diGEST
keeping in touch

Autumn 2011

School of Environment

THE UNIVERSITY OF AUCKLAND
NEW ZEALAND
Te Whare Wānanga o Tāmaki Makaurau

GEOG 745 Autumn Fieldtrip
Photography: Brendon Blue

Talking Heads... by Professor Glenn McGregor

The School and the Super City

ENV, or the School of Environment, sits in a University that is now part of a Super City. A question on my mind is "is it business as usual or are there degrees of possibility for ENV and the University at large in terms of our relationship with the Super City?"

In the recent Auckland Council publication *Auckland Unleashed* (the Auckland Plan discussion document), it is stated clearly that Auckland will become the economic powerhouse of New Zealand with a population that will grow to around 2 million in 20 years time. While "industry" will continue to play a role in Auckland's economic outlook much of Auckland's future economy is more than likely to be reliant on knowledge, skills and innovation; a knowledge based economy and society and possible transformation to an Ideaopolis. So what is our role in this possible future and how can we work with the Super City to achieve this aspiration? To answer this question perhaps some reflection on what makes for a successful relationship between universities and cities is needed.

A recent study by the UK based Work Foundation (available online at: http://www.theworkfoundation.com/assets/docs/publications/208_ideopolis_education061208.pdf) identified a range of measures that need to be undertaken for improving the relationship between universities and cities. Amongst others, the suggestion that there needs to be a move away from the expectation that the main impact of universities in cities is through revenue generating science and technology stands out in terms of its relevance to ENV.

We have a good reputation in research and teaching related to environmental awareness, resources and limits, urban dynamics, Auckland's urban based and biological economies and sustainability. Through our research, teaching and outreach in these areas we are developing the opportunities, knowledge and skills for students, staff and the community to make a substantive contribution to the future of Auckland. Our six research themes namely Living with Environmental Change, Pacific Futures, Earth Systems and Resources, Contested Environments, Globalising Processes and Urban Dynamics (http://www.env.auckland.ac.nz/uoa/home/about/our-research/research-themes) are of particular relevance here as these cut across a number of key strategies and targets for achieving the vision that Auckland aspires to as laid out in *Auckland Unleashed*.

Notwithstanding the nature of the final Auckland Plan, I am sure the enduring themes of people and quality of life, people and environment, people and place and people and infrastructure will not disappear. These are in many ways "core business" for ENV in terms of our teaching, research and outreach. I therefore see ENV amply fulfilling one of the measures for the success of growing the relationship between the University and the Super City by making an impact through advancing our knowledge and understanding of how Auckland works from geographical, earth and environmental science perspectives. The times ahead are exciting indeed and the degrees of possibility are only bound by what we make of them.

Professor Kenneth Cumberland – Tribute to an Influential Geographer

In May this year, we sadly heard about the death of Professor Kenneth Cumberland (CBE, FRSNZ), the inaugural Head of the Department of Geography (1946-1978) at The University of Auckland (formerly the Auckland University College). Professor Cumberland was a recipient of the CBE for his services to geography and was the first geographer to be elected as a Fellow of the Royal Society of New Zealand. He was Vice President of the International Geographical Union, founding editor of the New Zealand Geographer (1945-54) and presenter of the television series *Landmarks*.

Kenneth B. Cumberland 1914-2011

Kenneth Cumberland arrived in New Zealand from England in 1938, after completing his undergraduate years at the University of Nottingham and his Masters at the University of London. He was initially appointed to the Canterbury University College as a lecturer. In 1946 he moved to Auckland to take up a position as Senior Lecturer in Charge of Geography at the Auckland University College (now The University of Auckland). The College had established a Geography Department in response to a growing demand for geography secondary teachers and the success of the subject at Canterbury.

In his memoirs he discusses his lively early years in the department. *"Throughout 1946, I ran the new department alone, teaching both the physical basis of geography and the cultural elements as well as the practical course of mapwork. I had transferred to Auckland the editorial office and the responsibilities of editing the New Zealand Geographer. And with 200 students, I was kept pretty busy. What at the time was the largest first-year class in the college gave me ammunition with which to argue for extra staff, and for an assurance that I would be authorized to extend the teaching of geography through all undergraduate stages."*

Professor Cumberland's inauguration as Professor of Geography in 1946, acted as a "coming-of-age of the science of geography in New Zealand." Nevertheless, in his inaugural lecture on April 2nd he continued to lament the lack of awareness that educationalists and scientists in general had of geography, particularly in understanding its aims, methods, content and "potential fields of service". He blamed geographers themselves and their continuing internal and external disputes over either humanising geography or making it more 'scientific'. Cumberland disagreed with any attempt to define geography according to its content, arguing that "Geography is rather a point of view". He emphatically claimed that geography bridged the gap between the natural and social sciences.

Professor Cumberland's research and writing focused on big geographic questions in the context of national development. His book *Soil Erosion in New Zealand: a geographic reconnaissance* published in 1944, was ahead of its time as it challenged land management practices and called for, as a matter of urgency, a programme of soil conservation designed on a regional basis. His research interests extended beyond New Zealand boundaries. He had a particular interest in Pacific geography. His book *South West Pacific* argued convincingly for New Zealanders to understand the cultures of their pacific neighbours.

Professor Cumberland was strongly opposed to the environmental determinism that was prevalent at the time, particularly in the secondary school syllabus. In his inaugural lecture he said, "To resort always to environmental explanations of human activities is to neglect traditions, customs, habits and innate biological traits." He challenged the presiding dogma by providing a rich interpretation of the 'personality' of places – "the distinctive character of areas". Two influential publications, *New Zealand a Regional View* and the *Post Primary School Bulletins,* which Professor Cumberland wrote with colleagues, were distributed to schools in an effort to disseminate this new paradigm. These publications formed the foundation for teaching in New Zealand's fifth form geography syllabus for some 20 years.

Cumberland was himself a great observer of the landscape. He was a meticulous diagram and map maker. At the beginning of lectures, students would observe him quickly sketching a map of New Zealand that would rival any digital version produced today. He was a lucid and effective

Kenneth Cumberland in "*Landmarks*" 1981

lecturer with a rich and inclusive voice. Drawing on his Yorkshire background, he was in demand as a public speaker, initially becoming recognised through regular radio appearances and latterly through his 10-part television series *Landmarks*. This explored New Zealand history through landscape, particularly the impact of human settlement and technology (http://www.nzonscreen.com/title/a-land-apart-1981). It was shown on Television New Zealand in 1981 and received the Feltex Award for Best Documentary in 1982. This series made Kenneth Cumberland a household name.

Professor Cumberland is credited with having played a significant role in popularising geography. He authored the Whitcombe's *Atlas of Geography for New Zealand and Australian Schools* in 1942. Thirteen editions were published between 1942 and 1957. He also had a strong belief in the influential role that geographers should have in society, and he carried this through to public life as an elected member of local and regional governments, including chairing the Auckland regional planning committee.

Professor Kenneth Cumberland retired in 1978. On April 21 this year, many former students and University staff gathered with Professor Cumberland's family and friends to celebrate his life at a memorial service held in the University's Maclaurin Chapel. Professor Cumberland will be remembered as one of New Zealand's most influential geographers.

Many thanks to Emeritus Professor Warren Moran for his assistance in writing this tribute

We Farewell Corinne Locke and John Cassidy

by Emeritus Professor Philippa Black

Geophysicists John Cassidy and Corinne Locke retired on February 28th 2011, after 30 years of teaching geophysics at The University of Auckland.

John and Corinne were both born and educated in the UK and did their undergraduate and doctoral degrees at the University of Liverpool where they had the same supervisor (the late Professor Geoff Brown). Their doctoral theses were on aspects of Caledonian granites – John doing gamma-spectrography while Corinne's thesis was a gravity / magnetic study. On completion of their doctorates, John and Corinne followed their supervisor to post-doctoral positions at The Open University where John worked on radioelement abundances and heat productivity in the UK Caledonian as part of a hot-dry-rock project whilst Corinne established gravity studies on Costa Rican volcanoes.

John and Corinne

John successfully applied for the position of Lecturer in Geophysics in the Department of Geology (now School of Environment) and they both arrived in New Zealand in early 1981. While John organized the new courses and lectures, Corinne was self employed for a couple of years as a consulting geophysicist to mineral exploration companies but she was frequently seen helping out with the preparation and teaching of geophysics courses and became an honorary lecturer in 1983. For 5 years John and Corinne surreptitiously job-shared until 1988 when Corinne was appointed as a half time temporary lecturer and John reduced to half time. Corinne was finally confirmed in her half time position in 1995 and became a full time staff member in 2000, John subsequently regained full time status in 2006.

The move to New Zealand of course required adjusting to unfamiliar geology and the New Zealand university system with its open entry and smorgasbord-type degree structure. John and Corinne, who both started their teaching careers at The Open University, aimed always to make geophysics accessible to geology students. They introduced material at various levels in the geology curricula to demonstrate the role of geophysics, from exploration methods to the development of tectonic concepts and understanding of lithospheric and mantle processes. Most geology graduates would have been taught by John and Corinne. Specialist applied geophysics papers offered at the senior undergraduate and postgraduate levels focused on the acquisition, processing and interpretation of a wide range of geophysical data. These advanced undergraduate and postgraduate level geophysics papers catered for students being taught together who were majors in geology and/or physics, requiring a juggling of intellectual content that extended both geology and physics students. John and Corinne were both excellent teachers and were University Distinguished Teaching Awardees.

The first research that Corinne and John undertook in New Zealand was combined gravity and magnetic studies of the Tangihua Ophiolite massifs of Northland, which they showed were thin flat-lying bodies which had rotated – concepts that at the time were novel. They and their students imaged basement faults throughout the Auckland-Northland region and used geophysical methods to investigate groundwater aquifers.

Corinne collecting GPS-positioned gravity data in Greece, 2004.

In 1989 they revived their interests in volcano geophysics. John was one of the initiators of the volcano-seismic monitoring network for the Auckland volcanic field and for a number of years was responsible for reading the seismic data. Later he became involved with establishing the Mt Egmont / Taranaki volcano scientific advisory group.

Geophysics is a subject that requires sophisticated software and equipment to support teaching and research. Geophysics field work also requires a team of workers to help collect data. Acquiring these resources took a lot of time, energy and initiative. Fortunately John and Corinne were both very resourceful.

Continued

We Farewell Corinne Locke and John Cassidy (cont'd)

With the financial and logistical support provided by the US-based Earthwatch Institute, John and Corinne mounted two expeditions to do ground-based gravity surveys of Mt Egmont /Taranaki in 1990 and 1992 and a third Earthwatch - supported survey of Mt Tongariro

John Cassidy resourcefully repairing a malfunctioning gravity meter with a cork screw during field work on Krafla Volcano in Iceland in 1994.

in 1994. Extending this research, in 1991 they received a grant to develop an aeromagnetic system and over the next decade acquired high-precision GPS and data processing software which John, with the excellent technical support of geophysics technician Colin Yong, used ingenuity and resourcefulness to build up the facility. Friendship with an adventurous kiwi pilot with a can-do-anything attitude and a willingness to fly geophysicists with their equipment dangling from the underbelly of his aircraft made low-cost aeromagnetic surveys a reality.

John and Corinne kept their ties with former colleagues and projects in the United Kingdom. Corinne continued her collaboration with The Open University on microgravimetric studies on volcanoes in Costa Rica, Nicaragua, Iceland and Italy successfully identifying mass (magma) movements prior to eruption at both Etna and Poas (Costa Rica) volcanoes. John continued to collaborate with the paleomagnetism group at Liverpool University and returned on several occasions to use their specialized facilities to solve local New Zealand problems. With co-workers he confirmed the first southern hemisphere records of the Mono Lake and Laschamp geomagnetic excursions, thus showing that these were truly global events. He also was awarded a Marsden grant to investigate using paleomagnetic secular variation data to date previously undateable archeological artifacts in the SW Pacific region.

All in all John and Corinne have between them seen 42 Masters and PhD student theses through to successful completion in topics ranging from applications of resistivity imaging and high resolution gravity and magnetic methods to modelling shallow subsurface structures, ground water aquifers, Quaternary fault systems and epithermal mineral deposits. The support that they provided to their research students is legendary and their students have gone on to use their combined geological and geophysical skills in academia, industry and resource exploration.

Retirement will allow John and Corinne to travel, to visit and enjoy the cultural and natural treasures of the world as well as doing more hiking in New Zealand and overseas. Corinne will stay on in part time employment at The University of Auckland for a few more years as Deputy Dean of Graduate Studies.

University of Auckland to host International Congress of Biometeorology

The University of Auckland will host the 19th International Congress of Biometeorology in December this year. The overall aim of ICB2011 is to explore the links between climate and society. This is because a central ethos of the interdisciplinary science of Biometeorology is the desire to understand interactions between atmospheric processes and living organisms - plants, animals and humans. Such interactions are fundamental to the well-being and sustainability of society at a range of geographical and time scales. The conference theme *Climate and Society* is relevant to a wide range of physical, social and health scientists.

Plenary speakers include: Dr Michael H. Glantz, Director of the Consortium for Capacity Building at the University of Colorado who recently published *Usable Thoughts on Climate, Water, and Weather in the 21st Century (UNU Press 2010).* Professor Tony McMichael from the Australian National University who heads the research programme on the health risks from climate and environmental changes. Dr. Lewis Ziska a Plant Physiologist with the USDA's Agricultural Research Service in Beltsville, Maryland. Since joining USDA, Dr. Ziska has published over 100 peer-reviewed articles and appeared widely in the media including recently being honoured by Esquire magazine with their "Best and Brightest" annual award.

School of Environment's Professor Glenn McGregor and Associate Professor Chris de Freitas are both on the conference organizing committee. Visit the conference website for further information at: http://www.icb2011.com/icb2011/

Introducing Dr. JC Gaillard: Researching the Human Dimensions of Disasters

Dr Jean-Christophe Gaillard (JC as he prefers to be called) recently joined the School to take up a position as a lecturer focussing on the social aspects of disasters. His particular research interests include disaster risk reduction (DRR), participatory tools for DRR, marginalisation and DRR with a focus on ethnicity, LGBT (lesbian, gay, bisexual and transsexual) communities, prisoners and homeless

people, armed conflicts and DRR, and post-disaster resettlement. Although JC arrived in New Zealand at a coincidentally opportune time for an academic interested in disasters, his research focuses on countries in the South. However he believes Christchurch's marginalised communities will nonetheless experience similar issues as other marginalised peoples around the world.

Dr Gaillard's research challenges the dominant paradigm in disaster management, by focusing on the marginalised sectors of society who are particularly vulnerable in disasters. He says when people think of marginalised communities, they typically focus on those marginalised by poverty, gender or culture. While he stresses the role socio-economic, cultural and gender factors play in disasters, JC's research also extends marginalised communities to include the homeless, prisoners, LGBT communities and asylum seekers who he says are amongst the most vulnerable sectors of society in disasters. This is most evident in the Boxing Day Tsunami when over 500 prisoners in each prison in Aceh were killed. To date the literature contains very little information and statistics about how these marginalized people fair in disasters and particularly their access to resources. JC's research seeks to guide practice, particularly the work of NGO's.

Dr Gaillard moved to New Zealand from France, where he completed his Masters and PhD. Although he has never been in New Zealand before, he has spent a considerable time away from France, working mainly in the Philippines, where he resided for up to four months each year. Although JC had originally thought he would move to an academic position in the UK, he was excited when he saw the advertisement for the New Zealand position, as it was a perfect match to his research interests. He has been particularly impressed with the smooth transition of his move, the access academics at The University of Auckland have to a full range of library and funding resources and the quality of the working environment – including the carpet in his room! Although some in Europe suggested that he may experience travel difficulties and a sense of isolation in New Zealand, he has not found this the case and stays connected with the international community via the internet and through his trips to a range of countries including Korea, Nepal, the Philippines, Cambodia, Fiji, Australia, Mexico, Kiribati, the Solomon Islands and France.

JC had developed a new course for semester 2, GEOG 325: Special Topic: The Human Dimension of Disasters (http://web.env.auckland.ac.nz/course_pages/geog325/). It covers crucial concepts and theories, vulnerability and the causes of disasters, disaster risk reduction and management, post-disaster recovery and transversal issues such as culture and gender. He also contributes to teaching in GEOG 105; 205; 315, 715 and 748, Environmental Management 742 and GEOL 705.

School of Environment Geography Student Features on YouTube

Second year geography student Fagalua Matautia tells his story of life studying geography in the School of Environment on YouTube. Fagalua who is a Pasifika student from Samoa shares with us his experiences of lectures, campus life, field trips, the Tuakana Programme and his social life in the School of Environment. He tells us about how he believes geography will enable him to meaningfully contribute to the challenges faced by Samoa.

This short film (directed by Jordon Kwan) showcases on You tube. It has been submitted as part of a competition run by the University for "Most Viewed on Youtube".

Have a look at this delightful personal account of life at The University of Auckland from one of the School's undergraduate students at http://www.youtube.com/watch?v=X9zaXkkTLJw

Introducing…
Dr Marc Brideau – Engineering Geologist

Dr Marc-André Brideau recently joined the School of Environment as a lecturer in Engineering Geology. He moved to The University of Auckland from Simon Fraser University in Vancouver on the west coast of Canada,

where he obtained both his undergraduate and postgraduate degrees in earth science. His research interests are in engineering geology, slope stability, geomorphology and rock engineering. He is particularly interested in landslides. This research interest attracted him to New Zealand, where he finds a rich environment for studying this field of geology.

For Marc The University of Auckland provides a dynamic environment "in the centre of all the action". He is working together with industry and enjoys interacting with the geology and geo-engineering communities. Marc enjoys the wide range of subjects taught at the School of Environment and the collaboration with the engineering faculty that allows him to teach and work with students in programmes and disciplines other than geology. Currently Marc is teaching at the 200 level in civil engineering, as well courses at the 300 and 700 level in geology. He is also supervising three Masters students, one Honours student and a visiting student from France.

The greatest challenge for Marc in his new environment is to find enough time to carry out all his projects while also allocating quality time with his student. He has recently undertaken collaborative projects with researchers at both Massey University and the Auckland Council dealing with coastal cliff stability.

Dr Brideau's current research involves assessments of weak rock slopes and their stability using numerical modelling techniques. While methods already exist for assessing soil and hard rock in terms of their stability, for weak rock such methods have not been sufficiently researched. Marc's research therefore utilises a hybrid

Marc assessing slope stability

approach so that it can be applied to weak rock. He recently presented his work at the 2011 General Assembly of the European Geosciences Union in Vienna, Austria.

Further detail and contact information for Dr Brideau can be found on the School's website at: http://web.env.auckland.ac.nz/people_profiles/brideau_m/

Keeping in touch with ENVs research groups
'Earth Systems and Resources'

The School of Environment has six research themes: Living with Environmental Change; Pacific Futures; Earth Systems and Resources; Contested Environments; Globalising Processes; Urban Dynamics. Updates on the research themes will be provided in upcoming editions of the Digest. This edition we cover 'Earth Systems and Resources', with theme leaders, Dr Jeff Mauk and Dr JR Rowlands.

'Earth Systems and Resources' seeks to understand earth system processes that drive change in and on the Earth to advance our fundamental knowledge of the earth's surface and crust, the localisation of mineral deposits, energy resources, geofluids and geohazards. This year we will continue to develop our programme in engineering geology and slope stability issues on the North Island, where current projects include application of terrestrial photogrammetry for rock mass characterization, landslide dam initiation and evolution, coastal cliff stability in urban environment and debris flow runout modelling. We are also making significant progress with our FRST-funded programme on epithermal mineral deposits; recent highlights include a visit to the Australian synchrotron where high resolution Fourier transform infrared spectroscopy allowed us to detect carbon dioxide in fluid inclusions where previous in situ techniques such as Raman spectroscopy had failed to detect CO2. The concentrations of gases, ions, and other compounds exert first-order controls on the transport of elements and precipitation of minerals from hydrothermal fluids, so this research offers new possibilities to constrain the concentrations of these critical components in Earth fluids.

Warwick Prebble, Engineering Geologist *Par Excellence - Moves On*

By Emeritus Professor Philippa Black

In 1975 Warwick joined The University of Auckland's Geology Department as a Lecturer. He theoretically retired at the end of 2005, but stayed on as contract Senior Lecturer for an additional five years to ensure that his Engineering Geology courses would continue to be available until a replacement could be found for him. Finally, he is able to move on. His legacy, in what is now the School of Environment, is a well established and highly regarded programme in Engineering Geology that links the disciplines of civil engineering and geology within the university and also reaches out to provide a valued service to industry.

When Warwick came to The University of Auckland thirty six years ago he brought with him considerable applied geological experience and an excellent professional reputation. Immediately following his graduation from Victoria University with BSc Hons degree in Geology, Warwick had worked for six years as combined district geologist for the Geological Survey (DSIR) and project geologist for the Ministry of Works for the Tongariro power station /Turangi tunnel project. In 1971 he moved to Auckland to join Beca-Carter as their senior geologist and in the following three years he was involved in several major projects in SE Asia. Then, in 1974, Warwick appeared to have diverged form his career path in engineering geology and went to Teachers Training College to gain a Secondary Teachers Diploma. But the diversion was only temporary as the following year Warwick was appointed lecturer in Geology at The University of Auckland.

In the early 1970s it had become obvious that there was a need for the training of professionals who could provide quality geological input to engineering projects and work alongside engineers. A Senior Lectureship in Engineering Geology was established as a strategic initiative by the University of Auckland and advertised internationally. Warwick won the position, and from 1978 to 2010 took on a new role, that carried with it responsibility for developing engineering geology and for liaison with the School of Engineering. Warwick proved to be an excellent appointment, well placed to establish and grow engineering geology in the University and also nationally.

The Department of Geology had always taught a paper 'Geology for Engineers' within the professional BE degree structure but it was clear to Warwick that more advanced case-history and practical courses were needed. With the support of both Science and Engineering Faculties, over the intervening years two engineering geology papers, one at the 300 and the other at the 700 level, have been introduced into the Civil Engineering and Geology schedules to satisfy the perceived need. In these courses, engineering and geology students work side by side, providing an exemplar for their professional lives.

Warwick has always participated fully in the professional as well as the academic world. He has provided technical advice on many major projects, and tribunals, and through Uniservices has written many consulting reports for industry. Warwick has consistently encouraged his students to participate in the activities of the New Zealand Geomechanics Society and to stretch out into the geotechnical engineering field by providing information in a manner that can be easily understood and used by engineers.

Warwick, appointed in the period when Engineering Geology was not yet established as a profession, is now widely acknowledged to have been one of the founders of the discipline in New Zealand and to have also played a significant role, through his service and association with the International Association of Engineering Geology, in developing the profession. As an individual Warwick's contribution has been acknowledged by a life membership of the NZ Geomechanics Society (in 2008). He has also been the recipient of prestige awards: the 11th Geomechanics Lecture Award (in 2001), the 7th Geomechanics Award (in 2002) made every three years for the best published paper. His contribution to Australasia has been recognised by the Australian Geomechanics Society Award of the Poulos Lecture (2003) delivered every two years by an eminent speaker who has made distinguished contributions to the practice of geotechnical engineering or engineering geology.

Warwick from his childhood days has had a great love of the outdoors and is an experienced climber and tramper. While still just an honours student at Victoria University of Wellington he had been entrusted with the responsible position of expedition leader for a scientific expedition to the Taylor Valley, Antarctica. His doctoral thesis research was focused on the steep country of the remote parts of East Marlborough) – a daunting area for field work even to the experienced. Very conscious of the need for care at all times while in the outdoors, but loaded with common sense, Warwick played a leading role in developing the field work protocols that have kept geology field trips safe and accident free and he has participated as a reliable and calming influence in many Geology field camps over many years.

Warwick is a brilliant teacher and an excellent supervisor and mentor to students. These qualities were recognized in 1999 with a University Distinguished Teaching Award for sustained distinguished teaching, field teaching and graduate supervision in engineering geology. A less tangible, but probably more indicative indication of the influence of Warwick's teaching, is that in the past three decades approximately 40% of geology graduands have gone on to find employment in engineering geology and related fields. His graduate level paper in 'Engineering Geology' has always attracted enrolments from professionals employed in industry who want to return to University specifically to take this paper and upskill and expand their knowledge base.

As a colleague Warwick has been valued for his unfailing helpfulness, willingness to get involved and consistently positive and professional attitude. He leads by example and has been a wonderful role model to colleagues and his many students.

Warwick is not leaving engineering geology. He is just completing the circle by returning to where he entered the geotechnical world 40 years ago, this time he is serving as an honoured and admired professional, serving in a part-time capacity as mentor and best-practice role model for Beca's engineering geology team.

International Exchange to Share Tree-Ring Lab Practices

The Tree Ring Lab has been an integral part of the School since it was established in 2002. The lab maintains an active dendrochronology laboratory and wood storage facility. Lab staff perform and publish high quality original research in dendrochronology and dendroclimatology. They also liaise with national and international bodies involved in tree-ring research and disseminate the results of research through conferences, public lectures and media.

During semester two 2010, Lab Director and dendrochronologist Gretel Boswijk took study leave to visit five tree ring labs in the UK and the USA. These were the English Heritage funded Dendrochronology Laboratory at Sheffield University in England, Tree Ring labs at Cornell University, Lamont-Doherty Earth Observatory and the University of Tennessee, and the Laboratory of Tree Ring Research at Arizona University, Tucson, Arizona.

Gretel used the trip to build new connections with similar labs, particularly in the USA, and to investigate ways of archiving digital data and to find out how each lab managed both their collections of wood and their documentary collections including paper documents and photographs. This has become a major issue for the School's lab, which now has over 30 years of material in its collection. The visits to other international labs enabled Gretel to discuss best practice.

The visits revealed that security and storage of data were a significant issue for most labs, although not all were focussed to the same extent on preserving data for long-term retrieval. Cornell University however had developed a new software package so that they could establish a database for their material. This system is likely to be adopted here.

A highlight of Gretel's trip was the three weeks she spent at the Laboratory of Tree Ring Research (LTRR). This was because of the historical links the LTRR has with New Zealand, with researchers having spent some time here in the 1970s investigating the potential of southern hemisphere tree species for dendroclimatology. These samples, including kauri cores and cross-sections, are held in archive and Gretel spent some time looking at the collection as well as learning how the LTRR is addressing the maintenance and storage of archival material collected since the early 1900s. (It put the Auckland collection into perspective).

Overall the trip was an excellent way of building and strengthening relationships with other similar labs and sharing ideas on best practice for the storage of material for both long-term retrieval and security of data. It also served to give a selection of international labs the opportunity to find out about our practices and research that have always been held in high regard among the international dendrochronology community.

Water Think Tank ... *by postgraduate Masters student Kiely McFarlane*

On March 24, a group of postgraduates in the School of Environment convened a half-day interdisciplinary workshop on 'The Future of River *Management in New Zealand'*. Much enthusiasm for this endeavour had begun two years earlier, on a postgraduate field trip of South Island rivers. Frustration over the state of our river systems, and the lack of vision in their management, led these students to compose a set of aspirations for New Zealand river systems. This work highlighted the limited appreciation for place based values and holistic system functioning in contemporary river management. Over the following year, discussions around the challenges in river management continued through regular presentations of river-related research from students across the physical, environmental and human geography disciplines. This group, and the conversations that had been developing, were further catalyzed in late in 2010, when one of us became involved in a new policy tool which attempts to catalogue river 'values' for management. This policy initiative epitomizes wider shifts toward pigeonholing the multiple, complex 'ways that river matter' into nationally important biophysical, economic and socio-cultural values. This narrow approach provided the inspiration to gear students and staff at the School of Environment into organising an interdisciplinary forum on the future of river management in New Zealand.

The March workshop brought together physical geographers, human geographers, environmental scientists, engineers and GIS experts to converse around present and potential geographical contributions to the governance of river systems in New Zealand. After an introduction to the broad themes of 1) biophysical science, 2) governing practices and 3) sociocultural values, participants split into small groups to discuss each of themes in detail. When the group reconvened at the end of the workshop, it was clear that we had begun to think differently about these issues. Themes such as difference, diversity, dynamism, and the use of tools had crossed multiple groups which generated conversations and development of understandings across disciplinary boundaries.

The workshop was the first step of a larger project to reimagine geographical and interdisciplinary contributions to river management in New Zealand. We are planning further workshops in the School and intend to take these discussions to a wider audience later in the year, inviting participation from other departments within the University of Auckland and from the wider New Zealand geography community. Integrating a broader range of expertise and experiences from across the country provides an opportunity to further develop and test these ideas, and to build capacity within and across existing networks. As students within the School of Environment, we learn and talk about things like interdisciplinarity but do not often get to practice it. As our broad experience in the science and policy arenas has taught us, new and cross-boundary thinking is sorely needed in New Zealand freshwater management, and we feel that as geographers and 'interdisciplinarians' we have much more to offer to current debates. In drawing together a wide range of disciplinary understandings to problems around freshwater, we hope to help reframe some of the'wicked' issues that we currently face into different kinds of problems and different kinds of understandings, requiring different kinds of actions for a different kind of future.

Professor Robin Kearns

Recipient of The University of Auckland's 2011 Sustained Teaching Excellence Award

School of Environment Professor, Robin Kearns has been named as a recipient of the University of Auckland's 2011 Sustained Excellence in Teaching Award.

This award is given for sustained excellence in teaching and facilitating learning, sustained commitment and development in teaching practice and sustained contribution to the teaching and learning environment with the University and the discipline, including evidence of leadership.

As a socio-cultural geographer, Professor Kearns' academic path has taken him between Auckland and Canada. On his return to New Zealand in 1988 he completed two years postdoctoral work supported by the Medical Health Council before beginning a lectureship in 1990 in what was then the Department of Geography.

Professor Kearns is an enthusiastic teacher "with a particular passion for postgraduate supervision". The goal of his teaching "is to challenge students to 'unpack' the nature of place and see relationships within and between places that might otherwise remain obscure".

Professor Kearns' research, which is largely collaborative, falls under "the unifying theme of a critical understanding of the links between culture, health and place".

Within this, his research topics are wide ranging including rural (e.g. school closures), urban (e.g. suburban trans-nationalism), coastal (local resistance to capital-intensive residential development), and health-system (e.g. hospital) spaces.

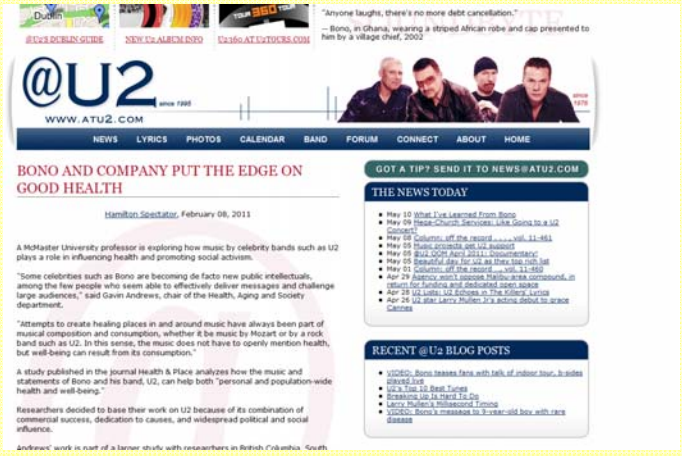
Professor Kearns (centre) with his students in Auckland city

Professor Kearns research aims to "generate theoretical and methodological contributions in the international literature as well as inform local policy and planning".

Professor Kearns coordinates GEOG 305: 'Population, Health and Society' and GEOG 714: 'Population Mobility and Health' as well as teaching sections within a number of other undergraduate and postgraduate human geography courses.

U2 Acknowledges Study by School of Environment Professor

A major U2 website acknowledges a study co-authored by School of Environment researcher, Professor Robin Kearns as part of a collaborative international research project he was involved with, exploring the ways music can contribute towards personal and population-wide health and wellbeing.



By using the ideas and actions of Bono and his Irish rock band U2, the study looks at how the celebrity status of individuals and groups such as U2 can promote the health of individuals, populations and places; how music can carry personal, population and global health messages; and how emotional wellbeing can be part of the consumption of music.

The researchers' decision to focus on U2 for this study was based on "numerous strong and explicit connections made between health, wellbeing and places by the rock band - not only in songs and lyrics but also in interviews and other public statements". Additionally their commercial success, dedication to causes, and widespread political and social influence made U2 an excellent case study.

The study found that "some celebrities such as Bono are becoming de facto new public intellectuals, able to effectively deliver messages - particularly those containing bad news – and challenge large audiences".

However, since not all celebrities are having the training "to engage in issues in a detailed manner as academics or policymakers" the researchers suggest that partnerships between academics and celebrities are crucial to achieve delivery of the right messages.

While the study raises many questions, it provides a good starting point for further research. The paper titled "Cool aid? Health, wellbeing and place in the work of Bono and U2" has been published in the January issue of the international journal *Health & Place*.