



HAVE YOUR SAY

INSIDE

AT GALLIPOLI

Among those who died on 25 April 1915 during the Allied invasion of the Gallipoli Peninsula were three former Auckland University College students: Herbert Richardson, Alan Dawson and Frederick Stuckey. Another Collegian, Robert Frater, died a few days later from injuries he received that day. In total, 21 Collegians aged between 20 and 36 are known to have lost their lives during the eight-month Gallipoli campaign.

MATHS AND CROCHET

In 2004 Professor Hinke Osinga and her husband Bernd Krauskopf, also Professor of Applied Mathematics, were the first in the world to turn the famous chaotic Lorenz equations into a real-life object. By following computer-generated instructions, Hinke famously crocheted a complicated surface called the Lorenz Manifold. (See <http://www.math.auckland.ac.nz/~hinke/crochet>). Read Hinke's story.

FORENSIC SCIENCE

Crime is rarely clean. The very nature of violent and sexual crime means that biological samples recovered may be mixtures of multiple cell types from multiple donors. This causes two problems: where did the cells come from; and who? These are two questions that forensic biologists strive to answer. And this is exactly what PhD candidate Eletra Williams is trying to do at the Institute of Environmental Science and Research Ltd (ESR).

WHATIPU MUSIC

Doctoral candidate Mark Baynes recently spent a week at Whatipu Lodge on Auckland's rugged West Coast where he crafted pieces as part of a working retreat for his recent final doctoral recital: *Tunes Crafted in Whatipu Lodge*, New Zealand December 2014. "So many jazz pieces I come across seem predictable and the same old territory that I am surprised when someone truly fresh and original comes along," said one reviewer. "I find myself going over Mark's pieces, savouring the interesting twists and turns."



GRADUATION GALA

This year's finalists in the University's annual Graduation Gala Concerto Competition are Lauren Bennett (violin), Jane Sohn (piano) and Bradley Wood (piano). Each will play a concerto accompanied by the University of Auckland Symphony Orchestra. Lauren Bennett will perform Violin Concerto No. 1 in D Minor (1st Movement) by Jean Sibelius. Jane Sohn will perform Piano Concerto No.1 in E minor by Chopin, and Bradley Wood will perform Piano Concerto No. 1 in F Sharp Minor by Rachmaninoff.



THE RIGHT TO OFFEND

Do we all have the right to offend? Not sure? Then head to the University of Auckland Writers Festival Debate on 13 May titled "Everyone has the absolute right to offend". Media personality Linda Clark is chairing the session with two top members of the University's Debating Society presenting the affirmative and negative positions. After that, *New Yorker* media correspondent Ken Auletta, UK journalist Nick Davies, English comedian Natalie Haynes, and Indian/Canadian novelist and scientist Jaspreet Singh will discuss both sides. www.writersfestival.co.nz



MEDICAL EQUIPMENT EXHIBITED

Historical medical equipment from the University's Clinical Skills Centre features in the "The Great War Exhibition" at the Dominion Museum in Wellington. The 1910 to 1920 medical equipment was sought by the exhibition's Creative Director, Sir Peter Jackson, via his company WingNut Films. The exhibition commemorates the First World War and will run for about four years (the length of the war). The items selected include three splints, an anaesthetic mask, and a field surgical kit with amputation saw and a stethoscope.



- WHAT'S NEW 3
- IN BRIEF 4
- COVER STORY 5
- DID YOU KNOW? 7
- WHAT'S ON CAMPUS 7
- RESEARCH 8
- WHAT AM I DISCOVERING? 9
- IN THE SPOTLIGHT 9
- FROM THE COLLECTION 10
- WHAT'S COMING OUT 11
- MARAMATANGA 12

COVER PHOTO: Dr Maria Thomson, Dr Andy Shenk and the Vice-Chancellor Professor Stuart McCutcheon launching the Staff Survey.

Photo taken by Andrew Lau

EDITOR: Tess Redgrave | t.redgrave@auckland.ac.nz
 PHOTOGRAPHY: Godfrey Boehnke, Judy Wilford
 DESIGN: Sonia Tenreiro
 PRODUCTION: The University of Auckland

Published by:
 The University of Auckland
 Communications,
 Fisher Building, 18 Waterloo Quadrant,
 Private Bag 92019, Auckland 1142

www.auckland.ac.nz/universitynews

NEW CAMPUS OFFICIAL OPENING

The University's new Newmarket Campus will be officially opened on 13 May.

The first phase of development, covering just over half of the 5.2 hectare former Lion Brewery site, has been completed providing the University with state-of-the-art engineering research facilities.



The campus is now home to a wide range of unique and specialist research groups including the NZ Product Accelerator, the Centre for Advanced Composite Materials and the Light Metals Research Centre.

The purpose built structures hall includes 200m² of strong floor area and 9m high strong walls to allow testing of full scale civil engineering projects. The new facility supports dedicated materials and fabrication testing and is one of the largest Civil Engineering research facilities in the Southern Hemisphere.

"The facilities at Newmarket are transformative for large-scale engineering research not only at the University but also the country as a whole," says Engineering Dean, Professor Nic Smith. "As a faculty we are excited about the opportunities to both expand existing work and develop new research."



FIRST WORLD WAR COLLEGIANS STORIES

Among those who died on 25 April 1915 during the Allied invasion of the Gallipoli Peninsula were three former Auckland University College students: Herbert Richardson, Alan Dawson and Frederick Stuckey. Another Collegian, Robert Frater, died a few days later from injuries he received that day. In total, 21 Collegians aged between 20 and 36 are known to have lost their lives during the eight-month Gallipoli campaign.

To mark the 100th anniversary of the Gallipoli landing, a short biography on 23-year-old Lt. Herbert Richardson has been added to the "Their stories" section of the Special Collections First World War centenary website. There is also a new biography on Sister Daphne Commons, who served in the NZ Army Nursing Service Corps in Egypt and England from 1915 - 1919.

The centenary website was launched in August last year and centres around the University's Roll of Honour, a wartime record of the military service of 720 past and present students and staff.

More Collegians' stories will be added during the centenary, as will new content that looks at internees and prisoners of war and the rise of peace movements in the War's aftermath, drawing on material held in Special Collections in the General Library.

For more, visit www.specialcollections.auckland.ac.nz/ww1-centenary



Lt. Herbert Richardson.
Sir George Grey Special Collections, Auckland Libraries, 31-R967

ACADEMIC'S ANZAC JOURNEY

A research project into the New Zealand *School Journal's* portrayal of the ANZAC legend in World War I has led an academic on a personal journey into her family history.

Associate Professor Carol Mutch, head of Critical Studies in Education at the Faculty of Education, started the project more than two-years ago with Christchurch historian Sarah Christie.

The two researchers decided to use the *School Journal* as their main source on how educational materials shaped young people's thinking about the ANZACs. The *School Journal* has been part of the New Zealand classroom since 1907 and, during WWI, it portrayed the war as a glorious campaign by strong masculine heroes.

By coincidence, during the research, one of Carol's cousins made an online addition to the family tree that described how a Great Uncle she had never heard of, Samuel Gurden, was killed in action at Gallipoli in 1915.

In another twist to the project, Carol was able to pay her respects to him when she accompanied her son, Nicholas, who received two attendance passes in last year's ballot to the 100th Anzac Day commemorations at Gallipoli.

"I don't know what it will be like. I do know it will be very emotional," Carol said before she left. "He was a stoker, he was down in the ship when the bomb hit and he was buried at sea."

CELEBRATING THE MAGNA CARTA'S 800TH ANNIVERSARY

The University's plans to celebrate the Magna Carta's 800th Anniversary in New Zealand are well under way.

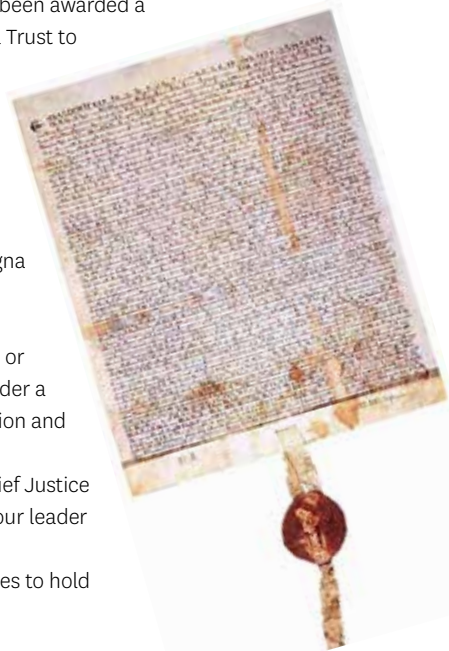
Associate Professor Jennifer Lees-Marshment has been awarded a £10,000 grant by the UK Government's Magna Carta Trust to create and chair New Zealand's Magna Carta 800 Committee.

Under the theme *Magna Carta New Zealand: Celebrating the past; Reflecting on the present; and imagining the future*, the committee is organising events at the University of Auckland that discuss, promote and celebrate the 800th anniversary of Magna Carta in New Zealand.

The main event is a lecture series to be held at the University in the week of July 6 to 10. Each night two or three guest speakers will discuss the Magna Carta under a different New Zealand theme including Māori, migration and the constitution.

The series will feature guest speakers including Chief Justice Sian Elias, Attorney-General Chris Finlayson and Labour leader Andrew Little.

The committee is also encouraging other universities to hold their own events and lectures throughout the year.



HEALTH AND SAFETY

The University's new Health and Safety Policy came into effect in February this year. The Chancellor Ian Parton and Vice-Chancellor Professor Stuart McCutcheon signed the policy at the April 13 Council meeting, demonstrating their endorsement of this document and the University's commitment to ensuring health and safety is accorded a high priority. Says the Vice-Chancellor: "This comprehensive policy outlines the University's new approach to health and safety management and articulates the roles and responsibilities of all members of our community. I strongly encourage you to read a copy (available on the Health and Safety intranet site) and ensure you are doing your bit to create a safe and supportive environment for staff and students alike."

IMPROVING ENERGY EFFICIENCY

Improved energy efficiency around the University's City Campus has reduced both energy use and expenditure in many buildings over recent years.

One example is at Whitaker Hall (formerly International House) where over the past three years the University's Energy Manager, Denis Agate, has worked to improve the boiler setup in this 1960s-built, student accommodation hall.

"Originally we had a combined heating system with a gas-fired space heating boiler that also heated the domestic hot water," says Denis. That was fine except during after-hours and summertime when we were using a very large boiler to supply a very small load."

To upgrade this system he separated the two systems into dedicated tasks using a small boiler for heating the domestic hot water load and a new condensing boiler to service the heating.

"The condensing boiler squeezes more energy out of the gas coming out the flue. About 20 percent of the energy goes up the flue in the form of moist hot air and we are trying to transfer that heat out of this stream and into the heated space," he says.

Lighting management was improved by using occupancy sensor lighting control in corridors and common spaces such as reading rooms,

recreational rooms, laundry, and the dining room. This allows the building to operate with dimmed lights when no one is in those spaces.

Energy costs have been halved by the changes to the Whitaker Hall boiler setup. In 2008, the building used more than one million kilowatt hours per year. By 2014, this rate was halved to 548,000 kw/hr/yr with more savings expected in 2015.

"When we can be flexible to these changes in operation, we can save a significant amount of energy and dollars for the University," says Denis.

Using updated modern technology, the facilities management team have connected most buildings to a building management system (BMS), so that they can switch boilers off when there is reduced demand - due to high ambient temperature, during after-hours and when spaces are not occupied.

"If we chose energy performance for example, in sectors 100-400 of the City Campus, where the space heated by gas has remained relatively constant, then we can say that the consumption intensity has reduced from 29 to 17 per kWh/m²/yr in the past five years," says Denis. "That compares well with 134 per kWh/m²/yr back in 1982."

INGENIO OUT SOON

The autumn issue of Ingenio will be out in time for Graduation, giving you a chance to read about our 2015 Distinguished Alumni, including Fady Mishriki, Young Alumnus of the Year, who is the subject of the cover story. The work of the Centre for Brain Research is featured in a story about its fifth-anniversary celebration and another about its innovative research on the treatment of Huntington's disease through brain plasticity-based cognitive exercises, a world first. Staff profile is Associate Professor Treasa Dunworth (Law), who tells of her work towards creation of a legal framework for nuclear disarmament.

For a pdf of the latest issue, see www.auckland.ac.nz/ingenio after 9 May.



HAVE YOUR SAY: STAFF SURVEY 2015

Planning is well underway for the 2015 Staff Survey, from 13-27 May.

This is the fifth biennial survey, allowing the University to continue to measure progress over time and benchmark its performance against other similar institutions. This year the University is partnering with UniServices to jointly run the survey and together they hope to better the 2013 staff response rate of 62 percent.

“By partnering with UniServices we hope to ensure that all staff of the wider University have the opportunity to have their say,” says Vice-Chancellor Professor Stuart McCutcheon.

“The more staff that participate, the more confident we can be that the results are representative. My hope is that we will achieve at least a 70 percent response rate,”

“The survey is an excellent tool to help us gain an understanding of how staff view their working environment, what they consider the organisation is doing well, and what needs improvement. These perceptions are important as they have an impact on staff engagement, retention and organisational performance.”

Dr Andy Shenk, CEO of UniServices, says collaborating with the University on the 2015 Staff Survey is a great opportunity “to partner with our colleagues on the things that matter most to our people and our teams today”.

“This will be the first time we have joined the staff survey with the University. In recent, smaller surveys we have run, the response rate has been very high and the comments and insights our people have shared have been hugely helpful and informative.”

The first comprehensive University of Auckland staff survey was held in 2007 using international professional services company Towers Watson’s globally-validated model to measure employee engagement and how that links to organisational success.

Survey project manager, Dr Maria Thomson, from HR’s People and Organisational Development section, says that years of research at Towers Watson have demonstrated that fully engaged staff tend to have:

- An understanding of the organisation’s strategic goals, values, and how they fit.
- Emotional attachment to the organisation.
- Motivation and willingness to invest discretionary effort to go above and beyond their duty.

Since the first survey in 2007 when 53 percent of staff responded, there have been a number of substantive changes across the University as a result of surveys. The 2009 survey, for example, demonstrated that

while a lot of information was available in the University, important information needed to be delivered to staff in a more active way. From there the VC’s fortnightly email update was introduced. This is now a regular part of the suite of communications produced by the Communications Department and in 2014 demand for contributions was so strong that there was a 32 percent increase in the number of Updates sent compared to 2013.

Other changes that have come about directly as a result of the biennial surveys include re-naming of “general” staff to “professional” staff, establishment of Communities of Practice that provide valuable networks for staff in faculties and service divisions and more focus on development training.

“The University’s Leadership Framework was designed in response to survey feedback to create a shared language about what leadership means at the University,” explains Maria.

A number of leadership programmes have been developed and made available to staff to help grow leadership capability at all levels throughout the University, with a particular focus on early career leadership. For example the Emerging Leaders, Leaders In Action and Inspiring Leadership programmes are the result of survey feedback.

“In response to survey questions around Career Development staff have told us they want more support to clarify and grow their career in a desired direction within the University,” says Maria. “This may be gaining more enjoyment from their current role, or a vertical or horizontal career move.”

As a result the ASPIRE career centre tools were created to help staff with decision-making and as a basis for a conversation with their manager.

The Faculty Administration Review (FAR) is also in part a result of surveys which showed that professional staff often did not feel that they had clear career paths within the organisation. FAR resulted in 38 standardised roles being created, with clear career paths, in contrast to the 350 individualised roles that existed previously.

This year additional questions in the survey are about staff age range as well as the addition of a Health and Safety question.



A SURVEY ACTION PLAN

As well as institution-wide changes as a result of staff surveys, some departments like the Organisational Performance Group (OPG) have developed their own survey action plan.

“The 2013 survey identified five areas where we could’ve done better,” says Nicola Faithfull, University Strategic Programme Office Manager (pictured right). “So we developed five groups to explore these.”

One of the groups nicknamed “The unmentionables” looked at how everyone’s roles in the team of 35 could be clearly stated. “It was thought that if we understood more about each other and what we do then we could support each other better.” One of the outcomes was posters which are now visible on the OPG kitchen wall articulating each person’s role.

Another group called “Happy Campers” looked at ways the OPG could have fun together; they came up with a mini-golf tournament, end of year murder mystery dinner and other social activities. A third team, the R&R’s, looked at how staff were recognised and rewarded, and new ways to celebrate success were developed, including the monthly Badges of Honour for great service.

Says Nicola: “We were a collective of individual teams. Now we all understand what the other teams do, who they are and how we can work together better.”

Adds Business Analyst, Rob Brown (pictured left) from the Business Process Management Team within OPG: “The survey identified potential areas for improvement, and just as importantly, what was working well that we should keep doing. The collective effort of the groups has enabled us to create a more cohesive and supportive team.”

MY STORY

STAFF QUESTIONS AND ANSWERS



HINKE OSINGA

Professor of Applied Mathematics Hinke Osinga grew up in Friesland in The Netherlands. She studied Mathematics at Groningen University, where she then obtained a PhD in Mathematics. She was a postdoctoral research fellow first at the Geometry Center, a research institute associated with the University of Minnesota, Minneapolis, and then at Caltech in Pasadena, California. In 2000 she was appointed lecturer at the University of Exeter, and in 2001 moved to the University of Bristol. During almost 11 years at Bristol, she progressed from lecturer, to reader and professor. In 2004 Hinke and her husband Bernd Krauskopf, also Professor of Applied Mathematics, were the first in the world to turn the famous chaotic Lorenz equations into a real-life object. By following computer-generated instructions, Hinke famously crocheted a complicated surface called the Lorenz Manifold. (See <http://www.math.auckland.ac.nz/~hinke/crochet>)

In 2011 Hinke and Bernd joined the University's Department of Mathematics. This year Hinke was selected as a 2015 Fellow of the Society for Industrial and Applied Mathematics (SIAM) for her contributions to theory and computational methods for dynamical systems. SIAM Fellows are recognised for their distinguished contributions to the disciplines of applied mathematics, computational science and related fields. The 2015 SIAM Fellows will be honoured in Beijing in August.

WHERE DID YOU GROW UP AND WHAT DID YOU LOVE DOING AS A CHILD?

I grew up in Dokkum, a town in Friesland of about 10,000 people close by the sea and surrounded by farmland. As a child I remember our teacher talking about how prehistoric people had lived in The Netherlands. Our class was fascinated by the stories of the things they made and what they hunted. After school we would try to re-enact their way of living in the local woods.

My parents had a sailing boat and we went sailing on the Waddenzee, the IJsselmeer and other lakes and canals. We also drove around Europe with a caravan to visit Belgium, Denmark, France and Germany.

WHAT DID YOU ENJOY LEARNING ABOUT AS CHILD?

When I was four my sister went to school. She was two years older. I remember she'd come home and say "Hinke it's time for school." So we'd disappear to the attic. My parents were both teachers. We had this school desk in the attic and a bench I sat on. To my parents' great surprise I learned how to read and write from my sister teaching me. When I was six I went straight into the second year of elementary school.

Growing up I really liked sports. I was a gymnast and I competed at a national level.

TELL US ABOUT YOUR FIRST JOB EVER?

My first job was at age 14. There'd been a lot of rain and the clay in the paddocks was so dense, farmers couldn't get machines on the land. They were looking for kids who would help them with the harvest. I harvested carrots. This was not so bad until you got a carrot that was rotten. The smell. Whew! I thought I would never eat carrots again in my life.

CAN YOU TELL US ABOUT YOUR BEST TEACHER?

I had several good teachers, but the best was my maths teacher Mr Roodhardt in the last year of high school. I remember I was finding it very difficult to decide what to do when I left school. My dad had said that mathematics was too hard and this worried me; he was a high-school maths teacher so I thought he would know. Then we had an exam and I only got 75% in maths. I looked at the paper and saw the stupid mistakes I'd made. After everyone else had left, Mr Roodhardt came and sat down next to me and asked what I was going to study at university next year. I told him that I was actually thinking of studying mathematics. "Mmm," he said and after a long silence "I think you could do that." His subtle encouragement made all the difference to me. After I got my PhD he came to the degree ceremony and said "see, I told you."

DESCRIBE THE PURPOSE OF YOUR PRESENT POSITION?

To do great research and inspire students.

WHAT DO YOU LOVE MOST ABOUT THE JOB?

I love being in NZ, coming here was one of the best decisions in my career. The Department of Mathematics here is a great place to work. The atmosphere is very friendly and vibrant, and we have a very high number of international visitors. More generally, I love the academic freedom to choose my own research projects that I work on with my PhD students, postdocs and local and international collaborators.

DO YOU BELIEVE THAT WHAT YOU DO CHANGES PEOPLE'S LIVES?

Yes, at least some people's lives. For example, I supervised a very bright honours project student and suggested he do a PhD. He came from a family where being at University was already a big thing. He worried about his student loan and felt he needed to get a job straight away and start paying it off. Luckily, he took on PhD research after all, and fulfilled his potential by writing a fantastic PhD thesis. On top of this, he then got a very good job immediately.

WHAT HAVE YOU ACHIEVED THAT YOU ARE VERY PLEASED ABOUT?

Perhaps the algorithm behind the crocheted Lorenz manifold and the fact that we have a proof of convergence for it. Ours is the only numerical method with such a proof. It was really tough: we got stuck in the same place for a long time, but I kept pushing and we cracked it!

WHAT DO YOU ENJOY WHEN YOU ARE NOT WORKING?

I like to go for walks around Auckland: the Waitakere Ranges or the beaches. We have a garden and grow our own vegetables. I like cooking, as my PhD students will vouch for, and I will try all sorts of things: traditional cooking, as well as Indonesian, Italian, Mexican, Moroccan and Spanish recipes, and I like to experiment. I also like to knit, especially socks. Socks are knitted in one piece from ankle to toe, without the need to cut strands or sew sides together. This technique has been used over centuries. My Mum and Grandmother would together recite the instructions for shaping the heel of the sock and I am proud to be able to take part in this tradition.

DID YOU KNOW

...ghostbusting is alive and well on campus.



Tracking down University ghosts is not the core business of *UniNews*; nonetheless whenever we hear reports of one, we are very keen to check out its veracity or otherwise.

Last year we were told of a chap said to be inhabiting the basement of historic Alfred Nathan House – though our investigations quickly led to a dead end ha! This year it's the ghost referred to on a small, inconspicuous plaque pinned to the wall of the Symonds Street Underpass.

"This Subway Was Constructed FOR The "Ghost Of Vaile" ON The Principle Of A Home for Home" reads the tiny plaque, which featured in a recent *New Zealand Herald* "Ask Phoebe" column.

Titled "Plaque's origin a bit of hit and myth" Phoebe Falconer's column speculated on the provenance of the Ghost of Vaile. "Urban legend suggests it [the plaque] is a reference to the Vaile

family, who were businessmen and landowners in the Auckland region in the 19th century," wrote Phoebe. "The University was keen to expand, and the underpass required the purchase of land from the Vailes, who were obstructive. The plaque is thus a tongue-in-cheek reference to this."

But back in September 1983 the *University News* published an article in a slightly different vein. "Ghost's new home," it began. According to the writer, Pam Russell, hearsay had it that a ghost had long lived at the 100-year-old house (known as the Vaile's building) on the corner of Grafton and Symonds St and which, during the 60s and 70s, was occupied by Geology students.

"Tales were then told of a ghost who moved objects around, and was even said to have sliced up a loaf of bread," continued the *UniNews* story. "One staff member was so unnerved by the ghost's behaviour that he left the building and refused to return."

The large house may have been owned by the Real Estate Agents Samuel Vaile and Sons. Though a recent *UniNews* search of 20 boxes of company records held at the Auckland War Memorial Museum Library didn't turn up any mention of the property.

Samuel Vaile was an architect who dealt in a lot of property around Auckland in the late 19th century. He was well-known as a writer on such topics as co-operation, federation, finance, general politics, and especially railway management, and on a single tax, which he denounced as "the propaganda of deception, fraud, and robbery". He died in 1915 but the company he had established in his name continued acting as a letting agency for the University in the 1920s and perhaps beyond. It may have been continued by his son Hubert E. Vaile who died in 1936 and his second son Edward Earle Vaile, usually known as E. Earle Vaile, who died in 1956. We haven't been able to confirm that but E. Earle Vaile (OBE) was a generous benefactor of a number of Auckland institutions over the years including the University Library. He also owned 53,000 acres of pumice land called Broadlands between Taupo and Rotorua, which he recorded in his autobiography *Pioneering Pumice*.

But back to our ghost. When the University began major works in 1979 developing a new Arts Commerce building and the Symonds underpass, the house (then referred to as the Vaile house) was demolished - but not so its ghost!

Respondents to Phoebe Falconer's recent *NZ Herald* column suggested the ghost was a young woman who had come to an unfortunate end.

Others mentioned that there had been séances to try to contact the ghost. Whatever the truth behind the ghost plaque perhaps Pam Russell in her 1983 *UniNews* article should have the last word: "This little plaque," she wrote "recognises the existence of the ghost – and its right to have somewhere more permanent to live."

If any readers can shed more light on this story email: t.redgrave@auckland.ac.nz



WHAT'S ON CAMPUS

THE 2015 GIBBONS LECTURES

Man meets machine – Human-Computer Interaction

April 30 – May 21, 6pm for a 6.30pm start, Owen G Glenn Building, commencing in level 1 lobby and moving to Room OGGB3/260-092 on Level-0 for the lectures.

Hear about the past, present and future of one of the most rapidly developing aspects of our everyday lives, Human-Computer Interaction. This series takes a look back at where we have been, from the Mouse to the Touch Screen, and where we might be going, including using everyday tools as input devices and innovation in airline human-computer interaction.

TAKE YOUR BRAIN FOR A WALK

26 May 2015, 7:30 - 8:30pm

Selwyn College, Kohimarama Road, Auckland
Gold coin donation

Take your brain for a walk aims to teach people about brain health. Physical in-activity is a global health problem. It is well known that lack of exercise adversely impacts our cardiovascular health. But did you know that lack of exercise reduces the number of neurons in our brains, and also dulls our memory and our ability to resolve conflict? This presentation will explore the science of exercise and brain health.

WINTER LECTURES 2015

11 August to 22nd September

Maidment Theatre

Global war, global catastrophe: historians discuss the First World War.

There are few events more fundamental to the shaping of the twentieth century or its collective memory than the First World War (1914 – 1918). A hundred years on, the conflict is commemorated in all four corners of the globe. The series will feature a range of lectures and points of view. On every Tuesday but 1 September.

KNOWLEDGE-SHARING OPPORTUNITIES



Faculty of Science Kaiārahi Michael Steedman welcomes Dr Kumea Shorter-Gooden at Waipapa Marae

“Research shows diverse groups are better than homogenous groups at solving complex problems. The diversity road is rockier but the solutions are more elegant and innovative.”

So says Dr Kumea Shorter-Gooden, Chief Diversity Officer & Associate Vice President at the University of Maryland, College Park. Dr Shorter-Gooden and her colleague, Director of Education & Training Programs Dr Beth Douthirt-Cohen, were recently hosted by the Equity Office – Te Ara Tautika for a week-long visit meeting stakeholders from across our University.

The delegation was keen to visit Auckland because of our reputation as an equity leader and our comparable size to the University of Maryland. Located in the Mid-Atlantic region of the United States, Maryland is one of the smallest states in the nation. It is also the most densely populated and the wealthiest.

During their visit Drs Shorter-Gooden and Douthirt-Cohen engaged with academic and professional staff and students, from across the campuses to better understand the equity policies, programmes and practices at our University. In addition to in-depth discussions with the Equity Office team, the visitors met with the Pro Vice-Chancellor (Māori), Director of Pacific Strategy and Engagement, and representatives from the University’s Early Childhood Education centres and Student Learning Services. They also attended a Tuākana briefing, a postgraduate hui-fonotaga, a LGBTI (Lesbian, Gay, Bisexual, Transgender and Intersex) Student and Staff Network meeting, and the 40th annual Polyfest.

The visitors were impressed by the “holistic approach to and application of equity” across and beyond the University, particularly as reflected in the University of Auckland Equity Cycle, which highlights the value of evidence-based support before, during and after tertiary education.

“The Equity Cycle is very powerful because it is applied and calls on different folks who work in different niches in and beyond the University to support and enhance equity,” says Dr Gooden-Shorter, a clinical/community psychologist and co-author of the award winning book *Shifting: The Double Lives of Black Women in America*.

Kumea and Beth also had high praise for the University’s pro-active approach to students and staff with disabilities, and to its commitment to work-life balance.

“The visibility of Student Disability Services as part of the Equity Office is admirable,” says Kumea. “Our disabilities office sits below the radar in Student Affairs, and it tends to be reactive, not proactive. We don’t have the policies or guidelines that Auckland has in place. Ironically, the compliance obligation in the United States has minimised the opportunity for robust conversations around disability at our University.”

“We are so impressed with the staff, the child-centred approach, and the University’s commitment to early childhood education via the national curriculum and broader policy settings,” says Beth. “The alignment of current research, professional training and development, and the University ECE centres is enviable.”

Beth and Kumea also shared valuable information about Maryland’s equity work, including its commitment to the LGBT community (the University is ranked as a Top LGBT-Friendly University in the United States); its annual “Rise Above” campaign that spotlights “isms” such as sexism, racism, rankism and ableism; and the way equity is embedded into and supported by the curriculum.

“Our curriculum underwent a transformation to include a diversity of perspectives, history, experiences,” says Beth, who leads education training initiatives and strategic interventions



for faculty, staff and students. “Certain diversity courses are mandatory, such as courses which address how to understand plural societies and courses which strengthen cultural competency and teach how to have difficult conversations across difference. We acknowledge and talk about micro-aggressions and macro-aggressions, which are particularly important when considered in the context of recent events in places like Ferguson, Missouri.”

Kumea noted the University of Maryland is informed by the ethos of “inclusive excellence”, which she describes as an “asset rather than deficit model” of equity. She said language at their university reflects this model, using terms like “opportunity gap” rather than “achievement gap” to describe successes among equity groups. Kumea said the Tuākana Learning Community, which provides academic as well as pastoral support to Māori and Pacific students, highlights our University’s proactive approach.

Pro Vice-Chancellor (Equity) Trudie McNaughton says the international visit provided a valuable opportunity for two comparable universities to identify areas of strength and challenge in equity.

“Beth and Kumea’s visit made clear that in many ways our University is considered an equity leader. It also reinforced the need for an explicitly inclusive work and study environment. We look forward to continuing our relationship with the University of Maryland to help ensure our policies, programmes and practices are robust and innovative.”

WHAT AM I DISCOVERING?

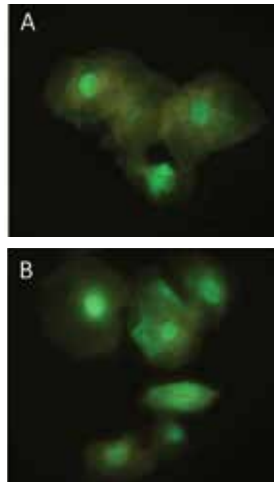


Figure: Cells labelled with a green β -Actin probe using the developed RNA FISH method. (A) Buccal cells, (B) vaginal cells. SGR filter, 1000x magnification.

Crime is rarely clean. The very nature of violent and sexual crime means that biological samples recovered may be mixtures of multiple cell types from multiple donors. This causes two problems; where did the cells come from, and who?

These are two questions that forensic biologists strive to answer. Knowing the biological origin of samples, such as from semen, blood, vaginal fluid or saliva, can help rebuild the series of events which have occurred, and may confirm the occurrence of sexual assault. Knowing who the cells came from enables investigators to identify both the perpetrator and victim. Unfortunately, the biological samples recovered from crimes may be a mixture of different body fluids from different donors. Using genetic methods, it is possible to use DNA profiling and messenger RNA profiling to identify the individuals and body fluid origins of cells within the sample.

While there are statistical methods (such as ESR's STRmix™) to analyse DNA mixtures, it is not possible to know which DNA profile is related to which body fluid, when multiple fluids are indicated by messenger RNA profiling. My research project has aimed to overcome this problem using a two-part approach; labelling forensically relevant cell types and then separating these labelled cells to enable DNA analysis of sorted single source isolates.

I have developed several methods for labelling forensic cell types using Fluorescent in situ Hybridisation (FISH). FISH is a technique where a fluorescent probe is used to label nucleic acids, such as DNA or messenger RNA, within the cell. This means that when the cells are viewed through a microscope using fluorescence excitation and specific filters, the cells fluoresce bright colours. If nucleic acids specific to one cell

type can be targeted, we can cause the desired cell types to be easily distinguished from others within a mixture.

The main focus of my work has been considering epithelial cells from saliva and vaginal fluid, because these appear identical under the microscope, and their similar function in lining body cavities means that they have a lot of the same proteins and messenger RNAs. Although I have successfully developed protocols which label these cells, I am yet to identify targets which label either cell type specifically. Future research incorporating massive parallel sequencing may be able to achieve this by screening for markers on a huge scale.

The second aspect of my work is separating these labelled cells, which creates isolated single source samples and means that statistical analysis of mixtures is not required. I have compared two techniques, laser microdissection (LMD) and fluorescence activated cell sorting (FACS). Using FISH labelled forensic epithelial cells, I've successfully performed DNA profiling on 100 cells isolated using LMD and 150 cells isolated using FACS. This shows that the application of these techniques may be very useful to forensic casework, and the combination of FISH labelling with cell separation will greatly enhance the resolution of cell mixtures.

Eletra Williams

Doctoral Candidate, Forensic Science, School of Chemical Sciences. Supervised by Dr Douglas Elliot and Dr Rachel Fleming, University of Auckland and the Institute of Environmental Science and Research Ltd (ESR).¹

UNINEWS highlights some of the University research milestones that have hit the headlines in the past month.

SCIENCE IN THE NEWS

Faculty of Science staff and students have featured in a wide range of publications in New Zealand and overseas recently. School of Biological Sciences researchers Debbie Hay and Christopher Walker's migraine research ran in the UK's *Daily Mail* and attracted wide coverage in New Zealand media including *Three News*, *NZ Herald* and *Radio New Zealand*. Professor Russell Gray's research on "big gods" was covered in the *Daily Mail* while Associate Professor Ian Lambie discussed the criminal age of majority in the *Listener*. PhD student in SBS, Josie Galbraith, discussed her bird-feeding study in *North & South* magazine and volcanology Senior Lecturer Dr Jan Lindsay from the School of Environment featured on *Radio NZ online* in the lead-up to the broadcast of her interview on science magazine programme *Our Changing World*.

UNHEALTHY FOOD

Professor Cliona Ni Mhurchu's research findings that more than half of the packaged food in our supermarkets is unhealthy had widespread national media coverage starting with the *Herald on Sunday*, and including many regional newspapers and online specialist sites.

CHILD ABUSE

Professor Wayne Cutfield from the Liggins Institute had wide national print and radio follow-up on his comments slamming a proposal to refer obese children to child protection services, saying it was incredibly disappointing that the way we manage child obesity could end up seeing children being removed from their families.

RESEARCH FUNDING

Innovative research into Alzheimers, Huntingtons and Parkinsons disease at the University of Auckland will benefit from more than half a million dollars of funding from the Freemasons Roskill Foundation. The Foundation has announced an award of \$560,000 over the next four years to fund two Freemasons Doctoral Scholarships and a Freemasons Postdoctoral Fellowship to advance the innovative research on these diseases at the University's Centre for Brain Research (CBR).

FROM THE COLLECTION

ART COLLECTION

Back in 1986, Auckland had the only university in New Zealand where you could undertake Scandinavian Studies. This distinction earned a gift-bestowing visit from a Swedish delegation, led by Per Tingbrand, head of the Solander Society in Sweden. Accompanied by five others from Solander's home town of Piteå, these Swedes were retracing the circumnavigation of the globe undertaken by eighteenth century botanist Daniel Solander on board the barque *Endeavour* 1768-1771. They had commissioned ceramicist Tora Ceder, also from Piteå, to make a bust of Solander, which they had cast in bronze in an edition of four. One of these was kept for the commemorative garden in the town where he was born, another was presented to the Natural History Museum, London, where he worked, a third to the Solander Garden at the Royal Botanic Gardens in Sydney where he botanised, and the fourth was brought as rather cumbersome luggage to Auckland. As the culmination of the pilgrimage, it was presented to the University on 19 February 1986, the 253rd anniversary of Daniel Solander's birth.

Piteå is now a city in the far north of Sweden, near Lapland, at the mouth of the Pite River on the shores of the Bay of Bothnia. Its climate is classified as subarctic, and although it now has a population of 23,000, it was a hamlet of around 1500 people when Daniel Solander was born there as one of four children of Carl Solander (1699-1760) a Lutheran clergyman, and his wife, Magdalena Bostadia (1713-1789), the

daughter of a high-ranking official in Västerbotten. Only Daniel and a younger sister, Anna Magdalena, survived childhood in those chilly climes, and both were schooled at home by their father. An early interest in plants led to study with pioneering plant systematist Carl Linnaeus at Uppsala University. Here, courtesy of his mentor, Solander accessed the finest natural history collections, owned by the monarchy and aristocracy. Linnaeus later wrote that "I looked after him like a son, under my own roof". It was while living in Linnaeus's home that Solander sought to marry brilliant fellow botanist Elisabeth Christina Linnaeus - the eldest of Carl Linnaeus' three daughters - but his love was unrequited. When in 1864 she married Captain von Bergencranz (a husband whom she subsequently deserted), Solander had already been living in London for four years.

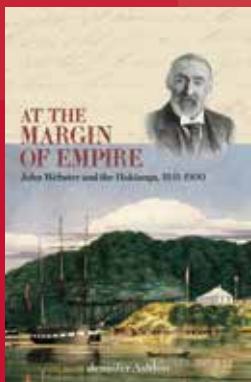
There he had busied himself systematically cataloguing all the natural history collections in the British Museum. To store the precious botanical specimens, he designed the eponymous Solander case, still the standard for art galleries and archives as it can protect prints and manuscripts from humidity and temperature fluctuations. The wealthy collector Joseph Banks became Solander's patron and friend in 1767, and together they sailed in the *Endeavour* on 25 August 1768, visiting Madeira and South America before stopping in Tahiti to observe the transit of Venus. Impressed by the young Swede's botanising, Cook named a small chain of uninhabited volcanic

islets at the western end of Fouveaux Strait after Daniel Solander on 11 March 1770. The Solander Islands (Hautere) have 53 vascular plant species dominated by ferns and orchids, of which one third are very rare. They sailed on to Botany Bay (now flanked by Point Solander) undertaking much happy botanising around Sydney. Solander survived two nasty attacks of malaria during the return voyage to England, finally arriving in 1771. Banks employed him as his personal secretary and librarian in Soho Square and may have been instrumental in Solander's appointment as keeper of the natural history collections in the British Museum. Solander died prematurely at the age of 49, with just 700 of the 800 copper plates for his *Florilegium* prepared. The book was not published until the 1980s.

Tora Ceder based her ceramic model for the University's bronze bust on the portrait of Solander by Johann Zoffany from the Linnean Society. This grand painting shows Solander as a rather stout gentleman, dressed in white hose, breeches and a fine jacket with a pig-tailed wig placed well back on his head, framing a high forehead. A brass plaque attached to the base of the University's bust records the date of the gift and donors as the City Council of Piteå, the Swedish Embassy New Zealand and the Sweden New Zealand Association in Wellington.

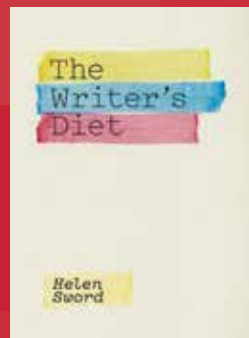
■ Linda Tyler

WHAT'S COMING OUT



AT THE MARGIN OF EMPIRE

In this biography, *At the Margin of Empire: John Webster and Hokianga, 1841-1900*, Dr Jennifer Ashton uses the life of one man as a lens through which to view the history of New Zealand and the shifting relationships between Māori and Pākehā. Her doctoral thesis, upon which the book was based, was inspired by a trip to Opononi that had taken place almost 20 years earlier, when she first saw an old double-storeyed white house on the waterfront. The house was shown to her by the great-great-granddaughter of its original owner. For her research for her doctorate, the man who built that house, John Webster, stayed in her mind.



THE WRITER'S DIET

This new edition of *The Writer's Diet* offers a short, sharp introduction to great writing. Through the online test at www.writersdiet.com and the analysis and examples in this book, Professor Helen Sword teaches writers of all kinds - students to teachers, lawyers to librarians - how to transform flabby sentences into active, energetic prose. The book and the website enable writers to diagnose their writing for flab - passives and prepositions, weak verbs and waste words - and energise their work by stripping away unnecessary padding. The rules of good writing are deceptively simple but this book helps writers to see those principles at work.



ARTWORK: Tora Ceder (born 1948),
Daniel Solander 1733-1782, 1986, bronze,
267 x 190 x 184mm



DOG

The debut album by the band DOG has won a Tui Award for the year's Best Jazz Album. The quartet's self-titled recording was announced the winner at the National Jazz Festival, held in Tauranga at Easter. Made up of staff from the School of Music, DOG comprises four of New Zealand's most renowned jazz musicians, composers and educators: Kevin Field (piano), Roger Manins (saxophone), Olivier Holland (bass) and Ron Samsom (Drums), and has been described as a jazz super-group. The recording has been described as thrilling and vibrant, filled with innovative tracks and improvisation.

ACCOMMODATION AVAILABLE

APARTMENTS FOR RENT. Call us for your rental requirements; we offer city apartments furnished/unfurnished, all sizes and prices; great rental deals for long-term leases; call rentals (09) 303 0601 or (021) 246 6710 at City Sales or rentals@citysales.co.nz or log on to www.citysales.co.nz/rentals

FULLY FURNISHED THREE DOUBLE BEDROOM FAMILY HOUSE IN THREE KINGS. Available from 10 July to 10 September. \$650 pw - no smokers. Large north facing decks with BBQ. Fireplace (and wood). Gas fired central heating, polished wooden floors, new kitchen, bathroom and ensuite. Email stephen@mcdonaldlaw.co.nz

FURNISHED TWO-BEDROOM UNIT AVAILABLE SHORT-TERM: Rent \$580 pw. Fully furnished including bedding, towels, kitchenware. In St Heliers Bay (20 minutes' walk to beach, 15 minutes' drive to city centre). Available 19 May - 21 July 2015. Includes Wifi, dishwasher, microwave, double bed, futon sofa bed, washing machine. Contact Katravel@yahoo.com

PARNELL ROOM TO LET: Monday to Thursday nights only, must have other arrangements for the weekends. Ideal for someone from out of town that needs a home away from home. Someone that is quiet, clean and tidy. Available: 27 April 2015. Large double furnished bedroom and own bathroom, including bath and separate shower. In a large apartment to share with one single professional house proud working mother. Short walk to the Hospital, University, public transport and in zone for Auckland Grammar School, Epsom Girls and all amenities. Good on street parking. The apartment is on the top floor of a block with spectacular sea views. No internet or land line but happy for renter to set up. Fully furnished. No pets or smokers. Please email macythomson@gmail.com

PONSONBY. Fully-furnished villa, three bdrm, central heating etc, on Link Bus route, 30 minutes walk to University. Available 12 June - 24 Aug. \$325 pw + utilities. Contact 378-6091 or a.poletti@xtra.co.nz

WESTMERE CHARACTER HOUSE: Fully furnished three bdrms, two bthrms, dble carport and harbour views. Close to Outer Link bus stop and other buses to city and University. Walking distance to shops and cafes. Available end May until beginning July. Rent negotiable. Email m.skinner@auckland.ac.nz or phone 376 0132 or (021) 2268126. accommodation required

ACCOMMODATION REQUIRED

MATURE WOMAN SEEKS NEW HOME: I am looking for a new home - house-sitting, a rental or sharing. I'm 57, a freelance writer with ongoing assignments across the University and Auckland Council, working mostly from home. You can find me on Linked In and at www.26letters.co.nz. Contact me at prue@26letters.co.nz or on (027) 488 7078.

HOLIDAY ACCOMMODATION

MANGAWHAI B&B: The University's former Alumni Relations Manager, Amanda Lyne, is launched a boutique B&B in Mangawhai, Northland, in March 2015. It is on half an acre with country/orchard views and luxury spa pool and Amanda welcomes staff to book now at www.willowcreekmangawhai.co.nz The B&B called Willow Creek is also available to hire as a holiday rental luxury cottage for some weeks throughout the year. Visit www.bookabach.co.nz or email amandajlyne@gmail.com

PROPERTY FOR SALE

AT OCKHAM RESIDENTIAL we believe Auckland is one of the most beautiful cities in the world and a wonderful place to live. Founded by alumni of the University of Auckland, Ockham is committed to ensuring urban regeneration in this beautiful city is world class. See our stunning new project in Grafton, Hypatia, at www.ockham.co.nz

MISCELLANEOUS

CITY LEGAL SERVICES. Rainey Collins Wright is a small law firm centrally located at L1 Princes Court, 2 Princes Street. We are near the University, with good parking. We can assist with property transactions, trusts, wills, administration of estates, enduring powers of attorney and relationship property matters. Please phone our senior solicitor Nichola Christie on 600 0256 to discuss your needs, or email nchristie@rainey.co.nz Visit www.rainey.co.nz

NEED HELP WRITING YOUR THESIS, JOURNAL ARTICLE OR BOOK? I am an experienced writer, editor and proofreader with intimate knowledge of University of Auckland protocols and standards. Email me: blinz@voxpoptd.co.nz Call me: 021 637 298. Connect with me: www.linkedin.com/in/belindarobinson

SPEECHWRITER. Memorable speeches written for you, for any professional or social occasion. Award-winning broadcaster and journalist for BBC and other public radio, now NZ resident, offers expertise in writing for the spoken word. Coaching in delivery also available in person (Auckland) or via Skype. Absolute confidentiality assured. Inquire: lohman.olsen@gmail.com

TRAVEL. I have 12 years experience in booking all aspects of personal travel for university staff and lecturers. I pride myself in ensuring that your travel plans are sourced at the lowest possible costs and are tailor-made to your requirements. Contact Karen at Karen.embleton@mondotravel.co.nz or 940 0064 (wk) or (021) 188 7781.



CHILD FRIENDLY CITY?

Earlier this year, Auckland media reported an accident in which a driver – a parent herself – sadly missed seeing three children step out to cross the road. The subsequent injuries were unquestionably tragic. I felt for them, their families and the driver.

But an additional sadness was revealed by the comment by one of the officers responding to the crash. They said it was “unacceptable” for young children to be walking to school without adult supervision.

The question this provoked for me was: unacceptable to whom? Was this a personal opinion or that of the police? Regardless, this view adds to an informal policing of parents at large: an increasing urging to chaperone children at all times.

But whose city is this? Does Auckland belong only to adults and motorists? Perhaps we all need to slow down and reconsider our priorities.

Faced with any tragedy it is human nature to want to level blame. In this case is it reasonable to implicitly blame parents who dare to let their children walk out the door unaccompanied?

To tacitly blame parents who grant freedoms to children places us in the same company as those who vilified Lenore Skenazy in New York. Six years ago, she let her nine-year-old ride the New York subway alone. She was subsequently decried as “America’s worst mom”.

In a long list of subsequent cases, Maryland parents Danielle and Alexander Meitiv were accused of trusting their kids, 10 and 6, to walk home from the park. They only got halfway home before someone called the police

Do we want to succumb to the paranoia reflected in these cases? Or do we want to insist that Auckland becomes a more child-friendly city?

The former is the easy route. Research suggests that fear is readily adopted, especially when spurred on by comments from trusted public figures such as the police.

The tougher task is to work towards a child-friendly city. To do so, we risk being accused of being unrealistic. Yet any city that focuses only on roads, rates and rubbish risks losing its soul.

But whose city is this? Does Auckland belong only to adults and motorists? Perhaps we all need to slow down and reconsider our priorities.

A more child-friendly city is a slower city that promotes walking and public transport. A child-friendly city benefits everyone. In our research, children have persistently said that they want a city with less traffic. Children are natural walkers until it is driven out of them by parental paranoia and the quest for convenience.

Being chauffeured may alleviate parental anxieties and prevent relatively rare and tragic accidents. But persistent chauffeuring interferes with children’s environmental learning, reduces physical activity and robs them of independence.

Children may not yet be taxpayers but they are already citizens. Our research suggests that it time to listen to their views before deeming their independent travel ‘unacceptable’.

■ Professor Robin Kearns (Geography)

This is a revised version of an opinion piece that was first published in the *NZ Herald*.