build a budget – learning about zero budgets and paying yourself savings was a fresh and positive way of looking at things," he says. "It was also good to have an open forum where the class all shared their money stories. Money is not often something you talk about, especially in a room full of strangers – it was good to share with people in the same situation as us."

Habitat asks families to work 500 "sweat equity" hours as part of their contribution to the partnership. These hours are usually spent building their homes, but 50 of the hours will now be spent undertaking education courses, particularly in financial literacy.

"This experience has been amazing in so many ways," says Mrs Kashyap. "It's not just about getting a foot in the door, it's about knowing how to maintain it, it's learning how to budget, how a mortgage works and how to pay it off quickly. Habitat encourages us to maintain our investment so we can eventually sell it on."

Her husband puts it more simply: "I just want to set my kids up," he says.

Making a stand

Folded desk revolutionises office furniture

Visual communication design graduates **Fraser Callaway** and **Oliver Ward** have designed a cardboard desk that's portable, versatile in its standing and sitting capabilities, and strong enough to support a person's weight. By **Paul Mulrooney**

> "The desk showcases the perfect combination of innovation and environmental awareness. It's simple and functional, yet sophisticated." - Fraser Callaway

June 2015 promises to be a red-letter month for two visual communication design graduates whose refoldable desk is set to repeat its success in the United States.

Since late last year the Refold desk by Fraser Callaway, 25, and Oliver Ward, 22, has revolutionised the standing office desk to enable it to be lightweight, 100 per cent recyclable and affordable.

A crowd funding campaign on Kickstarter enabling supporters to back the venture and buy their own desks has so far generated just over $70,000, with the New Zealand public charmed by the desk's practicality and environmental responsibility.

The desks are completely New Zealand made and manufactured.

Sturdy enough to hold the weight of a person, the cardboard desk folds into a lightweight, compact carry case for portability and easy storage.

"The desk showcases the perfect combination of innovation and environmental awareness. It's simple and functional, yet sophisticated and beautiful," Callaway, who is originally from Christchurch, says.

He presents the public face of Refold, able to explain articulately its function while Ward from Upper Hutt prefers to take a background role, although it is his frame the viewer sees seemingly maniacally assembling the desk on the entertaining videos the pair have produced.

The desk can change between sitting and standing height to ease the transition to a new way of working on your feet.

The design folds and slots together in less than two minutes using four main pieces, with no tape or glue. As it is digitally fabricated, the design is completely customisable and can be adapted to cater to different needs and areas.

As the nature of work changes people need to change their work environment too, Callaway says.

"We are more mobile and more connected than ever before with the ability to work anywhere, any time. In contrast to this the physical workplace has stayed relatively static, with many of us still working at isolated cubicles and at the same desk and at the same computer every day."

Efforts to change this entrenched approach lay behind the motivation to try something different, Callaway says.

"It was primarily designed as a standing desk for multiple reasons. First, standing increases productivity and creates an active, healthier working environment. Second, research shows that when you're standing you're more likely to engage with others and be engaged with on a level playing field.

"When it's finished being used, whether it be after a three-day event or two years of use as a personal desk, it can simply be put out for recycling alongside all your other household recyclables," Callaway says.

Its flexible, user-friendly design caters to endless applications. It could be used for offices, schools, creative studios, events, or even mobile offices and disaster relief.

The design duo is already working with Urban Search and Rescue New Zealand to develop a desk for its rapid response teams and disaster relief units. They also have an ongoing collaboration with United Nations Children's Fund New Zealand through the "a desk to make a difference" campaign whereby each donor who pledges funds will receive their own desk at the same time as another is sent to a school in the Pacific.

In the middle of this year that sense of social responsibility and commercial versatility will be exported to the American market.

Other products, such as a removable waterproof tabletop and a fully waterproof corflute desk, are likely to be ready for the market by then too.

Both men are spending the first part of the year in the US to establish manufacturing and distribution partners.

"The delivery date of June 2015 ensures we can get up and running and deliver a quality product." ■

Refold

Earth's worth – valuing the planet

Imagine if the Earth had an accountant. What would she charge us – the human race – for all the natural assets we devour or damage or destroy?

A radical hypothesis perhaps, but it's the essence of ecological economics, or EE. A trans-disciplinary field integrating social and natural sciences, which began in the 1980s, EE is gaining traction here and globally.

One of New Zealand's leading exponents is Massey's Associate Professor Marjan van den Belt, director of Ecological Economics Research New Zealand based at the Manawatū campus. Her research, consultancy and teaching encompass local and global environmentally threatened hotspots – from the Manawatū River to the world's oceans.

As its proponents see it, we are wrecking the planet on which we depend for survival because we don't include the value of nature – or what the EE brigade calls "natural capital" – in our planning and budgets.

In other words, given the collective pressure that people put on nature, nothing is really free any more and we are deluding ourselves by continuing to take it for granted.

"Accounting for the cost of the human use of natural capital, but also including the benefits from our natural capital, is essential in planning for people to thrive and ensuring that they do," van den Belt says. "Making a connection visible between nature and people is essential for strong economies as well as the survival of life on Earth."

In EE terms, the benefits we derive from the natural environment are fundamental to life – benefits like clean drinking water, food/fibre provision, nutrient recycling in forests and wetlands, flood protection, pollination, biodiversity and climate regulation.

"Only when we take the benefits (and those we stand to lose) into account, can we talk about genuine progress instead of a myopic view of economic growth," says van den Belt.

While EE has yet to enter the mainstream vernacular as a viable alternative to dominant market-driven planning models, change is in the wind – if the demand for van den Belt's expertise is anything to go by.

A native of the Netherlands who came to New Zealand in 2009 following teaching and sustainable consultancy, waste management and eco-village projects in Sweden and the United States, she is a New Zealand representative at the Intergovernmental Platform on Biodiversity and Ecosystem Services, where she assesses how "values and valuation" and "modelling and scenario" tools are used in decision-making. Another United Nations project of which she is a part assesses the state of the world's oceans.

Back here she's partnered with Auckland Council and Waikato and Greater Wellington Regional Councils in sustainability projects, and received government funding for a freshwater solutions project in Manawatū.

And this year she's teaming up with Whanganui iwi Ngā Rauru to co-create a social ecological entrepreneurship programme.

She's also formulated an innovative 100-year vision for New Zealand's sustainable economic development, outlined on her website.

She says the acceptance of the EE framework requires a fundamental shift in the way people view their relationship with the natural world.

"Change occurs firstly through awareness, then by people making practical choices in terms of lifestyle and consumption and working together for the policies they can support," she says. "Social equity and access to basic resources are very much a part of EE thinking.

"It's about connecting the dots – economic growth at any cost isn't sustainable. A trickling down of material wealth doesn't work. The richer segment of society can insulate itself up to a point, but in reality, when natural systems reach a tipping point, no one is exempt." ■

Veterinary specialist to head College of Sciences

Professor Ray Geor is returning to Massey to head the College of Sciences as Pro Vice- Chancellor – 32 years after graduating from the university as a veterinarian.

The "former horse doctor" has spent three decades in the United States and Canada, but the opportunity to lead the college brought him back. He starts on March 30.

Geor is an internationally recognised veterinary and agricultural science specialist. His clinical and research interests are in equine medicine, nutrition and exercise science.

His current research focuses on equine metabolic syndrome, a condition characterised by insulin resistance, obesity and laminitis, a painful and debilitating condition of the foot. Present studies are examining genetic and environmental risk factors for equine metabolic syndrome, which is now recognised as the most common cause of laminitis. A primary goal of this work is to develop a means for the early identification of at-risk individuals so that laminitis can be avoided.

> "A career in veterinary medicine was a good fit for me, combining my interest in and passion for horses with a curiosity for science and biology."
>
> – Professor Ray Geor

Geor (pronounced like the town Gore) was raised in Hawke's Bay, and grew up with horses, which spurred his interest in veterinary science. "A career in veterinary medicine was a good fit for me, combining my interest in and passion for horses with a curiosity for science and biology," Geor says. He headed to Massey straight from St John's College and remembers the first year as a balancing act of studies, rugby and social life. But he knuckled down and graduated as a veterinarian in 1983.

From there it was off to Murdoch University in Perth for a large-animal internship, then time as a practising veterinarian in New Zealand before Canada and a residency at the University of Saskatchewan beckoned.

"At that point it was supposed to be a three-year experience; there was not an expectation that I'd be in North America for more than 30 years – nothing of the sort," Geor says.

After a clinical appointment at the University of Guelph, Ontario, he did his PhD in physiology at Ohio State University, and held positions as a professor, teacher and researcher at several universities. His most recent position was as chairperson and professor of large-animal clinical sciences at Michigan State University.

Early on he never expected to pursue an academic career, but opportunities arose and, encouraged, he started down that path and has no regrets.

"I'm naturally fairly inquisitive, and I have greatly enjoyed being in a position where I have the opportunity to ask questions and conduct research, and in some cases conduct research that has improved our understanding and may even change our practice of how animals are managed for their benefit."

One of the most rewarding aspects of academia is collaborating with and mentoring students, he says.

"There's a philosophy that as an academic you should go through a phase where early on it's all about *you*, because you need to establish yourself and make a name, then mid-career it is a little more *we*, collaborating with other researchers and students, then as you become more senior in your career it's all about *they*, and what you can do to enable others to be successful.

"It's never as clean as that; as a professor you still have obligations to be driving your career, but I do think some of those elements are true and I have tried to subscribe to them."

Geor says that returning to Massey, and the opportunity to take on a bigger leadership role attracted him to the position. "It is an honour to be selected for this position and I very much look forward to working with staff and students in driving the college forward."

And of course he's excited to return to New Zealand. "I know New Zealand has changed a lot, and I'm looking forward to re-adapting as a Kiwi." ■

Journey to fire mountain

Professor Shane Cronin leads a BBC documentary crew around Vanuatu's most active volcanoes.

With a GoPro camera and custom-light strapped to his chest and a military shovel in hand, Professor Shane Cronin makes a mad dash through the darkness and down the crater of one of the world's most active volcanoes to retrieve a lava bomb, just spewed from its explosive depths at 1200 degrees Celsius.

It is nothing out of the ordinary for the Massey University volcanologist, starring in a new BBC documentary in Vanuatu, playing the familiar role of Bear Grylls meets Indiana Jones.

"I've done quite a lot of field work in exotic places," Cronin says. "From month-long yacht trips around the Kermadec Islands, Vanuatu and Tonga to being dumped on uninhabited islands for a week with a bunch of supplies. So I've had lots of adventure trips that seem like you're in a movie. Having the cameras there this time just meant things were slower than normal.

"Walking up to Ambrym volcano usually takes three hours with all of the gear and sampling equipment, but it turned into nine hours of walking backwards and forwards, so it got pretty tiresome doing multiple takes."

He spent three weeks leading a documentary crew around Mount Yasur and Ambrym volcanoes for a two-part, feature-length documentary series, *Journey to Fire Mountain*, fronted by popular English television presenter Kate Humble.

After 15 years of researching the patterns of Vanuatu's volcanic activity, Cronin says he was comfortable abseiling towards Ambrym's lava lake, down a 300-metre sheer drop for an action sequence. "Fear has only to do with your understanding of the situation, so if you understand the nature of the hazard and what it's doing, you can figure out where the safe places are."

However, the data he collected with a UV-visible spectrometer and thermal infrared camera revealed that the hazard was doubly dangerous on this trip. "Ambrym usually produces 2000 tonnes of sulphur dioxide gas a day, because it's almost always in eruption, and we were measuring about double the normal level. When that level is rising you know more magma is coming up, so the gas is a really good early warning system."

That warning was passed on to the Vanuatu Meteorology and GeoHazards Department, which raised the alert level from one to two. "Just after we left the seismicity picked up and volcanic activity picked up. There are likely to be bigger eruptions from Ambrym volcano within the next year or two."

Cronin says it is unlikely that those eruptions will cause lava to flow down into nearby villages, but the increased gas level will cause acid rain that devastates local agriculture and human health. "It destroys all the crops and also gets into the water supply and causes fluorosis

"Fear has only to do with your understanding of the situation, so if you understand the nature of the hazard and what it's doing, you can figure out where the safe places are." – Professor Shane Cronin

of the teeth. Some of our past research shows close to 50 per cent of the kids on Ambrym have this dental issue and it is an indicator of skeletal fluorosis."

While the fluorosis issue is nothing new, Cronin was surprised to discover that a second lava lake had developed on Ambrym.

There wouldn't be many people more comfortable on top of the world's third most volcanically dangerous location than Cronin, but even the seasoned scientist was wary of the intrepid documentary-makers' decision to set up camp just metres from the lip of the Ambrym crater, with the gas levels dangerously high.

"I've never camped that close before on Ambrym because the gas is so unbelievably strong there that if the wind is blowing it your way you have to wear a full gas mask and eye protection, so we all had gas masks inside the tents, so if the wind changed we could put them on."

The team didn't have to use the masks, but the New Zealand flag, proudly planted near the camp, wasn't so lucky. The acidity of the air was so strong it dissolved the flag until only the Union Jack remained.

Cronin also found that the sulphur dioxide levels had skyrocketed at Mt Yasur on Tanna Island, rising from 700 tonnes per day to 1700. In between retrieving its regular volcanic bombs, the soil scientist was capturing the eruptions on an infrared camera and collecting measurements with a seismograph and spectrometer. The results revealed a new understanding about the relationship between the gas levels and the size of the consequent eruptions, as well as a previously unknown monthly cycle of activity. The data will form the basis of a doctoral student's thesis.

But for now, a piece of that volcanic rock sits as a memento in the safety of Cronin's office in New Zealand, where he says there is no activity to be worried about right now.

To watch the documentary series go to: **https://www.youtube.com/watch?v=6qNjDc0-Jz0** and **https://www.youtube.com/watch?v=xwN-7oiCBV8**.

In the eye of the storm, tsunami, earthquake...

Four years on from the Canterbury earthquakes, emergency manager Sara McBride says the world is still mastering the best way to manage disaster recovery. She talks to Paul Mulrooney

After being at the forefront of communications in disaster zones, Sara McBride is now grounded in Wellington completing her PhD.

It would be erroneous to say that disaster has followed emergency manager Sara McBride – but she has certainly followed disaster.

The American-born public information specialist has been at the forefront of communications in the aftermath of the 2009 tsunami in Samoa, the Canterbury earthquakes, the 2012 floods in Fiji and the 2013 tsunami in the Solomon Islands.

The PhD student also returned to Wellington from her last research trip on the Friday in August 2013 when the capital was rocked by one of its strongest earthquakes.

"I'm kind of heralded by disaster," she quips.

A dose of black humour helps in an industry where the latest calamity is all in a day's work.

> "I've worked in some big disasters now and there is always this point that people hit... when all you crave is normal, everyday experiences..."

McBride's PhD concerns taking the lessons of Christchurch and using an identical hazard profile in eastern Washington State.

"The area was chosen by the United States Geological Survey, which in the past 10 years found a fault system similar to Christchurch's. It's coincidentally my home area so it's a very personal and gratifying PhD topic."

Her doctorate is being undertaken with Massey University's Joint Centre for Disaster Research as well as its School of English and Media Studies.

She already has a postgraduate diploma in public relations from Eastern Washington University as well as a Master of Public Administration and a postgraduate diploma in disaster management and humanitarian assistance from the University of Hawaii.

Both were put to use in the Samoan tsunami of September 2009 and the Canterbury earthquakes.

But McBride, who for four years had been public education officer for Environment Canterbury and for the region's Civil Emergency Management Group, stepped down from the roles and left Christchurch just three weeks before the city started to shake on September 4, 2010.

In early 2011 she was working with Volunteer Service Abroad in the Solomon Islands but immediately returned to Christchurch following the fatal February 22 quake, and worked as second in command public information manager, communicating the sense of crisis to the wider public.

Crisis central was the visually striking and structurally sound Christchurch Art Gallery.

Working long days and nights, McBride noted that there came a point when even the emergency managers had to let loose from the intense sense of crisis surrounding the city.

"I've worked in some big disasters now and there is always this point that people hit, usually about week three or so. Suddenly women start dressing up and getting new haircuts and men start wearing work clothes or going out and having a beer. There is a point when all you crave is normal, everyday life experiences, like shoe shopping becomes a luxury you never expected."

McBride returned to the Solomons for eight months then worked at GNS Science for a year before starting a PhD at Massey's Wellington campus in 2012.

Studies were temporarily put aside when in December that year she got a call from the Adventist Development Relief Agency to help out in the aftermath of Tropical Cyclone Evans in Fiji.

Christmas Day was spent handing out gifts at evacuation centres, where she noticed adults queuing for gift packs of yoyos in addition to those distributed to children.

"It was a powerful lesson to me. Responders and people who rebuild need to play too."

McBride will be "grounded" in Wellington until her PhD is submitted in February next year. That hasn't stopped her expanding on her work experience, working at GeoNet for six months under a temporary contract.

Whether working at the crisis face of an emergency or examining its theory, McBride says that the fact a multitude of scenarios has rained down upon the Pacific region in recent years confirms one thing.

"It can happen anywhere at any time. Preparation isn't a luxury. It's a necessity." ■

What Gallipoli means a century on

100 years on, Gallipoli has become something bigger and better than just its military reality, but **Professor Glyn Harper** cautions that other battles deserve recognition too.

When the sun rises over the Gallipoli peninsula on April 25, 2015, around 10,000 people from Australia and New Zealand will be there to greet it. They will have been waiting all night for this moment.

These will be the lucky ones whose names were selected by ballot. Many others missed out. Some 42,500 Australians applied for the 8000 tickets available. In New Zealand more than 10,000 people applied for just 2000 allocated places.

Meanwhile, hundreds of thousands of people from around Australia and New Zealand will rise before dawn to attend Anzac Day services. What is it that motivates so many to do this and what is it that makes this day so special?

For both Australia and New Zealand the Gallipoli campaign of 1915 holds a peculiar fascination. As the first clash of arms in a total war for Australia and New Zealand, the Gallipoli campaign has assumed a cultural significance out of all proportion to the military realities of the time.

The stark reality is that Gallipoli was a serious defeat for the allies. This costly failure had no significant outcome on the war apart from encouraging the Ottoman Turks to fight on. It was a military endeavour marked with muddle and command incompetence from its very beginning – the most successful part of the campaign was its ending. It is most unusual for nations to associate one of their most defining moments with a military campaign with all these failings.

Professor Sir Hew Strachan, the Chichele Professor of the History of War at Oxford University and a world authority on the First World War, has written that the national identity of three nations –Australia, New Zealand and Turkey – is woven around the Gallipoli experience. New Zealand soldiers who were there believed that it was at Gallipoli that they started to discover themselves as New Zealanders.

So important has this campaign become to each nation's heritage now that most New Zealanders and Australians have developed a sense of place about Gallipoli without ever having been there. Mention Gallipoli and in their mind's eyes they can visualise a small, narrow cove, a short, crowded section of beach and the steep, tangled, sheer, razor-backed ridges that reach almost to the shoreline. In this place the enemy holds the high ground so that the struggle is always uphill. That is why, too, so many Australians and New Zealanders feel compelled to go to this place, which they feel has a special significance for them.

Gallipoli has become something bigger and better than just its military reality. It has been transformed into a type of victory, albeit not a military one. It is a victory for comradeship, endurance and a determination to succeed against all the odds. These are values that still resonate. Ultimately, Gallipoli is a victory of the human spirit over death, suffering and the futility of war. The victory is an imagined one but it is more powerful and enduring than the real thing.

A strong note of caution is needed about the Gallipoli campaign and its legacy. Gallipoli has cast a very long shadow, and overshadowed or obscured other military engagements of equal or even greater significance.

The Somme battle of 1916, still New Zealand's most costly ever military encounter, will not receive anything like the attention that Gallipoli has attracted. There are many others, too, and the centenary of the First World War is the ideal time to re-examine their importance.

Gallipoli was just the first of several hard-fought campaigns in the most difficult of circumstances. There would be many long casualty lists in the next three years. These battles and campaigns and their impacts on New Zealand deserve recognition too. Lest we forget.

Glyn Harper is a professor of war studies at Massey University.

"Ultimately, Gallipoli is a victory of the human spirit over death, suffering and the futility of war. The victory is an imagined one but it is more powerful and enduring than the real thing."

– Professor Glyn Harper

Massey and Parihaka in "passive resistance to climate change"

Researchers join forces with the community on a sustainable energy project.
By **Jennifer Little**

Amokura Panoho, Dr Phil Murray and masterate student Josh Curd at Parihaka as they begin to erect a tower to hold equipment for measuring wind and sunshine.

A white feather (te raukura) symbolising peaceful resistance by Taranaki's iconic Parihaka community to invading colonial government troops in the 1880s could soon take on a bold, modern embodiment.

Picture this. Modern wind turbines, with white blades shaped like feathers, similar to those whirring above the Manawatū gorge, preside over undulating, fertile Taranaki farmland. In addition, solar panels are on many rooftops and the nearby stream is producing hydro-electricity.

How to fuse scientific research and new technology with this vision and compelling symbolic design concept is under consideration in the early stages of a sustainable energy project partnership between Parihaka – a small Māori coastal settlement 55 kilometres south-west of New Plymouth – and Massey University.

The Parihaka Papakāinga (Village) Trust has joined forces with Professor Ralph Sims and Dr Phil Murray, from the Centre for Energy Research, on a two-year, $180,000 Ministry of Business, Innovation and Employment Vision Mātauranga Capability Fund project.

> "Parihaka has been innovative for over 100 years and they're continuing with that innovation."
> – Professor Ralph Sims

Dubbed Taiepa Tiketike: Passive Resistance to Climate Change, its title pays homage to what is locally recognised as the birthplace of non-violent resistance in the face of land confiscation and aggression under colonial rule in the 1800s.

This culminated in the unjust ransacking of Parihaka by New Zealand militia forces on November 5, 1881, and

the subsequent arrest and detention to the South Island of many of its men.

The philosophy and legacy of peaceful/passive resistance led by founding visionary leaders Te Whiti o Rongomai and Tohu Kākahi, have been an ongoing source of empowerment and pride for Parihaka descendants and supporters.

In the spirit of their ancestors, the existing Parihaka community is adopting the passive resistance strategy once again – this time as leaders in countering the impacts of climate change and its threat to the environment and community.

For British-born Sims, a professor in the School of Engineering and Advanced Technology and leading international consultant for the Intergovernmental Panel on Climate Change, working collaboratively with Parihaka has opened up a world of Māori spiritual and cultural values and perspectives.

He was astonished at photographs of Parihaka from the 1900s showing they had electric lighting before Wellington. "Parihaka has been innovative for over 100 years and they're continuing with that innovation," says Sims.

In the 21st century, the aim is to harness wind, hydro and solar power distributed at minimal cost and maximum efficiency via a Smart Grid concept. This means connecting users to a system and improving the efficiency of heat and power demands by scheduling the use of appliances when there is enough power.

Sims and Murray, along with Master of Engineering researcher Josh Curd, began the first stage of the project at the start of 2015 by setting up wind and solar monitoring equipment on an exposed hill overlooking the Parihaka Papakāinga. They'll also measure power usage by the permanent residents and regular visitors.

And with a dream of an eco-friendly future, Parihaka's leaders are taking steps to ensure they will be able to support the anticipated growth of the community with 1000 new permanent residents and 300 new dwellings by 2025.

The project is collaborative and learning is reciprocal. Massey researchers share technological and scientific knowledge and teaching skills whilst learning from their project partners about how these new developments can best fit with Māori values and cultural practices while still storing, recording and sharing Parihaka's story.

Amokura Panoho, Parihaka Papakāinga Trust chair, says Parihaka was a thriving centre of technology and innovation with its own water and power infrastructure before it was invaded.

Numerous 19th-century black and white photographs adorning the walls of its Te Niho o Te Ātiawa marae attest to the sophisticated, well established community of houses, streets, fences and cultivated land of the time.

Dr Phil Murray and Professor Ralph Sims with a solar panel to be used at Parihaka.

She says Parihaka leaders are conscious of their mantle of thought leadership and anticipate being a model for others to visit to see what's possible.

For Sims and Murray, it's a question – and a quest – of how to marry idealism and innovation with technological and scientific know-how. Previously, they've worked on rural energy assessment projects including at Totara Valley (Tararua District), Stewart Island and the Māori community of Wharekahika (Hicks Bay) – experience they can share with the Parihaka community.

Part of the solution, says Murray, rests with changing social, behavioural and lifestyle factors in order to "challenge the conventional paradigm of flicking on a switch at any time". ■

Vision Mātauranga – four projects for Massey

Taiepa Tiketike (Parihaka) was one of four projects involving Massey expertise awarded funding in 2014 from the Ministry of Business, Innovation and Employment's Te Pūnaha Hihiko: Vision Mātauranga Capability Fund.

The four Māori science initiatives received a total $640,000.

Funding of $180,000 over 21 months will see FoodHQ researchers work on a placement at Aotearoa Fisheries Limited to identify new ventures, engage further scientific expertise to develop new products and markets, and train staff.

In another project, Massey expertise will support a collective of four iwi to develop a strategic approach to environmental research priorities in the Far North ($180,000 over two years).

And in the second Taranaki project, a Massey-Ngāruahine collaboration aims to improve the health of rivers within Ngāruahine lands and to understand the impacts of the commercialisation of traditional freshwater fisheries ($100,000 over two years).

In 2012 Massey partnered with Venture Taranaki, providing opportunities to talk and work with iwi and other Māori organisations in the region.

Massey's Taranaki regional business manager Eve Kawana-Brown says the Vision Mātauranga funding has been a "very helpful resource to get joint initiatives off the ground".

Population policy think tank needed now

How does New Zealand address Auckland's inexorable appeal for new migrants, and ensure the survival of our regions? By **Sonia Yoshioka Braid**

Distinguished Professor Paul Spoonley is calling for a think tank on immigration, population and regional growth.

> "In 2013, 51.7 per cent of population growth was in Auckland. Do we want our regions to go into decline?"
> – Professor Paul Spoonley

With rapidly increasing population growth heavily slanted towards Auckland – at the expense of many New Zealand regions – the time is right for a think tank to plan New Zealand's future strategically.

Distinguished Professor Paul Spoonley says New Zealand is undergoing a dramatic demographic transformation, with falling birth rates and rapidly increasing immigration causing pressure on housing in the Auckland and Canterbury regions, and the flattening – and decline in some cases – of regional populations.

The Ngā Tāngata Oho Mairangi research programme, funded by the Ministry of Business, Innovation and Employment, has investigated population change and its implications in five key regions across New Zealand: Auckland, Wellington, the West Coast, Canterbury and Southland.

"We're looking at the end of population growth in New Zealand, with the decline in fertility at sub-replacement level. This means our population growth will come from new migrants," says Spoonley.

"But there's an uneven distribution of these new migrants. In 2013, 51.7 per cent of population growth was in Auckland. We expect 60 per cent of New Zealand's future growth to occur in Auckland, but many regions face a very different demographic future. Do we want our regions to go into decline? How do we encourage and welcome diversity in the regions?"

Spoonley says the speed of change we are facing means we need to actively discuss our demographic and economic policies and plan strategically for the future. One possibility is to look to central and regional government to gather experts for a think tank on immigration, population and regional growth.

"The last population policy discussion was held more than 40 years ago. We don't have the luxury of waiting for the inevitable – we need to drive this forward.

"Many new migrants arrive and settle in Auckland because that's where the professional jobs, their communities and the food and cultural activities they enjoy are. How do we encourage people to move to the regions instead? Regions struggle to retain skilled people, yet they're desperately needed there.

"Ageing populations raise serious questions. As more and more people require care and assistance, who will provide those services? Where will people live if they need those services? Who will pay for their health care and superannuation?

"We need to maintain a critical mass of people – of all ages – in the regions by keeping jobs there. Our research shows that employers are asking for government assistance for hard-to-fill roles and help to support new migrants to settle in to their areas, and for local government to help promote regional employment needs.

"Perhaps the Government could consider relocating some of the back-office functions of various departments to the regions? It would offer more affordable lifestyles to workers, help government budgets and mitigate risk in emergencies," he says.

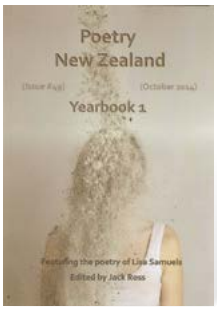
Kiwibank has already led the way with a new regional office and operations centre set up in Hastings to supplement the core banking services provided by the Wellington head office. It is estimated that this will create 130 jobs.

"This Kiwibank initiative is great but we can't afford to be complacent – the rate of population change is so rapid," Spoonley says. "We need to be leading the way. New Zealand is a desirable destination for so many reasons. We need to see that it stays that way with careful planning and a sharing of economic benefits across the country."

Talking cats and other creative creatures

Dr Thom Conroy's debut novel *The Naturalist* topped the Nielsen weekly bestseller list for New Zealand fiction for weeks.

> "Massey's name is increasingly becoming synonymous with not just agribusiness, veterinary science and social work but highly original creative writing."
> – Associate Professor Joe Grixti



Creative writing senior lecturer Dr Jack Ross's editorship of New Zealand's longest-running poetry journal, which first appeared in 1951, marks a literary coup for Massey – and for the School of English and Media Studies – as its new publisher.

Number 49 of *Poetry New Zealand* was launched at Halloween at the Albany campus and includes 117 poems by 93 poets.

Ross's desire to surprise and stimulate readers of the occasional anthology is exemplified in a poem by Christchurch-based Chinese poet Wei Sun. It contains his favourite line in the book: "Holy shit! A talking cat!" – from the poem titled *OCD and Conversations with Cat*.

The poem's quirky yet touching surrealism underscores Ross's search for "a freshness of outlook. There has to be something about each poem that makes me ask the question: is this a poem?".

Other creative writing genres at Massey bore bountiful fruit in 2014, with the level of productivity expected to continue this year.

Fellow creative writing senior lecturer Dr Thom Conroy's debut novel *The Naturalist* topped the Nielsen weekly bestseller list for New Zealand fiction for weeks, as did tutor Tina Makereti's novel *Where the Rekohu Bone Sings*.

Poetry collections by the head of Massey's Spanish language programme, Dr Leonel Alvarado, and creative writing tutors Joy Green and Tim Upperton, were published as the *Kete* series by Manawatū's Haunui Press, while a book of short plays, *Falling and Other Short Plays* by theatre lecturer Associate Professor Angie Farrow, was launched in December.

Earlier that month, the school co-hosted the Australasian Association of Writing Programmes' conference, held back to back with a colloquium on *Placing the Personal Essay*. These events attracted a swathe of New Zealand and Australian creative writing and teaching talent, and saw the launch of the Aotearoa Creative Writing Research Network, developed by Conroy.

Head of the School of English and Media Studies, Associate Professor Joe Grixti, says the sheer variety of work being produced is testament to the increasing prominence of creative writing at Massey.

"With numerous public readings, book signings, theatre performances, media interviews and reviews that accompany publication, Massey's name is increasingly becoming synonymous with not just agribusiness, veterinary science and social work but highly original creative writing."

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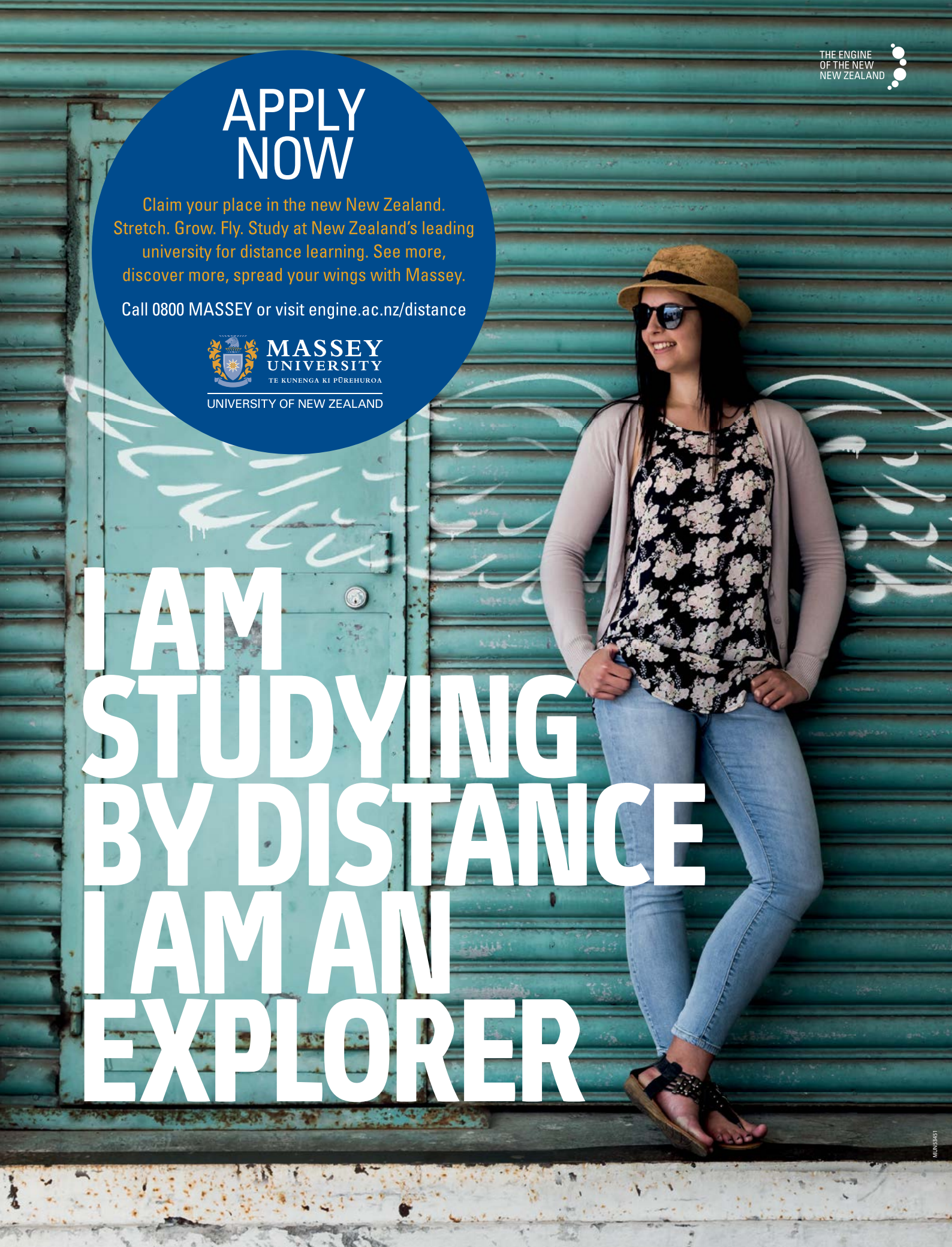
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